
[All ETDs from UAB](#)

[UAB Theses & Dissertations](#)

1988

Attracting registered nurses back to the nursing profession: A study of career inactivity, its determinants, and the potentiality for reversal.

Linda Schaefer Widra
University of Alabama at Birmingham

Follow this and additional works at: <https://digitalcommons.library.uab.edu/etd-collection>

Recommended Citation

Widra, Linda Schaefer, "Attracting registered nurses back to the nursing profession: A study of career inactivity, its determinants, and the potentiality for reversal." (1988). *All ETDs from UAB*. 5697.
<https://digitalcommons.library.uab.edu/etd-collection/5697>

This content has been accepted for inclusion by an authorized administrator of the UAB Digital Commons, and is provided as a free open access item. All inquiries regarding this item or the UAB Digital Commons should be directed to the [UAB Libraries Office of Scholarly Communication](#).

INFORMATION TO USERS

The most advanced technology has been used to photograph and reproduce this manuscript from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.

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

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

Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps. Each original is also photographed in one exposure and is included in reduced form at the back of the book. These are also available as one exposure on a standard 35mm slide or as a 17" x 23" black and white photographic print for an additional charge.

Photographs included in the original manuscript have been reproduced xerographically in this copy. Higher quality 6" x 9" black and white photographic prints are available for any photographs or illustrations appearing in this copy for an additional charge. Contact UMI directly to order.

U·M·I

University Microfilms International
A Bell & Howell Information Company
300 North Zeeb Road, Ann Arbor, MI 48106-1346 USA
313/761-4700 800/521-0600

Order Number 8909794

Attracting registered nurses back to the nursing profession: A study of career inactivity, its determinants, and the potentiality for reversal

Widra, Linda Schaefer, Ph.D.

The University of Alabama in Birmingham, 1988

Copyright ©1988 by Widra, Linda Schaefer. All rights reserved.

U·M·I
300 N. Zeeb Rd.
Ann Arbor, MI 48106

ATTRACTING REGISTERED NURSES BACK TO THE NURSING PROFESSION:
A STUDY OF CAREER INACTIVITY, ITS DETERMINANTS,
AND THE POTENTIALITY FOR REVERSAL

by

LINDA SCHAEFER WIDRA

A DISSERTATION

Submitted in partial fulfillment of the requirements for the
degree of Doctor of Philosophy in Administration-Health
Services in the Schools of Business and Health-Related
Professions in the Graduate School, The University of
Alabama at Birmingham

BIRMINGHAM, ALABAMA

1988

Copyright by
Linda Schaefer Widra
1988

ABSTRACT OF DISSERTATION
GRADUATE SCHOOL, UNIVERSITY OF ALABAMA AT BIRMINGHAM

Degree Doctor of Philosophy Major Subject Administration/
Health Services

Name of Candidate Linda Schaefer Widra

Title Attracting Registered Nurses Back to the Nursing
Profession: A Study of Career Inactivity, Its
Determinants, and the Potentiality for Reversal

Career inactivity among professional nurses constituted the focus of a mail survey of all registered nurses in the State of Alabama who indicated on recent licensure renewal forms that they were either not employed or were employed in a field other than nursing. Following a response rate of 64%, 1,029 cases were retained for analysis.

The reasons specified as underlying career inactivity commonly reflected a combination of personal and professional factors. For 62% of the respondents, the primary reason for leaving nursing was personal in nature, while the remaining 38% reported professional reasons as dominant. Professional considerations were, however, generally accorded substantial importance in influencing the subsequent decision regarding reactivation of nursing careers.

Those whose primary reason for leaving nursing was personal rather than professional reported higher levels of

both satisfaction with nursing as a career and commitment to nursing. While career satisfaction was greatest among those who were currently not employed, commitment to nursing was greatest among those who had resumed their nursing careers following a period of inactivity.

Less than 25% of this inactive nurse pool had returned to nursing in some capacity. Among those who remained inactive, the reported intention to return was moderate at best. Intention to return was greater among those currently not employed, when compared with those employed in an alternative field, and among those whose career inactivity was attributed to personal rather than professional reasons.

Multiple regression of intention to return to nursing on a set of 25 potential predictors disclosed that high-sacrifice continuance commitment, affective commitment, the number of dependent children, nonhospital location of previous employment, shorter durations of current inactivity, and future expectations regarding the professionalization of nursing constituted significant, positive predictors of intention to return. On the basis of the findings, salient policy implications were drawn and directions for further research defined.

Abstract Approved by: Committee Chairman Myron D. Follen
Program Director Myron D. Follen
Date 12/8/88 Dean of Graduate School Jerry L. Hickey

ACKNOWLEDGEMENTS

Grateful acknowledgement is extended to the members of my dissertation committee, whose insight and expertise contributed toward assuring a research endeavor of commendable quality. Special recognition is accorded Dr. Myron Fottler, my dissertation chairperson, for his conscientious direction and indefatigable support and to the erudite contributions of committee members Drs. Peter Ginter, Daniel Hill, Gail McGee, and John Swan. In addition, appreciation is expressed to Dr. Patricia O'Sullivan, under whose guidance an understanding and respect for the intricacies of statistical treatment of data were developed.

While the aforementioned academicians fulfilled the most prominent roles in effecting the successful culmination of this research endeavor, other individuals and entities external to the University of Alabama at Birmingham were also operant and deserving of recognition. In particular, reception of an Executive Nurse Fellowship, sponsored by the Commonwealth Fund, was highly instrumental in facilitating completion of my program of doctoral study. To the officers and Advisory Committee of this program, I offer profound appreciation for the opportunities fulfilled and the singular recognition embodied in my being selected for this honor.

From a more pragmatic perspective, special acknowledgement is directed toward the Alabama Board of Nursing. Without the cooperation of this organization in identifying and accessing the research population of interest, this study would not have been possible.

Completion of the doctoral dissertation represents the culmination of an arduous process of scholarly development and self-discipline. For the untold hours this process deprived my family of my presence and of my sharing in their activities, I wish to acknowledge the contribution made by their sacrifices. To my husband Len, my four children, and my family in Baltimore, I extend my deepest gratitude for their love which has nurtured me, their faith which has strengthened me, and their quiet expectations which have challenged me to excel.

TABLE OF CONTENTS

	<u>Page</u>
ABSTRACT	iii
ACKNOWLEDGEMENTS	v
LIST OF TABLES	x
LIST OF FIGURES	xiv
CHAPTER 1: INTRODUCTION	1
Nature of the Problem	5
Statement of Purpose	12
Significance of Study	13
Theoretical Modeling of Intention to Return to Nursing	15
Research Questions	18
Scope of Study	20
Limitations and Delimitations	21
Assumptions	23
Definition of Terms	24
Organization of the Dissertation	26
CHAPTER 2: REVIEW OF RELATED LITERATURE AND RESEARCH	29
Nurse Shortages: A Foundational Issue	30
The Influence of Demand Dynamics on Nurse Shortages	33
Personal/Economic Determinants of Career Participation	38
Professional/Organizational Determinants of Career Participation	55
Intentionality and Reasoned Action	82
Summary	88
CHAPTER 3: RESEARCH DESIGN	90
Research Population	90
Instrumentation	92
Pilot Study	107
Data Collection Procedures	108
Treatment of the Data	111
Summary	121

TABLE OF CONTENTS (Continued)

	<u>Page</u>
CHAPTER 4: PRELIMINARY DATA ANALYSIS: FACTOR ANALYSES AND DESCRIPTIVE STATISTICS FOR STUDY VARIABLES	
	123
Response Rate to Mail Survey	123
Uniqueness of the Study Population	125
Results of Factor Analyses	127
Descriptive Statistics for Study Variables	140
Summary	140
 CHAPTER 5: PRESENTATION OF FINDINGS: RESULTS OF ANALYSES ADDRESSING RESEARCH QUESTIONS	
	143
Determinants of Career Inactivity	143
Career Satisfaction	156
Career Commitment	161
Intention to Return to Nursing	173
Summary	202
 CHAPTER 6: CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS FOR FURTHER RESEARCH	
	204
Determinants of Career Inactivity	204
Career Satisfaction	210
Career Commitment	213
Intention to Return to Nursing	218
Summary of Policy Implications	237
Directions for Further Research	245
Summary	249
 REFERENCES	 250
 APPENDIX	
 A: COPY OF SURVEY INSTRUMENT: SURVEY OF CAREER INACTIVITY AMONG REGISTERED NURSES IN ALABAMA	
	270
 B: COVER LETTER FOR INITIAL MAILING OF SURVEY INSTRUMENT	
	283
 C: FIRST FOLLOW-UP REMINDER POSTCARD	
	285
 D: SECOND FOLLOW-UP REMINDER LETTER SENT WITH ADDITIONAL COPY OF SURVEY INSTRUMENT	
	286
 E: FREQUENCY DISTRIBUTION FOR SELECTED VARIABLES RELEVANT TO THE RESEARCH POPULATION	
	287

TABLE OF CONTENTS (Continued)

	<u>Page</u>
F: CORRELATION MATRIX FOR PREDICTOR VARIABLES AND THE CRITERION OF INTENTION TO RETURN TO NURSING	289

LIST OF TABLES

<u>Table</u>	<u>Page</u>
1 Summary of Factors Influencing the Labor Supply Function of Registered Nurses	11
2 Summary of Representative Empirical Studies Addressing Labor Force Participation Variables of a Personal/Economic Nature	56
3 Summary of Representative Empirical Literature Related to Satisfaction with Nursing	60
4 Summary of Representative Empirical Literature Related to Factors Associated with Commitment to Nursing	71
5 Summary of Representative Empirical Literature Related to Factors Associated with Organizational Turnover	81
6 Factor Loadings, Eigenvalue, and Percent of Variance for Principal Components Extraction of Satisfaction with Nursing as a Career	129
7 Factor Loadings, Eigenvalues, and Internal Consistency Reliabilities for Three-Factor Principal Components Extraction and Varimax Rotation for Commitment to Nursing	133
8 Factor Loadings, Eigenvalue, and Percent of Variance for Principal Components Extraction of Intention to Return to Nursing	134
9 Factor Loadings, Eigenvalues, and Internal Consistency Reliabilities for Two-Factor Principal Components Extraction and Varimax Rotation of Met Expectations Regarding Nursing as a Career	136

LIST OF TABLES (Continued)

<u>Table</u>	<u>Page</u>
10	Factor Loadings, Eigenvalues, and Internal Consistency Reliabilities for Two-Factor Principal Components Extraction and Varimax Rotation of Future Expectations Regarding Nursing as a Career 139
11	Descriptive Statistics for Selected Study Variables 141
12	Frequency Distribution for Reasons for Leaving Nursing 145
13	Frequency Distribution for Primary Reasons for Leaving Nursing 148
14	Frequency Distribution for Reasons for Leaving Nursing for Respondents Classified by Current Employment Status and Levels of Significance for Associated Chi-square Tests of Independence 150
15	Frequency Distribution for Primary Reasons for Leaving Nursing for Respondents Classified by Employment Status 153
16	Means and Standard Deviations of Career Satisfaction Scores for Nurses Classified by Employment Status 157
17	Analysis of Variance for Career Satisfaction Scores for Nurses Classified by Employment Status 157
18	Means and Standard Deviations of Career Satisfaction Scores for Nurses Classified by Primary Reason for Career Inactivity 160
19	Analysis of Variance for Career Satisfaction Scores for Nurses Classified by Primary Reason for Career Inactivity 160
20	Observed Means for Three Career Commitment Variables for Nurses Classified by Employment Status 165
21	Pooled Within-cell Correlations and Standard Deviations for Three Career Commitment Variables Within Groups Defined by Employment Status 165

LIST OF TABLES (Continued)

<u>Table</u>	<u>Page</u>
22	Summary of Results of Univariate and Stepdown Tests of Career Commitment for Nurses Classified by Employment Status 166
23	Observed Means for Three Career Commitment Variables for Nurses Classified by Primary Reason for Career Inactivity 170
24	Pooled Within-cell Correlations and Standard Deviations for Three Career Commitment Variables Within Groups Defined by Primary Reason for Career Inactivity 171
25	Summary of Results of Univariate and Stepdown Tests of Three Career Commitment Variables for Nurses Classified by Primary Reason for Career Inactivity 172
26	Frequency Distribution for Current Employment Status for Nurses Classified by Type of Career Inactivity Reported During the License Renewal Period 175
27	Summary of Descriptive Statistics for Duration in Months of Nursing Career Inactivity for Nurses Classified by Employment Status 176
28	Means and Standard Deviations for Importance of Selected Factors in the Decision to Return/Not Return to Nursing 178
29	Means and Standard Deviations for Intention to Return to Nursing for Nurses Classified by Type of Current Inactivity 180
30	Analysis of Variance for Intention to Return to Nursing for Nurses Classified by Type of Current Inactivity 180
31	Means and Standard Deviations for Intention to Return to Nursing for Nurses Classified by Primary Reason Underlying Career Inactivity 181
32	Analysis of Variance for Intention to Return to Nursing for Nurses Classified by Primary Reason Underlying Career Inactivity 181

LIST OF TABLES (Continued)

<u>Table</u>	<u>Page</u>
33 Means and Standard Deviations for Variables Retained for Multiple Regression Analysis	187
34 Summary Table of Selected Statistics for Regression of Intention to Return to Nursing on 25 Predictor Variables	189
35 Analysis of Variance Summary Table of Test of Significance of R Square for Regression of Intention to Return to Nursing on 25 Predictor Variables	189
36 Means and Standard Deviations for Regression Variables Within Groups Classified by Type of Current Inactivity	192
37 Summary Table of Selected Statistics for Regression of Intention to Return to Nursing on Predictor Variables Within Groups Classified by Type of Current Inactivity	193
38 Analysis of Variance Summary Table of Tests of Significance of R Square for Regression of Intention to Return to Nursing on Predictor Variables for Nurses Classified by Type of Current Inactivity	195
39 Means and Standard Deviations for Regression Variables Within Groups Classified by Primary Reason Underlying Career Inactivity	198
40 Summary Table of Selected Statistics for Regression of Intention to Return to Nursing on Predictor Variables Within Groups Classified by Primary Reason Underlying Career Inactivity	199
41 Analysis of Variance Summary Table of Tests of Significance of R Square for Regression of Intention to Return to Nursing on Predictor Variables Within Groups Classified by Primary Reason Underlying Career Inactivity	202

LIST OF FIGURES

<u>Figure</u>		<u>Page</u>
1	Model of predictor variables and the criterion of intention to return to nursing	17
2	Model of intention to return to nursing derived from multiple regression analysis	226

CHAPTER 1

INTRODUCTION

The decision of the registered nurse (RN) to be actively employed in his or her chosen profession is of great significance to nursing, to the health care delivery system, and to the consumers of nursing services. To a society which has placed increasing valuation on health, the ramifications of nonemployment or of alternative employment activity among nurses are substantial (Cleland, Bass, McHugh, & Montano, 1976).

Of the nearly two million registered nurses licensed in the United States, approximately 402,000 are not actively employed in their profession (Department of Health and Human Services, 1986). Other estimates have suggested that up to 40% of all RNs in a given area are either not working or are not employed in nursing (Decker, Moore, & Sullivan, 1982; Ginzberg, Patray, Ostow, & Brann, 1982; Midei & Sanchez, 1984). Studies investigating the flow of nurse career movement have also revealed that the return of inactive nurses in a particular year did not compensate for the greater loss of active nurses during that same period (Johnson, 1980). Such figures suggest that there exists a substantial pool of inactive nurses that potentially can be drawn upon to relieve troublesome shortage conditions.

Presently, evidence supporting a resurgence of the nurse shortage continues to mount. American Hospital Association (AHA) survey results have revealed a sharp increase in nurse vacancy rates in acute care facilities from 6.3% in 1985 to 13.6% as of December 1986 (Curran, Minnick, & Moss, 1987; Gioiella, 1987). Indeed, while nurse shortages have been a recurring and recalcitrant problem in the health care industry, the current shortage possesses the potential to exert more serious, far-reaching, and persistent effects than have those in the past (Beyers & Damore, 1987; Engel, 1987; Richman, 1987). This is largely attributable to the panoply of changes which have swept the delivery of health care and heightened the need for the specialized contributions provided by professional nursing.

Furthermore, the current nurse shortage, while exhibiting many of the classic symptoms of prior shortages, has been impacted by several different fundamental issues, such as the decline in nursing school enrollment. In the past, the severity of career inactivity has been defused to the extent that hospitals have been able to offset attrition with a fresh supply of registered nurses. With fewer individuals entering the profession, the concept of career inactivity and its role in contributing toward shortage conditions have assumed more conscious significance. With this recognition has come a related shift to issues of retention, of recapture of inactive nurses, and of career creation (Kaye & Krol, 1981).

Shortages of professional nursing personnel are being reported at a time when an increasingly sophisticated and technologically complex acute care system needs them most, when sensitivity to the financial ramifications of health care interventions is requisite to the economic viability of health care facilities, and when the growth of alternative delivery systems brings a commensurate demand for nursing to assume more diverse roles outside the traditional delivery system and to move with clients across settings (Friss, 1981a). The magnitude and scope of health care system changes have been such that both the organization's and the health care professional's roles and responsibilities have commensurately changed. These considerations suggest that former solutions to nurse shortages may be ineffective in this transformed health care delivery system (Beyers & Damore, 1987).

Professional nursing represents the major human resource component of the American health care system and can, therefore, expect to experience the full impact of the diverse changes which continue to evolve in this system (Reichelt & Young, 1985). Moreover, crisis within the nursing sector will infiltrate other facets of the health care industry in terms of quality of care and ability to meet service commitments (Moccia, 1987). For example, insufficient availability of registered nurses may necessitate the shifting of patients to less appropriate care settings, to lengthened waits for care, and possibly to the inability to provide professional nursing care of adequate

quality and quantity (Barer, Stark, & Kinnis, 1984). The nature of the care given and the standards of quality promulgated will shift as increased utilization of alternate providers tends toward producing a health care workforce which is increasingly deskilled (Cohen, 1986; Grimaldi & Micheletti, 1983). The health status consequences of such actions may well exceed the limits of safety (Kalisch & Kalisch, 1980). In light of these potentialities, the recapture of inactive nurses represents a salient strategy for ameliorating intensifying shortage conditions and thereby preserving or enhancing the quality of health care expected by consumers and entrusted to the provider system (O'Donovan & Bridenstine, 1983).

Alternatively referred to as career withdrawal or wastage, the phenomenon of career inactivity in professional nursing has been widely portrayed in the literature as a salient facet of recurring nurse shortages (Aiken, Blendon, & Rogers, 1981; Friss, 1981a; Johnson, 1980; Kalisch & Kalisch, 1980; Kaye & Krol, 1981; Laird, 1983; Link & Settle, 1981b; Riggs & Fernandez, 1984; Schoen & Schoen, 1985). Relevant to the current research endeavor, there has been a general lack of understanding of the diverse forces and counterforces which shape the employed nurse pool (Johnson, 1980). More specifically, little is known regarding the characteristics of the population of inactive nurses with respect to the likelihood of their returning to nursing, at what point in time, and for what reasons (Reid, 1986a, 1986b). This study was conceived not

only to mitigate this research gap but also to contribute to the development of better public and private policy for increasing the attractiveness of the nursing profession. Theoretical modeling which incorporated aspects of economic theory of rational man, labor force participation theory, and affective perspectives of career satisfaction and career commitment was selected to meet these stated ends.

Nature of the Problem

Career inactivity in professional nursing surfaces as a salient issue particularly during periods of nurse shortage, such as that currently being experienced. Indeed, some have argued that the phenomenon of nurse shortage is perceived rather than actual and that the root of the problem resides not in the lack of qualified professional nurses but rather in the void created by inactive ones (Laird, 1983; Riggs & Fernandez, 1984; Schlotfeldt, 1977; Schoen & Schoen, 1985).

Evidence from the corollary body of turnover literature suggests that nurse turnover rates of 30-40% are not only common (Cunningham, 1979; Seybolt & Walker, 1980; White, 1981) but also that these rates are high relative to other female-dominated occupations (Aiken, 1983; Gibson & Dewhirst, 1986; O'Brien, 1984; Stamps & Piedmonte, 1986). Redfern (1978) has described career inactivity or wastage as being too high generally. Other survey findings have revealed that 94% of nurse respondents indicated that they have considered leaving the profession altogether (Stamps & Piedmonte, 1986). On a more positive note, a study of

inactive nurses in the St. Louis metropolitan area revealed that 72% had considered returning to their profession following a variously specified period in professional limbo (Decker et al., 1982). Others have revealed that approximately two-thirds of inactive nurses would likely return to active participation in the profession if certain stipulations were met (Moore, Gatt, & Monsma, 1981). Collectively, such literature reflects the general lack of consensus regarding the causes, extent, and resolution of the voluntary abstention from professional nursing practice embodied in the career inactivity construct.

While the reasons for leaving nursing are multitudinous, synthesis of the literature suggests that personal and professional dimensions constitute the two overarching categories of influencing factors. Early studies tended to focus on developing a composite of personal reasons for career inactivity. Diamond and Fox (1958), for example, concluded that approximately two-thirds of nurse resignations were motivated by personal and family considerations. Such considerations have frequently been examined from an economic orientation. For example, neoclassical wage theory served as the foundation for Yett's (1975) economic analysis of the nurse shortage phenomenon. Variables such as age of nurse, number and ages of children, wage rate of the nurse prior to leaving nursing, wage rate of the spouse, nonlabor income, years of professional nursing experience, and educational level constitute representative personal factors.

It generally is recognized that exclusive reliance upon purely economic or personal factors represents too simplistic a conceptualization of career inactivity and nurse shortages. The argument is that such model specification does not adequately incorporate dimensions such as professional value systems, motivations, and expectations regarding job or career facets, the confluence of which renders decision making regarding labor force participation more complex (Friss, 1981b; Ruffing, Smith, & Rogers, 1984; Wandelt, Pierce, & Widdowson, 1981).

More recent studies (Brief, 1976; Longest, 1974; Nichols, 1971; Price, 1977; Price & Mueller, 1981a, 1981b) have emphasized professional and organizational factors as the major stimuli in turnover behavior, a construct bearing relevant parallels to career inactivity. Representative studies have advanced the notion that nurse turnover is, to a considerable extent, controllable by the health care organization (Seybolt, Pavett, & Walker, 1978; Wagner, Loesch, & Anderson, 1977). Negative perceptions of professional autonomy, of collegial relationships with physicians, and of job/career satisfaction and commitment represent professional factors believed to impact not only the decision to inactivate a nursing career but also the likelihood of resumption of an active career in nursing.

Several recent writers have called specific attention to the importance that contemporary professionals attribute to opportunities to develop their full professional potential and to employment which recognizes and rewards

commitment to professional ideologies (Benziger, 1986; Hofer & Ambrose, 1983; Laird, 1983). Personnet and Boyle (1986) identified working conditions, quality of nurse-physician relationships, and societal images of the nurse and nursing as the major issues underlying chronic nurse shortages. Relatedly, a survey of inactive RN licensees in Illinois revealed that the decision to leave active nursing practice was likely to be based upon dissatisfactions related to scheduling inadequacies and poor treatment from physicians and administration, as well as to economic factors related to salary and benefits (Sigardson, 1982).

Contributions from both personal and professional dimensions have been included in several representative studies. Wandelt et al. (1981) sought to identify factors associated with nurse career inactivity and found that nurses reported leaving nursing and remaining outside the professional workforce because of family considerations and conditions related to the job setting rather than from dissatisfaction with nursing per se. Among the reasons cited by nonemployed nurses were family responsibilities, unavailability of desired work schedule, lack of positive collegial interactions with physicians, lack of administrative emphasis on individualized patient care, and a work environment which failed to provide the nurse with a sense of worth as a valuable component of the health care team.

Cleland et al. (1976) also found a mixture of personal and professional/organizational factors involved in the determination of career activity in registered nurses.

Factor analysis identified the summary factors as: career desirability, professional attitude, achievement personality, conducive home situation, economic value of work, and satisfaction with nursing.

Similarly, Ferniany (1984) combined sociological (personal) variables, managerial or organizational variables, and career commitment in testing a causal model of female nurse career withdrawal. In that study, personal factors were the most important determinants of withdrawal behavior. On the basis of path coefficients, significant variables influencing career withdrawal reflected a blend of personal and professional elements and included other family income, participation in decision making, pay equity, commitment, and perceived promotional opportunities.

An overall interpretation of these investigations is that nurses will tend to remain in nursing to the extent that inducements outweigh the contributions which must be made. Such a philosophy is reflective of theories of organizational equilibrium (March & Simon, 1958) and implies that career inactivity is multidimensional both with respect to causation and to resolution. Moreover, in view of the complexity of individuals and the multifaceted nature of the inputs which influence decision making, as reflected in previous empirical work, it is logical to approach the problem of career inactivity as reflecting diverse elements of both personal/economic and professional/organizational considerations. This approach was adopted in the present study. A general summary of factors influencing career

inactivity and, therefore, the labor supply of registered nurses is presented in Table 1. The theoretical and empirical contributions undergirding the salience of these factors are detailed in the following chapter.

While not generally incorporated explicitly into research models for empirical testing, a central, philosophical referent pertinent to the issue of career inactivity among professional nurses is the influence of intangible, societal and professionalization trends, such as those embodied in the women's movement and the state of evolution of the nursing profession, respectively. To illustrate, socionormative changes accompanying the women's movement have opened new career paths and increasingly fostered a combination lifestyle of career and parenthood. Evolving from this altered sociological perspective is a new breed of nurse, one likely to be less tolerant of perceived disparate or otherwise unacceptable employment conditions or of an unconscionable gap between career expectations and career realities (Kalisch & Kalisch, 1980; Ruffing et al., 1984). The actualization of individual philosophies in today's more flexible sociocultural milieu furnishes a phenomenological perspective within which both personal and professional factors relevant to career inactivity can flourish.

Similarly, the present state of evolution of the nursing profession constitutes a philosophical force which furnishes an ambience within which professional factors relevant to career inactivity can emerge. Nursing, while

Table 1

Summary of Factors Influencing the Labor Supply Function of Registered Nurses

Nature of factor	Representative factors
Personal/economic	Wage rate of nurse Wage rate of spouse Wage elasticities Nonlabor income Labor force participation patterns related to: <ul style="list-style-type: none"> * Age of nurse * Educational attainment * Nonmarket responsibilities * Spouse/family support * Personal desire to pursue non-nursing career options * General economic condition Distribution of nurse supply: <ul style="list-style-type: none"> * Geographic mobility * Travel distance to employing facility
Professional/organizational	Image of nurses and nursing Degree of nurse autonomy Gap between expectations and reality Future expectations Career satisfaction Career commitment Changing nature of nursing: <ul style="list-style-type: none"> * New technology * New diseases; new risks * Ethical/legal dimensions Organizational elements, e.g., <ul style="list-style-type: none"> * Productivity expectations * Equity of salary/benefit structure * Scheduling requirements * Career mobility and promotional opportunities * Nature of physician-nurse relationship * Level of administrative support

commonly referred to as a profession, is in actuality more accurately described as a semi-profession, for it lacks that degree of autonomy requisite to full status as a profession (Friedson, 1973; Quadagno, 1978). Simpson and Simpson (1969) have cited several factors which have retarded professional evolution in this female-dominated entity. Among these are included the lack of career commitment exhibited by practitioners, the discontinuity of employment displayed in career patterning, the bureaucratization of the worker in the traditional institutional environment, the lack of a well-defined body of specialized and unique knowledge, and the comparatively high status accorded individuals in administrative as opposed to practitioner positions (Simpson & Simpson, 1969). Sensitivity to these considerations, whether overtly or covertly acknowledged, serves as a subtle mechanism which can influence career inactivity.

Statement of Purpose

The fundamental purpose of this study was to investigate the phenomenon of career inactivity in professional nursing, particularly with respect to its determinants, as well as to those factors identified as conducive toward reversal. Toward this end, improved insight into both personal and professional dimensions of career inactivity was obtained and the potentiality of reversal more critically appraised. Additionally, inclusion of such theoretically relevant but little researched variables as career satisfaction and career commitment sought to further

conceptual understanding of these constructs and their role in career inactivity decisions and behaviors. These purposes were met by studying a selected population of registered nurses who were inactive professionally at the time of the most recent renewal of licensure.

Significance of Study

Professional nursing contributes distinctively to the effectiveness, the quality, and the affordability of the health care delivery system (Barer et al., 1984; Benham, 1971; Fagin, 1987). Shortages of registered nurses constrain the extent to which these contributions can be realized. Even as the roots of the problem are complexly interwoven, its resolution is far from being conceptually simple. Accordingly, systematic investigation of salient facets of nurse shortages, such as career inactivity, is needed to enhance understanding of professional career philosophies and variability in career participation patterns. Information gleaned from such inquiry will be beneficial in shaping health manpower and policy decisions in an increasingly dynamic health care environment.

While numerous studies have addressed antecedents and correlates of nurse turnover, there has been a dearth of research centered on nurses whose careers are inactive. Additionally, researchers have generally ignored the propensity of individuals to change occupations and the potential informational contributions to be gleaned from this avenue of inquiry (Shaw, 1987). The present study emphasized two groups which were not practicing in their

profession: totally inactive or nonemployed nurses and those engaged in non-nursing employment. Both groups were examined individually and collectively in terms of reasons for leaving, intentions to return, and variables affecting such intentions. Additionally, measurement of selected study variables in nurses who had resumed their nursing careers following periods of inactivity provided useful comparative data, as well as instilled a vital sense of career activity or inactivity as a process rather than a static phenomenon.

From a pragmatic perspective, identification of a set of parameters predictive of intent to resume nursing career participation enabled appraisal of the degree to which resolution of this problem lies within the system's ability to resolve through strategies such as job redesign, scheduling innovativeness and flexibility, and role enhancement in such areas as nurse autonomy and decision making. Such research sought to reflect and clarify salient career concepts, underlying values, norms, motivations, and decisional influences on career patterns.

The phenomenon of career inactivity in professional nurses is particularly noteworthy in view of the diverse employment settings available, as well as the opportunity for part-time employment, which is not as prevalent in other female-dominated occupations (Chenoweth & Maret, 1980). Also relevant to the significance of the present study was the increasing specter of declining nursing school enrollment coupled with Census Bureau data which

indicate that, overall, the national labor force will grow by only 0.8% per year during the 1990s. Since the 18-24 age group, which supplies the majority of entry level workers, has been projected to decline by 15% during the present decade (Fottler, 1985), research relevant to the potential recapture of inactive nurses has the potential of reaping both short-term and long-term amelioration of shortages.

Finally, while a preponderance of theoretical and empirical effort has been directed toward systematic analysis and understanding of labor turnover and of its job-related or organizational determinants, the need exists to address the whole of occupational behavior and to examine salient career or work history variables which are more global in nature (Borow, 1964; Watson & Garbin, 1981). Toward this end, the present study purported to examine meaningfully several such underdeveloped avenues of inquiry and to facilitate theoretical integration of the findings with other relevant and more broadly researched constructs.

Theoretical Modeling of Intention to Return to Nursing

Theoretical perspectives incorporating aspects of economic theory of rational man, of inducement-contribution theory (March & Simon, 1958), of reasoned action (Ajzen & Fishbein, 1980), of labor force participation theory, and of perceptual dimensions of career satisfaction and career commitment were coalesced in formulating a predictive model of intention to return to nursing following a period of career inactivity. While the conceptual and empirical

foundations for the model explored in this study are presented in the following chapter, it is useful at this point to present the model as an introduction to the variables of interest.

Figure 1 depicts major study variables posited as predictive of the criterion, intention to return to nursing. The directionality of the anticipated relationships is indicated through the use of the symbols + and - to indicate positive and negative relationships, respectively. Where the nature of the relationship is unclear or indeterminate on the basis of extant theoretical and empirical work, the symbol ? is applied.

Several caveats were warranted, however, in specifying the proposed nature of the relationships in this conceptual model. First, central variables such as satisfaction and commitment have been empirically examined primarily within a job/organizational framework rather than in terms of a more global career orientation. Accordingly, some degree of theoretical extrapolation has been employed in making the present predictions. In addition, these variables have been examined largely within the context of nurse turnover rather than in terms of the intention to return to nursing following a period of inactivity. While this shift in research focus does not intuitively appear to distort the basic nature of the underlying relationships, the resulting element of uncertainty warrants consideration of this research as primarily exploratory in nature.

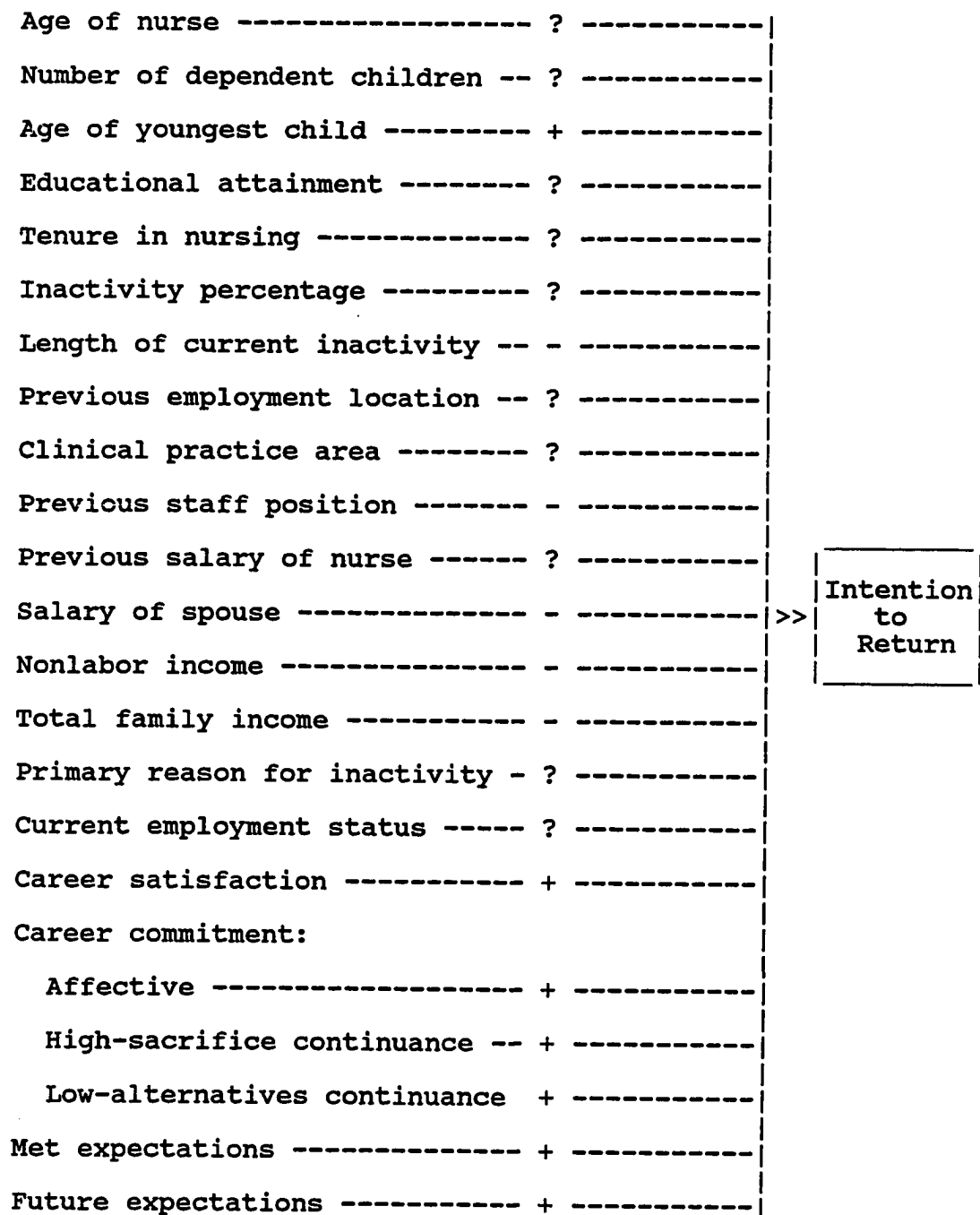


Figure 1. Model of predictor variables and the criterion of intention to return to nursing.

Research Questions

In accordance with the stated purposes previously delineated, the research questions formulated for the present study addressed four major areas and included:

Determinants of Career Inactivity

1a. What factors influence career inactivity in registered nurses?

1b. How do these factors compare among nonemployed nurses, those employed in non-nursing occupations, and those who have returned to nursing following a period of career inactivity?

Career Satisfaction

2a. Is there a difference in career satisfaction among those registered nurses who are nonemployed, those who are employed in non-nursing occupations, and those who have returned to nursing following a period of career inactivity?

2b. Is there a difference in career satisfaction between those registered nurses who became inactive professionally for predominantly personal reasons and those who reported professional reasons as the primary influence upon their leaving nursing?

Career Commitment

3a. Is there a difference in career commitment among those registered nurses who are nonemployed, those who are employed in non-nursing occupations, and those who have returned to nursing following a period of career inactivity?

3b. Is there a difference in career commitment between those registered nurses who became inactive professionally for predominantly personal reasons and those who reported professional reasons as the primary influence upon their leaving nursing?

Intention to Return to Nursing

4a. What is the likelihood that nursing career inactivity will become a permanent condition for those registered nurses who do change to inactive status?

4b. What is the relative importance of various factors in influencing the decision of an inactive nurse to return to nursing?

4c. Is there a difference in intention to return to a nursing career between those registered nurses who are nonemployed and those who are employed in non-nursing occupations?

4d. Is there a difference in intention to return between those registered nurses who became inactive professionally for predominantly personal reasons and those who reported professional reasons as the primary influence upon their leaving nursing?

4e. What set of variables is predictive of intention to return to professional nursing practice?

4f. How does this variable set compare between those registered nurses who are nonemployed and those who are employed in non-nursing occupations?

4g. How does this variable set compare between those registered nurses who became inactive professionally for

predominantly personal reasons and those who reported professional reasons as the primary influence upon their leaving nursing?

Development of these categories of questions was pursued to enable a more holistic appraisal of the career inactivity phenomenon. Individuals temporarily or permanently abandon their nursing careers for a variety of reasons. In like manner, a host of diverse forces influences the decision of inactive nurses to resume or not resume their careers. An underlying premise in the present study was that such factors as the primary reason for career inactivity, the particular mix of personal/demographic factors involved, the nurse's perceptions of met and future expectations regarding nursing, and the extant level of career satisfaction and career commitment coalesce in influencing the intention of a particular nurse to return to nursing.

Scope of Study

For the purpose of the present study, career inactivity was conceptualized as the voluntary withdrawal of a registered nurse from participation in professional nursing practice. The concept was operationalized by self reporting of either nonemployment or alternative employment in non-nursing activity, as indicated on the most recent licensure renewal application. Consequent to this definition, the proposed study was not concerned with interinstitutional or intraoccupational movement but with movement away from career participation in nursing. In like manner,

excluded from the study were those nurses whose withdrawal from nursing was due to retirement, illness or disability which precluded employment, or disciplinary action resulting in loss of or suspension of the license to practice.

The scope of this study embraced all nurses currently licensed in the state of Alabama who met the inclusion criteria delineated above. While this approach endeavored to capture all inactive nurses who maintained current licensure, constraints on data availability necessitated the exclusion of nurses who otherwise met inclusion criteria but failed to maintain licensure. Previous research has inferred any bias stemming from this limitation to be small (Levine & Moses, 1982).

The present study was conceptualized as a means of furnishing an empirical basis upon which to draw policy implications relevant to the recapture of inactive nurses. The research emphasis, then, targeted those registered nurses for whom career inactivity had become a reality, sought to descriptively define and segment them into logical target subgroups for recapture, and endeavored to identify factors predictive of favorable intentions to return. Accordingly, neither differentiation between career leavers and career stayers nor prediction of career change or inactivity, while acknowledged as important avenues of inquiry, were addressed within the current research design.

Limitations and Delimitations

As reflective of design and methodological considerations, the following limitations were recognized:

1. The target population was necessarily constrained by data availability considerations to those inactive nurses who retained active professional licensure. Some degree of bias, as well as restricted generalizability, may, therefore, have been introduced by the exclusion of inactive nurses who allowed their professional licenses to lapse. One may intuitively project that those nonemployed nurses who retain their licenses may experience overall more positive attitudes toward nursing and possibly view their current inactivity as a more temporary arrangement than do those nonemployed nurses who fail to maintain active licensure.

2. The design was cross-sectional in nature and limited thereby in its ability to investigate career inactivity as a process rather than as a static variable. As such, the present study did not allow explicit determination of, for example, the extent to which intent to return is predictive of actual return.

3. The population of career inactive nurses from only a single southern state was surveyed. Generalizability of the findings beyond the study population was possible, therefore, only to the extent that inactive nurses in Alabama could be construed as representative of inactive nurses in other states or the nation as a whole. Due to the paucity of data relevant to the phenomenon of career inactivity among nurses, such representativity is, at present, indeterminate. Comparison of the research population

and the statewide composite of registered nurses along selected parameters is presented in Chapter 4.

4. Extant theoretical and empirical work pointed to the appropriateness of a somewhat simplistic descriptive and exploratory approach consistent with the state of current research in this area. Further theory building in this domain, for which the present study may furnish an empirical base, is necessary to substantiate the investigation of combinations of factors or interactive relationships as well as the application of causal modeling and the testing of causal relationships.

Assumptions

Within the context of the present study, the following assumptions were operative:

1. Nonemployed and alternatively employed professional nurses who retain active licensure status constitute an appropriate population for the study of career inactivity.

2. Professional nurses, in evaluating their available options to maximize utility, perceive career inactivity and adjustments in labor force participation patterns as a viable option in attaining this end.

3. Inactive professional nurses are able to estimate their intentions to return and to appraise with reasonable accuracy the likelihood of renewed participation in professional nursing practice.

4. Even as there exists a high degree of correlation between turnover intentions and turnover behavior, there is

at least an acceptable positive correlation between intention to return and subsequent return to nursing.

Definition of Terms

For the purposes of the present study, the following key terms were defined:

Career Inactivity

Career inactivity was defined as the voluntary withdrawal of registered nurses from participation in professional nursing practice. It constitutes a measure of loss from the labor force participation pool which was operationally evident as either nonemployment or as employment in non-nursing activities. While it possesses the potential for reversal, career inactivity was perceived within this study as being conceptually distinct from turnover, which generally implies the leaving of one position and the timely assumption of another, often with no appreciable interruption in labor force participation.

Professional Nurse

Professional nurse was defined as a registered nurse whose basic nursing preparation was obtained at either the diploma, the associate degree, or the baccalaureate level. While the distinction between professional nurse and technical nurse is not applied herein, the definition does distinguish specifically between registered nurses and licensed practical or vocational nurses. Operationally, this variable was measured in terms of those registered nurses currently licensed to practice professional nursing in the

state of Alabama as obtained from data furnished by the Alabama Board of Nursing.

Personal Factors

Personal factors influencing career inactivity encompass those elements of individual preferences and priorities of a non-nursing orientation which affect labor force participation decisions and behaviors of the survey participants. Such factors were conceptualized as being largely beyond the influence or interventionism of the health care delivery system. Examples include child-rearing or other family responsibilities, lack of financial necessity to work, and lack of spousal support of the nurse's employment.

Professional Factors

Professional factors influencing career inactivity include those elements directly or indirectly related to nursing or the practice of nursing as reflected in various aspects of job content, working conditions, organizational characteristics, and interprofessional relationships. As such, these factors were conceptualized as being more amenable to health care system intervention and control. Examples include lack of administrative support for nursing, lack of independence in planning and performing nursing responsibilities, and the emotional/ethical demands of nursing.

Career Satisfaction

Career satisfaction was defined as the degree of positive affect experienced or perceived toward nursing as a

career. Implicit to this conceptualization is the process of balancing perceptions of nursing as personally experienced with preconceived expectations. Career satisfaction, then, reflects the global composite of met career expectations as appraised by the individual nurse.

Career Commitment

Career commitment to nursing was theoretically defined as embracing two dimensions: (a) the attitudinal or affective dimension, which reflects the degree to which an individual nurse identifies with the nursing profession, and (b) the behavioral or continuance component, whereby the nurse feels bound to remain in nursing through more extraneous considerations, such as the extent of personal resources invested in nursing, the perceived opportunity costs of abdicating nursing as a career, and the availability of career alternatives. Specification of the relevant dimensions and possible subdimensions of this construct was operationally performed through factor analysis.

Intention to Return

Intention to return was defined as the estimated or anticipated likelihood of renewed activity or participation in professional nursing practice. It, therefore, was a reflection of the extent to which career inactivity was perceived by the individual nurse as a temporary or permanent phenomenon.

Organization of the Dissertation

This introductory chapter has served to delineate the nature of the problem for investigation and the purposes of

the study. Major variables of interest were introduced through a model posited as predictive of intention to return to nursing following a period of inactivity. Specific research questions were identified to direct systematic inquiry. Additionally, the scope of the study, salient assumptions, limitations and delimitations, and definitions of key terms were presented.

The following chapter reviews relevant theoretical and empirical literature to frame the present study appropriately and position its contributions within the larger body of related knowledge. Research gaps, unresolved issues, and problems encountered during prior inquiry into this domain are critically disclosed and further substantiate the need for this study.

Chapter 3 details research design and methodology specifications including population parameters, instrumentation, validity and reliability considerations, data collection procedures, and data analysis approaches and techniques.

In view of the magnitude and complexity of the statistical manipulations required for the present study, the results are divided into two chapters. Chapter 4 contains information relative to response rate, descriptive statistics for study variables across all respondents, and the results of all factor analyses performed prior to addressing the specified research questions. Chapter 5 presents the results of the investigation specific to the previously

identified research questions per se and also incorporates any serendipitous findings of substantive import.

Chapter 6 draws relevant conclusions regarding the findings of the study and addresses pertinent implications for theory and practice, as well as recommendations for future research. References and appendices conclude the report.

