# Organizational Incentives and Rewards as Motivators for Registered Nurses to Obtain a Baccalaureate or Higher Nursing Degree

by
Joan Insalaco Warren

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Of the University of Maryland in partial fulfillment
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**Approval Sheet**

| | |
|---|---|
| Title: | Organizational Incentives and Rewards as Motivators for Registered Nurses to Obtain a Baccalaureate or Higher Nursing Degree |
| Name of Candidate: | Joan Insalaco Warren<br>Doctor of Philosophy, 2004 |
| Dissertation and Abstract Approved: | Mary Etta Mills, ScD, RN, CNAA, FAAN<br>Associate Professor<br>Associate Dean for the Undergraduate Program<br>University of Maryland School of Nursing |
| Date Approved: | 12/13/04 |

**Dedication**

To my family Michael, Matthew, and Kristine

And

My Parents
Michael and Alice Insalaco

**Acknowledgements**

As I reflect on the past, I would like to first say a very special thank you to CAPT Linda Cummings, NC, Dr. Sandra Cupples, and Dr. Deborah Insalaco (my sister), who believed in me and motivated me to return for my doctoral degree. Their kind support, guidance and belief in my abilities provided me with the confidence to apply and be successful.

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To truly be successful in a doctoral program a student must find a good match with a faculty person who can serve as their mentor throughout the process. I would like to take this opportunity to pay special tribute to Dr. Mary Etta Mills, a true mentor. My relationship with Dr. Mary Etta Mills has enriched my life as a student and a professional. Under her tutelage, I have had an opportunity to assess my abilities, gain insight and confidence, and grow and advance as a professional. Dr. Mills helped me to identify resources for my personal growth, helped me to network, and provided me with exposure and visibility with key persons within the community. As a true mentor, she was always available to listen and provide advice. I firmly believe that because of her mentorship, I have had an opportunity to become successful in my career. Thank you Dr. Mills.

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Finally, I would like to acknowledge my family, my husband Michael and children Matthew and Kristine. Many a long night was spent by all, stuffing and pasting stamps on envelopes. Their infinite love and support made my dream become a reality.

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## Abstract

Title of Dissertation: Organizational Incentives and Rewards as Motivators for Registered Nurses to Obtain a Baccalaureate or Higher Nursing Degree

Joan Insalaco Warren, Doctor of Philosophy, 2004

Dissertation Directed by: Mary Etta Mills, ScD, RN, CNAA, FAAN
Associate Professor
Associate Dean for the Undergraduate Program
University of Maryland School of Nursing

**Purpose:** A highly professional, well-educated nursing workforce is required to meet the ever-increasing complexities and demands of today's healthcare environment. However, over half of the current practicing registered nurses (56.6%) have less than a 4-year college degree. This study used work motivation theory to examine preferences of acute care Associate Degree (AD)/diploma RNs for organizational incentives and rewards that would motivate them to obtain a baccalaureate (BSN) or advanced nursing degree. The specific aim of this study was to identify the best combination of organizational incentives and rewards, and characteristics of nurses, to motivate AD/diploma nurses to obtain their advanced nursing degree. Additionally, structural equation modeling was used to test the motivational model.

**Design/Methods:** A cross sectional, descriptive mixed-mode survey design (paper and internet) was used to examine nurses' demographics, career satisfaction, professional commitment, work family conflict/family work conflict, barriers to receiving a BSN degree, perceptions of the BSN role, and preferences for organizational incentives and rewards that would motivate them to return to school. Participants were licensed nurses

in the state of Maryland, less than 50 years of age, working 20 hours or greater per week at an acute care hospital, and not currently enrolled in a nursing degree program.

**Findings:** Results using logistics regression analysis showed that nurses with lower career satisfaction, higher professional commitment, perception that the BSN role would lead to greater promotional and job opportunities and the offering of organizational incentives would serve as motivators for nurses to return to school. Although findings were significant, structural equation modeling analysis showed that the data did not fit the model well. Ranked preference for organizational incentives were: 1) pay to attend class 2) classes offered at their work site, 3) offering of tuition reimbursement, 4) ability to match work and class hours, 5) offering of a paid sabbatical, 6) offering of forgivable loans for service, and 7) availability of web based classes.

**Conclusion/Implications:** Findings suggested that only through potentially costly organizational incentive programs might hospitals motivate nurses to return to school. The lack of model fit suggests other unknown variables are involved with this decision-making process

**Curriculum Vitae**

Name: Joan Insalaco Warren

Address: 1107 Netherlands Court, Silver Spring, MD 20905

Degree and Date to be Conferred: PhD., 2004

Collegiate Institutions Attended:

| Dates | Institution | Degree | Dates of Degree |
|---|---|---|---|
| 1977-1978 | Monroe Community College | | |
| 1978-1981 | University of Rochester School of Nursing, Rochester, New York | Bachelor of Science (Nursing) | 1981 |
| 1983-1988 | University of Maryland School of Nursing, Baltimore, Maryland | Master of Science (Nursing) | 1988 |
| 1997-2004 | University of Maryland School of Nursing, Baltimore, Maryland | Doctor of Philosophy | 2004 |

Professional Publications:

Dumas, R., Charters, K., Phillips, R., & Warren, J., (2000). Computer based clinical documentation for research data collection. In Saba, V., Caarr, R., Sermeus, W., & Rocha, P. (Eds.). *Nursing informatics 2000: One-step beyond-The evolution of technology and nursing. Proceedings of the 7th international conference on nursing use of computers and information science.* Aukland: New Zealand.

Warren, J. I., & Dickerson, B. (2001). Business aspects of staff development. In A. Avillion (Ed.), *Core curriculum for nursing staff development (2nd ed.).* Pensacola: National Nursing Staff Development Organization.

Professional Positions Held:

| | | |
|---|---|---|
| Director, Nursing Education & Research Center<br>Office of the Chief Nurse Executive | VA Maryland Health Care System<br>Baltimore<br>10 North Greene Street<br>Baltimore, MD 21201 | February 2002-Present |

| | | |
|---|---|---|
| Research Assistant/ Program Manager and Coordinator Clinical Trials | University of Maryland<br>School of Nursing<br>655 West Lombard Street<br>Baltimore, 21201 | January 2001-<br>September 2001 |
| Full Time Doctoral Student | University of Maryland<br>School of Nursing<br>655 West Lombard Street<br>Baltimore, 21201 | May 2000 –<br>January 2001 |
| Nurse Educator, Critical Care Department | Department of the Navy<br>National Naval Medical Center<br>8901 Wisconsin Avenue,<br>Bethesda, MD 20889 | July 1991 – May 2000 |
| Nurse Specialist, Cardiothoracic Intensive Care Unit | Department of the Navy<br>National Naval Medical Center<br>8901 Wisconsin Avenue, Bethesda, MD 20889 | September 1989 – June 1991 |
| Director Of Nurses | ALL*STAR Personnel Services, Inc.<br>Security Boulevard<br>Baltimore, MD 21207 | January 1989 –<br>April 1990 |
| Critical Care Instructor | Harbor Hospital Center<br>3001 South Hanover Street<br>Baltimore, MD 21230 | May 1987 –<br>August 1989 |
| In-House Disposition And Discharge Planner | Maryland Institute for Emergency Medical Services Systems/Shock Trauma Center<br>22 South Green Street<br>Baltimore, MD 21201 | July 1986 –<br>May 1987 |
| Primary Nurse, Critical Care Recovery Unit | Maryland Institute for Emergency Medical Services Systems/Shock Trauma Center<br>22 South Green Street<br>Baltimore, MD 21201 | June 1985 –<br>May 1987 |

| | | |
|---|---|---|
| Clinical Nurse, Coronary Care Unit | Johns Hopkins Hospital<br>600 North Wolfe Street<br>Baltimore, MD 21205 | June 1984 –<br>June 1985 |
| Clinical Nurse, Cardiovascular Intensive Care | University of Maryland Hospital<br>22 South Green Street<br>Baltimore, MD 21201 | August 1983 –<br>June 1984 |
| Clinical Nurse, Surgical Intensive Care | University of Rochester Medical Center/Strong Memorial Hospital<br>601 Elmwood Avenue<br>Rochester, NY 14642 | August 1981 –<br>July 1983 |

Funded Grants/Scholarships

| | | | |
|---|---|---|---|
| Primary Investigator | Organizational Incentives and Rewards as Motivators for RNs to Obtain A Baccalaureate Or Higher Nursing Degree | American Nurses Foundation 2003 Julia Hardy, RN/ANF Scholar (2003103) Research Grant Award Doctoral Dissertation | November 2003-November 2004 |
| Co-investigator | Acute Care Hospital Clinical Nurse Utilization Survey | The Maryland Colleagues In Caring: Regional Collaboratives for Nursing Workforce Development project, Partial funding by Robert Wood Johnson Foundation Maryland | April 1999-September 2001 |
| Graduate Merit Scholarship Award | | University of Maryland School of Nursing | 2002<br>2001<br>2000 |

Current Committee Memberships:

Commission on Collegiate Nursing Education 2000 – Present
On-Site Evaluator for baccalaureate and above nursing education programs

Southern Nursing Research Society 2000

American Nurses Association 1996
Maryland Nurses Association District 5 1996
Board Member –2003-2005
Program Chairperson –2002-2004
Nominating Committee – 1997-1998, 2000 – 2002

National Nursing Staff Development Organization 1994
Research Committee Member (National) 2003-present
Monograph Reviewer 2002 - present

Phi Kappa Phi Honor Society 1986

Sigma Theta Tau International 1980

Special Awards:

| | | |
|---|---|---|
| Who's Who Among Students of American Universities and Colleges | University of Maryland School of Nursing | 2003-2004<br>2002-2003,<br>1986-1987 |
| Leadership Appreciation Certificate | Maryland Colleagues in Caring: Regional Collaboratives for Nursing Workforce Development | 2002 |
| Meritorious Civilian Service Medal | Department of the Navy, National Naval Medical Center, Bethesda, MD | 2000 |
| Commanding General Coin for Outstanding Performance | North Atlantic Regional Medical Command<br>Department of the Army, Washington, DC | 2000 |
| Phi Kappa Phi Honor Society | University of Maryland School of Nursing | 1986 |
| Cum Laude | University of Rochester School of Nursing | 1981 |
| Sigma Theta Tau Honor Society | University of Rochester School of Nursing | 1980 |

# CHAPTER I: THE PROBLEM

## Introduction

A well-educated nursing workforce is required to meet the future demands of the nation's complex health care needs. With the impending nursing shortage (Bednash, 2000; Buerhaus, Staiger, & Auerbach, 2000; Health Resources and Services Administration, 2002) and ever expanding demands placed on nurses by the health care environment not only is there a need to increase the supply of nurses but also the intellectual capital through preparation of baccalaureate-prepared nurses (BSN).

Three different pathways can be pursued to receive licensure as a registered nurse: 2-year associate degree (AD) nursing program, 3-year diploma program, and 4-year baccalaureate degree program. All nurses must pass the same national examination to be licensed as a registered nurse (RN). In 2000, forty percent of nurses received their basic educational preparation as an RN from associate degree programs. Equal proportions of nurses (30 percent) received their basic degrees from diploma and baccalaureate programs. Only 19 percent of the RN population in 2000 completed additional academic nursing or nursing related preparation after graduating from their basic nursing program. Of those prepared at the AD level 16 percent returned to school and 24 percent of those prepared in diploma programs obtained post RN nursing or nursing related degrees. The

majority of practicing RNs, 56.6 percent, have less than 4 years of education (22.3 percent diploma, 34.3 percent AD, 32.7 percent BSN, 9.6 percent masters, and 0.6 percent doctoral (Spratley, Johnson, Sochalski, Fritz, & Spencer, 2000).

Nurses are the least educated members of the interdisciplinary healthcare team. Minimal educational requirements of other healthcare professionals are master's degree or higher. According to the American Association of Colleges of Nursing (2003) "These health professionals, including physicians, pharmacists, and speech pathologists, recognize the complexity involved in providing patient care and understand the value and need for higher education" (p.2). As other health care disciplines increase and standardize their educational requirements, nursing remains behind. This may ultimately affect their status as equitable and effective members of the interdisciplinary healthcare team. According to the National Advisory Council on Nurse Education and Practice (1996), basic RN education does not prepare nurses for the breadth and depth of their roles. To keep up with the demand for BSN nurses, this Council recommended that two-thirds of nurses hold baccalaureate degrees or higher by 2010 (Health Resources and Services Administration, 1996). Moreover, the New York Board of Nursing is proposing a requirement that nurses with an AD or diploma degree be mandated to complete a bachelor's degree within 10 years, or not practice, until this educational requirement is met (The American Nurse, 2004; New York State Nurses Association, 2004).

Policymakers, private and professional organizations, and Chief Nursing Officers are advocating for nurses to be prepared at the BSN level. Research on different educational pathways strongly suggests that BSN nurses are associated with better patient

outcomes (Aiken, Clarke, Cheung, Sloane, & Silbur, 2003; Aiken, Smith, & Lake, 1994), and better patient safety and quality of care (Delgado, 2002; Powers, Maurer, & Wey, 2002; Fagin, 2001). BSN nurses are cited as capable of more complex, independent, and professional practice (Aiken et al., 1994; Johnson, 1988; Kovner & Schore, 1998; Phillips, Palmer, Zimmerman, & Mayfield, 2002; Giger & Davidhizar, 1990) and have greater productivity and organizational commitment, have higher satisfaction and tend to stay longer in the workforce (Institute of Medicine of the National Academies, 2004; Sochalski, 2002; Rambur, McIntosh, & Mongeon, 2003; Spratley et al., 2000). Moreover, a survey of Chief Nursing Officers (CNOs) found that CNOs preferred to employ BSN nurses and perceived BSN nurses to have better critical thinking skills and leadership qualities (Goode et al., 2001). With the impending nursing shortage and need to attract and retain highly skilled and competent nurses in the workforce there is a renewed interest in methods to encourage nurses to return for a BSN or higher nursing degree.

## Problem Statement

### *Nursing Shortage*

A deficit of RNs ranging from 400,000 to 1.5 million is predicted by 2020 (Health Resources and Services Administration, 2002; Buerhaus et al., 2000; Bleich, Hewlett, Santos, Cox, & Richmeier, 2003; Sochalski, 2002). According to trends in supply of RNs and anticipated demand, this shortage will increase slowly until 2010, when it is projected to reach 12 percent, and then accelerate and almost quadruple by 2020, to 20 percent (Health Resources and Services Administration, 2002). Causes of this shortage are complex and differ among the reports (Bleich et al., 2003; Fritzpatrick, 2003). For the

demand side factors contributing to this impending shortage include aging of the patient population, shorter lengths of stay, and increased complexity and demands of healthcare. Factors affecting nursing supply include declining enrollments in nursing programs associated with competing and new career opportunities for women, perceptions that nursing is an undesirable and vocational occupation, lack of success in recruiting men and greater numbers from ethnic and racial minority groups, and the growing shortage of nursing faculty. Additionally, aging of the nursing workforce, and poor working conditions including low pay, poor image, lack of prestige, lack of career advancement and promotional opportunities, and increasing workforce demands creating stressful working conditions are associated with this shortage (Fritzpatrick, 2003; Heller & Sweeney, 2003; American Hospital Association Commission on Workforce for Hospitals and Health Systems, 2002; American Nurse's Foundation, 2002; Buerhaus, Needleman, Mattke, & Stewart, 2002; Gelinas & Bohlen, 2002; Joint Commission on Accreditation of Healthcare Organizations, 2002; Kimball, O'Neil, & Health Workforce Solutions, 2002; Sochalski, 2002; Bednash, 2000; Buerhaus et al., 2000). Health care organizations and foundations, professional nursing organizations, and policymakers are teaming together and calling for immediate, broad based, and bold solutions to correct these alarming trends and disturbing future predictions (Gelinas et al., 2002; American Nurse's Foundation, 2002; Joint Commission on Accreditation of Healthcare Organizations, 2002; Kimball et al., 2002; American Hospital Association Commission on Workforce for Hospitals and Health Systems, 2002; Bednash, 2000; Health Resources and Services Administration, 2002).

*Raising the Level of Nursing Education*

Currently the proportion of BSN prepared nurses (32.7 percent) as compared to nurses with less than a BSN (57.3 percent) is almost a complete reversal of the recommended amount of BSNs by the National Advisory Council on Nurse Education and Practice. On a positive front, according to the American Association Colleges of Nursing, given the calls for better education, enrollments in RN-BSN programs increased by 8.1 percent or 2,215 students; the first increase in RN-BSN student enrollment in six years. Although enrollment in these programs is increasing, the demand for a well educated nursing workforce with the majority prepared at the baccalaureate degree level is not being met.

Contributing to the mismatch between educational preparation and meeting demands for BSN nurses is an acknowledged mismatch of Federal resources supporting basic diploma and associate degree programs over BSN education (Aiken, 1995; Health Resources and Services Administration, 1996). Additionally, for RNs returning for a BSN degree, Federal resources are more likely to support master's and doctoral degree students. Only 12 percent of BSN students received Federal support, compared to 28 percent of master's degree students and 26 percent of doctoral degree students (Spratley et al., 2000).

This mismatch of funds and need for programs to support nurses to obtain a BSN or higher nursing degrees were addressed by the Department of Veteran's Affairs (VA) (1998), the largest employer of RNs in the United States. To recruit, retain, and advance its practicing workforce, the VA implemented a differentiated practice model for career

advancement that requires RNs to have a BSN or related nursing degree by 2005 for promotion above the entry-level grade positions. The VA initiative called for 1) new performance standards with new educational and practice requirements for advancement; 2) establishment of the BSN or related nursing degree as the educational requirement for all positions above first entry level pay grades by 2005; 3) 50 million dollars be earmarked to assist nursing personnel with attainment of their BSN degree; and 4) the VA nursing workforce was mandated to develop innovative methods including partnerships with professional organizations to facilitate nurses with obtaining their degrees. In summary, the VA put into place a differentiated practice and salary model for career advancement and offered tuition reimbursement to motivate nurses to return for their BSN degree.

The VA is not the only federal organization advocating for BSN prepared nurses. The U.S. Army, U.S. Navy, U.S. Air Force and U.S. Public Health Service, all require the BSN as minimal preparation to serve in their nurse corps. Minority nurse organizations, including the National Black Nurses Association, Hispanic Association of Colleges, and Universities, and National Association of Hispanic Nurses are also committed to increasing its numbers of nurses prepared at the BSN or higher degree level (American Association Colleges of Nursing, 2003). Asians, Native Hawaiians and Other Pacific Islanders, and African Americans were more likely than all other nurses to have at least a BSN preparation (Spratley et al., 2000).

The Joint Commission on Health Care Organizations (2002) affirmed that to make the recommendation of having 2/3 of nurses prepared at the BSN level by 2010 reality,

organizations would need to invest substantial resources in creating incentives in the workplace for nurses to achieve a higher education level. "Initiatives underway to provide scholarships and fast track educational opportunities for nurses to advance their education can help nurses to overcome some of the obstacles-such as time and money-to going back to school" (Joint Commission on Accreditation of Healthcare Organizations, 2002), p. 32). Health care organizations, Health Care Foundations, nursing professional organizations, and nursing leaders recognize that to be successful they must invest in their human resources.

According to Lawler (2000) human capital is an organization's chief competitive asset in today's economy. If an organization wants to keep its competitive advantage it must recognize and reward employees for developing their knowledge and skill. Hence, to obtain and maintain that competitive edge a system that encourages high performance and rewards it, must be in place to attract, retain, and motivate the kind of people it needs. As nursing faces another shortage, nursing leaders have resurrected their interest in promoting the BSN and institution of differentiated nursing practice and salary models as methods to improve patient safety and quality of care, marketability and recruitment, create a more satisfying work environment, and maximize utilization of scarce RN resources (American Association Colleges of Nursing, 2003). .

*Differentiated Practice to Promote Educational Differences*

The existence of multiple pathways, all leading to the same licensure and similar practice, is a long-standing and controversial issue within nursing that remains unresolved (Association of Academic Health Centers, 2002). Currently, the old paradigm holds true

that "a nurse is a nurse". Within most healthcare organizations nurses are used interchangeably with little regard for their background or education (Vena & Oldaker, 1994). This lack of clarity in roles has led to role confusion and ambiguity among RNs, which have been associated with nursing dissatisfaction and declining enrollments in BSN programs (Bednash, 2000; Vena & Oldaker, 1994). Throughout history nursing leaders and educators have advocated for differentiation of nursing service using education, licensure, and functional roles as methods to enhance nursing practice and attract prospective students (Goldmark, 1923; Burgess, 1928; Brown, 1948). However, none of these recommended actions have ever been methodically or consistently put into place. Influences of nursing shortages, lack of finances, and lack of support by the nursing community, hospitals, and physicians have all contributed to this inertia.

Differentiating nursing practice is a method advocated by nursing leaders to improve the professional image of nursing and nursing resource utilization (Bednash, 2000; Boston, 1990; Ehrat, 1991; Baker et. al, 1997; Vena & Oldaker, 1994). Differentiated practice is defined as the structuring of roles, functions, and work of RNs according to education, experience, and competence (Boston, 1990). "In order to improve patient care, effectively utilize health care resources, and create a more satisfying work environment, roles, and functions of nursing personnel should be based on education, experience, and competence, and nurses should be compensated accordingly" (Ehrat, 1991, p. 9).

Research studies on the use of models to differentiate roles and salaries of RNs have provided preliminary evidence to support that these models increase RN

satisfaction, retention, and productivity, as well as improve patient education, satisfaction, and compliance with the prescribed treatment regimen (Anderko, Uscian, & Robertson, 1999; Baker et al., 1997; Forsey, Cleland, & Miller, 1993). The majority of research on models for differentiating practice has focused on the acute care setting. The acute care setting has been and continues to be the major employment setting for nurses, employing 59.1 percent of all RNs (Spratley et al., 2000). Conversely, many of the public and community settings already have delineated job roles with defined educational preparation and competencies, as opposed to the hospital setting where all levels of RNs may function as an acute care clinical bedside RN. Hence, job dissatisfaction may be greatest for RNs in the acute care setting. And, this environment may offer the greatest potential for differentiating RN practice. Finally, if implementation is successful this may have the greatest impact on nursing as a profession.

But, few organizations have differentiated practice models based on education, experience, and competency. Part of the difficulty is that while roles are defined and differentiated by educators, these go undefined by employers. Findings from an "Acute Care Hospital Clinical Nurse Utilization Survey" conducted by Maryland Colleagues in Caring (MCIC) (2001) found that for nurses practicing at the bedside, differentiation by clinical nursing skills and years of experience were the most frequent and important criteria used in assigning unit-based roles, in determining advancements, promotions, level of expertise, and rate of pay at time of hire. Educational preparation was consistently the least or one of the least frequently used criteria. A possible reason cited for the lower importance of educational preparation was that nurses perceived no

differences in BSN and AD bedside practice. However, respondents that did describe differences in practice commented that BSN nurses were more likely to be chosen as preceptors or charge nurses and had greater opportunities for promotion. Of significance, was the high degree of interest expressed by nurse executives (72 percent) in considering a model of differentiated practice, although few had a model in place.

To conclude, differentiated practice and salary models for career advancement and the offering of incentives to promote education are advocated as methods to recruit and retain nurses, and better utilize nursing resources to improve patient care. According to Lawler (2000) human capital is critical to organizational effectiveness. "Thus, obtaining, developing and managing human capital can be an important source of competitive advantage if it is managed and organized in a way that leads to high performance" (Lawler, 2000, p. 4). Although, career ladders and differentiated practice models are strongly advocated as mechanisms to recruit and retain nurses, and better utilize nursing resources, an underlying assumption is made that these nurses have already achieved the required education for advancement.

*Nurses Perspectives on Returning to School*

A dearth of literature exists on research studies that have examined RNs perceptions of rewards and incentives that organizations could provide to facilitate advancing nursing education. Delaney and Piscopo (2004) explored AD and diploma nurses perceptions of the benefits and barriers to enrolling in a RN-BSN program as well as factors that would facilitate degree completion by academic and work environments.

A convenience sample of 101 practicing AD and diploma nurses completed a researcher developed survey. Central themes to facilitate degree completion were 1) "competing priorities", consisting of multiple role demands and limited resources (time, money, work, family); 2) "simplify the educational process" including the desire for academia to provide practical courses with flexibility and accessibility; and 3) "make it worthwhile", the major theme (support for time off, tuition reimbursement, and professional rewards). The authors conceptualized that "internal factors such as the perceived benefits and barriers to returning to school, and external factors, such as academia and employers, are simultaneously interacting (Delaney & Piscopo, 2004). The decision to return to school was affected by: personal and professional growth; family, money, time and work; flexibility and accessibility; and recognition, support, and reward.

In a focus group study of 35 RN-BSN students some of the reasons identified for pursuing a BSN were seeing the BSN as a stepping stone, wanting a college degree, preparing for a future that includes work, sensing a transformation of self, and recognizing personal growth (Zuzelo, 2001). Barriers to obtaining a BSN consisted of questioning the future after obtaining a BSN, feeling negative about the perceived necessity of the BSN, arranging school to fit life events/relationships, and feeling concerned about tuition reimbursement. BSN students did not believe that their education had affected their direct care of patients. These findings indicated that personal and professional growth and career advancement opportunities were perceived as positive

rewards for obtaining a BSN degree. Motivators, barriers, as well as students questioning the value of the BSN were consistent with previous findings.

Trainor (2000) surveyed RN-BSN students to determine if the work environment was a factor in persistence or non-persistence in completing their academic school program. Although no relationships were found, out of 181 participants, 26 percent did not persist in their educational efforts because of competing family responsibilities, work responsibilities, or financial concerns. Three positive employer support themes for remaining in school included flexible scheduling, tuition reimbursement, and mentorship. The non-supportive themes included lack of flexible scheduling, lack of tuition reimbursement and lack of incentives. Non-persistence was more likely to occur when the RNs felt that their work environment was novel or fresh, whereas nurses who perceived working conditions to be stressful were more likely to persist in school.

According to Delaney and Piscopo (2004), the non-persistence finding differed from their research, whose respondents would enroll in a BSN program if it was valued by the organization. This contrast might be explained by the difference in the two groups, one of practicing nurses versus nurses currently enrolled in a program. To support this conclusion, in a study on intent to stay findings demonstrated that nurses enrolled in an educational program were less likely to leave their positions when compared to persons not enrolled in formal education (Rambur et al., 2003).

Although only 16 percent of nursing graduates enrolled in a BSN program in the state of Maryland, an overwhelming 90 percent of nurses in associate degree programs

responded on a student survey that they planned to return for a BSN or higher nursing degree (Maryland Statewide Commission on the Crisis in Nursing, 2001; Maryland Colleagues in Caring: Regional Collaboratives for Nursing Workforce Development, 2001a). To help identify the reason for this large variance, 1555 practicing AD and diploma nurses were surveyed. Barriers to returning for an advanced degree included 1) tuition costs, 2) matching work hours and class hours, 3) not a job requirement, 4) personal interest, 5) lack of knowledge of requirements and/or program options, and 6) already had a baccalaureate degree in another field.

Findings from participants in a focus group in Maryland said that there was little differentiation between nurses with varying education in terms of work and pay (Heller et al., 2003). Although many expressed that they felt pressured to pursue an advanced degree, they felt that they did not have the time because of families or due to retirement. A few of the BSN nurses that had completed their degree acknowledged that they felt no more qualified than before and found it not to have been a worthwhile endeavor.

Collectively the common themes among these studies for *not returning* for an advanced nursing degree are the lack of value placed on the BSN by the employer and the nurse and personal and financial barriers. Personal motivation followed by a desire for promotion were the major factors influencing nurses decisions to return to school in a convenience sample of 361 RN students enrolled in 10 eastern BSN programs. Cost and flexibility of the BSN program were the top factors in selecting a BSN program by these students (Krawczyk, 1997).

*Summary*

As employers compete for scarce nursing resources, more and more are recognizing the importance of investing in human resources to compete and maintain a competitive advantage. However, few organizations provide incentives and rewards to entice nurses to return for an advanced nursing degree (Aiken et al., 2003). And, even when offered, many nurses don't take advantage of these incentives and rewards. Minimal research exists on what hospital organizational incentives and rewards might motivate RNs to obtain an advanced nursing degree.

## Purpose of the Study

Focus groups and nursing surveys have identified motivators and barriers of practicing nurses contemplating whether to return for an advanced nursing degree. Moreover, a plethora of reports, white papers, and articles have been written on organizational strategies to develop a well-educated nursing workforce. But, research is lacking on what combination of organizational incentives and rewards might be the most effective in motivating practicing AD and diploma nurses to want to return for an advanced nursing degree.