CHAPTER 2

REVIEW OF RELATED LITERATURE AND RESEARCH

The purpose of this chapter is to summarize and synthesize relevant theoretical and empirical literature germane to the present investigation. Evidence is thereby furnished to substantiate the salience of this investigation in addressing research needs and adding to the theoretical and substantive understanding of career inactivity among professional nurses.

Toward this end, it has been useful to draw upon a broad literature base in order to appraise the dual dimensions of personal and professional facets as they impact labor force participation patterns among registered nurses. Extensive review of the literature has revealed that personal, non-nursing factors largely exhibit an economic basis or orientation, while professional factors more cogently reflect the social science and organizational literatures.

Reflective of these literatures, the chapter segment which addresses the personal dimension of career activity versus inactivity focuses primarily upon labor supply dynamics as evidenced in registered nurse populations. Theoretical and empirical works related to career satisfaction, career commitment, and models of turnover activity

comprise the professional/organizational dimension of career participation among registered nurses. Addressed concomitantly, these personal and professional facets, together with the salient constituents of each, provide a more comprehensive and representative portrayal of the incompletely understood and complex phenomenon of career inactivity.

Interestingly, the central phenomenon of interest in this study, career inactivity, has been but scantily addressed in the literature. Moreover, even greater deficiencies have been identified with respect to predictive or explanatory literature concerned with intentions to resume an inactive career. These considerations have necessitated a correlative focus on the conceptual import of intentionality and reasoned action as a precursor to specified behavioral outcomes. More specifically, intention to return and its facilitators were examined within the context of extant literature to establish the salience of these factors within the present study. To commence, historical perspectives of nurse shortages constitute a useful referent to better frame both the construct of interest and the present chapter.

Nurse Shortages: A Foundational Issue

The contribution of career inactivity to nurse shortages is particularly intriguing in view of the exacting academic and clinical preparation required by accredited nursing programs and the demonstration of competency necessary to obtain licensure. Moreover, the specificity of

nursing education and its associated clinical skills renders the transferability of such knowledge to other occupational endeavors questionable, a consideration relevant to the recapture of temporarily inactive nurses (Schramm, 1982). In view of the causal linkages between career inactivity and nurse shortages, a brief overview of the latter appears relevant to laying the foundation for the present study.

Records from the 1800s, supplemented by an abundance of interim reports and analyses, provide demonstrable evidence of the complex, diffuse, and intractable nature of nurse shortages. Paradoxically, resurgences of shortage conditions in modern times have been reported in spite of burgeoning nurse supplies. Between 1962 and 1983, for example, the number of nurses per capita grew 100% (Eastaugh, 1985). Passage of the Nurse Training Act in 1964, extended and expanded through subsequent legislation, contributed significantly toward this escalation in ranks. Increased health care system utilization, spurred by the passage of Medicare, promulgated an increased demand for nursing services, however, and created fears of a critical national nurse shortage (Aiken, 1984). Nursing salaries rose dramatically during this period, with the resulting increase in health care costs being largely absorbed by Medicare and other third-party payers. Whether or not in direct response to this salary augmentation, inactive nurses returned to the labor force in large numbers (Reid & Rodgers,

1981). Indeed, the nurse labor force participation rate increased from 55% in 1960 to 70% by 1972 (Aiken, 1984).

The economic link to the historical cyclicity of nurse shortages has repeatedly surfaced. During the immediate post-Medicare period from 1966 to 1971, for example, nurses' salaries rose nearly twice as fast as those of other kindred groups. As the relative wage rate increased, reported nurse vacancy rates declined. In like manner, as salary growth slowed in the 1970s following the introduction of hospital wage and price controls, nurses' wages again fell below those of comparison groups and failed to keep pace with inflation. Despite a marked increase in nursing school enrollment during this period, vacancy rates again rose to approximate pre-Medicare levels and widespread shortages were reported. Aiken et al. (1981) interpreted these developments as indicative of a direct relationship between purely economic or income considerations and the availability of nurses for active employment in nursing.

It was not until the early 1980s when nurses re-entered the labor force in large quantities in response to deterioration in the general economy, as marked by high national unemployment rates and double digit inflation, that shortage conditions were mitigated (Aiken, 1983; LeRoy, Ellwood, & Iglehart, 1985). Additionally, with a temporary easing of cost containment measures during 1980 and 1981, the income of nurses rose relative to wage rate increases experienced in private industry. A response similar to

that witnessed during the late 1960s was again observed, namely, an increase in labor force participation by previously inactive nurses (Aiken, 1984).

From the preceding, it can be seen that both personal economic considerations and the general state of the American economy function as major influences not only upon patterns of health care utilization but also upon the national supply of and demand for nurses. The dynamic interplay between supply and demand factions, as detailed in subsequent sections of this chapter, has complicated prediction of labor force participation in nursing and fostered lack of consensus regarding the potential and scope of intervention strategies.

The Influence of Demand Dynamics on Nurse Shortages

Although the theoretical underpinnings and emphasis of the present project reside primarily in labor supply dynamics and determinants, diverse influences on the demand equation cannot be discounted or ignored. Supply-side advocates view the existence of nurse shortages as a manifestation of insufficient supply, both with respect to the numbers of new graduates being produced and the extent to which registered nurses continue to work in the field (Aiken et al., 1981; Link & Settle, 1981b). Others have argued that the myriad changes which have pervaded virtually every aspect of the health care industry lend credence to the belief that the nurse shortage problem stems primarily from a substantial increase in demand (Johnson & Vaughn, 1982; Schramm, 1982; Wagner, 1981).

As debate between the supply and demand proponents continues, it has been suggested that the most comprehensive analysis of the problem points toward a combined approach, consistent with economic theory, which recognizes the importance of simultaneous consideration of supply and demand determinants (Levine & Moses, 1982). As viewed within the context of the present study, increases in demand serve to exacerbate the effects of a dwindling nurse supply and intensify the significance of attracting inactive registered nurses back to their profession.

Demand for Professional Nursing Services

The demand for nurses is complexly specified from the perspective of the health care industry. Many changes in the health care field have rendered both the need and the demand for nurses more urgent presently than at any other period in the profession's history (Fagin, 1987).

Changes in the quantity, the concentration, and the intensity of nursing services have occurred consequent to radically altered financial and reimbursement incentives affecting provider institutions, the greater variety and pervasiveness of employer-sponsored health insurance packages, and associated shifts in consumption patterns. Shortened inpatient stays coupled with increased patient acuity levels and the concomitant increase in nursing hours required per patient are currently placing exacting demands on professional nursing.

While nursing productivity has increased in response to altered expectations of the health care delivery system,

suggesting a possible disemployment effect, it can be argued that these productivity gains have had an employment-creating effect stemming from the expanding scope and depth of nursing practice (Fottler, 1985; Salter, 1966). It has been reported that between 5% and 45% of nursing positions are unfilled at any given time, depending upon geographical area and institutional size (Sandroff, 1980). Relatedly, Johnson and Vaughn (1982) have asserted that hospital vacancy rates for nursing personnel are a function of current unmet demand rather than lack of available supply. Thus, the overall increase in the acuity of illness in hospitalized patients, produced by the concomitant rise in critical care patients and the decline of reasonably healthy medical-surgical patients, has effectively shifted the demand curve outward. As the rate of increase in demand outstrips the rate of increase in supply, the groundwork is laid for yet another shortage (Fagin, 1987; Johnson & Vaughn, 1982).

Changes in the methods of production of health care have also significantly augmented the labor demand for nurses. The present decade in particular has witnessed an increasing level of sophistication in nursing care rendered both within the traditional hospital setting and numerous alternative delivery systems (Fagin, 1982). With the unprecedented advances in medical technology and the heightened pace of innovation, greater demand is being generated for professional nurses with specialized knowledge and skills. In addition to the demands imposed by increasing

technological sophistication per se, the demand for nursing services has been impacted by the substantial transfer of both clinical and technical responsibilities from physicians to nurses since World War II (Flynn, 1984). Consequent to these trends and even with delegation of selected skills to alternative health care providers, professional nursing may have become a less substitutable component of the health care delivery pool (Flynn, 1984; Friss, 1981a).

The preceding considerations are appropriately embellished and reinforced by the recognition of the special and increasingly resource-intensive health care requirements of an aging population and of the growing number of chronically ill, as well as by a generalized increase in emphasis on health and health maintenance. All are representative of salient factors positively influencing the demand for nurses both quantitatively and qualitatively. To these considerations, the economic concept of labor demand elasticity sheds further enlightenment upon this complex issue.

Demand Elasticity for Nursing Services

It generally is acknowledged that the demand for labor is a derived demand, dependent on the demand for particular goods and services (Fottler, 1985). The economic concept of demand elasticity constitutes a useful referent within the present context. Price elasticity, for example, reflects the sensitivity of demand to the price tag associated with the intended object of consumption (Hicks, 1966; Marshall, 1923). The long-standing propensity to subsume nursing services under the general room rate, however,

confounds assessment of demand elasticity from this perspective. Ongoing efforts to "cost out" nursing services accurately may eventually enable a more informed appraisal of this entity.

Additionally, demand elasticity is higher when other factors of production, in this case other categories of health care personnel, can be adequately substituted for professional nursing care. While nursing continues to be burdened with an expanding repertoire of non-nursing functions and with inadequate delegation of less complex nursing skills to other levels of health care providers, contemporary nursing entails the execution of clinical responsibilities which exceed the licensure and practice act provisions of less skilled caregivers. As previously mentioned, the level of sophistication inherent in state-of-the-art medical technology and the correlative need for sound and autonomously derived clinical decision making support the perspective of reduced substitutability and, therefore, relative inelasticity of demand for nursing services. Moreover, the greater scope of talent, responsibilities, and clinical capabilities exhibited by the registered nurse may be increasingly attractive to cost-conscious health care administrators who perceive that, overall, RNs offer a more comprehensive output capacity for the price.

The foregoing should be further evaluated within the context that demand elasticity is further increased when the cost of employing a particular category of labor

represents a substantial portion of the total costs of production. It has been well established that nurses' salaries comprise a substantial segment of the health care institution's costs. Tighter staffing controls, then, become a likely strategy to combat growing economic pressures. As a recent example, during the present decade, cost containment efforts necessitated by changes in the hospital reimbursement system for Medicare patients have functioned to temper demand for nurses within the constraints imposed by quality of care concerns (Fagin, 1987).

Somewhat relatedly, arguments for an increasing demand for nurses can be obscured by such realities as shrinkage within the hospital industry, downsizing of scope of service offerings, and declining occupancy rates (Aiken et al., 1981). The existence of uncertainties and inconsistencies impacting the labor demand for nurses, coupled with the wage history of this category of labor and the narrowing gap between salaries of professional nurses and nonprofessional substitutes, renders conclusions regarding the labor demand elasticity of nurses somewhat tenuous.

Personal/Economic Determinants of Career Participation

Career activity or inactivity, whether viewed dichotomously or as a continuum, reflects individual decisions which are the culmination of multiple and diverse inputs. As reviewed in the following section, personal/economic elements comprise a major dimension impacting this phenomenon.

The Labor Supply of Registered Nurses

For the purpose of the present study, a necessary distinction is drawn between short-run and long-run supply considerations. The focus herein on career inactivity in professional nursing identifies the short-run supply function as the primary frame of reference. This suggests, then, that at least in the short-run the supply of registered nurses is largely dependent upon the sensitivity or responsiveness of already licensed nurses to changes in personal and professional antecedents or correlates of career inactivity and the influence of such changes on availability for employment in nursing.

Alternatively, adoption of a long-run supply perspective would incorporate a broader time function, sufficient for qualified individuals interested in pursuing nursing to finalize the career decision and complete requisite clinical training, education, and licensure (Yett, 1965). The issue of declining enrollment in accredited nursing programs and its long-term effect on nursing and health care delivery in general would be appropriately addressed within this latter framework and is beyond the scope of the present study.

Interpreting Economic Theory Within the Nurse Shortage Context

Short-run influences on the supply function for registered nurses have generally been categorized into largely economics-based personal factors and professional or organizational factors, often addressed separately in the

literature but with the recognition that some coexistence or interdependence is likely (Aiken et al., 1981; Laird, 1983). Within the context of this study, many of these personal factors are viewed as analogous to the concept of individual tastes and preferences, recognized in the economic literature and often specified in general economic models. Accordingly, the conceptual model of nurse supply which has framed the present study constitutes an attempt to integrate extant theoretical and empirical work in examining the phenomenon of career inactivity more comprehensively.

Market shortage and its resolution. In general, economic theory conceptualizes shortage as a situation in which the quantity demanded exceeds the quantity supplied. A shortage can develop consequent to: (a) a decrease in supply, holding all else constant, (b) an increase in demand, holding all else constant, or (c) a reduction in price or wage rate below the equilibrium level, holding all else constant. Regardless of which scenario is operative, the economic solution to a market shortage is to allow the price to adjust upward to restore equilibrium conditions (Greenleaf & Stevenson, 1984).

While the simplicity of this remedy is intuitively appealing, the conundrum in nursing has been that a number of intervening elements have stymied market forces and precluded the increase in salary requisite to creating a stable balance of supply and demand (Fagin, 1982; Greenleaf & Stevenson, 1984; Link & Settle, 1979a; Schramm, 1982). To

illustrate, Greenleaf and Stevenson (1984) have cited the continuous pressure to shift the supply curve outward by increasing the number and variety of educational programs and by government subsidization of nursing education. The resulting increase in supply would compel a lower wage rate. Allegedly, this approach has generally been supported by those desirous of an expanding health care industry with relatively low labor costs as well as by those factions primarily interested in producing more nurses (Greenleaf & Stevenson, 1984).

Relatedly, confusion regarding the distinction between the noneconomic concept of need and the economic concept of demand has been cited as relevant to wage constraints in nursing (Fagin, 1982). This corollary perspective has regarded the need for nurses as a value judgment related to quality of care concerns and held that "need" does not necessarily convert to "demand" with its direct relationship to economic or wage-related considerations.

As a predominantly female occupation, nursing has borne the stigma of low wage rates rooted in historical and sociocultural bases. Relatedly, a general atmosphere of tolerance has appreciably delayed and rendered ineffective demands for financial compensation more accurately reflective of the nurse's education, experience, and responsibilities. This ineffectiveness at the level of the individual nurse has been paralleled by the general lack of success of protectionist organizations, such as national nursing associations, to elevate nurses' salaries (Fagin, 1982).

Moreover, the high degree of specificity associated with the practice of professional nursing has been associated with the difficulty of transference of skills to alternative occupations characterized by greater financial rewards. The influence of this latter supposition, which has largely pertained to hospital nursing, has arguably been somewhat tempered by the expanded variety of employment opportunities currently available to nurses as well as by the emergence and growth of nurse entrepreneurship (LeRoy et al., 1985).

Expanding upon the conceptualization of nursing as primarily a hospital-based service occupation, another factor contributing to the impact of wage constraints on shortage conditions is the economic concept of monopsony. A monopsonistic market is one dominated by a single employer. Since interhospital wage scales have generally been highly comparable, the local hospital system may be construed as the theoretical equivalent of a single employer. Economic theory holds that wages will be depressed in monopsonistic markets relative to "normally" functioning, competitive ones (Greenleaf & Stevenson, 1984; Link & Settle, 1979a; Schramm, 1982; Yett, 1975).

Labor economists have viewed nursing, with approximately 68% of the workforce employed in hospitals according to 1984 statistics (Richman, 1987), as among the few occupations affected by monopsony conditions (Aiken et al., 1981). If nursing skills are perceived as not readily transferable or if the geographic mobility of the local

nurse population is constrained, advocates of the monopsonistic perspective have argued that hospitals may indeed experience relatively little competition for nurses and that wage competition under these conditions has generally been unnecessary (Link & Settle, 1979a). Others have asserted that the conditions favoring monopsonistic markets for nursing services may have been weakened by the availability of multiple career facets in nursing beyond the confines of hospital walls (Aiken et al., 1981).

Wage Theory and Nurse Supply Dynamics

As evidenced by a wealth of theoretical and empirical literature, wage theory constitutes a relevant framework within which to examine the career inactivity perspective of nurse shortages. Nurses' salaries, historically characterized by an extreme degree of salary compression, have consistently been portrayed as factors supportive of career inactivity decisions (Everly & Falcione, 1976; McCloskey, 1974; Ruffing et al., 1984; Sigardson, 1982; Wandelt et al., 1981; White, 1980). Not only do starting salaries exhibit little differentiation for educational preparation or expertise but also minuscule salary increments equate to static salary expectations over the long run, particularly for those choosing to remain at the bedside (Flynn, 1984; Ginzberg et al., 1982; Wandelt et al., 1981). Indeed, for individuals who have already selected nursing as their career choice and made the requisite investment of time, effort, and other resources to achieve this goal, maximization of economic gain may be perceived

as attainable only through turnover behavior or actual withdrawal from the profession (Johnson & Vaughn, 1982).

Within this wage theory perspective must be considered not only the absolute but also the relative wage structure for nurses. Income discrepancies between nurses and other health care workers have silently eroded the economic position of nursing. For example, in 1945 the average nurse's income was approximately one-third of that garnered by the average physician. By 1981, this proportion had dropped to less than one-fifth (Aiken et al., 1981). Moreover, this interim period was characterized by significant transferal of traditionally physician-owned technological and clinical skill responsibilities to nurses. Nurses gained in responsibilities and scope of practice, therefore, but failed to realize concomitant economic rewards. While the cyclical-ity of nurses' salaries has been previously described, recent figures suggest that current nursing incomes do not compare well with those made by the average professional woman (Richman, 1987). More strikingly, Fagin (1982), in bemoaning the inadequacies of salary structures which failed to offer fair value for nurses' skills, education, and conditions of employment, cited that sanitation workers were better compensated than professional nurses.

Economic theory provides a useful frame of reference in better understanding the rationale underlying career behavioral changes promulgated by wage considerations. Correlatively, the theory of labor force participation has been formulated to reflect the influence of alterations in

wage rate on individual demands for leisure (Benham, 1971). From this theoretical perspective, an increase in wages can generate two types of economic effects:

1. The income effect accounts for the realization that an increase in income enables the purchase of more goods and services. Couched within the context of the nurse shortage, the income effect suggests that rising incomes may stimulate the purchase of additional leisure, with a resultant decrease in the number of hours worked.

2. The substitution effect specifies that as wages and income increase, the cost of purchasing leisure time also increases. With the resulting decrease in the quantity of leisure time, working time may be expected to increase (Fottler, 1985; Schramm, 1982).

These economic phenomena have been portrayed in the literature in conjunction with the concept of backward bending supply. The supply curve is generally depicted as upward sloping from left to right. The upper portion of this curve bends back to the left when the supply function is specified as backward bending. To apply this concept to the economic effects described above, as the nurse's wage rate increases initially, the number of hours worked increases. This is reflective of the nurse's willingness to sacrifice other desirable commodities, such as leisure. At a certain point, namely a wage rate deemed sufficiently high, the hours of work decline as the nurse desires more of other commodities, such as leisure, which have now become more affordable (Schramm, 1982). Studies by Yett

(1965, 1970) revealed that, as salary increased, nurses tended to decrease the number of hours worked while still maintaining the same level of income.

Empirical efforts to evaluate these theoretical formulations have largely concentrated on the determination of wage elasticities. Positive wage effects have been reported using aggregate data (Bowen & Finegan, 1969; Cain, 1966). Sloan and Richupan (1975) reported wage elasticities of +1.68, a finding which they construed as supportive of the monopsonistic power of the hospital sector but which could also be consistent with wage rate behavior at the lower portion of the backward bending supply curve. Other related studies have reported relative inelasticity in the wage rate/quantity of hours worked relationship. For example, wage elasticities of +.5 (Link & Settle, 1979b) and +.2 (Bognanno, Hixson, & Jeffers, 1974; Sloan, 1975) reflect reduced sensitivity to wage rate as an inducement to labor force participation.

More recently, Link and Settle (1980, 1981b) found generally negative wage elasticities, which they interpreted as stronger evidence of backward bending supply. Although research methodologies and design considerations varied considerably across studies, the implication of these more recent efforts is that wage incentives alone may be insufficient to recapture inactive professional nurses. This conclusion is amply reinforced by the findings of numerous attitudinal studies which have indicated that salary is neither perceived as a significant work reward for

nurses nor is it necessarily regarded as the primary influence on labor force participation (Everly & Falcione, 1976; McCloskey, 1974; Moore et al., 1981; O'Donovan & Bridens-tine, 1983; Weisman, Alexander, & Chase, 1981; White, 1980). Friss (1981b) has estimated that only a substantial salary increase of 30% or greater would be sufficient to alter the relatively low status of nursing as perceived by the general society and modify the basic labor force participation patterns exhibited by professional nurses.

Wage Effects and the Value of Time

To view these wage effects solely as the manifestation of monetary influence is to portray an incomplete perspective. Fundamental to the nurse's interpretation of wage structures is the perceived value of market and nonmarket time (Sloan & Richupan, 1975). Market time refers to the time engaged in market activities, in this case, the nurse's propensity to work actively in nursing. Nonmarket time represents time spent in other than market activities, such as leisure or child-rearing. From this perspective, economic theory postulates that an increase in wage rate increases the price of nonmarket activities and furnishes an incentive to expend more time on market activities. Rising wage rates, however, ultimately elevate income and stimulate demand for nonmarket time. This line of reasoning implies that the positive substitution effect on market time may at some point be offset by a negative income effect (Link & Settle, 1981a; Sloan & Richupan, 1975). Thus, wage effects incorporate not only the absolute dollar value

of nurses' salaries but also the perceived opportunity costs of market and nonmarket time. The influence of time considerations is developed further in subsequent sections.

Other Economic Incentives Influencing Labor Force Participation

From the preceding, it is tempting to consider wage theory, with its relative simplicity and ease of application, as an appealing single-factor theory pertinent to the labor force participation decisions of registered nurses. Monetary and time value factors embodied in the concept of wage interact to influence the degree to which nurses seek to function actively in their profession. Closer examination of economic and labor force participation theories and previous empirical research suggests, however, that the dynamics of nurse supply compel a broader specification of theoretically relevant variables which expand upon the pure notion of wage or which are centered on other labor force participation factors, notably, selected demographics.

While these latter elements are not totally divorced from wage considerations, they do serve to introduce the salience of other personal dimensions relevant to career activity or inactivity. Prior to their consideration, it is useful to examine the contributions furnished by the wage rate of the nurse's spouse and the nonlabor income in predicting labor force participation.

Spousal and nonlabor income. Inclusion of the salary or wage rate of the spouse and nonlabor income complements the wage rate of the nurse in providing a more complete

representation of the predictive value of total income. Economic theory would suggest that if the nonmarket time of the spouse and the nurse function as substitutes, an increase in the spouse's salary level will stimulate the spouse to focus on market activities and the nurse to emphasize nonmarket activities. Sloan and Richupan (1975) claimed that this substitution effect would be reinforced by the negative income effect generated by the increase in the spouse's salary on the nurse's activity in the labor force. Thus, a negative relationship would be predicted between the spouse's income and the number of hours worked by married nurses. Relatedly, a negative income effect would also be expected between the amount of nonlabor income and the nurse's market activities (Sloan & Richupan, 1975).

Research has consistently demonstrated that the labor force participation of married women is affected by the spouse's earnings, with the wives of high income earners less likely to work (Bowen & Finegan, 1969; Cain, 1966; Felmler, 1984; Sweet, 1973). Regarding nurses specifically, income maximization has historically not characterized career decisions (Aiken, 1984). Support for the theoretical relationships described above has been demonstrated empirically within the nursing population (Benham, 1971; Link & Settle, 1979b, 1980, 1981a; Schramm, 1982; Sloan & Richupan, 1975). The influence of total income upon career activity decisions is demonstrated in survey results which revealed that similar total family incomes were reported by

those nurses not working and those employed in nursing (Ginzberg et al., 1982). Specifically, an inverse relationship between total income and nurse employment was inherent in the finding that higher earnings by the nurse's spouse were reported by those whose careers were inactive.

Personal Demographics as a Nurse Supply Determinant

In this model of career inactivity among professional nurses, personal demographic factors represent simple, but value-laden variables identified in the literature as possessing considerable predictive import. Family (nonmarket) productivity such as that embodied in child-rearing and other family responsibilities, age of the nurse, and level of educational attainment have been regularly identified as important predictors of career inactivity among nurses (Stamps & Piedmonte, 1986). Each will be briefly examined.

Nonmarket responsibilities of the nurse. In order to reflect reality more truly, models of labor force participation and, therefore, of labor supply must recognize that variations or inconsistencies often exist with respect to an individual's preference or taste for market work relative to nonmarket activities (Link & Settle, 1981a). Inclusion of the nurse's nonmarket responsibilities in the theoretical framework recognizes that the presence of young children in the home may stimulate nonmarket activity (Cramer, 1979; Felmler, 1984; Gronau, 1973; Leibowitz, 1974; Lindert, 1978; Link & Settle, 1979b; Sobol, 1973).

Aiken (1984) suggested that nurses with such family responsibilities may be particularly sensitive to wage rate considerations, since the decision to work necessitates additional expenditures for child care and homemaker substitute services. A negative effect on market activity may be anticipated if incremental income is perceived as unsatisfactory in light of the additional expenses incurred. Such an effect has been demonstrated empirically, with several studies revealing that the presence of young children exerted a profound, negative impact on labor force participation rates among nurses (Archibald, 1971; Benham, 1971; Brief & Aldag, 1980; Link & Settle, 1979b, 1980; Sloan & Richupan, 1975). These research efforts have further indicated that, as children grew older, their influence on the nurse supply function decreased substantially.

While these effects were particularly relevant for very young children, similar applications of the concept of nonmarket responsibilities are appropriate in the presence of elderly adults or disabled individuals in the home who require supervision, physical care, or assistance with activities of daily living (Sloan & Richupan, 1975). Family preferences, including spousal support, for market vis-a-vis nonmarket activities constitute a related variable impacting labor force participation (Link & Settle, 1980, 1981b).

Pursuit of career versus fulfillment of family responsibilities has been a widely discussed role conflict issue within nursing. As a greater proportion of American

families depend upon two incomes to maintain the desired standard of living and as more women choose to combine marriage and family responsibilities with careers, the stability of previously demonstrated relationships between nonmarket and market activities may increasingly become a function of the societal norms operant during the time in which the research was conducted (Stamps & Piedmonte, 1986).

Age of the nurse. Empirical examination of the labor force participation patterns of registered nurses has produced results consistent with the previous connotation of nonmarket responsibilities as a determinant of career activity of registered nurses. Data which included multiple inventories of registered nurses compiled by the American Nurses Association (ANA) and the 1980 National Sample Survey of Registered Nurses revealed high labor force participation rates for nurses in their 20s, declining rates during their 30s, increasing rates again in their 40s, peaking rates in the early 50s, and subsequent decline at higher ages (Schoen & Schoen, 1985). Additionally, a similar, mildly u-shaped relationship was described by Link and Settle (1979b), with nurses less than 30 and those over 40 exhibiting more intensive participation in market activities.

Such patterning optimistically suggests that career inactivity may be a temporary or self-limiting phenomenon. Studies in Northern Ireland, for example, have found that nearly 80% of nurse re-entrants reported being away from

professional nursing for less than two years (Reid, 1986a). Other studies have cited, however, that of those planning to return to nursing two-thirds desired part-time rather than full-time employment (Friss, 1981a). Labor force participation among nurses, then, may exhibit varying degrees of cyclicity and function along a continuum from complete inactivity to full-time employment.

Education of the nurse. Human capital theory suggests that individuals spend on or invest in themselves in diverse ways and anticipate adequate, future returns (Becker, 1975; Blaug, 1976; Martin, 1981; Mincer, 1970). Education is commonly regarded as a salient human capital resource. When examined within the context of nurse career inactivity, the educational attainment variable is more complex than might initially be anticipated. It incorporates an economic thrust through which the nurse expects appropriate economic rewards for the expenditure of time and resources in attaining varying levels of educational preparation. While this variable influences the nurse's taste for market work (Sloan & Richupan, 1975), it also exhibits a more esoteric dimension in reflecting sundry nonpecuniary aspects of the job (Bishop, 1973; Cain, 1966).

Empirical efforts have generally found that higher educational levels were positively associated with nurse labor force participation rates (Montague & Herbert, 1982; O'Brien, 1984; Reid, 1986a; Schoen & Schoen, 1985; Sloan & Richupan, 1975; West, 1984). These effects of education have been attributable, at least in part, to more

substantial salary premiums awarded for advanced education (Mennemeyer & Gaumer, 1983), to the greater ability of the nurse with advanced preparation to function as a more autonomous practitioner (Reid, 1986a), to greater career commitment (Schoen & Schoen, 1985), and to attainment of more attractive nursing positions further characterized by greater control over scheduling of hours as well as enhanced salary, prestige, and independence (Slavitt, Stamps, Piedmonte, & Haase, 1979). Relatedly, the opportunity to acquire further education has also been cited as a factor inducing active nurses to remain employed at a particular institution or inactive nurses to return to employment at facilities which offer educational benefits (Sullivan & Decker, 1984).

Other studies have revealed quite different expectations with respect to the effect of educational level on career activity or inactivity. Knopf (1983), for example, studied a cohort of 6,893 graduates of three types of basic nursing educational programs and found a steady increase in the proportion of nurses employed in non-nursing positions, especially among nurses with baccalaureate degrees. Relatedly, Levine and Moses (1982) found that 19.5% of nurses with doctorates in 1980 were employed in other fields. Kalleberg (1977) suggested that at higher levels of educational attainment there existed greater discrepancies between expected and actual rewards and, therefore, more dissatisfaction. Relatedly, Godfrey (1978b) cautioned that as the educational level of the nurse increased, so did the

magnitude of critical attitudes toward the profession. Conclusions drawn from empirical work in this area have suggested that higher educational attainment may also be perceived as a vehicle to alternative career opportunities beyond the domain of nursing (Kaye & Krol, 1981).

The literature reviewed to this point has been multifaceted and broad in scope. To assist in synthesis, Table 2 presents a succinct summary of salient empirical findings distilled from the preceding section on personal/economic determinants of career participation.

Professional/Organizational Determinants of Career Participation

Reflecting the complexity of the rationally thinking, deciding, and behaving individual, career activity or inactivity among registered nurses subsumes a host of professional/organizational factors in addition to the personal/economic influences previously described. As reviewed in the following passages, career satisfaction, career commitment, and salient considerations drawn from the extensive literature on organizational turnover furnish a rich base germane to the purposes of the present study.

Career Satisfaction

Within the context of this study, career satisfaction was conceptualized as the degree of positive affect experienced by the individual nurse toward nursing as a career. In contradistinction to the more heavily researched and conceptually distinct job satisfaction, career satisfaction represents a more globally oriented construct, one that is

Table 2

Summary of Representative Empirical Studies Addressing Labor Force Participation Variables of a Personal/Economic Nature

Research findings	Representative studies
Salary not perceived as a significant work reward in nursing nor as the primary influence on labor force participation	Moore et al. (1981) O'Donovan & Bridenstine (1983) Weisman et al. (1981)
Nursing salaries contribute toward career inactivity decisions	Ruffing et al. (1984) Sigardson (1982) Wandelt et al. (1981)
Negative effects of spouse's earnings and of nonlabor income on labor force participation of married nurses	Benham (1971) Link & Settle (1979b, 1980, 1981a) Schramm (1982) Sloan & Richupan (1975)
Negative effects of nonmarket responsibilities, such as child-rearing, on labor force participation	Archibald (1971) Benham (1971) Brief & Aldag (1980) Link & Settle (1979b, 1980) Sloan & Richupan (1975)
Family preferences/spousal support for market vis-a-vis nonmarket activities impact labor force participation	Cleland et al. (1976) Link & Settle (1980, 1981b)
Greater labor force participation rates among nurses under 30 years and those over 40 years	Link & Settle (1979b) Schoen & Schoen (1985)
Higher educational levels positively associated with greater labor force participation rates	Montague & Herbert (1982) O'Brien (1984) Reid (1986a) Schoen & Schoen (1985) Sloan & Richupan (1975)
Higher educational levels associated with greater employment of nurses in non-nursing positions and/or negative perceptions of nursing careers	Godfrey (1978b) Kalleberg (1977) Knopf (1983) Levine & Moses (1982)

occupational rather than organizational in perspective. The decision to leave the field altogether has been cited as the most dramatic or extreme evidence of dissatisfaction in nursing (Stamps & Piedmonte, 1986). In view of the consistently reported negative relationship between satisfaction and intent to leave or actual turnover behavior, it is logical to posit the existence of a positive relationship between career satisfaction with nursing and ultimate intention to resume a nursing career following a period of inactivity.

In view of the relative absence of empirical effort directed toward career satisfaction in professional nursing, a representative summary of the correlative literature dealing with job satisfaction is provided. This approach purports to communicate a general perspective of the satisfaction construct as operative within nursing. In the absence of empirical delineation of their relationship, one might intuitively anticipate a positive relationship between job and career satisfaction. Arguably, however, while a particular job may be perceived as dissatisfying, a positive affect toward the general career itself may plausibly coexist.

An overarching perspective is furnished by Gibson and Dewhirst (1986), who categorized nursing job dissatisfaction in relation to job content, working conditions, and organizational factors. In the area of job content, economic pressures on hospitals, fueled by increasingly restrictive reimbursement schemes, have intensified nurses'

perceptions of quantitative overload, such as those produced by tightened staff-patient ratios, increased time pressures, and an expanding burden of non-nursing responsibilities. Deficiencies in working conditions have been widely identified with respect to such factors as erratic or rotating shift schedules, float requirements, and inadequacies in compensation and fringe benefits. Organizational dissatisfiers have centered on such concerns as perceived lack of administrative responsiveness and support, lack of autonomy and input, lack of recognition of professional competence, inadequate opportunities for promotion and career advancement, and the perceived need for more positive, collegial relationships with physicians. These antecedents and correlates of dissatisfaction in nurses have consistently been specified in the empirical literature (Akerstedt & Froberg, 1976; Cassells, Redman, & Jackson, 1986; Cleland, Bellinger, Shea, & McLain, 1970; Godfrey, 1978a, 1978b; McCloskey & McCain, 1987; Prescott, 1986; Sigardson, 1982; Slavitt et al., 1979; Weisman et al., 1980, 1981).

The satisfaction construct has been theoretically portrayed as a general function of met expectations. McCloskey and McCain (1987) found empirical substantiation for this formulation in their longitudinal study of nurses during their first year of employment in a selected hospital. Serial measurements of job satisfaction revealed that nurses typically commenced work relatively satisfied with most aspects of the job, but that when initial expectations

were not met, satisfaction declined. Changes in satisfaction levels were postulated as reflective of discrepancies between expectations and experience. This interpretation of satisfaction has been reinforced in other recent work by Cassells et al. (1986), who reported that congruence between the philosophy of the health care institution and the nurse's personal and professional philosophy functioned as a major source of satisfaction among the respondents.

Of particular significance in light of the acuity of the nurse shortage in the hospital sector is the finding that hospital work has been identified as the least satisfying of all nursing jobs (Godfrey, 1978b). Nurses employed in industrial settings, in schools, and in community agencies reported the greatest satisfaction. Analysis of survey results from 17,000 nurse respondents further revealed that, within the hospital, nurses employed in the emergency department, administration, and staff education expressed the highest level of job satisfaction.

Slavitt et al. (1979) also found differences in satisfaction according to type of nursing unit. Specifically, nurses employed in special care units reported the greatest satisfaction, while those employed on general medical-surgical units indicated below-average satisfaction. The credibility of these results is strengthened by the realization that nurses employed in high satisfaction departments typically experience a greater degree of autonomy in exercising responsibilities and in professional decision making than do those in general patient care units.

Other variables which have exhibited positive correlations with job satisfaction in nurses include age (Bruhn, Bunce, & Floyd, 1980; Janson & Martin, 1982; Kalleberg & Loscocco, 1983; Khaleque & Rahman, 1987; Martin, 1979; Slavitt et al., 1979; Weisman et al., 1980) and years of nursing experience (Slavitt et al., 1979). These relationships suggest that nurses either become more realistic in their expectations or more resigned with increasing age and experience and, hence, experience less discrepancy in met expectations. Thus, as summarily depicted in Table 3, nurse satisfaction appears to be jointly determined by characteristics of the individual and of various facets of the job and the employing organization.

Table 3

Summary of Representative Empirical Literature Related to Satisfaction with Nursing

Research findings	Representative studies
Organizational (+) correlates of dissatisfaction:	
Institutional type, i.e., hospital as opposed to nonhospital employment	Godfrey (1978b)
Departmental type, i.e., Specialty as opposed to generalist practice	Godfrey (1978b) Slavitt et al. (1979)
Position type, i.e., Staff as opposed to nonstaff position	Godfrey (1978b)
Job content, e.g., quantitative overload secondary to tighter staff-patient ratios and increase in non-nursing responsibilities	Cassells et al. (1986) Cleland et al. (1970) Godfrey (1978a, 1978b) Prescott (1986) Sigardson (1982)

Table 3 (continued)

Research findings	Representative studies
Working conditions, e.g., hours of work/rotating shifts, float requirements, and inadequate salary/fringe benefits	Akerstedt & Froberg (1976) Cleland et al. (1970) Godfrey (1978a, 1978b) Prescott (1986) Sigardson (1982) Slavitt et al. (1979)
Professional concerns, e.g., lack of support and responsiveness of administration, lack of autonomy and input, poor image or lack of recognition of professional competence, desire for more collegial relationships with physicians, and inadequate opportunities for promotion and career advancement	Cassells et al. (1986) Cleland et al. (1970) Godfrey (1978a, 1978b) McCloskey & McCain (1987) Prescott (1986) Sigardson (1982) Slavitt et al. (1979) Weisman et al. (1981)
Personal (+) correlates of satisfaction:	
Age of nurse	Bruhn et al. (1980) Janson & Martin (1982) Kalleberg & Loscocco (1983) Khaleque & Rahman (1987) Martin (1979) Slavitt et al. (1979) Weisman et al. (1980)
Years of nursing experience	Slavitt et al. (1979)
Internal locus of control	Locke (1976)

Career Commitment

Commitment to nursing constitutes a reflection of ideologies which bind individuals to their profession and, as such, has been described as a universal characteristic of being a nurse (Altschul, 1979). For those who have

abdicated nursing for other pursuits or career alternatives, either commitment may have waned or its idealistic nature may have rendered compromise with reality untenable. Theoretical and empirical work, largely oriented toward examining the relationship between commitment and intent to leave or actual turnover behavior, has supported the existence of both attitudinal and behavioral dimensions of this construct.

Conceptual Distinctions

Commitment has been conceptualized as related to but distinguishable from satisfaction and as uniquely contributing to the proportion of explained variance in turnover research (Fagin, 1982; Porter, Steers, Mowday, & Boulian, 1974). Relative to satisfaction, commitment has been posited as a more global construct, one which requires more time to develop but which is more stable and enduring (Bielby & Bielby, 1984; Porter et al., 1974). More specifically, career commitment has been characterized as exhibiting an individualized, long-term, and future orientation (Wiener & Vardi, 1980).

Recently, an intensified research focus on commitment has been promulgated by the relative inability of satisfaction measures alone to account for more than 15 percent of variance in turnover behavior (Blau & Boal, 1987). Studies have further shown that commitment appears to intervene in the causal chain between job satisfaction and turnover (Mobley, 1977; Porter, Crampton, & Smith, 1976; Slavitt et al., 1979) and is theoretically expected to constitute a

stronger predictor of behavior than satisfaction (Fishbein & Ajzen, 1975). Porter et al. (1974) suggested that high commitment may override elements of dissatisfaction. In their longitudinal study of stayers versus leavers in a sample of psychiatric technician trainees, these investigators empirically supported the greater predictive power exhibited by commitment as compared to facets of satisfaction. Moreover, these relationships were found to be stronger at points in time closest to when the individual voluntarily terminates.

Paralleling the satisfaction literature previously cited, the preponderance of commitment research undertaken within the context of withdrawal or turnover has emphasized job or organizational commitment rather than career commitment (Buchanan, 1974; Martin, 1982; Mowday, Steers, & Porter, 1979; Rabinowitz & Hall, 1977; Wiener & Vardi, 1980). While the relevance of the career commitment construct has clearly been identified in the literature (Martin, 1979; McLaughlin & Butler, 1974), relatively little is known from previous research about career commitment per se. The most consistent efforts in this area have investigated the concept referred to as career salience, which reflects the relative importance of work and career in the life of an individual (Greenhaus, 1971, 1973; Greenhaus & Simon, 1977; Greenhaus & Sklarew, 1981).

Similarly, a number of writers have alluded to the divided affiliations operative between professional and organizational commitment as a source of role conflict (Blau &

Scott, 1962; Gouldner, 1957, 1958; Moskowitz & Scanlan, 1986). Others have suggested that these two orientations can be compatible and, therefore, contribute to organizational effectiveness (Kraemer & Rigolizzo-Gurenlian, 1985; Thornton, 1970). This desirable situation is more likely to occur when the professional perceives the organization as substantiating or reaffirming an individual philosophy of professionalism.

While there exists no consensus regarding the theoretical and empirical linkages among the various types of commitment - job, organizational, and career - efforts to date have suggested that there may be differences and that they should be regarded as distinct and separate constructs. Morrow (1983), for example, has asserted that the utility of career salience should not be underestimated as a commitment orientation which attempts to capture the notion of devotion to a profession or occupation apart from any particular work or organizational environment and operative over an extended period of time. In summarizing extant literature, Martin (1982) reported that lower levels of intention to leave were predicted with relative consistency by higher degrees of career, organizational, and job commitment. Morrow (1983), however, has affirmed the logic inherent in the possibility that an individual may experience a positive perception of career without concurrently feeling loyalty to a particular job or employing organization.

Empirical support for this latter position was generated by demonstrating the existence of differences in organizational, job, and career commitment in two separate samples (Wiener & Vardi, 1980). Additionally, Moskowitz and Scanlan (1986) concluded from their survey of allied health education program directors that even with relatively low levels of organizational commitment, those with strong professional commitment could find satisfaction in fulfilling their professional roles within the institution. Although the relationship between career commitment and intention to return to one's nursing career is not directly determinable from the literature, it appears plausible from the preceding to suggest that this relationship may be positive.

Attitudinal and Behavioral Dimensions

Although commitment has been variously conceptualized and defined, two views which conjointly reflect attitudinal and behavioral dimensions of the commitment construct have dominated the literature. Stevens, Beyer, and Trice (1978) have referred to these perspectives as psychological and exchange approaches, while Meyer and Allen (1984) have termed them affective and continuance commitment, respectively. Steers and Porter (1983) have suggested that a clear need exists to integrate the attitudinal and the behavioral perspectives of the commitment construct.

Recast in terms of a career orientation, affective commitment reflects an attachment to or identification with the goals and values of a profession or occupation such that there exists a propensity to stay (Chusmir, 1982;

Kidron, 1978; Lee, 1971; Porter et al., 1974; Wiener, 1982). Relative to the present study, Quadagno (1978) has suggested that it is the acceptance of the value system rather than the stability or regularity of the career path that is the critical indicator of commitment. Affective commitment to an organization has been conceptualized as comprising three components: (a) a strong belief in and acceptance of an organization's goals or values, (b) a willingness to exert considerable effort for the organization, and (c) a strong desire to maintain one's identity with an organization and to function in a specified role in that organization (Brager, 1969; Brown, 1969; Gouldner, 1960; Grusky, 1966; Hall & Schnieder, 1972; O'Reilly & Chatman, 1986; Porter et al., 1974; Sheldon, 1971). It is useful to note that this conceptualization does not preclude the possibility or even probability that an individual will also be committed to other entities, such as the family, and that some prioritization of commitments must necessarily occur (Mowday, Porter, & Steers, 1982).

Continuance commitment recognizes the tendency of an individual to remain with an organization or profession because of extraneous interests, as reflected in the degree of investment already made and the high opportunity costs of leaving. This perspective has evolved from Becker's (1960) "side-bet theory," which holds that an individual acknowledges accrued extrinsic benefits, such as seniority, benefit structure, retirement pensions, and the like, that would be lost if membership within the organization were to

be terminated. According to this view, an individual may remain with an organization or profession not because of strong identification with or attachment to the entity but because the resources invested and the gains accrued over time are perceived as too costly to relinquish. Although not as widely adopted as the affective perspective of commitment, the side-bet theory has been studied by several researchers (Alutto, Hrebiniak, & Alonso, 1973; Aranya & Jacobson, 1975; Farrell & Rusbult, 1981; Hrebiniak & Alutto, 1972; Ritzer & Trice, 1969; Meyer & Allen, 1984).

Affective and continuance commitment have been posited as conceptually distinct, and both are viewed as important to the holistic comprehension of the commitment construct (McGee & Ford, 1987; Meyer & Allen, 1984; Steers & Porter, 1983). Concurrence with this perspective leads to the conclusion that studies which have included measures of only one dimension of commitment have ignored potentially significant information.

In examining extant measures of these dual facets of commitment, Meyer and Allen (1984) called attention to the seeming contamination of measures designed to assess one component of commitment by conceptualizations appropriate to the other. To remedy this incongruity, they developed and tested alternative scales to more clearly tap the distinct forms of commitment. Recently, McGee and Ford (1987) reexamined selected psychometric properties of these scales, with interesting results. While the affective commitment scale continued to exhibit unidimensionality and

good internal consistency reliability, factor analysis of the continuance commitment scale disclosed the presence of two dimensions, one based on perceptions regarding the existence of employment alternatives and the second dealing with the high personal sacrifice associated with leaving a particular organization. It is this latter factor which appears more conceptually congruent with the side-bet view originally described by Becker (1960).

Correlations among these commitment scales revealed that affective commitment was significantly and negatively related to low-alternatives continuance commitment, but was significantly and positively related to high-sacrifice continuance commitment. These new insights into the commitment construct were incorporated into the methodology of the present study.

Antecedents and Consequences of Commitment

Literature reviews of commitment have disclosed the frequency with which this construct has been treated as both an independent and dependent variable (Reichers, 1985). Wiener (1982), in endeavoring to organize the literature treating commitment as a dependent variable, identified three classes of antecedents which have emerged from extant empirical work. These general categories and representative studies supporting their existence include: (a) job characteristics and work experiences, such as feedback, which have played a traditional role as antecedents of other affective or motivational responses (Buchanan, 1974; Hall & Schnieder, 1972; Lee, 1971; Steers, 1977), (b)

personality-need variables and value orientations which reflect the importance of perceived individual-organizational fit (Hall, Schnieder, & Nygren, 1970; Kidron, 1978; Steers, 1977), and (c) personal-demographic characteristics such as age and tenure (Hall et al., 1970; Hrebiniak, 1974; Lee, 1971; Welsch & LaVan, 1981) which reflect processes of personal growth and changes operative in the development of identification.

At the level of discrete concepts rather than conceptual categories, Mowday et al. (1982) have indicated that at least 25 variables have been significantly correlated with commitment and have been perceived as antecedents of the same. To illustrate, positive correlations with commitment have been obtained for degree of autonomy (Lawler & Hall, 1970), attitude of the husband toward his wife's employment (Andrisani & Shapiro, 1978), opportunities for advancement (Stead, 1978), organizational level (Welsch & LaVan, 1981), participation in decision making (Ruh & White, 1975), goal setting (Steers, 1976), internal locus of control (Luthans, Baack, & Taylor, 1987), and perceptions of need satisfaction or fulfillment (Alderfer, 1972; Safilios-Rothschild, 1970).

Consistently positive correlations have been found between satisfaction and commitment (Andrisani & Shapiro, 1978; Brief & Aldag, 1980; Luthans et al., 1987). Among nurses, family responsibilities have been inversely associated with level of commitment to nursing, suggesting the existence of competing commitments (Brief & Aldag, 1980).

As with studies of satisfaction, education has demonstrated mixed results when correlated with commitment. Both positive (Fuchs, 1971; Haller & Rosenmayr, 1971) as well as negative (Brief & Aldag, 1980; Steers, 1977) correlations have been reported. Brief and Aldag (1980) concluded that satisfaction functioned as the principal antecedent of commitment.

When treated as an independent variable, commitment has consistently been inversely associated with intention to leave and with turnover and withdrawal behavior (Angle & Perry, 1981; DeCotiis & Summers, 1987; Ferniany, 1984; Hom, Koterberg, & Hulin, 1979; Martin, 1982; Mobley, Griffeth, Hand, & Meglino, 1979; Mobley, Horner, & Hollingsworth, 1978; Mowday et al., 1979; Porter et al., 1974; Price & Mueller, 1981a; Steers, 1977; Weisman et al., 1981; Wiener & Vardi, 1980). Although not a focus of previous empirical inquiry, the relationship between career commitment and intention to return to nursing can be posited as positive on the basis of extrapolation from this body of accumulated research and related theoretical underpinnings. A summary of representative studies and their findings is presented in Table 4.

Models of Turnover Activity

It is useful at this juncture to review salient literature dealing with turnover per se, since it bears conceptual similarity to career inactivity as defined herein. Moreover, knowledge related to an individual's leaving a job or organization can be logically extended to

Table 4

Summary of Representative Empirical Literature Related to Factors Associated with Commitment to Nursing

Factor	Direction of relationship	Representative studies
Personal factors:		
Age and tenure	(+)	Hall et al. (1970)
	(+)	Hrebiniak (1974)
	(+)	Lee (1971)
	(+)	Welsch & LaVan (1981)
Educational level	(-)	Brief & Aldag (1980)
	(+)	Fuchs (1971)
	(+)	Haller & Rosenmayr (1971)
	(-)	Steers (1977)
Family or nonmarket responsibilities	(-)	Brief & Aldag (1980)
Internal locus of control	(+)	Luthans et al. (1987)
Perceptions of need satisfaction or fulfillment	(+)	Alderfer (1972)
	(+)	Safilios-Rothschild (1970)
Spouse's support of wife's employment	(+)	Andrisani & Shapiro (1978)
Professional factors:		
Degree of autonomy	(+)	Lawler & Hall (1970)
Goal setting	(+)	Steers (1976)
Opportunities for advancement	(+)	Stead (1978)
Organizational level	(+)	Welsch & LaVan (1981)
Participation in decision making	(+)	Ruh & White (1975)
Satisfaction	(+)	Andrisani & Shapiro (1978)
	(+)	Brief & Aldag (1980)
	(+)	Luthans et al. (1987)

Table 4 (continued)

Factor	Direction of relationship	Representative studies
Outcome factors:		
Intention to leave; turnover/withdrawal	(-)	Angle & Perry (1981)
	(-)	DeCotiis & Summers (1987)
	(-)	Ferniany (1984)
	(-)	Hom et al. (1979)
	(-)	Martin (1982)
	(-)	Mobley et al. (1979)
	(-)	Mobley et al. (1978)
	(-)	Mowday et al. (1979)
	(-)	Porter et al. (1974)
	(-)	Price & Mueller (1981a)
	(-)	Steers (1977)
	(-)	Weisman et al. (1981)
	(-)	Wiener & Vardi (1980)

and similarities drawn with knowledge related to leaving a career.

Development of conceptual models of the turnover process has constituted a major theoretical activity which has been complemented by efforts to empirically substantiate these models (Williams & Hazer, 1986). Determination and comparison of the relative contributions furnished by satisfaction, commitment, and other factors in predicting turnover has been a common research focus (Hom & Hulin, 1981; Hom et al., 1979; Mitchel, 1981; Parasuraman, 1982). Additionally, there has been considerable interest in the use of causal analysis to investigate models of turnover and withdrawal behavior (Arnold & Feldman, 1982; Dalessio, Silverman, & Schuck, 1986; Ferniany, 1984; Michaels & Spector, 1982; Price & Mueller, 1981a, 1981b). While various models may emphasize different components of the

process and incorporate variables from multiple domains, it generally is acknowledged that they tend to be more complementary than contradictory (Bluedorn, 1982).

Reflective of preceding passages of this literature review, satisfaction and commitment have been widely postulated as antecedents of turnover activity. More specifically, they have functioned with recognized consistency as intervening variables moderating the relationship between diversely specified individual and job or organizational predictors and intent to leave or actual turnover behavior. Clegg (1983) has suggested that these two variables have been the most frequently investigated components of affect and that turnover models have typically sought to depict the association between affect and subsequent behavior. Theoretically, these central variables can be conceptualized as representing the affect which results from very diverse antecedents, both individual and organizational in nature.

It is useful to note than many of the causal models of turnover have included either satisfaction or commitment, but not both. For example, several models which included satisfaction but excluded commitment revealed that satisfaction functioned as a significant intervening variable in turnover intent or behavior (Bluedorn, 1979; Martin, 1979; Price & Mueller, 1981a, 1981b). Other conceptual models which have included both satisfaction and commitment neither hypothesized nor explored the possibility of a causal relationship between satisfaction and

commitment (Arnold & Feldman, 1982; Michaels & Spector, 1982; Miller, Katerberg, & Hulin, 1979; Mobley et al., 1978; Muchinsky & Morrow, 1980; Muchinsky & Tuttle, 1979; Steers & Mowday, 1981). As previously suggested, the greater specificity, rapidity of development, and relative instability of the satisfaction construct has provided conceptual distinction from commitment and undergirded the hypothesized relationship that satisfaction functions as an antecedent of commitment (Farrell & Rusbult, 1981; Koch & Steers, 1978; Mitchell, 1979; Rusbult & Farrell, 1983; Steers, 1977; Stevens et al., 1978; Williams & Hazer, 1986).

Empirical testing of comprehensive models of turnover has generally reinforced the flow of relationships summarized in preceding sections of this chapter, namely, that variously specified individual/demographic and job or organizational characteristics function as antecedents of satisfaction and commitment, with the latter in turn acting as consistent predictors of intention to leave or turnover behavior. The utility of conceptualizing and testing such comprehensive models lies particularly in the additional depth of insight and refinement of a complex process which are thereby facilitated. Several illustrations are provided for clarification.

Bluedorn (1982) drew from previous research in developing a process model of turnover. Satisfaction was shown to exert a direct influence on commitment but influenced intention to leave only indirectly through

commitment. Williams and Hazer (1986) re-analyzed this data as well as that from Michaels and Spector (1982) using structural equation methodology. Across both samples, support was obtained for the hypothesized relationships between personal and organizational characteristics and job satisfaction, between satisfaction and commitment, and between commitment and turnover intentions. Identification of direct and indirect linkages among variables or classes of variables contributed toward further understanding of the complex process of turnover.

Re-analysis of previous research was also performed by Dalessio et al. (1986), who applied path analytical techniques to the data generated by Mobley et al. (1978). Further support was obtained for three general hypotheses: (a) age influences satisfaction directly and turnover indirectly through satisfaction, (b) job satisfaction influences turnover indirectly through withdrawal cognitions, and (c) intention to leave serves as the immediate precursor of turnover. Interestingly, Arnold and Feldman (1982) found that turnover behavior was more strongly related to intention to search for alternatives than to intention to leave.

Recognizing the prolific nature of turnover research, Cotton and Tuttle (1986) undertook a meta-analysis of employee turnover. Factors disclosed as strong turnover correlates and the general directionality of the observed relationships included: age (-), tenure (-), gender (female), education (+), number of dependents (-),

satisfaction with work itself, with pay, and overall satisfaction (-), met expectations (-), commitment (-), and behavioral intentions to leave (+).

Several observations regarding these results are warranted. First, various personal/demographic variables which have been previously discussed in conjunction with labor force participation theory, career satisfaction, and career commitment also emerge consistently in the turnover literature. Price (1977) has suggested that the relevance of such variables should be downplayed on the basis that they do not contribute meaningfully to explanation of turnover behavior. The model developed by Price (1977) has been subsequently tested in separate investigations (Bluedorn, 1979; Martin, 1978; Price & Bluedorn, 1979). A uniform finding of these studies was that the model does not eliminate the independent effects of demographic variables, despite the explanatory power of other variables in the model (Bluedorn, 1982). Such variables have, moreover, proven to be consistently important when prediction constitutes the primary research focus.

Additionally, the results of single studies as well as of more comprehensive meta-analysis of turnover suggest that determination of significant antecedents and correlates directly depends upon the variables included in the study as well as the degree of specificity with which turnover or withdrawal is conceptualized as a process. For example, several of the studies previously identified treated intention to leave as the dependent variable, while

others focused on actual turnover. Others have included both, while relatively fewer have included such variables as intention to search for alternatives or awareness of alternatives.

Mobley (1977) focused on the psychology of the withdrawal process in postulating a detailed disclosure of intermediate linkages in the relationship between job satisfaction and employee turnover. The process of withdrawal was described as constituting the following sequence: evaluation of the existing job, experienced satisfaction/dissatisfaction, thinking of leaving, evaluation of the expected utility of searching for other options, intention to search, actual search for alternatives, evaluation of identified alternatives, comparison of alternatives to the present position, and intention to leave or to stay (Mobley, 1977). Although no empirical substantiation of this process model in its entirety was identified, it suggests the possibility that other linkages and relationships may be as yet unexplored and may contribute toward some of the inconsistencies which have periodically occurred. In like manner, it appears plausible that a similar sequence of affective, cognitive, and behavioral activities may be involved in the decision to reactivate a nursing career.

Turnover Behavior in Nurses

Studies of turnover in professional nurses bear relevance to the present research through their disclosure of specific reasons for leaving. Such studies have also furnished corroboration for many of the findings of turnover

models originally applied to quite different populations. For example, higher rates of turnover and degrees of dissatisfaction have been reported among younger nurses (Lowery & Jacobsen, 1984; McCloskey, 1974; Wagner et al., 1977).

Relatedly, tenure or length of employment has been inversely related to turnover with considerable consistency. Lowery and Jacobsen (1984), for example, found that 57% of the nurses who left employment at a large metropolitan teaching hospital had less than two years of experience. Seybolt (1986) reported that turnover intentions were greatest during the first six months to one year following employment and declined only slightly among those employed between one and three years. Following the first three years of employment, career satisfaction was found to be more critical in the determination of turnover than at earlier stages of the nurse's hospital career.

Prescott (1986) also found that a disproportionate number of nurses who left one of the 15 study hospitals were employed in their first nursing job. In recent years, more older students have entered nursing than historically has been the case. Time since graduation, or tenure in the profession, has been found to exert a strong influence, as new graduates regardless of age have exhibited higher turnover rates (McCloskey, 1974; Wagner et al., 1977; Weisman et al., 1981).

Survey research has disclosed a host of personal and professional determinants or correlates of turnover or

withdrawal behavior. Personal factors, such as age, educational attainment, salary, spouse's income, and family responsibilities have been extensively addressed in previous sections. McCloskey (1974) also included the specialty area of the nurse as a personal characteristic. Among those professional factors most frequently cited are: diminution of patient contact secondary to increases in other work demands (Hallas, 1980); scheduling inadequacies related to shift rotation, overtime, floating, and inflexibility of staffing requirements (Weisman et al., 1981); low perceived autonomy, appropriateness of physician task delegation, and collegiality of nurse-physician relationships (Weisman et al., 1981); and lack of professional recognition and perceived support from administration (Sandroff, 1980). Ruffing et al. (1984) have suggested that these represent rather predictable factors, the improvement of which would contribute significantly to keeping nurses in nursing.

In sharp contrast to previously cited research which identified hospital nursing as associated with the highest rates of dissatisfaction, Ruffing et al. (1984) found that the former place of employment of nurses surveyed who were not currently working was nonhospital settings. In endeavoring to explain this finding, these investigators suggested that hospitals may attract more institutionally oriented or more committed nurses, who may be less interested in career mobility or more tolerant of the inadequacies of the hospital environment. Moreover, they postulated that

hospital nurse populations may be characterized by greater proportions of nurses prepared at the lower end of the educational hierarchy in nursing and, consequently, may lack the educational qualifications to work elsewhere.

As summarized in Table 5, evidence from the turnover literature lends support to the inclusion of both personal and professional elements operative in nurse career inactivity. Ruffing et al. (1984) have proposed that while nurses may be initially drawn to their profession for predominantly personal reasons, these may decline in importance over time and experience and may or may not be sufficient to sustain their continued participation in nursing. McCloskey (1974) concluded that, while nurses left positions primarily because of perceived lack of internal rewards, these same nurses cited salary, favorable schedules, and fringe benefits as the most salient inducements when considering alternative employment.

Commensurate with this line of reasoning, Gellerman (1968) hypothesized that increasing wage demands may merely be symptomatic of an individual's fundamental desire to fulfill higher needs and that, while external rewards may draw a person to a particular job, internal rewards serve to facilitate retention in that position, organization, or profession. From the preceding, it can readily be concluded that a complex combination of personal and professional factors coalesce in influencing labor force participation and career inactivity among professional nurses.

Table 5

Summary of Representative Empirical Literature Related to Factors Associated with Organizational Turnover

Factor	Direction of relationship	Representative studies
Personal factors:		
Age/tenure in job or organization	(-)	Cotton & Tuttle (1986)
	(-)	Lowery & Jacobsen (1984)
	(-)	McCloskey (1974)
	(-)	Seybolt (1986)
	(-)	Wagner et al. (1977)
Educational level	(+)	Cotton & Tuttle (1986)
Number of dependents	(-)	Cotton & Tuttle (1986)
Professional factors:		
Degree of autonomy	(-)	Weisman et al. (1981)
Diminution of patient contact and increase in non-nursing work demands	(+)	Hallas (1980)
Employment in nonhospital setting	(+)	Ruffing et al. (1984)
Lack of collegial working relationships with physicians	(+)	Weisman et al. (1981)
Lack of recognition of professional competence; lack of administrative support	(+)	Sandroff (1980)
Met expectations	(-)	Cotton & Tuttle (1986)
Satisfaction and/or commitment	(-)	Arnold & Feldman (1982)
	(-)	Bluedorn (1979, 1982)
	(-)	Dalessio et al. (1986)
	(-)	Martin (1979)
	(-)	Michaels & Spector (1982)
	(-)	Miller et al. (1979)
	(-)	Mobley et al. (1978)

Table 5 (continued)

Factor	Direction of relationship	Representative studies
	(-)	Muchinsky & Morrow (1980)
	(-)	Muchinsky & Tuttle (1979)
	(-)	Price & Mueller (1981a)
	(-)	Steers & Mowday (1981)
	(-)	Williams & Hazer (1986)

Intentionality and Reasoned Action

Since intention to return to nursing constitutes a variable of central interest in this study, it is useful to briefly review the role of behavioral intentions in terms of theoretical and empirical relevance. Turnover and withdrawal research has increasingly come to recognize that a variety of cognitive and behavioral phenomena occur between the affective experience of dissatisfaction and subsequent withdrawal behavior. This acknowledgment reflects significant theoretical work (Fishbein, 1967; Fishbein & Ajzen, 1975; Locke, 1968; Locke, Cartledge, & Knerr, 1970; March & Simon, 1958; Mobley, 1977) and has received considerable empirical support (Dansereau, Cashman, & Graen, 1974; Kraut, 1975; Mobley et al., 1978; Mowday et al., 1982; Newman, 1974; Prestholdt, Lane, & Mathews, 1987; Price & Mueller, 1981a; Waters, Roach, & Waters, 1976).

Models of behavioral intentions (Ajzen & Fishbein, 1980; Fishbein, 1967; Fishbein & Ajzen, 1975) have portrayed an individual's behavior as a function of intention to perform that behavior. In their theory of reasoned

action, Ajzen and Fishbein (1980) assume that individuals utilize available information in a reasonable and rational manner to arrive at a behavioral decision. Prestholdt et al. (1987) have acclaimed this conceptual base as being particularly well suited for turnover/withdrawal research in that it focuses on the individual, acknowledges the role of perceptions and of evaluation of alternatives, and posits intention as the immediate precursor or determinant of behavior. These perspectives were incorporated into the research decision to ascertain the intentions of nurses to return to nursing following a period of career inactivity.

Mobley et al. (1978) drew upon these theoretical perspectives in their evaluation of the precursors of hospital employee turnover. A series of multiple regression analyses were performed in studying four dependent variables: thinking of quitting, intention to search for alternatives, intention to quit, and actual turnover behavior. When the dependent variable was thinking of quitting, significant predictors included overall satisfaction and the probability of finding suitable alternatives. Thinking of quitting, overall satisfaction, and age/tenure were the significant variables when the criterion variable was intention to search. When intention to quit was the dependent variable, the significant predictors included intention to search and age/tenure. Intention to quit exhibited the only significant coefficient with actual turnover behavior. The primacy of behavioral intentions in the withdrawal process is supported by these results as well as by

those obtained during similar empirical applications of the basic theory (Hom & Hulin, 1981; Newman, 1974; Prestholdt et al., 1987; Steel & Ovalle, 1984).

From the preceding, it can readily be ascertained that knowledge of alternatives is theoretically relevant and empirically involved in the withdrawal process. The logic underlying consideration of this construct is obvious, in that behavioral intentions to leave or to remain in a particular job, organization, or career may be quite differently specified depending upon whether or not other alternatives are visible. In like manner, it appears entirely plausible that awareness of alternatives may influence, either facilitate or constrain, the career inactive nurse who may be contemplating a return to the profession.

In their review and conceptual analysis of the turnover process, Mobley et al. (1979) asserted that not only the availability of alternatives but also their attractiveness and the expectancy of attainment must also be considered. Mowday et al. (1982) drew upon the earlier work of March and Simon (1958) in arguing that turnover or withdrawal behavior was ultimately determined by a combination of intent to leave and the availability of alternative opportunities. They further cautioned that research inconsistencies and discrepancies related to the contributions of these variables have probably occurred as a result of methodological inadequacies rather than from repudiation of the basic tenets. While the availability of other alternatives has received comparatively little attention within an

empirical context, a number of researchers have posed strong arguments for the inclusion of this variable (Forrest, Cummings, & Johnson, 1977; Mobley, 1977; Schnieder, 1976).

Intention to Return and Its Facilitators

In contrast to the abundance of literature dealing with turnover among nurses, relatively few studies have addressed the broader phenomenon of career inactivity and its potentiality for reversal, as evidenced by reported intentions to return. Recent analysis of nurse labor force participation trends in Northern Ireland has indicated that, of those nurses who resumed their professional practice, approximately two-thirds did so within one year following their departure (Reid, 1986b). In their 1980 study of 1,500 inactive nurses, Moore et al. (1981) reported that nearly half had left nursing within the previous three years and that one-third indicated they did not plan to return. The remainder reported that they would consider returning if certain stipulations or preconditions were met.

During this same time period, Decker et al. (1982) surveyed inactive nurses in the St. Louis metropolitan area and found that nearly 72% had considered returning to nursing, again with their return based on the satisfaction of certain requirements. Cleland et al. (1970) reported that inactive nurses tend to perceive more negative than positive consequences when viewing a possible return to active practice. Time competition, dissatisfaction with sundry aspects of employment as a nurse, and frustrations

associated with nursing, such as too much responsibility without enough time or authority, represented global categories of the negative considerations perceived.

Synthesis across these and related studies suggests, not unexpectedly, that those factors identified as reasons for leaving nursing were regularly identified as elements whose improvement would be regarded as an inducement to resumption of nursing careers. Reporting the survey results from 17,000 nurses, Godfrey (1978c) indicated that the opportunity for professional growth was identified as the most important consideration impacting the search for a new nursing position. One conclusion from this finding might be that nurses' salaries have sufficiently improved to enable nurses to shift their demands toward higher level concerns. Other studies, however, have suggested that the salary issue continues to be troublesome, particularly among younger nurses (Decker et al., 1982; Sullivan & Decker, 1984).

Other factors operative in the decision to reactivate a nursing career include: provision of refresher courses and individualized orientation programs (Decker et al., 1982); opportunities for more direct patient care and more involvement in patient care decisions (Moore et al., 1981); improvements in scheduling, such as choice of shifts, more flexible hours, and alleviation of float requirements and of understaffed conditions (Akerstedt & Froberg, 1976; Moore et al., 1981); improved fringe benefits, such as additional vacation time, more opportunities for pursuing

formal and continuing education, and availability of on-site child care facilities (Midei & Sanchez, 1984; Sullivan & Decker, 1984); and enhancement of professional recognition, respect, and supportiveness as embodied in improved nurse-physician and nurse-administration relationships (Sandroff, 1980).

Of central concern to the present study was the degree to which career inactivity among professional nurses exhibited potential reversibility. A useful corollary consideration was whether such career inactivity appeared cyclical in nature and, therefore, self-limiting or self-correcting or whether more fundamental issues, which are more deep-seated but perhaps more amenable to positive changes in health care system dynamics and policies, dominated.

Relevant to these considerations, Cleland et al. (1970) suggested that among married nurses the inducements may be insufficient to stimulate career reactivation because the employment of this population has been traditionally characterized by the principle of immediate gratification. According to this principle, female nurses who are married and living with their spouses tend to more readily alter their employment status when family considerations and problems arise, to accept jobs compatible with external demands and pressures rather than internal needs and challenges, and to focus their work goals on the maintenance and repetition of existing skills rather than on advancement and growth.

As delineated in the opening passages of this dissertation report, however, numerous changes in socionor-mative and individual philosophies have occurred in more recent years which may render these historic trends less tenable. It was anticipated that the present study would enable further insight into these important considerations.

Summary

This chapter has summarized and synthesized theoretical and empirical literature germane to the present study. Commencing with a historical overview of nurse shortages, the chapter drew substantially from economic theory in providing foundational material relevant to supply and demand dynamics impacting the nursing profession in general and career activity/inactivity in particular.

Career inactivity was examined within the framework of labor force participation theory and corollary theoretical perspectives, such as wage theory. In an effort to furnish a sufficiently comprehensive theoretical perspective of this little researched phenomenon, the broad field of turnover research was incorporated into the review. Factors contributing toward turnover were described and compared with those identified as inducements to reactivate one's nursing career. Specific attention was directed toward career satisfaction and career commitment and their role in inducing or constraining career inactivity. Through this review of literature has been developed the foundation of theoretical and substantive understanding of career inactivity in nurses requisite to the present

research design. Specific delineation of this design constitutes the focus of the following chapter.

CHAPTER 3

RESEARCH DESIGN

The present study sought to ascertain reasons underlying career inactivity among registered nurses, to explore the concepts of career satisfaction and career commitment among inactive nurses, to disclose general intentions to return, and to identify a set of factors predictive of intention to return to nursing. In accordance with these stated purposes and duly reflective of extant theoretical and empirical work in this area, the research orientation was both descriptive and exploratory in nature. This chapter details the central elements of the research design and methodology selected for the present study.

Research Population

Consistent with the central focus of this study on career inactivity in professional nursing, the research population was defined as all registered nurses residing in the state of Alabama who indicated on the Application for Registered Nurse License Renewal Thru December 31, 1988 form that they were either not employed or were employed in a field other than nursing. Since renewal of licensure is a biennial requirement, identification of the research population in this manner represented the most current operationalization of the central construct of interest.

Additionally, the length of time elapsed since license renewal was believed sufficient to justify the probability that some a priori indeterminate proportion of these inactive nurses would have returned to nursing in some capacity. It was assumed, then, that the research population would comprise three distinct groups at the time of data collection: those registered nurses who were not employed, those employed in a field other than nursing, and those who had resumed their nursing careers following varying periods of inactivity.

In so defining the research population, the present study sought to achieve a clean operationalization of voluntary career inactivity by excluding those nurses whose professional inactivity was due to retirement, illness or disability which precluded employment, or disciplinary action resulting in loss or suspension of the license to practice. Nurses who reported temporary inactivity consequent to geographic relocation of residence were also regarded as not meeting inclusion criteria for the present study. In addition, operationalization of career inactivity in this manner necessarily excluded those nurses who had allowed their professional license to lapse. Present systems do not allow accurate tracking of these individuals.

Preliminary contact with the Alabama Board of Nursing had established that, of those nurses licensed and residing in Alabama, approximately 500 had reported employment in non-nursing positions and nearly 1,500 had indicated

nonemployed status as of the most recent license renewal date of December 31, 1986. To enhance the accuracy and comprehensiveness of the study results, this research population was surveyed in its entirety.

Instrumentation

In selecting a multivariate approach to the investigation of career inactivity among professional nurses, the present study encompassed a variety of measures to operationalize the concepts of interest. For the purpose of this study, intention to return to nursing constituted a prominent dependent variable. Career commitment and career satisfaction functioned both as independent and dependent variables, depending upon the research question being addressed. All other variables described in the following passages were posited as potential predictors of intention to resume a nursing career.

The survey instrument is displayed in Appendix A. Descriptive statistics for study variables and the results of all factor analyses performed prior to statistically addressing the specified research questions are presented in Chapter 4. Chapter 5 details study findings specific to the research questions per se.

Age of the Nurse

Data regarding the age of the nurse were collected at the ratio level of measurement, with respondents requested to record their age in years. For the purpose of data analysis, two approaches to coding and data entry were specified. One involved the retention of ratio-level age

information with the accompanying implications of a negative relationship between the age of the nurse and intentions to return to nursing. A second strategy entailed the recoding of this variable into age vectors of approximately 10-year intervals to enable detection of a possible curvilinear relationship with intention to return. This latter approach to data management was consistent with previous research which found higher labor force participation rates in nurses under 30 and those over 40 years of age, with peaks reached during the early 50s, after which the approach of retirement and the emergence of other age-related factors tended to influence a decline in employment. In the event that similar statistical results were obtained with both approaches, the more powerful ratio measure was retained for inclusion in the final regression equation.

Number of Dependent Children in the Family

Inclusion of this and the following variable reflected the influence of family and child-rearing responsibilities, as well as their attendant financial concerns, upon career activity/inactivity. Respondents were requested to specify the number of children residing in the home or otherwise dependent on the respondent for financial support. The latter information was retained at the ratio level for data analysis.

Age of the Youngest Child in Family

Data were collected at the ratio level of measurement, with respondents requested to specify whether the number provided referred to the child's age in months or in years.

Information so received was recorded in months for the purpose of data analysis.

Education of the Nurse

Information regarding the educational attainment of the nurse was requested at the ordinal level, with respondents required to select from a listing of responses ranging from diploma preparation to the doctorate. Two distinct educational variables were entered into data analysis. One ordinally scaled measure represented the respondent's highest level of nursing preparation and, accordingly, sought to reflect individual investment in nursing knowledge and expertise. The second variable constituted a dummy vector indicating whether the respondent's highest level of educational preparation overall was attained in nursing or in another field. Inclusion of this latter perspective was felt to account for the greater flexibility in career alternatives available to those respondents whose educational base had been expanded beyond nursing.

Tenure in Nursing

Respondents were requested to specify the number of years they had actually been employed in nursing since their original licensure to practice as a registered nurse. Data so obtained were retained at the ratio level of measurement for the purpose of statistical testing. Greater personal investment in nursing as a career, as well as the possibility of fewer career alternatives, was felt to be positively related to the duration of active employment in nursing.

Percentage of Nursing Career Spent in Inactive Status

In addition to information regarding active tenure in nursing, respondents were further requested to specify the year during which initial licensure to practice professional nursing was obtained. This approach enabled calculation of the percentage of the individual nurse's career which had been spent in inactive status. Higher percentages of career inactivity were felt to be negatively reflective of intention to return, whether due to the primacy of other commitments, the perceived lack of currency of nursing knowledge and skill requirements, or other considerations or combinations thereof. Data were retained at the ratio level of measurement for statistical analysis.

Length of Current Period of Inactivity

Respondents who were not employed in nursing at the time of survey completion were requested to indicate the length of nonemployment in months and/or years. Those who had returned to nursing were requested to specify the length of the previous period of inactivity in months and/or years. These data were coded in months for statistical treatment at the ratio level.

Location of Previous Employment as a Nurse

From a listing of common fields or locations of nursing employment, each respondent was requested to check the one that applied personally to the last nursing position held prior to license renewal in late 1986. Respondents were requested to supply the appropriate information, if

not specified. The data so obtained were subjected to dummy coding with hospital = 1 and nonhospital = 0.

Previous Clinical Practice Setting

Respondents were requested to identify their major area of clinical practice from a broad listing of possible responses or, alternatively, to supply the appropriate information if not specified. For the purpose of data analysis, the information so obtained was recoded to create a dummy vector dichotomizing the respondents on the basis of general practice versus specialty practice. This approach enabled a logical grouping of specialty areas which individually represented relatively few respondents in contrast to the larger body of respondents indicating general practice. Creation of this dummy vector was obtained by recoding all responses identifying either general practice or medical surgical practice as 1 and those representing various types of specialty practice as 0.

Type of Nursing Position

From a listing of common types of nursing positions, the respondent was requested to check the one that applied personally to the last nursing position held prior to license renewal in 1986. Respondents were requested to supply the appropriate type, if not specified. Inspection of response categories suggested a logical dichotomization into staff versus nonstaff (administrative or other specialty) positions. Nonstaff positions could be characterized by greater degrees of responsibility, authority, and autonomy as well as by greater flexibility in salary and

working conditions. These nominal data were coded categorically with staff/general duty = 1 and with nonstaff = 0.

Salary of the Nurse

Respondents were requested to indicate the hourly wage to the nearest half dollar which was received in their last nursing position held prior to license renewal in late 1986. In addition, the year in which this salary was received was also requested in order to enable inflation adjustments to reflect the purchasing power of the dollar in respective years. Specifically, this adjustment was effected through utilization of the Consumer Price Index to derive the purchasing power of the nurse's salary in a given year as compared to the 1967 base year.

Two approaches to data management of this salary variable were applied. One involved retention of salary data at the ratio level of measurement, while the second required the creation of categorical vectors. This latter approach was reflective of theoretical premises associated with the backward-bending supply curve. Salary levels below -1.00 standard deviation defined the low salary category, while those salaries greater than $+1.00$ standard deviation constituted the high category. Salary levels within ± 1.00 standard deviation constituted the medium range category and were reflected in the intercept term of the regression equation. In the event that similar statistical results were obtained for both approaches, the decision was made a priori to retain the more powerful ratio

level of measurement for inclusion in the final regression equation.

Salary of the Spouse

For those nurses who were married, a single ratio-level item requested the gross annual salary received by the spouse. This information was coded in thousands of dollars and retained at the ratio level for statistical treatment.

Nonlabor Income

Respondents were requested to respond either affirmatively or negatively to an item inquiring about sources of income other than through employment, such as interest/investment income or family wealth. If an affirmative response were received, the annual amount of this income was requested. Data so obtained were recorded in thousands of dollars and retained at the ratio level of measurement.

Total Family Income

Measurement of total family income enabled appraisal of the effect of the composite of financial resources on intention to return. This variable consisted of the annual sum of spousal income, nonlabor income, and current income of those nurses who reported employment in non-nursing positions. For those nurses who were nonemployed, this variable consisted of the sum of the initial two elements only. These data were recorded in thousands of dollars and retained at the ratio level of measurement for entry into multiple regression analysis.

Primary Reason for Inactivity

From a detailed listing of factors commonly identified in the literature as contributing to career inactivity among professional nurses, respondents were requested to circle the letters identifying all those that applied personally and, further, to record the letter associated with that factor which they attributed as the primary reason for their leaving nursing. Each of these factors was classified as either a personal or a professional factor, as defined previously. The nominal level of measurement was retained for data analysis. Dummy coding was employed for treatment of this variable in multiple regression, with professional = 1 and personal = 0.

Current Career Inactivity Status

On the basis of responses to a single item requesting the respondent to indicate current employment status, nurses whose careers were inactive at the time of data collection were identified. The data so obtained were dummy coded, with employed in a field other than nursing = 1 and nonemployed = 0.

Career Satisfaction

Since review of the literature failed to disclose a suitable measure of career satisfaction, the Facet-free Job Satisfaction Scale developed by Quinn and Staines (1979) was modified to effect a nursing career orientation. This measure was selected for its length, ease of administration, and facility with which the transition from a job focus to a career focus could be performed without

appreciable distortion of the meaning and intent of specific items.

The five items of this scale were originally intended to tap an individual worker's general affective reaction to the job. As initially developed, the items offered three or four response alternatives, but were scored from from one to five in each case. As revised for the present study, all items included three possible response selections and were scored from one to three. Higher scores were indicative of greater levels of career satisfaction.

Although validity and reliability estimations based on the original scale cannot be imposed upon the modified version, mention of these measurement considerations is warranted. Price and Mueller (1986) called attention to the lack of systematic data about the validity of this scale, but appraised the reliability of the index as adequate. Previous research using this index of facet-free job satisfaction does, however, report several pieces of data pertinent to validity. For example, the index correlated, as anticipated, -0.22 with a measure of role ambiguity and -0.43 with Quinn and Shephard's (1974) index of Depressed Mood at Work (Beehr, 1976). In addition, a Spearman-Brown coefficient of $.80$ was reported; this compared favorably with the Cronbach alpha of $.77$ reported by Quinn and Staines (1979).

In an effort to strengthen reliability further, three career satisfaction items from the 1983 Alabama Nurse Study (Fernihany, 1984) were adapted and added to the five items

previously described to produce an eight-item measure of satisfaction with nursing as a career. These items comprise Section Three of the data collection instrument presented in Appendix A. Confirmatory factor analysis was performed to evaluate the dimensionality of the total scale prior to scoring and data analysis.

Career Commitment

Reflective of the existence of attitudinal and behavioral or continuance dimensions of commitment, the Meyer and Allen (1984) scales were selected as the foundation measure of commitment for this study. Originally developed to measure organizational commitment, these scales were modified for the purpose of the present study to tap commitment to nursing as a career. In total, 17 items employing a 7-point Likert scale format were included in the measurement of career commitment. Responses were oriented toward the amount of agreement with each statement and ranged from 1 = Strongly Disagree to 7 = Strongly Agree. Negatively worded items, included to eliminate response set bias, were reverse scored prior to data analysis. Using this scoring procedure, the higher the score, the greater was the degree of commitment to nursing as a career.

In developing their scales, Meyer and Allen (1984) maintained that previous measures of commitment were confounded by inclusion of items relevant to both affective and continuance commitment that were scored collectively. Their intent was to produce alternative scales which would more effectively capture the distinct views of commitment.

Subsequent examination of the psychometric properties of these scales by McGee and Ford (1987) revealed that the affective commitment scale (ACS) did exhibit the desired unidimensionality, while the continuance commitment scale (CCS) displayed two distinct dimensions.

These dimensions appeared to reflect the perceived existence of few employment alternatives as the basis for continuance commitment on the one hand (low-alternatives continuance commitment) and the perceived high sacrifice of leaving an employing organization as another inducement for remaining with an organization (high-sacrifice continuance commitment). Since these varying perspectives of commitment are consistent with previous theoretical and empirical work, as detailed in the preceding chapter, this approach to the measurement of career commitment was undertaken herein. Confirmatory factor analysis was employed to examine the accuracy and stability of these dimensions. As identified below, scale items were presented in random order in the questionnaire.

Affective Commitment

In measuring affective commitment, the 8-item ACS developed by Meyer and Allen (1984) was modified to reflect affective commitment to nursing as a career. Included in this scale are items 1, 5, 6, 9, 12, 14, 16, and 17 in Section Four of the survey instrument (see Appendix A). The response format and scoring procedure were as previously described. For the original version of this scale, internal consistency reliabilities of .88 and .84 were reported

(Meyer & Allen, 1984). McGee and Ford (1987) obtained similar results, finding a coefficient alpha of .88. Evidence of scale validity was established through correlations of .83 (Allen & Meyer, 1984) and .86 (Meyer & Allen, 1984) with the Organizational Commitment Questionnaire developed by Porter and colleagues (Mowday et al., 1979; Porter et al., 1976; Porter et al., 1974) as a measure of affective orientation to an organization.

High-Sacrifice Continuance Commitment

Factor analysis of the Meyer and Allen (1984) commitment scales by McGee and Ford (1987) identified three items loading well on a factor reflecting continuance with an organization on the basis of the perceived high sacrifice associated with leaving. As mentioned previously, this high-sacrifice continuance commitment factor closely corresponded with Becker's (1960) side-bet theory of organizational commitment.

Validity estimation for this scale was not available, due in large part to the recency of McGee and Ford's (1987) factor analytic identification of this commitment dimension. Moreover, Meyer and Allen (1984) have claimed that other measures of continuance commitment, which possibly could be employed in evaluating convergent validity, possess questionable validity in view of their contamination with items more appropriately tapping affective commitment. Even had such information been available, however, the scale has been modified for this study to achieve a career

orientation and has expanded with the inclusion of additional items.

The internal consistency reliability of the 3-item scale was .71 (McGee & Ford, 1987). Although this reliability was deemed acceptable for a scale of this size, McGee and Ford (1987) recommended that additional items be generated to strengthen and refine the scale. A possible fourth scale item (item 8 in Section Four of the survey instrument) was investigator developed on the basis of literature pertinent to this facet of commitment. It was believed, moreover, that two additional items (items 3 and 11 in Section Four of the survey instrument) possessed the potential of loading well on either this factor or on the low-alternatives dimension of continuance commitment.

Item 3, specified as "Right now, continuing my nursing career is a matter of necessity as much as desire," loaded on McGee and Ford's (1987) measure of low-alternatives commitment. It was felt, however, that the wording of the item was such that interpretation within a different research population could result in alternative item placement within the high-sacrifice dimension of continuance commitment. In like manner, item 11 ("It wouldn't be too costly for me to give up nursing as a career") also appeared to possess sufficient interpretational flexibility that it could load satisfactorily on either dimension of continuance commitment, although it failed to do so for McGee and Ford's (1987) sample of university faculty. Operational indicators of high-sacrifice continuance

commitment included items 2, 4, 8, 13, and possibly 3 and/or 11 of Section Four of the survey instrument (see Appendix A). Following factor analysis and associated scale definition, the response format and scoring procedure for this commitment measure were as previously described.

Low-Alternatives Continuance Commitment

Continuance with an organization or career can be based in part upon the individual's perception of low availability or attractiveness of alternatives (Mobley et al., 1979). Recent factor analysis of the Meyer and Allen (1984) commitment scales by McGee and Ford (1987) disclosed three items which loaded well on this dimension of continuance commitment. Validity considerations pertinent to the high-sacrifice continuance commitment scale previously addressed apply similarly to this dimension of commitment. An internal consistency reliability estimate of .72 was obtained and regarded as acceptable for a measure of this limited size (McGee & Ford, 1987). In order to strengthen and stabilize this scale, however, one additional item (item 10 in Section Four of the survey instrument) was developed by the investigator. Furthermore, as previously mentioned, items 3 and 11 were regarded as reflective of continuance commitment, with specification of the pertinent dimension a priori indeterminate. Items 7, 10, 15, and possibly 3 and/or 11 of Section Four of the survey instrument (see Appendix A) were intended to capture this perspective of commitment to nursing. The response format was as previously described. Following factor analysis and

associated definition of scale composition, scoring was executed to reflect that the lower the perceived employment alternatives, the greater the commitment to nursing.

Degree of Met Expectations

Not infrequently, expectations of a particular career and actual career experiences may be disparate, contributing toward negative perceptions of the career and, possibly, a disinclination to continue in that career. For each of 11 items identified in the literature as describing or impacting nursing, respondents were requested to indicate the degree to which what they found compared with what they expected when they entered nursing. Included among these items were several generic concepts, such as autonomy, task identity, skill variety, and task significance, which were drawn from the widely administered Job Diagnostic Survey (Hackman & Oldham, 1980). Response choices spanned a 5-point Likert scale from 1 = Very Much Worse (VMW) to 5 = Very Much Better (VMB). The operational indicators of met expectations regarding nursing are contained in Part (a) of Section Six in Appendix A.

Exploratory factor analysis was performed to ascertain the number of dimensions embraced by the operational indicators and enhance the validity of construct measurement. As described in the following chapter, disclosure of multiple dimensions to this construct was followed by interpretation of and assignment of appropriate descriptors to each factor. Factors underlying met expectations were separately scored for inclusion in subsequent analyses,

with higher scores indicative of higher levels of met expectations.

Favorability of Future Expectations

As a corollary to the preceding variable, the future expectations of respondents regarding each of the aforementioned 11 items were assessed and the same response scaling format applied. Specifically, as depicted in Part (b) of Section 6 in Appendix A, subjects were asked to indicate their expectations regarding each of the items over the next five years as compared with their present perceptions. Exploratory factor analysis was performed to enable detection of multidimensionality and assure validity of operationalization. As with met expectations, the finding of multidimensionality in this construct was similarly managed with respect to the interpretation, naming, and scoring of individual factors.

Pilot Study

In an effort to evaluate more precisely the soundness of the research design and the appropriateness of the instrumentation specified for the present investigation, a pilot study employing two groups of registered nurses was conducted prior to actual data collection. One group consisting of 10 faculty of the School of Nursing at the University of Alabama at Birmingham was consulted by virtue of their specific expertise in nursing research. Since this group could not be considered representative of career inactive nurses, however, a second group of 10 registered nurses randomly selected from the research population was

accessed by mail and requested to complete the instrument packet and comment as deemed necessary.

Feedback in the form of written commentary accompanying the returned questionnaires was received from seven faculty and four research population respondents. The results of pilot testing were analyzed primarily in terms of the clarity and appropriateness of the data collection instrument and its component items, for the presence of ambiguous terminology, for the comprehensiveness of closed-ended measures, and for estimation of the time required to complete the instrument. On the basis of these results and the collective input of the investigator's graduate committee, minimal revision of the instrument was indicated. Recommended changes were performed prior to execution of full data collection.

Data Collection Procedures

The nature of this study necessitated the performance of considerable preliminary preparation as well as the survey administration itself. These activities are detailed in the following sections.

Preliminary Procedures

Initial communication with the Alabama Board of Nursing in Montgomery, Alabama, was made to describe the proposed study and to ascertain the availability of data necessary to access the identified research population. Permission was secured from the Executive Officer of the Alabama Board of Nursing to survey the population of interest, and computer printouts of the names and addresses of

individuals meeting the study criteria were furnished. Since data collection was limited to completion of self-administered mail questionnaires, no risks to human subjects were identified.

Survey Methodology

Since the research population was dispersed throughout the state, the mail survey method of data collection was utilized. This methodology was implemented in three phases, as described in the passages which follow. Additionally, salient aspects of the Total Design Method of conducting mail surveys (Dillman, 1978) were operationalized to the extent feasible in an effort to augment the response rate.

Phase One constituted the initial mailing of the cover letter and instrument. Bulk mailing was performed to make financially possible the surveying of the entire research population of interest. The cover letter, reproduced in Appendix B, communicated the general purpose of the study, defined the participants and how they were identified, delineated the importance of their participation through completion of the enclosed questionnaire, and assured confidentiality of all responses. Letterhead stationery identifying the investigator with the Department of Health Services Administration at the University of Alabama at Birmingham was used to signal the authenticity of the study. The investigator's signature was affixed to the cover letter using the pressed blue ball point pen method

described by Dillman (1978) to enhance the perception of personalization.

The survey instrument was professionally printed in booklet form on white stationery. Specific directions for completion of the questionnaire were provided as well as were further assurances of confidentiality. A postage-paid business reply envelope was included to expedite timely return of completed questionnaires.

Phase Two consisted of the first-class mailing of a reminder postcard sent approximately 10 days after the estimated reception of the original mailing. The investigator was included in all mailings to facilitate more accurate appraisal of the date of reception of the mailed materials. This first follow-up, displayed in Appendix C, reinforced the importance of the responses of the individual participants and urged prompt return of completed questionnaires. The postcards were professionally printed and, like the original cover letter, contained actual signatures of the investigator to enhance the perceived importance of each individual respondent (Dillman, 1978).

Phase Three entailed the first-class mailing of a second cover letter and second copy of the instrument in the event that the initial questionnaire had been lost, misplaced, or possibly never received. This final mailing occurred approximately 10 days after reception of the reminder postcard. The second cover letter, presented in Appendix D, reiterated much of the content of the initial cover letter and also strongly emphasized timely completion

and return of the questionnaire. A second postage-paid business reply envelope was provided for the convenient return of completed questionnaires.