The purpose of this study was threefold: 1) examine preferences of acute care AD/diploma nurses for organizational incentives and rewards that would motivate them to obtain a BSN or higher nursing degree, 2) examine individual characteristics of nurses to identify who would most likely to take advantage of these incentive and reward programs, and 3) determine the best combination of organizational incentives and

rewards and characteristics of nurses to motivate RN's to obtain a BSN of higher degree. Additionally, this study tested the proposed motivational model. The motivational model theorized that organizational incentives and rewards were mediated by individual characteristics, which influenced the nurse's motivation to obtain an advanced nursing degree and ultimately determined their resultant action.

## Significance of this Problem

Nurses are quickly becoming undereducated when considering the complexities and demands of the healthcare environment, and professional requirements of other members of the interdisciplinary healthcare team. Trends affecting nursing education include changing demographics and diversity, technological explosion, globalization of the world's economy and society, educated consumers, increasing complexity of care and shift to population-based care, health care costs and managed care, and health policy regulation (Heller, Oros, & Durney-Crowley, 2000). The RN must be prepared to function across large integrated health care systems in managing and providing nursing services to complex individuals, families, groups and populations. Yet, when all formal education is taken into account, including initial education for licensure and any subsequent to licensure, 56.6 percent of RNs have less than a 4-year college degree (Spratley et al., 2000). The lack of a well educated nursing workforce directly impacts on the profession and patient care.

*An insufficient number of nurses with higher educational degrees will contribute to the growing national faculty shortage.* In 2003, more than 11,000 qualified students

were turned away from baccalaureate programs due to faculty shortages, lack of clinical sites and classroom space (American Association Colleges of Nursing, 2004). Only 0.6 percent of nurses are prepared at the doctoral level. The lack of qualified faculty and resources are adversely affecting student enrollment and will only contribute to worsening the nursing shortage, as well as, undermine efforts to enhance education of the current workforce.

*Growing evidence suggests that higher levels of nursing education are associated with better patient outcomes (Aiken et al., 2003).* In a landmark study, Aiken et al. (2003) found that a 10 percent increase in BSN prepared RNs was associated with a 5 percent decrease in patient mortality and failure-to-rescue rates after adjusting for patient and hospital characteristics, nursing experience, staffing, and physician credentials. According to the authors, "Meeting the demand for baccalaureate-prepared hospital nurses requires renewed support and incentives by employers to encourage nurses to pursue education to the level of baccalaureate and beyond (Aiken et al., 2003). Although numbers are declining, hospitals remain the major employer of RNs (59 percent) (Spratley et al., 2000). Yet, tuition assistance from employers decreased from 66 percent in 1992 to 53 percent in 2000 (Spratley et al., 2000).

Prior to this study, research on educational pathways and patient outcomes was deemed inconclusive (Institute of Medicine of the National Academies, 2004). In secondary data analysis, examining relationships between nurses' education and experience and quality of care, no correlations were found between units with a greater

proportion of BSN RNs and lower medication errors and patient fall rates (Blegen, Vaughn, & Goode, 2001). In contrast, higher staff skill mix levels and higher proportions of BSN prepared nurses were associated with lower death rates at magnet hospitals when compared with nonmagnet hospitals (Aiken et al., 1994). Moreover, as compared with nonmagnet hospitals, magnet hospitals were better able to attract and retain nurses, who report higher job satisfaction (McClure, Poulin, & Sovie, 1983; Kramer & Schalenberg, 1991).

*Higher job satisfaction, intent to stay, and more years of work experience are associated with increased educational preparation (Institute of Medicine of the National Academies, 2004; Rambur et al., 2003; Spratley et al., 2000; McNeese-Smith & van Servellen, 2000; Sochalski, 2002).* Evidence from the National Sample Survey of Registered Nurses (2000) suggested that BSN nurses stayed longer in the workforce and had more work experience when compared with AD nurses. BSN prepared RNs, either as their initial or subsequent degree, had on average 3 years more work experience than those with only an AD degree (17.0 years and 17.2 years compared to 14.1 years) (Sochalski, 2002). A secondary analysis of RN relicensure surveys (4418) supports these previous findings. Differences among educational level and intention to leave and job dissatisfaction found BSN nurses more satisfied with their jobs and less likely to leave compared to AD nurses (54 percent leaving due to job dissatisfaction compared to 60 percent job dissatisfaction). The authors suggested that "increasing the number of baccalaureate nurses may be essential to stabilizing the nursing workforce" (Rambur et

al., 2003). Finally, in a descriptive survey of 412 nurses in three hospitals, nurses with graduate degrees (BSN or higher nursing degrees) reported more productivity and organizational commitment than AD and diploma nurses (McNeese-Smith et al., 2000).

*RNs with BSN degrees are preferred.* Results from a study of Chief Nursing Officers found that 71 percent of the respondents perceived that there was a difference in practice between BSN and AD/diploma nurses and preferred to employ BSN nurses. BSN nurses were cited to be less task oriented and had better critical thinking, leadership, communication, and patient teaching skills, along with a stronger focus on outcomes, continuity of care, and psychosocial components (Goode et al., 2001). A meta-analysis of 139 studies explored differences in performance of BSN, AD, and diploma nurses. Performance of BSN prepared nurses was found to be better in areas of communication skills, knowledge, problem solving, professional role, and teaching; whereas, the AD nurses were cited as having better technical skills and were bureaucratically oriented (Johnson, 1988).

Studies using nursing students enrolled in BSN programs lend support to the previous studies' findings. Data collected by short essay from 343 subjects suggested that BSN graduates varied in conceptual and theoretical approaches to nursing care, proficiency of leadership, and professionalism (Giger et al., 1990). A comparison of professional development between 223 entering RN-BSN students and 168 graduating students showed significant differences in pretest scores on nursing practice/process ($t = 12.01$, $p = .000$), communication/collaboration ($t = 10.33$, $p = .000$), leadership ($t = 11.18$,

p = .000), professional integration (t = 11.58, p = .000), and research/evaluation (t = 6.92, p = .000) (Phillips et al., 2002).

Kovner and Schore (1998) reviewed literature and questioned experts to determine how educational preparation of nurses related to nursing practice. Findings in the literature supported the correlation between education and the complexity of nursing practice. The authors concluded by stating that "if baccalaureate prepared nurses continue to be perceived as capable of more complex and independent practice, and if employers believe that they can increase revenues by increasing the quality of nursing care or can save money by shifting to RNs some responsibilities now held by more costly personnel (such as physicians), then demand for baccalaureate prepared nurses may increase" (p. 252).

*Nurses whose highest level of education is an AD are disciplined more than nurses with a BSN or higher nursing degree (Delgado, 2002; Powers et al., 2002; Fagin, 2001).* In a New York State Education Department Survey, AD nurses were more than nine times as likely as those with a BSN degree to be charged with violations (Fagin, 2001). Supporting these findings in a review of disciplinary records in one upper mid-west state over a two-year period, less than 20 percent of nurses disciplined for any type of violation had a BSN degree, whereas over 40 percent of nurses disciplined for a violation had an AD degree. In Ohio, where the workforce mix is 34.8 percent diploma, 22.5 percent AD, 31.8 percent BSN, and 10.8 percent master's degree or higher; again a disproportionate amount of AD and diploma nurses are disciplined compared to BSN or

higher degree nurses (62.8 percent AD, 27.9 percent diploma, 9.3 percent BSN, no disciplinary actions invoked for nurses with master's degrees or higher) (Delgado, 2002).

To summarize, evidence strongly suggests that BSN nurses are associated with better patient safety and quality of care, higher job satisfaction, intent to stay, remain in the workforce longer contributing to more years of work experience, and are preferred by employers. Nursing leaders, healthcare organizations, foundations, and public and private policymakers are advocating for increased numbers of BSN prepared nurses. Moreover, professional organizations are advocating for health care organizations to offer career advancement systems and educational opportunities to recruit, retain, and develop high performers (American Hospital Association Commission on Workforce for Hospitals and Health Systems, 2002; American Nurse's Foundation, 2002; Association of Academic Health Centers, 2002; Gelinas et al., 2002; Health Resources and Services Administration, 2002; Joint Commission on Accreditation of Healthcare Organizations, 2002; Kimball et al., 2002).

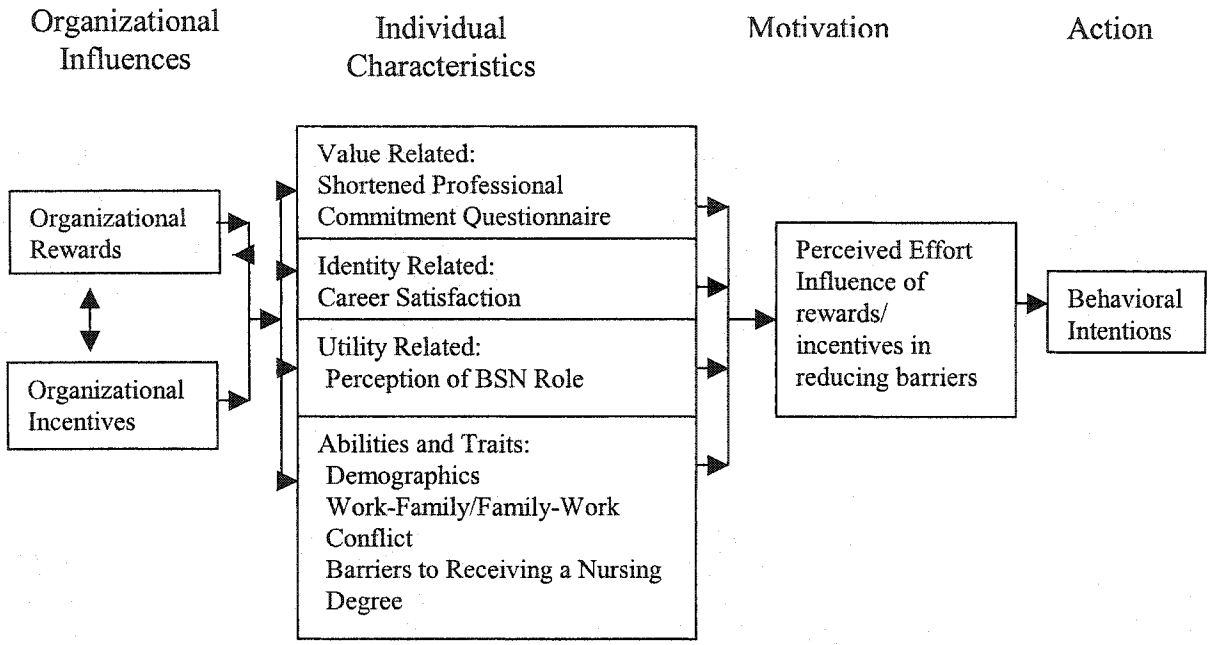
Hospitals remain the major employer of nurses (59 percent) (Spratley et al., 2000). This proposed research was intended to establish an inventory of hospital organization incentives and rewards that are perceived by AD or diploma RNs as motivators to obtain a BSN or higher nursing degree. Additionally, the intent of this research was to characterize the individual values, and abilities and traits of motivated nurses. From this research, cost effective educational opportunities or career enhancement programs might be developed by hospital organizations and knowledge gained on motivational theory and

individual characteristics of AD and diploma RNs. Research on individual characteristics of RNs seeking an advanced degree and their beliefs about the utility of a BSN will be beneficial in promoting the BSN degree as desirable to nurses in the future.

## Development of Theoretical Framework

For the proposed study, Porter and Lawler's (1968) motivational model was revised to include the concepts of organizational influences and individual characteristics taken from Sussmann & Vecchio's (1982) social influence interpretation of worker motivation (Conceptual Model of Nursing Motivation, see Figure 1.1). The revised motivational model suggests that organizational incentives and rewards are mediated by individuals' characteristics, which influence the nurse's motivation to obtain an advanced nursing degree and ultimately determines their resultant action. Perceived effort is defined as the influence of the rewards and incentives on motivating behaviors and reducing barriers. The behavioral intention is the action piece or for the purposes of this study the decision by the individual that they will return to school for a BSN or higher nursing degree. This model is in congruence with the conceptual map developed by Delaney and Piscopo (2004) from their focus groups who conceptualized that internal factors (perceived benefits and barriers) and external factors (academia and employers) simultaneously interact as nurses decide whether to return for a BSN degree.

*Figure 1.1* Conceptual model of nursing motivation




Similar to Sussmann and Vecchio, (1982) organizational influences were measured as the first variable. Organizational influences consisted of rewards and incentives offered by the organization. These rewards and incentives correspond to Vroom's Expectancy theory and Porter Lawler's motivational model whereby the perceived value of these rewards and incentives serve as motivators for nurses to obtain a BSN or higher nursing degree.

Organizational rewards were operationalized as favorable outcomes nurses would receive if they completed a BSN or higher nursing degree. Rewards were measured by 1) requesting RNs to rate the perceived value or importance of the reward, and 2) its potential for motivating them (how much of difference these would make) to obtain a

BSN or higher nursing degree. This later question was used to measure the perceived effort or influence of the reward as a motivator. *Organizational incentives* were defined as items that would reduce the barriers or difficulty in returning to obtain a BSN or higher nursing degree. Organizational incentives included tuition reimbursement program initiatives, BSN web based training programs offered at the work site, child and elder care programs, and others.

According to the model AD/diploma RNs motivation to obtain a BSN or higher nursing degree would be increased if RNs valued and desired the organizational rewards. Furthermore, their willingness to return for a BSN or higher nursing degree would increase if they perceived that their effort to obtain these rewards was reduced through the offering of organizational incentives. Hence, the combination of rewards and incentives would serve as motivators for nurses to return to school.

However, mediating the direct effects of the organizational incentives and rewards were individual characteristics. For this study's model, Susmann and Vecchio's (1982) individual characteristics were used: value-related, identity-related, and utility-related. Value related characteristics were defined as work events and attributes that were related to the individual's value system (Susmann & Vecchio, 1982). Originally the Job Involvement scale by Kanungo (1982) and the Shortened Professional Commitment scale (Vandenberg & Scarpello, 1994; Mowday, Steers, & Porter, 1979)) were used to measure the value-related variables. The job involvement scale was later removed after piloting the survey due to job involvement being adversely affected by organizational variables

which might serve as confounding variables and secondly, due to the length of the survey, increasing respondent burden.

Susmann & Vecchio (1982) defined identity-related variables as the importance of the occupation to the individual's self concept and degree to which the individual derived satisfaction from interpersonal relations. Rather, than relating the identity-related variable solely to satisfaction with interpersonal relations, which is a component of organizational commitment thus intercorrelating with the value-related variable, this study choose to define this concept in terms of career satisfaction (Greenhaus, Parasuraman, & Wormley, 1990).

The utility-related variables were referred to as extrinsic factors that consisted of individual's perceptions of the attractiveness and/or value of their role. The attractiveness and value that AD/diploma nurses ascribed to the role of a BSN nurse was measured using a researcher developed scale. AD/diploma nurses rated their perceived attractiveness of differentiating characteristics attributed to the role of a BSN RN.

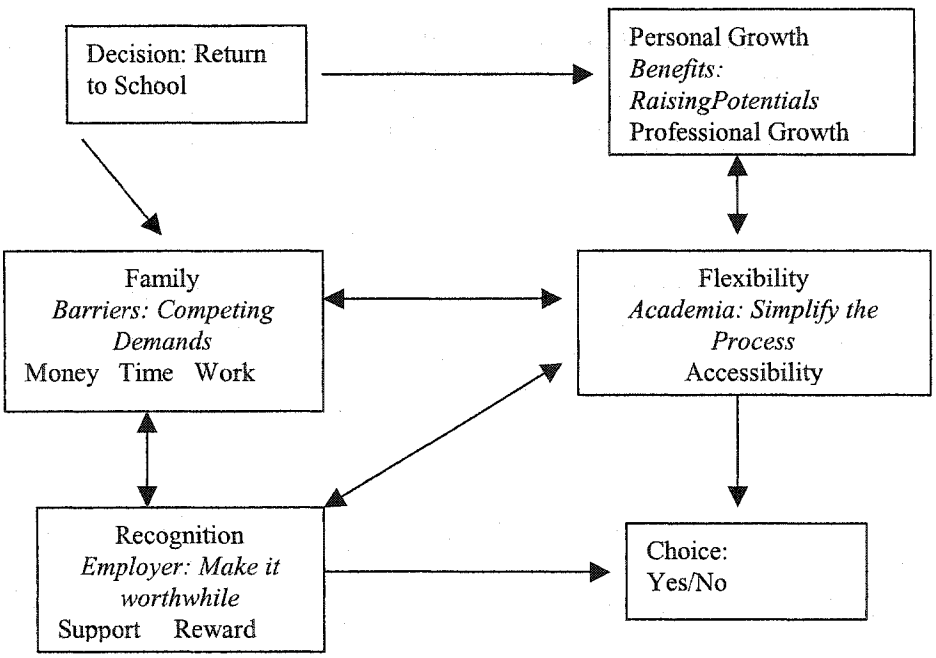
Abilities and traits were the final set of individual characteristics. Abilities and traits consisted of demographic variables such as age, income, head of household, number of children and their ages, as well as, other barriers that might impact on an AD/diploma nurse's decision to return for a higher degree. Also, due to the high percentage of women in the profession the concepts of work-family conflict and family-work conflict were measured using a scale created by Netemeyer, Boles, and McMurrian (1996).

To summarize the motivational model proposed that organizational incentives and rewards were mediated by individual characteristics, which influenced the nurse's perceived effort or motivation to obtain a BSN or higher nursing degree. The mental screening of the incentives and rewards, mediated by the individual characteristics, determined how much effort the nurse was willing to expend or their motivation. This, in turn, determined their willingness or intent to take or not take action (i.e. obtain a BSN or higher nursing degree). Perceived effort was defined as the influence of the rewards and incentives on motivating behaviors and reducing barriers. The behavioral intention was the action piece or for the purposes of this study the decision by the individual to return to school for a BSN or higher nursing degree. Questions to measure the behavioral intent explored whether the nurse intended to enroll in a BSN or higher nursing degree program, their expected timeframe for enrollment, and willingness to make the financial commitment.

This conceptual model is congruent with the conceptual map proposed by Delaney and Piscopo (2004) (Conceptual Map or the Relationships among Themes Influencing Nurses' Decision-Making Process Related to Completing their BSN, Figure 1.2) whereby the organizational rewards and incentives were similar to their internal and external factors. According to their model, the decision to return to school was affected by internal factors of perceived benefits (personal and professional growth) and perceived barriers (family, money, time and work); and external factors such as academia (flexibility and accessibility) and employer (recognition, support, and reward). However,

this motivational model takes this a step further by examining organizational incentives and rewards and individual characteristics mediating effects on motivation and behavioral intent.

*Figure 1.2* Conceptual map or the relationships among themes influencing nurses' decision-making process related to completing their BSN.




Delaney, C., & Piscopo, B. (2004). RN-BSN programs: associate degree and diploma nurses' perceptions of the benefits and barriers to returning to school. *Journal for Nurses in Staff Development, 20,* 159.

## Research Questions

The specific aims of this study were to: 1) examine preferences of acute care AD/diploma nurses for organizational incentives and rewards that would motivate them

to obtain a BSN or higher nursing degree; 2) examine individual characteristics of RNs to identify RNs that would most likely to take advantage of these incentive and reward programs; and 3) determine RNs perceived best combination of organizational incentives and rewards and individual characteristics, that best predict behavioral intention to return for an advanced degree. Additionally, this study tested the motivational model for causal inference and directions of causality. Data analysis methods included 1) exploratory factor analysis (principle components) to examine the subset of variables in each scale; 2) logistic regression to predict which nurses were most likely to return to school from the set of predictor variables; and 3) structural equation modeling to test the model.

The research questions for this study were:

1. To what extent does the perceived value (importance) of organizational incentives and rewards influence AD/diploma RNs motivation (make a difference) in obtaining a BSN or higher nursing degree?
2. What combination of organizational incentives and rewards, best predict AD/diploma RNs behavioral intention to obtain a BSN or higher nursing degree?
3. To what extent do individual characteristics of AD/diploma RNs influence preferences for organizational incentives and rewards and their behavioral intent in obtaining a BSN or higher nursing degree?

4. What combination of organizational incentives and rewards, and individual characteristics best predict AD/diploma RNs behavioral intention to obtain a BSN or higher nursing degree?

Based on the literature review, the following hypotheses were proposed:

1. Influences of organizational incentives and rewards reduce perceived effort (motivation) and have a positive impact on AD/diploma nurses intent to return for a BSN or higher nursing degree.
2. Individual characteristics (professional commitment, career satisfaction, work-family family-work conflict, and value of the BSN role) and their influence on behavioral intent to return for a BSN or higher nursing degree are mediated by perceived effort.
3. The importance of organizational incentives and rewards and their influence on nurses' perceived effort (motivation) are mediated by individual characteristics (professional commitment, career satisfaction, work-family family-work conflict, and value of the BSN role).
4. Organizational incentives and rewards and nurses behavioral intent to return for a BSN or higher nursing degree are mediated by individual characteristics (professional commitment, career satisfaction, work-family family-work conflict, and value of the BSN role) and perceived effort.

5. Individual characteristics of professional commitment, career satisfaction, and value of the BSN role have a positive impact on perceived effort and nurses' behavioral intent to return for a BSN or higher nursing degree.
6. Individual characteristics of work family/family work conflict have a negative impact on perceived effort (motivation) and nurses' behavioral intent to return for a BSN or higher nursing degree.

## Definition of Terms

*Associate degree nurse* – a nurse who completed basic nursing educational requirements for licensure as a RN at an institution that grants associate degrees in nursing, programs are routinely two years and offered by community colleges.

*Diploma nurse* – a nurse who completed basic nursing educational requirements for licensure as a RN in a hospital-based nursing program, routinely these are three year degree programs.

*Baccalaureate degree nurse* - a nurse who completed basic nursing educational requirements for licensure as a RN at an institution that grants baccalaureate degrees in nursing or bachelor's of science degrees with nursing as a major, programs are routinely located in four year colleges or universities.

*Work motivation* - how behavior gets started and is energized through the offering of organizational incentives and rewards.

*Organizational influences* - consist of rewards and incentives offered by the organization.

*Organizational rewards* - favorable outcomes nurses would receive if they completed a BSN or higher nursing degree.

*Organizational incentives*- items that would reduce the barriers or difficulty in returning to obtain a BSN or higher nursing degree.

*Career Satisfaction* – satisfaction with "subjective career success" (Aryee, Chay, & Tan, 1994, p.488) and "an internally defined career outcome"(Greenhaus et al,. 1990, p. 69).

*Work-family conflict* – "form of interrole conflict in which the general demands of, time, devoted to, and strain created by the job interfere with performing family-related responsibilities (Netermyer, Boles, & McMurrian, 1996, p. 401).

*Family-work conflict* – "form of interrole conflict in which the general demands of, time, devoted to, and strain created by the family interfere with the performing of work-related responsibilities (Netermyer, Boles, & McMurrian, 1996, p. 401).

*Professional commitment* – "person's belief in and acceptance for the values of his or her chosen occupation or line of work, and a willingness to maintain membership" (Vandenberg et al., 1994, p. 535).

## Assumptions

According to Lawler (1994), the expectancy approach was the most useful in studying motivation in work organizations. He suggested that the following four points were valid assumptions based on an overview of literature on human motivation:

1. People had preferences for various outcomes that were made available to them.

2. People had expectancies on the likelihood that an action on their part would lead to the intended behavior or performance.
3. People had expectancies (instrumentalities) about the likelihood that certain outcomes would follow their behavior.
4. The actions a person chooses were determined by the expectancies and the preferences that person had at the time.

Additional, underlying assumptions for this study included:

5. Respondents were able to accurately report their perceptions.
6. Respondents were truthful in completing the survey.

## Limitations

Limitations of this study included the use of a researcher developed survey that was self-administered. Although a pilot was performed, the response rate was too low to examine the reliability and validity of the measures. Significant alterations were made to the piloted survey to increase response rates. Additionally, even with the pilot the risk remained that questions may not be interpreted or answered correctly. Directions were provided to ensure all respondents had the same minimal knowledge and understanding to complete the survey. Responses may be biased by personal knowledge or actual experience with organizational rewards and incentives programs offered by the participant's work environment. To control for this response bias, each participant were asked about work experience and hospital demographics. Data were analyzed to see if these experiences affected responses.

A mixed-mode method, mailed survey and web survey, was used for efficiency and to reduce mailing costs. Although cost effective, error may be introduced because of differences between the two methods. With a paper survey respondents can visualize all answers and potentially change answers as they progress through the survey, which was not possible with the web based survey. Once a question was answered the respondent could not go back to view or make changes to prior questions. Additionally, not all respondents may have internet access. To compensate for this weakness, paper surveys were made available upon request. No demographic characteristics were statistically associated with the different mailing groups or web based respondents when a series of Chi square analyses and one-way ANOVAs were conducted comparing demographic characteristics responses (age, year of graduation form nursing school, marital status, dependents child/relative, primary wage earner, gross household income, basic education, and years employed as a nurse) among the three mailed survey and web respondents.

Non-response bias is another limitation to the study. Hence, the respondents may not be representative of the population in Maryland. A second letter and postcard reminder were mailed after the initial mailing to reduce the non-response associated with mailed surveys. Additionally, to address concerns of non-responses, data could not be reviewed comparing demographics of respondents and non-respondents using the MBON database due to privacy regulations. Early and later mailing groups were compared under the assumption that the later mailing group may more closely resemble the non-respondents (Trinkoff & Storr, 1997). Chi-square tests showed no difference among

these groups. However, even with these methods, error could still exist that could affect external validity and generalization.

Inaccuracies with the database from the MBON and missing data points are additional limitations. The overall sample size for surveying was increased using very conservative response and eligibility rates (40 and 70 percent respectively) based on pilot data results. Moreover, a more refined database was requested and sent from the Maryland State Board of Nursing. However, the proposed response and percent eligible rates remained low (31% response rate and 55% eligible). Type 2 error was increased due to these low rates. Of interest, a letter was received by the researcher addressed to all nurses licensed in the state of Maryland from the Donna M. Dorsey, Executive Director, urgently requesting that all nurses verify that their education due to identified database inaccuracies, for purposes of verifying licenses across states as well as for monitoring nursing shortage and workforce issues (Dorsey, 2004). A final limitation of this study was that it can be only generalized to AD/diploma RNs in the acute care setting in the state of Maryland.

## Summary

The purpose, significance, theoretical framework, research questions and hypotheses, definition of terms, assumptions, and limitations of the study were discussed in this chapter. The concept of work motivation and Porter and Lawler's motivational theoretical framework and Sussmann and Vecchio's model on social influences were chosen to guide this study to examine organizational incentives and reward systems as

motivators to encourage AD/diploma nurses to return for a BSN or higher nursing degree. According to Lawler (1994) individual behaviors critical in determining the effectiveness of organizations were, almost without exception, voluntary, motivated behaviors. Thus, Lawler deemed that an understanding of how organizations influenced the motivation of their individual members was of significance. The primary purpose of this study was to examine how organizations can influence the motivation of AD/diploma nurses in obtaining their BSN or higher nursing degree.

# CHAPTER II: REVIEW OF LITERATURE

This chapter presents the review of literature for the conceptual model of nursing motivation proposed for this study. First, the concept of work motivation is defined. Second, an overview of motivational theories is presented including the origin of motivational theories, and differences between content and process theories. Vroom's Valence Instrumentality and Expectancy theory (Vroom, 1964), Porter and Lawler's motivational theory (Porter & Lawler, 1968), and Sussman and Vecchio's social influence interpretation of worker motivation theory are critiqued and benefits of each model described in context with the conceptual model proposed for this study. Next, the conceptual model of nursing motivation is presented and each of its variables. The chapter concludes with a pertinent literature review of each of the model's variables.

## Overview

More and more in today's health care environment, organizations recognize the importance of investing in human resources to compete and maintain a competitive advantage (American Hospital Association Commission on Workforce for Hospitals and Health Systems, 2002; American Nurse's Foundation, 2002; Association of Academic Health Centers, 2002; Health Resources and Services Administration, 2002; Joint Commission on Accreditation of Healthcare Organizations, 2002; Kimball et al., 2002).

Excellent employees are essential to creating a high performing organization (Lawler, 2000). Employers are seeking to be the employer of choice to attract, retain, and motivate the kind of people it needs. Magnet hospitals research clearly demonstrated that organizational culture made a difference in attracting and retaining nurses (McClure & Hinshaw, 2002; McClure, Poulin, Sovie, & Wandelt, 1983). Moreover, the demonstrated relationship of the BSN nurse with improved patient outcomes obviates their worth and value to health care organizations (Aiken et al., 1994; Aiken et al., 2003).

The investment in developing nurses to extend their education beyond the AD/diploma level is of critical importance to health care organizations as they compete in today's health care economy. According to Lawler (2000) organizational incentives and reward systems need to be put into place to not only attract the right kind of people but to motivate them to develop and perform in ways that will increase their value to the organization. However, few organizations provide incentives and rewards to entice nurses to return for an advanced degree beyond the associate degree level. And, even when offered to nurses they do not take advantage of these incentives and reward systems. Therefore, mechanisms must be identified that will truly motivate nurses to pursue an advanced degree.