In view of the expense involved in this triple mailing strategy, the decision was made to utilize identification numbers to enable tracking of responses and avoidance of subsequent mailings to subjects who had responded to the initial request. Assurance was made within the cover letter to all potential respondents that utilization of this numbering system was employed to avoid troubling them with additional requests after they had already responded and would not constitute a threat to the confidentiality of their responses. Moreover, subjects were informed in the general instructions to the survey that the identification number would be removed upon recording the reception of their completed questionnaires.

Treatment of the Data

The results of data collection were analyzed through utilization of the SPSS/PC+ microcomputing software package (Norusis, 1986). In accordance with established norms for research of this nature, the level of significance for the study was set at .05. Descriptive and inferential statistics were employed, as appropriate, in data analysis. Specifically, the statistical treatment of the data relevant to each of the research questions identified for this study is discussed below.

1a. What factors influence career inactivity in registered nurses?

Descriptive statistics were employed and the data summarized in the form of frequency distributions specifying the number and percentages of factors identified as determinants of career inactivity.

1b. How do these factors compare among nonemployed nurses, those employed in non-nursing occupations, and those who have returned to nursing following a period of career inactivity?

While the first research question was oriented toward the entire population of respondents, data relative to this second question were displayed descriptively in a manner similar to the preceding but separated out for the three identified subgroups of nurses. When displayed in tabular form, this approach enabled visual appraisal of similarities and differences among the respondents.

2a. Is there a difference in career satisfaction among those registered nurses who are nonemployed, those who are employed in non-nursing occupations, and those who have returned to nursing following a period of career inactivity?

Oneway analysis of variance (ANOVA) was employed in responding to this research question. In anticipation of unequal group sizes, the occurrence of statistically significant findings at the specified level of significance was accompanied by the performance of post hoc analysis utilizing the Scheffe procedure.

2b. Is there a difference in career satisfaction between those registered nurses who became inactive

professionally for predominantly personal reasons and those who reported professional reasons as the primary influence upon their leaving nursing?

On the basis of questionnaire responses, the subjects were dichotomized into two groups as defined in the research question. With career satisfaction scores serving as the dependent variable, oneway analysis of variance was employed in responding to this question.

3a. Is there a difference in career commitment among those registered nurses who are nonemployed, those who are employed in non-nursing occupations, and those who have returned to nursing following a period of career inactivity?

Since career commitment exhibited multidimensionality, multivariate analysis of variance (MANOVA) was performed with employment status serving as the grouping variable. This statistical approach was deemed preferable to a series of oneway analyses of variance in the protection afforded against Type I error (Tabachnik & Fidell, 1983). In this instance, the three dependent variables examined as a set included affective commitment, high-sacrifice continuance commitment, and low-alternatives continuance commitment. Through utilization of the Wilks' criterion, the finding of statistical significance at $\alpha = .05$ was followed by performance of Roy-Bargman stepdown analyses.

3b. Is there a difference in career commitment between those registered nurses who became inactive professionally for predominantly personal reasons and those who

reported professional reasons as the primary influence upon their leaving nursing?

Dichotomizing the respondents into those nurses who left nursing for personal versus those who left for largely professional reasons, multivariate analysis of variance was performed utilizing the three dimensions of career commitment as the set of dependent variables analyzed simultaneously.

4a. What is the likelihood that nursing career inactivity will become a permanent condition for those registered nurses who do change to inactive status?

Computerized data received from the Alabama Board of Nursing in Montgomery, Alabama differentiated between those registered nurses who indicated that they were not employed and those who were employed in a field other than nursing at the time of the last license renewal in December, 1986. A single questionnaire item requested the subjects to identify their current employment status. A second item allowed disclosure of the duration of the current or most recent period of career inactivity, which was coded in months for data analysis. Utilization of subject identification numbers on questionnaires enabled confirmation of changes in employment status between license renewal and the time of present data collection. Descriptive statistics relevant to the preceding were supplemented by scale scores for the aggregate group of respondents on intention to return to nursing.

4b. What is the relative importance of various factors in influencing the decision of an inactive nurse to return to nursing?

Descriptive statistics were employed in summarizing the relative importance of selected factors in terms of influencing the decision to return to nursing in some capacity. Responses were grouped according to a 5-level hierarchy of importance and presented accordingly.

4c. Is there a difference in intention to return to a nursing career between those registered nurses who are nonemployed and those who are employed in non-nursing occupations?

On the basis of responses to items eliciting information concerning employment status, oneway analysis of variance was employed with employment status as the independent or grouping variable and intention to return as the dependent variable.

4d. Is there a difference in intention to return between those registered nurses who became inactive professionally for predominantly personal reasons and those who reported professional reasons as the primary influence upon their leaving nursing?

After dichotomizing the subjects on the basis of the dominant reason cited for their career inactivity, oneway analysis of variance was employed with intention to return to nursing functioning as the dependent variable.

4e. What set of variables is predictive of intention to return to professional nursing practice?

With intention to return to nursing serving as the criterion variable, simultaneous multiple regression analysis was employed with all other variables entering as potential predictors.

As previously noted, the predictor variables employed in the present study have not been examined empirically with respect to intention to return to a career or profession. Rather, the most typical criterion variable has been intention to leave or, conversely, intention to remain in a particular job or organization. With this acknowledgment and allowing some degree of theoretical extrapolation, the following propositions, depicted previously in Figure 1, were presented:

a. The consistency with which positive correlations have been found between satisfaction or commitment and age suggests that older respondents may exhibit a more favorable intention to return. However, constraining influences may be the absence of a financial need to work, prolonged periods of career inactivity during which knowledge and skills have failed to keep pace with new developments, and the approach of retirement years. Therefore, the null form was expressed: There is no relationship between the age of the nurse and intentions to return to a nursing career.

b. The relationship between the number of children living at home or otherwise dependent on the nurse for financial support and the nurse's intention to return to nursing was also ambiguous. The primacy of financial considerations could trigger a positive relationship, while

the dominance of child-rearing considerations could foster a negative correlation. Accordingly, the null form was expressed: There is no relationship between the number of dependent children and the intention of the nurse to return to nursing.

c. In general, there is a positive relationship between the age of the nurse's youngest child and the nurse's intention to return to nursing. The degree of positive correlation between the age of the nurse and the age of the youngest child, however, renders this directional proposition somewhat tenuous.

d. In view of the inconsistent empirical findings regarding the influence of education, the null form was expressed: There is no relationship between level of educational attainment in nursing and intention to return to nursing. It was felt, however, that nurses whose educational accomplishments included degrees in fields other than nursing possessed additional knowledge and skills which could expedite pursuit of non-nursing careers if so desired. Therefore, a corollary proposition was: Nurses whose highest level of educational attainment overall was in a field other than nursing exhibited a lower intention to return to nursing than those nurses whose highest level of educational preparation was in nursing.

e. In general, the length of employment in nursing was felt to be positively associated with intention to return to nursing. Perceptions of fewer alternatives and of greater investment of self in nursing were felt to underlie

this relationship. However, mitigating factors, such as the age of the nurse and growing disparity between expectations and reality, were recognized as exerting an opposing influence. Therefore, the null form was expressed: There is no relationship between the length of active employment in nursing and the intention of the nurse to return to nursing.

f. In view of the paucity of previous research addressing the percentage of the nurse's career expended in inactive status, the null form was expressed: There is no relationship between the percentage of the nurse's career spent in inactive status and the nurse's intention to return to nursing.

g. There is a negative relationship between the duration of the present period of career inactivity and the intention of the nurse to return to nursing.

h. In view of the paucity of research regarding the role of place of nursing employment and the presence of conflicting findings, the null form was expressed: There is no relationship between previous location of nurse employment, measured as a hospital versus nonhospital dichotomy, and intention to return to nursing.

i. In view of the paucity of research regarding the influence of clinical practice setting, the null form was expressed: There is no relationship between the nature of the nurse's clinical practice, measured as a generalist versus specialist dichotomy, and the intention of the nurse to resume a nursing career.

j. In general, staff nurses exhibit a lower intention to return to nursing than do nurses previously occupying nonstaff positions.

k. In general, the lower the most recent salary of the nurse, the less is the likelihood of return to professional nursing. Relatedly, one would anticipate that nurses receiving high salaries prior to a period of career inactivity would exhibit greater intentions of returning to nursing. However, existence of the backward bending supply phenomenon would suggest that higher salary levels would be negatively associated with intention to return. In view of these considerations, plus other intervening influences such as the availability of and salary levels associated with non-nursing employment, the null form was expressed: There is no relationship between the previous salary level of the nurse and intentions to return to a nursing career.

l. There is a negative relationship between the salary of the nurse's spouse and the intention of the nurse to resume a nursing career.

m. There is a negative relationship between the amount of nonlabor income and the intention of the nurse to return to nursing.

n. There is a negative relationship between the amount of total family income and the intention of the nurse to resume a nursing career.

o. In the absence of previous empirical work relevant to personal versus professional reasons for leaving nursing, the null form was expressed: There is no relationship

between reason for leaving, as dichotomized into primarily personal versus primarily professional dimensions, and intention to return to nursing.

p. In the absence of empirical investigation of the relationship between employment status and intention to resume a nursing career, the null form was expressed: There is no difference in intention to return to nursing between nonemployed nurses and those who have taken employment in non-nursing capacities.

q. There is a positive relationship between satisfaction with nursing as a career and the intention of the nurse to return to nursing.

r. There is a positive relationship between the degree of affective commitment toward nursing and the intention of the nurse to return to nursing.

s. There is a positive relationship between the degree of high-sacrifice continuance commitment and the intention of the nurse to return to nursing.

t. There is a positive relationship between the degree of low-alternatives continuance commitment and the intention of the nurse to return to nursing.

u. There is a positive relationship between the degree of met expectations regarding nursing as a career and the intention of the nurse to return to nursing.

v. There is a positive relationship between the degree to which the nurse anticipates improvement in nursing career factors over the next five years and the intention of the nurse to return to nursing.

4f. How does this variable set compare between those registered nurses who are nonemployed and those who are employed in non-nursing occupations?

Intention to return to nursing was regressed upon all other study variables using the simultaneous approach separately for each of the two groups identified in this research question. Presentation of the results in tabular form enabled comparison of predictor sets between groups.

4g. How does this variable set compare between those registered nurses who became inactive professionally for predominantly personal reasons and those who reported professional reasons as the primary influence upon their leaving nursing?

This research question was analyzed similarly to the preceding, the exception being the manner by which the groups were defined for comparison.

Summary

Detailed within this chapter were the principal elements of the research design and methodology selected for the present study. Specification of a descriptive and exploratory design orientation was deemed most consistent with both the stated purposes of the study and with extant theoretical and empirical work in this area. The research population was described as embracing all career inactive nurses in the state of Alabama meeting study criteria.

The instrumentation selected to operationalize the study variables was described as representing a combination of investigator-developed measures and existing measures

borrowed or adapted to meet the requirements of the present investigation. Validity and reliability considerations were delineated as appropriate. Pilot testing of the instrument within two groups was described in terms of its contribution to preliminary evaluation of the soundness of the instrument and identification of areas needing refinement prior to actual data collection.

Data collection through the mail survey methodology was described. Inclusion of two follow-up requests was specified to enhance the response rate. Treatment of the data through descriptive and inferential statistical approaches as appropriate to stated research questions was explicated. The findings of these analyses are disclosed in the following two chapters.

CHAPTER 4

PRELIMINARY DATA ANALYSIS: FACTOR ANALYSES AND DESCRIPTIVE STATISTICS FOR STUDY VARIABLES

The nature of the present study, including its multi-variate approach and the instrumentation utilized for data collection, necessitated considerable statistical treatment prior to formally addressing the specified research questions. The purpose of this chapter is to disclose salient features regarding the research population, the response rate to the mail survey, and characteristics differentiating this subset of inactive nurses from the general population of registered nurses in the state of Alabama. Additionally, the results of factor analyses performed prior to statistical examination of the research questions and descriptive statistics for the study variables are presented. Findings specific to the research questions per se are presented in the following chapter.

Response Rate to Mail Survey

On the basis of data furnished by the Alabama Board of Nursing, the research population comprised 1,986 registered nurses residing in Alabama and reporting the status of career inactivity on the Application for Registered Nurse License Renewal Thru December 31, 1988 form. Of this original group, 58 surveys were returned as undeliverable,

leaving a base of 1,928 cases upon which to determine response rate.

As of July 1, 1988, the final date for acceptance of returned surveys into the study, 1,235 responses had been received. This represented a response rate of 64.1%, which was deemed quite considerable for a study of this type. Comments inscribed on several of the returned surveys suggested that this group of nurses had, at times, felt "forgotten" and welcomed the opportunity afforded by this survey to express their opinions and contribute thereby toward rectifying the "problems" being experienced by nursing.

The completed surveys underwent preliminary examination to ascertain the completeness of responses and to detect possible deviations from specified study criteria. These efforts resulted in the exclusion of 59 cases which reported never having been inactive and 24 cases for which the respondents reported that they had never worked as a nurse following licensure. With respect to those nurses who indicated that they had always been active in their profession, it was unclear whether the inaccuracy of their license renewal information was the result of miscoding on their part or on the part of the data processing staff at the Alabama Board of Nursing. Other cases removed from the study population included 38 respondents whose inactive status was attributed to health factors, 52 respondents who reported that they had retired from nursing, 16 respondents who were temporarily inactive consequent to geographic

relocation, and 17 cases which were too incomplete for data analysis. Following these efforts to validate congruence with study criteria, a total of 1,029 cases were retained for inclusion in the study.

Uniqueness of the Study Population

Considerations related to the generalizability of study findings prompted evaluation of salient parameters by which to compare the research population of inactive nurses with the general population of registered nurses in Alabama. Subsequent requests presented to the Alabama Board of Nursing yielded the necessary figures for such comparison.

Data relative to the age of the nurse, educational preparation, sex, field of employment, major clinical area, and type of position were subjected to crosstabulation procedures using SPSS/PC+. The following results were obtained: age of the nurse (Chi-square = 114.57, df = 3, $p < .001$), educational preparation (Chi-square = 210.85, df = 6, $p < .001$), sex (Chi-square = 24.36, df = 1, $p < .001$), field of employment (Chi-square = 62.31, df = 9, $p < .001$), major clinical area (Chi-square = 107.95, df = 10, $p < .001$), and type of position (Chi-square = 86.00, df = 9, $p < .001$).

In general, the research population of inactive nurses consisted of more diploma graduates and fewer associate degree graduates than the general registered nurse population in the state. Fewer males comprised the study population. Additionally, while the groups were comparable in

composition at the 31 to 40 age range, the study population was characterized by fewer younger nurses in the 21 to 30 age group and by a greater proportion of nurses over 40 years of age. From a clinical practice perspective, a greater proportion of the research group reported previous employment in medical-surgical nursing, while there were fewer critical care and emergency department nurses than in the comparison group of all Alabama nurses. The study population also included proportionately more head nurses and fewer staff nurses than the total nurse population used for comparison purposes. Previous employment in the hospital setting was indicated by the inactive nurse population more frequently than had been reported by all registered nurses statewide.

The consistent finding of statistically significant crosstabulation results across all dimensions of comparison suggested that the research population of career inactive nurses was different from the general population of registered nurses in the state and that results could not be generalized to this larger population. These results were not unexpected. Rather, an implicit though untested premise was that substantial differences would be present. Verification of the more or less uniqueness of the study population was felt to lend further credibility to the legitimacy of the present study and to the potential utility of the study results.

The possibility remains, however, that career inactive nurses in Alabama may be similar to other subsets of

inactive nurses in other states and that generalization of results to these parallel groups may be feasible. In addition, a caveat to the preceding interpretation may exist with respect to the distinction between statistical and substantive significance. Groups differences which were statistically significant may not have been substantively so, in which case the generalizability of the present findings to the complement of registered nurses throughout the state bears greater plausibility.

Results of Factor Analyses

As disclosed in the previous chapter, factor analysis was performed on specified study variables to evaluate the dimensionality of these variables, to approximate their construct validity, and to justify scoring procedures. This section details the results of factor analysis performed for the following variables: satisfaction with nursing as a career, commitment to nursing as a career, intention to return to nursing, met expectations regarding nursing, and future expectations regarding nursing.

Satisfaction with Nursing as a Career

Principal components analysis was performed through SPSS/PC+ on eight items posited as measuring satisfaction with nursing as a career. This method of factor extraction, the default on procedure FACTOR, was selected because of its common utilization in scale development and because it is recognized as a psychometrically sound procedure (Stevens, 1986).

Inspection of descriptive statistics for each of the operational indicators of career satisfaction revealed that all standardized scores fell within the recommended ± 3.00 (Tabachnick & Fidell, 1983), indicating the absence of univariate outliers. Sample size was not problematic, as responses to the satisfaction items were available for 1,028 cases.

The factorability of the correlation matrix was satisfactory, with all correlations in excess of .30. Bartlett's test of sphericity was used to test the hypothesis that the correlation matrix was an identity matrix. The finding of a large test statistic for sphericity (3810.96) and the associated significance level ($p < .001$) supported utilization of the factor model. Additionally, examination of the anti-image correlation matrix revealed a low proportion of large off-diagonal elements, thereby further substantiating the strength of the relationship among the satisfaction items. Finally, the appropriateness of factor analysis was further evaluated through the Kaiser-Meyer-Olkin measure of sampling adequacy. The finding of a large test statistic for this measure (.91) substantiated proceeding with factor analysis.

Utilizing Kaiser's (1960) criterion of retaining only those components whose eigenvalues are greater than 1.00 resulted in principal components extraction of one factor for satisfaction with nursing as a career. This factor possessed an eigenvalue of 4.54 and accounted for approximately 57.0% of the total variance explained. The

appropriateness of the single-factor solution was reinforced through inspection of Cattell's (1966) scree test. Factor loadings ranged from .70 to .81 and are displayed in Table 6.

Table 6

Factor Loadings, Eigenvalue, and Percent of Variance for Principal Components Extraction of Satisfaction with Nursing as a Career

Satisfaction scale item	Factor loadings
Satisfaction item 3	.81
Satisfaction item 4	.78
Satisfaction item 8	.77
Satisfaction item 7	.77
Satisfaction item 1	.75
Satisfaction item 5	.73
Satisfaction item 6	.71
Satisfaction item 2	.70
Eigenvalue	4.54
Percent of variance explained	56.80

With the finding of a single-factor solution for satisfaction with nursing as a career, summation of the eight satisfaction items was performed to yield each respondent's score on this construct. Higher scores reflected greater perceptions of satisfaction with nursing as a career. The coefficient alpha for the 8-item satisfaction scale was .86, indicative of satisfactory internal consistency reliability of this measure. Additionally, discriminant validity was approximated through comparison of item-to-item and item-to-scale correlations for career satisfaction and career commitment.

Commitment to Nursing as a Career

Utilizing the FACTOR program on SPSS/PC+, principal components analysis with varimax rotation was performed on 17 items measuring commitment to nursing as a career. While a three-factor solution was anticipated on the basis of previous psychometric analysis of these commitment scales (McGee & Ford, 1987), no a priori restrictions on the number of factors extracted were imposed.

Prior to this analysis, inspection was made of descriptive statistics relevant to each of the items to identify outliers among cases. In accordance with criteria previously delineated, no univariate outliers were identified. In addition, sample size was in excess of 1,000 for this variable, thereby strengthening the likelihood that the correlations were reliably estimated.

In view of the high proportion of correlations greater than .30, the factorability of the correlation matrix was regarded as acceptable. Furthermore, with a Bartlett test statistic for sphericity of 6522.51 ($p < .001$) and with a Kaiser-Meyer-Olkin measure of sampling adequacy of .88, the appropriateness of the factor model was reinforced. In addition, the anti-image correlation matrix revealed the desired low proportion of off-diagonal elements exhibiting high correlations.

Utilizing Kaiser's (1960) criterion for retention of factors, three factors were extracted via principal components analysis. The three-factor solution was reinforced by the pattern exhibited in the scree plot (Cattell, 1966).

Collectively, these factors accounted for 55.1% of explained variance.

Factor composition was essentially as described in the preceding chapter with one exception. Commitment item 6 ("I really feel as if nursing's problems are my own") was expected to load onto the affective commitment factor as had been the case in previous analyses (McGee & Ford, 1987; Meyer & Allen, 1984). In the present analysis, this item loaded on the high-sacrifice continuance commitment factor. The loading was sizable, .49, although it represented the lowest loading on the factor and confounded the otherwise clear interpretation of this factor.

In an effort to appraise the stability of this factor solution, additional analyses were performed utilizing both the maximum likelihood and the principal axis factoring methods of extraction. While the number and composition of the factors were identical across all extraction methods, the loadings of commitment item 6 deteriorated substantially and in all instances represented the lowest loading on the identified factor. For example, utilizing maximum likelihood factor extraction, a factor loading of .30 was obtained, while with principal axis factoring, the loading was .32. In view of these considerations and in the interests of obtaining interpretable factors, the decision was made to eliminate this item from subsequent analyses.

On the basis of these results, three scores for commitment to nursing as a career were obtained. The affective commitment score represented the sum of the seven

items loading highly onto this commitment factor. Higher scores were indicative of higher levels of affective commitment. Scoring was similarly performed for the five-item high-sacrifice continuance commitment scale and the four-item low-alternatives continuance commitment scale. The internal consistency reliability of each of these commitment scales was evaluated through the computation of coefficient alpha and deemed satisfactory. Examination of correlative data to distinguish between career satisfaction and career commitment and to discriminate among the three dimensions of career commitment was performed as previously described and found to be generally supportive of the discriminant validity of this construct. Summary data relative to these factor analytic procedures are presented in Table 7.

Intention to Return to Nursing

In the absence of an existing scale to measure intention to return to a job or career, eight items were developed by the investigator in an attempt to capture this construct. Principal components analysis was performed on these scale items using the FACTOR procedure available on SPSS/PC+. In accordance with criteria previously specified, no univariate outliers were identified. Additionally, while only those respondents who had not resumed active employment in nursing were required to complete the items intended to measure this variable, sample size remained sufficiently large ($n = 773$) to assure that correlation coefficients were reliably estimated.

Table 7

Factor Loadings, Eigenvalues, and Internal Consistency Reliabilities for Three-Factor Principal Components Extraction and Varimax Rotation for Commitment to Nursing

Commitment scale item	Factor loadings		
	Factor 1	Factor 2	Factor 3
Commitment item 14	<u>.79</u>	.09	.14
Commitment item 12	<u>.77</u>	.19	.16
Commitment item 16	<u>.72</u>	.30	-.14
Commitment item 9	<u>.64</u>	-.17	.17
Commitment item 1	<u>.63</u>	.44	-.07
Commitment item 5	<u>.62</u>	.10	.16
Commitment item 17	<u>.61</u>	.22	-.23
Commitment item 2	.21	<u>.75</u>	.17
Commitment item 3	-.08	<u>.72</u>	.24
Commitment item 4	.26	<u>.68</u>	.24
Commitment item 13	.13	<u>.65</u>	.29
Commitment item 8	.25	<u>.62</u>	.37
Commitment item 10	.07	.02	<u>.80</u>
Commitment item 11	.18	.22	<u>.66</u>
Commitment item 7	-.07	.40	<u>.63</u>
Commitment item 15	-.02	.47	<u>.60</u>
Eigenvalues	5.50	2.62	1.26
Coefficient alpha	.83	.83	.75

Note. Factor 1 represented affective commitment. Factor 2 represented high-sacrifice continuance commitment. Factor 3 represented low-alternatives continuance commitment.

The factorability of the correlation matrix was assessed through inspection of the size of the correlation coefficients and deemed adequate, with all correlations in excess of .30 and with the anti-image correlation matrix exhibiting the desired low proportions of large coefficients. The appropriateness of factor analysis was further supported through Bartlett's test of sphericity (test

statistic = 5320.61, $p < .001$) and the Kaiser-Meyer-Olkin measure of sampling adequacy (.92).

Utilizing Kaiser's (1960) criterion for factor retention, principal components analysis extracted a single factor capturing intention to return to nursing. This factor possessed an eigenvalue of 5.51 and accounted for approximately 70% of the variance explained. Inspection of the scree plot (Cattell, 1966) provided further support for the single-factor solution. Factor loadings, ranging from .69 to .91, are presented in Table 8.

Table 8

Factor Loadings, Eigenvalue, and Percent of Variance for Principal Components Extraction of Intention to Return to Nursing

Intention to return scale item	Factor loadings
Intention to return item 6	.91
Intention to return item 4	.90
Intention to return item 1	.88
Intention to return item 5	.87
Intention to return item 3	.86
Intention to return item 7	.81
Intention to return item 8	.69
Intention to return item 2	.69
Eigenvalue	5.51
Percent of variance explained	68.90

In accordance with this factor solution, values for individual items were summed to yield an overall score for intention to return, with higher values indicative of greater intentions to return. The internal consistency reliability of this scale was appraised through coefficient alpha which, at .93, was quite acceptable.

Met Expectations

Prior to execution of procedure FACTOR on SPSS/PC+, descriptive statistics for the 11 items used in evaluating met expectations were inspected for the presence of outlying cases. In accordance with decision criteria previously described, none were identified. Furthermore, since all respondents were requested to complete the section of the survey dealing with this variable, the sample size was quite satisfactory to assure that correlations were reliably estimated.

Inspection of the correlation matrix confirmed the presence of a sizable proportion of correlations greater than .30. Factorability was further supported through the Bartlett test statistic for sphericity (2648.66, $p < .001$) and the Kaiser-Meyer-Olkin measure of sampling adequacy (.84). Additionally, the anti-image correlation matrix displayed the desired low proportion of off-diagonal elements greater than .09.

Retaining only those components with eigenvalues in excess of 1.00, principal components analysis with varimax rotation extracted two factors which collectively accounted for 47.6% of explained variance. Inspection of the scree plot (Cattell, 1966) provided further support for the two-factor solution. Factor loadings, eigenvalues, and internal consistency reliabilities for the two factors are displayed in Table 9.

Interpretation of the factors following varimax rotation suggested that met expectations regarding nursing as a

Table 9

Factor Loadings, Eigenvalues, and Internal Consistency Reliabilities for Two-Factor Principal Components Extraction and Varimax Rotation of Met Expectations Regarding Nursing as a Career

Met expectations scale item	Factor loadings	
	Factor 1	Factor 2
Reasonable nurse-patient ratio (2)	<u>.79</u>	.05
Adequacy of patient-care time (4)	<u>.76</u>	.08
Administrative support for nursing (1)	<u>.68</u>	.20
Scheduling considerations (10)	<u>.60</u>	.23
Salary and fringe benefits (3)	<u>.54</u>	.08
Nurse-physician relationships (6)	<u>.48</u>	.36
Career advancement opportunities (7)	<u>.47</u>	.38
Contributions of nursing activities (11)	.15	<u>.77</u>
Importance of nursing activities (8)	-.07	<u>.77</u>
Autonomy of nursing activities (9)	.30	<u>.60</u>
Variety and challenge of nursing (5)	.25	<u>.59</u>
Eigenvalues	3.83	1.41
Coefficient alpha	.78	.70

Note. Scale item numbers are enclosed in parentheses following item descriptors. Factor 1 represents Met Expectations - Objective. Factor 2 represents Met Expectations - Subjective.

career were grouped into an objective versus subjective orientation. As presented in Table 9, items which loaded highly onto Factor 1 appeared to reflect the nurse's expectations regarding objective or external aspects of nursing as a career. These items were somewhat more concrete and objectively verifiable than were those items which loaded highly onto Factor 2. The subjectivity of the items associated with this latter factor suggested that this dimension of met expectations reflected more internally

perceived valuations of nursing. On the basis of this interpretation, Factor 1 and Factor 2 were labeled Met Expectations - Objective and Met Expectations - Subjective, respectively.

Values for scale items were summed in accordance with factor specifications to yield two scores for met expectations. Higher scores represented greater degrees to which expectations regarding nursing as a career had been realized.

Future Expectations

Future expectations regarding nursing as a career were evaluated through the same 11 items used to appraise met expectations. There were no a priori expectations regarding the number of factors which would be extracted nor that the factor composition would necessarily parallel that observed for met expectations.

Preliminary effort entailed the examination of standardized scores for the presence of outlying cases, none of which were identified. As with the other factor analyses performed, sample size was more than adequate to generate confidence that the correlations were reliably estimated.

Inspection of the correlation matrix revealed that nearly all of the correlations exceeded .30. Factorability was further supported through the Bartlett test statistic for sphericity (4289.03, $p < .001$) and the Kaiser-Meyer-Olkin measure of sampling adequacy (.89). In addition, the anti-image correlation matrix displayed the desired low proportion of off-diagonal elements greater than .09.

Retaining only those components whose eigenvalues exceeded 1.00, principal components analysis with varimax rotation extracted two factors which collectively accounted for 56.3% of explained variance. Inspection of the scree plot (Cattell, 1966) reinforced the appropriateness of the two-factor solution. Table 10 displays factor loadings, eigenvalues, and internal consistency reliabilities.

As summarized in Table 10, factor loadings for scheduling considerations and for salary and fringe benefits were very similar for both factors, although slightly higher loadings were obtained for Factor 1. In an effort to ascertain the stability of this factor solution, maximum likelihood and principal axis factoring methods were also performed. In both instances, these items continued to load highly onto Factor 1 and revealed greater discrepancies in the loadings between factors than was initially observed through principal components analysis. In view of these considerations, the factor structure was retained as shown in Table 10.

Following varimax rotation, interpretation of the two-factor solution suggested that future expectations toward nursing were oriented differentially toward professional considerations per se and patient care considerations. Inspection of the items loading highly onto Factor 1 revealed concerns related to professional development, recognition, and reward. Items loading highly onto Factor 2 appeared to reflect nursing's fundamental orientation to patient care,

Table 10

Factor Loadings, Eigenvalues, and Internal Consistency Reliabilities for Two-Factor Principal Components Extraction and Varimax Rotation of Future Expectations Regarding Nursing as a Career

Future expectations scale item	Factor loadings	
	Factor 1	Factor 2
Autonomy in nursing activities (9)	<u>.79</u>	.18
Contributions of nursing activities (11)	<u>.75</u>	.18
Importance of nursing activities (8)	<u>.69</u>	.11
Career advancement opportunities (7)	<u>.64</u>	.32
Variety and challenge of nursing (5)	<u>.63</u>	.19
Nurse-physician relationships (6)	<u>.61</u>	.28
Scheduling considerations (10)	<u>.49</u>	.47
Salary and fringe benefits (3)	<u>.46</u>	.45
Reasonable nurse-patient ratio (2)	.14	<u>.90</u>
Adequacy of patient-care time (4)	.16	<u>.90</u>
Administrative support for nursing (1)	.46	<u>.56</u>
Eigenvalues	4.96	1.23
Coefficient alpha	.84	.80

Note. Scale item numbers are enclosed in parentheses following item descriptors. Factor 1 represents Future Expectations - Professional Development, Recognition, and Reward. Factor 2 represents Future Expectations - Patient Care Considerations.

with administrative support sufficient to assure that this essence of nursing would be safeguarded. On the basis of this interpretation, Factor 1 was labeled Future Expectations - Professional Development, Recognition, and Reward and Factor 2 was labeled Future Expectations - Patient Care Considerations.

Summation of item values in accordance with factor structure yielded two scores for future expectations.

Higher scores were indicative of more favorable future perceptions of nursing.

Descriptive Statistics for Study Variables

Descriptive statistics, derived from raw data and reflecting study variables prior to transformation or categorical vectoring, are displayed in Table 11 for variables measured at the interval or ratio level. Frequency distribution tables for variables which underwent recoding prior to entry into data analysis are presented in Appendix E. Further discussion of recoded variables is presented in the following chapter.

Of the 1,029 usable responses, 1,006 (97.76%) were female and 23 (2.24%) were male. The majority of the respondents ($n = 898$ or 87.44%) were married. More respondents reported personal ($n = 606$ or 61.96%) rather than professional ($n = 372$ or 38.04%) considerations as the primary reason for their leaving nursing. Regarding current employment status, 521 respondents (50.63%) reported that they were not presently employed, 252 (24.54%) were employed in a field other than nursing, and 255 (24.83%) indicated that they had returned to nursing in some capacity.

Summary

The present chapter discussed salient preliminary considerations relative to the findings of the study, including the response rate to the mail survey, which affected sample size, and comparisons between the research population and the larger body of all registered nurses in the

Table 11

Descriptive Statistics for Selected Study Variables

Variable	\bar{X}	SD	Range
Age of nurse in years	41.96	10.32	23 - 67
Number of dependent children	1.40	1.15	0 - 6
Age of youngest dependent child in months	101.87	81.34	1 - 324
Tenure in nursing in years	10.08	8.08	1 - 41
Percent of inactivity	45.00	24.00	1 - 97
Length of current inactivity in months	71.90	69.03	2 - 444
Inflation-adjusted hourly salary of nurse	3.18	.75	1.55 - 6.42
Salary of spouse in 000s	44.60	45.89	0 - 500
Nonlabor income in 000s	4.37	11.46	0 - 99.9
Total income in 000s	57.57	44.88	6 - 462
Satisfaction	17.67	4.28	8 - 24
Affective commitment	29.78	9.42	7 - 49
High-sacrifice commitment	16.13	7.76	5 - 35
Low-alternatives commitment	13.91	5.84	4 - 28
Met expectations--objective	17.12	4.53	7 - 35
Met expectations--subjective	13.09	2.60	4 - 20
Future expectations--professional concerns	25.92	5.50	8 - 40
Future expectations--patient care concerns	7.72	2.75	3 - 15
Intention to return	27.13	12.76	8 - 56

Note. Descriptive statistics are based upon actual data furnished by respondents without adjustment for missing values.

State of Alabama, which influenced generalizability. The results of principal components analysis, with varimax rotation as indicated for multi-factor solutions, were presented along with internal consistency reliabilities for the resulting scales. Finally, descriptive statistics for selected study variables across all respondents were presented, with supplemental frequency distributions for recoded variables referenced in Appendix E.

Findings relevant to the research questions per se are presented in the following chapter. Evaluation of statistical assumptions and efforts undertaken to minimize violations of these assumptions are also discussed in the following chapter as appropriate to the statistical techniques being employed in addressing specified research questions.

CHAPTER 5

PRESENTATION OF FINDINGS: RESULTS OF ANALYSES ADDRESSING RESEARCH QUESTIONS

The purpose of the present chapter is to present findings relative to the specified research questions. Toward this end, major chapter divisions parallel the topical orientation of the research questions and include: determinants of career inactivity, career satisfaction, career commitment, and intention to return to nursing. Research questions specific to each area are iterated and followed by discussion of the statistical treatment and results.

Determinants of Career Inactivity

Section Two of the survey instrument (see Appendix A) requested respondents to identify from a listing of 26 reasons drawn from the literature all of those which influenced their decision to inactivate their nursing careers. Additional space was provided to enable respondents to specify other pertinent reasons which were not explicitly provided. Respondents were further requested to indicate the single reason which exerted the greatest influence on their decision to leave nursing. The research questions addressed were:

- 1a. What factors influence career inactivity in registered nurses?

1b. How do these factors compare among nonemployed nurses, those employed in non-nursing occupations, and those who have returned to nursing following a period of career inactivity?

Profile of All Identified Reasons for Leaving Nursing

Descriptive statistics relative to the original listing of 26 reasons for career inactivity are summarized in Table 12. Reasons are ranked in descending order according to the percentage of respondents selecting each as personally relevant. Nearly all of the respondents specified more than one reason, with the majority indicating that a combination of personal and professional considerations had influenced their decision to inactivate their nursing careers.

Several additional contributing factors were provided by the respondents. These included: (a) lack of professionalism among nurses ($\underline{n} = 4$); (b) closure or cutbacks ($\underline{n} = 8$); (c) medicolegal concerns ($\underline{n} = 13$); (d) excess responsibility, demands, and associated stress ($\underline{n} = 19$); (e) perceptions of being "tired of" or no longer enjoying nursing and needing a change ($\underline{n} = 7$); (f) poor educational mobility system for diploma graduates ($\underline{n} = 1$); (g) lack of peer support and poor morale among staff nurses ($\underline{n} = 5$); (h) health as a secondary or contributing factor in career inactivity ($\underline{n} = 14$); (i) travel distance to employing facility ($\underline{n} = 7$).

Inspection of Table 12 reveals that the top five reasons represented a combination of common personal and

professional facets that contributed toward career inactivity. Rather marked disparity existed between the percentages reported for these reasons and for those following in the table.

Table 12

Frequency Distribution for Reasons for Leaving Nursing

Reasons for leaving nursing	f	%
*Pregnancy/child-rearing concerns (d)	503	50.10
Salary (h)	473	47.11
Inadequate staffing (l)	455	45.32
*Scheduling problematic with respect to personal preferences (a)	445	44.32
*Lack of financial need to work (z)	438	43.63
Lack of administrative support (m)	327	32.57
Insufficient time for patient care (f)	282	28.09
Increase in non-nursing responsibilities (o)	234	23.31
Emotional/ethical demands of nursing (y)	216	21.51
Poor nurse-physician relationships (p)	203	20.22
*Personal desire to pursue other career (u)	200	19.92
Inability to work in unit of choice (c)	169	16.83
Inadequate career mobility (k)	165	16.43
Poor image of nurses/nursing (s)	165	16.43
Inadequate fringe benefits (n)	164	16.33
Lack of involvement in decision making (r)	161	16.04
Increased personal risks (e.g., AIDS) (x)	155	15.44
Lack of appropriate supervisor feedback (q)	140	13.94
Changing nature of nursing/health care (w)	127	12.65
*Lack of adequate child care facilities (g)	120	11.95
*Other family responsibilities (e)	118	11.75
*Lack of spousal support (v)	116	11.55
Scheduling interfered with quality of work (b)	97	9.66
*Return to school to broaden career opportunities outside nursing (j)	88	8.86
Lack of autonomy (t)	81	8.07
*Return to school to further career in nursing (i)	48	4.78

N = 1004

Note. Letters in parentheses following each descriptor indicate the letter identifying the item in Section Two of the survey instrument. Asterisks denote personal reasons for leaving nursing; professional reasons are distinguished by the absence of asterisks.

Identification of pregnancy or child-rearing responsibilities as the most frequently cited reason for leaving active employment in nursing was felt to reflect commonly experienced personal priorities and commitments of this female-dominated population. Additionally, in view of the attention directed toward the inadequacy of nurses' salaries in the literature, the identification of salary incommensurate with responsibility as the second most frequently cited reason for career inactivity was not unexpected. It is also noteworthy that such a large proportion of respondents indicated the absence of a financial need to work; however, this finding may also have constituted a reflection of the predominantly female and married population of survey participants.

Problems associated with hours of work or scheduling were more commonly attributed to inconsistencies with personal preferences rather than to interference with the quality of work. One respondent commented that scheduling requirements destroyed the quality of her personal and family life.

The frequency with which professional considerations such as lack of adequate staffing, lack of administrative support for nursing, and lack of sufficient time for patient care or contact were reported appeared to reflect the primacy of nursing's essence of caring for patients and the constraints imposed by the current health care delivery system in enabling nurses to fulfill this basic professional need.

Profile of Primary Reasons for Leaving Nursing

The finding that the majority of respondents identified multiple reasons for their career inactivity pointed toward the complexity of the decision-making process. A corollary consideration was the isolation of primary reasons for career inactivity. This avenue of investigation enabled the singling out of the one reason which exerted the greatest influence on the respondent's decision to leave active employment in nursing. Descriptive statistics relative to this concern are displayed in Table 13 for all participants responding to this item.

Inspection of Table 13 reveals many similarities when compared with the sequencing of elements in Table 12. For example, the composition of the top five reasons is the same in both tables. Specification of pregnancy or child-rearing responsibilities as the primary reason for career inactivity displays a marked predominance over other reasons cited. Closer examination of other variables, such as the age of the nurse, the age of the youngest child at home, and the length of the current period of inactivity, suggested, however, that while pregnancy and/or child-rearing responsibilities may have been the dominant reason for leaving nursing, it could not explain why re-entry failed to occur when these responsibilities had been fulfilled. Further insight into the discrepancy between reasons for leaving and failure to return was provided in a separate research question which addressed the relative importance of selected factors in the decision to return.

Table 13

Frequency Distribution for Primary Reasons for Leaving Nursing

Primary reasons for leaving nursing	f	%
*Pregnancy/child-rearing concerns (d)	328	34.60
Salary (h)	86	9.07
Inadequate staffing (l)	76	8.02
*Lack of financial need to work (z)	68	7.17
*Scheduling problematic with respect to personal preferences (a)	54	5.70
*Personal desire to pursue other career (u)	51	5.38
*Other family responsibilities (e)	42	4.43
Emotional/ethical demands of nursing (y)	38	4.01
Insufficient time for patient care (f)	27	2.85
Lack of administrative support (m)	27	2.85
*Lack of spousal support (v)	22	2.32
Inability to work in unit of choice (c)	17	1.79
*Return to school to broaden career opportunities outside nursing (j)	15	1.58
Inadequate career mobility (k)	15	1.58
Increase in non-nursing responsibilities (o)	13	1.37
Changing nature of nursing/health care (w)	11	1.16
Poor nurse-physician relationships (p)	10	1.05
Lack of appropriate supervisor feedback (q)	10	1.05
*Lack of adequate child care facilities (g)	9	0.95
Poor image of nurses/nursing (s)	6	0.63
Scheduling interfered with quality of work (b)	5	0.53
*Return to school to further career in nursing (i)	5	0.53
Lack of involvement in decision making (r)	5	0.53
Inadequate fringe benefits (n)	3	0.32
Increased personal risks (e.g., AIDS) (x)	3	0.32
Lack of autonomy (t)	2	0.21

N = 948

Note. Letters in parentheses following each descriptor indicate the letter identifying the item in Section Two of the survey instrument. Asterisks denote personal reasons for leaving nursing; professional reasons are distinguished by the absence of asterisks.

Profile of All Identified Reasons for Leaving Nursing for Respondents Classified by Employment Status

On the basis of findings reported to date, reasons cited as contributing toward career inactivity among

professional nurses are multifaceted and complex. While the reasons for such inactivity are informative in themselves, further insight was provided by examining the association between reasons for inactivity and the subsequent employment status of respondents. As previously reported, the registered nurse respondents constituted three distinct groups on the basis of current employment status: (a) those who were not employed, (b) those employed in a field other than nursing, and (c) those who had returned to nursing following a period of inactivity.

Descriptive statistics relative to all reported reasons for leaving nursing for respondents classified by their current employment status are presented in Table 14. Reasons are identified in the table according to the identifying letter furnished on the survey instrument. To facilitate interpretation, descriptors for these identifiers are found in the note accompanying the table. Comparison of the frequencies with which individual reasons were reported across these groups was performed, utilizing column percentages which allowed adjustment for varying group sizes. With $\alpha = .05$ as the criterion, the p -values for respective Chi-square tests of independence with $df = 2$ are included in the tabled results.

Inspection of the patterns exhibited in Table 14 revealed that nonemployed nurses reported a preponderance of personal reasons for leaving nursing when compared with the other two employment groups. Specifically, this group was characterized by leaving for pregnancy or child-rearing

Table 14

Frequency Distribution for Reasons for Leaving Nursing for Respondents Classified by Current Employment Status and Levels of Significance for Associated Chi-square Tests of Independence

		Employment status						p
		Not employed		Non-nursing		Nursing		
Reason		f	%	f	%	f	%	
*	a	184	36.44	141	56.18	120	48.39	<.001
	b	36	7.13	30	11.95	31	12.50	.023
	c	84	16.63	37	14.74	48	19.35	.382
*	d	286	56.63	79	31.47	138	55.65	<.001
*	e	72	14.26	21	08.37	25	10.08	.039
	f	133	26.34	78	31.08	71	28.63	.384
*	g	61	12.08	23	09.16	36	14.52	.182
	h	209	41.39	142	56.57	122	49.19	<.001
*	i	13	02.57	8	03.19	27	10.89	<.001
*	j	25	04.95	41	16.33	22	08.87	<.001
	k	57	11.29	67	26.69	41	16.53	<.001
	l	216	42.77	120	47.81	119	47.98	.264
	m	145	28.71	94	37.45	88	35.68	.029
	n	75	14.85	55	21.91	34	13.71	.021
	o	126	24.95	50	19.92	58	23.39	.305
	p	98	19.41	56	22.31	49	19.76	.631
	q	70	13.86	34	13.55	36	14.52	.950
	r	66	13.07	45	17.93	50	20.16	.029
	s	78	15.45	40	15.94	47	18.95	.461
	t	30	05.94	26	10.36	25	10.08	.045
*	u	42	08.32	118	47.01	40	16.13	<.001
*	v	72	14.26	25	09.96	19	07.66	.019
	w	55	10.89	39	15.54	33	13.31	.182
	x	82	16.24	34	13.55	39	15.73	.621
	y	106	20.99	58	23.11	52	20.97	.778
*	z	297	58.81	61	24.30	80	32.26	<.001
	n	505		251		248		

Note. Letter descriptors for reasons are as follows: (a) scheduling problematic with respect to personal preferences, (b) scheduling interfered with quality of work, (c) inability to work in unit of choice, (d) pregnancy or child-rearing responsibilities, (e) other family responsibilities, (f) insufficient time for patient care, (g) Lack of adequate child care facilities, (h) salary, (i) return to school to further career in nursing, (j) return to

Table 14 (continued)

school to broaden career opportunities outside nursing, (k) inadequate career mobility, (l) inadequate staffing, (m) lack of administrative support, (n) inadequate fringe benefits, (o) increase in non-nursing responsibilities, (p) poor nurse-physician relationships, (q) lack of appropriate supervisor feedback, (r) lack of involvement in decision making, (s) poor image of nurses/nursing, (t) lack of autonomy, (u) personal desire to pursue other career, (v) lack of spousal support, (w) changing nature of nursing/health care, (x) increased personal risks (e.g., AIDS), (y) emotional/ethical demands of nursing, and (z) lack of financial need to work. Asterisks denote personal reasons for leaving nursing; professional reasons are distinguished by the absence of asterisks.

responsibilities, other family responsibilities, lack of spousal support, and lack of financial need to work.

Those who reported employment in a field other than nursing revealed more of a mix of personal and professional reasons. Included among the latter were salary concerns, lack of career mobility, lack of autonomy, lack of administrative support, inadequate fringe benefits, and scheduling difficulties which conflicted with personal preferences. Not surprisingly, then, those employed in a field other than nursing reported a comparatively higher percentage of leaving to return to school in order to broaden career opportunities outside nursing or to otherwise fulfill a personal desire to pursue other career alternatives.

Those respondents who had returned to nursing following a period of inactivity paralleled nonemployed nurses in the reported incidence of leaving for pregnancy or child-rearing considerations. In comparison with the other two groups, these individuals were more likely to report leaving because of scheduling problems which interfered

with the quality of their work, lack of participation in decisions which involved their work, lack of autonomy in planning and executing their nursing responsibilities, and returning to school to further their nursing expertise and careers in nursing.

Reasons for leaving nursing which appeared similarly across all employment groups were largely professionally oriented. These included, for example, insufficient time for patient care, inadequate staffing, increase in non-nursing responsibilities, lack of positive professional relationships with physicians, lack of appropriate supervisor feedback, poor image of nurses or nursing, the changing nature of nursing and health care, increased personal risks associated with a nursing career, and the ethical and emotional demands of nursing.

Profile of Primary Reasons for Leaving Nursing for Respondents Classified by Employment Status

Patterns observed for primary reasons for leaving nursing were also evaluated on the basis of categorization of respondents by their current employment status. Descriptive statistics specific to this orientation are displayed in Table 15. As in the preceding table, identifier letters are utilized to represent primary reasons, the descriptors for which are summarized in the note accompanying the table. In view of the large number of cells with expected frequencies less than five, tests of independence were not performed for primary reason and the employment status, conforming thereby to recommendations by

Table 15

Frequency Distribution for Primary Reasons for Leaving Nursing for Respondents Classified by Employment Status

Reason	Employment status					
	Not employed		Non-nursing		Nursing	
	f	%	f	%	f	%
* a	21	04.38	24	10.08	9	03.98
b	1	00.21	1	00.42	3	01.33
c	5	01.04	5	02.10	7	03.10
* d	203	42.38	34	14.29	89	39.38
* e	28	05.85	6	02.52	8	03.54
f	15	03.13	8	03.36	4	01.77
* g	5	01.04	2	00.84	2	00.88
h	29	06.05	30	12.61	26	11.50
* i	0	00.00	0	00.00	5	02.21
* j	3	00.63	9	03.78	3	01.33
k	6	01.25	8	03.36	1	00.44
l	31	06.47	18	07.56	27	11.95
m	12	02.51	8	03.36	6	02.65
n	0	00.00	3	01.26	0	00.00
o	8	01.67	2	00.84	3	01.33
p	7	01.46	3	01.26	0	00.00
q	8	01.67	1	00.42	1	00.44
r	1	00.21	3	01.26	1	00.44
s	1	00.21	0	00.00	5	02.21
t	0	00.00	1	00.42	1	00.44
* u	6	01.25	38	15.97	7	03.10
* v	10	02.09	7	02.94	4	01.77
w	5	01.04	6	02.52	0	00.00
x	1	00.21	1	00.42	1	00.44
y	17	03.55	14	05.88	7	03.10
* z	56	11.69	6	02.52	6	02.65
n	479		238		226	

Note. Letter descriptors for primary reasons are as follows: (a) scheduling problematic with respect to personal preferences, (b) scheduling interfered with quality of work, (c) inability to work in unit of choice, (d) pregnancy or child-rearing responsibilities, (e) other family responsibilities, (f) insufficient time for patient care, (g) lack of adequate child care facilities, (h) salary, (i) return to school to further career in nursing, (j) return to school to broaden career opportunities outside nursing, (k) inadequate career mobility, (l) inadequate staffing,

Table 15 (continued)

(m) lack of administrative support, (n) inadequate fringe benefits, (o) increase in non-nursing responsibilities, (p) poor nurse-physician relationships, (q) lack of appropriate supervisor feedback, (r) lack of involvement in decision making, (s) poor image of nurses/nursing, (t) lack of autonomy, (u) personal desire to pursue other career, (v) lack of spousal support, (w) changing nature of nursing/health care, (x) increased personal risks (e.g., AIDS), (y) emotional/ethical demands of nursing, and (z) lack of financial need to work. Asterisks denote personal reasons for leaving nursing; professional reasons are distinguished by the absence of asterisks.

Downie and Heath (1974). In like manner, interpretation of these findings should be regarded as tenuous on the basis of the distortion of percentages produced by the small number of respondents citing a number of these reasons.

As in the preceding analysis, comparison of individual reasons across groups was performed. Inspection of the patterns exhibited in Table 15 revealed considerable similarity to those described previously for all reasons identified as pertinent to the decision to leave nursing. Thus, for example, those who were not employed reported higher percentages of such primary reasons as pregnancy and/or child-rearing responsibilities, other family responsibilities, and absence of a financial imperative to work.

Similarly, those who were employed in a field other than nursing reported higher relative percentages of a blend of personal and professional primary reasons. Among those more pronounced included scheduling problems stemming from discordance with personal preferences, inadequate fringe benefits, the changing nature of nursing and health care, the emotional and ethical demands of nursing, and

lack of career mobility. Salary considerations were prominent in this group, as among those who had returned to nursing, in contrast to the comparatively lower reported frequency with which this reason was cited by nonemployed nurses. These respondents were also more likely to leave nursing to pursue other career alternatives and to seek additional educational preparation which would expand their career opportunities beyond nursing.

Respondents who had returned to nursing following a period of inactivity reported higher proportions of primary concerns related to such factors as inadequate staffing, difficulties encountered with being pulled to other units or being otherwise unable to work in the unit of their choice, scheduling requirements which were perceived as interfering with the quality of their work, and poor images of nurses and nursing. Moreover, while this group reported salary concerns similar to those employed in alternate fields, they valued child-rearing responsibilities commensurately with nonemployed nurses. This group was also more likely to return to school for additional education to further their careers in nursing.

Areas of primary concern which appeared to be more universally regarded across all employment categories included an increase in non-nursing responsibilities, lack of positive professional relationships with physicians, lack of appropriate supervisor feedback, lack of participation in decision making, lack of autonomy, lack of spousal support, and increased personal risks encountered as a nurse.

Career Satisfaction

Two research questions addressed the focal area of satisfaction with nursing as a career. These included:

2a. Is there a difference in career satisfaction among those registered nurses who are nonemployed, those who are employed in non-nursing occupations, and those who have returned to nursing following a period of career inactivity?

2b. Is there a difference in career satisfaction between those nurses who became inactive professionally for predominantly personal reasons and those who reported professional reasons as the primary influence upon their leaving nursing?

In addressing these research questions, analysis of variance was performed using procedure ONEWAY on the SPSS/PC+ microcomputing software package (Norusis, 1986). Evaluation of the statistical assumptions and presentation of results are detailed in the following sections.

Career Satisfaction Among Nurses Classified by Employment Status

Prior to statistical analysis, the assumptions underlying analysis of variance were evaluated. Examination of descriptive statistics revealed the distribution of the satisfaction scores to be negatively skewed, indicative of violation of the assumption of normality. This finding suggested that the group mean was not a good indicator of the central tendency of scores in the distribution. As recommended by Tabachnick and Fidell (1983), square root

transformation of this variable was performed to effect a more symmetrical distribution.

Evaluation of descriptive statistics and a histogram with the normal distribution superimposed for the transformed satisfaction scores indicated that the skew had been adequately corrected. No outlying cases were identified, as evidenced by standardized scores falling within the recommended ± 3.00 . In addition, the assumption of homogeneity of variance was met through the Bartlett-Box F statistic of .549 ($p = .578$). Means and standard deviations for the transformed career satisfaction scores for the three employment groups are displayed in Table 16. The analysis of variance summary is presented in Table 17.

Table 16

Means and Standard Deviations of Career Satisfaction Scores for Nurses Classified by Employment Status

Employment status	n	\bar{X}	SD
Not employed	520	13.39	2.02
Employed in non-nursing field	252	12.92	2.11
Employed in nursing	255	13.08	1.98
Total	1027	13.20	2.04

Table 17

Analysis of Variance for Career Satisfaction Scores for Nurses Classified by Employment Status

Source	df	SS	MS	F	p
Between groups	2	42.72	21.36	5.18	.006
Within groups	1024	4223.04	4.12		
Total	1026	4265.76			

The null hypothesis subjected to statistical testing was that there is no difference in career satisfaction, as measured by scores on the eight-item career satisfaction scale, among nurses classified on the basis of their current employment status. As summarized in Table 17, the results of oneway analysis of variance supported the rejection of the null hypothesis at the prespecified alpha of .05 ($F = 5.18$, $df = 2/1024$, $p = .006$). The strength of this association, as reflected in the eta squared of .01, indicated that only 1% of the variance in career satisfaction was accounted for by this classification scheme.

Post hoc analyses were conducted to ascertain more specifically where the significant differences between groups occurred. In view of the inequality of group sizes, the conservative Scheffe procedure was selected to evaluate pairwise comparisons between groups. Post hoc analysis revealed that nurses who were not employed were significantly more satisfied with nursing as a career than were those employed in a field other than nursing ($p = .02$). Career satisfaction among nurses who had returned to nursing following a period of inactivity was not significantly different from that exhibited by either those not employed or those employed in a field other than nursing.

Career Satisfaction Among Nurses Classified by
Primary Reason Underlying Career Inactivity

On the basis of the primary reason underlying the decision to inactivate their nursing careers, respondents were dichotomized as to whether these reasons were

primarily personal or professional in nature. The purpose of the following analysis was to ascertain whether differences in career satisfaction existed between nurses so classified.

Prior to execution of analysis of variance, relevant statistical assumptions were evaluated. As in the preceding analysis, square root transformation of career satisfaction scores was performed to rectify deviations from normality produced by moderate negative skewness. No outlying cases were identified. The assumption of homogeneity of variance was met with the finding of a Bartlett-Box F statistic of .289 ($p = .591$). Table 18 displays means and standard deviations for the transformed satisfaction scores for nurses grouped according to whether the primary reason for leaving nursing was essentially personal or professional in orientation. Analysis of variance summary statistics are presented in Table 19.

The null hypothesis submitted for statistical testing was that there is no difference in career satisfaction, as measured by scores on the eight-item career satisfaction scale, between respondents dichotomized on the basis of personal or professional primary reasons underlying career inactivity. As displayed in Table 19, the results of oneway analysis of variance indicated that a statistically significant difference in career satisfaction did exist between nurses so grouped ($F = 79.22$, $df = 1/976$, $p < .001$). Accordingly, with the level of significance prespecified at an alpha of .05, the null hypothesis was rejected. The

Table 18

Means and Standard Deviations of Career Satisfaction Scores for Nurses Classified by Primary Reason for Career Inactivity

Nature of primary reason	n	\bar{X}	SD
Personal	606	13.63	1.97
Professional	372	12.48	1.92
Total	978	13.19	2.03

Table 19

Analysis of Variance for Career Satisfaction Scores for Nurses Classified by Primary Reason for Career Inactivity

Source	df	SS	MS	F	p
Between groups	1	302.54	302.54	79.22	<.001
Within groups	976	3727.38	3.82		
Total	977	4029.92			

strength of this association, as reflected in an eta squared of .08, indicated that 8% of the variance in career satisfaction was accounted for by this classification scheme. Inspection of the group means disclosed that those who left nursing for personal reasons were significantly more satisfied with their nursing careers than were those who left for professionally oriented reasons.

While the findings reported herein pertain to transformed satisfaction scores, it was noted that the nature of the results for both analyses of variance were the same whether career satisfaction scores were untransformed or underwent square root transformation to meet relevant

statistical assumptions. Thus, transformation did not distort the essence of the analyses.

Career Commitment

Within the context of the present study, commitment to nursing as a career encompassed three dimensions: affective commitment, high-sacrifice continuance commitment, and low-alternatives continuance commitment. Specific research questions included:

3a. Is there a difference in career commitment among those registered nurses who are nonemployed, those who are employed in non-nursing occupations, and those who have returned to nursing following a period of career inactivity?

3b. Is there a difference in career commitment between those registered nurses who became inactive professionally for predominantly personal reasons and those who reported professional reasons as the primary influence upon their leaving nursing?

Multivariate analysis of variance was performed using procedure MANOVA on the SPSS/PC+ microcomputing software package (Norusis, 1986). Conceptualized as a generalization of analysis of variance to a situation characterized by several dependent variables, this statistical technique offered the advantages of protection against Type I error and a more powerful statistical approach than a series of univariate analyses (Tabachnick & Fidell, 1983). The following sections detail the associated evaluation of statistical assumptions and the results of the analyses.

Career Commitment Among Nurses Classified
by Employment Status

The null hypothesis submitted for statistical testing was that there is no significant difference on the set of three career commitment variables considered simultaneously among nurses classified according to current employment status. Prior to execution of multivariate analysis of variance, preliminary screening of the data was performed to ascertain the status of the statistical assumptions.

Normality of the distribution was assessed primarily through evaluation of skewness and detection of outliers. Descriptive statistics relative to the three commitment measures were inspected across the total sample and within each group defined by employment status. While no departures from normality were detected for affective commitment and low-alternatives continuance commitment, a moderate positive skew was found for the distribution of scores on the high-sacrifice continuance commitment scale. Square root transformation of this variable was effective in correcting this deviation from normality, as substantiated by subsequent ratios of skewness to standard errors of skewness falling within the preferred parameters of ± 2.58 (Tabachnick & Fidell, 1983).

As a further check of the assumption of normality, inspection of normal plots obtained via SPSS/PC+ MANOVA following transformation of the skewed commitment measure revealed the desired configuration. From these several

perspectives, the assumption of normality appeared to be acceptably met.

Screening for the presence of within-cell univariate outliers entailed examination of standardized scores for values outside the preferred ± 3.00 and inspection of histograms with normal curves superimposed. No univariate outliers were found. With respect to multivariate outliers, computation of the Mahalanobis distance through SPSS/PC+ REGRESSION and subsequent comparison against critical values provided by Stevens (1986) disclosed a single multivariate outlier. Elimination of this case plus list-wise deletion of 16 cases with missing data yielded 1,012 cases available for statistical analysis.

Formal testing of the assumption of homogeneity of variance-covariance matrices was performed through Box's M test which, because of its extreme sensitivity, was evaluated at the .001 level of significance (Tabachnick & Fidell, 1983). The finding of an F statistic of 1.97 for Box's M at $df = 12/2526017$ and $p = .022$ was indicative that this assumption was satisfactorily met and that robustness of the statistical analyses could be expected.

The assumption of linearity was assessed through examination of residuals plots for the three commitment variables. Plots of observed versus predicted values for these variables were also inspected. No evidence of gross deviation from linearity was noted, indicative that this assumption was reasonably met.

With respect to the assumption of no multicollinearity and singularity, the determinant of the within-cell correlation matrix was acceptable at .59, reflective of no violation of this assumption. Additionally, the Bartlett test of sphericity was significant at $p < .001$, which indicated that correlation did exist among the commitment variables and that multivariate analysis of variance, which required such correlation, constituted an appropriate statistical approach. Observed weighted means for the three commitment measures are displayed for the employment status groups in Table 20. Table 21 presents pooled within-cell correlations and standard deviations for these measures.

With the use of the Wilks' criterion, the combined career commitment variables were significantly influenced by the employment status of the nurse (F approximation = 35.22, $df = 6/2014$, $p < .001$), and the null hypothesis of no difference was rejected. Utilizing the value of Wilks' Lambda to determine eta squared, the resulting eta squared of .18 indicated that approximately 18% of the variance in the linear combination of career commitment variables was explained by variation in employment status.

With the finding of a significant multivariate test statistic, Roy-Bargman stepdown analyses were performed, on the basis of a priori ordering of the commitment variables according to expected chronology of occurrence within individuals and the present state of their theoretical development. As evidenced through previously reported coefficient alphas, all of the career commitment measures were judged

Table 20

Observed Means for Three Career Commitment Variables for Nurses Classified by Employment Status

Employment status	n	ACS	HSCCS	LACCS
		Weighted means		
Not employed	513	30.71	10.19	13.91
Employed in field other than nursing	245	26.47	8.86	11.31
Employed in nursing	254	31.16	12.55	16.52

Note. ACS represents the affective commitment scale; HSCCS represents the high-sacrifice continuance commitment scale; LACCS represents the low-alternatives continuance commitment scale.

Table 21

Pooled Within-cell Correlations and Standard Deviations for Three Career Commitment Variables Within Groups Defined by Employment Status

Commitment	ACS	HSCCS	LACCS
	Within-cells correlations (SD on diagonal)		
ACS	9.24		
HSCCS	.41	3.21	
LACCS	.14	.54	5.59

Note. ACS represents the affective commitment scale; HSCCS represents the high-sacrifice continuance commitment scale; LACCS represents the low-alternatives continuance commitment scale.

to be sufficiently reliable to warrant stepdown analysis. Additionally, since several of the dependent variables functioned as covariates in the stepdown analysis, the assumption of homogeneity of regression was relevant. Homogeneity of regression was established for all

components of the stepdown analysis ($F = 1.26$, $df = 4/1003$, $p = .284$).

The familywise error rate of .05 was achieved by the apportionment of alpha via the Bonferroni correction to produce a .017 (.05/3) level of significance for each post hoc test analyzed. Results of these analyses are summarized in Table 22.

Table 22

Summary of Results of Univariate and Stepdown Tests of Career Commitment for Nurses Classified by Employment Status

Dimension of commitment	Univariate analysis		Stepdown analysis		<u>a</u>
	<u>F</u>	<u>df</u>	<u>F</u>	<u>df</u>	
ACS	21.17	2/1009 *	21.17	2/1009 *	.017
HSCCS	86.19	2/1009 *	74.92	2/1008 *	.017
LACCS	54.08	2/1009 *	10.10	2/1007 *	.017

* $p < .017$

Note. ACS represents the affective commitment scale; HSCCS represents the high-sacrifice continuance commitment scale; LACCS represents the low-alternatives continuance commitment scale.

On the basis of these analyses, a unique contribution was observed for affective commitment (stepdown $F = 21.17$, $df = 2/1009$, $p < .017$). After the pattern of differences associated with affective commitment had been considered, a difference among the employment status groups was also found on high-sacrifice continuance commitment, as evidenced by the stepdown F of 74.92 with $df = 2/1008$ and p

<.017. Finally, after both affective commitment and high-sacrifice commitment had been considered, low-alternatives continuance commitment also differed significantly among the groups classified by employment status (stepdown $F = 10.10$, $df = 2/1007$, $p < .017$). As reflected in the tabled summary, the results of univariate F tests paralleled those obtained by stepdown analyses following multivariate analysis of variance.

While inspection of group means provided information regarding the nature of differences in career commitment observed among the three employment status groups, further insight was afforded by application of Scheffe post hoc procedures. At the conservative .001 level of significance, those employed in a field other than nursing exhibited lower levels of affective commitment toward nursing than did either those who were not employed or those who had resumed their nursing careers following a period of inactivity. Additionally, while the highest level of affective commitment was reported for those who had returned to nursing, this increase was not significantly different from those who were not employed.

As reflected in the group means, levels of high-sacrifice continuance commitment were greatest among those who had resumed active employment in nursing and lowest among those who reported employment in a field other than nursing. At the .001 level of significance, the results of Scheffe tests revealed all pairwise comparisons to be significantly different. Thus, those who had returned to

nursing experienced significantly greater degrees of high-sacrifice continuance commitment than both of the remaining employment categories. Furthermore, the level of reported high-sacrifice continuance commitment was significantly lower among those employed in a non-nursing capacity than those who were not employed. While these results were based upon transformed high-sacrifice continuance commitment scores, similar results were obtained with untransformed scores for this variable. Thus, transformation did not distort the nature of observed relationships.

With respect to low-alternatives continuance commitment, the pattern of means and significance of pairwise comparisons tested by the Scheffe procedure was identical to that found for high-sacrifice continuance commitment. Thus, at the .001 level of significance, those who had returned to nursing reported significantly higher levels of low-alternatives continuance commitment than both of the other employment categories. Moreover, the lowest level of this dimension of commitment was found among those employed in a field other than nursing, and this form of commitment was significantly lower in this group than among those who were not employed in any capacity.

Career Commitment Among Nurses Classified by Primary Reason Underlying Career Inactivity

Dimensions of career commitment to nursing were also evaluated among respondents on the basis of whether their primary reason for leaving nursing was personally or professionally founded. From this perspective, the null

hypothesis was that there is no significant difference between those who left primarily for personal reasons and those who left for primarily professional reasons on the set of career commitment variables considered simultaneously.

Evaluation of the statistical assumptions proceeded in the same manner as that previously described for the multivariate analysis of variance involving employment status as the classification variable. No evidence of gross deviation from linearity was detected, indicative that this assumption was reasonably met. In addition, with retention of square root transformation of high-sacrifice continuance commitment to correct moderate positive skewness and in the absence of departure from normality for the other commitment measures, the assumption of normality was considered as acceptably met.

Screening for the presence of univariate and multivariate outliers was performed as previously described. No univariate outliers were detected. Computation of the Mahalanobis distance disclosed the presence of a single multivariate outlier. Elimination of this case plus listwise deletion of 66 cases with missing data resulted in a sample of 962 cases for analysis.

The assumption of homogeneity of variance-covariance matrices was evaluated through the Box's M test, which disclosed no violation at the specified conservative level of .001 ($F = 1.95$, $df = 6/4038523$, $p = .069$). With respect to the assumption of no multicollinearity and singularity, the

determinant of the within-cell correlation matrix was found acceptable at .54. In addition, the appropriateness of the multivariate approach within this context was reinforced by the Bartlett test of sphericity, which was significant at $p < .001$. Observed weighted means for the career commitment variables are reported in Table 23. Table 24 presents the within-cell correlation matrix and standard deviations associated with these measures.

Table 23

Observed Means for Three Career Commitment Variables for Nurses Classified by Primary Reason for Career Inactivity

Primary reason	n	ACS	HSCCS	LACCS
		Weighted means		
Personal	594	30.98	10.60	14.05
Professional	368	27.83	9.99	13.57

Note. ACS represents the affective commitment scale; HSCCS represents the high-sacrifice continuance commitment scale; LACCS represents the low-alternatives continuance commitment scale.

With the use of the Wilks' criterion, the combined career commitment variables were significantly affected by the primary reason for leaving nursing, as dichotomized into personal and professional orientations (Approximate $F = 8.80$, $df = 3/958$, $p < .001$). The null hypothesis of no difference was, therefore, rejected at the prespecified alpha of .05. Utilizing the value of Wilks' Lambda to determine eta squared, the associated eta squared of .03 indicated that only 3% of the variance in the linear

combination of commitment variables was explained by variation related to whether respondents had identified personal or professional reasons for their career inactivity.

Table 24

Pooled Within-cell Correlations and Standard Deviations for Three Career Commitment Variables Within Groups Defined by Primary Reason for Career Inactivity

	ACS	HSCCS	LACCS
Commitment	Within-cell correlations (SD on diagonal)		
ACS	9.31		
HSCCS	.42	3.43	
LACCS	.17	.58	5.82

Note. ACS represents the affective commitment scale; HSCCS represents the high-sacrifice continuance commitment scale; LACCS represents the low-alternatives continuance commitment scale.

With the finding of a significant multivariate test statistic, Roy-Bargman stepdown analyses were performed, with the variables ordered as previously described. The familywise error rate of .05 was achieved through the apportionment of alpha via the Bonferroni correction to produce a .017 (.05/3) level of significance for each post hoc test analyzed. As displayed in Table 25, only the first stepdown test for affective commitment was statistically significant at this adjusted level of significance (stepdown $F = 26.09$, $df = 1/960$, $p < .001$). Because of this finding, testing of the assumptions of reliability of the

covariates and of homogeneity of regression were not necessary (Tabachnick & Fidell, 1983).

Inspection of the results summarized in Table 25 revealed that a unique contribution to predicting differences between those respondents identifying primarily personal and those specifying professional reasons for leaving nursing was made by affective commitment to nursing (stepdown $F = 26.09$, $df = 1/960$, $p < .001$). More specifically, those who became inactive for largely personal reasons exhibited greater degrees of affective commitment (weighted mean = 30.98) than did those who claimed predominantly professional reasons (weighted mean = 27.83).

Table 25

Summary of Results of Univariate and Stepdown Tests of Three Career Commitment Variables for Nurses Classified by Primary Reason for Career Inactivity

Dimension of commitment	Univariate analysis		Stepdown analysis		<u>a</u>
	<u>F</u>	<u>df</u>	<u>F</u>	<u>df</u>	
ACS	26.09	1/960 *	26.09	1/960 *	.017
HSCCS	7.27	1/960 *	.35	1/959	.017
LACCS	1.50	1/960	< .01	1/958	.017

* $p < .017$

Note. ACS represents the affective commitment scale; HSCCS represents the high-sacrifice continuance commitment scale; LACCS represents the low-alternatives continuance commitment scale.

After the pattern of differences measured by affective commitment had been considered, it was noted that neither

of the remaining career commitment variables exhibited significant findings at the adjusted alpha of .017. Although univariate tests revealed that those who left for largely personal reasons also were characterized by significantly higher levels of high-sacrifice commitment (univariate $F = 7.27$, $df = 1/960$, $p = .007$), these differences had already been accounted for in the stepdown analysis by affective commitment. As reflected in Table 25, the univariate test for low-alternatives continuance commitment paralleled the stepdown analysis in disclosing nonsignificance at the Bonferroni-adjusted alpha of .017.

Intention to Return to Nursing

From both theoretical and empirical perspectives, intentionality has been portrayed as a salient precursor of specific behavioral actions (Ajzen & Fishbein, 1980; Fishbein, 1967; Fishbein & Ajzen, 1975; Hom & Hulin, 1981; Mobley et al., 1978; Newman, 1974; Prestholdt et al., 1987; Steel & Ovalle, 1984). In the context of cross-sectional analysis, then, intention to return to nursing constituted a theoretically relevant construct of interest.

As reflected in the following iteration, the research questions centered around intention to return to nursing were diversely specified:

4a. What is the likelihood that nursing career inactivity will become a permanent condition for those registered nurses who do change to inactive status?

4b. What is the relative importance of various factors in influencing the decision of an inactive nurse to return to nursing?

4c. Is there a difference in intention to return to a nursing career between those registered nurses who are nonemployed and those who are employed in non-nursing occupations?

4d. Is there a difference in intention to return between those registered nurses who became inactive professionally for predominantly personal reasons and those who reported professional reasons as the primary influence upon their leaving nursing?

4e. What set of variables is predictive of intention to return to professional nursing practice?

4f. How does this variable set compare between those registered nurses who are nonemployed and those who are employed in non-nursing occupations?

4g. How does this variable set compare between those registered nurses who became inactive professionally for predominantly personal reasons and those who reported professional reasons as the primary influence upon their leaving nursing?

Likelihood of Permanence of Career Inactivity

Since approximately 18 months had passed following renewal of professional licensure in late 1986, it was believed that some proportion of those nurses reporting career inactivity at that time would have resumed their nursing careers. This was corroborated in descriptive

statistics relative to employment status at the time of survey completion. Table 26 displays frequency distributions of such statistics for those originally identified as being nonemployed and for those who reported employment in a field other than nursing at the time of license renewal.

Table 26

Frequency Distribution for Current Employment Status for Nurses Classified by Type of Career Inactivity Reported During the License Renewal Period

Type of inactivity during license renewal period	Current employment status					
	Not employed		Non-nursing		Nursing	
	f	%	f	%	f	%
Not employed	481	61.67	95	12.18	204	26.15
Non-nursing employment	30	12.77	155	65.95	50	21.28

Inspection of the tabled figures revealed that approximated two-thirds of the respondents in each category of career inactivity had not altered their employment status at the time of data collection. Approximately one-fourth of the nurses in each category had, however, resumed their nursing careers, with a slightly greater percentage being found for those who were not employed at the time of license renewal as compared with those employed in a non-nursing capacity at that time. It is noted that since the subject identification number was required to classify respondents on the nature of their career inactivity at the

time of license renewal, the statistics reported in Table 26 necessarily do not include those cases for which the identifying number had been removed by the respondent.

In further evaluating the likelihood that career inactivity would evolve into a permanent condition, attention was directed toward the comparative lengths of inactivity among the three employment categories. Relative descriptive statistics are summarized in Table 27.

Table 27

Summary of Descriptive Statistics for Duration in Months of Nursing Career Inactivity for Nurses Classified by Employment Status

Employment status	n	\bar{X}	SD	Range
Not employed	494	78.73	74.36	2.0 - 444.0
Non-nursing	244	85.45	68.85	5.0 - 348.0
Nursing	244	44.54	47.44	2.0 - 240.0

These statistics, derived from raw data, indicated that those nurses who had resumed their nursing careers reported a substantially shorter period of abstention from nursing than both those who were not employed and those who had obtained alternative employment in a field other than nursing. In an effort to evaluate this relationship statistically, analysis of variance was performed utilizing procedure ONEWAY available on SPSS/PC+.

Further examination of descriptive statistics disclosed moderate positive skewness, which was satisfactorily corrected by square root transformation of values representative of duration of inactivity in months.

Several univariate outliers were dealt with by recoding standardized scores greater than +3.00 as +3.00. As recommended by Tabachnick and Fidell (1983), this strategy preserved the deviancy in these cases without allowing them to be so deviant as to perturb correlation. The assumption of homogeneity of variances was met, as evidenced through the Bartlett-Box F statistic of 2.54 with $p = .08$.

Oneway analysis of variance revealed that the differences in duration of career inactivity were statistically significant among the three employment categories ($F = 46.86$, $df = 2/979$, $p < .001$). Scheffe post hoc procedures performed with $\alpha = .01$ disclosed that those who had returned to nursing exhibited a significantly shorter period of inactivity than both of the other employment groups.

In addition to the preceding, the reported intention to return of those respondents who remained inactive in nursing was relevant in addressing this research focus. With a mean of 27.13 ($SD = 12.76$, range = 8.00 to 56.00) for the 8-item scale measuring intention to return to nursing, intention to return was described as moderate at best.

Relative Importance of Selected Factors in the Decision to Return/Not Return to Nursing

All of the respondents had been requested to evaluate the relative importance of 16 selected factors in influencing their decision whether to return or not return to nursing. As previously described, responses were formatted according to a 5-point Likert-type scale ranging from 1 = Very Unimportant to 5 = Very Important. The means and

standard deviations for these decision factors are presented in descending order of importance in Table 28.

Table 28

Means and Standard Deviations for Importance of Selected Factors in the Decision to Return/Not Return to Nursing

Descriptor	\bar{X}	SD
Assurance of working in area or unit of choice	4.65	.70
Flexibility in scheduling	4.61	.72
Assurance of safe working environment (disease exposure or other risks)	4.59	.80
Improved nurse-patient ratios	4.54	.79
Administrative support for nursing	4.44	.83
Availability of personalized orientation program and continuing education	4.44	.88
Higher salary	4.41	.84
Greater physician acceptance of nursing's contributions	4.31	.87
Reduction in non-nursing responsibilities	4.20	.94
Fringe benefits	4.18	.94
Career opportunities and mobility	4.03	1.00
Spouse/family support	3.97	1.13
Autonomy in executing responsibilities	3.94	.91
Public image of nurses and nursing	3.88	1.05
Financial need to work	3.53	1.34
Availability of child-care facilities	3.11	1.56

Of particular note in this table was the high mean values obtained, with 11 of the 16 factor means in excess of 4.00. Thus, the majority of these factors were regarded as bearing substantial importance on the decision to return or refrain from returning to nursing.

In addition, while the preponderance of these factors exhibited a professional rather than personal orientation, the high importance accorded these facets was especially significant in view of the relatively large proportion of respondents who had reported largely personal reasons

underlying earlier decisions to inactivate their nursing careers. This suggested, then, that while career inactivity may have been precipitated in numerous cases by personal considerations, professionally oriented factors were highly operative in influencing whether or not to return to nursing. Additional discussion of these findings is found in the following chapter.

Intention to Return Among Nurses Classified by Type of Current Inactivity

In an effort to ascertain whether differences in intention to return to nursing existed between those nurses who were not employed and those who were employed in a field other than nursing, oneway analysis of variance was performed using SPSS/PC+ ONEWAY.

In accordance with criteria previously described, the assumption of normality of distribution was met through examination of descriptive statistics for scores on intention to return. The assumption of homogeneity of variances was also met through the Bartlett-Box F of .345 with $p = .557$.

With the statistical assumptions having been acceptably met, the null hypothesis of no difference in the effect of type of current inactivity on intention to return to nursing was tested. Means and standard deviations for the two groups of inactive nurses are presented in Table 29, while the results of oneway analysis of variance are summarized in Table 30.

With the finding of statistically significant results at the specified alpha of .05, the null hypothesis of no

difference was rejected ($F = 32.08$, $df = 1/759$, $p < .001$). As evidenced by an eta squared of .04, approximately 4% of the variance in intention to return to nursing was accounted for by this classification scheme. Examination of the group means enabled detection of the nature of this difference. Specifically, those respondents who were currently not employed indicated a significantly greater intention to resume their nursing careers than did those who were employed in a field other than nursing.

Table 29

Means and Standard Deviations for Intention to Return to Nursing for Nurses Classified by Type of Current Inactivity

Type of inactivity	n	\bar{X}	SD
Not employed	517	28.90	12.64
Employed in non-nursing field	244	23.40	12.23

Table 30

Analysis of Variance for Intention to Return to Nursing for Nurses Classified by Type of Current Inactivity

Source	df	SS	MS	F	p
Between groups	1	5021.38	5021.38	32.08	<.001
Within groups	759	118786.41	156.50		
Total	760	123807.79			

Intention to Return Among Nurses Classified by Primary Reason for Career Inactivity

Oneway analysis of variance was employed in testing the null hypothesis that there is no difference in intention to return to nursing between nurses whose decision to

become inactive was based primarily upon personal reasons and those who reported largely professional reasons underlying their decision to leave.

As previously reported, scores on intention to return exhibited an acceptably normal distribution, and univariate outliers were absent. The assumption of homogeneity of variances was met through the Bartlett-Box F of .950, with $p = .330$. Relevant descriptive statistics are displayed in Table 31 and the results of analysis of variance, performed through SPSS/PC+ ONEWAY, are summarized in Table 32.

Table 31

Means and Standard Deviations for Intention to Return to Nursing for Nurses Classified by Primary Reason Underlying Career Inactivity

Primary reason	n	\bar{X}	SD
Personal	464	28.64	12.17
Professional	270	24.14	12.83

Table 32

Analysis of Variance for Intention to Return to Nursing for Nurses Classified by Primary Reason Underlying Career Inactivity

Source	df	SS	MS	F	p
Between groups	1	3461.91	3461.91	22.46	<.001
Within groups	732	112832.98	154.14		
Total	733	116294.89			

On the basis of this analysis, a statistically significant difference in intention to return was found

between nurses who became inactive for primarily personal reasons and those who reported professional considerations as the dominant reason for their inactivity ($F = 22.46$, $df = 1/732$, $p < .001$). Thus, the null hypothesis of no difference was rejected at the specified alpha of .05. The strength of this association, as evidenced in the eta squared of .03, indicated, however, that only 3% of the variance in intention to return to nursing was accounted for by this classification scheme.

Inspection of the group means disclosed the nature of the observed difference. Specifically, those who left for personal reasons expressed a greater intention to return than those who left because of professionally founded concerns.

Prediction of Intention to Return to Nursing

Simultaneous multiple regression analysis was employed in testing the null hypothesis that there is no significant proportion of variance in intention to return to nursing accounted for by the specified set of predictor variables. This set of potential predictors has been graphically displayed previously in Figure 1.

Cleaning of the data prior to statistical analysis commenced with examination of univariate descriptive statistics. The assumption of univariate normality was addressed through inspection for skewness and outliers. In accordance with guidelines provided by Tabachnick and Fidell (1983), all discrete and dichotomous variables were acceptably distributed. This conclusion was based on the

finding that in no instance did 80 - 90% or more of the values reside in the same category.

Several continuous variables exhibited positive skewness, necessitating data transformation. Square root transformation was successful in restoring a more symmetrical distribution to the age of the nurse (AGE), the age of the youngest dependent child (CHILDAGE), and met expectations which were objective in orientation (METEXPO). Logarithmic transformation was required for several other continuously scaled variables. These included length of current inactivity in months (CURINAC), the number of years worked in nursing (YRWORK), the previous salary of the nurse (SALARYNS), the salary of the spouse (SALARYSP), the amount of nonlabor income (NONLABOR), and the total annual income (TOTALINC). Square root transformations of career satisfaction (SATSCORE) and high-sacrifice continuance commitment (HSCCS), as previously described, were retained for these analyses. Examination of post-transformation ratios of skewness to standard errors of skewness confirmed the efficacy of the transformation procedure in producing more normally shaped distributions.

Examination of standardized scores for the presence of univariate outliers revealed that all of the financial variables contained outliers at the upper level of each variable. In an effort to avoid excessive deletion of cases, the extreme standardized scores were adjusted so that all those originally in excess of +3.00 were recoded as +3.00. This strategy, as recommended by Tabachnick and

Fidell (1983), preserved the deviancy of these cases without allowing them to be so deviant as to perturb correlation.

The assumption of no multicollinearity and singularity was evaluated through inspection of tolerances obtained through SPSS/PC+ REGRESSION. The finding of tolerances ranging from .21 to .97 affirmed no violation of this assumption.

Examination of residuals scatterplots constituted a test of the assumptions of normality, linearity, and homoscedasticity. Specifically, the absence of a systematic pattern to the plotted points about the center of the plot suggested that linearity was not problematic in the present study. Moreover, the observed spread of residuals did not appear to deviate markedly with respect to the predicted values. This configuration indicated that the equality of variance assumption, or homoscedasticity, appeared to be reasonably met. Finally, in evaluating the assumption of normality, inspection of a histogram of standardized residuals revealed a symmetrical distribution, with the exception of three multivariate outliers. The presence of these outliers was further confirmed through examination of scores of standardized residuals, three of which exceeded the cut-off level of ± 3.00 .

By virtue of the design of the present study, there was no reason to suspect autocorrelation of residuals over a time ordering. Therefore, this aspect of the assumption of independence of error was not addressed.

In an effort to achieve the desired cases-to-variables ratio of 20:1 (Pedhazur, 1982; Tabachnick & Fidell, 1983), considerable attention was directed toward the issue of missing data. Using listwise deletion of missing data, less than 300 cases were available for regression and much of the data recorded would not have been used. In an effort to maximize the use of available data as well as furnish a conservative treatment to missing data, variable means were substituted for missing values. As discussed by Tabachnick and Fidell (1983), this strategy was advantageous in not altering the means for the respective variables, in avoiding the difficulties of guessing at missing values, and of offering a conservative resolution to this problem. With deletion of the three multivariate outliers, 770 of the 773 respondents who remained inactive in nursing at the time of data collection were retained for regression analysis. With 25 predictor variables entered into the regression equation, a highly satisfactory cases-to-variables ratio of nearly 31:1 was obtained.

Several categorical variables were dichotomously recoded prior to entry into the regression equation. As described in the preceding chapter, these included: (a) location of previous employment (LOCPREMP), with hospital = 1 and nonhospital = 0; (b) clinical practice area (CLINPRAC), with general medical-surgical = 1 and specialty practice = 0; (c) type of position (TYPEPOS), with staff = 1 and nonstaff = 0; (d) current type of inactivity (EMPSTAT), with employed in a field other than nursing = 1

and not employed = 0; (e) nature of highest level of educational preparation (HIGHED), with nursing = 1 and non-nursing = 0; and (f) reason for leaving nursing (REASON), with professional = 1 and personal = 0.

Temporary recoding of the age of the nurse and the pre-inactive salary of the nurse into nominal categories was performed for the purposes outlined in the previous chapter. With respect to the age variable, those nurses up to age 35 were coded as YOUNGER, those between 36 and 45 were coded as MIDDLE, those between 46 and 55 constituted the OLDER category, and variance observed in those older than 55 was reflected in the intercept. For the salary variable, salary levels below -1.00 standard deviation were recoded as LOWSAL, those greater than +1.00 standard deviation were coded as HISAL, and those with salaries within +/- 1.00 represented average salary levels (MODSAL).

Subsequent regression analysis revealed, however, that the recoded variables related to the age and salary of the nurse failed to exhibit significant regression coefficients. The final regression equation, therefore, reflected these variables as they were originally measured, that is, as continuously scaled values.

Table 33 displays the means and standard deviations for the predictor variables and the criterion variable, intention to return to nursing. Descriptors for the computer-abbreviated variable names are specified in the note to Table 33. The correlation matrix is reproduced in Appendix F.

Table 33

Means and Standard Deviations for Variables Retained for Multiple Regression Analysis

Variable	\bar{X}	SD
AGE	6.51	0.79
DEPCHILD	1.28	1.04
CHILDAGE	9.24	3.61
HIGHED	1.90	0.94
TYPEED	0.88	0.33
EMPSTAT	0.33	0.47
SATSCORE	13.24	2.06
YRWORK	0.86	0.38
PERCENT	0.48	0.23
CURINAC	1.77	0.33
LOCPREMP	0.65	0.47
CLINPRAC	0.40	0.48
TYPEPOS	0.58	0.49
REASON	0.37	0.47
METEXPS	13.12	2.50
METEXPO	13.89	2.70
FUTEXPPR	25.78	5.33
FUTEXPPC	7.74	2.66
ACS	29.34	9.30
LACCS	13.05	5.56
HSCCS	9.75	3.28
SALARYNS	0.49	0.09
SALARYSP	1.65	0.23
NONLABOR	0.81	0.31
TOTALINC	1.68	0.23
INTSCORE	27.14	12.66

Note. Descriptors for the variable names are: AGE (age of the nurse in years [transformed variable]); DEPCHILD (number of children living at home or otherwise dependent on the nurse); CHILDAGE (age of the youngest dependent child [transformed variable]); HIGHED (highest level of nursing preparation); TYPEED (highest level of education nursing or non-nursing); EMPSTAT (current employment status); SATSCORE (satisfaction with nursing as a career [transformed variable]); YRWORK (number of years worked as a nurse [transformed variable]); PERCENT (percentage of nursing career spent in inactive status); CURINAC (duration of current inactivity in months [transformed variable]); LOCPREMP (location of previous employment as hospital or nonhospital); CLINPRAC (type of clinical practice as generalist or specialist); TYPEPOS (type of nursing position as staff or nonstaff); REASON (reason for leaving nursing); METEXPS (met expectations - subjective); METEXPO (met expectations - objective); FUTEXPPR (future expectations

Table 33 (continued)

oriented toward professional development, recognition, and reward); FUTEXPPC (future expectations oriented toward patient care considerations); ACS (affective commitment scale); LACCS (low-alternatives continuance commitment scale); HSCCS (high-sacrifice continuance commitment scale [transformed variable]); SALARYNS (pre-inactivity inflation-adjusted hourly salary of the nurse [transformed variable]); SALARYSP (annual salary of the spouse in thousands of dollars [transformed variable]); NONLABOR (nonlabor income in thousands of dollars [transformed variable]); TOTALINC (total annual income in thousands of dollars [transformed variable]); INTSCORE (intention to return to nursing).

Selected regression statistics are displayed in Table 34. As evidenced therein, the multiple R for the regression equation was .67. The associated R square of .45 indicated that 45% of the variance in intention to return to nursing was accounted for by the set of predictor variables considered simultaneously. At the specified alpha of .05, the results of analysis of variance employed in testing the significance of the regression revealed that the proportion of variance thus accounted for was statistically significant ($F = 24.62$, $df = 25/744$, $p < .001$). These latter findings are presented in Table 35. On the basis of these results, the null hypothesis was rejected.

As further reflected in Table 34, tests of the regression coefficients attained significance for 6 of the 25 predictors. These included location of previous nurse employment (LOCPREMP), length of current inactivity in months (CURINAC), number of dependent children (DEPCHILD), affective commitment to nursing (ACS), future expectations related to professional development/recognition/reward (FUTEXPPR), and high-sacrifice continuance commitment

Table 34

Summary Table of Selected Statistics for Regression of Intention to Return to Nursing on 25 Predictor Variables

Predictor	r	b	Beta	T	Significance of T
AGE	-.16	-.82	-.051	-1.03	.301
DEPCHILD	.17	1.04	.085	2.49	.013
CHILDAGE	-.13	-.15	-.043	-1.24	.217
HIGHED	.08	.07	.005	.16	.870
TYPEED	.18	.05	.001	.05	.961
EMPSTAT	-.20	-1.30	-.048	-1.54	.125
SATSCORE	.25	.06	.009	.25	.804
YRWORK	-.09	-2.04	-.061	-1.03	.303
PERCENT	-.01	-5.23	-.096	-1.68	.094
CURINAC	-.12	-4.47	-.117	-2.99	.002
LOCPREMP	-.04	-2.05	-.076	-2.60	.010
CLINPRAC	.04	.06	.002	.09	.932
TYPEPOS	.12	1.07	.041	1.40	.161
REASON	-.16	-.83	-.031	-.99	.321
METEXPS	.09	.12	.024	.73	.469
METEXPO	.06	.01	.003	.09	.930
FUTEXPPR	.20	.19	.079	2.11	.035
FUTEXPPC	.15	.07	.016	.45	.655
ACS	.46	.37	.270	7.11	<.001
LACCS	.36	.10	.044	1.27	.206
HSCCS	.58	1.56	.404	10.63	<.001
SALARYNS	-.05	-4.14	-.028	-.97	.332
SALARYSP	-.06	-1.54	-.027	-.70	.486
NONLABOR	-.11	-1.67	-.041	-1.41	.158
TOTALINC	-.10	-2.83	-.051	-1.25	.211
Multiple R					.673
R square (Adjusted R square)					.453 (.434)
Intercept					9.487

Table 35

Analysis of Variance Summary Table of Test of Significance of R Square for Regression of Intention to Return to Nursing on 25 Predictor Variables

Source	df	SS	MS	F	p
Regression	25	55998.60	2239.94	24.62	<.001
Residual	744	67677.24	90.96		
Total	769	123675.84			

(HSCCS). Appraisal of the Beta weights for the respective predictor variables suggested that high-sacrifice continuance commitment, affective commitment, and length of current inactivity possessed the most substantive relative importance in the present analysis. In addition, the direction of the relationship between predictors and the criterion was generally as anticipated, with the exceptions of age of the youngest dependent child (CHILDAGE) and type of nursing position held prior to current inactivity (TYPEPOS), both of which were characterized by nonsignificant regression coefficients. Further discussion of the regression results is reserved until the following chapter.