## Work Motivation

Lawler used Jones (1955) definition to guide his study of work motivation. Jones stated that motivation was concerned with "how behavior gets started, is energized, is sustained, is directed, is stopped, and what kind of subjective reaction is present in the organism while all this is going on" (p. vii). Lawler (1994) identified that the distinguishing characteristic found among psychologists to describe motivated behavior

was that it was goal directed. People were considered to be aware of their goals and wanting to achieve them in what they thought was the best way. Additionally, human behavior was viewed as rationale and predictable. People were described as having strong affective reactions to the results of their behavior. From these premises, Lawler (1994) made the following assumptions regarding human behavior and the study of motivation: "1) people have many conscious, often complex and competing goals; 2) most behavior is consciously goal oriented; and 3) people have affective reactions to the outcomes they obtain as a result of their behavior" (Lawler, 1994, p. 6). The goal of motivation theory is to explain voluntary choices people make among different behaviors. Thus, it was assumed that this could be best explained by understanding the goals people have and how they feel these goals could be obtained.

Three common components consistently appear among theoretical definitions to characterize the phenomenon of motivation: 1) what energized human behavior, 2) what directed or channeled such behaviors, and 3) how this behavior was maintained or sustained (Steers, Porter, & Bigley, 1996). The first component implied that energetic forces existed within individuals that drove them to behave in certain ways, as well as, energetic forces within the environment existed and triggered these drives. The next component conceptualized as goal orientation, ascertained that the behavior on part of the individual was directed towards a certain goal. The final component contained a systems orientation which described how forces within the individual and their surrounding environments feed back to the individual causing either the intensity of the drive to be reinforced or deterred, resulting in a redirection of their efforts.

Although the conceptualization of the process of work motivation appeared simple, numerous complexities existed that confounded the relationships between the major variables (Steers & Porter, 1983). First, motives could only be inferred, not seen. Secondly, motives were viewed as dynamic. An individual, at one time, could have a host of needs, desires, and expectations, which might be in conflict with one another. Thus, observing and measuring specific needs, desires, or expectations proved to be difficult. Thirdly, differences existed in how persons selected certain motives over others and how they pursued such motives. And finally, the impact of goal attainment and subsequent motives and behaviors may be very different from originally expected. For example a nurse may complete her AD/diploma and be gratified hence loosing the desire to obtain a BSN degree, whereas another nurse whom upon completion of her AD/diploma degree may become highly stimulated to obtain a BSN degree or higher nursing degree.

To explain motivated behavior it is important to understand how outcomes become goals for people. Lawler (1994) proposed three separate yet interrelated questions to explain motivated behavior. First, what essential qualities or characteristics in individuals caused outcomes to become desirable to them? Secondly, what general classes or groups of outcomes did people find desirable or undesirable? And, finally what factors influenced the desirability of outcomes? Lawler (1994) believed it was essential to answer questions two and three to predict the kind of behavior a person would choose. Question one was not a prerequisite although most theorists believed that an answer was desirable. The present study will focus on Lawler's three questions as well as examine 1) demographic information and beliefs on education; 2) desirability of organizational

incentives and rewards to obtain a BSN or higher nursing degree, and 3) factors which may influence obtaining an advanced degree. For this study, work motivation is conceptualized as how behavior gets started and is energized through the offering of organizational incentives and rewards

## Models of Work Motivation

Although the concept of motivation has been extensively studied for the past century no commonly accepted model or approach to studying work motivation currently exists in the literature. Work motivation is concerned with how basic motivational processes relate to work behavior. Steers, Porter, and Bigley (1996) used two general classifications of theories to describe work motivation. The first class of theories was referred to as content theories and the second class was called process theories. The content theories of work motivation, often referred to, as need theories, postulated that factors existed within individuals to energize, direct, and sustain behavior. The content theories were concerned with the identification of these important internal elements and in explaining how individuals prioritized these elements. In contrast, the process theories of motivation were concerned with explaining how behavior was energized, directed, and sustained. Four major content theories that have been applied or developed for work settings will be discussed, including Maslow's hierarchy of needs (Maslow, 1954), Alderfer's existence-relatedness-growth (ERG) (Alderfer, 1972), Herzberg's motivator-hygiene (Herzberg, Mausner, & Snyderman, 1959; Herzberg, 1966), and McClelland's learned needs (McClelland, 1961). Additionally, two process theories, Vroom's expectancy theory (Vroom, 1964) and the Porter Lawler model (Porter et al., 1968), will be described.

*Origin of Motivational Theories*

Historically, most theories of motivation originated from hedonism, instinct, drive, and cognitive theories. The origination of contemporary thinking on motivational theory began with hedonism. The assumption of hedonism was that individuals were motivated by behavior from which they derived pleasure. William James, Sigmund Freud, and William McDougall expanded upon the concept of hedonism by adding the concepts of instinct and unconscious motivation to broaden the theory (Steers et al., 1996). The instinct approach proposed that some motivational mechanisms were genetically preprogrammed (Petri, 1986). Hence, instincts were mechanistic and automatic rather than acting as conscious motivators (Lawler, 1994).

Drive theory was an outgrowth of hedonism and instinct theory. Drive theory described behavior as purposive and directed towards meeting primary needs such as food and water or secondary needs, such as money (Lawler, 1994). Hull (1943) explained this behavior in an equation: Effort = Drive X Habit. Drive was defined as energy that increased in intensity with deprivation. Habit was the strength of the relationship between past stimulus and response. The motivational force was the multiplicative function of these two variables. Due to inconsistent findings in his original theory, Hull (1952) later added the variable of incentive to his theory (Effort = Drive X Habit X Incentive). Incentive was defined as the size of, or attraction of potential rewards. Steers, Porter, & Bigley (1996) and Lawler (1994) underscored that this was the first theory that could be used empirically to test the concept of motivation.

Whereas, drive theory research focused more on animal behavior, more modern theories centered on cognition and were generally applied to humans (Steers et al., 1996).

Tolman's and Lewin's theories formed the foundation for the cognitive theories. Unlike the drive theory, these theories were ahistorical (Steers et al., 1983). That is, cognitive theorists believed that daily events influenced behavior and that past events were only important to the extent that they affected present beliefs and expectations.

*Content Theories of Motivation*

Petri (1986) viewed the concept of work motivation as a subgroup of incentive, drive, need and cognition theories. However, Petri considered work motivation theories as more specific because these focused solely on work related behaviors in an organizational setting. Petri (1986) grouped the theories of work motivation into three broad categories: need, cognition, and reinforcement, unlike, Steers, Porter, & Bigley, (1996) who grouped motivation into two: content and process theories. A review of the literature found that content and needs classifications were synonymous as were process and cognitive theories.

Content or need theories included Maslow's hierarchy of needs (Maslow, 1954), Alderfer's existence-relatedness-growth (ERG) theory (Alderfer, 1972), Herzberg's motivator-hygiene theory (Herzberg, 1966; Herzberg et al., 1959) and McClelland's learned needs (McClelland, 1961). The commonality among these theories was that individuals had a basic set of needs that they tried to fulfill. Maslow's needs hierarchy was the first major theory applied to individuals in the work setting (Steers et al., 1996). Maslow's (1954) theory emphasized the need of an individual to achieve self-actualization, the highest level of psychological growth that could be achieved. However, to reach self-actualization a set of ordered more primary needs must be met first. Only once a lower order need was satisfied could the individual move to the next level of

needs. Alderfer's theory(Alderfer, 1972) recategorized Maslow's original needs and proposed some movement between the levels making it less rigid. Many authors concurred that empirical verification of these need theories was not established because these were too broadly conceptualized and rigid ((Lawler, 1994; Petri, 1986; Steers et al., 1996).

Herzberg's (Herzberg et al., 1959; Herzberg, 1966) motivator-hygiene theory was one of the first models developed for the work setting. This theory used reports from accountants and engineers to develop two categories: motivators or satisfiers and hygiene factors or dissatisfiers. Motivators or satisfiers included such variables as achievement, recognition, advancement and growth. Contrarily, hygiene factors or dissatisfiers consisted of items such as company policies, salary, leadership style, and interpersonal relations. From a motivational perspective, this theory proposed that satisfaction in the job environment would only occur if motivators were stimulated. In contrast, good hygiene factors could not motivate the employee. Rather, these factors could prevent both satisfaction and dissatisfaction by becoming a barrier. As with Maslow's need theory empirical evidence did not exist to support this theory (Lawler, 1994; Petri, 1986; Steers et al., 1996).

McClelland's (1961) learned needs theory postulated that individuals learned needs, especially in early life, from their culture of a society. He proposed that individuals learned four needs including the 1) need for achievement, 2) need for power, 3) need for affiliation, and 4) need for autonomy. According to this theory, these four needs influenced how individuals perceived their work situations and influenced their pursuit of goals. Three major criticisms with this proposed theory included: 1) questions

on the research instrument's predictive validity; 2) questions on the concept that needs could be learned or acquired even into adulthood; and 3) concerns regarding the conceptualization that needs could be acquired permanently was viewed as flawed (Steers et al., 1996). Finally, a potential conflict could arise among the various needs.

To summarize, content theories conceptualized behavior as the product of needs or innate psychological characteristics. According to Landy and Trumbo (1983) need theories provided a framework for understanding individual differences in the strength of particular needs, or the content piece of motivation, but lacked the process piece of how energy was expended. In contrast to needs theories, process theories emphasized the information processing capabilities of an individual (Petri, 1986).

*Process Theories of Motivation*

Porter and Lawler's conceptual model was adapted from Vroom's (1964) Valence Instrumentality and Expectancy Theory (VIE). The basic premise of VIE theory was that "motivated behavior resulted from the combination of individual needs and the value of goals in the environment" (Petri, 1986, p.218). The underlying assumption of Vroom's model was that individuals made conscious and rational choices about their work behavior (Steers et al., 1996).

Valence was defined by Vroom (1964) as the preferences persons have among outcomes. Outcomes were evaluated in relation to other outcomes and could be perceived as either having a positive or negative valence. An outcome is positively valent when the person prefers to attain it. An outcome is negatively valent when a person prefers not to attain it and is zero if the person is indifferent to the outcome. Valences are assumed to take on a wide range of both positive and negative values.

The next variable, instrumentality questioned whether attainment of a second outcome was contingent on attaining the first outcome or could the second outcome be attained without the first. As an example, could a nurse receive higher pay or promotion without obtaining an advanced degree? Expectancy was the final variable that dealt with the likelihood or odds of receiving a particular outcome. For example, if a nurse obtained an advanced degree what is the likelihood that a raise or promotion is received? Landy and Trumbo (1983) summarized the theory as follows, "individuals ask themselves whether or not 1) the action has a higher probability of leading to an outcome (expectancy); 2) that outcome will yield other outcomes (instrumentality); and 3) those other outcomes are valued (valence)" (p. 73).

## Theoretical Model of Porter and Lawler

Lawler (1994) viewed the expectancy approach as the most useful in studying motivation in work organizations. Building on VIE theory, Porter and Lawler (1968) added a new relationship of job performance and satisfaction (Theoretical model of Porter and Lawler, see figure 2.1). Furthermore, the relationships between valences and expectancies and effort or motivation were perceived to be more complex than in Vroom's model (Steers, Porter, & Bigley, 1996). The variable of perceived effort was incorporated into the model to more clearly explicate the concept of motivation, which was determined not to be originally well defined (Porter et al., 1968).

Additionally, Porter and Lawler differed with Vroom on the concept of effort. Porter and Lawler (1968) emphasized that effort may not result in positive performance, if critical attributes of the individual were missing. The premise was that no one, no matter how motivated, could perform a task well if they could not comprehend the

complexities of the task (have the abilities and traits). According to Landy and Trumbo (1983), although Porter and Lawler's model was criticized for its lack of parsimony and increased complexity, the model was considered to be a good one.

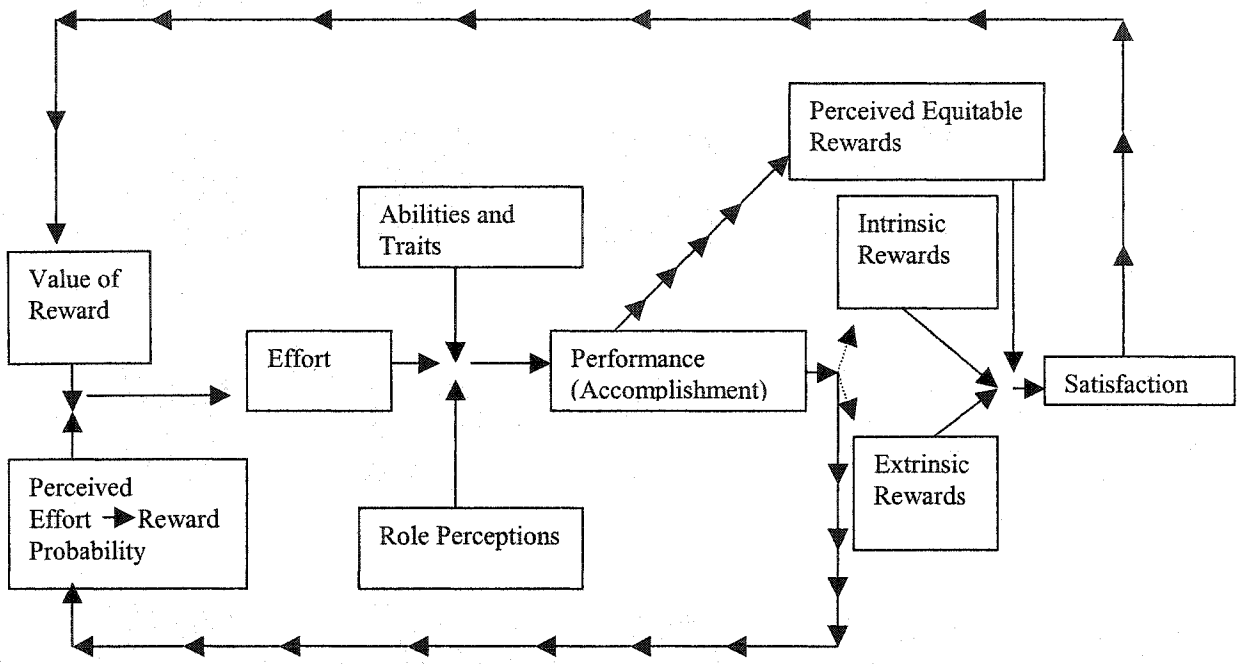
Porter and Lawler (1968) proposed nine variables for their model: 1) valence of the reward, 2) effort-reward probability, 3) effort, 4) abilities and traits, 5) role perceptions, 6) performance, 7) intrinsic and extrinsic rewards, 8) perceived equity, and 9) satisfaction. The first variable, value or valence of the reward, referred to the desirability or attractiveness for the possible rewards or outcomes to the individual. Different people attach differential value for possible rewards, similar to Vroom. However, Porter and Lawler stressed that their model emphasized only positively valued outcomes unlike, Vroom (1964) who suggested that negative valences could exist.

Effort-reward probability, the second variable, was defined as an individual's expectations that differential rewards were based on differential amounts of energy expended on their part in the work situation. Porter and Lawler (1968) presented two subjective probabilities to explain individual's preferences for rewards: 1) the probability that the valued reward depended on performance, and 2) the probability that improved performance depended on effort. These two probabilities were defined as perceived probability, not actual and considered to be a multiplicative relationship.

The third variable, effort, viewed as a key variable in the model, was defined as the amount of energy an individual expended to perform a task (Porter & Lawler, 1968). Motivation was perceived as a combination of the value of the reward and the perceived probability that the reward depended on the effort. The authors perceived motivation to be more highly related to measures of effort than to performance; "in other words, the

effects of motivation should show up more directly in the degree of effort expended, rather than in performance results" (Porter & Lawler, 1968, p. 22).

*Figure 2.1* Theoretical model of Porter and Lawler




(Porter, L. W., and Lawler, E. E., (1968). *Managerial attitudes and performance.* Homewood, Illinois: Richard D. Irwin, Inc., and The Dorsey-Press. p. 165)

The fourth variable, abilities and traits were considered to be relatively stable, long-term characteristics of the individual such as intelligence, personality traits, and psychomotor skills. Abilities and traits were hypothesized to interact with effort and role perceptions as determinants of performance. These serve as independent sources of variation and put a boundary or upper limit on the level of performance.

Role perceptions referred to how an individual defined his/her job. This variable determined the direction of effort an individual believed he should engage in to become successful. Important to this concept is how an individual perceives his/her job role in congruence with his/her superior. A great deal of wasted effort could result on the part of

the individual, as well as, receipt of reports of poor job performance from their superiors if perceptions are incongruent. To summarize, the individuals directed effort must be in concert with their supervisor's role perception to be successful in their performance.

The sixth variable, performance was defined as the end result of the application of effort and may be considered the result of the combined effects of effort expenditure, role perceptions, and ability and trait patterns. Performance referred to the level of accomplishment the individual achieved or their productivity. However, the authors viewed performance to be broader than the term productivity. Performance was viewed, as the trait organizations were the most desirous of measuring and influencing.

The seventh variable, originally conceptualized as one variable, rewards in Vroom's theory, was expanded to include both intrinsic and extrinsic rewards by Porter and Lawler. This variable was defined as "desirable outcomes or returns to a person that are provided by himself or by others" (Porter & Lawler, 1968, p. 28). In the model wavy lines connected the intrinsic and extrinsic rewards to the variable of performance. The wavy line implied that the intrinsic reward only existed when the individual felt challenged in the completion of their job activities. The wavy line between extrinsic rewards and performance indicated that receipt of the external rewards were often sporadic. Hence, employees may not always receive external rewards from their employers for successful accomplishments of their tasks (Landy & Trumbo, 1983).

The perceived equitable reward variable was defined as the level or amount that an individual felt that he/she should receive as a result of a given level of performance and the amount that should be attached to a given position or job in the organization. This variable was determined by the individual and based on their perception of fairness.

The final variable, satisfaction, was considered to be a derived variable by comparing an individual's perception of an equitable reward and the actual reward. Satisfaction was defined as the extent to which the actual rewards received, met, or exceeded the perceived equitable levels of rewards. To compute satisfaction the amount of rewards received were subtracted from the amount perceived to be equitable. For an individual to be satisfied the rewards received must be commensurate with what the individual considered to be an equitable level for his/her performance. Petri (1986) emphasized that a key distinction between the constructs of satisfaction and motivation existed in the model. Satisfaction depended on obtained rewards, whereas motivation was based on expected rewards.

Critical to Porter and Lawler's theory were the interrelationships among the variables: 1) the value of rewards and perceived effort reward probabilities combined to produce performance and 2) the relationship between effort and performance by including the effects of abilities and traits and role perceptions. Both interrelationships were conceived as multiplicative versus additive. In reference to abilities and traits the authors placed a ceiling on possible performance. The accuracy of role perceptions determined the proportion of effort that was relevant to task performance.

In addition to the proposed interrelationships two feedback relationships were also described in relation to this model: 1) a feedback loop from the performance-reward connection to the effort-reward probability and 2) a relationship between satisfaction and value of reward. The first loop implied that the way in which an organization rewarded its employees would affect their future perceptions of rewards to performance, which would, in turn, affect the amount of effort expended by the individual to receive a future

reward. The relationship of the second loop posited that the amount of satisfaction a person received from certain rewards would have an effect on the value of future rewards. Porter and Lawler (1968) summarized this feedback loop by stating "the effects of satisfaction on reward value may be different-even opposite-for different types of needs and their associated rewards" (p. 40).

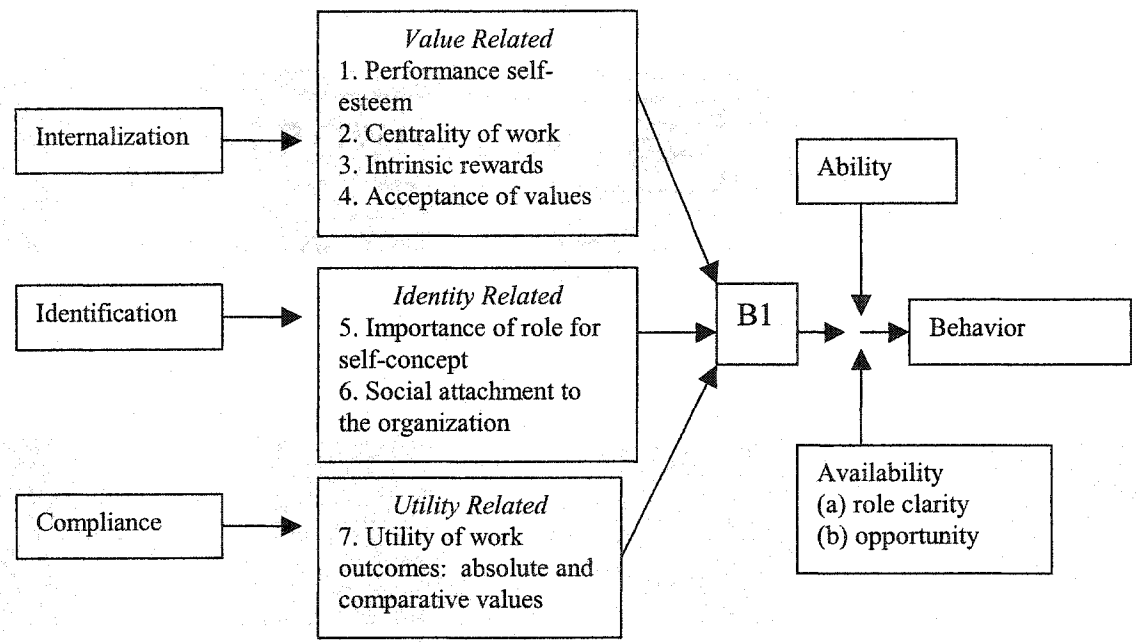
The conceptual framework for this study was derived from Porter and Lawler's work motivational theory. Six variables from their model were adapted for this study: 1) value of reward, 2) perceived effort reward probability, 3) effort, 4) abilities and traits, 5) role perceptions, and 6) performance (accomplishment). However, although the conceptual framework by Porter and Lawler was very comprehensive it lacked social and psychological variables that may further affect an individual's motivation. These variables were added using the framework proposed by Sussmann and Vecchio (1982) and variables from the conceptual map developed by Delaney and Piscopo (2004).

## Social Influence of Worker Motivation

Sussmann and Vecchio (1982) broadened Porter and Lawler's theory by considering social influences and individual attributes missing from their original model (Influence Processes and Sequence, see figure 2.2). The authors defined social influences as an attempt by an organization to alter behavior of another or others to a desired end. Social influence processes that an organization might exert included compliance, identification, and internalization. Compliance was referred to as an influence attempt on a worker that a worker chose because of a desire to obtain a favorable outcome or avoid an unfavorable outcome. Identification was defined as a worker's desire to exhibit behaviors derived from another or others because these would contribute to their own

self-image. Internalization referred to whether a worker accepted an influence attempt because the encouraged actions were congruous with their own value system and/or were intrinsically rewarding to the individual.

*Figure 2.2* Influence processes and sequence




Sussmann, M., & Vecchio, R. P. (1982). A social influence interpretation of worker motivation. *Academy of Management Review, 7,* 181.

These social influences were mediated by individual characteristics suggesting that the impact of an influence would be more successful with a given group of individuals with specific characteristics. Individual characteristics were value-related, identity-related, and utility-related variables. Value-related variables related to the individual's value system. Four groups of variables accompanied this category: 1) the value placed on the importance at work which was considered one conceptualization of job involvement; 2) the extent that one's job was central to their life, which was

perceived as another conceptualization of job involvement; 3) intrinsic motivation; and 4) acceptance of values pertinent to the work role, which included facets of the concept of organizational and professional or occupational commitment.

Identity-related variables included 1) the importance of the work role for an individual's self-concept, and 2) social attachment to the organization. Again the importance of the work role was considered a conceptualization of job involvement and social attachment corresponded with the concept of organizational commitment. Utility-related variables were referred to as extrinsic factors that centered on role attractiveness and the valence of the work role. Therefore, utility-related variables encompassed subjective evaluations of satisfaction with the job outcomes and social attractiveness.

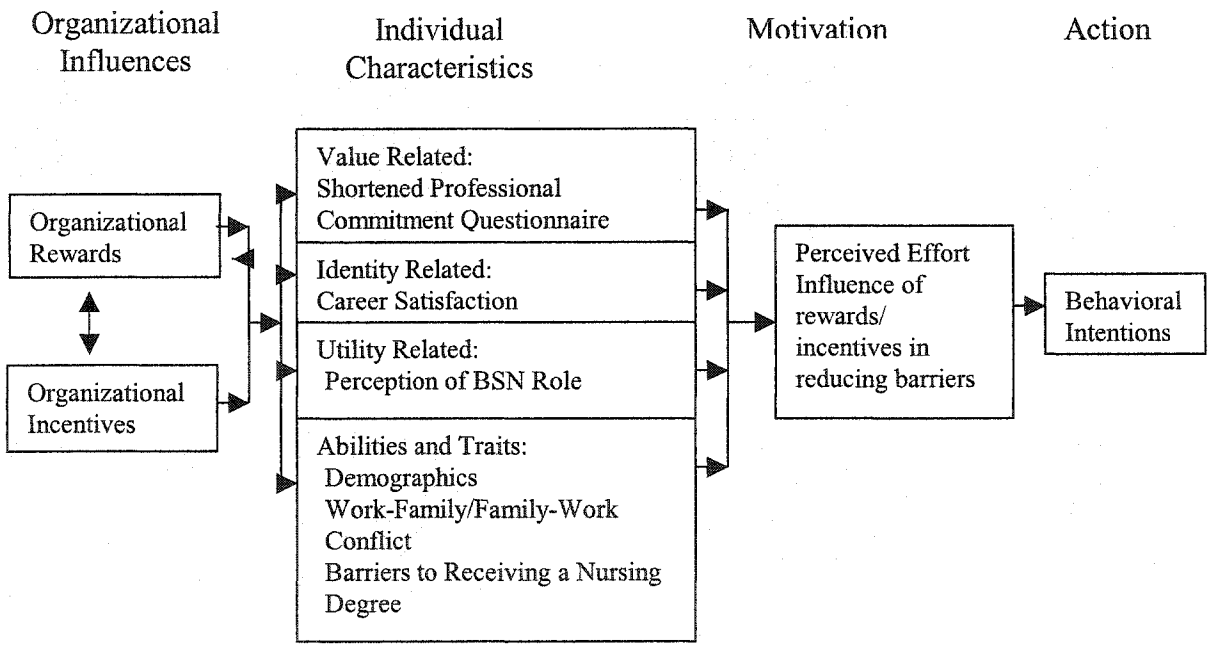
Thus, in this model, individual characteristics were considered antecedents mediating the effects of the organizational influence processes. The combination of influences and characteristics formed the behavioral intent or willingness to exert effort, corresponding with Porter Lawler's motivational model. This behavioral intent would then result in actual behavior, which was moderated by the individual's ability, role clarity, and opportunity.

## Conceptual Model of Nursing Motivation

Variables from Porter and Lawler's (1968) motivational model and Sussmann & Vecchio's (1982) social influence interpretation of worker motivation were used to develop the conceptual model for this study (Conceptual Model of Nursing Motivation, see Figure 2.3). The revised motivational model suggested that organizational incentives and rewards were mediated by individuals' characteristics, which influenced the nurse's motivation to obtain an advanced nursing degree and ultimately determined their resultant

action. Organizational influences were measured by a series of researcher developed scales examining the perceived importance of the organizational reward or incentive for completion of an advanced nursing degree. The professional commitment scale (Vandenberg et al., 1994; Mowday et al., 1979), career satisfaction scale (Greenhaus et al., 1990), and work-family conflict and family-work conflict scale (Netermyer, Boles, & McMurrian, 1996) were used to measure a portion of the individual characteristics. In addition, a researcher developed 8-item scale was used to examine barriers to returning for an advanced degree and demographic variables were reviewed.

*Figure 2.3* Conceptual model of nursing motivation




Perceived effort was defined as the influence of the rewards and incentives on motivating behaviors and reducing barriers. The perceived difference organizational incentives and rewards would make in influencing nurses to return for an advanced degree was measured using two researcher developed scales to examine the concept of

perceived effort. The behavioral intention, as measured by the individual's decision to return to school for a BSN or higher nursing degree if the right combination of organizational incentives and rewards were offered, was the final action piece or outcome variable for this study. The following section will explore each of these variables more in depth.

## Variables of the Model

### *Organizational Influences: Rewards and Incentives*

Organizational influences consisted of rewards and incentives offered by the organization to motivate nurses to return for their advanced degree. Unlike Sussmann and Vecchio's model (1982) the concept of organizational influences was simplified and did not differentiate among the influence processes of internalization, identification, and compliance. Organizational rewards were defined as favorable outcomes nurses would receive if they completed a BSN or higher nursing degree. Organizational incentives were items that would reduce the barriers or difficulty in returning to obtain a BSN or higher nursing degree.