Retrospective power analysis for the present study revealed that for $\alpha = .05$ the power far surpassed the level of .80 recommended by Cohen and Cohen (1975). This contributed to the legitimacy of the statistical findings reported herein.

Prediction of Intention to Return to Nursing Among Nurses Classified by Type of Current Inactivity

In an effort to ascertain whether the pattern of significant predictors of intention to return to nursing was similar between nurses who were not employed and those who were employed in a field other than nursing, two further regression equations were specified. As with the preceding analyses, evaluation of statistical assumptions was first performed to appraise the robustness of the results.

Univariate normality was examined through inspection of within-cell descriptive statistics for skewness and

outlying cases, and adjustments were made as previously discussed for the regression of the entire population of currently inactive nurses. Also, in accordance with previously delineated criteria, the assumptions of multivariate normality, linearity, and homoscedasticity were reasonably met and autocorrelation of residuals over a time ordering was not relevant. Three multivariate outliers were identified among nurses who were not employed and were excluded from the present analysis.

Multicollinearity was not evident, as judged through the absence of low tolerance levels. For nurses who were not employed, tolerances ranged from .21 to .95. Similarly, tolerances for those employed in non-nursing capacities ranged from .20 to .91.

As previously described, missing data were handled through substitution of mean values to enable utilization of all recorded data. For the nonemployed group, elimination of the three multivariate outliers resulted in a sample of 518. The 252 nurses employed in a field other than nursing constituted the other group for whom prediction of intention to return was analyzed. With 24 predictors, the cases-to-variables ratios were 22:1 and 10.5:1 for the nonemployed and alternatively employed groups, respectively.

SPSS/PC+ REGRESSION was used to test the null hypothesis that there is no significant proportion of variance in intention to return to nursing accounted for by the set of predictor variables considered simultaneously. Separate

regressions were obtained for each inactive group. Descriptive statistics pertinent to the regression variables are summarized in Table 36. Reference is made to the note accompanying Table 33 for descriptors for computer variable names included in the following tables.

Table 36

Means and Standard Deviations for Regression Variables Within Groups Classified by Type of Current Inactivity

Variable	Not employed		Non-nursing employed	
	\bar{X}	SD	\bar{X}	SD
AGE	6.52	0.84	6.49	0.68
DEPCHILD	1.29	1.05	1.27	1.02
CHILDAGE	8.39	3.57	10.94	3.31
HIGHED	1.90	0.94	1.89	0.95
TYPEED	0.95	0.22	0.72	0.44
SATSCORE	13.39	2.02	12.92	2.11
YRWORK	0.87	0.38	0.85	0.37
PERCENT	0.48	0.24	0.50	0.23
CURINAC	1.75	0.33	1.80	0.34
LOCPREMP	0.64	0.47	0.66	0.47
CLINPRAC	0.40	0.48	0.39	0.48
TYPEPOS	0.61	0.48	0.53	0.49
REASON	0.32	0.46	0.47	0.49
METEXPS	13.34	2.43	12.65	2.56
METEXPO	14.04	2.66	13.57	2.79
FUTEXPPR	26.19	5.25	24.85	5.40
FUTEXPPC	7.95	2.65	7.31	2.63
ACS	30.65	9.22	26.47	8.78
LACCS	13.93	5.46	11.26	5.36
HSCCS	10.18	3.28	8.85	3.11
SALARYNS	0.49	0.08	0.51	0.09
SALARYSP	1.67	0.23	1.60	0.22
NONLABOR	0.82	0.32	0.79	0.29
TOTALINC	1.68	0.23	1.70	0.22
INTSCORE	28.92	12.61	23.40	12.04

Selected regression statistics are summarized separately for the two groups of inactive nurses in Table 37. For those who were not employed, the multiple R was .66,

which indicated that approximately 43% of the variance in intention to return was accounted for by the set of predictors ($R^2 = .431$). For those who reported employment in non-nursing capacities, the multiple R of .70 indicated that 48% of the variance in the criterion was accounted for by the predictor variables ($R^2 = .483$).

Table 37

Summary Table of Selected Statistics for Regression of Intention to Return to Nursing on Predictor Variables Within Groups Classified by Type of Current Inactivity

Variable	Not employed			Non-nursing employed		
	r	b (T -test statistics in parentheses)	B	r	b (T -test statistics in parentheses)	B
AGE	-.20	-.81 (-.82)	-.054	-.08	-.60 (-.44)	-.034
DEPCHILD	.18	1.03 (1.84)	.086	.15	.70 (1.06)	.059
CHILDAGE	-.10	-.23 (-1.53)	-.064	-.06	-.08 (-.38)	-.023
HIGHED	.11	.44 (.81)	.033	.02	.56 (.80)	.044
TYPEED	-.02	-2.95 (-1.49)	-.052	.16	1.77 (1.29)	.065
SATSCORE	.20	.18 (.62)	.028	.32	.21 (.56)	.036
YRWORK	-.10	-2.22 (-.91)	-.067	-.07	-.66 (-.19)	-.020
PERCENT	-.02	-4.74 (-1.24)	-.088	.04	8.03 (1.43)	.154
CURINAC	-.12	-4.34 (-2.30)*	-.114	-.09	-4.94 (-1.95)	-.138
LOCPREMP	-.03	-1.96 (-1.97)*	-.073	-.05	-2.18 (-1.60)	-.085
CLINPRAC	.01	.08 (.09)	.003	.11	.91 (.72)	.036
TYPEPOS	.09	.67 (.70)	.025	.13	2.53 (1.89)	.103
REASON	-.13	-1.32 (-1.24)	-.048	-.16	-.32 (-.23)	-.013
METEXPS	.03	.16 (.73)	.030	.14	.17 (.61)	.036

Table 37 (continued)

Variable	Not employed			Non-nursing employed		
	r	b (T-test statistics in parentheses)	B	r	b (T-test statistics in parentheses)	B
METEXPO	.01	.04 (.21)	.009	.12	.14 (.53)	.032
FUTEXPPR	.16	.17 (1.50)	.071	.24	.16 (1.13)	.074
FUTEXPPC	.15	.15 (.69)	.031	.09	.06 (.22)	.014
ACS	.39	.34 (5.24)**	.246	.54	.48 (5.26)**	.350
LACCS	.33	.13 (1.29)	.055	.34	.06 (.42)	.025
HSCCS	.57	1.62 (8.93)**	.421	.56	1.33 (5.18)**	.344
SALARYNS	-.03	-3.72 (-.66)	-.025	-.04	-5.84 (-.89)	-.045
SALARYSP	-.11	-3.51 (-.94)	-.064	-.02	-1.55 (-.50)	-.028
NONLABOR	-.16	-2.32 (-1.61)	-.058	-.03	-.32 (-1.16)	-.008
TOTALINC	-.11	-5.39 (-1.43)	-.099	-.04	-.14 (-.04)	-.003
Multiple R		.656			.695	
R square		.431			.483	
Adjusted R square		.403			.428	
Intercept		15.595			-5.046	

* p-value for T-test of regression coefficient <.05

** p-value for T-test of regression coefficient <.001

The results of analysis of variance employed in testing the significance of the regression are displayed in Table 38. As indicated therein, the proportion of variance explained was statistically significant at the specified alpha of .05, leading to rejection of the null hypothesis within each group of inactive nurses.

Table 38

Analysis of Variance Summary Table of Tests of Significance of R Square for Regression of Intention to Return to Nursing on Predictor Variables for Nurses Classified by Type of Current Inactivity

Nonemployed nurses					
Source	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F</u>	<u>p</u>
Regression	24	35434.59	1476.44	15.54	<.001
Residual	493	46830.29	94.99		
Total	517	82264.88			

Nurses employed in non-nursing field					
Source	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F</u>	<u>p</u>
Regression	24	17571.76	732.16	8.84	<.001
Residual	227	18798.68	82.81		
Total	251	36370.44			

Within the sample of nonemployed nurses, significant regression coefficients were found for high-sacrifice continuance commitment, affective commitment, location of previous nursing employment, and duration of the current period of career inactivity. For nurses employed in a field other than nursing, only affective commitment and high-sacrifice continuance commitment exhibited significant regression coefficients at $\alpha = .05$. Retrospective power analysis revealed that, for each regression, power easily surpassed the level of .80 suggested by Cohen and Cohen (1975) as adequate to assure robustness.

Additionally, nursing versus non-nursing as the highest type of educational preparation (TYPEED) and percentage of nursing career spent inactive (PERCENT) displayed opposite signs on zero-order correlations with intention to return between the two employment groups. These considerations are discussed in the final chapter.

Prediction of Intention to Return to Nursing Among Nurses
Classified by Primary Reason Underlying Career Inactivity

Multiple regression analysis was employed in examining the pattern of significant predictors of intention to return to nursing within groups of respondents dichotomized as to whether their primary reason for career inactivity was personally or professionally grounded. For each group, the null hypothesis subjected to statistical testing was that there is no significant proportion of variance in intention to return to nursing accounted for by the set of predictor variables considered simultaneously.

Regression assumptions were evaluated prior to data analysis. Specifically, univariate normality was assessed through examination of descriptive statistics for skewness and the presence of outlying cases; deviations were managed as previously described for the other regressions. In like manner, the assumptions of multivariate normality, linearity, and homoscedasticity were evaluated against criteria previously specified and found to be reasonably met. Three multivariate outliers were identified on the basis of their standardized residuals and location on scatterplots.

Multicollinearity and singularity were not problematic, as evidenced by the absence of near-zero tolerances. Within the group of respondents who left nursing for primarily personal reasons, the tolerance levels ranged from .19 to .96. For the group composed of nurses whose career inactivity stemmed from predominantly professional reasons, tolerances ranged from .21 to .92.

Missing data were managed by substitution of variable means to maximize data utilization and enhance the cases-to-variables ratios. With the deletion of three multivariate outliers, 467 cases comprised the group specifying personal reasons for their career inactivity. A total of 275 cases constituted the sample of respondents reporting professional reasons for career inactivity. With 24 predictors, the cases-to-variables ratios, then, were 19.5:1 and 11.5:1 for the two groups defined by personal reasons and professional reasons for leaving, respectively. Although the latter ratio was somewhat less than the desired 20:1, it well surpassed the minimum of 5:1 suggested by Pedhazur (1982).

Descriptive statistics pertinent to the regression variables are displayed in Table 39. Variable names abbreviated to conform to computer requirements are utilized within this and subsequent tables. Reference is made to the note accompanying Table 33 for fuller descriptions of these variables.

Selected regression statistics are summarized in Table 40. As evidenced therein, approximately 46% of the

variance in intention to return was accounted for by the set of 24 predictors within the group reporting primarily personal reasons underlying their career inactivity (R square = .459). Similarly, nearly 47% of the variance in the criterion variable was accounted for by the set of 24 predictors among those who had indicated a largely professional basis for their inactivity (R square = .466).

Table 39

Means and Standard Deviations for Regression Variables Within Groups Classified by Primary Reason Underlying Career Inactivity

Variable	Primary reason for inactivity			
	Personal		Professional	
	\bar{X}	SD	\bar{X}	SD
AGE	6.40	0.77	6.67	0.80
DEPCHILD	1.47	1.03	1.02	1.00
CHILDAGE	8.58	3.78	10.49	3.13
HIGHED	1.99	0.97	1.74	0.88
TYPEED	0.89	0.31	0.86	0.34
SATSCORE	13.66	2.02	12.56	1.93
YRWORK	0.82	0.35	0.93	0.41
PERCENT	0.51	0.24	0.44	0.23
CURINAC	1.83	0.35	1.68	0.29
LOCPREMP	0.62	0.48	0.72	0.44
CLINPRAC	0.39	0.48	0.41	0.48
TYPEPOS	0.60	0.48	0.57	0.49
EMPSTAT	0.27	0.45	0.41	0.49
METEXPS	13.22	2.29	12.89	2.79
METEXPO	14.32	2.45	13.10	2.94
FUTEXPPR	26.34	5.01	24.69	5.58
FUTEXPPC	7.98	2.60	7.34	2.72
ACS	30.53	9.04	27.31	9.35
LACCS	13.39	5.32	12.60	5.83
HSCCS	10.04	3.24	9.24	3.28
SALARYNS	0.50	0.09	0.49	0.09
SALARYSP	1.68	0.24	1.60	0.21
NONLABOR	0.80	0.33	0.83	0.28
TOTALINC	1.71	0.24	1.64	0.22

Tests of the regression coefficients disclosed that six predictors attained statistical significance at the specified alpha of .05 for those whose inactivity was precipitated largely by personal reasons. As reflected in Table 40, the age of the nurse (AGE) and the age of the youngest dependent child (CHILDAGE) were negatively correlated with reported intention to return. The number of dependent children (DEPCHILD), level of future expectations related to professional development/recognition/reward in nursing (FUTEXPPR), affective commitment (ACS), and high-sacrifice continuance commitment (HSCCS) positively influenced intention to return to nursing.

Table 40

Summary Table of Selected Statistics for Regression of Intention to Return to Nursing on Predictor Variables Within Groups Classified by Primary Reason Underlying Career Inactivity

Variable	Personal reasons			Professional reasons		
	r	b (T-test statistics in parentheses)	B	r	b (T-test statistics in parentheses)	B
AGE	-.23	-2.18 (-2.13)*	-.139	-.03	-.69 (-.54)	-.043
DEPCHILD	.22	1.27 (2.41)*	.108	.04	.36 (.49)	.028
CHILDAGE	-.12	-.39 (-2.59)*	-.122	-.06	-.18 (-.78)	-.044
HIGHED	.08	.09 (.17)	.007	.01	.11 (.14)	.008
TYPEED	.16	.11 (.07)	.003	.08	1.06 (.58)	.029
SATSCORE	.22	.09 (.32)	.014	.19	.01 (.02)	.001
YRWORK	-.10	-1.43 (-.55)	-.042	-.01	-2.83 (-.89)	-.090
PERCENT	-.05	-4.20 (1.02)	-.082	-.03	-5.68 (1.11)	-.101

Table 40 (continued)

Variable	Personal reasons			Professional reasons		
	r	b (T -test statistics in parentheses)	B	r	b (T -test statistics in parentheses)	B
CURINAC	-.16	-3.12 (-1.59)	-.089	-.19	-6.71 (-2.61)*	-.155
LOCPREMP	.08	.24 (.25)	.009	-.16	-4.54 (-3.15)*	-.158
CLINPRAC	.06	.28 (.31)	.011	.04	.26 (.20)	.010
TYPEPOS	.12	.39 (.42)	.012	.07	2.24 (1.66)	.086
EMPSTAT	-.17	-2.03 (-1.82)	-.074	-.19	-.42 (-.31)	-.016
METEXPS	.10	.11 (.49)	.021	.06	.38 (1.45)	.084
METEXPO	-.00	-.18 (-.87)	-.037	.09	.23 (.91)	.053
FUTEXPPR	.20	.23 (2.01)*	.095	.14	.06 (.38)	.025
FUTEXPPC	.13	.07 (.35)	.016	.13	.24 (.83)	.053
ACS	.47	.39 (5.84)**	.291	.39	.30 (3.54)**	.219
LACCS	.35	.06 (.60)	.027	.38	.19 (1.45)	.085
HSCCS	.56	1.42 (7.68)**	.380	.60	1.80 (7.31)**	.465
SALARYNS	-.04	-2.17 (-.41)	-.016	-.09	-1.78 (-.24)	-.013
SALARYSP	-.09	-.65 (-.23)	-.013	-.06	-4.78 (-1.29)	-.079
NONLABOR	-.13	-1.44 (-1.03)	-.039	-.07	-1.46 (-.65)	-.032
TOTALINC	-.11	-1.94 (-.66)	-.038	-.13	-1.43 (-.39)	-.025
Multiple R		.678			.682	
R square		.459			.466	
Adjusted R square		.430			.414	
Intercept		15.593			.103	

* p-value for T -test of regression coefficient $<.05$

** p-value for T -test of regression coefficient $<.001$

For those nurses whose inactivity was founded upon primarily professional reasons, four regression coefficients were significant at $\alpha = .05$. The duration of current inactivity (CURINAC) and previous employment in a hospital rather than nonhospital setting exhibited negative relationships with the criterion. Both affective commitment (ACS) and high-sacrifice continuance commitment (HSCCS) positively influenced intention to resume a nursing career.

Appraisal of the respective Beta weights indicated that, for both groups, affective and high-sacrifice continuance commitment constituted the most important substantive predictors in the present analysis. It was further noted, interestingly, that the direction of the relationship with the criterion variable differed between the two groups for location of previous nursing employment (LOCPREMP) and objectively oriented met expectations (METEXPO). Discussion of these findings is reserved for the following chapter.

The results of analysis of variance employed in testing the significance of the regression are presented in Table 41. These findings indicated that, within both groups, the proportion of variance in intention to return to nursing accounted for by the set of predictors was significant at $\alpha = .05$. Retrospective power analysis revealed ample power for detecting statistically significant relationships.

Table 41

Analysis of Variance Summary Table of Tests of Significance of R Square for Regression of Intention to Return to Nursing on Predictor Variables Within Groups Classified by Primary Reason Underlying Career Inactivity

Primary reason - personal					
Source	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F</u>	<u>p</u>
Regression	24	31467.11	1311.13	15.64	<.001
Residual	442	37042.85	83.81		
Total	466	68509.96			

Primary reason - professional					
Source	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F</u>	<u>p</u>
Regression	24	20493.89	853.91	9.07	<.001
Residual	250	23524.14	94.10		
Total	274	44018.03			

Summary

The present chapter iterated and sequentially addressed each of the research questions previously specified in presenting findings derived from both descriptive and inferential statistics as pertinent. All statistical analyses were performed with the SPSS/PC+ microcomputing software package (Norusis, 1986). In addition to presentation of the findings per se, procedures for evaluating the statistical assumptions and the results of such evaluations were described. Data management strategies executed to avoid or minimize the effects of violations of the assumptions and to enhance the robustness of the results were also detailed.

Conclusions and implications relevant to the findings are discussed in the following chapter. Additionally, recommendations for further research are provided on the basis of insights gleaned from the present study.

CHAPTER 6

CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS FOR FURTHER RESEARCH

The present chapter constitutes a logical extension of the preceding by discussing conclusions and implications derived from the findings of the statistical analyses. Organization of this discussion parallels the major avenues of inquiry identified by the research questions: (a) determinants of career inactivity, (b) career satisfaction, (c) career commitment, and (d) intention to return to nursing. Inclusion of qualitative insight, furnished through supplemental commentary provided by a number of the respondents, contributes toward the theoretical and pragmatic relevance and interpretation of the findings. Concluding this effort are recommendations for further research to reinforce and expand upon the knowledge gleaned from this endeavor.

Determinants of Career Inactivity

In constructing a profile of career inactivity among this research population, the "typical" nurse was a 42 year-old female who had worked 10 years in the profession, reported that 45% of her nursing career had been spent in an inactive status, and disclosed an average duration of 6 years for the current period of inactivity. The fact that

the majority of these respondents reported a mix of personal and professional reasons underlying their decision to inactivate their nursing careers pointed to the complexity of both the individual decision and the general phenomenon of career inactivity per se. Extrapolated from this was the corollary likelihood that the decision regarding reactivation of a dormant nursing career was also highly individualistic and complexly specified.

On the basis of the five most commonly cited reasons underlying career inactivity summarized in Table 12, it was concluded that typical socionormative patterns for married females were evidenced in the primacy accorded child-rearing responsibilities, scheduling requirements in nursing which were irreconcilable with personal preferences, and lack of a financial imperative to be gainfully employed. Interestingly, many of those who indicated that it was not financially necessary for them to work also identified the inadequacy of their nursing salaries as a precipitant of career inactivity. This suggested that salary considerations were frequently founded on a principal deeper than financial need, notably one of equity.

Not surprisingly, pregnancy and child-rearing considerations constituted the most frequently reported reason precipitating inactivity and, as reflected in Table 13, represented the primary reason for over one-third of the respondents. In attempting to justify the nature of the reasons specified for inactivity with other individual information requested as part of the survey, however, it

appeared evident that, in a substantial number of cases, considerable disparity existed between why nurses left nursing and why they failed to return. For instance, while child-rearing responsibilities might have constituted the major determinant of inactivity, the current absence of a dependent child in the home or the older ages reported for such children refuted the legitimacy of this factor as the reason underlying continued career inactivity.

Of particular note was the commonality with which perceptions of inadequate staffing and lack of administrative support for nursing were recognized. Staffing adjustments prompted by the dictates of the current economic climate in health care have instigated deep-rooted and fundamental concerns related to the safety and quality of nursing care rendered under such constraints. Moreover, among these respondents, nursing's concerns have not been accorded the consideration due the largest group of health care professionals, and support from the administrative hierarchy has been inconsistently and reluctantly forthcoming. Selected commentary reinforces these conclusions:

I have the perception that nursing has serious problems but is somehow impotent to solve them. Nurses are regarded as second rate citizens in the hospital and are held at arm's length by administration and given only what's necessary to keep the place together - the scraps and the leftovers.

The workload and demands are such that even excellent, highly qualified nurses cannot help but make mistakes and omissions. I don't want that kind of atmosphere or responsibility.

I took a refresher course in 1984 intending to return to nursing. What I saw and experienced

changed my mind. What is asked of staff nurses is humanly impossible. I will not put everything at risk - patients, my family, myself - because the health care climate has changed. I do enjoy nursing, but the liability, responsibility, and stress are too great. When common sense returns to health care, so will I.

Determinants of Career Inactivity Among Nurses Classified by Current Employment Status

On the basis of patterns exhibited across groups classified by current employment status, several general conclusions regarding career-related decisions were evident. First, the preponderance of personal reasons as the basis for career inactivity among those who were not employed, as compared with nurses employed in either nursing or an alternative field, suggested that their fundamental decision revolved around a work/no work orientation. Particular problems related to nursing were generally not identified to the extent reported by the other two groups, but rather the decision to leave appeared based, in large part, upon personal choice.

While this pattern of responses was felt to be less amenable to intervention and reversal through strategies implemented within the health care delivery system in general or the nursing profession in particular, the possibility of individually directed or naturally occurring reversal over time was not precluded. In other words, since the profession per se was not as commonly implicated in the decision to leave, return to the profession once personal commitments, responsibilities, or needs had been fulfilled could be reasonably anticipated.

For nurses who had sought and obtained alternative employment in a non-nursing capacity, the basic decision appeared to center around which career to pursue rather than whether to be employed or not. The blend of personal and professional reasons precipitating abandonment of nursing for other careers suggested that nursing was deficient in those features which were valued highly in the career choice decision. Specifically, these respondents were disenchanted with the scheduling requirements, salary and benefit packages, and career mobility options seemingly inherent in nursing and turned to alternative careers to rectify deficiencies. These ideas are expressed in the following comment:

I am an excellent nurse who takes pride in her work and is really interested in the patients. If a job came along where I could use my expertise, get paid decently, and work reasonable hours, I would go back to work. I don't foresee this. What is more likely is that I will return to school and get another degree in pharmacy, engineering, or computer science. There is no future in nursing for me.

Obviously, the decision of registered nurses to pursue non-nursing career alternatives is problematic with respect to subsequently attracting them back to the nursing profession. Since these individuals desire to or must work, a useful strategy may be to make nursing careers more comparatively attractive with respect to their non-nursing counterparts in the areas identified as being deficient. Summarizing in the words of one respondent, "Nursing needs to be more flexible before I return to it."

Among those respondents who resumed their nursing careers following a period of inactivity, the fundamental decision appeared to be job-oriented rather than career-oriented. While problems were encountered in such areas as insufficient involvement in decision making, lack of autonomy in planning and performing nursing activities, and scheduling demands which negatively impacted the quality of their work, basically these individuals appeared to want to remain in nursing and sought other nursing positions or additional education to enable them to do so.

Implications stemming from these conclusions point toward the importance of monitoring more thoroughly and accurately the reasons cited for leaving a particular nursing position. Particularly when personal reasons are identified, efforts to maintain contact with such nurses may contribute to their perception of self as a valuable member of the health care team, foster their sense of belonging even during a period of absence, and perhaps lessen the duration of their inactivity.

When largely professionally or organizationally based reasons are disclosed, strategies should be more aggressively pursued to correct patterns of deficiencies and render nursing careers more commensurate with non-nursing options. While attention to a more equitable salary structure is certainly indicated, other professional considerations could be addressed without a direct outlay of dollars. Examples include mechanisms for enhancing nurse participation and autonomy, for fostering more collaborative

relationships with physicians, and for creating more flexible scheduling options so that the quality of both personal and professional lives is sustained.

Career Satisfaction

With due consideration of the relative dearth of extant theoretical and empirical work dealing with the construct of career satisfaction, this variable behaved as generally expected. The career satisfaction construct correlated positively with intention to reactivate a nursing career and, as evidenced in the following discussion, was associated with reasonable and interpretable results.

Career Satisfaction Among Nurses Classified by Current Employment Status

Career satisfaction was posited as being highly influential both in the decision to leave nursing and in the subsequent decision regarding whether or not to return. Intuitively, one may have anticipated that satisfaction with nursing as a career would have been highest among those who had resumed their nursing careers following a period of inactivity and lowest among those who had pursued other career paths. On the basis of the present findings summarized in Tables 16 and 17, however, career satisfaction among nurses was highest among those who were currently not employed. Somewhat lower levels of satisfaction were found among those who had returned to nursing, while those who were employed in a non-nursing capacity did, in fact, exhibit the lowest level of satisfaction with nursing as a career.

Relating these findings with patterns disclosed among the reasons underlying career inactivity contributed toward plausible interpretation. Specifically, those who were not employed were distinguished from both groups of employed nurses in their reporting of primarily personal reasons for career inactivity and, thus, may not have experienced or accorded particular significance to dissatisfaction with nursing. Alternatively, absence from nursing, with its attendant insulation from sources of frustration or stress, may have fostered a more favorable perception of satisfaction within this group than among those who had resumed their nursing careers.

With respect to this latter group, consideration must be given to the possibility that the decision to return to nursing may not have been desirable or even voluntary. In some instances, respondents reported the necessity to resume active employment because of financial exigency and felt more inclined to seek a nursing position than to subject themselves to the additional demands of discovering and mastering an alternative occupation.

Additionally, with their return to nursing may have come renewed exposure to elements of dissatisfaction, which may have softened in intensity during the period of absence. Also, for a very few respondents, their return to nursing was regarded as temporary, as a means of support while they completed educational preparation to pursue another career outside nursing. All of these considerations may have contributed toward the somewhat lower satisfaction

levels reported among those who had terminated their career inactivity by returning to nursing.

In like manner, global dissatisfaction with nursing as a career may have been perceived as unalterable and, thus, as leading to the logical, though more extreme, decision to pursue a non-nursing career alternative. Within this latter group of respondents, this relative dissatisfaction apparently persisted in many cases well beyond the point at which the individual had become established in the alternative career. Comments furnished by respondents lend further insight to this issue:

For me, nursing allowed me to go further in other health-related fields than having a non-nursing background. I would never have been satisfied just remaining in nursing. Nursing opens doors.

I relate to nursing as an insurance policy to some degree. I'm glad I have my RN in case I should need to support myself or my family. However, I did broaden my education so I might have other alternatives because I never was very satisfied with nursing.

These conclusions point to the potential inherent in seeking out those nurses who are not employed, in actively communicating and maintaining contact with them. The higher relative levels of career satisfaction perceived by this group should enhance the likelihood of attracting them back to the nursing profession at some point in time. At the opposite extreme, the low levels of reported career satisfaction exhibited among those nurses who have pursued non-nursing career options detracts from the likelihood of their return.

Career Satisfaction Among Nurses Classified by Primary Reason Underlying Career Inactivity

On the basis of respondent classification by primary reason underlying career inactivity, satisfaction with nursing as a career was higher among those whose main reason for leaving was personally motivated than among those who reported professional considerations as impelling their inactivity. This finding, presented previously in Table 18, was intuitively appealing on the basis that those whose leaving stemmed from primarily personal concerns relatedly indicated that they experienced fewer or perhaps accorded less importance to professionally based aspects of nursing which may have contributed toward dissatisfaction. A reasonable conclusion drawn from these findings is the increased likelihood of attracting back to nursing those whose careers were interrupted for personal dictates.

Career Commitment

Commitment to nursing as a career was profiled in terms of three dimensions related to affective commitment, high-sacrifice continuance commitment, and low-alternatives continuance commitment. As with career satisfaction, previous theoretical and empirical work offered a very limited body of knowledge upon which to draw for the present study. On the basis of current findings, several theoretically relevant conclusions are warranted. First, factor analysis disclosed the existence of three dimensions of career commitment, paralleling those previously reported for organizational commitment (McGee & Ford, 1987). Second,

construct validity was demonstrated through the anticipated positive correlation between career satisfaction and career commitment. Third, career commitment behaved as theoretically expected by correlating strongly in a positive direction with intention to return to nursing. Additional discussion in the following passages further substantiates the theoretical and pragmatic implications of this little-investigated construct.

Career Commitment Among Nurses Classified by Current
Employment Status

With respondents grouped according to their current employment status, those who had resumed their nursing careers exhibited the highest levels of all aspects of commitment. This finding, depicted previously in Table 20, suggested that these individuals experienced the greatest attachment to or identification with nursing, perceived that significant personal and professional sacrifices would be associated with abandonment of nursing as a career, and also sustained retention in nursing because of unfavorable perceptions regarding the availability or attractiveness of career alternatives. Slightly lower commitment profiles were found among those nurses who were not employed at the time of data collection, while the lowest levels were observed, not unexpectedly, among those whose labor force participation energies had been channeled into non-nursing avenues.

Within the group of nonemployed nurses, the lower relative affective commitment to nursing could have been

attributed to the moderating influence of other priorities or commitments. Commitments to child-rearing or other family responsibilities, for example, may have taken temporary precedence over competing commitments to nursing careers. Similarly, these individuals may have felt that their investiture of self in a nursing career was not so significant that temporary suspension or even permanent termination of that career constituted a sacrifice of unacceptable magnitude. Alternatively, the sacrifices associated with leaving nursing may have been outweighed by the personal costs of remaining. Consider, for example, the following:

Emotionally draining were the time pressures, the responsibility for human life, the no-mistakes environment, the feeling that nursing was a thankless task and unrespected, the feeling like I was on a treadmill - a real grind with no relief from the stress, no rewards of adequate measure for the efforts, and no end in sight.

In like manner, the magnitude of low-alternatives continuance commitment within this group of nonemployed nurses could well have been moderated by the nature of the alternatives perceived. To further explain, the alternative weighed against continuance of a nursing career was lack of active labor force participation, the implications of which differ from those associated with an alternative choice of career or employment. Nonemployment could readily have been perceived as an attractive alternative, non-threatening and low in stress, when compared with either remaining in nursing with the problems attendant a changing health care delivery system or seeking and gaining proficiency in an alternative career. Moreover, drawing upon

descriptive statistics previously mentioned, these nurses may have perceived that they had "done their time," so to speak, in nursing and welcomed the nonemployment alternative. Reinforcement of this perception could be found in the concomitant absence of a financial need to work among a substantial proportion of the respondents.

Conclusions stemming from the low relative career commitment exhibited among those who had turned to alternative fields for employment are self-evident. For these individuals, either affective commitment to nursing had never been well developed or inability to effect a meaningful compromise between expectations and reality had caused commitment to wane. Affect and sense of career attachment within this group were apparently transferred from nursing to a career alternative more closely aligned with personal philosophies, expectations, and ability to tolerate departures and incongruities.

In like manner, those nurses who had sought alternative forms of employment exhibited relatively low levels of commitment associated with the costs of leaving a more or less established career and pursuing another avenue of employment. Or, as mentioned previously, the sacrifices associated with leaving were judged acceptable when compared with the personal and professional burdens accompanying a decision to remain in nursing. Relatedly, these individuals perceived more attractive career alternatives and sought and successfully pursued them. Thus, within this employment group, commitment to nursing as a career did not

appear to be founded upon perceptions of either irrecoverable investment of self with the associated high costs of leaving or of the dearth of suitable career alternatives.

Career Commitment Among Nurses Classified by Primary Reason Underlying Career Inactivity

From the perspective of the primary reason for leaving nursing, the career commitment profile was higher among those whose leaving was triggered by personal rather than professional reasons. Such personal considerations may not have abrogated the individual's affective attachment to nursing, but rather may have placed it in abeyance while non-nursing priorities were addressed. Similarly, professional reasons dominating career inactivity may have been sufficient to erode the degree of positive affect directed toward nursing as well as inflate the personal and professional costs of remaining when contrasted with those associated with leaving nursing. The primacy of professionally based reasons for leaving nursing may also have rendered other career options more attractive and, ultimately, more attainable.

These findings, as previously displayed in Table 23, substantiate the theoretical relevance of career commitment within the context of decisions and behaviors operative during periods of career inactivity and following subsequent return to that career. Even as previous research has substantiated the negative relationship between commitment and both intentions to leave and actual turnover behavior, the present findings logically extend the influence of the

commitment construct by reflecting the positive association between intended or actual resumption of an active nursing career and all dimensions of career commitment. It is pertinent to emphasize, however, that by virtue of the design of the present study this relationship must be interpreted as correlative rather than causal in nature.

Salient implications emanating from these conclusions reflect the importance of fostering high levels of all dimensions of commitment as a strategy for reducing the likelihood of permanent career inactivity. Impeding the timely implementation of this intervention, however, is the relative dearth of knowledge related to career commitment, the process by which the various dimensions develop, and stratagems effective in the individual enhancement of this multifaceted construct. Of more immediate application, on the basis of conclusions relayed herein, is the implication that priorities for recapture of inactive nurses should focus upon nonemployed nurses, with their higher relative levels of commitment to nursing, rather than those who have obtained employment in an alternative field.

Intention to Return to Nursing

Although the focus of the present cross-sectional analysis centered upon intention to return to nursing rather than upon patterns of employment behaviors over time, salient aspects of the research design enabled some appraisal of the reversibility of career inactivity with respect to both intentions to return to nursing and actual resumption of nursing careers. Specifically, as presented

in Tables 26, 27, and 29, when contrasted with those who were employed in a field other than nursing, those who were not employed reported a lower average duration of current inactivity, greater intention to return, and a higher proportion of actual resumption of nursing careers. These findings substantiate previous implications related to the advocacy of targeting nonemployed nurses for recapture.

While the finding that approximately 25% of the respondents had returned to nursing was encouraging, the mean duration of inactivity among this group of returnees, as summarized in Table 27, was 44.5 months, a considerable absence in view of the rapidity of change enveloping the current health care delivery system. A qualifying consideration, moreover, is the possibility that, for at least some of these respondents, the return to nursing was viewed as only temporary. This constraint was cogently reflected in the following comment:

In the time I stayed out of nursing, I tried to switch professions. I was worn out with all the problems that go with being a good nurse these days. I found a second profession, one that satisfied and that I could do well. But, nursing to me is a truly noble calling, so I rejoined the ranks. I'm happy to be nursing again, but I'm also a 10 on the frustration scale. I suspect I'll wind up quitting again unless some of the problems are relieved.

As reflected in the previous comment, and further substantiated by the relative lack of success associated with incentive programs designed for recruitment purposes, the recapture of inactive nurses appears insufficient in itself to contribute significantly to alleviating troublesome

shortage conditions. Rather, recapture must be coalesced with retention strategies, the success of which critically hinges on being informed, communicative, and responsive to nursing's priorities and concerns.

Among those respondents whose nursing careers remained inactive at the time of data collection, reported intention to return was, overall, moderate at best. Perhaps the comparatively prolonged absences indicated by these respondents increased their perceptions of having lost touch with nursing, of having failed to keep pace with changes which were rapidly occurring and often radical in scope, and of correlative fears of not being able to re-enter the profession and function competently and comfortably again. These conclusions suggested the desirability of strategies designed to abbreviate the duration of inactivity and to facilitate the re-entry process through such avenues as individualized refresher and orientation programs. According to a considerable number of respondents, these latter options have been largely deficient:

When I needed to return to work, no hospital needed me since I had been out of nursing more than five years. There was no refresher course available. After my many years in nursing, that left me with very mixed feelings.

Reported intention to return was also greater among those whose reason for leaving was personally rather than professionally founded. These findings paralleled those previously reported within the contexts of career satisfaction and career commitment, both of which correlated positively with intention to return to nursing. Specifically,

those who left nursing because of deficiencies of a professional orientation had lower levels of satisfaction with nursing as a career, poorer commitment profiles, and, relatedly, lower intentions to reactivate their nursing careers.

Salient implications reinforce the advocacy of monitoring reasons for leaving nursing and of post-departure employment status, with efforts directed toward targeting nonemployed nurses and those whose leaving was based upon personal considerations for timely re-entry into nursing. To date, such monitoring and targeting activities have been largely nonexistent or haphazardly performed. A number of respondents volunteered that, since leaving active employment, they felt "forgotten" and no longer cared about or considered for future contributions to health care. A simplistic, yet potentially powerful implication stemming from these perceptions is that the maintenance of communication with inactive health care professionals may facilitate re-entry into a system which continues to perceive them as valuable assets.

Importance of Selected Return Factors

As previously mentioned, factors underlying the decision to leave nursing, whether temporarily or permanently, were not necessarily the same as those which delayed or precluded an individual's return to nursing. The present study endeavored to recognize this disparity through respondent evaluation of the importance of selected factors in their decision to return or not return to nursing.

While the finding of high relative importance attached to the majority of these factors was interesting in itself, perhaps of greater utility was the relative ranking of these factors. For example, as previously presented in Table 28, professionally oriented concerns or those amenable to health care system intervention and control were generally accorded greater importance to the return/not return decision than such personal considerations as spouse/family support, the financial need to work, and the availability of child-care facilities. This patterning was logical in the sense that the average female nurse in the research population was in her early forties, had children old enough that child-care had receded in relevance, and was of sufficient financial means that employment was not essential to maintaining a particular standard of living. Professional considerations impacting the reactivation decision, however, had apparently assumed greater relative importance in the interim.

According to these findings, respondents assigned the highest relative importance to directly work-related factors, such as the availability of working in the area or unit of choice, flexibility in scheduling, assurance of a safe working environment, and improved nurse-patient ratios. Interestingly, higher salary was ranked 7th of the 16 listed factors, although there was relatively little substantive disparity among the reported means. From this pattern of responses, it was concluded that nonfinancial aspects of nursing were accorded a somewhat higher priority

than the supposed financial panacea of improved nurses' salaries.

Adoption of health system intervention strategies paralleling these rankings carries the correlative potential of effecting substantive improvements in the labor force environment of nurses and nursing without immediate recourse to more expensive financial remedies. While the finding that the salary issue was not primary in importance should prove reassuring to an economically pressured health care delivery system, the nonfinancial priorities, though seemingly simplistic in nature, may prove more difficult in actual implementation and entail more insightful, creative, and consistently applied efforts.

Particularly disturbing was the frequency with which lack of administrative support for nursing and of associated recognition of professional competence was cited as a reason for leaving nursing and as an important consideration impacting the decision to return. Lack of administrative support was felt to reside not only within health care administration in general but also within nursing administration. Insights furnished by respondents pointed to their perceptions that nurse executives had "sided with" other representatives of the administrative hierarchy and, in effect, had desecrated the philosophy and ideals of nursing. Implicitly recommended was the cultivation of an assertive and politically astute body of nurse administrators who were committed to factual rather than emotional substantiation of nursing's problems, to informed and

intelligent advocacy of the contributions furnished by quality professional nursing care to the attainment of optimal clinical outcomes, and to the search for or development of creative resolution strategies implementable within the constraints imposed by the current health care delivery climate.

Concerns reflected in supplementary commentary were furthermore directed toward the impotence of professional nursing organizations in advocating the professionalism of nursing and functioning as effective change agents in improving nursing's image and status. These considerations reflect the confusion and fragmentation of purpose within the nursing profession, the need for solidarity and unity of direction, and the importance of strong and informed leadership in shaping a cohesive profession whose voice is heard and respected.

Finally, special mention is made of the importance attached to assurance of a safe working environment, safe with respect to exposure to catastrophic diseases, such as acquired immune deficiency syndrome (AIDS), and other risks associated with nursing as a career. While this consideration was mentioned relatively infrequently as a reason for leaving nursing, it was ranked third in importance as a factor influencing the return decision. The following comments highlight nurses' concerns:

If AIDS gets to be a big factor, I'll leave nursing and go out on the road with my husband, who is a truck driver. There's only so much risk I would be willing to take.

AIDS - This is a factor I consider in thinking of going back to work at this time. At this point, I don't think the reward is worth the risk.

In view of the reported magnitude of this consideration, greater efforts appear warranted in educating nurses regarding the reality of these risks and in implementing protective measures to further reduce them.

Prediction of Intention to Return

The exploratory focus of the present investigation sought to disclose the nature of the relationships between a generously specified set of predictor variables and intention to return to nursing. To facilitate discussion, the directions of the observed relationships, as revealed through regression analysis and presented in Table 34, are displayed in Figure 2. In general, the nature of these relationships between predictors and the criterion variable intention to return was readily interpretable. These will be briefly discussed to facilitate disclosure of relevant implications.

Not surprisingly, older nurses were less inclined to intend reactivation of nursing careers. Changes in nursing and the health care delivery system, prolonged periods of absence, and the increased likelihood that no financial imperative to work existed may have contributed to this finding. Somewhat relatedly, while it had been anticipated on the basis of previous empirical work that the age of the youngest dependent child would have correlated positively with the intention to return, in actuality a negative

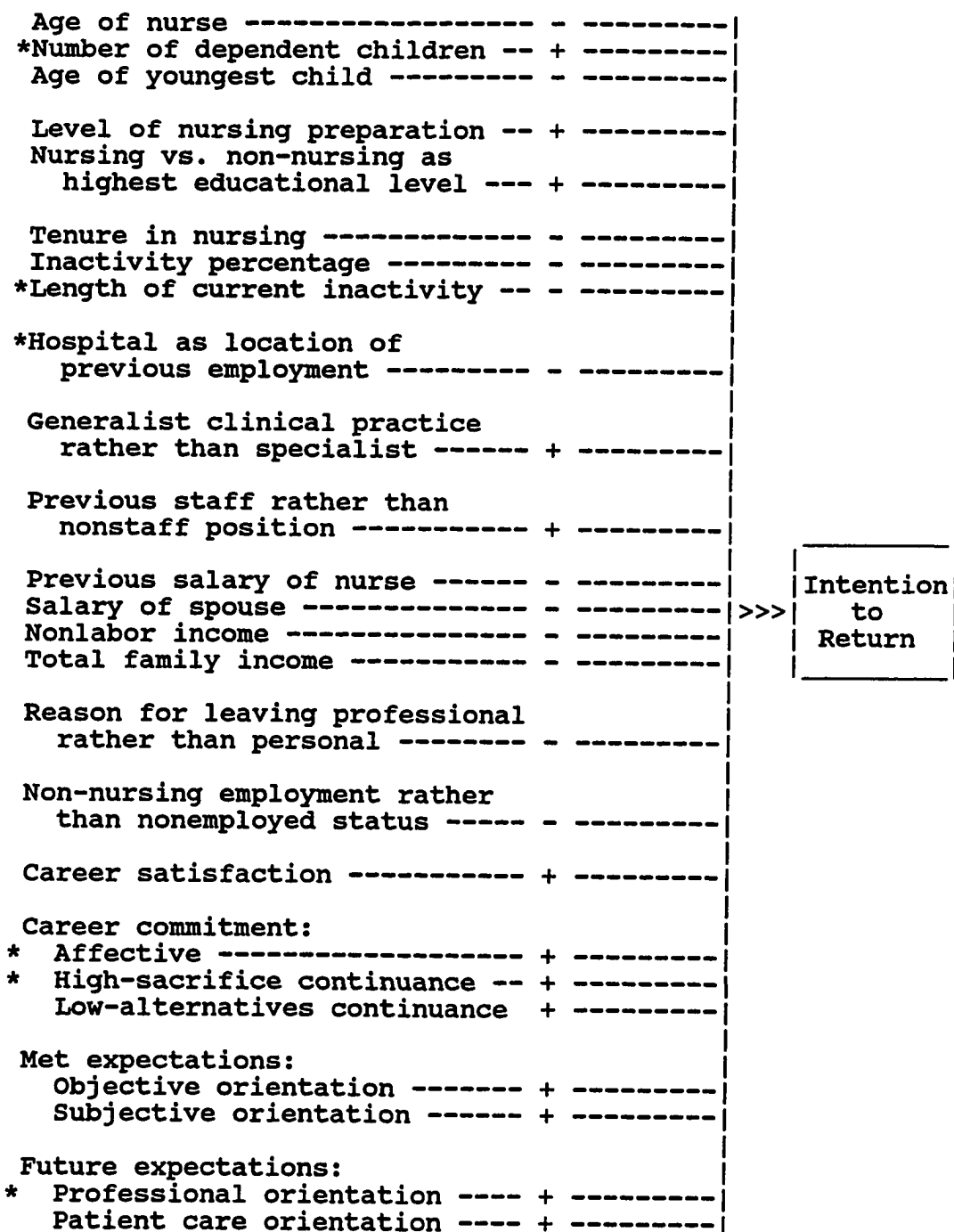


Figure 2. Model of intention to return to nursing derived from multiple regression analysis.

Note. Asterisks denote statistically significant variables.

relationship was observed. The substantial zero-order correlation between the age of the nurse and the age of the youngest dependent child may assist in explaining this finding. In other words, older children naturally had older mothers, who were less inclined to return to nursing for reasons posited above.

These findings also suggested that, as the number of dependent children increased, so did the respondent's intention to resume a nursing career. This may have been financially prompted, although absence of financial need to work constituted a commonly cited contributor to career inactivity. Alternatively, nurses with larger families may have experienced a greater need for the diversion or different type of stimulation available through professional career activities as contrasted with domestic or nonmarket responsibilities.

Educational preparation, approached from two perspectives in this study, positively influenced the inactive nurse's intention to return. In nursing's multi-tiered educational hierarchy, those who had attained higher levels expressed a greater likelihood of resuming active nursing careers than did those whose preparation was more basic. More advanced professional preparation may have precipitated the perception of greater investment of personal and professional energies and resources into nursing as a career, such that excessive loss would have been sustained through indefinite or permanent severance from active involvement through employment. Additionally, higher levels

of nursing preparation may have either resulted from or resulted in more positive affect toward nursing, with greater attachment to and internalization of nursing's ideals and philosophies.

Relatedly, those whose highest level of educational preparation was founded in nursing rather than in a non-nursing field of study reported greater intentions to return to nursing. Individuals may have sought non-nursing educational foci because of a desire to pursue other career alternatives and subsequently found other career paths opened to them. Among those whose highest overall level of educational preparation was in nursing, this choice may have reflected their satisfaction with or commitment to nursing as a career. Alternatively, such respondents may have perceived that other career options were not available to them because they lacked the necessary educational preparation and, correlatively, that nursing was what they were prepared to and intended, therefore, to do.

Variables reflecting the employment history of the nurse, such as tenure, percentage of nursing career expended in inactive status, and length of current inactivity, proved insightful with respect to predicting intention to return to nursing. For each of these variables, a negative relationship was found with intention to return.

In the case of tenure in nursing, one school of thought held that as more employment years were invested in nursing, the likelihood increased that the individual would remain in that field. Such behavior could be attributed to

such considerations as the familiarity bred with prolonged exposure to that particular occupation, adjustment to the realities of the profession, satisfaction with and commitment to the profession, and the difficulties associated with locating and developing proficiency in a suitable career alternative.

In actuality, the negative relationship observed did not support such an interpretation. Rather, factors previously cited in conjunction with the age of the nurse could be applicable to this variable. Moreover, as the number of years employed in nursing increased, some respondents may have concluded that they could no longer tolerate working conditions increasingly perceived as unconscionable or perceived growing or irreconcilable discrepancies between expectations and realities.

More readily interpretable were the negative relationships observed with the percentage of time since licensure spent in inactive status and with the length of the current period of inactivity. As increasing proportions of the respondent's career years were consumed away from nursing, the likelihood of return was diminished. In like manner, as the duration of the current period of inactivity increased, reported intention to return decreased. Such findings point to the saliency of intervening promptly to decrease the duration of career inactivity.

Interestingly, the percentage of time spent inactive in nursing exhibited opposite correlations when the respondents were dichotomized on the basis of current type of

career inactivity. While a negative correlation was found among those who were not currently employed, the correlation with intention to return was positive for those who were employed in a non-nursing capacity. This discrepancy was not readily explainable. Perhaps the fact that those engaged in non-nursing employment were actively participating in the labor force and that this made them more receptive to transferring back to nursing constituted a possible explanation. This possibility assumes greater plausibility if such individuals perceived over time many of the same difficulties in their alternative careers as had been found problematic in nursing.

Another consideration with respect to this variable involved the issue of measurement. For example, a 50% measure of inactivity could have been obtained for either a nurse who had been inactive for one of the two years following licensure or one who had worked for 15 out of a possible 30 years. Thus, the nature of measurement of this variable may have contributed toward the resultant inconsistency of findings.

In addition to the general employment history variables discussed above, other predictors addressed more specific aspects of the nurse's employment prior to the current period of inactivity. These variables included: (a) the location of previous employment, dichotomized as hospital versus nonhospital; (b) the nature of clinical practice, differentiated between generalist versus specialty

practice; and (c) the type of prior nursing position held, distinguishing between staff and nonstaff positions.

In general, previous hospital employment was negatively associated with intention to return. This finding was consistent with previous research which revealed higher levels of dissatisfaction among nurses employed in hospitals as opposed to nonhospital settings (Godfrey, 1978b). Indeed, several of the respondents specified that their return to nursing would depend, in large part, upon their ability to find a satisfactory position in a nonhospital facility.

The implications of this finding are considerable, particularly since approximately two-thirds of professional nurses are currently employed in hospitals. In addition, hospitals have been most heavily affected among the spectrum of health care institutions by nurse shortages. Both improvement in the image and professional working environment of hospitals and increased awareness and availability of alternatives to hospital employment logically constitute useful strategies derived from this finding.

Also of interest, however, was that the direction of the relationship between location of previous employment and intention to return differed when respondents were grouped according to their primary reasons for inactivity. While those who reported professional reasons as the basis for their inactivity demonstrated a reduced likelihood of returning when previous employment was hospital-based, this finding was not duplicated among those whose primary reason

for leaving nursing was personally oriented. Among this latter group, intention to return was positively associated with previous hospital employment. This finding was relatively self-explanatory on the basis that, since the major determinant of inactivity was personal rather than professional in nature, serious problems with previous hospital employment may not have been operative in this group.

With respect to the influence of the nurse's clinical practice area, it might have been anticipated that a lower intention to return would have been associated with generalist practice, in view of the greater staffing burden, more routinized work patterns, and reduced autonomy characteristic of this practice type. On the other hand, specialty practice carries its own share of negatives, such as the greater stress and technological expertise associated with higher acuity patients and perceptions of excessive autonomy or responsibility. While the direction of the relationship suggested that the latter considerations may have been operative, the small size of the zero-order correlation and Beta weight mitigated the relative importance of this variable in predicting the criterion.

In like manner, the sign of the regression coefficient for type of previous nursing position indicated that a previous staff position was positively associated with intention to return. Intuitively, one might have anticipated that previous nursing employment in a nonstaff capacity should have correlated positively with the criterion, in view of the greater autonomy, salary, and scheduling

flexibility often associated with these positions. In the present instance, however, previous employment in a staff position may have been positively perceived as representing nursing's primary directive of actual hands-on patient care. Several respondents commented favorably upon this aspect of nursing as being closest to the heart and essence of nursing and the one most loved. Alternatively, nonstaff positions tend to remove the nurse from the bedside and unleash exposure to different types of stressors for which they may have felt unprepared. Interpreted in this light, the positive association between staff nursing and intention to return appears plausible.

Within this predominantly female population of inactive nurses, financial variables were posited as salient predictors of intention to return. Interestingly, an inverse relationship was found between the respondent's previous nursing salary and intention to resume a nursing career. This finding may be explained in part by the higher salary received by those with longer tenure in nursing or by those in nonstaff positions, both of which were associated with comparatively lower intentions to return. Moreover, while higher salaries were associated with higher levels of satisfaction with nursing as a career, negative correlations were found between this salary measure and all forms of commitment to nursing as a career.

Consistent with expectations drawn from economic theory, intention to return to nursing was inversely associated with the salary of the spouse, with nonlabor income,

and with the total family income. Nonmarket time and activities may have been accorded greater value under these conditions of decreased financial need for the inactive nurse to resume labor force participation in nursing. These financial variables are, obviously, not amenable to manipulation by the health care delivery system, but serve to characterize those opting to inactivate their nursing careers and to facilitate prediction of the likelihood of their return.

Also congruent with theoretical expectations were the positive regression coefficients obtained for career satisfaction, career commitment, and both met and future expectations regarding nursing as a career. Similarly, the positive zero-order correlations among the three commitment measures reflected consistency in commitment across its various facets. Those who acknowledged positive affect toward nursing perceived both considerable sacrifices associated with abandonment of their nursing careers and fewer suitable career alternatives. These individuals were, accordingly, likely to express greater intentions to return to nursing.

The positive zero-order correlations between career satisfaction and all facets of both met and future expectations may be interpreted as approximating construct validity of these measures. In general, perceptions of greater congruity between individual expectations and the realities of nursing, perceptions of general satisfaction with nursing as a career, and anticipations of a positive future for

professional nursing were conducive to greater intentions to resume inactive nursing careers.

Significant Predictors Among All Inactive Nurse Respondents

With respect to the number and nature of statistically significant predictors, the relative importance of affective and high-sacrifice continuance commitment in all regression equations was insightful. Low-alternatives continuance commitment, not unexpectedly, failed to contribute as strongly, perhaps because a number of the respondents had already successfully pursued non-nursing career paths.

Of interest was the finding that career satisfaction, although exhibiting the anticipated positive correlation with intention to return, did not contribute significantly to prediction. While the respondents expressed relatively high levels of general satisfaction with nursing, apparently this was less potent in stimulating return than other considerations. This may have been due in part to the fact that career satisfaction was constructed to measure global satisfaction with nursing as a career and did not accord respondents the opportunity to address specific aspects as either satisfying or dissatisfying.

The value placed upon the professionalization of and professionalism within nursing was reflected in the significant regression coefficient found for future expectations related to professional development, recognition, and reward in nursing. Where these considerations were positively evaluated, intention to return was enhanced.

Intervention strategies oriented toward enhancing the professional status of nursing are implicit in this finding.

Significant Predictors Among Nurses Classified by Type of Current Inactivity

Among respondents classified by the type of current inactivity, comparison of significant predictors within each group was also informative. As previously presented in Table 37, in addition to affective and high-sacrifice continuance commitment, which were significant within all groups, the location of previous employment and length of current inactivity predicted significantly among nonemployed respondents. That the comparison group had already obtained alternative employment may have reduced the impact of these measures in this group.

Significant Predictors Among Nurses Classified by Primary Reason Underlying Career Inactivity

Among groups classified by primary reasons underlying career inactivity, differences in the pattern of significant predictors of intention to return were also observed, as portrayed in Table 40. The finding that the age of the nurse, the number of dependent children, and the age of the youngest dependent child constituted significant predictors among those whose primary reason for leaving nursing was personal was readily understandable. Such individuals may have accorded higher priority to family and child-rearing responsibilities and behaved accordingly. Within this group, future expectations regarding professional considerations in nursing also contributed significantly to prediction. Indeed, inspection of the mean values for both

met and future expectations disclosed the logical finding of more favorable perceptions among those whose inactivity was prompted by personal rather than professional concerns.

Variables which predicted significantly among those who left nursing for primarily professional reasons but not in the comparison group included length of current inactivity and location of previous employment. This may be explainable, at least in part, on the basis of previous negative experiences associated with hospital employment and perceived difficulties of returning to nursing following lengthy absences.

Summary of Policy Implications

From the findings and conclusions of the present study of career inactivity among professional nurses, salient policy implications were synthesized and differentially specified for health care administrators, for nurse educators, and for professional nursing organizations. As a preface to these summary remarks, a premise underlying this research was that efforts to promulgate recapture of inactive professional nurses could contribute meaningfully to alleviation of the current nurse shortage. Although a number of the implications disclosed herein are not new, their implementation in many cases has been haphazard and fragmented. While not every inactive nurse can, or necessarily should, be wooed back to active nursing practice, the insights furnished through this empirical work and extrapolations therefrom should furnish direction to those pursuits

whose undertaking carries more than a marginal potential for success.

Policy Implications for Health Care Administrators

Policy implications emanating from the present study highlight the advocacy of targeting for recapture inactive nurses who are generally younger, possess baccalaureate or higher educational preparation in nursing, and whose previous employment history was characterized by generalist practice in staff positions in nonhospital settings. Somewhat more difficult to identify, yet worthy of reactivation efforts, include those inactive nurses who are not employed as opposed to being alternatively employed in a non-nursing capacity, those whose reasons for leaving were personally rather than professionally motivated, and those with strong commitment to and favorable future expectations regarding nursing as a career.

In order to capitalize upon these targeting efforts, greater attention should be accorded to monitoring termination of employment documentation to ascertain the precise reasons identified for leaving and to minimizing the duration of inactivity through maintaining contact and communication with inactive nurses. Enhanced receptivity to seeking out and exploring the feasibility of more flexible employment options, delineated from individually identified needs, may culminate in employment policies and practices which not only induce the return of inactive nurses but also increase the general attractiveness of nursing as a career to potential aspirants.

Related implications point to the saliency of enhancing the attractiveness of hospital nursing by analyzing and adopting strategies which have been successful in other industries. For example, staffing ratios can be improved, with associated augmentation in quality patient care time, by reallocating resources and designing new staffing systems, such as staggering nursing personnel in accordance with peak patient care activity levels. Relatedly, reduction in non-nursing activities can be sought through more efficient utilization of ancillary personnel to assist with less skilled clinical as well as nonclinical support tasks essential to quality nursing care. The primary nursing concept with its attendant array of non-nursing responsibilities should be reconceptualized or modified to incorporate greater utilization of these nonprofessional caregivers to perform those aspects of care which do not require the knowledge and skill level of the registered nurse. In addition, more intensive effort should be directed toward adapting and implementing informational and systems technology to support patient care. For example, development and timely implementation of computerized nursing information systems will significantly facilitate the execution of documentation requirements and the timely retrieval of data relevant to assuring currency of nursing care planning and evaluation activities.

Scheduling needs and considerations related to working in the unit or area of choice are also amenable to more flexible intervention strategies. For example, a variety

of scheduling options may be offered within an individual unit or department, including 8-, 10-, or 12-hour shifts, for example, and weekdays only or weekends only plans. In addition, job-sharing may be an attractive alternative to nurses who do not wish to assume full-time employment responsibilities (Bardi, 1981). Typically, nursing units have tended to offer a single scheduling format or very limited scheduling alternatives in contrast to the broad offerings suggested here. Self-scheduling, which enhances the nurses's perception of control over working hours, may also constitute a feasible option within staffing cohorts possessing sufficient maturity and cooperativeness to do so.

Relatedly, nurses' abhorrence of assignment to a unit other than the one of choice, either permanently or through "pulling" tactics, may be ameliorated through the practice of cross-orienting nurses to several related units. The increased sense of familiarity and comfort with several units characterized by similar patient populations nurtured by this strategy should reduce the perceived offensiveness of these staffing practices. Availability of a fully oriented flexible staffing pool may effectively reduce the need for intra-institutional "pulling" as well as the utilization of expensive and poorly oriented supplemental nurse staffing. Evidence has shown that hospital utilization of supplemental nursing agencies constitutes a counterproductive force characterized by reduced nursing productivity, increased staffing expenditures, and resentment

among institutional staff stemming from the agency nurse's necessity to carry a patient load of lower quantity and complexity (Cohen, 1986).

More diligent effort should be expended in identifying and operationalizing incentives which encourage career longevity, such as job restructuring or enrichment (Kaye & Krol, 1981). Tailoring responsibilities to the knowledge and skill level of the nurse with reallocation of non-nursing functions to appropriate nonprofessional personnel, fostering nursing rounds and interdisciplinary patient conferences, and facilitating professional growth through continuing education programs addressing current advances in health care delivery constitute representative examples of the types of activities which may be explored and implemented. Additionally, career development programs, career ladders for those nurses wishing to remain at the bedside, and individualized refresher programs for those desiring re-entry constitute viable strategies to enhance recapture (Gassert, Holt, & Pope, 1982; Huly, 1982; Roedel & Nystrom, 1987).

Perceptions of nurse autonomy, of involvement in decision making, and of positive collegial relationships with physicians can be improved through the inclusion of nurse representation on various committees, through the establishment of nurse task forces or quality circles to address specified problems or projects, and through the creation of nursing support groups for constructive

ventilation of frustrations and the sharing of professional concerns.

To a considerable extent, the salary issue in nursing was perceived herein as founded upon concerns for equity rather than upon financial imperatives per se. While direct intervention in the form of adjusting nurses' salary profiles upward constitutes the most obvious approach to this perceived problem, health care administrators may be justifiably concerned by the dollar impact. As a possible alternative, consideration may be given to substituting a higher base salary for selected fringe benefits. Married nurses, for example, may possess adequate health insurance through their spouse's policies and may wish to forego additional insurance in lieu of higher wages. Since this option is substitutive rather than additive in nature, the resulting absence of appreciable effect on the bottom line may be regarded as particularly attractive.

In general, remarkably little progress has been made by health care administrators in improving working conditions for nurses (Fagin, 1987). These improvements must be forthcoming to ensure the future stability of health care delivery systems and the quality of care. Hospitals in particular must learn to compete for nurses in a manner similar to that employed by other organizations in recruiting, recapturing, and retaining valued and important workers. From the preceding, it can readily be seen that flexible, creative, and innovative approaches to the problems impelling career inactivity among professional nurses are

critical to satisfactory resolution. Health care administrators must be increasingly sensitive to issues impacting nurses and nursing and must maintain open lines of communication as various strategies are explored, tested, and evaluated for their effectiveness.

Policy Implications for Nurse Educators

While nurse educators should endeavor to facilitate advanced preparation in nursing, standards of quality must not be compromised in the interest of increasing the number of students. To do so would negatively impact the image and attempts of nursing to attain acceptance as a profession. In addition, greater efforts should be expended to revise curricula to better prepare nurses to function knowledgeably in an increasingly corporatized health care delivery system. For those nurses interested in maintaining a clinical practice focus, graduate degrees in nursing may be acceptable and should be strengthened to produce a more effective clinician. Where career goals point toward nurse executive positions, however, educational counselling should direct such individuals toward graduate programs in business or health administration rather than exclusively toward Master's programs with a clinical or even nursing administration emphasis. Experience has shown that the latter programs fail to provide nurses with the business and managerial background necessary to survive and succeed in today's highly competitive health care industry.

Institutions of nursing education should more conscientiously endeavor to effect a closer mesh between

idealistic expectations of nursing and nursing's attainable reality. Maintenance of professional practice and clinical skills through direct and ongoing hospital experience should be required of nursing faculty at all levels to assure accurate appraisals of nursing in the current health care delivery system. Also, health care institutions and schools of nursing may seek to collaboratively develop and offer individualized refresher and orientation courses designed to re-acclimate those whose career inactivity has been of considerable duration and soften, thereby, the impact of re-entry. Expansion of such programs to rural areas on a rotational basis should prove beneficial in addressing the needs of those nurses for whom local resources of this nature are inadequate. With the decline in undergraduate enrollment in nursing, the time and effort required by nursing faculty to operationalize such program offerings should be manageable.

Policy Implications for Professional Nursing Associations

Serendipitous findings extracted from commentary furnished by respondents suggested that state nursing associations and nationally oriented professional nursing organizations should assume a more active role in addressing the phenomenon of career inactivity. The fostering of a collaborative relationship between local, state, and national nursing authorities and the multiple components of the health care delivery system is a desirable goal. Ongoing as well as periodic research focusing upon problematic issues in contemporary nursing and the dissemination of

results through seminars or publication constitute viable strategies for demonstrating involvement and support of nursing. Execution of such research should foster collaboration with not only institutions of nursing education but also a broad spectrum of health care facilities. Performance of need assessments should contribute toward the restructuring of professional nursing organizations to address the concerns of those targeted for membership. Too frequently, policy has been dictated exclusively by nurse academicians who have been criticized for their loss of touch with the realities and grass-roots concerns of practicing nurses.

Recently, the voice of organized nursing has spoken out against the American Medical Association's proposition calling for the creation of Registered Care Technologists (RCTs) as a manpower alternative to escalating nurse shortages ("The American Nurses' Association Solution", 1988; Awtry, 1988). Possibly, this may prove the stimulus needed to mobilize organized nursing to function in a truly unified manner in defending and advancing the ideals and philosophy of nursing. If nursing is to be accorded full recognition as a profession, it must function more responsibly, more aggressively, and from a more united stance than has previously occurred.

Directions for Further Research

Through the process of systematic inquiry and the findings and conclusions spawned from the present study,

directions for further research were identified. These include the following recommendations:

1. Replication of the present study is recommended utilizing a different population of inactive nurses. Perhaps a similarly defined population in another state could be surveyed or, if resources allowed, a national sample of larger scale could be tapped. Either approach would assist in ascertaining the extent to which the population of inactive registered nurses in the State of Alabama was representative of other populations of inactive nurses.

2. In an effort to enhance prediction of intention to return, further work is required to disclose potential predictors untapped in the present study. In addition to extraction of salient variables from the literature, as performed herein, qualitative research may prove a fruitful avenue of discovery. Repetition of the study is encouraged with a similar, though not identically specified set of predictors.

3. Further inquiry is warranted to address discrepancies between why nurses left their profession and why they fail to return following a period of inactivity. Whether a qualitative or quantitative approach were applied to address this issue, the resulting discernments may contribute toward enhancing understanding of individual decisions regarding career activity versus inactivity.

4. Expanding upon the present cross-sectional analysis, a longitudinal study is advocated utilizing either this or a similar sample of inactive nurses. Such an

approach would reap additional insights related to the general issue of career inactivity as well as foster empirical support for the strength of intentions to return as a direct precursor of actual return behaviors.

5. Also employing a longitudinal design is the recommended study of a cohort of individuals commencing during the period of nursing education and continuing for a specified period following licensure. Serial measurements of variables, such as those included in the present study, would furnish deeper insight into patterns and processes of labor force participation determinants.

6. While the present study provided some degree of discernment between the persistently inactive and the returners among professional nurses, another important area of investigation is the distinction between leavers and stayers. Such differentiation has been commonly applied in turnover research, but not within the present context of career inactivity. The logical point of commencement for such a study would be comparison of those who had never left nursing with those who had been inactive for a specified period of time. Prediction of leavers as the goal of such analysis would provide direction for health care institutions to intervene before inactivity occurred and possibly minimize its occurrence.

7. In view of the relative strength of prediction residing in commitment to nursing as a career, greater research focus should be placed upon improving understanding and explanation of this variable. Qualitative research

oriented toward how the various dimensions of commitment develop and what factors or strategies support or enhance this development should prove useful in further substantiating the theoretical relevance of this construct and in augmenting practical applications of commitment enhancement measures. Additionally, since there has been some suggestion in the literature that commitment to one area may mitigate or preclude commitment to other areas (Gouldner, 1958; Mowday et al., 1982), systematic investigation of the influence of multiple commitments represents an important area for future research.

8. While the implications derived from the present study are informative, systematic research should be performed to evaluate the effectiveness of various recapture and retention strategies in reversing career inactivity among professional nurses.

9. Although not addressed in the present study, improved understanding of fluctuations in nursing resources could be obtained by studying registered nurses currently employed on a part-time basis to ascertain whether they desired to work or would be receptive to working more hours and, if so, what factors contributed to their failure to do so. Knowledge of the ease or difficulty with which part-time RNs could be converted to full-time employment status should prove useful in further attempting to analyze the degree of correspondence between the supply of and demand for professional nurses.

Summary

The present chapter extracted conclusions from and posed plausible explanations for the findings disclosed in the preceding chapter. Implications emanating from these interpretational efforts were drawn. Finally, in recognition of the desired progressive nature of research processes, directions for further inquiry were suggested.

As reflected within the present effort, resolution of career inactivity among professional nurses is neither conceptually nor operationally simple. Ongoing systematic inquiry, both quantitatively and qualitatively designed, is necessary to furnish a rich medium through which salient questions can be posed, responses analyzed, and informed decisions made.

REFERENCES

- Aiken, L. H. (1983). Nursing's future: Public policies, private actions. American Journal of Nursing, 83, 1440-1444.
- Aiken, L. H. (1984). The nurse labor market. Journal of Nursing Administration, 14(1), 18-23.
- Aiken, L. H., Blendon, R. J., & Rogers, D. E. (1981). The shortage of hospital nurses: A new perspective. American Journal of Nursing, 81, 1612-1618.
- Ajzen, I., & Fishbein, M. (1980). Understanding attitudes and predicting social behavior. Englewood Cliffs, NJ: Prentice-Hall.
- Akerstedt, T., & Froberg, J. E. (1976). Shift work and health - Interdisciplinary aspects. In P. G. Rentos & R. D. Shaphard (Eds.), Shift work and health: A symposium (DHEW Publication No. NIOSH 76-203). Washington, DC: U.S. Department of Health, Education, and Welfare, National Institute for Occupational Safety and Health.
- Alderfer, C. P. (1972). Existence, relatedness, and growth: Human needs in organizational settings. New York: Free Press.
- Allen, N. J., & Meyer, J. P. (1984, June). Organizational commitment: A reconceptualization and development of measures. Paper presented at the meeting of the Canadian Psychological Association, Ottawa, Canada.
- Altschul, A. T. (1979). Commitment to nursing. Journal of Advanced Nursing, 4, 123-135.
- Alutto, J. A., Hrebiniak, L. G., & Alonso, R. C. (1973). On operationalizing the concept of commitment. Social Forces, 51, 448-454.
- The American Nurses' Association solution: Nurses united to address the problems that caused the nursing shortage. (1988, July). ASNA Reporter, pp. 1-2.
- Andrisani, P. J., & Shapiro, M. B. (1978). Women's attitudes toward their jobs: Some longitudinal data on a national sample. Personnel Psychology, 31, 15-34.

- Angle, H. L., & Perry, J. L. (1981). Empirical assessment of organizational commitment and organizational effectiveness. Administrative Science Quarterly, 26, 1-13.
- Aranya, N., & Jacobson, D. (1975). An empirical study of theories of organizational and occupational commitment. Journal of Social Psychology, 97, 15-22.
- Archibald, K. A. (1971). The supply of professional nurses and their recruitment and retention by hospitals. New York: New York City Rand Institute.
- Arnold, H. J., & Feldman, D. C. (1982). A multivariate analysis of the determinants of job turnover. Journal of Applied Psychology, 67, 350-360.
- Awtry, J. S. (1988, July). State nursing leaders speak out against RCTs. Alabama Health News, p. 5.
- Bardi, C. A. (1981). Job-sharing alternative draws nurses back to the hospital. Hospitals, 55(12), 71-72.
- Barer, M. L., Stark, A. J., & Kinnis, C. (1984). Manpower planning, fiscal restraint, and the "demand" for health care personnel. Inquiry, 21, 254-265.
- Becker, G. S. (1975). Human capital (2nd ed.). New York: Columbia University Press.
- Becker, H. S. (1960). Notes on the concept of commitment. American Journal of Sociology, 66, 32-42.
- Beehr, T. A. (1976). Perceived situational moderators of the relationship between subjective role ambiguity and role strain. Journal of Applied Psychology, 61, 35-40.
- Benham, L. (1971). The labor market for registered nurses: A three-equation model. Review of Economics and Statistics, 53, 246-252.
- Benziger, K. (1986). Nurse retention: Adjusting to the job revaluation. Nursing Management, 17(10), 62-64.
- Beyers, M., & Damore, J. F. (1987). Nursing shortage requires lasting solution, not a quick fix. Health Progress, 68(4), 32-35.
- Bielby, D. D., & Bielby, W. T. (1984). Work commitment, sex role attitudes, and women's employment. American Sociological Review, 49, 234-247.
- Bishop, C. E. (1973). Manpower policy and the supply of nurses. Industrial Relations, 12(2), 86-94.

- Blau, G. J., & Boal, K. B. (1987). Conceptualizing how job involvement and organizational commitment affect turnover and absenteeism. Academy of Management Review, 12, 288-300.
- Blau, P. M., & Scott, W. R. (1962). Formal organizations: A comparative approach. San Francisco: Chandler Publishing.
- Blaug, M. (1976). The empirical status of human capital theory: A slightly jaundiced survey. Journal of Economic Literature, 14, 827-855.
- Bluedorn, A. C. (1979). Structure, environment, and satisfaction: Toward a causal model of turnover from military organizations. Journal of Military and Political Sociology, 7, 181-207.
- Bluedorn, A. C. (1982). A unified model of turnover from organizations. Human Relations, 35, 135-153.
- Bognanno, M., Hixson, J., & Jeffers, J. (1974). The short-run supply of nurses' time. Journal of Human Resources, 9(1), 80-93.
- Borow, H. (1964). An integral view of occupational theory and research. In H. Borow (Ed.), Man in a world at work (pp. 364-386). Boston: Houghton-Mifflin.
- Bowen, W. G., & Finegan, T. A. (1969). The economics of labor force participation. Princeton, NJ: Princeton University Press.
- Brager, G. (1969). Commitment and conflict in a normative organization. American Sociological Review, 34, 482-491.
- Brief, A. P. (1976). Turnover among hospital nurses: A suggested model. Journal of Nursing Administration, 6(8), 54-59.
- Brief, A. P., & Aldag, R. J. (1980). Antecedents of organizational commitment among hospital nurses. Sociology of Work and Occupations, 7, 210-221.
- Brown, M. E. (1969). Identification and some conditions of organizational involvement. Administrative Science Quarterly, 14, 346-355.
- Bruhn, J. G., Bunce, H., & Floyd, C. S. (1980). Correlates of job satisfaction among pediatric nurse practitioners. Psychological Reports, 46, 807-814.

- Buchanan, B. (1974). Building organizational commitment: The socialization of managers in work organizations. Administrative Science Quarterly, 19, 533-546.
- Cain, G. G. (1966). Married women in the labor force: An economic analysis. Chicago: University of Chicago Press.
- Cassells, J. M., Redman, B. K., & Jackson, S. S. (1986). Generic baccalaureate nursing student satisfaction regarding professional and personal development prior to graduating and one year post graduation. Journal of Professional Nursing, 2, 114-127.
- Cattell, R. B. (1966). The scree test for the number of factors. Multivariate Behavioral Research, 1, 245-276.
- Chenoweth, L. C., & Maret, E. (1980). The career patterns of mature American women. Sociology of Work and Occupations, 7, 222-251.
- Chusmir, L. H. (1982). Job commitment and the organizational woman. Academy of Management Review, 7, 595-602.
- Clegg, C. W. (1983). Psychology of employee lateness, absence, and turnover: A methodological critique and an empirical study. Journal of Applied Psychology, 68, 88-101.
- Cleland, V., Bass, A. R., McHugh, N., & Montano, J. (1976). Social and psychologic influences on employment of married nurses. Nursing Research, 25, 90-97.
- Cleland, V., Bellinger, A., Shea, F., & McLain, R. (1970). Decision to reactivate nursing career. Nursing Research, 19, 446-452.
- Cohen, A. G. (1986). Nursing shortages: Will there be another nursing shortage? An analysis of the factors affecting today's market. Hospital Topics, 64(4), 23-24.
- Cohen, J., & Cohen, P. (1975). Applied multiple regression/correlation analysis for the behavioral sciences. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Cotton, J. L., & Tuttle, J. M. (1986). Employee turnover: A meta-analysis and review with implications for research. Academy of Management Review, 11, 55-70.
- Cramer, J. C. (1979). Employment trends of young mothers and the opportunity costs of babies in the United States. Demography, 16, 177-197.
- Cunningham, L. (1979). Nurse shortage - Yes! American Journal of Nursing, 79, 43-49.

- Curran, C. R., Minnick, A., & Moss, J. (1987). Who needs nurses? American Journal of Nursing, 87, 444-447.
- Dalessio, A., Silverman, W. H., & Schuck, J. R. (1986). Paths to turnover: A re-analysis and review of existing data on the Mobley, Horner, and Hollingsworth turnover model. Human Relations, 39, 245-263.
- Dansereau, F., Cashman, J., & Graen, G. (1974). Expectancy as a moderator of the relationship between job attitudes and turnover. Journal of Applied Psychology, 59, 228-229.
- Decker, P., Moore, R. C., & Sullivan, E. (1982). How hospitals can solve the nursing shortage. Hospital & Health Services Administration, 27(6), 12-27.
- DeCotiis, T. A., & Summers, T. P. (1987). A path analysis of a model of the antecedents and consequences of organizational commitment. Human Relations, 40, 445-470.
- Department of Health and Human Services. (1986). National sample survey of registered nurses, 1984: Summary of results. Washington, DC: Division of Nursing.
- Diamond, L. K., & Fox, D. (1958). Turnover among hospital staff nurses. Nursing Outlook, 6, 388-391.
- Dillman, D. A. (1978). Mail and telephone surveys: The total design method. New York: John Wiley & Sons.
- Downie, N. M., & Heath, R. W. (1974). Basic statistical methods (4th ed.). New York: Harper & Row.
- Eastaugh, S. R. (1985). The impact of the nurse training act on the supply of nurses, 1974-1983. Inquiry, 22, 404-417.
- Engel, M. (1987). Hospitals scramble to fill shrinking pool of nurses. Hospital Topics, 65(2), 19-21.
- Everly, G. S., & Falcione, R. L. (1976). Perceived dimensions of job satisfaction for staff registered nurses. Nursing Research, 25, 346-348.
- Fagin, C. M. (1982). The national shortage of nurses: A nursing perspective. In L. Aiken (Ed.), Nursing in the 1980's: Crises, opportunities, challenges (pp. 21-37). Philadelphia: Lippincott.
- Fagin, C. M. (1987). The visible problems of an "invisible" profession: The crisis and challenge for nursing. Inquiry, 24, 119-126.

- Farrell, D., & Rusbult, C. E. (1981). Exchange variables as predictors of job satisfaction, job commitment, and turnover: The impact of rewards, costs, alternatives, and investments. Organizational Behavior and Human Performance, 27, 79-95.
- Felmlee, D. H. (1984). A dynamic analysis of women's employment exits. Demography, 21, 171-183.
- Ferniany, I. W. (1984). A path analytic study of female nurse career withdrawal. Unpublished doctoral dissertation, University of Alabama at Birmingham, Birmingham.
- Fishbein, M. (1967). Attitude and the prediction of behavior. In M. Fishbein (Ed.), Readings in attitude theory and measurement (pp. 477-492). New York: Wiley.
- Fishbein, M., & Ajzen, I. (1975). Belief, attitude, intention and behavior. Reading, MA: Addison-Wesley.
- Flynn, K. T. (1984). Role issues, technology and economics in hospital nursing. Hospital Topics, 62(3), 27-29.
- Forrest, C. R., Cummings, L. L., & Johnson, A. C. (1977). Organizational participation: A critique and model. Academy of Management Review, 2, 586-601.
- Fottler, M. D. (1985). Labor market supply and demand: Relevance to human resource management. Unpublished manuscript, University of Alabama at Birmingham, School of Health-Related Professions, Birmingham.
- Friedson, E. (1973). Profession of medicine. New York: Dodd, Mead and Company.
- Friss, L. (1981a). An expanded conceptualization of job satisfaction and career style. Nursing Leadership, 4(4), 13-22.
- Friss, L. (1981b). Work force policy perspectives: Registered nurses. Journal of Health Politics, Policy and Law, 5, 696-717.
- Fuchs, R. (1971). Different meanings of employment for women. Human Relations, 24, 495-499.
- Gassert, C., Holt, C., & Pope, K. (1982). Building a ladder. American Journal of Nursing, 82, 1527-1530.
- Gellerman, S. W. (1968). Management by motivation. New York: American Management Association.
- Gibson, L. W., & Dewhirst, H. D. (1986). Using career paths to maximize nursing resources. Health Care Management Review, 11(2), 73-82.

- Ginzberg, E., Patray, J., Ostow, M., & Brann, E. A. (1982). Nurse discontent: The search for realistic solutions. Journal of Nursing Administration, 12(11), 7-11.
- Gioiella, E. C. (1987). The nursing shortage: A potentially unifying challenge. Journal of Professional Nursing, 3, 127-128.
- Godfrey, M. A. (1978a). Job satisfaction - Or should that be dissatisfaction? How nurses feel about nursing. Part one. Nursing, 8(4), 89-102.
- Godfrey, M. A. (1978b). Job satisfaction - Or should that be dissatisfaction? How nurses feel about nursing. Part two. Nursing, 8(5), 105-119.
- Godfrey, M. A. (1978c). Job satisfaction - Or should that be dissatisfaction? How nurses feel about nursing. Part three. Nursing, 8(6), 81-95.
- Gouldner, A. W. (1957). Cosmopolitans and locals: Toward an analysis of latent social roles (Part I). Administrative Science Quarterly, 2, 281-306.
- Gouldner, A. W. (1958). Cosmopolitans and locals: Toward an analysis of latent social roles (Part II). Administrative Science Quarterly, 2, 444-480.
- Gouldner, H. P. (1960). Dimensions of organizational commitment. Administrative Science Quarterly, 4, 468-490.
- Greenhaus, J. H. (1971). An investigation of the role of career salience in vocational behavior. Journal of Vocational Behavior, 1, 209-216.
- Greenhaus, J. H. (1973). A factorial investigation of career salience. Journal of Vocational Behavior, 3, 95-98.
- Greenhaus, J. H., & Simon, W. E. (1977). Career salience, work values, and vocational indecision. Journal of Vocational Behavior, 10, 104-110.
- Greenhaus, J. H., & Sklarew, N. D. (1981). Some sources and consequences of career exploration. Journal of Vocational Behavior, 18, 1-12.
- Greenleaf, N. P., & Stevenson, M. (1984). Economic beliefs and nurses' wages: Sorting fact from fantasy. Nursing Forum, 21, 53-62.
- Grimaldi, P. L., & Micheletti, J. A. (1983). Diagnosis related groups: A practitioner's guide. Chicago: Pluribus Press.

- Gronau, R. (1973). The intrafamily allocation of time: The value of housewives' time. American Economic Review, 63, 634-651.
- Grusky, O. (1966). Career mobility and organizational commitment. Administrative Science Quarterly, 10, 488-503.
- Hackman, J. R., & Oldham, G. R. (1980). Work redesign. Reading, MA: Addison-Wesley.
- Hall, D. T., & Schnieder, B. (1972). Correlates of organizational identification as a function of career pattern and organizational types. Administrative Science Quarterly, 17, 340-350.
- Hall, D. T., Schnieder, B., & Nygren, H. T. (1970). Personal factors in organizational identification. Administrative Science Quarterly, 15, 176-189.
- Hallas, G. G. (1980). Why nurses are giving it up. RN, 43(7), 17-21.
- Haller, M., & Rosenmayr, O. (1971). The pluridimensionality of work commitment. Human Relations, 24, 501-518.
- Hicks, J. R. (1966). The theory of wages. New York: St. Martin's Press.
- Hofer, J. C., & Ambrose, D. M. (1983). Psychographic analysis of nursing students: Implications for marketing and development of the nursing profession. Health Care Management Review, 8(3), 69-76.
- Hom, P. W., & Hulin, C. L. (1981). A competitive test of the prediction of reenlistment by several models. Journal of Applied Psychology, 66, 23-39.
- Hom, P. W., Koterberg, R., & Hulin, C. L. (1979). Comparative examination of three approaches to the prediction of turnover. Journal of Applied Psychology, 64, 280-290.
- Hrebiniak, L. G. (1974). Effects of job level and participation on employee attitudes and perceptions of influence. Academy of Management Journal, 17, 649-662.
- Hrebiniak, L. G., & Alutto, J. A. (1972). Personal and role-related factors in the development of organizational commitment. Administrative Science Quarterly, 17, 552-573.
- Huly, F. L. (1982). Looking at ladders. American Journal of Nursing, 82, 1520-1530.

- Janson, P., & Martin, J. K. (1982). Job satisfaction and age: A test of two views. Social Forces, 60, 1089-1102.
- Johnson, W. L. (1980). Supply and demand for registered nurses: Some observations on the current picture and prospects to 1985. Part 1. Nursing & Health Care, 1, 16-21.
- Johnson, W. L., & Vaughn, J. C. (1982). Supply and demand relations and the shortage of nurses. Nursing and Health Care, 3, 498-507.
- Kaiser, H. F. (1960). The application of electronic computers to factor analysis. Educational and Psychological Measurement, 20, 141-151.
- Kalisch, P. A., & Kalisch, B. J. (1980). The nurse shortage, the President, and the Congress. Nursing Forum, 14, 138-164.
- Kalleberg, A. L. (1977). Work values and job rewards: A theory of job satisfaction. American Sociological Review, 42, 124-143.
- Kalleberg, A. L., & Loscocco, K. A. (1983). Aging, values, and rewards: Explaining age differences in job satisfaction. American Sociological Review, 48, 78-90.
- Kaye, G. H., & Krol, S. (1981). The nursing shortage: This time traditional responses won't work. Supervisor Nurse, 12(7), 13-17.
- Khaleque, A., & Rahman, M. A. (1987). Perceived importance of job facets and overall job satisfaction of individual workers. Human Relations, 40, 401-416.
- Kidron, A. (1978). Work values and organizational commitment. Academy of Management Journal, 21, 239-246.
- Knopf, L. (1983). Registered nurses fifteen years after graduation: Findings from the Nurse Career Pattern Study. Nursing & Health Care, 4, 72-76.
- Koch, J. L., & Steers, R. M. (1978). Job attachment, satisfaction, and turnover among public sector employees. Journal of Vocational Behavior, 12, 119-128.
- Kraemer, L. G., & Rigolizzo-Gurenlian, J. (1985). Role conflict in nursing and allied health: A comparison of professional and organizational commitment. Journal of Allied Health, 14, 53-62.
- Kraut, A. I. (1975). Predicting turnover of employees from measured job attitudes. Organizational Behavior and Human Performance, 13, 233-243.

- Laird, D. D. (1983). Supplemental nursing agencies - A tool for combating the nursing shortage. Health Care Management Review, 8(3), 61-67.
- Lawler, E. E., & Hall, D. T. (1970). Relationship of job characteristics to job involvement, satisfaction, and intrinsic motivation. Journal of Applied Psychology, 54, 305-312.
- Lee, S. M. (1971). An empirical analysis of organizational identification. Academy of Management Journal, 14, 213-226.
- Leibowitz, A. (1974). Home investment in children. Journal of Political Economy, 82(2), 111-131.
- LeRoy, L., Ellwood, D. A., & Iglehart, J. K. (1985). Trends in health manpower. Health Affairs, 4(4), 77-90.
- Levine, E., & Moses, E. B. (1982). Registered nurses today: A statistical profile. In L. Aiken (Ed.), Nursing in the 1980's: Crises, opportunities, challenges (pp. 475-494). Philadelphia: Lippincott.
- Lindert, P. (1978). Fertility and scarcity in America. Princeton, NJ: Princeton University Press.
- Link, C. R., & Settle, R. F. (1979a). Labor market competition and nurses' earnings: An economic analysis. Research in Nursing and Health, 2, 141-149.
- Link, C. R., & Settle, R. F. (1979b). Labor supply responses of married professional nurses: New evidence. Journal of Human Resources, 14, 256-266.
- Link, C. R., & Settle, R. F. (1980). Financial incentives and labor supply of married professional nurses: An economic analysis. Nursing Research, 29, 238-243.
- Link, C. R., & Settle, R. F. (1981a). A simultaneous-equation model of labor supply, fertility and earnings of married women: The case of registered nurses. Southern Economic Journal, 47, 977-989.
- Link, C. R., & Settle, R. F. (1981b). Wage incentives and married and professional nurses: A case of backward bending supply? Economic Inquiry, 19, 149-155.
- Locke, E. A. (1968). Toward a theory of task motivation and incentives. Organizational Behavior and Human Performance, 3, 157-189.

- Locke, E. A. (1976). The nature and causes of job satisfaction. In M. D. Dunnette (Ed.), Handbook of industrial and organizational psychology (pp. 1297-1349). Chicago: Rand McNally.
- Locke, E. A., Cartledge, N., & Knerr, C. S. (1970). Studies of the relationship between satisfaction, goal-setting, and performance. Organizational Behavior and Human Performance, 5, 135-158.
- Longest, B. B. (1974). Job satisfaction for registered nurses in hospital settings. Journal of Nursing Administration, 4(3), 46-52.
- Lowery, B. J., & Jacobsen, B. S. (1984). On the consequences of overturning turnover: A study of performance turnover. Nursing Research, 33, 363-367.
- Luthans, F., Baack, D., & Taylor, L. (1987). Organizational commitment: Analysis of antecedents. Human Relations, 40, 219-236.
- March, J. G., & Simon, H. A. (1958). Organizations. New York: John Wiley and Sons.
- Marshall, A. (1923). Principles of economics. London: MacMillan.
- Martin, T. N. (1979). A conceptual model of employee turnover intentions. Academy of Management Journal, 22, 313-324.
- Martin, T. N. (1981). A path analytic model of human capital and organizational job characteristics of female job satisfaction. Human Relations, 34, 975-988.
- Martin, T. N. (1982). Commitment predictors of nursing personnel's intent to leave. Medical Care, 20, 1147-1153.
- McCloskey, J. (1974). Influence of rewards and incentives on staff nurse turnover rate. Nursing Research, 23, 239-247.
- McCloskey, J. C., & McCain, B. E. (1987). Satisfaction, commitment and professionalism of newly employed nurses. Image: Journal of Nursing Scholarship, 19(1), 20-27.
- McGee, G. W., & Ford, R. C. (1987). Two (or more?) dimensions of organizational commitment: Reexamination of the affective and continuance commitment scales. Journal of Applied Psychology, 72, 638-641.