The purpose of this study was to first identify which of the organizational rewards and incentives would be viewed as important (of value) (independent variables). Secondly, determine if these would make a difference (motivate by reducing perceived effort) in nurses' decision-making process to return for a degree. In this second instance the difference or perceived reduced effort was conceptualized as a mediating variable between individual characteristics and intent to return for a nursing degree; and an outcome variable for importance of rewards and incentives, mediated by individual characteristics.

This conceptualization was in keeping with Vroom's VIE theory and Porter and Lawler's motivational theory. Data were collected on the importance of organizational incentives and rewards and compared with whether these would *make a difference* or serve as motivators to obtain an additional nursing degree. Based on the theories, a nurse may perceive an incentive or reward as of value (important) but it may not be enough for her/him to act (motivate) because of the perceived effort. The most frequently cited rewards and incentives supported by research were included on this survey (Appendix A).

*Organizational rewards* were: 1) higher rate of pay for education, 2) increased autonomy, 3) professional advancement and career opportunities (clinical ladders), 4) increased involvement in hospital decision-making, 5) promotional opportunities, 6) increased variety of work assignments, 7) more flexible scheduling, 8) leadership role in the organization, 9) greater authority overseeing nursing personnel, and 10) one-time incentive pay for obtaining a BSN or additional nursing degree.

A comparison of magnet hospital characteristics across three different studies found that autonomy, control over practice, and in two out of the three studies, educational and career support, were some of the essential characteristics of magnetism (McClure et al., 2002). Initial and follow up studies on magnet hospital research findings demonstrated a relationship between nurse autonomy, job satisfaction and perceived productivity. The concept of autonomy was conceptualized as two dimensions: organizational autonomy or control over practice and clinical autonomy, or "the freedom to act on what you know" (McClure et al., 2002). Recommended strategies to enhance autonomy included decentralizing control over patient care decisions to the frontline staff, staff involvement in unit and organizational committees, and professional practice

models, such as shared governance. Based on these findings, rewards such as increased autonomy, increased involvement in hospital decision-making, increased variety of work assignments, and a leadership role in the organization were included on this research survey.

Additionally, education and professional development were characteristics ascribed to magnetism. Opportunities for professional growth through teaching others were valued by nurses as well as recognition programs acknowledging nursing education through clinical ladders or similar advancement systems that differentiated education and salary (McClure et al., 2002).

Similar, recommendations based on findings from an analysis of the 1992-2000 National Sample Surveys of Registered Nurses called for enhanced clinical ladders, better wages, flexible hours, and a more satisfying workplace as methods to retain the nursing workforce (Sochalski, 2002). Strategies for career advancement systems with differentiated pay models for education and pay recognition for attainment of education were voiced by health care organizations, private foundations, and focus group respondents (Association of Academic Health Centers, 2002; Joint Commission on Accreditation of Healthcare Organizations, 2002; Kimball et al., 2002; Delaney et al., 2004; Heller et al., 2003). Hence, significant justification was found to support the selected rewards that might be offered and considered of value by nurses desiring advanced education.

*Organizational incentives* included a variety of tuition payment options which could be offered by employers (tuition reimbursement, forgivable loans in return for service, sabbatical with full pay), flexible scheduling options (weekends only or 36 hours

per week with full pay and benefits and guaranteed time off matching work hours with class hours), accessible formal education programs (web based training during work hours or on-site classes), and subsidized child/elder care. Common research themes for AD/diploma nurses *not pursuing* an advanced nursing degree were financial and personal barriers (Maryland Colleagues in Caring: Regional Collaboratives for Nursing Workforce Development, 2002; Delaney et al., 2004).

The top two barriers cited by 1555 practicing AD and diploma nurses surveyed in Maryland were tuition costs and matching work hours and class hours (Maryland Colleagues in Caring: Regional Collaboratives for Nursing Workforce Development, 2002). Recommendations by respondents to facilitate their return to school were better scheduling and reimbursement, need for hospitals to provide reimbursement at the time of registration, and the offering of courses on the hospital premises (Delaney et al., 2004). These themes were supported by RN-BSN students currently enrolled in a degree program whereby three positive employer support themes for remaining in school were flexible working schedules, tuition reimbursement and mentorship (Trainor, 2000). According to the American Hospital Association some innovative hospital programs to recruit, retain, and advance nursing staff have included the development of educational partnerships with collegiate nursing programs, offering of scholarships for service payback agreements, formal mentorship programs, developing clinical and management promotional opportunities, flexible scheduling options including weekend packages, and subsidized daycare (Daffron & Hart, 2001). Selected organizational incentives were chosen based on research findings and current innovative organizational practices.

*Outcome Variables: Nursing Degree Enrollment*

The outcome variable for this study was intent to enroll in a nursing degree program if the right combination of organizational incentives and rewards were offered. In relation to this question several additional questions were asked of respondents: 1) plans to continue nursing career, 2) enroll if it were a job requirement, 3) overall perception of importance to obtain the degree, 4) willingness to pay, 5) likelihood of completion, 6) predicted timeframe for enrollment, and 6) current plan to enroll.

Selection for these additional outcome variables was based on the pertinent literature review. Willingness to enroll if it was a job requirement was posed because "not a job requirement" was the third highest ranked reason by 1555 AD/diploma nurses surveyed in the state of Maryland for not obtaining a BSN degree (Maryland Colleagues in Caring: Regional Collaboratives for Nursing Workforce Development, 2002). Moreover, New York has proposed legislation mandating completion of a BSN degree by all AD and diploma nurses 10 years post graduation (The American Nurse, 2004; New York State Nurses Association, 2004).

As previously cited financial barriers and lack of personal interest in obtaining an additional nursing degree were consistently identified throughout the literature as a reason for not pursuing higher education (Maryland Colleagues in Caring: Regional Collaboratives for Nursing Workforce Development, 2002; Delaney et al., 2004; Heller et al., 2003). It was conceptualized that the greater the likelihood a nurse identified the BSN or additional nursing degree as important and was willing to pay for it, the more likely he/she was to enroll in a nursing program. Finally, as conceptualized by Porter and Lawler (1968) and Sussmann and Vecchio (1982), the person must possess the abilities

and traits to be able to perform the expected behavior. Hence, respondents were asked to indicate their perceived probability for successfully completing a BSN or additional nursing degree.

## Mediating Variables

Relevant intermediary variables of worker motivation according to Sussmann and Vecchio's model (1982) were classified as value-related, identity-related, and utility-related. They defined the intermediary process variables as "dimensions that describe individual's behaviors, intentions, and cognitive and emotional states within an organizationally-relevant setting" (Sussman & Vecchio, 1982, p. 180). These authors viewed behavior as a unit of overt and covert processes that mediate overt actions and observable outcomes.

### *Value-Related*

The first set of variables was termed value related. As previously described the four groups of variables were identified as 1) the value placed on the importance at work (job involvement); 2) the extent that one's job was central to their life (job involvement); 3) intrinsic motivation; and 4) acceptance of values pertinent to the work role (facets of organizational and professional or occupational commitment). For this study, this concept was measured using the job involvement (Kanungo, 1982) and professional commitment scale (Vandenberg et al., 1994). However, based on results of the pilot survey, the job involvement scale was removed because it was perceived as highly influenced by organizational variables which might serve as a confounding variable and this scale added to respondent burden.

The concept of professional or occupational commitment was defined as "a person's identification with the goals and values of an occupation" (Vandenberg et al., 1994, p. 539). Occupational commitment was found to be an antecedent of organizational commitment based on longitudinal data from a study of 100 management information systems professionals (Vandenberg et al., 1994). Five outcomes associated with organizational commitment were job performance, tenure, absenteeism, tardiness, and turnover. Organizational commitment is positively associated with job performance and tenure, and negatively correlated with absenteeism, tardiness, and turnover (Mowday, Porter, & Steers, 1982). Hence, if occupational commitment is an antecedent to organizational commitment similar relationships would be anticipated with this construct.

In a study of 412 nurses, older nurses and nurses in a more mature developmental stage reported greater productivity, job satisfaction, and organizational commitment (McNeese-Smith et al., 2000). Additionally, professional commitment, organizational commitment, professional practice climate, and staffing adequacy were correlated with job satisfaction, and perceptions of care quality and anticipated turnover in a study of nurses paid under a differentiated pay structure (De Groot, Burke, & George, 1998). For this study, professional commitment was viewed as a mediating variable recognizing that if nurses had low professional commitment the intent to stay in the profession might also be low. Hence, even if organizational incentives and rewards were offered to nurses, their likelihood of returning for a more advanced nursing degree would be decreased.

*Identity-Related*

The second set of mediating variables described by Sussmann and Vecchio (1982) were labeled as identity-related. These represented the extent to which "the work role,

occupation, and organizational membership mark the individual's self image and the degree to which the individual derives satisfaction from interpersonal relations and primary-group relationships" (p. 180). Components of both organizational commitment and job involvement were stated to correspond with this variable. For this study, a broader view was taken for this variable and the concept of career outcome and more specifically career satisfaction was added as one of the components.

Although career satisfaction did not directly assess identity-related variable, it appeared reasonable that this concept influenced this concept. It was postulated that an individual's self-image and the degree to which they derived satisfaction were strongly tied to their perception of career outcomes. Two important measures of career outcomes are advancement prospects and career satisfaction. Career satisfaction is an internally generated career outcome (Greenhaus et al., 1990). Career satisfaction was found to be positively correlated with sponsorship, acceptance, job discretion, supervisory support, career strategies, job performance, perceptions of upward mobility, and perceived personal-organizational congruence value, and negatively correlated with career plateau (Greenhaus et al., 1990; Aryee, Chay, & Tan, 1994). Hence, it was proposed that nurses scoring higher on career satisfaction would be more likely to return for an advanced nursing degree.

*Utility-Related*

The third set of variables were described as utility-related variable (Vandenberg et al., 1994). This variable was labeled as "job outcome utility" which consisted of extrinsic factors and reflected role attraction and valence of the work role. To measure this variable a 10-item scale regarding nurses' perceptions of the value of the BSN role was

constructed using concepts derived from the literature review. Concepts included nurses' agreement with statements concerning 1) use of pay differentials based on education, 2) perceptions comparing the worth of education and experience; 3) perceived importance of a BSN based on changes in the health care environment and in comparison to other health care professionals, 4) perceptions regarding capabilities of BSN nurses (theoretical knowledge, ability to care for more complex patients, and managerial skills); 5) Chief Nurse Executives preferences for BSN nurses; and 6) perceptions of advancement and job promotion opportunities for BSN nurses. According to the theory, it was postulated that the greater the perceived value of a BSN degree the more likely a nurse would return to school.

## Abilities and Traits

### *Demographics and Barriers to Receiving a Nursing Degree*

Three sets of variables were used to assess abilities and traits of the individuals: 1) demographic variables; 2) perceived barriers that might impact on an AD/diploma nurse's decision to return for a higher degree; and 3) work-family conflict and family-work conflict. Demographic variables included age, gender, race, marital status, number of dependents (children or relatives), income, role as primary wage earner, and general work and hospital related characteristics. Based on the pilot data, age was identified as a potential confounding variable. Nurses 50 years of age and older were planning for retirement versus career advancement. Although, an upper limit of 50 years of age was added to the inclusion criteria this variable was deemed an important one to collect and control.

Using findings from the literature, income, role as the primary wage earner, and family responsibilities were also identified as potential variables which could limit nurses' abilities to return to school. To collect more information in relation to these demographic variables, a brief 8-item scale of identified barriers (age, cost of tuition, family responsibilities, time investment, ability to balance between work and school, academic requirements, school proximity, ability to match work and class hours) was developed from the literature (Delaney et al., 2004; Heller et al., 2003; Maryland Colleagues in Caring: Regional Collaboratives for Nursing Workforce Development, 2001a).

*Work-Family Conflict and Family-Work Conflict*

Conflict between work and family was proposed as a significant barrier for nurses desiring to return for an advanced degree. Nursing remains a women's profession; only 5.4 percent of nurses are male (Spratley et al., 2000). Slightly over half of nationally surveyed nurses (52 percent) reported having children living at home, and of these 8 percent had children under the age of six. Not surprisingly, married nurses with children, especially those with children under the age of six were more likely to be employed on a part-time basis (Spratley et al., 2000). For this study, it was postulated that nurses' with work and family conflict would be less likely to pursue an advanced nursing degree.

Role demands, role strain, and the time devoted to a role are viewed as three domain elements of work-family conflict (WFC) and family-work conflict (FWC) (Netermyer et al., 1996). Work-family conflict is defined as a "form of interrole conflict in which the general demands of, time devoted to, and strain created by the job interfere with performing family-related responsibilities. FWC is a form of interrole conflict in

which the general demands of, time devoted to, and strain created by the family interfere with performing work-related responsibilities" (Netemyer et.al., 1996, p. 401). Across three samples, WFC and FWC were negatively correlated with organizational commitment and job satisfaction and positively correlated with job tension, intent to leave an organization, and burnout. Number of children was also positively correlated with FWC (Netermyer et al., 1996). In a different study, WFC was negatively correlated with career satisfaction, and WFC was more strongly associated with lowered career satisfaction for women compared to men (Martins, Eddleston, & Veiga, 2002). For this study, it was proposed that WFC and FWC would be negatively correlated with the desire to return back to school.

## Summary

The concepts and their related theories for motivation and work motivation were expounded on in this chapter. Porter and Lawler's theoretical model (1968) and Sussman and Vecchio's model of influence processes and sequence (1982) were compared and contrasted. The proposed conceptual model for this study and its variables were reviewed. Literature pertinent to these variables was presented and its measures operationalized.

# CHAPTER III: METHODOLOGY

## Design

A non-experimental, descriptive, ex post facto study design was used to examine nurses' preferences for organizational incentives and rewards that would motivate them to return for a BSN or higher nursing degree. A mailed self-administered survey and internet survey constituted the data collection procedure for this study. A self-administered survey was chosen as the best method for addressing this study's specific aims and hypotheses because it 1) was cost effective; 2) was a method that is perceived by respondents as non-threatening; and, 3) has lower design effects (Aday, 1996). Recognized disadvantages of mailed surveys include noncoverage and nonresponse bias, lack of accuracy in selecting respondents, and lower response rates compared to personal or telephone interviews (Aday, 1996 p. 97). The tailored design method by Dillman (2000) and oversampling were used to adjust for these disadvantages.

The tailored design method consists of a set of procedures to produce high quality information and response rates by tailoring the survey instrument and its administration for the population being surveyed (Dillman, 2000). Fundamental assumptions of this method include that a person must understand what is requested of them and are motivated, and

multiple contacts are essential to achieve high response rates. These concepts and results from the pilot test were used to guide survey construction and its administration.

A mixed-mode survey design (paper and internet) was used to reduce mailing costs and potentially increase the response rate. Both a paper and internet survey were constructed. Great care was taken to ensure that both the paper and internet survey looked as comparable as possible to reduce measurement error.

## Preliminary Study

Procedures used to develop this survey closely adhered to those in the literature for survey construction and design (Aday, 1996; Dillman, 2000; Fowler, 2002). After receipt of IRB approval, the survey was pilot tested on one hundred randomly selected AD/diploma RNs and modified to enhance appearance and user friendliness, clarity of the survey questions, reliability of the research instruments, and reduce respondent burden in completing the survey (Aday, 1996). The purpose of the pilot was to generate ways to improve the survey by emulating procedures proposed for the main study (Dillman, 2000).

*Content Expert Review.* The survey was reviewed by content experts and knowledgeable colleagues. The conceptual model and survey contents were reviewed by eight university professors. Questions asked included 1) whether all necessary questions were asked, could questions be deleted, 2) should questions be reworded, 3) did the instruments measure the variables in the model, and 4) should categories and wording be modernized or kept as used in the past (Dillman, 2000). Additionally, the survey was presented during a research seminar to approximately 20 nursing colleagues with diverse backgrounds; feedback was sought on its contents. Using feedback from the content

experts and nursing colleagues, substantive content changes were made to the piloted survey.

*Sample.* For a pilot study, a sample of 100 to 200 respondents is recommended (Dillman, 2000). A list was requested from the MBON of all licensed associate degree/diploma degree nurses, working greater than 20 hours per week in an acute care hospital and not currently enrolled in a BSN or higher nursing degree program. A list containing 7,505 names was received from the MBON stated to meet these inclusion/ exclusion criteria. A systematic sample of 100 names was drawn from this database. Systematic samples are adequate if there is no periodicity in the sample (Dillman, 2000). This sample was not alphabetized and contained no reoccurring characteristics at defined intervals.

Names were numbered from 1 to 7505 and every 75th number was selected using an EXCEL© database. To determine a starting point for number selection, a bingo game, containing 75 balls was used. The number 14 was randomly drawn to serve as the starting point. Next, an equation was written requesting every 75th number starting with the number 14 be selected in the database. These numbers were sorted and names drawn for the mailing.

*Data Collection.* Two mailings between late November 2003 and January 2004 were conducted. Although procedures for the pilot should emulate the main study, due to cost considerations only two versus 3 mailings were conducted (Dillman, 2000). Additionally, both of these mailings contained the paper survey, unlike the main mailing where the follow up mailings consisted of a business envelope followed by a postcard with information on accessing the web survey or how to request another paper survey.

The procedures for the pilot differed because the purpose of the pilot was to gain knowledge on the survey content. Additionally, the web site had not yet been developed at the time of this pilot test. The preferred method was to develop this web site after the survey was finalized to defray costs of making substantial changes based on respondent feedback. Finally, due to mailing cost restraints only two versus three mailings were conducted as with the main survey.

The first mailing was conducted in the last week of November 2003. The packet included 1) the IRB approved Letter of Invitation, 2) the survey, and 3) a return stamped self-addressed envelope. Out of the 100 surveys mailed, only 18 surveys were returned after the first mailing. In an effort to increase the second mailing response rate, surveys were mailed in the beginning of January, post holidays. Seventeen surveys were returned following the second mailing for an overall response rate of 35 percent for the two mailings.

*Instrument.* The survey was a double-sided 6 page document (Appendix A). The first page contained questions on participate eligibility criteria and instructions for completing the survey. The recipient was requested to return the survey if they did not meet the criteria or elected not to participate. The actual survey questions started on the second page. Prior to starting and at the end of the survey, recipients were requested to record the time to evaluate respondent burden in completing.

The first section contained demographic and employment characteristics. The next sections were the selected questionnaires to measure nursing characteristics including the Job Involvement questionnaire (Kanungo, 1982), Shortened Organization (Professional) Commitment questionnaire (Vandenberg et al., 1994; Mowday et al.,

1979), Career Satisfaction questionnaire (Greenhaus et al., 1990), and Work-Family and Family-Work Conflict scales (Netermyer et al., 1996). Following these questionnaires, the nurses were requested to answer questions examining the relationship between the importance and difference of organizational incentives and rewards that might motivate them to return for a BSN or higher nursing degree.

The last section listed several characteristics or qualities connected with the BSN or associate degree/diploma role. Porter and Lawler's (1968) role perception questionnaire was used as a guide to develop these role questions. These questions consisted of three parts asking 1) how much of the position characteristic there is now; 2) how much is connected with the BSN role and 3) how important this characteristic is to you.

*Findings.* The response rate was 35 percent (n=35/100) following the two mailings. However, out of the 35 returned responses, 11 persons did not meet the screening criteria, and another 7 either did not complete the survey or elected not to participate. No explanations were provided by recipients who elected not to participate. Additionally, the demographics of the 65 nonrespondents could not be evaluated based on confidentiality issues with the MBON database.

Almost 40 percent (n=11/28) of the nurses who responded did not meet the inclusion/exclusion criteria. Data for the 11 not meeting criteria were: 3 had a degree higher than an AD/diploma; 1 was not employed in nursing, 7 were not currently employed in an acute care setting; and, 2 were currently enrolled in a BSN or higher nursing degree program. The MBON was contacted regarding the significant number of nurses identified as ineligible recipients. As previously stated, the researcher could not

verify subject eligibility due to concerns with data confidentiality. However, the MBON database manager did agree to review the subject's information and send a new database in anticipation that this one may be more reliable. The sample size was recalculated adjusting downward based on database inaccuracies. The expected proportion of eligibles was decreased from the originally projected 90 percent to 70 percent (anticipating a 10% improvement with the new database).

The survey contained demographic characteristics as well as the survey instruments. However, due to the low response rate only frequencies and descriptive statistics could be reviewed as part of the pilot analyses. Internal consistency could not be analyzed for the different measures included in the survey. The majority of nurses reported that they had no intention of enrolling in a BSN or higher degree nursing program (n=15/17). The major reason cited for not going back to school was listed as age and the desire to retire. In reviewing this data, age was identified as a confounding variable. To control for age, nurses over the age of 50 were added to the exclusion criteria for the main study.

Each of the survey instruments and their associated respondents burden were reviewed to assess if these were factors that contributed to the low response rates. The time to complete the survey ranged from 11 to 60 minutes with a mean of 28 minutes. Upon review of the surveys, many sections contained unanswered items suggesting participants answered items quickly. Recognizing that respondent burden was a factor in poor response rates and missing data, each of the instruments was reviewed for how it added to the measurement of the model and whether it should remain, be changed or eliminated from the survey.

Based on results from the pilot and additional meetings with content experts, the job involvement scale was eliminated, the position characteristics scale was rewritten, and the organizational incentives and rewards questions on importance and differences were divided into two separate scales to simplify responding. Although job involvement was viewed as an important concept it was also viewed as being influenced by one's present organization. Unlike professional commitment or career satisfaction which were more broadly defined concepts and refer to more general attitudes. Therefore, the latter scales were kept and the former removed.

Frequencies from the 3 part position characteristics section showed little variation in the answers from the pilot. Additionally, many answers were incomplete. The respondent burden was identified as too high and confusing for participants to complete this scale. The goal of this section was to gain information on nurses' perceptions of the BSN role. To simplify this section, statements were taken from the literature on current perceptions of the BSN role and used to develop a 10 item scale.

*Summary.* Substantial revisions were made to the survey based on the pilot results in an effort to increase participant motivation and response rates. A summary of these revisions included: 1) survey questions were shortened, rewritten for clarity, new ones added, and others eliminated; 2) survey sections were reordered to capture interest and place more controversial sections in the middle to enhance item completion; 3) an incentive was added to improve response rates (a drawing for 4, $25 Hecht's Gift Certificates); and 4) the entire survey was redesigned and made into a booklet by a professional graphics designer to enhance appearance (Aday, 1996; Dillman, 2000; Fowler, 2002). With these substantive changes it was projected that the response rate

could be increased from the pilot result of 35 percent to a minimum of 40 percent. The sample size was recalculated using this new projection.

## Setting

This study was conducted in the state of Maryland. All nurses licensed in the state of Maryland meeting the inclusion criteria were eligible to participate. Names were randomly selected from the database provided by the Maryland Board of Nursing (MBON).

## Sample

### *Sampling Frame*

The sampling frame was actively licensed AD/diploma nurses in the State of Maryland, less than or equal to 50 years of age, working 20 hours or greater per week in an acute care hospital, and *not* currently enrolled in a BSN or higher nursing degree program. Names of all nurses meeting these criteria were requested from the MBON database. Permission was received from the Executive Director, MBON for use of their database to select this study population (Dorsey, 2003).

The MBON database contains demographic (education, age, workplace and setting) and licensure information on all actively licensed RNs working in the state of Maryland. However, a certain amount of coverage error and sampling error exists with this database because of inaccuracies in the self-reported demographic data (Dillman, 2000, p. 197). Data are submitted by the nurse at the time of licensure or annually with renewal. Updating of the demographic information is dependent on the nurse to complete and most items are not required fields for licensure. Hence, data are only as accurate as the nurse entering the information. Additionally, nurses who are late in renewing their

licenses may not be listed in this database. Therefore, a small percentage of the sample population may not have had a chance for selection based on their licensure renewal date.

The inclusion and exclusion criteria were submitted to the MBON database manager, who generated a mailing list of all names stated to meet these criteria. To protect the nurse's confidentiality, only the nurse's name, address, and nursing degree were provided to the researcher. The researcher was not permitted to access the MBON database to verify the accuracy of the data. Moreover, to protect recipients' privacy, characteristics of the nonrespondents could not be examined.

*Sample Design*

A simple random, probability design, was used to select the sample. A mailing list, containing 4193 names, identified as all eligible nurses meeting the inclusion/exclusion criteria was received from the MBON. From this database, 1800 names were randomly selected for this study. To select recipients, six digit numbers were randomly generated for each name using Microsoft EXCEL© software. Next, the numbers and corresponding names were sorted from lowest to highest. The first 1800 numbers/names, ranging from 100027 to 498294 were selected. The randomly generated numbers were then stripped from these names and a new randomly generated number assigned to each to be used as their survey number (101071 to 999561). The sampling fraction for a nurse coming into this study was 1 in 2 (1800/4193).

*Sample Size*

Aday's (1996) sampling formula was used to determine the sample size. Based on the formula for a cross-sectional (one group) design, with a desired level of precision of 0.05 and assuming a 95 percent confidence interval, a sample size of 384 was required

(Aday, 1996). To ensure that the desired numbers of responses were obtained, additional adjustments were made to this sample size including estimated design effect (1.3), expected response rate (40 percent), and expected proportion of eligibles (70 percent) (Aday, 1996). Therefore, 60 percent were expected not to respond and 30 percent were presumed to be ineligible due to identified database inaccuracies. The response rate and expected proportions of eligibles were adjusted using results from the pilot data (Dillman, 2000). Factoring in these additional variables the number of surveys to be mailed to obtain the desired sample size was 1782 (rounded to 1800).

Logistic regression and structural equation modeling were planned to be used for data analysis. For regression, the "rule of thumb" to calculate sample size for testing both multiple correlation of independent variables and testing of individual predictors is to calculate the sample size for each type of analysis, then choose the larger of the two numbers for your sample size. Both N was calculated using $N \geq 50 + 8(m)$ for testing multiple correlations and N was calculated using $N \geq 104 + m$ for individual predictors. (Tabachnick & Fidell, 1996). Assuming nine independent variables a minimum of 122 subjects were calculated as needed for this study. For SEM technique as a "rule of thumb" a medium sample size of 200 is recommended to achieve adequate power. Over 300 respondents are considered a large sample size (Kline, 1998). Thus, the recommended sample size of 384 was determined to be adequate to achieve power using these statistical techniques.

## Instrumentation

The instrument was designed based on the results from the pilot survey (Appendix B). The survey consisted of the following sections: 1) independent variables were

importance of rewards and incentives; 2) mediators were career satisfaction, professional commitment, barriers to receiving a nursing degree, demographics, work family conflict/family work conflict, and value of the BSN role; 4) the difference in organizational rewards and incentives scales were both outcome and mediator variables; and 5) the final outcome variable was desire to enroll if the right combination of incentives and rewards were offered. Additionally, as outcome variables nurses intent to remain in nursing, willingness to receive a degree if mandated, intent and plan to enroll, importance of receiving an advanced degree, willingness to pay, and ability to academically complete were examined.

*Independent Variable*

The independent variable of interest was nurses' preferences for organizational rewards which might serve as motivators to return for an additional nursing degree as measured by the concept of importance. A listing of organizational rewards (10-items) and incentives (10-items) were developed from the literature and interviews with nursing leaders. Responses to each item were measured using a 7-item scale with scale points anchors labeled as Not At All Important to Very Important. Reliability and validity for these scales could not be assessed from the pilot data due to the low response rate.

*Mediating Variable*

Next, variables pertaining to nurses' individual characteristics were measured. These variables were predicted to serve as mediators between the independent variables of rewards and incentives and dependent variables of perceived effort and behavioral intent. Individual characteristics measured were grouped under the categories of value related, identity related, utility related, and abilities and traits.

*Value Related.* Professional commitment was examined as a value related characteristic. Professional commitment was measured using the 9-item Shortened Organizational Commitment Survey (Mowday et al., 1979). For the purposes of this study, the word organization was replaced with profession for each item as described by Vandenberg and Scarpello, (1994). Items for this scale were anchored using a 7-point strongly agree to strongly disagree format. Internal consistency for scale was 0.73 and 0.70 for two time measures (Vandenberg et al., 1994). These scores correspond well with the original organizational commitment scale coefficient alphas which ranged from .82 to .93 (Mowday et al., 1979). Vandenberberg and Lance (1992) found the test-retest reliability to be 0.60. Evidence for occupational commitment as an antecedent to organizational commitment was demonstrated by findings in a longitudinal study of 100 management information specialists. Use of the organizational commitment scale is well documented in the literature. Considerable evidence for construct, predictive, convergent, and discriminate validity exists in the literature (Mowday et al., 1979; Mowday et al., 1982).