- McLaughlin, G. W., & Butler, R. P. (1974). Use of weighting and data on alternative careers to predict career retention and commitment. Journal of Applied Psychology, 59, 87-89.
- Mennemeyer, S. T., & Gaumer, G. (1983). Nursing wages and the value of educational credentials. Journal of Human Resources, 18, 32-48.
- Meyer, J. P., & Allen, N. J. (1984). Testing the "side-bet theory" of organizational commitment: Some methodological considerations. Journal of Applied Psychology, 69, 372-378.
- Michaels, C. E., & Spector, P. E. (1982). Causes of employee turnover: A test of the Mobley, Griffith, Hand, and Meglino model. Journal of Applied Psychology, 67, 53-59.
- Midei, E. L., & Sanchez, P. M. (1984). Using marketing research to estimate market potential and feasibility: The case of hospital child care centers as a nurse recruiting tool. Health Marketing Quarterly, 2(1), 105-113.
- Miller, H. E., Katerberg, R., & Hulin, C. L. (1979). Evaluation of the Mobley, Horner, and Hollingsworth model of employee turnover. Journal of Applied Psychology, 64, 509-517.
- Mincer, J. (1970). The distribution of labor incomes: A survey with special reference to the human capital approach. Journal of Economic Literature, 7, 1-26.
- Mitchel, J. O. (1981). The effects of intentions, tenure, personal, and organizational variables on managerial turnover. Academy of Management Journal, 24, 742-751.
- Mitchell, T. R. (1979). Organizational behavior. In M. R. Rosenweig & L. W. Porter (Eds.), Annual review of psychology (pp. 243-281). Palo Alto, CA: Annual Reviews.
- Mobley, W. H. (1977). Intermediate linkages in the relationship between job satisfaction and employee turnover. Journal of Applied Psychology, 62, 237-240.
- Mobley, W. H., Griffeth, R. W., Hand, H. H., & Meglino, B. M. (1979). Review and conceptual analysis of the employee turnover process. Psychological Bulletin, 86, 493-522.

- Mobley, W. H., Horner, S. O., & Hollingsworth, A. T. (1978). An evaluation of precursors of hospital employee turnover. Journal of Applied Psychology, 63, 408-414.
- Moccia, P. (1987). The nature of the nursing shortage: Will crisis become structure? Nursing & Health Care, 8, 321-322.
- Montague, S. E., & Herbert, R. A. (1982). Career paths of graduates of degree-linked nursing courses. Journal of Advanced Nursing, 7, 359-370.
- Moore, J., Gatt, J., & Monsma, E. B. (1981). Why have all the nurses gone? Dimensions in Health Service, 58(3), 18-19.
- Morrow, P. C. (1983). Concept redundancy in organizational research: The case of work commitment. Academy of Management Review, 8, 486-500.
- Moskowitz, R. L., & Scanlan, C. L. (1986). Organizational and professional commitment as predictors of job satisfaction among allied health education program directors. Journal of Allied Health, 15, 11-22.
- Mowday, R. T., Porter, L. W., & Steers, R. M. (1982). Employee-organizational linkages: The psychology of commitment, absenteeism, and turnover. New York: Academic Press.
- Mowday, R. T., Steers, R. M., & Porter, L. W. (1979). The measurement of organizational commitment. Journal of Vocational Behavior, 14, 224-247.
- Muchinsky, P. M., & Morrow, P. C. (1980). A multidisciplinary model of voluntary employee turnover. Journal of Vocational Behavior, 17, 263-290.
- Muchinsky, P. M., & Tuttle, M. L. (1979). Employee turnover: An empirical and methodological assessment. Journal of Vocational Behavior, 14, 43-77.
- Newman, J. E. (1974). Predicting absenteeism and turnover: A field comparison of Fishbein's model and traditional job attitude measures. Journal of Applied Psychology, 59, 610-615.
- Nichols, G. A. (1971). Job satisfaction and nurses intentions to remain with or leave an organization. Nursing Research, 20, 218-228.
- Norusis, M. J. (1986). SPSS/PC+ [Computer program]. Chicago: SPSS Inc.

- O'Brien, D. (1984). Evaluation of an undergraduate nursing course. Journal of Advanced Nursing, 9, 401-406.
- O'Donovan, T. R., & Bridenstine, T. P. (1983). The handmaiden revolt - The nursing staff crisis. Health Care Management Review, 8(1), 75-79.
- O'Reilly, C. O., & Chatman, J. (1986). Organizational commitment and psychological attachment: The effects of compliance, identification, and internalization on prosocial behavior. Journal of Applied Psychology, 71, 492-499.
- Parasuraman, S. (1982). Predicting intentions and turnover behavior: A multivariate analysis. Journal of Vocational Behavior, 21, 111-121.
- Pedhazur, E. J. (1982). Multiple regression in behavioral research (2nd ed.). New York: Holt, Rinehart and Winston.
- Personnet, J. D., & Boyle, M. A. (1986). Abuse, poor image causes shortage. Modern Healthcare, 10(7), 92,99.
- Porter, L. W., Crampton, W. J., & Smith, F. J. (1976). Organizational commitment and managerial turnover: A longitudinal study. Organizational Behavior and Human Performance, 15, 87-98.
- Porter, L. W., Steers, R. M., Mowday, R. T., & Boulian, P. V. (1974). Organizational commitment, job satisfaction and turnover among psychiatric technicians. Journal of Applied Psychology, 59, 603-609.
- Prescott, P. A. (1986). Vacancy, stability, and turnover of registered nurses in hospitals. Research in Nursing & Health, 9, 51-60.
- Prestholdt, P. H., Lane, I. M., & Mathews, R. C. (1987). Nurse turnover and reasoned action: Development of a process model. Journal of Applied Psychology, 72, 221-227.
- Price, J. L. (1977). The study of turnover. Ames, IA: Iowa University Press.
- Price, J. L., & Bluedorn, A. C. (1979). Test of a causal model of turnover from organizations. In D. Dunkerley & G. Salaman (Eds.), International yearbook of organization studies, 1979 (pp. 217-236). London: Routledge & Kegan Paul.
- Price, J. L., & Mueller, C. W. (1981a). A causal model of turnover for nurses. Academy of Management Journal, 24, 543-565.

- Price, J. L., & Mueller, C. W. (1981b). Professional turnover: The case of nurses. New York: SP Medical & Scientific Books.
- Price, J. L., & Mueller, C. W. (1986). Handbook of organizational measurement. Marshfield, MA: Pitman.
- Quadagno, J. S. (1978). Career continuity and retirement plans of men and women physicians. Sociology of Work and Occupations, 5, 55-74.
- Quinn, R. P., & Shephard, L. J. (1974). The 1972-73 quality of employment survey. Ann Arbor, MI: Institute for Social Research, University of Michigan.
- Quinn, R. P., & Staines, G. L. (1979). The 1977 quality of employment survey. Ann Arbor, MI: Institute for Social Research, University of Michigan.
- Rabinowitz, S., & Hall, D. T. (1977). Organizational research on job involvement. Psychological Bulletin, 84, 265-288.
- Redfern, S. J. (1978). Absence and wastage in trained nurses: A selective review of the literature. Journal of Advanced Nursing, 3, 231-249.
- Reichelt, P. A., & Young, W. B. (1985). Professional nursing personnel: Data-based policy formation. Journal of Professional Nursing, 1, 164-171.
- Reichers, A. E. (1985). A review and reconceptualization of organizational commitment. Academy of Management Review, 10, 465-476.
- Reid, J., & Rodgers, L. J. (1981). Career choice and the supply of nurses. In The recurrent shortage of registered nurses (DHHS Publication HRA 81-23). Washington, DC: U.S. Department of Health and Human Services, Health Resources Administration, Division of Health Professions Analysis.
- Reid, N. G. (1986a). Nurse manpower: The problems ahead. International Journal of Nursing Studies, 23, 187-197.
- Reid, N. G. (1986b). Recent manpower trends in northern Ireland. International Journal of Nursing Studies, 23, 199-210.
- Richman, D. (1987). Nursing: An endangered profession. Modern Healthcare, 17(7), 32-34.
- Riggs, J., & Fernandez, R. D. (1984). The nursing shortage myth: Living in the time of parenthesis. Nursing Forum, 21, 63-67.

- Ritzer, G., & Trice, H. M. (1969). An empirical study of Howard Becker's side-bet theory. Social Forces, 47, 475-479.
- Roedel, R. R., & Nystrom, P. C. (1987). Clinical ladders and job enrichment. Hospital Topics, 65(2), 22-24.
- Ruffing, K. L., Smith, H. L., & Rogers, R. (1984). Factors that encourage nurses to remain in nursing. Nursing Forum, 21, 78-85.
- Ruh, R. A., & White, J. K. (1975). Job involvement, values, personal background, participation in decision making, and job attitudes. Academy of Management Journal, 18, 300-312.
- Rusbult, C. E., & Farrell, D. (1983). A longitudinal test of the investment model: The impact of job satisfaction, job commitment, and turnover of variations in rewards, costs, alternatives, and investments. Journal of Applied Psychology, 68, 429-438.
- Safilios-Rothschild, C. (1970). The influence of the wife's degree of work commitment upon some aspects of family organization and dynamics. Journal of Marriage and the Family, 4, 681-691.
- Salter, W. E. (1966). Productivity and technical change. Cambridge, UK: Cambridge University Press.
- Sandroff, R. (1980). The shortage: How it's changing nursing. RN, 43(11), 55-59, 86, 88, 90.
- Schlotfeldt, R. N. (1977). Nursing research: Reflection of values. Nursing Research, 26, 4-8.
- Schnieder, J. (1976). The "greener grass" phenomenon: Differential effects of a work context alternative on organizational participation and withdrawal intentions. Organizational Behavior and Human Performance, 16, 308-333.
- Schoen, D. C., & Schoen, R. (1985). A life table analysis of the labor force participation of U.S. nurses, 1949 to 1980. Research in Nursing and Health, 8(2), 105-116.
- Schramm, C. J. (1982). Economic perspectives on the nursing shortage. In L. Aiken (Ed.), Nursing in the 1980's: Crises, opportunities, challenges (pp. 41-56). Philadelphia: Lippincott.
- Seybolt, J. W. (1986). Dealing with premature employee turnover. Journal of Nursing Administration, 16(2), 26-32.

- Seybolt, J. W., Pavett, C., & Walker, D. D. (1978). Turn-over among nurses: It can be managed. Journal of Nursing Administration, 8(1), 4-9.
- Seybolt, J. W., & Walker, D. D. (1980). Attitude survey proves to be a powerful tool for reversing turnover. Hospitals, 54(9), 43-49.
- Shaw, K. L. (1987). Occupational change, employer change, and the transferability of skills. Southern Economic Journal, 53, 702-719.
- Sheldon, M. E. (1971). Investments and involvements as mechanisms producing commitment to the organization. Administrative Science Quarterly, 16, 142-150.
- Sigardson, K. M. (1982). Why nurses leave nursing: A survey of former nurses. Nursing Administration Quarterly, 7(1), 20-24.
- Simpson, R. L., & Simpson, I. H. (1969). Women and bureaucracy in semi-professions. In A. Etzioni (Ed.), Semi-professions and their organizations (pp. 196-265). New York: MacMillan.
- Slavitt, D., Stamps, P., Piedmonte, E., & Haase, A. (1979). Measuring nurses' job satisfaction. Hospital and Health Services Administration, 24(3), 62-76.
- Sloan, F. A. (1975). The geographic distribution of nurses and public policy (DHEW Publication No. DRHA 75-53). Washington, DC: U.S. Government Printing Office.
- Sloan, F. A., & Richupan, S. (1975). Short-run supply responses of professional nurses: A microanalysis. Journal of Human Resources, 10, 241-257.
- Sobol, M. G. (1973). A dynamic analysis of labor force participation of married women of childbearing age. Journal of Human Resources, 8, 497-505.
- Stamps, P. L., & Piedmonte, E. B. (1986). Nurses and work satisfaction: An index for measurement. Ann Arbor, MI: Health Administration Press Perspectives.
- Stead, B. A. (1978). Women in management. Englewood Cliffs, NJ: Prentice-Hall.
- Steel, R. P., & Ovalle, N. K. (1984). A review and meta-analysis of research on the relationship between behavioral intentions and employee turnover. Journal of Applied Psychology, 69, 673-686.

- Steers, R. M. (1976). Effects of need for achievement on the job performance-job attitude relationship. Journal of Applied Psychology, 60, 678-682.
- Steers, R. M. (1977). Antecedents and outcomes of organizational commitment. Administrative Science Quarterly, 22, 46-56.
- Steers, R. M., & Mowday, R. T. (1981). Employee turnover and post-decision accommodation process. In B. M. Shaw & L. L. Cummings (Eds.), Research in organizational behavior (pp. 235-282). Greenwich, CT: JAI Press.
- Steers, R. M., & Porter, L. W. (1983). Employee commitment to organizations. In R. M. Steers & L. W. Porter (Eds.), Motivation and work behavior (pp. 441-451). New York: McGraw-Hill.
- Stevens, J. (1986). Applied multivariate statistics for the social sciences. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Stevens, J. M., Beyer, J. M., & Trice, H. M. (1978). Assessing personal, role and organizational predictors of managerial commitment. Academy of Management Journal, 21, 380-396.
- Sullivan, E., & Decker, P. J. (1984). Solving the nursing shortage: Drawing nurses back to the hospital. Health Care Supervisor, 2(4), 79-86.
- Sweet, J. A. (1973). Women in the labor force. New York: Seminar Press.
- Tabachnick, B. G., & Fidell, L. S. (1983). Using multivariate statistics. New York: Harper & Row.
- Thornton, R. (1970). Organizational involvement and commitment to organization and profession. Administrative Science Quarterly, 15, 417-426.
- Wagner, B. (1981, July-August). Bounties can't hide it: System swallows nurses. American Nurse, pp. 5, 19.
- Wagner, J. T., Loesch, L. C., & Anderson, T. W. (1977). A study of components of nursing job satisfaction. Journal of Employment Counseling, 14(3), 120-130.
- Wandelt, M. A., Pierce, P. M., & Widdowson, R. R. (1981). Why nurses leave nursing and what can be done about it. American Journal of Nursing, 81, 72-77.

- Waters, L. K., Roach, D., & Waters, C. W. (1976). Estimate of future tenure, satisfaction and biographical variables as predictors of termination. Personnel Psychology, 29, 57-60.
- Watson, C. A., & Garbin, A. P. (1981). The job selection process: A conceptual rapprochement of labor turnover and occupational choice. Human Relations, 34, 1001-1011.
- Weisman, C. S., Alexander, C. S., & Chase, G. A. (1980). Job satisfaction among hospital nurses: A longitudinal study. Health Services Research, 15, 341-364.
- Weisman, C. S., Alexander, C. S., & Chase, G. A. (1981). Determinants of hospital staff nurse turnover. Medical Care, 19, 431-443.
- Welsch, H. P., & LaVan, H. (1981). Inter-relationships between organizational commitment and job characteristics, job satisfaction, professional behavior, and organizational climate. Human Relations, 34, 1079-1089.
- West, M. D. (1984). The projected supply of registered nurses, 1990. Public Health Reports, 99, 391-400.
- White, C. H. (1980). Where have all the nurses gone - And why? Hospitals, 54(9), 68-71.
- White, C. H. (1981). Redefining professional nursing: Solution to the chronic shortage. Hospital Progress, 62(10), 40-43, 64-66.
- Wiener, Y. (1982). Commitment in organizations: A normative view. Academy of Management Review, 7, 418-428.
- Wiener, Y., & Vardi, Y. (1980). Relationships between job, organizational, and career commitment and work outcomes - An integrative approach. Organizational Behavior and Human Performance, 26, 81-96.
- Williams, L. J., & Hazer, J. T. (1986). Antecedents and consequences of satisfaction and commitment in turnover models: A reanalysis using latent variable structural equation methods. Journal of Applied Psychology, 71, 219-231.
- Yett, D. E. (1965). The supply of nurses: An economist's view. Hospital Progress, 46(2), 88-102.
- Yett, D. E. (1970). The chronic "shortage" of nurses: A public policy dilemma. In H. E. Klarman (Ed.), Empirical studies in health economics (pp. 357-389). Baltimore: Johns Hopkins Press.

Yett, D. E. (1975). An economic analysis of the nursing shortage. Lexington, MA: D. C. Heath.

APPENDIX A

COPY OF SURVEY INSTRUMENT

SURVEY OF CAREER INACTIVITY AMONG REGISTERED NURSES
IN ALABAMA

GENERAL INSTRUCTIONS

1. Please do not sign your name to the questionnaire.
2. Please answer the questions in order.
3. It is important that you answer ALL of the questions. Most of the questions can be answered by placing a check mark next to a particular response. In these cases, if you do not find an exact response that fits your situation, please check the one that comes closest to it.
4. Please feel free to record any explanations or comments you may have about particular questions or the survey as a whole. Use the margins or the back of the questionnaire for this purpose.
5. Some of the questions require you to indicate how you feel about nursing as a career. It is important that you answer these questions as honestly as possible so that they will reflect your own personal beliefs and opinions. There are no right or wrong answers.
6. Remember that the answers you give will be completely confidential. The identification number will be removed immediately upon recording the return of your questionnaire. No one other than the primary investigator will see your completed questionnaire. The survey results will be reported in summary fashion so that the identity of individuals will not be revealed.
7. Please answer the questionnaire promptly and return the completed questionnaire in the enclosed postage-paid envelope.
8. THANK YOU FOR YOUR VALUABLE CONTRIBUTION TO THIS IMPORTANT PROJECT.

Section One

The following section is intended to provide important background information about you. Some of the questions require you to fill in the correct information. Others can be completed by placing a check mark next to the appropriate response.

1. What is your age? _____
2. What is your sex? ___ Female ___ Male
3. What is your marital status?
 ___ Married ___ Divorced ___ Separated
 ___ Single ___ Widowed
4. How many children do you have? _____
 How many of your children are living at home or depend
 on you for financial support? _____
5. What is the age of your youngest child? _____
 (Please indicate whether age is in months or years)
6. What was your basic nursing educational preparation?
 ___ Diploma
 ___ Associate degree
 ___ Baccalaureate or higher degree
7. What is your highest degree held?
 ___ Diploma
 ___ Associate degree
 ___ Baccalaureate in nursing
 ___ Baccalaureate in other field
 ___ Master's in nursing
 ___ Master's in other field
 ___ Doctorate in nursing
 ___ Doctorate in other field
8. What is your current employment status?
 ___ Employed in nursing
 ___ Employed in field other than nursing
 ___ Not employed
9. Regarding your employment status, answer only ONE of
 the following statements as accurately as possible by
 filling in the number of years and/or months as
 appropriate.
 I am not presently working as a nurse and have not
 been employed in nursing for
 _____ years _____ months
 I have returned to nursing after an absence of
 _____ years _____ months
10. In what year were you initially licensed to practice
 as a registered nurse? _____

11. Since you were initially licensed to practice as a registered nurse, how many years have you actually been employed in nursing? _____

At the time of our most recent license renewal in the Fall of 1986, you indicated that you were not then employed in nursing. Please answer the following three questions in terms of your LAST nursing position PRIOR TO that time.

12. What was the principal field or place of your employment? Please check ONE.
- | | |
|---|--|
| <input type="checkbox"/> Ambulatory clinic | <input type="checkbox"/> Community health |
| <input type="checkbox"/> Home health care | <input type="checkbox"/> Hospice |
| <input type="checkbox"/> Hospital | <input type="checkbox"/> Nurse registry |
| <input type="checkbox"/> Nursing home | <input type="checkbox"/> Occupational/Industry |
| <input type="checkbox"/> Physician office | <input type="checkbox"/> Private duty |
| <input type="checkbox"/> School nursing | <input type="checkbox"/> School of nursing |
| <input type="checkbox"/> Self-employed | |
| <input type="checkbox"/> Other (Please specify) _____ | |
13. What would you identify as the major area of your clinical practice? Please check ONE.
- | | |
|---|---|
| <input type="checkbox"/> Community health | <input type="checkbox"/> Critical care |
| <input type="checkbox"/> General practice | <input type="checkbox"/> Geriatric |
| <input type="checkbox"/> Medical/Surgical | <input type="checkbox"/> Nursery |
| <input type="checkbox"/> OB/GYN | <input type="checkbox"/> Oncology |
| <input type="checkbox"/> Pediatric | <input type="checkbox"/> Surgery/Recovery |
| <input type="checkbox"/> Psychiatric/Mental health | <input type="checkbox"/> Emergency |
| <input type="checkbox"/> Other (Please specify) _____ | |
14. In your last nursing position prior to our most recent license renewal in late 1986, what type of position did you have? Please check ONE.
- Administrator/Assistant
 - Certified nurse anesthetist
 - Certified nurse midwife
 - Certified nurse practitioner
 - Clinical specialist
 - Consultant
 - Supervisor/Assistant
 - Instructor
 - Head nurse/Assistant
 - Staff/General duty
 - Other (Please specify) _____

Section Two

This section is designed to identify reasons why nurses leave nursing.

1. Please circle the letters of ALL of the following which apply to why you left nursing, whether temporarily or permanently:
 - a. Hours of work or scheduling did not meet personal preferences
 - b. Hours of work or scheduling interfered with the quality of my work
 - c. Frequency of being "pulled" to other units or otherwise unable to work in the area of choice
 - d. Pregnancy or child-rearing responsibilities
 - e. Other family responsibilities (such as the care of elderly parents or ill or handicapped family members)
 - f. Insufficient time for patient care and contact
 - g. Lack of adequate or affordable child care facilities
 - h. Salary inadequate when compared to responsibilities
 - i. Return to school for additional education to further my career in nursing
 - j. Return to school for additional education which would broaden my career opportunities outside nursing
 - k. Inadequate career mobility or lack of promotional opportunities
 - l. Lack of adequate staffing to provide good care
 - m. Lack of administrative support for nursing
 - n. Inadequate fringe benefits (such as vacation, health/life insurance, retirement benefits)
 - o. Increase in non-nursing functions and responsibilities associated with my job
 - p. Lack of positive professional relationships with physicians
 - q. Lack of appropriate supervisor feedback regarding my work
 - r. Inability to participate meaningfully in decisions which involved my work
 - s. Poor image of nurses and nursing
 - t. Lack of independence in planning and performing nursing responsibilities
 - u. Desire to pursue other career alternatives
 - v. Spouse not supportive of my working
 - w. Changing nature of nursing and health care, e.g., sicker patients, new and changing technologies
 - x. Increased personal risks, such as exposure to new diseases (AIDS)
 - y. Emotional/ethical demands of nursing
 - z. Not financially necessary for me to work

Other (Please specify) _____

2. Of all of the reasons which you have checked in the preceding question, which ONE had the greatest influence on your decision to leave nursing? Please write the letter corresponding to this reason in the following space. _____

Section Three

This section allows you to indicate how satisfied you have been with nursing as a career. In responding to the items below, it is important that you focus not on a particular job you held as a nurse but on your overall nursing career experience. For each question, please check the ONE response which most closely represents how you feel.

1. All in all, how satisfied would you say you have been with nursing as a career?
 - Generally more satisfied than dissatisfied
 - Neither especially satisfied nor dissatisfied
 - Generally more dissatisfied than satisfied

2. If you were free to go into any type of career you wanted, what would your choice be?
 - Would choose nursing
 - Would prefer to not work at all
 - Would prefer some other career to nursing

3. Knowing what you know now, if you had to decide all over again whether to enter nursing as a career, what would you decide?
 - Decide without hesitation to choose nursing again
 - Have some second thoughts about becoming a nurse
 - Decide definitely not to choose nursing

4. In general, how well would you say that nursing has measured up to the sort of career you wanted when you decided to enter this field?
 - Very much like the career I wanted
 - Somewhat like the career I wanted
 - Not very much like the career I wanted

5. If a good friend of yours told you he or she was interested in nursing as a career, what would you tell him or her?
 - Would strongly recommend it
 - Would have doubts about recommending it
 - Would advise the individual against it

6. Looking back over your nursing career, how would you describe the amount of enjoyment it has given you?
 I have found real enjoyment in nursing
 Nursing has been neither particularly enjoyable nor unenjoyable to me
 Nursing has not been at all enjoyable to me
7. In view of your own nursing career experiences, how would you describe nursing to someone not in nursing?
 I consider nursing as a career rather unpleasant
 Nursing is about as pleasant as it is unpleasant
 I consider nursing as a career quite pleasant
8. In general, how would you describe your feelings about working as a nurse?
 Mostly enthusiastic
 Sometimes enthusiastic but about as often not so
 Mostly not enthusiastic

Section Four

This section includes a series of statements that represent possible feelings you may have about various aspects of nursing as a career. With respect to your own feelings about nursing and your being a nurse, please respond to each of the following statements by placing a check mark in the appropriate column. The columns are labelled as follows:

SA = Strongly Agree
 MA = Moderately Agree
 A = Slightly Agree
 N = Neither Agree nor Disagree
 D = Slightly Disagree
 MD = Moderately Disagree
 SD = Strongly Disagree

- | | SA | MA | A | N | D | MD | SD |
|---|-------|-------|-------|-------|-------|-------|-------|
| 1. I would be very happy to keep nursing as my career. | _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| 2. It would be very hard to give up a career in nursing right now, even if I wanted to. | _____ | _____ | _____ | _____ | _____ | _____ | _____ |

	SA	MA	A	N	D	MD	SD
3. Right now, continuing my nursing career is a matter of necessity as much as desire.	_____	_____	_____	_____	_____	_____	_____
4. For me, giving up a career in nursing would require considerable personal sacrifice - another career may not match the overall benefits I have.	_____	_____	_____	_____	_____	_____	_____
5. I think I could easily become as attached to another career as I am to nursing.	_____	_____	_____	_____	_____	_____	_____
6. I really feel as if nursing's problems are my own.	_____	_____	_____	_____	_____	_____	_____
7. One of the few negative consequences of giving up nursing as a career would be the scarcity of available alternatives.	_____	_____	_____	_____	_____	_____	_____
8. I have invested too much in my nursing career to give it up.	_____	_____	_____	_____	_____	_____	_____
9. I do not feel like "part of the family" of nurses and nursing.	_____	_____	_____	_____	_____	_____	_____
10. Finding a job or career outside of nursing should not be very difficult.	_____	_____	_____	_____	_____	_____	_____
11. It wouldn't be too costly for me to give up nursing as a career.	_____	_____	_____	_____	_____	_____	_____

	SA	MA	A	N	D	MD	SD
12. I do not feel emotionally attached to nursing as a career.	_____	_____	_____	_____	_____	_____	_____
13. Too much in my life would be disrupted if I gave up nursing as a career.	_____	_____	_____	_____	_____	_____	_____
14. I do not feel a strong sense of belonging to nursing.	_____	_____	_____	_____	_____	_____	_____
15. I feel I have too few options to consider giving up my career in nursing.	_____	_____	_____	_____	_____	_____	_____
16. Nursing as a career has a great deal of personal meaning for me.	_____	_____	_____	_____	_____	_____	_____
17. I enjoy discussing nursing with people outside this career.	_____	_____	_____	_____	_____	_____	_____

Section Five

Please complete this section ONLY if you are currently NOT working as a nurse. If you have returned to nursing, please skip to Section Six.

For each item in this section, please place a check mark in the appropriate column according to the amount you agree or disagree with each statement. The column headings are the same as for the previous section.

	SA	MA	A	N	D	MD	SD
1. I have been thinking favorably about returning to nursing.	_____	_____	_____	_____	_____	_____	_____
2. I've been reading the newspaper ads for employment opportunities in nursing.	_____	_____	_____	_____	_____	_____	_____
3. My future is in nursing.	_____	_____	_____	_____	_____	_____	_____

	SA	MA	A	N	D	MD	SD
4. When my present obligations have been completed, I plan to return to nursing.	_____	_____	_____	_____	_____	_____	_____
5. It is not likely that I will seek another position in nursing.	_____	_____	_____	_____	_____	_____	_____
6. I intend to resume my nursing career.	_____	_____	_____	_____	_____	_____	_____
7. I've been keeping an eye open for a nursing position that would meet my present needs.	_____	_____	_____	_____	_____	_____	_____
8. I am actively seeking employment as a nurse.	_____	_____	_____	_____	_____	_____	_____

Section Six

Below are several factors which could be used in describing nursing as a career. For each item, please indicate how you would describe that factor on the basis of two levels:

- (a) what you found compared to what you expected when you entered nursing and
- (b) what you expect to be the case over the next five years as compared to today.

Please indicate your responses by checking the appropriate column. The column headings are labelled as follows:

- VMB = Very much better
- SB = Somewhat better
- S = About the same
- SW = Somewhat worse
- VMW = Very much worse

	VMB	SB	S	SW	VMW
1. Administrative support for nursing and recognition of professional competence.					
a. What I found compared to what I expected.	_____	_____	_____	_____	_____
b. What I expect over the next five years.	_____	_____	_____	_____	_____

	VMB	SB	S	SW	VMW
2. Reasonable nurse-patient ratio; adequate staffing.					
a. What I found compared to what I expected.	---	---	---	---	---
b. What I expect over the next five years.	---	---	---	---	---
3. Salary and fringe benefits.					
a. What I found compared to what I expected.	---	---	---	---	---
b. What I expect over the next five years.	---	---	---	---	---
4. Availability of time for patient care and/or contact.					
a. What I found compared to what I expected.	---	---	---	---	---
b. What I expect over the next five years.	---	---	---	---	---
5. Variety and challenge offered by nursing tasks and responsibilities.					
a. What I found compared to what I expected.	---	---	---	---	---
b. What I expect over the next five years.	---	---	---	---	---
6. Professional relationships with physicians, including respect for nurses as colleagues on the health care team.					
a. What I found compared to what I expected.	---	---	---	---	---
b. What I expect over the next five years.	---	---	---	---	---
7. Opportunities for career advancement, including promotions and educational opportunities.					
a. What I found compared to what I expected.	---	---	---	---	---
b. What I expect over the next five years.	---	---	---	---	---

	VMB	SB	S	SW	VMW
8. The importance of the contribution I made as a nurse to the lives or well-being of other people.					
a. What I found compared to what I expected.	---	---	---	---	---
b. What I expect over the next five years.	---	---	---	---	---
9. Opportunity to exercise independent thought and action in what I do as a nurse.					
a. What I found compared to what I expected.	---	---	---	---	---
b. What I expect over the next five years.	---	---	---	---	---
10. Hours of work, scheduling, and availability of working in the area or unit of choice.					
a. What I found compared to what I expected.	---	---	---	---	---
b. What I expect over the next five years.	---	---	---	---	---
11. The extent to which my activities as a nurse could be seen as contributing to the overall process of patient care and well-being.					
a. What I found compared to what I expected.	---	---	---	---	---
b. What I expect over the next five years.	---	---	---	---	---

Section Seven

Nurses who have left nursing for a period of time may regard some factors as more important than others in trying to decide whether to return to nursing in some capacity. If you have not returned to nursing, please indicate how important each of the items below would be to YOU personally in influencing your decision to return to nursing. If you have already returned to nursing, please respond to each item according to how important it was in influencing YOUR decision to return. It is important that EVERYONE completing this questionnaire answer this section.

For each of the following items, please place a check mark in the appropriate column according to how important you feel the factor is (or was) in trying to decide whether to return to nursing. The columns are labelled as follows:

VI = Very Important
 SI = Somewhat Important
 N = Neutral; neither important nor unimportant
 SU = Somewhat Unimportant
 VU = Very Unimportant

	VI	SI	N	SU	VU
1. Greater flexibility in scheduling.	—	—	—	—	—
2. Assurance of working in area or unit of choice.	—	—	—	—	—
3. Availability of child-care facilities.	—	—	—	—	—
4. Improved nurse-patient ratios.	—	—	—	—	—
5. Higher salary.	—	—	—	—	—
6. Greater career mobility and opportunity for professional advancement.	—	—	—	—	—
7. More administrative support for nursing and recognition of professional competence.	—	—	—	—	—
8. Fringe benefits.	—	—	—	—	—
9. Reduction in non-nursing responsibilities.	—	—	—	—	—
10. Greater physician acceptance of nursing's contributions.	—	—	—	—	—
11. Need to work to maintain or improve desired standard of living.	—	—	—	—	—
12. Improvement in the public image of nurses and nursing.	—	—	—	—	—
13. Assurance of greater independence in planning and executing nursing responsibilities.	—	—	—	—	—
14. Spouse/family support of my working as a nurse.	—	—	—	—	—

	VI	SI	N	SU	VU
15. Availability of personalized orientation program and of continuing educational opportunities.	___	___	___	___	___
16. Assurance of a safe working environment in terms of the diseases or other risks to which I might become exposed.	___	___	___	___	___

Section Eight

The following questions on income are very important to make this study complete. All of the information you provide about your income will be kept completely confidential.

- Think back to the last nursing position you held prior to renewing your nursing license in the Fall of 1986. What was your HOURLY wage to the nearest half dollar?
\$ _____
In what year were you making that wage? _____
- If you are currently employed, what is the total yearly income before taxes and other deductions are made that YOU now earn? \$ _____
- If you are married, what is the total yearly income before taxes and other deductions are made that is earned by YOUR SPOUSE? \$ _____
- Do you or your spouse receive income from any other source (examples include interest, investment income, family wealth, and the like)? _____ Yes _____ No
If yes, approximately what amount do you receive yearly? \$ _____

THANK YOU FOR TAKING THE TIME TO COMPLETE THIS QUESTIONNAIRE. PLEASE CHECK TO MAKE SURE THAT YOU HAVE ANSWERED ALL QUESTIONS. PLEASE RETURN THE COMPLETED QUESTIONNAIRE IN THE ENCLOSED POSTAGE-PAID ENVELOPE PROMPTLY.

APPENDIX B

COVER LETTER FOR INITIAL MAILING OF SURVEY INSTRUMENT

April 25, 1988

Dear Registered Nurse:

I am a registered nurse and am currently completing degree requirements for a Ph.D. in Administration-Health Services at the University of Alabama at Birmingham. For my dissertation research, I am conducting a study of career inactivity among professional nurses. Specifically, I hope to learn more about why nurses leave nursing, how they feel about nursing as a career, and what factors are likely to influence their return to nursing. In view of the severity of the present nurse shortage, this study is especially important.

You have been selected to participate in this study on the basis of information provided on your Application for Registered Nurse License Renewal thru December 31, 1988. The Alabama Board of Nursing has supported my study by providing me with the names and addresses of all RNs who indicated that, at that time of our most recent license renewal, they were either not employed or were employed in a field other than nursing. Whether you remain not employed, are employed in a field other than nursing, or have since returned to employment as a nurse, it is vitally important that you complete this questionnaire.

Since not all registered nurses in Alabama have been asked to participate in this study, your input is particularly important. Nothing can substitute for it. It will take only about 15 minutes of your time to complete the enclosed SURVEY OF CAREER INACTIVITY AMONG REGISTERED NURSES IN ALABAMA. All of your responses will be strictly confidential. There are identification numbers on the questionnaire only to enable me to check on my returns; you will never be identified by name.

To save my troubling you again with reminder letters, please complete all sections of the questionnaire promptly and return it in the enclosed postage-paid envelope. Thank you very much for helping me with this survey. I hope you enjoy completing the questionnaire and I certainly look forward to receiving your responses. If you have any

questions about the survey or would like a copy of the results, please feel free to call me collect in Birmingham at either 934-1705 (o) or 988-4556 (h).

Sincerely,

Linda Widra, RN, MSN

APPENDIX C

FIRST FOLLOW-UP REMINDER POSTCARD

May 10, 1988

Dear Registered Nurse:

Recently, I mailed you a questionnaire regarding career inactivity among registered nurses in Alabama. As I have not yet received your important responses, I am concerned that possibly the questionnaire may not have been received or has become misplaced. If either is the case, I will be most happy to send you another questionnaire. If you have questions or need another questionnaire, please feel free to call me collect in Birmingham at either 934-1705 (o) or 988-4556 (h). If you have received the questionnaire, I would be most appreciative if you would complete and return it promptly. It should take only about 15 minutes of your time. Your input into this important study is very much needed. All of your responses will be kept completely confidential. Thank you very much for helping me.

Sincerely,

Linda Widra, RN, MSN

APPENDIX D

SECOND FOLLOW-UP REMINDER LETTER SENT
WITH ADDITIONAL COPY OF SURVEY INSTRUMENT

May 30, 1988

Dear Registered Nurse:

Several weeks ago I mailed you a questionnaire regarding career inactivity among professional nurses and followed up with a reminder postcard. As you may recall, I hope to learn more about why nurses leave nursing, how they feel about nursing as a career, and what factors are likely to influence the return of inactive nurses. This study is particularly relevant in view of the current nurse shortage.

Your responses to this questionnaire are very much needed to increase the accuracy and completeness of this important study. In the event that the original questionnaire was not received or has become misplaced, I have enclosed a second copy of the survey. It should take only about 15 minutes of your time to complete. As a reminder, all of your responses will be kept completely confidential.

Your prompt return of the completed questionnaire in the enclosed postage-paid envelope will not only be of tremendous help to me personally but will also provide an opportunity for you to make an important contribution to a much-needed study. Thank you for your assistance. I look forward to receiving your valuable responses. If you have any questions about the survey, please feel free to call me collect in Birmingham at either 934-1705 (o) or 988-4556.

Sincerely,

Linda Widra, RN, MSN

APPENDIX E

FREQUENCY DISTRIBUTION FOR SELECTED VARIABLES RELEVANT TO
THE RESEARCH POPULATION

Variable and subcategories	<u>n</u>	<u>%</u>
Basic nursing preparation		
Diploma	481	46.88
Associate degree	257	25.05
Baccalaureate degree	288	28.07
Total	1026	100.00
Highest educational attainment		
Diploma	386	38.52
Associate degree	217	21.65
Baccalaureate in nursing	248	24.75
Baccalaureate in other field	54	5.39
Master's in nursing	44	4.39
Master's in other field	46	4.60
Doctorate in nursing	0	0.00
Doctorate in other field	7	0.70
Total	1002	100.00
Location of previous employment		
Ambulatory clinic	35	3.55
Home health care	48	4.87
Hospital	642	65.18
Nursing home	58	5.89
Physician office	70	7.11
School nursing	15	1.52
Self-employed	2	0.20
Community health	42	4.26
Hospice	4	.41
Nurse registry	0	0:00
Occupational/industry	13	1.32
Private duty	10	1.02
School of nursing	35	3.55
Other	11	1.12
Total	985	100.00

Variable and subcategories	n	%
Clinical practice area		
Community health	58	5.95
General practice	68	6.97
Medical/surgical	319	32.72
OB/GYN	84	8.62
Pediatric	57	5.85
Psychiatric/mental health	34	3.49
Critical care	118	12.10
Geriatric	71	7.28
Nursery	21	2.15
Oncology	18	1.85
Surgery/recovery	72	7.38
Emergency	24	2.46
Other	31	3.18
Total	975	100.00
Previous nursing position		
Administrator	53	5.33
Certified nurse anesthetist	6	0.60
Certified nurse midwife	1	0.10
Certified nurse practitioner	9	0.91
Clinical specialist	7	0.71
Consultant	6	0.60
Supervisor/assistant	109	10.97
Instructor	54	5.43
Head nurse/assistant	133	13.38
Staff/general duty	586	58.95
Other	30	3.02
Total	994	100.00

APPENDIX F

CORRELATION MATRIX FOR PREDICTOR VARIABLES AND THE
CRITERION OF INTENTION TO RETURN TO NURSING

	AGE	DEPCHILD	CHILDAGE	HIGHED	TYPEED
AGE	1.00				
DEPCHILD	-.54	1.00			
CHILDAGE	.51	-.18	1.00		
HIGHED	-.40	.21	-.29	1.00	
TYPEED	-.07	.10	-.13	-.01	1.00
EMPSTAT	-.02	-.01	.23	-.01	-.31
SATSCORE	.18	-.05	-.01	-.08	.01
PERCENT	-.04	.13	.11	.05	-.00
LOCPREMP	-.10	.03	-.06	-.04	.04
CLINPRAC	.03	.00	-.02	-.06	.04
TYPEPOS	-.19	.14	-.06	.00	.09
REASON	.16	-.20	.16	-.12	-.03
METEXPS	.07	-.07	-.05	-.08	.04
METEXPO	.15	-.14	.02	-.12	.01
FUTEXPPR	.00	.02	-.07	-.01	.04
FUTEXPPC	.03	-.02	-.07	-.01	.01
ACS	.10	-.03	-.10	-.08	.11
LACCS	-.08	.09	-.12	-.00	.16
HSCCS	-.06	.05	-.11	.05	.13
SALARYNS	.07	-.10	.01	.02	-.06
SALARYSP	-.05	.08	.03	.10	.01
NONLABOR	.18	-.10	.08	-.08	-.03
TOTALINC	-.01	.08	.07	.10	-.06
YRWORK	.51	-.27	.22	-.32	-.02
CURINAC	.30	-.02	.26	-.14	-.02
INTSCORE	-.16	.17	-.13	.08	.12

	EMPSTAT	SATSCORE	PERCENT	LOCPREMP	CLINPRAC
EMPSTAT	1.00				
SATSCORE	-.11	1.00			
PERCENT	.03	-.01	1.00		
LOCPREMP	.01	-.03	.03	1.00	
CLINPRAC	-.01	.02	.05	.02	1.00
TYPEPOS	-.07	-.02	.14	.10	.08
REASON	.14	-.26	-.14	.09	.02
METEXPS	-.13	.28	-.03	.01	-.04
METEXPO	-.08	.36	.04	.00	.01
FUTEXPPR	-.11	.29	.09	-.02	-.01
FUTEXPPC	-.10	.22	.07	-.02	-.01
ACS	-.21	.55	-.16	.08	.06
LACCS	-.22	.07	-.15	.00	.04
HSCCS	-.19	.29	-.14	.02	.06
SALARYNS	.07	.05	-.11	.20	-.06
SALARYSP	-.10	.05	.08	-.07	-.07
NONLABOR	-.02	.03	.02	.06	-.02
TOTALINC	.04	.09	.10	-.03	-.05
YRWORK	-.02	.13	-.71	-.13	-.01
CURINAC	.07	.15	.57	.02	.05
INTSCORE	-.20	.25	-.07	-.04	.04

	TYPEPOS	REASON	METEXPS	METEXPO	FUTEXPPR
TYPEPOS	1.00				
REASON	-.04	1.00			
METEXPS	-.04	-.07	1.00		
METEXPO	-.03	-.20	.46	1.00	
FUTEXPPR	.04	-.14	.35	.27	1.00
FUTEXPPC	.03	-.11	.12	.10	.60
ACS	-.03	-.17	.30	.18	.24
LACCS	.02	-.06	-.04	-.02	.01
HSCCS	.06	-.12	.08	.08	.11
SALARYNS	-.12	-.04	.03	.10	.00
SALARYSP	-.04	-.12	.05	.00	.04
NONLABOR	-.06	.02	.03	.06	-.01
TOTALINC	-.07	-.11	.06	.01	.07
YRWORK	-.27	.14	.09	.07	-.04
CURINAC	-.04	-.21	.02	.10	.06
INTSCORE	.12	-.17	.09	.06	.20

	FUTEXPPC	ACS	LACCS	HSCCS	SALARYNS
FUTEXPPC	1.00				
ACS	.15	1.00			
LACCS	.01	.24	1.00		
HSCCS	.12	.48	.57	1.00	
SALARYNS	.02	-.00	-.06	-.00	1.00
SALARYSP	.01	-.00	-.09	-.15	.04
NONLABOR	.03	.01	-.06	-.10	.10
TOTALINC	.03	.01	-.14	-.17	.07
YRWORK	-.02	.16	.06	.07	.15
CURINAC	.08	-.06	-.13	-.10	.07
INTSCORE	.15	.46	.36	.58	-.05

SALARYSP NONLABOR TOTALINC YRWORK CURINAC INTSCORE

SALARYSP	1.00					
NONLABOR	.13	1.00				
TOTALINC	.72	.22	1.00			
YRWORK	-.05	.05	-.05	1.00		
CURINAC	.12	.05	.16	-.16	1.00	
INTSCORE	-.06	-.11	-.10	-.09	-.12	1.00

Note. Descriptors for the variable names are: AGE (age of the nurse in years [transformed variable]); DEPCHILD (number of children living at home or otherwise dependent on the nurse); CHILDAGE (age of the youngest dependent child in months [transformed variable]); HIGHEd (highest level of nursing preparation); TYPEED (highest level of education nursing or non-nursing); EMPSTAT (current employment status); SATSCORE (satisfaction with nursing as a career [transformed variable]); YRWORK (number of years worked as a nurse [transformed variable]); PERCENT (percentage of nursing career spent in inactive status); CURINAC (duration of current inactivity in months [transformed variable]); LOCPREMP (location of previous employment as hospital or nonhospital); CLINPRAC (type of clinical practice as generalist or specialist); TYPEPOS (type of nursing position as staff or nonstaff); REASON (reason for leaving nursing as personal or professional); METEXPS (met expectations - subjective); METEXPO (met expectations - objective); FUTEXPPR (future expectations oriented toward professional development, recognition, and reward); FUTEXPPC (future expectations oriented toward patient care considerations); ACS (affective commitment scale); LACCS (low-alternatives continuance commitment

scale); HSCCS (high-sacrifice continuance commitment scale [transformed variable]); SALARYNS (pre-inactivity inflation-adjusted hourly wage of the nurse [transformed variable]); SALARYSP (annual salary of the spouse in thousands of dollars [transformed variable]); NONLABOR (nonlabor income in thousands of dollars [transformed variable]); TOTALINC (annual total income in thousands of dollars [transformed variable]); INTSCORE (intention to return to nursing).

GRADUATE SCHOOL
UNIVERSITY OF ALABAMA AT BIRMINGHAM
DISSERTATION APPROVAL FORM

Name of Candidate LINDA SCHAEFER WIDRA

Major Subject Administration-Health Services

Title of Dissertation "Attracting Registered Nurses Back to The Nursing
Profession: A Study of Career Inactivity, Its Determinants, and the
Potentiality of Reversal"

Dissertation Committee:

Myron D. Follen, Chairman

[Signature]

Gaie W. McLee

John E. Arvan

[Signature]

Director of Graduate Program

Myron D. Follen

Dean, UAB Graduate School

Jerry L. Nickens

Date

12/8/88