*Identity-related.* Career satisfaction measured identity related characteristics. The 5-item "Career Satisfaction" scale by Greenhaus, Parasuramann, and Wormley (1990) was used to measure this variable. Items were anchored using a 5-point strongly agree to strongly disagree response format. Internal reliability of this scale ranged from 0.83 to 0.89 (Greenhaus et al., 1990; Aryee et al., 1994). As evidence of validity, this measure positively correlated with job performance, promotion, and perceptions of upward mobility and negatively correlated with career plateaus (Aryee et al., 1994; Greenhaus et al., 1990).

*Utility-Related.* A list of qualities or characteristics used to differentiate between the BSN and AD/diploma job roles were created to measure the utility related characteristic. These characteristics were defined as the attractiveness and desirability of the work role. Characteristics differentiating between the roles of a BSN and AD/diploma nurse, identified by an expert panel, were used to construct this scale as well as descriptions of this role differences from the literature (American Association Colleges of Nursing, American Organization of Nurse Executives, & National Organization For Associate Degree Nursing, 1995; Goode et al., 2001; American Association Colleges of Nursing, 2003). A 10-item scale anchored using a 7-point strongly agree to strongly disagree format was developed by the researcher.

*Abilities and Traits*

*Demographic Variables.* Demographic data, barriers to returning for a nursing degree, and a measure of work-family and family-work conflict were used to measure abilities and traits. Demographic information to be collected included age, sex, gender, ethnicity, income, marital status, head of household, number of children and their ages, educational background, experience as an RN, and hospital demographics.

*Work-Family Conflict and Family-Work Conflict.* The 10-item "Work-Family and Family-Work Conflict" scale by Netemyer, Boles, and McMurrin (1996) was used to measure the participant's perception of role conflicts and hence, their ability to return for a BSN or higher nursing degree. The survey is divided into two subscales one for work–family and the other for family–work conflict. This was considered a superior scales over others because it distinquished between these two constructs. Coefficient alpha values for the subscales ranged from 0.83 to 0.89, with an average alpha of 0.88 for the work-

family conflict scale and 0.86 for the family-work conflict scale (Netermyer et al., 1996). Furthermore, across three samples, confirmatory factor analysis showed factor loadings and factor correlations were invariant. The scale positively correlated with concepts of job tension, intention to leave, and burnout, and negatively correlated with organizational commitment, job satisfaction and life satisfaction across three samples lending supportive evidence for convergent and discriminant validly.

*Barriers to receiving a Nursing Degree.* After reviewing information from the pilot data, it was decided to include a section on barriers nurses may face in being able to return for a nursing degree. An 8-item list was created using a 7-point anchor ranging from Not At All to A Very Great Extent. Items for this scale were selected from the literature review (Heller et al., 2003; Maryland Colleagues in Caring: Regional Collaboratives for Nursing Workforce Development, 2002).

*Dependent Variables*

The dependent variables to be studied were 1) perceived effort or motivation defined as the influence of rewards and incentives in motivating nurses to desire to return for their degree and reduce perceived barriers, and 2) behavioral intent to return for their degree if the right combination of rewards and incentives were offered.

*Perceived Effort.* Perceived effort was measured by asking the participant's how much the reward or incentive would influence their decision to return for a BSN or higher degree. The 10-items from the organizational rewards and incentives importance scales were listed again however the response format for this section questioned how much of a difference these would make in motivating nurses' to obtain an additional nursing degree. This scale was proposed to be used as both a mediator and outcome variable.

*Behavioral Intent.* Behavioral intent was measured by asking participant's a series of questions to determine their readiness in returning for a BSN or higher nursing degree. The primary outcome variable was a simple yes or no question regarding the likelihood of returning to school if the right combination of rewards and incentives were offered. In addition, intent was explored by asking the participant when they might return for their degree, ability to be successful in a BSN or higher nursing degree program, financial willingness, and perceived importance to receive a degree.

## Procedures

### *Development of the Internet Survey*

A mixed-mode method, using paper and a web survey, was chosen because of the efficiencies and cost effectiveness this method could provide to this study. According to Dillman, (2000, p. 218) "mixed mode surveys provide an opportunity to compensate for the weaknesses of each method". For this study, the printing and mailing of a paper survey for 3 contacts was cost prohibitive. For the mailing cost alone, not factoring in cost of printing the survey, envelopes and mailing labels, was $1.43 per recipient or $2,574 per mailing. Therefore, the offering of a web survey eliminated the need for additional survey printings, reduced mailing (stamps and envelopes) costs and data entry cost and time (Dillman, 2000). The mixed-mode method also provided recipients with a choice.

However, mixing modes can introduce additional survey error and produce different results. Although the web survey is more cost effective and efficient, inadequate coverage is it's main weakness because not all recipients may have internet access

(Dillman, 2000). To compensate for this weakness, each follow up mailing offered a paper survey, upon request.

Additionally, with mixed modes measurement differences may be introduced due to the different survey designs (web versus paper). A paper survey allows respondents to look at all of the questions prior to answering, and permits respondents to change their answers as they work through the survey. In contrast, the web survey requested respondents to submit their answers with each page and did not permit them to return to their previous page to review their answers. Differences among paper and intranet respondents were examined to assess for group differences. A total of 27 useable internet surveys were received compared to 271 paper surveys. Therefore, 27 mailed respondents surveys were randomly selected for comparison to ensure equal groups. A series of t-tests for independent samples showed no statistically significant differences for career satisfaction, work family conflict/family work conflict, BSN roles, importance or differences rewards, importance or difference incentives, or motivation to enroll in a BSN program if the right combination of incentives or rewards were offered. Only barriers were statistically significant between the groups with internet survey respondents having a greater mean difference. The one difference in responses between the groups suggested minimal measurement error existed between the differing forms (paper versus internet).

Remark© software was used to construct the internet survey. The paper survey was copied from a PDF file directly into this software. To prevent introducing measurement error, question displays and the format of the survey, including colors in the foreground and background, as well as, the cover page were maintained. However, navigational pathways for reading information and skip patterns differed due to the

difference in modes. Wording of questions remained the same, but instructions for completion were changed based on differences between use of pencil and paper versus computer.

Prior to implementation, the web survey was piloted on a convenience sample of end users to test for compatibility issues associated with different operating systems, different browsers, different Internet Service Providers (ISP), and modes of access (modem, high speed DSL, etc.). A total of 20 end users were requested to participate; twelve responded. A generic Personal Identification Number (PIN) or survey number was provided to each user for testing.

A wide variety of both old and new computers with different operating systems (3 Windows 98, 1 Windows 2000, 6 Windows XP, and 2 unknown), ISPs (8 different providers listed, 1 unknown), and internet access (5 dial-up modem and 7 broadband cable) were used by the various users to test the survey. All but one person used MSN explorer as their web browser. None of the testers had a compatibility issue with their computer equipment. All were able to access the web site, enter their PIN, and enter the data. Respondents data were easily downloaded to an EXCEL© spreadsheet.

*Protection of Human Subjects*

Approval was received from the University Of Maryland Institutional Review Board prior to conducting this study (Appendix C). Confidentiality was assured by the researcher for all respondent surveys. Initially, participant's names and survey numbers were linked by a code for mailing purposes. However, once the data were entered into the database these codes were stripped from the database and all coding information

destroyed to protect participant confidentiality. Only the researcher had access to the coding information.

Participants were mailed the survey with an enclosed approved Letter of Invitation explaining the purpose of the study, procedures, and benefits of participation (Appendix D). No risks were associated with this study. Additionally, participants were informed that participation was strictly voluntary. Return of completed surveys represented implied consent.

*Data Collection Process*

Three mailings approximately 3 weeks apart were conducted between the months of May and July 2004. Due to cost constraints, three versus the suggested five contacts were made (Dillman, 2000). Data collection ended at midnight, July 26, 2004. For the first mailing, a paper survey only was sent to the recipients (Appendix E). For the second mailing, a business letter was mailed requesting recipients to return their survey, request a new survey, or complete the survey posted on the internet (Appendix F). A unique passcode for accessing the internet site was provided in this letter. The third and final mailing consisted of a postcard containing similar information as the second (Appendix G). However, a closing date, at which time data collection would be completed, of July 26, 2004, was listed. Only one recipient requested a paper survey be mailed following the second survey. An additional two paper surveys were mailed because respondents were unable to access the internet site due to password problems.

As recommended by Dillman (2000), a reward was offered to motivate recipients to respond. A drawing was conducted for four, $25.00 Hecht's Company gift certificates. A third party managed the drawing to remove bias and ensure respondent's

confidentiality. Following selection and notification of the recipients, the database linking the survey number with participants' names was destroyed. All respondents were offered the choice to participate in the drawing. Those who elected not to participate were to indicate that on the front of their returned survey. None of the respondents elected not to participate in the drawing.

*First Mailing.* For the first mailing, 1800 paper surveys were sent out to the recipients. A cover letter requesting recipients' participation, the IRB Letter of Invitation describing the survey, the paper survey, and a large (9 inch X 12 inch) self-addressed stamped (first class) return envelope were placed into a large envelope (10 inch X 13 inch) and mailed to each individual. Of the 1800 mailed a total of 406 persons responded and 12 were not deliverable, for a 23 percent response rate.

As the researcher recorded the survey numbers from the respondents it was unexpectedly discovered that 9 sets of duplicate numbers existed in the database. An expert was contacted regarding this mishap. From this conversation, it was learned that the random number generator in EXCEL© does not produce unique identification numbers, as assumed by the researcher. A special macro, available on the Microsoft web site, must be used to develop unique numbers. To eliminate duplicates in the database for subsequent mailings, these numbers were changed to a 7 digit alphanumeric number.

*Second Mailing.* Three weeks following the initial contact a second business sized letter was mailed to 1463 nonrespondents. This one page letter expressed appreciation for those who had responded and requested those who had not responded to either contact the researcher for a new survey, or invited the respondent to complete the survey electronically, listing the Internet site address and password number for access. A

total of 101 surveys were received following the second mailing. Of these, 47 were returned by mail, 41 respondents completed the internet survey, 2 persons personally called the researcher and an additional 2 emailed all stating that they were not eligible, and 9 envelopes were returned, not deliverable. A less than 1 percent response rate was received with this second mailing.

*Third Mailing.* The third and final contact, mailed three weeks later, consisted of a (5 ½ inch X 8 ½ inch) postcard reminder urging the recipient to respond by July 26, 2004. Again, the offer was made to either mail the recipient a new survey or access the survey on the internet. A total of 1285 postcards were mailed and 7 returned as not deliverable. Thirty surveys were received by mail and an additional 35 responded using the web site. Five emails and 3 phone messages were received by the researcher; two had password problems so paper copies were mailed, 3 responded that they had completed the survey, and 3 were not eligible. Again, a less than 1 percent response rate was achieved with this mailing. To summarize, out of 1800 mailed surveys, 552 responded, and 28 were undeliverable. The overall response rate for the three mailing was 31 percent (Table 3.1).

Table 3.1

*Response Rates for 3 Mailings and Internet Survey*

| | Mailed | Not Delivered | Returned | Response Rate |
|---|---|---|---|---|
| First Mailing | 1800 | 12 | 406 | 23% |
| Second Mailing | 1463 | 9 | 40 | 2.8 % |
| Third Mailing | 1285 | 7 | 30 | 2.3% |
| Web Survey | | | 76 | |
| Total | 1800 | 28 | 552 | 31 % |

## Data Analysis

An analysis of the data was conducted to predict which combination of organizational rewards and incentives best predicted nurses willingness to return to school for an advanced nursing degree. Data analysis methods included 1) exploratory factor analysis (principle components) to examine the subset of variables in each scale; 2) logistic regression to predict which nurses were most likely to return to school from the set of predictor variables; and 3) structural equation modeling to test the model.

The research questions for this study were:

1. To what extent does the perceived value (importance) of organizational incentives and rewards influence AD/diploma RNs motivation (make a difference) in obtaining a BSN or higher nursing degree?
2. What combination of organizational incentives and rewards, best predict AD/diploma RNs behavioral intention to obtain a BSN or higher nursing degree?
3. To what extent do individual characteristics of AD/diploma RNs influence preferences for organizational incentives and rewards and their behavioral intent in obtaining a BSN or higher nursing degree?
4. What combination of organizational incentives and rewards, and individual characteristics best predict AD/diploma RNs behavioral intention to obtain a BSN or higher nursing degree?

The following hypotheses were proposed:

1. Influences of organizational incentives and rewards reduce perceived effort (motivation) and have a positive impact on AD/diploma nurses intent to return for a BSN or higher nursing degree.
2. Individual characteristics (professional commitment, career satisfaction, work-family family-work conflict, and value of the BSN role) and their influence on behavioral intent to return for a BSN or higher nursing degree are mediated by perceived effort.
3. The importance of organizational incentives and rewards and their influence on nurses' perceived effort (motivation) are mediated by individual characteristics (professional commitment, career satisfaction, work-family family-work conflict, and value of the BSN role).
4. Organizational incentives and rewards and nurses behavioral intent to return for a BSN or higher nursing degree are mediated by individual characteristics (professional commitment, career satisfaction, work-family family-work conflict, and value of the BSN role) and perceived effort.
5. Individual characteristics of professional commitment, career satisfaction, and value of the BSN role have a positive impact on perceived effort and nurses' behavioral intent to return for a BSN or higher nursing degree.
6. Individual characteristics of work family/family work conflict have a negative impact on perceived effort (motivation) and nurses' behavioral intent to return for a BSN or higher nursing degree.

## Summary

An overview of the research methodology was presented in this chapter. The overall design, preliminary study and findings, setting, sample, instrument, procedures, research questions and data analysis strategies were described.

# CHAPTER IV: FINDINGS

This chapter is divided into seven sections. The first section includes descriptions of the respondents. The next section presents results of the exploratory factor analyses for the scales used in the Nursing Organizational Incentives and Rewards Survey. In addition, data screening including findings from examining missing data, outliers, and normality (skewness and kurtosis), and multicolinearity are discussed. The third section describes the dependent variables and crosstabulations performed to examine relationships among these variables. The results from the multiple logistic regression and multiple linear regression are presented in the fourth and fifth sections. The sixth section presents results from the Structural Equation Modeling (SEM) analysis. Finally, the seventh section summarizes the results for each of the proposed research questions and hypotheses.

## Description of the Respondents

### *Respondents Not Meeting Eligibility Criteria*

A total of 552 responses were received from the three separate mailings and internet survey, of these only 297 respondents were eligible for the study. Of the 255 respondents not included in this analysis, 241 did not meet the eligibility criteria, 9 elected not to participate (returned survey signed with no eligibility criteria data

completed to make an assessment), and 5 completed the entire survey but skipped the eligibility criteria section making their survey unusable. Respondents identified as not meeting the eligibility criteria had an advanced nursing degree, were currently enrolled in a nursing degree program, or were not employed at a hospital (Table 4.1).

Table 4.1

*Respondents Not Meeting Eligibility Criteria*

| Criteria | Frequency | % |
|---|---|---|
| Not Employed in Nursing | 13 | 5.1% |
| Not Working at Hospital | 99 | 39% |
| Not Working > 20 Hours Per Week | 21 | 8.3% |
| Degree *Higher Than* Associate Degree/Diploma | 87 | 34% |
| *Currently* Enrolled in a Nursing Program | 52 | 21% |
| 50 Years or Older | 26 | 10% |

*Demographic Characteristics of Respondents*

Table 4.2 presents the demographic characteristics of respondents. As anticipated, the majority of respondents were female (271, 91.2%), Caucasian/white (252, 84.8%), between the ages of 45 to 50 years old (156, 54.4%), married (207, 72.4%), and had dependent children living at home (221, 76.2%). Respondents with children living at home reported having between 1 to 4 children. Most children were 6 years or greater in age (176, 81.5%). Only a few nurses (31, 10.7%) reported caring for other relatives/dependents at home; ages for these persons ranged from 1 to 80 years old. Over half of the nurses were the primary wage earners (181, 63.3%). Most of the household incomes were evenly divided by thirds, ranging from $50,001 to $75,000 (89, 30.6%), $75,001 to $100,000 (82, 28.2%), and $100,001 to $150,000 (82, 28.2%). One respondent reported an income of less that $35,000 and 18 respondents reported a gross household income of over $150,000.

The composition of these respondents had some similarities with the 2000 RN national population survey. In 2000, men comprised only 5.4% of the total RN population, the average age of a nurse was 45.2, 86.6% were White (non-Hispanic), and 71.5% married. (Spratley et al., 2000). Differences to the national population included that 54% of the respondents were between the ages of 45 to 50 and 76.2% had children living at home compared to the national figure of 52%. The exclusion of nurses over the age of 50 may explain some of these differences. Income could not be compared because gross household income was not reported in the 2000 survey.

Table 4.2

*Demographic Characteristics of Respondents*

| Characteristic | n | % |
|---|---|---|
| Gender | | |
| Female | 271 | 91.2 |
| Male | 17 | 5.7 |
| Missing | 9 | |
| Hispanic | | |
| No | 277 | 96.5 |
| Yes | 10 | 3.5 |
| Missing | 10 | |
| Race | | |
| Caucasian/White | 252 | 87.8 |
| African American/Black | 30 | 10.5 |
| Asian | 3 | 1.0 |
| Native Hawaiian/Pacific Islander | 1 | 0.3 |
| Other (unknown) | 1 | 0.3 |
| Missing | 10 | |
| Age | | |
| 30-34 | 21 | 7.3 |
| 35-39 | 38 | 13.3 |
| 40-44 | 72 | 25 |
| 45-50 | 156 | 54.4 |
| Missing | 10 | |

Table 4.2

*Demographic Characteristics of Respondents(cont.)*

| Characteristic | n | % |
|---|---|---|
| Marital Status | | |
| Single, Not Married, Not Cohabitating | 24 | 8.4 |
| Married | 207 | 72.4 |
| Separated | 5 | 1.7 |
| Divorced | 41 | 14.3 |
| Widowed | 1 | 0.3 |
| Cohabitating | 8 | 2.8 |
| Missing | 11 | |
| Dependent Child | | |
| Yes | 221 | 76.2 |
| No | 69 | 23.8 |
| Missing | 7 | |
| Number of Children | | |
| 1 | 77 | 35.5 |
| 2 | 98 | 45.2 |
| 3 | 36 | 16.6 |
| 4 | 6 | 2.8 |
| Missing | 5 | |
| Ages of Children | | |
| All Less Than 6 | 18 | 8.3 |
| All 6 Years and Older | 176 | 81.5 |
| Some Less Than 6 and Some 6 or Over | 22 | 7.4 |
| Missing | 6 | |
| Other Relatives | | |
| Yes | 31 | 10.7 |
| No | 258 | 89.3 |
| Missing | 8 | |
| Primary Wage Earner | | |
| Yes | 181 | 63.3 |
| No | 105 | 36.7 |
| Missing | 11 | |
| Gross Household Income | | |
| Under $35,000 | 1 | 0.3 |
| $35,001-$50,000 | 19 | 6.5 |
| $50,001-$75,000 | 89 | 30.6 |
| $75,001-$100,000 | 82 | 28.2 |
| $100,001-$150,000 | 82 | 28.2 |
| More Than $150,000 | 18 | 6.2 |
| Missing | 6 | |

*Education and Employment Characteristics of Respondents*

Table 4.3 shows the education and employment characteristics of the respondents. Findings showed that most had received an associate degree for their basic nursing education (211, 71.8%). Year of graduation from their basic nursing program were almost evenly divided among the ranges of 1974 to 1979 (62, 21%), 1980 to 1984 (64, 21.7%), 1985 to 1989 (62, 21%), 1990 to 1994 (76, 25.8%), and 1995 to 1998 (31, 10.5%). In most instances the highest educational degree received was from their basic nursing education program. Only 28 respondents reported having an additional postsecondary degree with one respondent reporting that they had a doctorate degree in another field.

All of the respondents had worked in nursing for greater than 6 years with the majority reporting that they had been employed in nursing for over 20 years (109, 36.8%). The data showed considerable variability in the number of years worked at their current hospital and in their current job role. Although considerable variability existed among the differing types of units worked, most nurses worked predominantly with medical surgical patients either on general wards or specialty areas such as critical care, trauma or preoperative, perioperative, or postoperative care.

Characteristics of employment settings showed that most nurses worked in hospitals with bed sizes ranging from 100 to 300 (134, 46.4), were part of a multi-hospital system (188, 63.3), and were community-based teaching hospitals (110, 65.1%) located in either urban or suburban settings.

Table 4.3

*Education and Employment Characteristics*

| Characteristic | n | % |
|---|---|---|
| Basic Education | | |
| Associate Degree | 211 | 71.8 |
| Diploma | 83 | 28.2 |
| Missing | 3 | |
| Year Graduated From Nursing School | | |
| 1974-1979 | 62 | 21.0 |
| 1980-1984 | 64 | 21.7 |
| 1985-1989 | 62 | 21.0 |
| 1990-1994 | 76 | 25.8 |
| 1994-1998 | 31 | 10.5 |
| Missing | 2 | |
| Highest Degree Not In Nursing | | |
| Associate Degree | 14 | 50.0 |
| Baccalaureate Degree | 11 | 39.3 |
| Mater's Degree | 2 | 7.1 |
| Doctorate | 1 | 3.6 |
| Missing | 1 | |
| Years Employed As RN | | |
| 6-10 Years | 41 | 13.9 |
| 11-15 Years | 78 | 26.4 |
| 16-20 Years | 68 | 23.0 |
| More Than 20 Years | 109 | 36.8 |
| Missing | 1 | |
| Years Worked At Current hospital | | |
| Less Than 1 Year | 11 | 3.7 |
| 1-5 Years | 57 | 19.3 |
| 6-10 Years | 54 | 18.3 |
| 11-15 Years | 70 | 23.7 |
| 16-20 Years | 44 | 14.9 |
| More Than 20 Years | 59 | 20.0 |
| Missing | 2 | |
| Years Worked In Current Job Role | | |
| Less Than 1 Year | 10 | 3.4 |
| 1-5 Years | 74 | 24.9 |
| 6-10 Years | 86 | 29.0 |
| 11-15 Years | 59 | 19.9 |
| 16-20 Years | 38 | 12.8 |
| More Than 20 Years | 30 | 10.1 |
| Missing | 0 | |

Table 4.3
*Education and Employment Characteristics (cont.)*

| Characteristic | n | % |
|---|---|---|
| Unit Worked | | |
| General Medical Surgical | 35 | 12.8 |
| Critical Care/Step Down Unit | 51 | 18.7 |
| Preoperative/Operating Room/Post Anesthesia Recovery Unit | 44 | 16.1 |
| Emergency Room/Trauma | 20 | 7.3 |
| Labor/Delivery/Women's Health | 18 | 6.6 |
| Newborn/Pediatric Unit | 6 | 2.2 |
| Psychiatric/Mental Health Unit | 11 | 4.0 |
| Ambulatory Care/Outpatient Department | 9 | 3.3 |
| Oncology/Hospice Unit | 3 | 1.1 |
| Administration | 15 | 5.5 |
| Work In Multiple Units/Not Specifically Assigned | 3 | 1.1 |
| Other | 58 | 21.2 |
| Missing | 24 | |
| Hospital Bed Size | | |
| Less than 100 | 27 | 9.3 |
| 100 to 300 | 134 | 46.4 |
| 301 to 500 | 74 | 25.6 |
| More Than 500 | 54 | 18.7 |
| Missing | 8 | |
| Hospital Description | | |
| Urban | 77 | 37.0 |
| Suburban | 83 | 39.9 |
| Rural | 48 | 23.1 |
| Missing | 89 | |
| Teaching Versus Non-Teaching | | |
| Teaching | 110 | 65.1 |
| Non-Teaching | 59 | 34.9 |
| Missing | 128 | |
| Hospital Type | | |
| University | 21 | 14.3 |
| Community | 109 | 74.1 |
| Government | 17 | 5.7 |
| Missing | 150 | |

Table 4.3

*Education and Employment Characteristics(cont.)*

| Characteristic | n | % |
|---|---|---|
| Multi-Hospital System | | |
| Yes | 188 | 64.4 |
| No | 89 | 30.5 |
| Not Sure | 15 | 5.1 |
| Missing | 5 | |

## Factor Analyses

This section describes analyses of the univariate and bivariate statistics, internal consistency, and internal structure for each of the scales used in this survey. Results from the descriptive statistics, correlation matrixes, Cronbach's alpha, and exploratory factor analyses are presented. Scale modifications using data reduction procedures are explained.

Prior to performing the exploratory factor analyses, accuracy of data entry, missing values, outliers, linearity, and multicollinearity were examined. Frequencies on all of the data were run using SPSS 9.0 to evaluate whether 1) the values were within range for continuous variables, 2) identify if missing data values were coded correctly, and 3) identify out of range numbers inconsistent with the various instruments (Tabachnick et al., 1996). All coding errors were corrected.

If out of range numbers were identified the original survey was reviewed for accuracy. The code of 99 was used to indicate a missing variable to identify unanswered or missed items. Missing values were determined to be in a random pattern, therefore rather than imputing data a missing data (pairwise) correlation matrix was analyzed. Two persons were eliminated from the study when it was noted that although they answered no

to being greater than 50 years old for eligibility, they listed their years of birth as 1952 and 1953. Once all coding errors were corrected, no additional outliers were identified.

The final sample size for data analysis was 297. According to Tabachnick (1996), "as a general rule, it is comforting to have at least 300 cases for factor analysis" (p. 640). Skewness and kurtosis were used to assess normality among the single variables. The cut off for skewness was 3 or greater and a statistic of 10 or greater was used to assess kurtosis. None of the variables to be used in the factor analyses showed a significant degree of skewness or kurtosis. As expected, both gender and race were skewed and kurtotic.

Correlation matrixes were reviewed for each of the individual scales. Moderate correlations with items (0.30 to 0.70) were viewed as acceptable (Tabachnick et al., 1996; Munro, 2001). Items were eliminated due to redundancy if correlations exceeded 0.70., or were eliminated if less than 0.30. The correlation matrix for each scale is presented in the following sections with the factor analyses.

*Organizational Rewards and Incentives: Importance and Difference Scales*

Exploratory factor analyses was performed to summarize the patterns of correlations among the set of variables for each scale and to reduce the data set to a smaller number, as indicated by the findings. Four scales, developed by the researcher and based on the literature review, are presented in this section: Organizational Rewards: Importance, Organizational Rewards: Difference, Organizational Incentives: Importance and Organizational Incentives: Difference scales. Each scale was proposed to measure one dimension.

Organizational rewards were operationalized as favorable outcomes nurses would receive from the organization if they completed a BSN or higher nursing degree. Rewards were measured by first requesting RNs to rate the perceived value or importance of the reward using a 7-item scale with scale point anchors labeled as Not At All Important = 1 to Very Important = 7. Next, nurses rated how much of a difference each item would make in their decision-making process to obtain a BSN or higher nursing degree. A 7-item scale with scale point anchors labeled as No Difference = 1 to Very Great Difference = 7 was used. This later question was used to measure the perceived effort or influence of the reward as a motivator.

Organizational incentives were defined as items that would reduce the barriers or difficulty in returning to obtain a BSN or higher nursing degree. Incentives were similarly measured as rewards. First respondents were asked to rate the perceived importance of each item, and second each respondent was asked to rate how much of a difference each item would make in influencing them to return to school for an advanced nursing degree.

*Organizational Rewards: Importance.* The mean, standard deviation, number of cases, and Cronbach's alpha if an item was deleted are presented in Table 4.4. Higher rate of pay (mean = 4.79, SD = 2.13), promotional opportunities (mean = 4.50, SD = 2.07), scheduling opportunities (mean = 4.47, 2.32), professional advancement (mean = 4.43, 2.07), and one-time incentive pay (mean = 4.43, SD = 2.21) were perceived as the most important rewards by respondents. The Cronbach's alpha coefficient for this 10-item scale was 0.93, demonstrating good internal consistency.

Table 4.4

*Organizational Rewards: Importance*

| Item | Mean | Std Dev | Cases | Alpha If Deleted |
|---|---|---|---|---|
| 1. (Q41) Higher Pay | 4.79 | 2.13 | 291 | 0.93 |
| 2. (Q42) Autonomy | 4.26 | 2.12 | 290 | 0.92 |
| 3. (Q43) Professional Advancement | 4.43 | 2.12 | 288 | 0.92 |
| 4. (Q44) Hospital Decision-Making | 3.65 | 2.05 | 289 | 0.92 |
| 5. (Q45) Promotional Opportunities | 4.50 | 2.07 | 289 | 0.92 |
| 6. (Q46) Variety Work Assignments | 3.78 | 2.11 | 290 | 0.91 |
| 7. (Q47) Scheduling Opportunities | 4.47 | 2.32 | 287 | 0.92 |
| 8. (Q48) Leadership Role | 3.98 | 2.05 | 287 | 0.92 |
| 9. (Q49) Clinical Oversight | 3.41 | 2.05 | 287 | 0.92 |
| 10. (Q50) One-Time Incentive Pay | 4.43 | 2.21 | 289 | 0.93 |
| Reliability Coefficients (10 Items) Alpha= 0.93 | | Standardized Item Alpha 0.93 | | |

The correlation matrix showed that the majority of correlations ranged between the accepted range of 0.30 to 0.70 (Table 4.5). However, several items produced scores greater than 0.70 demonstrating problems with multicollinearity or redundancy among the items. Leadership was highly correlated with hospital decision-making, variety of work assignment and clinical oversight. Theoretically, these items may be subsumed under the item of leadership role. Univariate and bivariate analysis led to the deletion of hospital decision-making, variety of work assignment, and clinical oversight for the factor analyses and leadership role was retained. Additionally, professional advancement and growth highly correlated with importance of promotional opportunities.

Two separate factor analyses were run. First, promotional opportunities was included and professional advancement and growth excluded and the second included professional advancement and growth and excluded promotional opportunities. Although results were negligible professional advancement and growth accounted for slightly more

of the variance (60.35 compared to 59.9) and had higher factor loadings (.793 compared to .777). Therefore, the item professional advancement and growth opportunity was kept in the final factor analysis recognizing that promotional opportunities may be subsumed within this item.

Table 4.5

*Correlation Matrix: Organizational Rewards: Importance*

| | Q41 | Q42 | Q43 | Q44 | Q45 | Q46 | Q47 | Q48 | Q49 | Q50 |
|---|---|---|---|---|---|---|---|---|---|---|
| Q41 | 1.00 | | | | | | | | | |
| Q42 | .615 | 1.00 | | | | | | | | |
| Q43 | .438 | .704 | 1.00 | | | | | | | |
| Q44 | .414 | .627 | .647 | 1.00 | | | | | | |
| Q45 | .440 | .658 | .780 | .694 | 1.00 | | | | | |
| Q46 | .438 | .635 | .633 | .776 | .707 | 1.00 | | | | |
| Q47 | .512 | .551 | .425 | .448 | .438 | .521 | 1.00 | | | |
| Q48 | .356 | .576 | .698 | .711 | .690 | .783 | .505 | 1.00 | | |
| Q49 | .361 | .578 | .599 | .684 | .593 | .695 | .469 | .722 | 1.00 | |
| Q50 | .549 | .491 | .429 | .372 | .398 | .462 | .542 | .433 | .472 | 1.00 |

Principal components factor analysis with varimax rotation was performed using SPSS 9.0 on the remaining 6 items (Table 4.6). One component was extracted which accounted for 60% of the variance. Communality values for each item were all greater than 0.50 and one was greater than 0.70 indicating a moderate to high range (low considered less than 0.40 and high greater than 0.70) (Stevens, 1996). Factor loadings for all items were greater than 0.73. Internal consistency, using Cronbach's alpha, was calculated for this new scale and found to be 0.87.

Table 4.6

*Factor Analysis: Organizational Rewards: Importance*

| Item | Factor 1 |
|---|---|
| Higher Rate Of Pay | .746 |
| Increased Autonomy | .858 |
| Professional Advancement and Growth Opportunities | .793 |
| Higher Priority For Scheduling Work Hours | .758 |
| Leadership Role | .769 |
| One-Time Incentive Pay For Degree Completion | .732 |
| Variance accounted for 60.35% (pairwise deletion, n=287-291) | Eigenvalue = 3.62 % |

*Organizational Rewards: Difference.* For this scale, higher rate of pay (mean = 4.71, SD = 2.23), one-time incentive reward (mean = 4.30, SD = 2.27), and scheduling opportunities (mean = 4.30, SD = 2.36) were perceived as making the greatest difference in returning for an advanced nursing degree (Table 4.7).

Table 4.7

*Organizational Rewards: Difference.*

| Item | Mean | Std Dev | Cases | Alpha If Deleted |
|---|---|---|---|---|
| 1. (Q51) Higher Pay | 4.71 | 2.23 | 288 | 0.94 |
| 2. (Q52) Autonomy | 3.98 | 2.23 | 289 | 0.93 |
| 3. (Q53) Professional Advancement | 4.04 | 2.21 | 285 | 0.93 |
| 4. (Q54) Hospital Decision-Making | 3.37 | 2.08 | 289 | 0.93 |
| 5. (Q55) Promotional Opportunities | 4.12 | 2.17 | 289 | 0.93 |
| 6. (Q56) Variety Work Assignments | 3.52 | 2.13 | 289 | 0.93 |
| 7. (Q57) Scheduling Opportunities | 4.30 | 2.36 | 287 | 0.94 |
| 8. (Q58) Leadership Role | 3.59 | 2.13 | 288 | 0.93 |
| 9. (Q59) Clinical Oversight | 3.23 | 2.12 | 290 | 0.93 |
| 10. (Q60) One-Time Incentive Pay | 4.30 | 2.27 | 289 | 0.94 |
| Reliability Coefficients (10 Items) Alpha= 0.94 | | Standardized Item Alpha 0.94 | | |

Of interest, the means for each of the items were lower and standard deviations larger than originally reported for the importance scale. Results potentially indicate that although these items were perceived as important, these items may not make a great difference in the final decision-making process for many of the nurses to return to school.

The internal reliability for this 10-item scale was very high 0.94 indicating multicollinearity existed among the items. A review of the correlation matrix demonstrated that professional advancement and growth highly correlated with autonomy, hospital decision-making, promotional opportunities, variety of work assignments, clinical oversight, and leadership role (Table 4.8). Based on these high correlations, the decision was made to retain professional advancement and growth opportunities and exclude the other items from the final factor analysis.

Table 4.8

*Correlation Matrix: Organizational Rewards: Difference*

| | Q51 | Q52 | Q53 | Q54 | Q55 | Q56 | Q57 | Q58 | Q59 | Q60 |
|---|---|---|---|---|---|---|---|---|---|---|
| Q51 | 1.00 | | | | | | | | | |
| Q52 | .632 | 1.00 | | | | | | | | |
| Q53 | .516 | .735 | 1.00 | | | | | | | |
| Q54 | .440 | .641 | .711 | 1.00 | | | | | | |
| Q55 | .535 | .684 | .825 | .719 | 1.00 | | | | | |
| Q56 | .456 | .651 | .722 | .802 | .731 | 1.00 | | | | |
| Q57 | .586 | .557 | .472 | .482 | .474 | .544 | 1.00 | | | |
| Q58 | .480 | .682 | .730 | .766 | .712 | .730 | .542 | 1.00 | | |
| Q59 | .491 | .696 | .718 | .750 | .666 | .753 | .541 | .834 | 1.00 | |
| Q60 | .635 | .576 | .466 | .423 | .416 | .436 | .591 | .467 | .517 | 1.00 |

Principal components analysis using a varimax rotation was performed using the remaining four items. The Eigenvalue was 2.6 and 66% of the variance was accounted for using these items. Communalities for the four items ranged from moderate to high

(higher pay=.727, professional advancement and growth opportunites=.542, scheduling opportunities=.666, and one-time incentive pay=.706). Each of the items loaded on one factor with high factor loadings (Table 4.9). The Chonbach's alpha for this new 4-item scale was 0.83.

Table 4.9

*Factor Analysis: Organizational Rewards: Difference*

| Item | Factor 1 |
|---|---|
| Higher Rate Of Pay | .852 |
| Professional Advancement and Growth Opportunities | .793 |
| Higher Priority For Scheduling Work Hours | .736 |
| Leadership Role | .816 |
| One-Time Incentive Pay For Degree Completion | .840 |
| Variance accounted for 66% (pairwise deletion, n=285-289) | Eigenvalue = 2.64 % |

*Organizational Incentive: Importance.* Organizational incentives were defined as items that would assist nurses in returning to school for an advanced degree by reducing perceived barriers. A 10-item scale anchored by Not At All Important =1 to Very Important = 7 was used to measure nurses' perceptions of importance for these incentives. Table 4.10 contains the descriptive statistics for this scale and reliability data. The most important items identified by respondents were tuition reimbursement (mean = 6.09, SD = 1.65), pay to attend class (mean = 6.08, SD = 1.62), and classes at work site (mean = 5.99, SD = 1.71). Cronbach's alpha for this scale was 0.84 which demonstrated good internal consistency among the items.

Table 4.10

*Organizational Incentives: Importance*

| Item | Mean | Std Dev | Cases | Alpha If Deleted |
|---|---|---|---|---|
| 1. (Q61) Tuition Reimbursement | 6.09 | 1.65 | 290 | .82 |
| 2. (Q62) Subsidized Child/Elder Care | 3.56 | 2.55 | 288 | .85 |
| 3. (Q63) Weekends Only | 4.48 | 2.44 | 289 | .82 |
| 4. (Q64) 36 Hour Weeks | 4.81 | 2.33 | 286 | .83 |
| 5. (Q65) Match Work and Class Hours | 5.82 | 1.79 | 290 | .81 |
| 6. (Q66) Pay Attend Class | 6.08 | 1.62 | 291 | .82 |
| 7. (Q67) Web Based Training Class | 5.56 | 2.00 | 291 | .82 |
| 8. (Q68) Classes at Work Site | 5.99 | 1.71 | 290 | .82 |
| 9. (Q69) Forgivable Loans for Service | 5.72 | 1.82 | 289 | .82 |
| 10. (Q70) Sabbatical | 5.71 | 1.94 | 289 | .82 |

Reliability Coefficients (10 Items) Alpha= 0.84 Standardized Item Alpha 0.85

Univariate and bivariate analyses of the scale led to the removal of three items: subsidized child/elder care, weekends only with benefits, and 36 hour workweeks. Each of the items had lower means indicating nurses perceived these as less important when compared with the other items. Additionally, these items had correlations of less than 0.30 with the other items contained in the scale (Table 4.11). Finally, the deleted alpha for subsidized childcare showed improvement if this item was deleted from this scale (alpha increased to .85). Therefore, these three items were eliminated and the remaining seven items retained.

Table 4.11

*Correlation Matrix: Organizational Incentives: Importance*

| | Q61 | Q62 | Q63 | Q64 | Q65 | Q66 | Q67 | Q68 | Q69 | Q70 |
|---|---|---|---|---|---|---|---|---|---|---|
| Q61 | 1.00 | | | | | | | | | |
| Q62 | .166 | 1.00 | | | | | | | | |
| Q63 | .341 | .316 | 1.00 | | | | | | | |
| Q64 | .359 | .243 | .489 | 1.00 | | | | | | |
| Q65 | .494 | .203 | .426 | .454 | 1.00 | | | | | |
| Q66 | .540 | .200 | .359 | .216 | .631 | 1.00 | | | | |
| Q67 | .328 | .268 | .322 | .311 | .406 | .425 | 1.00 | | | |
| Q68 | .519 | .137 | .287 | .311 | .445 | .482 | .426 | 1.00 | | |
| Q69 | .479 | .225 | .295 | .256 | .397 | .380 | .340 | .470 | 1.00 | |
| Q70 | .341 | .194 | .320 | .251 | .461 | .542 | .464 | .518 | .501 | 1.00 |

Results from the principal components analysis with varimax rotation is presented in Table 4.12. There was only one factor scale derived, so there was no rotation. Communalities ranged from .443 to .566. The Eigenvalue for this factor was 3.80 and the explained variance accounted for 54%. The deletion of the three items increased Cronbach's alpha to 0.85.

Table 4.12

*Factor Analysis: Organizational Incentives: Importance*

| Item | Factor 1 |
|---|---|
| Tuition Reimbursement | .722 |
| Matching Work and School Hours | .759 |
| Pay While Attending Classes | .793 |
| Web Based Classes | .665 |
| Classes at Work Site | .755 |
| Forgivable Loans for Service | .700 |
| Sabbatical | .752 |
| Variance accounted for 54% (pairwise deletion, n=289-291) | Eigenvalue = 3.80 |

*Organizational Incentives: Difference.* Table 4.13 presents the descriptive and reliability statistics for this scale. As noted with the previous importance versus difference scales for organizational rewards, the means and standards deviations for the scales did differ (means were lower and standard deviations were greater). Additionally, the incentives that respondents perceived would make the greatest difference in their ability to return to school were rated differently from the importance items. These findings suggested that although the nurses perceived these incentives as important, they may not have been enough to influence them to want to return to school for an advanced nursing degree.

Items perceived to make the greatest difference in respondents decision-making to return to school were obtaining pay to attend class (mean = 5.93, SD 1.88), having classes at the worksite (mean = 5.69, SD = 2.01), and receiving tuition reimbursement (mean = 5.63, SD = 2.01). The Cronbach's alpha for this scale was 0.90 indicating strong internal consistency.

A review of univariate statistics and bivariate statistics showed that the mean was again low for subsidized child and elder care and as noted with the previous scale this item also had low correlations, less than 0.30, with the other scale items (Table 4.14). Therefore, this item was deleted from the scale. Of interest, a high correlation (.770) existed between pay while you are attending class and guarantee of time off by matching work hours with class hours. Conceptually, these items were perceived as very different. Thus, although highly correlated the decision was made to retain each of the items.

Table 4.13

*Organizational Incentives: Difference*

| Item | Mean | Std Dev | Cases | Alpha If Deleted |
|---|---|---|---|---|
| 1. (Q71) Tuition Reimbursement | 5.63 | 2.01 | 289 | .89 |
| 2. (Q72) Subsidized Child/Elder Care | 3.38 | 2.53 | 289 | .91 |
| 3. (Q73) Weekends Only | 4.23 | 2.49 | 289 | .89 |
| 4. (Q74) 36 Hour Weeks | 4.52 | 2.42 | 286 | .89 |
| 5. (Q75) Match Work and Class Hours | 5.54 | 2.01 | 290 | .88 |
| 6. (Q76) Pay Attend Class | 5.93 | 1.88 | 290 | .89 |
| 7. (Q77) Web Based Training Class | 5.34 | 2.19 | 290 | .89 |
| 8. (Q78) Classes at Work Site | 5.69 | 2.01 | 289 | .89 |
| 9. (Q79) Forgivable Loans for Service | 5.43 | 2.11 | 290 | .89 |
| 10. (Q80) Sabbatical | 5.48 | 2.12 | 291 | .89 |

Reliability Coefficients (10 Items) Alpha= 0.90 Standardized Item Alpha 0.91

Table 4.14

*Correlation Matrix: Organizational Incentives: Difference*

| Q71 | Q72 | Q73 | Q74 | Q75 | Q76 | Q77 | Q78 | Q79 | Q80 | |
|---|---|---|---|---|---|---|---|---|---|---|
| Q71 | 1.0000 | | | | | | | | | |
| Q72 | .323 | 1.00 | | | | | | | | |
| Q73 | .458 | .426 | 1.00 | | | | | | | |
| Q74 | .489 | .345 | .591 | 1.00 | | | | | | |
| Q75 | .638 | .301 | .485 | .603 | 1.00 | | | | | |
| Q76 | .586 | .295 | .386 | .422 | .769 | 1.00 | | | | |
| Q77 | .540 | .316 | .432 | .427 | .580 | .557 | 1.00 | | | |
| Q78 | .604 | .248 | .431 | .467 | .680 | .685 | .558 | 1.00 | | |
| Q79 | .558 | .289 | .501 | .453 | .578 | .586 | .496 | .611 | 1.00 | |
| Q80 | .456 | .252 | .443 | .378 | .622 | .641 | .545 | .625 | .668 | 1.00 |

Principal components analysis with varimax rotation was used to factor analyze the reduced 9-item scale. The 9-items loaded on a single factor with an Eigenvalue of 5.35 and 59% of the variance explained. However, the communalities for weekends only with benefits (.435) and difference of 36 hour workweek (.461) were low and thought to

be potentially problematic. In addition, a review of the univariate statistics showed that the means for these items were low. Therefore, a second factor analysis was performed without these items (Table 4.15).

Table 4.15

*Communalities: Organizational Incentives: Difference*

| Item | Communality |
|---|---|
| Tuition Reimbursement | .577 |
| Weekends Only With Benefits | .435 |
| 36 Hour Work Week | .461 |
| Matching Work And School Hours | .752 |
| Pay While Attending Class | .678 |
| Web Based Training Classes | .550 |
| Classes At Work Site | .677 |
| Forgivable Loans For Service | .619 |
| Sabbatical | .599 |

Eigenvalue 5.35, Variance accounted for 59% (pairwise deletion n=289-291)

Table 4.16

*Factor Analysis: Organizational Incentives: Difference*

| Item | Factor 1 |
|---|---|
| Tuition Reimbursement | .758 |
| Matching Work And School Hours | .863 |
| Pay While Attending Class | .856 |
| Web Based Training Classes | .750 |
| Classes At Work Site | .842 |
| Forgivable Loans For Service | .792 |
| Sabbatical | .800 |

Variance accounted for 66% Eigenvalue 4.59
(pairwise deletion n=289-291)

The reduced 7 item scale improved the amount of variance explained to 66% and had an Eigenvalue of 4.59. Communalities ranged from .575 to .733 and factor loadings on the one component were greater than .750 for all items (Table 4.16). Cronbach's

alpha for the reduced scale was increased to 0.91 demonstrating excellent internal consistency. Comparing these results with the previous exploratory factor analysis it was decided to use this reduced 7-item scale for further analyses.

*Paired t- test: Importance versus Difference Organizational Rewards and Incentives Scales*

A paired two tailed t-test was performed to analyze whether respondents answers differed between the importance and difference scales. Conceptually, the outcomes of the rewards and incentives may be perceived as of value (important) to the respondents; however the offering be the organization of these items may not be worth the effort (motivation) to pursue an additional nursing degree. Given a power of .80 and effect size of .30 the sample size was determined to be large enough for this data set (estimated sample size = 175, actual sample size 281 to 290) (Munro, 2001). Skewness and kurtosis were previously analyzed for each item to examine normality of the distribution. No variables showed extreme skewness or kurtosis.

Six out of the 10 items were significant for the paired t-test comparing responses on the rewards importance and rewards difference scales (Table 4.17). For all items respondents rated the perceived importance higher than the perceived difference the item would have on influencing them to return for an advanced nursing degree. The items on the importance scale that did not differ were higher rate of pay, one-time incentive pay for degree completion, higher priority for scheduling, and clinical oversight.

More striking differences were identified for the comparison of incentives importance and difference scales. All but one item, importance of pay while attending class, were statistically significant at the .05 level (Table 4.18). Hence, this comparison

lends support to Vroom's theory (1964) that the perceived importance or value placed on a reward or incentive differs from the willingness or perceived effort an individual would expend to achieve a desired outcome, in this case returning for an advanced nursing degree.

Table 4.17

*Organizational Rewards: Importance and Difference Paired t- test*

| Item | Imp(m) | Diff(m) | Mean Diff. | SD | t |
|---|---|---|---|---|---|
| Higher Rate of Pay | 4.82 | 4.72 | .09 | 1.80 | .886 |
| Autonomy | 4.25 | 3.97 | .28 | 1.67 | 2.82* |
| Professional Advancement | 4.43 | 4.03 | .40 | 1.62 | 4.12** |
| Hospital Decision-Making | 3.63 | 3.37 | .26 | 1.55 | 2.85* |
| Promotional Opportunities | 4.49 | 4.13 | .37 | 1.38 | 4.23** |
| Variety Work Assignments | 3.79 | 3.51 | .28 | 1.40 | 3.63* |
| Scheduling Opportunities | 4.48 | 4.30 | .18 | 1.85 | 1.68 |
| Leadership Role | 3.96 | 3.57 | .39 | 1.56 | 4.27** |
| Clinical Oversight | 3.40 | 3.23 | .17 | 1.55 | 1.86 |
| One-Time Incentive Pay | 4.41 | 4.30 | .11 | 1.76 | 1.08 |

*p ≤0.01, **p ≤0.001 (df = 281- 287)

Table 4.18

*Organizational Incentives: Importance and Difference Paired t- test*

| Item | Imp(m) | Diff(m) | Mean Diff. | SD | t |
|---|---|---|---|---|---|
| Tuition Reimbursement | 6.10 | 5.63 | .47 | 1.58 | 5.07** |
| Subsidized Child/Elder care | 3.56 | 3.38 | .18 | 1.50 | 2.09* |
| Weekends Only/Benefits | 4.49 | 4.24 | .25 | 1.63 | 2.63** |
| 36 Hour Work Week | 4.84 | 4.50 | .34 | 1.57 | 3.62** |
| Match Work/School Hours | 5.82 | 5.54 | .28 | 1.48 | 3.18* |
| Pay Attending Classes | 6.09 | 5.93 | .16 | 1.61 | 1.68 |
| Wed Based Classes | 5.56 | 5.34 | .21 | 1.49 | 2.44* |
| Classes at Work Site | 6.00 | 5.69 | .32 | 1.48 | 3.65** |
| Forgivable Loans/Service | 5.72 | 5.43 | .29 | 1.51 | 3.24** |
| Sabbatical | 5.71 | 5.49 | .22 | 1.60 | 2.35* |

*p ≤0.01, **p ≤0.001 (df = 283-289)

*Mediator Scales*

Five scales were used to measure individual characteristics that were proposed to mediate between how persons valued (importance) the rewards and incentives and how much difference (effort) individuals would be willing to expend to obtain these rewards and incentives. Career satisfaction, work-family conflict/family-work conflict, professional commitment, barriers to obtaining a BSN degree, and BSN value were measured.

*Career satisfaction.* The career satisfaction scale was a one dimension scale developed by Greenhaus, Parasuraman, and Wormley (Greenhaus et al., 1990). Unlike the other instruments, this instrument used a five-point response scale with 1 = Strongly Agree and 5 = Strongly Disagree. Findings from the descriptive statistics suggested that the majority of respondents were satisfied with their success in their career (mean = 1.88, SD = .95) and development of new skills (mean = 1.97, SD = .93). But, they were only somewhat satisfied with income (mean = 2.20, SD 1.14) and goals for advancement (mean = 2.24, SD = 1.02).

Table 4.19

*Career Satisfaction*

| Item | Mean | Std Dev | Cases |
|---|---|---|---|
| Success Achieved in Career | 1.88 | .95 | 290 |
| Satisfied Goals for Development of New Skills | 1.97 | .93 | 290 |
| Satisfied Progress in Meeting Career Goals | 2.06 | 1.02 | 289 |
| Satisfied Goals for Meeting Income | 2.20 | 1.14 | 289 |
| Satisfied Goals for Advancement | 2.24 | 1.09 | 290 |
| Reliability Coefficients (5 Items) Alpha= 0.90 | Standardized Item Alpha 0.90 | | |

The Cronbach's alpha for this scale was 0.90 which compared well with the literature (0.88) (Greenhaus et al., 1990). Findings from the factor analysis showed high factor loadings on one dimension, with an Eigenvalue of 3.57, and 71.5% of the variance explained (Table 4.20). The factor analysis and Cronbach's alpha provided strong evidence for the reliability of this scale.

Table 4.20

*Factor Analysis: Career Satisfaction*

| Item | Factor 1 |
|---|---|
| Success Achieved in Career | .874 |
| Satisfied Progress in Meeting Career Goals | .913 |
| Satisfied Goals for Meeting Income | .763 |
| Satisfied Goals for Advancement | .893 |
| Satisfied Goals for Development of New Skills | .772 |
| Variance accounted for 71.5% (pairwise deletion n=289-290) | Eigenvalue 3.57 |

*Work-family conflict/family-work conflict.* This instrument is a ten-item scale with two dimensions: work-family conflict and family-work conflict (Netermyer et al., 1996). Respondents were asked to respond to the ten items using a 7-point scale with 1 = Strongly Disagree and 7 = Strongly Agree. Table 4.21 provides the descriptive statistics for this instrument. Comparing the subscales greater conflict was reported by respondents involving conflict with work family conflict versus family work conflict. Cronbach's alpha for the entire instrument was .90, while for the two subscales, work-family conflict was .92 and family-work conflict was .90. These findings were comparable to the literature. Construct reliability and coefficient alpha ranged from .82 to .90 on three samples (Netermyer et al., 1996). Using principal components analysis with a varimax rotation, a two-factor solution was obtained. All within item factor

loadings were above .742 and across factor loadings were below .314 (Table 4.22).

Thus, strong evidence for internal consistency was found.

Table 4.21

*Work Family Conflict/Family Work Conflict Scale*

| Item | Mean | Std Dev | Cases |
|---|---|---|---|
| **Work Family Conflict** | | | |
| Changes Family Plans Due to Work | 4.13 | 1.88 | 288 |
| Job Strain With Family Activities | 3.95 | 1.94 | 288 |
| Work Interfere With Family Life | 3.91 | 1.82 | 288 |
| Things Not Done At Home Due To Job Demands | 3.90 | 1.85 | 289 |
| Time On Job Unable To Fill Family Responsibilities | 3.66 | 1.75 | 290 |
| **Family Work Conflict** | | | |
| Demands Of Family Interfere With Work | 2.50 | 1.57 | 290 |
| Put Off Things At Work Due To Home Demands | 2.28 | 1.55 | 290 |
| Things At Work Don't Get Done Due to Family | 2.06 | 1.40 | 290 |
| Home Life Interferes With Work Responsibilities | 2.21 | 1.64 | 289 |
| Family Strain Interferes With Job-Related Duties | 1.97 | 1.45 | 290 |

Reliability Coefficients (10 Items) Alpha= 0.90 Standardized Item Alpha 0.90
Work Family Conflict Alpha = .92 Family Work Conflict Alpha = .90

Table 4.22
*Factor Analysis: Work-Family Conflict/Family-Work Conflict*

| Item | Factor 1 | Factor 2 |
|---|---|---|
| Work Interfere With Family Life | .870 | |
| Things Not Done At Home Due To Job Demands | .870 | |
| Time On Job Unable To Fill Family Responsibilities | .867 | |
| Job Strain With Family Activities | .859 | |
| Changes Family Plans Due to Work | .809 | |
| Things At Work Don't Get Done Due to Family | | .887 |
| Put Off Things At Work Due To Home Demands | | .864 |
| Home Life Interferes With Work Responsibilities | | .834 |
| Family Strain Interferes With Job-Related Duties | | .830 |
| Demands Of Family Interfere With Work | | .742 |
| | Eigenvalue 5.15, | Eigenvalue 2.30 |
| Total variance (75%) | 52% | 23%, |
| (pairwise deletion n=288-290) | | |

*Professional commitment.* Vandenberg and Scarpello (1994) modified the shortened 9-item Organizational Commitment Questionnaire by Mowday, Steers, and Porter (1979) to reflect occupational (professional) commitment. Questions asked respondents to rate their agreement with the items using a 7-point 1= Strongly Disagree and 7 = Strongly Agree format. Care about the fate of the profession (mean = 6.11, SD = 1.38) and proud to be part of the profession (mean = 6.09, SD = 1.43) were the highest rated responses to this questionnaire. However, respondents were less likely to talk up the profession (mean = 4.77, SD = 1.87). Additionally, respondents were more unwilling to accept any work assignment (mean = 2.58, SD = 1.75). Nurses require specialized knowledge and skill to care for different patient populations which may readily explain their unwillingness to accept any assignment.

Table 4.23

*Professional Commitment*

| Item | Mean | Std Dev | Cases |
|---|---|---|---|
| Care About Fate Of Profession | 6.11 | 1.38 | 291 |
| Proud To Be Part Of Profession | 6.09 | 1.43 | 290 |
| Profession Inspires Job Performance | 5.67 | 1.59 | 291 |
| Glad Choose Profession | 5.60 | 1.72 | 291 |
| Personal Values And Profession's Similar | 5.21 | 1.70 | 290 |
| Best Possible Profession | 5.18 | 1.85 | 290 |
| Talk Up Profession | 4.77 | 1.87 | 291 |
| Effort Help Profession Be Successful | 4.81 | 1.75 | 290 |
| Accept Any Job Assignment | 2.58 | 1.75 | 290 |
| Reliability Coefficients (10 Items) Alpha= 0.88 | Standardized Item Alpha 0.88 | | |

Internal consistency coefficients reported in the literature for the modified occupational scale were 0.73 and 0.70 (Vandenberg et al., 1994). For this study Cronbach's alpha was 0.88. Surprisingly, a two-factor solution accounting for 66% of the

interitem variance was obtained, versus the predicted one-factor solution (Table 4.24). The within factor items loadings ranged from .659 to .876 and across factor loadings ranged from .036 to .403. Using 0.30 as a cut off, one item, "talk up the profession" double loaded on two of the factors with loadings of .688 and .403 respectively. Factor one items appeared to describe more of the individual beliefs and value system associated with the profession, whereas factor two items reflected items that required energy expenditure or effort to help the profession. Although this instrument differed from the originally proposed one dimension, evidence for internal consistency was found.

Table 4.24

*Factor Analysis: Professional Commitment*

| Item | Factor 1 | Factor 2 |
|---|---|---|
| Glad Choose Profession | .859 | |
| Proud To Be Part Of Profession | .876 | |
| Profession Inspires Job Performance | .844 | |
| Personal Values And Profession's Similar | .659 | |
| Care About Fate Of Profession | .753 | |
| Best Possible Profession | .784 | |
| Talk Up Profession | **.688** | **.403** |
| Accept Any Job Assignment | | .838 |
| Effort Help Profession Be Successful | | .731 |
| | Eigenvalue 4.81 | Eigenvalue 1.13 |
| Total Variance (66%) | 54%, | 12% |
| (pairwise deletion n=290-291) | | |

*Barriers to receiving a nursing degree.* Barriers to receiving a nursing degree, a researcher developed scale, consisted of 8-items identified from the literature. Respondents were asked to rate these items using a seven-point scale anchored by 1= Not At All to 7 = To A Very Great Extent. Table 4.25 presents the descriptive statistics for this scale. The ability to balance school, work, and family (mean = 5.99, SD = 1.58),

time investment (mean = 5.55, SD 1.70), and family responsibilities (mean = 5.32, SD = 1.93) were perceived as the greatest barriers by respondents to receiving an additional nursing degree. The Cronbach's alpha for this scale was satisfactory 0.74.

Table 4.25

*Barriers To Receiving A Nursing Degree*

| Item | Mean | Std Dev | Cases | Alpha If Deleted |
|---|---|---|---|---|
| 1. (Q33) Cost of Tuition Payment | 5.10 | 2.14 | 290 | .76 |
| 2. (Q34) Family Responsibilities | 5.32 | 1.93 | 291 | .72 |
| 3. (Q35) Proximity of Nursing School | 4.01 | 2.16 | 291 | .72 |
| 4. (Q36) Your Age | 3.74 | 2.24 | 290 | .73 |
| 5. (Q37) Time Investment Complete Degree | 5.55 | 1.70 | 290 | .70 |
| 6. (Q38) Balance School, Work, and Family | 5.99 | 1.58 | 291 | .68 |
| 7. (Q39) Meet Academic Requirements | 3.48 | 2.16 | 287 | .72 |
| 8. (Q40) Match Work and Class Hours | 5.25 | 1.98 | 281 | .69 |
| Reliability Coefficients (8 Items) Alpha= 0.74 | | Standardized Item Alpha 0.75 | | |

An examination of the correlation matrix showed low correlations among most of the items using a 0.30 cut off (Table 4.26).

Table 4.26

*Correlation Matrix: Barriers To Receiving A Nursing Degree*

| | Q33 | Q34 | Q35 | Q36 | Q37 | Q38 | Q39 | Q40 |
|---|---|---|---|---|---|---|---|---|
| Q33 | 1.00 | | | | | | | |
| Q34 | .314 | 1.00 | | | | | | |
| Q35 | .182 | .266 | 1.00 | | | | | |
| Q36 | .089 | .101 | .279 | 1.00 | | | | |
| Q37 | .070 | .224 | .267 | .405 | 1.00 | | | |
| Q38 | .224 | .498 | .346 | .262 | .575 | 1.00 | | |
| Q39 | .146 | .070 | .229 | .237 | .322 | .288 | 1.00 | |
| Q40 | .174 | .297 | .248 | .274 | .459 | .540 | .366 | 1.00 |

To explore this scale further an exploratory factor analysis using principal components analysis with varimax rotation was performed. A two-factor solution accounting for 52.4% of the variance was found. Proximity of nursing school, age, and ability to meet academic requirements all had communalities of less than 0.50 (Table 4.27). Therefore, the decision was made to reduce the data by removing these items.

Table 4.27

*Communalities: Barriers To Receiving A Nursing Degree*

| Item | Communality |
|---|---|
| Family Responsibilities | .688 |
| Balance School, Work, and Family | .671 |
| Time Investment Complete Degree | .631 |
| Match Work and Class Hours | .536 |
| Cost of Tuition Payment | .516 |
| Your Age | .437 |
| Meet Academic Requirements | .400 |
| Proximity of Nursing School | .317 |

A two-factor solution accounting for 69% of the variance was obtained using the retained 5 items (Table 4.28). Communalities for the retained items increased, ranging from .608 to .770. Within factor loadings were high for all items except family responsibilities which double loaded on both factors. Comparing the loading of the variables on the factors, the first factor reflected "competing priorities" which was a major theme identified by Delaney and Piscopo (2004). The second factor was more nebulous due to the double factor loading of family responsibility. However, these variables appeared to reflect external constraints as barriers. The reliability, Cronbach's alpha 0.70, showed acceptable internal consistency for the reduced scale.

Table 4.28

*Factor Analysis: Barriers To Receiving a Nursing Degree*

| Item | Factor 1 Competing Priorities | Factor 2 External Constraints |
|---|---|---|
| Time Investment | .843 | |
| Balance School, Work, and Family | .812 | |
| Ability to Match Work Hours and School Hours | .762 | |
| Cost of Tuition Payment | | .877 |
| Family Responsibilities | **.377** | **.683** |
| | Eigenvalue 2.42 | Eigenvalue 1.04 |
| Total Variance (69%) | 48% | 21%, |
| (pairwise deletion n=281-291) | | |

*BSN role.* The final scale, BSN role, was a researcher developed, 10-item scale anchored by 1 = Strongly Disagree and 7 = Strongly Agree. Respondents indicated strong disagreement with BSN nurses having greater theoretical knowledge (mean = 1.97, SD = 1.45), BSN able to manage more complex patients (mean = 1.54, SD = 1.12), and that education was more important than experience (mean = 1.73, SD = 1.27). However, respondents tended to agree that BSN nurses were preferred by Chief Nurse Executives (mean = 4.49, SD = 2.13) and had greater promotional (mean = 4.87, SD = 2.10) and job opportunities (mean = 4.28, SD 2.21). The Cronbach's alpha for this scale was 0.78 (Table 4.29).

The correlation matrix is presented in Table 4.30. Correlations tended to be low (less than .30) for many items on the scale.

Table 4.29

*BSN Role.*

| Item | Mean | Std Dev | Cases | Alpha If Deleted |
|---|---|---|---|---|
| 1. (Q81) Nursing Role and Pay Differentiated By Education | 2.37 | 1.75 | 287 | .75 |
| 2. (Q82) BSN More Theoretical Knowledge | 1.97 | 1.45 | 287 | .75 |
| 3. (Q83) BSN Manage More Complex Patients | 1.54 | 1.12 | 287 | .76 |
| 4. (Q84) More Important To Obtain BSN Or Higher Degree | 2.09 | 1.56 | 287 | .76 |
| 5. (Q85) Chief Nurse Executives Prefer BSN Nurses | 4.49 | 2.13 | 286 | .77 |
| 6. (Q86) BSN Degree More Likely To Be Promoted | 4.87 | 2.10 | 284 | .75 |
| 7. (Q87) Nurses Undereducated | 2.69 | 1.88 | 286 | .78 |
| 8. (Q88) BSN Degree More Job Opportunities | 4.28 | 2.21 | 284 | .76 |
| 9. (Q89) BSN More Advanced Management Skills | 3.82 | 2.23 | 286 | .76 |
| 10. (Q90) Nursing Education More Important Than Experience | 1.73 | 1.27 | 286 | .77 |

Reliability Coefficients (10 Items) Alpha= 0.78 Standardized Item Alpha 0.80

Table 4.30

*Correlation Matrix: BSN Role*

| | Q81 | Q82 | Q83 | Q84 | Q85 | Q86 | Q87 | Q88 | Q89 | Q90 |
|---|---|---|---|---|---|---|---|---|---|---|
| Q81 | 1.00 | | | | | | | | | |
| Q82 | .563 | 1.00 | | | | | | | | |
| Q83 | .516 | .573 | 1.00 | | | | | | | |
| Q84 | .367 | .578 | .451 | 1.00 | | | | | | |
| Q85 | .169 | .138 | .108 | .188 | 1.00 | | | | | |
| Q86 | .244 | .194 | .177 | .221 | .519 | 1.00 | | | | |
| Q87 | .307 | .250 | .308 | .237 | .144 | .137 | 1.00 | | | |
| Q88 | .205 | .197 | .215 | .218 | .383 | .552 | .141 | 1.00 | | |
| Q89 | .313 | .287 | .295 | .217 | .262 | .360 | .234 | .310 | 1.00 | |
| Q90 | .263 | .470 | .400 | .344 | .136 | .129 | .173 | .133 | .136 | 1.00 |

An exploratory factor analysis using the 10 items showed low communalities of less than 0.40 for 3 items suggesting issues with low variance: nurses education more important than experience (.393), BSN has more advanced management skills (.368), and nurses are undereducated compared to other health care professionals (.223). To reduce data and improve the overall variance these items were removed from the scale.

Table 4.31

*Communalities: BSN Role*

| Item | Communality |
|---|---|
| BSN Degree More Likely To Be Promoted | .718 |
| BSN More Theoretical Knowledge | .723 |
| BSN Manage More Complex Patients | .633 |
| BSN Degree More Job Opportunities | .587 |
| Chief Nurse Executives Prefer BSN Nurses | .570 |
| Nursing Role and Pay Differentiated By Education | .523 |
| More Important To Obtain BSN Or Higher Degree | .503 |
| Nursing Education More Important Than Experience | .393 |
| BSN More Advanced Management Skills | .368 |
| Nurses Undereducated Compared To Other Health Care Professionals | .223 |

A two-factor solution accounting for 64% of the interitem variance was found for this reduced 7 item scale (Table 4.32). The communalities ranged from .549 to .750. The within items factor loadings were all high, above .723, and the across factor loadings were low, less than .172. The first factor reflected items surrounding the belief systems of the role of the BSN nurse. Whereas factor two was reflective of greater opportunities a BSN nurse might have in the work environment. Suggested interpretative labels given to these two factors were BSN values and beliefs and BSN opportunities. The internal consistency, Cronbach's alpha = .75, was deemed adequate for this reduced scale.

Table 4.32

*Factor Analysis: BSN Role*

| Item | Factor 1 Values and Beliefs | Factor 2 Opportunities |
|---|---|---|
| BSN More Theoretical Knowledge | .862 | |
| BSN Manage More Complex Patients | .803 | |
| Nursing Role and Pay Differentiated By Education | .747 | |
| More Important To Obtain BSN Or Higher Degree | .723 | |
| BSN Degree More Likely To Be Promoted | | .848 |
| BSN Degree More Job Opportunities | | .766 |
| Chief Nurse Executives Prefer BSN Nurses | | .781 |
| Total Variance (64%) (pairwise deletion n=284-287) | Eigenvalue 2.94, 42% | Eigenvalue 1.04, 22% |

*Summary.* Univariate and bivariate analyses, internal consistency assessment, and exploratory factor analyses were used to examine the structure and internal consistency of each of the scales. Items were eliminated from several of the scales due to high correlation with other items and low coefficients. Cronbach's alpha was calculated for each of the reduced scales and all suggested evidence for reliability of the scales. These reduced scales were used in the logistic regression, multiple regression, and structural equation modeling analyses.

*Dependent Variables*

This section will present the descriptive statistics for each of the dependent variables and their relationships to each other using chi-square analysis. Questions were asked of respondents to gain insight into their willingness and readiness to go back to school (Table 4.33). The first question asked respondents if they planned on continuing in nursing as a career; 75% responded yes. Next, respondents were questioned whether

they would remain in nursing if a BSN or additional nursing degree were a job requirement. Less than half (46%) responded affirmative; 32.5 % were undecided.

Respondents were questioned regarding their current plan to enroll in a nursing degree program; 19.4% responded affirmatively of which 37.6% planned to go back within the coming year. This statistic is fairly consistent with previous reports for the state of Maryland (Maryland Statewide Commission on the Crisis in Nursing, 2001). Reasons cited for returning to school focused on personal achievement and satisfaction as well as professional advancement.

The outcome variable for this study was a single discrete variable asking respondents whether they would enroll in an additional nursing degree program if the right combination of incentives and rewards were offered. Answer choices were yes, no, or undecided. This variable was recoded as a dichotomous variable for analysis. No and undecided were coded as 0 and yes as 1. The majority of respondents, 62%, would go back if the right combination of rewards and incentives were offered. A total of 177 participants responded yes, 34 responded no, and 74 were undecided.

Finally, respondents were asked whether their current employer offered rewards or incentives to obtain an additional nursing degree. Slightly less than half of the respondents (41.4%) answered yes. Tuition reimbursement was overwhelmingly the most frequently cited incentive offered by organizations.

Table 4.33

*Descriptive Statistics: Dependent Variables*

| Characteristic | n | % |
|---|---|---|
| Do You Plan To Continue Your Career In Nursing | | |
| Yes | 218 | 75.4 |
| No | 26 | 9.0 |
| Undecided | 45 | 15.6 |
| Missing | 8 | |
| Would You Return For A BSN If Job Requirement | | |
| Yes | 133 | 46.0 |
| No | 62 | 21.5 |
| Undecided | 94 | 32.5 |
| Missing | 8 | |
| Do You Plan To Enroll In A Nursing Program | | |
| Yes | 56 | 19.4 |
| No | 125 | 43.3 |
| Undecided | 108 | 37.4 |
| Missing | 8 | |
| If Yes, When Do You Plan To Enroll | | |
| 6 Months | 16 | 18.8 |
| 1 Year | 16 | 18.8 |
| 2-3 Years | 24 | 28.2 |
| No Plan | 29 | 34.1 |
| Missing | 1 | |
| Would You Enroll If Right Combination Of Rewards And Incentives Are Offered | | |
| Yes | 177 | 62.1 |
| No | 34 | 11.9 |
| Undecided | 74 | 26.0 |
| Missing | 12 | |
| Does Your Employer Offer Incentives And Rewards | | |
| Yes | 116 | 41.4 |
| No | 164 | 58.6 |
| Missing | 17 | |

A series of questions were asked to determine respondents' readiness to return to school. Table 4.34 presents the descriptive statistics. First, respondents were asked to rate the importance of receiving an additional nursing degree using a 7-point scale, 1 = Not At All Important and 7 = Very Important. Secondly, they were asked how willing

they were to pay for an additional degree (1 = Unwilling, 7 = Very Willing). Lastly, respondents were asked about the likelihood or probability that they could successfully complete an additional nursing degree (1 = Highly Improbable, 7 = Highly Probable). Respondents rated the importance of returning for a BSN degree as fairly low (mean 3.14, SD 1.92). Moreover, the majority of respondents were unwilling to pay for this additional degree (mean = 2.64, SD 1.62). However, as a group respondents appeared to be confident that if enrolled they believed that they could successfully complete the program (mean = 5.30, SD 1.94). The Cronbach's alpha for this brief scale was .51 indicating heterogeneity of the items. Hence, each was examined separately using multiple regression analysis. Results are presented in the next section.

Table 4.34

*Readiness Scale*

| Item | Mean | Std Dev | Cases | Alpha If Deleted |
|---|---|---|---|---|
| Importance To Obtain A BSN | 3.14 | 1.92 | 290 | .17 |
| Willingness To Pay | 2.64 | 1.62 | 286 | .24 |
| Successfully Complete | 5.30 | 1.94 | 286 | .73 |

Cronbach's alpha = .51

*Chi Square Analysis*

Chi square analyses were performed to examine the relationships between intent to enroll, plan to continue a career in nursing, and would they return for a BSN if it was a job requirement, and the outcome variable, motivated to enroll if the right combination of incentives and rewards were offered. Chi square results were significant for intent to enroll and motivation if the right combination of rewards and incentives were offered

indicating a relationship existed (Pearson chi-square = 87.12, df = 4, p = .000) (Table 4.35). Of interest, 34.7% of those currently with no intent to enroll in a BSN program might be motivated to return to school if the right combination of rewards and incentives were offered. Of those who were undecided in whether to enroll in a BSN program, 77.4% might be motivated if the right combination of rewards and incentives were offered. The strength of this relationship using Cramer's V was .392. When motivation to enroll in a higher nursing degree program if the right combination of incentives and rewards is used to predict plans to enroll in a BSN program there is a 24.5% (p = .000) reduction in error, however this prediction is nonexistent in the opposite direction (Lambda = .037, p = .673).

Table 4.35

*Crosstabulation: Plan to Enroll in a BSN or Higher Program and Motivation to Enroll if Right Combination of Rewards and Incentives*

| Motivation to Enroll if Right Combination of Rewards/Incentives | Enroll in BSN Program | | | Total |
|---|---|---|---|---|
| | Yes N (%) | No N (%) | Undecided N (%) | |
| Yes | 50 (94.3) | 43 (34.7) | 82 (77.3) | 175 |
| No | 0 (0) | 34 (27.4) | 0 (0) | 34 |
| Undecided | 3 (5.6) | 47 (37.9) | 24 (22.6) | 74 |
| Total | 53 | 124 | 106 | 283 |

The next crosstabulation examined the relationship of plan to continue your career in nursing and motivation to enroll in a nursing degree program if the right combination of rewards and incentives were offered (Table 4.36). Motivation to enroll in a nursing degree program if the right combination of rewards and incentives were offered was

dichotomized for this analysis because one cell had an expected frequency count of less than five. Of the 134 nurses who responded affirmatively to planning to continue their careers in nursing, 62.9% would be motivated to enroll in a nursing degree program if the right combination of rewards and incentives were offered. Of the 7 nurses not planning to continue their career in nursing 28% might be motivated to return to school with the right combination of rewards and incentives. This result was questioned. It would seem highly unlikely that a nurse would return for a degree if they anticipated leaving the field. Of interest an additional 77.8% of the 35 nurses undecided in planning to continue their career in nursing might be motivated to return to school if the right combination of rewards and incentives. Cramer's V for this relationship was statistically significant (.246) at the p = .000. When plan to continue career in nursing is used to predict motivation there is a 10.3 reduction in error (p = .026). However, the opposite prediction using plan to continue career in nursing as the dependent variable was not significant.

Table 4.36

*Crosstabulation: Plan to Continue Career in Nursing and Motivation to Enroll if Right Combination of Rewards and Incentives*

| Motivation to Enroll if Right Rewards and Incentives | Plan to Continue Career in Nursing | | | Total |
|---|---|---|---|---|
| | Yes N (%) | No N (%) | Undecided N (%) | |
| Yes | 134 (62.9) | 7 (28) | 35 (77.8) | 176 |
| No | 79 (37) | 18 (72) | 10 (22.2) | 107 |
| Total | 213 | 25 | 45 | 283 |

Table 4.37 is the crosstabulation for return for a BSN degree as a job requirement and motivation to enroll if right combination of rewards and incentives were offered.

This relationship was found to be statistically significant, Pearson chi-square = 53.57, p = .000. Of the 102 nurses reporting that they were willing to return for a BSN degree if it were a job requirement, 79.1% would also be motivated if the right combination of incentives and rewards were offered to return for an additional nursing degree. Of the 20 nurses that indicated they would not return for a BSN degree if it were a job requirement, 32.7% might return if the right combination of incentives and rewards were offered. Finally, of those who indicated that they were undecided whether they would return for a BSN degree as a job requirement, 58.1% would be motivated by the right combination of rewards and incentives. Cramer's V for this analysis was .308, p = .000. When motivation to enroll if the right combination of rewards and incentives are used to predict a nurse's willingness to return for a BSN degree there is a 16.9% reduction in error (p = .003). However, as with the other crosstabulations the opposite prediction was not significant.

Table 4.37

*Crosstabulation: Return for a BSN Degree as a Job Requirement and Motivation to Enroll if Right Combination of Rewards and Incentives*

| Return for BSN as a Job Requirement | Motivation to Enroll if Right Combination of Rewards/Incentives | | | Total |
|---|---|---|---|---|
| | Yes | No | Undecided | |
| Yes | 102 (79.1) | 20 (32.7) | 54 (58.1) | 176 |
| No | 9 (7.0) | 19 (31.1) | 5 (5.4) | 33 |
| Undecided | 18 (14) | 22 (36) | 34 (36.6) | 74 |
| Total | 129 | 61 | 93 | 283 |

To summarize the variables of motivation to enroll in a nursing degree program if the right combination of rewards and incentives were offered and intent to enroll, plan to continue a career in nursing and willingness to return if a BSN degree were a job requirement were all found to be statistically significant. Groups did vary based on their reported responses. Nurses who were motivated by the rewards and incentives were more likely to intend to enroll in a BSN program and return for a BSN degree if it were a job requirement. Moreover, nurses that planned to continue their career in nursing was predictive of those who would be motivated to return to school if the right rewards and incentives were offered. More importantly of those who were undecided many indicated that they might be motivated to enroll in a BSN program, potentially alter their plans and continue their career in nursing, and return for a BSN degree as a job requirement if the right combination of organizational incentives and rewards were offered to them to return for an additional nursing degree.

## Logistic Regression

Logistic regression was performed to determine the probability that individual characteristics and organizational rewards and incentives affect the likelihood that nurses would return to school if the right combination of organizational rewards and incentives were offered. The outcome variable of right combination of organizational rewards and incentives was dichotomized for this analysis. Answer choices, no and undecided were coded as 0, and yes as 1. The first logistic regression analysis consisted of entering all of the demographic information together to examine whether age, marital status, dependents, primary wage earner, household income, educational background, employment background or type of hospital predicted whether nurses would return to school if the

right combination of organizational rewards and incentives were offered. The only significant variable was primary wage earner (B = .748, Wald = 5.31, df= 1, p = .02). However, this only explained less than 1% of the variance (R = .0989). This variable was entered into the second logistic regression analysis with the individual characteristics listed below and was found to be not significant (beta = .458, Wald = 2.68, p = .10). Hence, none of the demographic variables served as predictors.

The next logistic regression analysis explored the individual characteristics of career satisfaction (CS), professional commitment (PROF), work family conflict/family work conflict (WFCFWC), barriers to returning for an additional nursing degree (BAR), the BSN role (BSN) as predictors of nurses returning for a nursing degree if the right combination of incentives and rewards were offered. Mean scale scores were used for each of the items entered. Findings demonstrated that lower career satisfaction, higher professional commitment and perceived value of the BSN role increased the odds of nurses returning for an advanced nursing degree if the right combination of rewards and incentives were offered by their organization (Table 4.38).

Table 4.38

*Logistic Regression: Individual Characteristics*

| Variable | B | S.E. | Wald | R | OR (95% CI) |
|---|---|---|---|---|---|
| Career Satisfaction | .583 | .181 | 10.43 | .151** | 1.79 (1.26, 2.55) |
| Work-Family/ Family-Work | .010 | .119 | .697 | .000 | |
| Professional Commitment | .329 | .117 | 7.94 | .127* | 1.39 (1.11, 1.75) |
| Barriers | .138 | .110 | 1.57 | .000 | |
| BSN Role | .483 | .133 | 13.34 | .175** | 1.62 (1.25, 2.10) |

* $p < .005$ ** $p \leq .001$ (n = 277)
Odds ratio reflect one-unit change in the independent variable

Another analysis was performed to assess each of the factors for the work family conflict/family work conflict (2 factors), barriers scale (2 factors), and BSN role scale (2 factors). As with the previous analysis work family conflict and family work conflict and both factor scales for barriers were not significant predictors. The BSN Role scale first sub dimension which reflected belief systems surrounding the BSN role was found to be not significant, whereas the second dimension reflecting BSN opportunities was significant (Wald = 10.14, df = 1, p = .001, R = .149).

Next, a series of logistic regression analyses examined the predictors of career satisfaction, professional commitment, work family conflict/family work conflict, barriers to returning for an additional nursing degree, the BSN role, and importance and difference scales for organizational rewards and incentives (IR, DR, II, DI). After examining the data, multicollinearity issues were identified with the importance and difference scales for organizational rewards and incentives. Therefore, a separate analysis was run for each scale.

Significant predictors were career satisfaction, professional commitment, the BSN role and importance of organizational incentives and difference of organizational incentives (Table 4.39 and 4.40). Work family conflict/family work conflict, and the importance of rewards and difference of rewards scales were found not to be significant predictors. Results indicated that nurses with lower career satisfaction, higher professional commitment, higher value for the BSN role, and the offering of organizational incentives increased the odds of nurses returning to school.

Table 4.39

*Logistic Regression: Individual Characteristics and Importance Incentives*

| Variable | B | S.E. | Wald | R | OR (95% CI) |
|---|---|---|---|---|---|
| Career Satisfaction | .599 | .191 | 9.86 | .147* | 1.82 (1.25, 2.65) |
| Work-Family/ Family-Work | .161 | .127 | 1.60 | .000 | |
| Professional Commitment | .344 | .125 | 7.64 | .125* | 1.41 (1.11, 1.80) |
| Barriers | -.070 | .125 | .312 | .000 | |
| BSN Role | .489 | .138 | 12.6 | .171** | 1.63 (1.24, 2.13) |
| Importance Incentives | .445 | .125 | 12.6 | .171** | 1.56 (1.22, 2.00) |

* $p < .01$, ** $p < .001$ ($n = 272$)
Odds ratio reflect one-unit change in the independent variable

Additional analyses were performed using both importance of incentives and difference of incentives as predictors with career satisfaction, professional commitment and the BSN role. Importance of incentives was no longer significant whereas difference of incentives remained significant when entered together. Next, the two sub dimensions for the BSN role scale, career satisfaction, professional commitment, and the difference in organizational incentives were examined. As previously found, the first sub dimension for the BSN role scale was not significant, but the second dimension of the BSN scale was significant.

The final model analyzed included career satisfaction, professional commitment, BSN role second sub dimension, and difference incentives scale as predictors of nurses who would return for an additional degree if the organization offered the right combination of rewards and incentives. The final predictors are presented in Table 4.41. The partial correlation for career satisfaction explains 1.9% of the variance in motivation to enroll if the right combination of rewards and incentives were offered by the

organization when all other variables are held constant. Professional commitment explained only 1.0% of the variance. The BSN role explained 2.5% and the different incentives explained 5.9%.

Table 4.40

*Logistic Regression: Individual Characteristics and Difference Incentives*

| Variable | B | S.E. | Wald | R | OR (95% CI) |
|---|---|---|---|---|---|
| Career Satisfaction | .536 | .196 | 7.46 | .123* | 1.71 (1.16, 2.51) |
| Work-Family/ Family-Work | .166 | .131 | 1.60 | .000 | |
| Professional Commitment | .293 | .128 | 5.21 | .094* | 1.34 (1.04, 1.72) |
| Barriers | -.161 | .134 | 1.43 | .000 | |
| BSN Role | .453 | .141 | 10.4 | .152** | 1.57 (1.19, 2.07) |
| Difference Incentives | .547 | .113 | 23.7 | .245** | 1.73 (1.39, 2.15) |

* $p < .05$, ** $p \leq .001$ ($n = 272$)
Odds ratio reflect one-unit change in the independent variable

Table 4.41

*Logistic Regression: Predictors of Nurses Returning for an Additional Nursing Degree*

| Variable | B | S.E. | Wald | R | Odds Ratio (95% CI) |
|---|---|---|---|---|---|
| Career Satisfaction | .577 | .200 | 8.75 | .137* | 1.78 (1.21, 2.61) |
| Professional Commitment | .302 | .127 | 5.65 | .101* | 1.35 (1.05, 1.74) |
| BSN Factor 2 (Opportunities) | .285 | .086 | 11.0 | .158** | 1.33 (1.12, 1.57) |
| Difference Incentives | .496 | .103 | 23.2 | .242** | 1.64 (1.34, 2.01) |

* $p < .05$, ** $p \leq .001$ ($n = 272$)
Odds ratio reflect one-unit change in the independent variable

The Hosmer-Lemeshow statistic was used to assess the goodness of fit of the model. The chi-square was 3.35 with 8 degrees of freedom and the p value was .9102 indicating the model did fit the data. The variance explained ranged form 23.7% (Cox and Snell) to 32.2% (Nagelkerke). The model chi-square was significant (chi-square = 73.53, 4 df, p = .0000) indicating good fit.

In reviewing the classification table (Table 4.42), the model predicted correctly 85.71% of the nurses who would enroll in a nursing degree program if the right combination of rewards and incentives were offered by their organization. However, it could only predict 51.92% of the nurses that would not be motivated to enroll in a nursing degree program. The overall prediction was 72.79%. Of the respondents, 74 nurses were misclassified. Of these, 50 nurses who would not enroll in school were classified as willing to enroll if the right combination of organizational rewards and incentives were offered and 24 nurses willing to enroll were classified as unwilling to enroll if the right combination of organizational rewards and incentives were offered.

Table 4.42

*Classification Table*

| | | Predicted | | Percent Correct |
|---|---|---|---|---|
| | | No | Yes | |
| Observed | | | | |
| | No | 54 | 50 | 51.92% |
| | Yes | 24 | 144 | 85.71% |
| | | | Overall | 72.79% |

To summarize, predictors of nurses who would enroll in a BSN or higher nursing degree program if the right combination of rewards and incentives were offered by the organization were examined. Lower career satisfaction, higher professional commitment, the belief that a BSN nurse has greater promotional and job opportunities and are preferred by Chief Nurse Executives, as well as, organizational incentives (tuition reimbursement, matching of work and school hours, pay while attending classes, web based classes, classes offered at the work site, forgivable loans for service, and sabbaticals) were associated with a nurses decision to enroll in a BSN or higher nursing degree program. The model was significant. However, each of these variables only explained a small amount of the variance in this decision-making process.

## Multiple Regression Analyses

Three multiple regression analyses were analyzed to examine the relationship of the predictor variables (individual characteristics and importance and difference scales for rewards and incentives) and 1) perceived importance of obtaining a BSN degree, 2) willingness to pay, and 3) perceived ability to successfully complete a BSN or additional nursing degree. As previously identified, the importance and difference scales for organizational rewards and incentives had problems with multicollinearity, therefore just the difference scales were used for these additional analyses. Ten subjects are recommended per predictor to achieve a stable prediction equation for multiple regression (Nunnally & Bernstein, 1994). An ample number of subjects, a minimum of 275, were available for these analyses.

*Importance of Obtaining a BSN Degree*

The first analysis used perceived importance of obtaining a BSN as the dependent variable (1 = Not At All Important, 7 = Very Important). Seven predictor variables were examined: 1) career satisfaction, 2) professional commitment, 3) barriers to receiving a nursing degree, 4) work family conflict/family work conflict, 5) BSN role, 6) difference rewards, and 7) difference incentives. The regression of importance of obtaining a BSN degree on the seven predictor variables accounted for 31% of the variance and was significant ($p = .000$). All except, work family conflict/family work conflict, were significantly related to perceived importance to obtaining a BSN or additional nursing degree (Table 4.43). The strongest predictor of perceived importance in obtaining a BSN degree was career satisfaction suggesting that lower career satisfaction was associated with perceived importance in obtaining a BSN degree. Difference in rewards and the barriers to receiving a BSN degree were both significant, unlike the previous logistic regression analysis, however these variables had the lowest standardized beta weights. An inverse relationship was found between the barriers scale and perceived importance to obtain a BSN degree, suggesting that nurses who identified having fewer barriers were more likely to identify obtaining a BSN degree as important.

A second model was run using only the significant predictors. Additionally, the sub dimensions of the barriers and BSN role scales were included as variables versus the overall scales (Table 4.44). Significance was found for the first sub dimension of the barriers scale (time investment, balance school, work, and family, and ability to match work hours and school hours) and for the first sub dimension of the BSN scale (clinical roles should be differentiated by educational degrees, BSN has greater theoretical

knowledge, BSN manages more complex patients, and increasingly important to obtain BSN). Whereas, the second sub dimension of the barriers scale (cost of tuition payment and family responsibilities) and second dimension of the BSN role scale (Chief Nurse Executives prefer BSN nurses, BSN nurses are more likely to be promoted, and BSN has greater job opportunities) were *not* significant. Additionally, difference in rewards was no longer a predictor of nurses' perceived importance to obtain a BSN degree. The regression of perceived importance to obtain a BSN degree on the 7 predictor variables accounted for 34% of the variance.

Table 4.43

*Regression Analysis of Predictors of Importance of Obtaining a BSN Degree: Full Model*

| | Standardized Beta | Significance |
|---|---|---|
| Career Satisfaction | .304 | .000*** |
| Work Family Conflict/Family Work Conflict | .062 | .242 |
| Professional Commitment | .159 | .002** |
| Barriers to Receiving a BSN Degree | -.140 | .010** |
| BSN Role | .165 | .002** |
| Difference Rewards | .116 | .038* |
| Difference Incentives | .238 | .000*** |

* $p < .05$, ** $p \leq .01$, *** $p < .001$

A final model was run using only the significant predictor variables (Table 4.44). Importance of obtaining a BSN degree was regressed on career satisfaction, professional commitment, barriers first sub dimension, BSN role first sub dimension, and difference incentives. All of the variables were found to be significant and accounted for 33% of the variance. Lower nursing career satisfaction and the perception that the offering of organizational incentives would influence the nurse's decision-making to return for an additional nursing degree were the strongest predictors of perceived importance to obtain

a BSN degree. Additionally, professional commitment fewer perceived barriers and a positive perception of the value of the BSN role were associated with higher perceived importance in obtaining a BSN or additional nursing degree.

Table 4.44

*Regression Analysis of Predictors of Importance of Obtaining a BSN Degree: Final Model*

| | Second Model Beta Standardized | Final Model Beta Standardized |
|---|---|---|
| Career Satisfaction | .308** | .342** |
| Professional Commitment | .147* | .152* |
| Barriers to Receiving a BSN Degree (1) | -.175** | -.163** |
| Barriers to Receiving a BSN Degree (2) | -.045 | |
| BSN Role (1) | .165* | .200** |
| BSN Role (2) | .053 | |
| Difference Rewards | .102 | |
| Difference Incentives | .229** | .272** |
| $R^2$ | .343 | .329 |
| * p ≤.005, ** p < .001 | | Variance 33% |

*Willingness to Pay for a BSN Degree*

Seven predictors: 1) career satisfaction, 2) professional commitment, 3) barriers to receiving a nursing degree, 4) work family conflict/family work conflict, 5) BSN role, 6) difference rewards, and 7) difference incentives were used to predict willingness to pay for a BSN degree. Three models were run first using all seven predictors and then using only the significant predictors (Table 4.45). Results showed that only 11.7% of the variance was accounted for using these predictors. Lower career satisfaction, higher professional commitment, fewer barriers and perceived importance of the BSN role were associated with the willingness to pay for a degree.

A second model was analyzed using the previous significant predictors and sub dimensions for the barriers and BSN role scale. These variables accounted for 11.9% of the variance. The first and second sub dimension of the barriers scale and first sub dimension of the BSN role scale (clinical roles should be differentiated by educational degrees, BSN has greater theoretical knowledge, BSN manages more complex patients, and increasingly important to obtain BSN) were *not* significant. Significance was only found for the second dimension of the BSN role scale (Chief Nurse Executives prefer BSN nurses, BSN nurses are more likely to be promoted, and BSN has greater job opportunities).

Table 4.45

*Regression Analysis of Predictors of Willingness to Pay*

| | Full Model Beta Standardized | Second Model Beta Standardized | Final Model Beta Standardized |
|---|---|---|---|
| Career Satisfaction | .223*** | .240*** | .241*** |
| Professional Commitment | .144* | .154** | .156* |
| Work Family Conflict/Family Work Conflict | .049 | | |
| Barriers (Complete Scale) | -.131* | | |
| Barriers to Receiving a BSN Degree (1) | | -.117 | |
| Barriers to Receiving a BSN Degree (2) | | -.009 | |
| BSN (Complete Scale) | .121* | | |
| BSN Role (1) | | .027 | |
| BSN Role (2) | | .134* | .138* |
| Difference Rewards | .033 | | |
| Difference Incentives | .032 | | |
| $R^2$ | .117 | .127 | .118 |

* $p < .05$, ** $p < .01$ *** $p < .001$

A final model was developed predicting willingness to pay using the remaining significant predictors (career satisfaction, professional commitment, and BSN role second sub dimension). Table 4.45 compares the standardized beta weights for these models.

The predictors for the final model accounted for 10.4% of the variance. To summarize, lower career satisfaction, higher professional commitment, and greater perceived belief that the BSN role is associated with greater opportunities, were associated with a nurse's willingness to pay for an additional nursing degree. However, almost 90% of the variance remained unexplained indicating that other variables affect this decision-making process.

*Perceived Ability to Successfully Complete a BSN Degree*

As with the previous analyses all of the seven predictors (career satisfaction, professional commitment, barriers to receiving a nursing degree, work family conflict/family work conflict, BSN role, difference rewards, and difference incentives) were entered together into the multiple regression analysis. Only 4.1% of the variance was accounted for by regressing ability to successfully complete on these seven predictors. Only the barriers scale was significant, albeit a weak predictor (standardized beta = -.153, p = .017). A second analysis regressing ability to complete on the two sub dimensions of the barriers scale was not significant for either scale (barriers 1 standardized beta = .080, p = .207; barriers 2 standardized beta = .074, p = .244) and only 1.6% of the variance was accounted for. These less than satisfying findings suggest that other factors account for nurses belief systems regarding their perceived ability to successfully complete a BSN or additional nursing degree.

## Structural Equation Modeling

An additional purpose of this study was to test the proposed motivational model employing structural equation modeling (SEM), using AMOS 5.0 statistical package. Maximum Likelihood estimation was used to estimate the parameters for two models.

The first model used results from the logistic regression analysis to examine the theory that individual characteristics were mediated by the influence of organizational incentives which in turn would motivate nurses to return for an additional nursing degree if the right combination of rewards and incentives were offered by the organization. The second model used results from the multiple regression analysis to examine the relationships of individual characteristics of and organizational incentives and their influence on how nurses' perceive the importance to obtain a BSN of higher nursing degree.

For SEM, missing data must be replaced or records deleted if containing missing data points to have the model run. The largest percentage of missing data for one variable was found to be 5% (missing data = 16, n = 297). The decision was made to replace missing data points using the mean of each variable rather than deleting cases. The sample size used was 297, which is considered large for SEM. Additional basic assumptions that must be met are 1) exogenous variables are continuous, 2) multivariate normality is assumed for endogenous variables, and 3) the model is identified (Kline, 1998). Each of the exogenous variables was considered continuous and their reliabilities found to be satisfactory (as previously noted in this chapter). Both models tested were recursive and structurally identified making analysis possible.

*Nursing Motivation to Return for an Additional Nursing Degree*

Figure 4.1 presents the final full structural model for nursing motivation using the individual characteristics of career satisfaction, professional commitment and BSN role 2 sub dimension, organizational incentives difference scale, and the outcome variable of willingness to return for an additional nursing degree if the organization offered the right combination of rewards and incentives. This model was drawn after having used logistic

regression to determine which variables from the theoretical framework should be included in the model. Also, correlations among the variables were examined for creation of the proposed structural model. Career satisfaction was correlated with professional commitment ($r = -.138$, $p = .05$), BSN role 2 ($r = .192$, $p = .01$), and organizational incentives difference scale ($r = .201$, $p = .01$). Additionally, professional commitment ($r = .126$, $p = .05$) and the BSN role 2 ($r = .132$, $p = .05$) were correlated with organizational incentives difference. But, professional commitment and BSN role 2 were found not to be correlated.

The model reflected that career satisfaction, professional commitment, and the BSN role 2 only explained 9% of the variance for how organizational incentives would influence or make a difference in nurses' decision-making process to return for an additional nursing degree. Moreover, the offering of the organizational incentives to nurses accounted for only 3% of the variance for nurses' willingness to return for an additional nursing degree if organizations offered the right combination of incentives and rewards.

Standardized path coefficients for the model demonstrated that professional commitment (.15) and the BSN role 2 (.11) had a small effect on preference for the organizational incentives to motivate nurses to return for an additional degree. Lower career satisfaction had the greatest effect (.24). However, this value again suggested only a small effect size if using .30 as indicating a medium effect (Kline, 1998). The path coefficient from organizational incentives to enrollment in a BSN degree or higher program if the right combination of organizational rewards and incentives were offered was also low, .18.

Significance testing of the regression weights of each path showed that career satisfaction to organizational incentives and professional commitment to organizational incentives were significant (Table 4.46). However, the regression weight of BSN role 2 to organizational incentives was not significant suggesting that this parameter was unimportant to this model. Additionally, the regression weight for organizational incentives to enroll in a BSN program if the right combination of organizational rewards and incentives were offered was significant.

Figure 4.1

*Structural equation model of nursing motivation to return for an additional nursing degree*

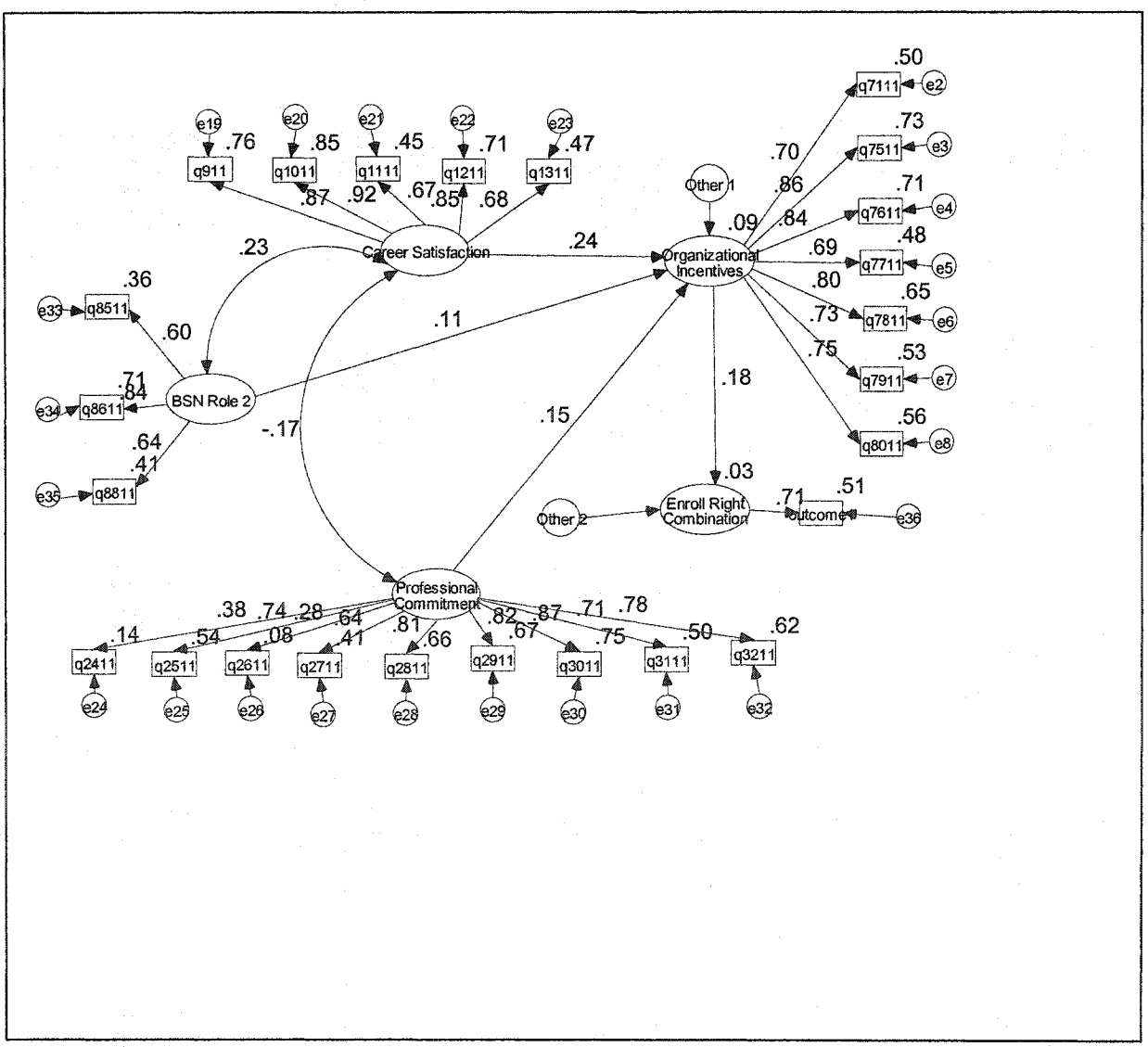


Table 4.46

*Summary of Standardized Regression Weights Between Variables for Enrollment if the Right Combination of Organizational Rewards and Incentives Are Offered*

| Paths | Estimates | P |
|---|---|---|
| Career Satisfaction → Organizational Incentives | .401 | .000 |
| Professional Commitment → Organizational Incentives | .150 | .014 |
| BSN Role 2 → Organizational Incentives | .111 | .110 |
| Organizational Incentives → Enroll BSN Right Combination | .135 | .030 |

Model fit indices of chi square, goodness-of-fit index (GFI), adjusted goodness-of-fit index (AGFI), comparative fit index (CFI), normed fit index (NFI), and root mean square error of approximation (RMSEA) were assessed to determine whether the model fit the data. The model fit indices indicated that the model did not fit the data well: $\chi^2/df = 3.6$ ($\chi 2 = 983.23$, $df = 271$, p = .000). According to Kline (1998) the chi square statistic should be not be significant, if significant the researcher's model should be rejected. Moreover, the relative chi square ($\chi^2/df$) should be less than 3 to be acceptable. Additional model fit indices of GFI (.844), AGFI (.813), CFI (.818), NFI (.767), and RMEA (.094) supported that the model did not fit the data. The range for the GFI and AGFI is 0 to 1 with closer to one indicating a good fit. For the NFI and CFI, a value of greater then .90, and as of late greater than .95, are considered representative of a good fitting model (Byrne, 2001). Values less than .05 indicate good fit for the RMEA. None of the above cited measures indicated a good model fit.

The underlying structural model for each of the variables also appeared problematic with several items showing low validity coefficients and reliabilities. Even after making modifications to the underlying structural models, elimination of the endogenous variable "return for a BSN" recognizing it was problematic due to having

only one indicator, and changes to the full model, less than satisfactory results were found. The conclusion was made that further analysis would not improve the model fit. To summarize, although these individual characteristics and organizational incentives contribute a small amount to nurses' decision-making process to motivate them to return for an additional nursing degree far more needs to be learned before a theoretical model can be tested.

*Model for Importance to Obtain an Additional Nursing Degree*

Predictor variables found significant from the multiple regression analysis using how important it was to obtain a BSN or higher nursing degree as the dependent variable were used for this next proposed theoretical model (Figure 4.2). Of interest, 56% of the variance for how nurses' rated importance to receive an additional nursing degree was explained by 1) the belief that the BSN role was of value (.27) , 2) belief that organizational incentives would make a difference in influencing them to return for an additional nursing degree (.36), 3) nurses who identified fewer barriers to receiving an additional nursing degree (-.23), 4) professional commitment (.17), and lower career satisfaction (.43). As evidenced, several of these reported paths were in the moderate effect size range. Additionally, unlike the previous model, more of the variance, 17%, was explained for organizational incentives when paths were drawn from career satisfaction (.26), professional commitment (.43), and barriers (.27).

The finding for the path from barriers to importance of BSN was inverse that of barriers to organizational incentives. Therefore, nurses reporting a greater number of barriers were more likely to be influenced by the offering of organizational incentives; however those reporting fewer barriers were more likely to perceive that obtaining a BSN

degree was important. This opposite relationship may suggest that nurses who perceive an additional nursing degree as important may also perceive their barriers to receiving this degree as less of an obstacle and easier to overcome based on their own internal motivation. Whereas, for others who do not place on value on this degree the motivation would only come if efforts are made by an organization for them to receive this additional nursing degree.

Table 4.47

*Summary of Standardized Regression Weights Between Variables for Importance*

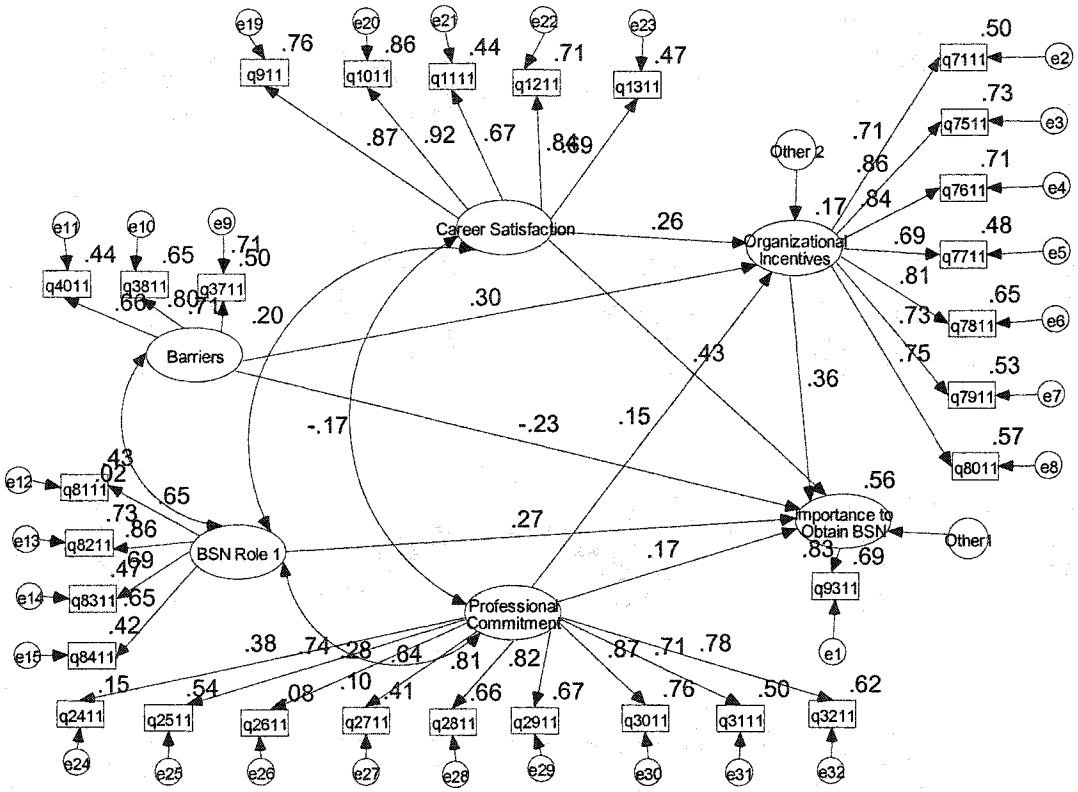
| Paths | Estimates | P |
|---|---|---|
| Career Satisfaction → Organizational Incentives | .453 | .000 |
| Professional Commitment → Organizational Incentives | .150 | .012 |
| Barriers → Organizational Incentives | .347 | .000 |
| BSN Role 1 → Importance to Obtain BSN Degree | .411 | .000 |
| Career Satisfaction → Importance to Obtain BSN Degree | .799 | .000 |
| Professional Commitment → Importance to Obtain BSN Degree | .180 | .006 |
| Barriers → Importance to Obtain BSN Degree | -.286 | .001 |
| Organizational Incentives → Importance to Obtain BSN Degree | .388 | .000 |

The regression weights for all paths were significant (Table 4.47). Overall the model fit indices suggested the data fit the model fairly well: $\chi^2/df = 1.93$ ($\chi 2 = 708.70$, $df = 367$, $p = .000$). Even though the chi square for the model was significant the relative chi square suggested a good fit. Additional model fit indices were GFI (.858), AGFI (.832), CFI (.923), NFI (.854), and RMEA (.056). For this model the CFI was approaching the .95 estimate, however the NFI was not. Moreover, the RMSEA was just slightly above the .50 cut off value. Although this model does not answer the original research questions posed for this study, it does suggest relationships among the variables in how nurses perceive the importance of a BSN and who may be motivated by

organizational incentives to return for an additional nursing degree. Further research is suggested to better explore this proposed model.

Figure 4.2

*Structural equation model of perceived importance to obtain a BSN or additional nursing degree*




Research Questions

Four research questions and six hypotheses were proposed for this study. Each of these questions and hypotheses is discussed in the section below.

***Research Question 1:*** **To what extent does the perceived value (importance) of organizational rewards and incentives influence AD/diploma RNs motivation (make a difference) in obtaining a BSN or higher nursing degree?**

Findings from the logistic regression indicated that organizational incentives were perceived as important (OR = 1.56), 95% CI (1.22, 2.00) and would make a difference (OR = 1.73), 95% CI (1.39, 2.15) in nurses' decision-making to return for an additional nursing degree. Organizational rewards were not significant for either the importance or difference scales in influencing nurses' decisions to return for an additional nursing degree. Nurses' did respond differently to the two organizational incentives and rewards importance and difference scales lending some support for Vroom's theory that the perceived importance or value placed on a reward or incentive did differ from whether these would influence nurses final decision-making process to return for an additional nursing degree.

***Research Question 2:*** **What combination of organizational incentives and rewards, best predict AD/diploma RNs behavioral intention to obtain for a BSN or higher nursing degree?**

Logistic regression analysis found that the organizational incentives were the best predictors and would make a difference in nurses' decision-making process to return for a BSN or higher nursing degree. Items significant for the incentives scale included tuition reimbursement (mean = 5.63), matching of work and school hours (mean = 5.54), pay while attending classes (mean = 5.93), the offering of web-based classes (5.34), classes at the work site (5.69), forgivable loans (5.43), and the offering of a sabbatical for degree completion (5.48). Items removed from this scale were weekends only with benefits and difference of a 36-hour workweek. This scale was then entered into a

logistic regression analysis, whereby organizational incentives were the strongest predictors (OR = 1.64), 95% CI (1.34, 2.01).

***Research Question 3:*** **To what extent do individual characteristics of AD/diploma RNs influence preferences for organizational rewards and incentives and their behavioral intent in obtaining a BSN or higher nursing degree?**

Lower career satisfaction (OR = 1.78), 95% CI (1.21, 2.61), higher professional commitment (OR = 1.35), 95% CI (1.05, 1.74), and perceptions that the BSN role provided greater promotional and job opportunities, (OR = 1.33), 95% CI (1.12, 1.57), were predictive of a nurses willing to return for a BSN or additional nursing degree if the right combination of organizational rewards and incentives were offered. Additionally, SEM analysis found that the path from perceived barriers to returning for an additional nursing degree was positively associated with organizational incentives (path coefficient = .30, regression weight = .347, p = .000). However, perceived barriers were not significant in the logistic regression analysis.

***Research Question 4:*** **What combination of organizational incentives and rewards, and individual characteristics best predict AD/diploma RNs behavioral intention to obtain a BSN or higher nursing degree?**

The final logistic regression analysis suggested that lower career satisfaction, higher professional commitment, beliefs that the BSN role would provide greater promotional and job opportunities and organizational incentives were predictive of nurses to obtain an additional nursing degree (Table 4.41).

The following hypotheses were proposed:

**1. Influences of organizational incentives and rewards reduce perceived effort (motivation) and have a positive impact on AD/diploma nurses intent to return for a BSN or higher nursing degree.**

Structural equation modeling was used to analyze this relationship however the model did not fit the data. The path from organizational incentives to nurses' intent to enroll in a BSN or higher nursing degree program was small (.18) and explained little of the variance (3%).

**2. Individual characteristics (professional commitment, career satisfaction, work-family family-work conflict, and value of the BSN role) and their influence on behavioral intent to return for a BSN or higher nursing degree are mediated by perceived effort (difference in organization rewards and incentives).**

Structural equation modeling was used to analyze this relationship however the model did not fit the data. Although the regression weights for career satisfaction and professional commitment to organizational incentives were significant. The path coefficients were low (career satisfaction = .24, professional commitment = .15) and only 9% of the variance for organizational incentives was explained by the model. Additionally, with SEM, the BSN role 2 regression weight was not significant, yet was significant with logistic regression. The path from organizational incentives to willingness to enroll if the right combination of rewards and incentives were offered was also low (.18) and only 3% of the variance for enrolling was explained. Work family conflict/family work conflict was not a significant predictor, using logistic regression

analysis, of nurses willing to enroll in a BSN or higher nursing degree program if the right combination of organizational incentives and rewards was offered.

**3. The importance of organizational incentives and rewards and their influence on nurses' perceived effort (motivation) are mediated by individual characteristics (professional commitment, career satisfaction, work-family family-work conflict, and value of the BSN role).**

The mediator relationship could not be explored due to problems with multicollinearity between the importance and difference scales. Logistic regression analysis did find that the importance and difference of organizational incentives, as well as career satisfaction, professional commitment, and perception that the BSN role was associated with greater promotional and job opportunities were predictors of nurses' willingness to enroll in a BSN or higher nursing degree program if the right combination of organizational rewards and incentives were offered (Tables 4.39 and 4.40)

**4. Organizational incentives and rewards and nurses behavioral intent to return for a BSN or higher nursing degree are mediated by individual characteristics (professional commitment, career satisfaction, work-family family-work conflict, and value of the BSN role) and perceived effort.**

The decision was made not to attempt to use the importance and difference scales in the same logistic regression or SEM model due to issues with multicollinearity. Therefore, the full model looking at the importance of organizational rewards and incentives → individual characteristics → difference organizational incentives and

rewards would make in reducing perceived effort → enrollment in a BSN or higher nursing degree could not be tested. A difference was noted in how nurses' responded to the importance and difference rewards and incentives scales but what individual characteristics may influence these responses remains unknown.

**5. Individual characteristics of professional commitment, career satisfaction, and value of the BSN role have a positive impact on perceived effort and nurses' behavioral intent to return for a BSN or higher nursing degree.**

Findings from logistic regression analysis showed that lower career satisfaction, higher professional commitment, and the perception that the BSN role would afford greater promotional and job opportunities were associated with nurses' intent to enroll in a BSN or higher nursing degree program. Of interest, career satisfaction was originally proposed to be in a positive relationship; the more satisfied a nurse was the more likely the nurse would be to enroll in a nursing degree program. However, these results found the opposite to be true. This finding suggests that nurses who are less satisfied in their career and believe that the BSN role will provide greater opportunities are more likely to enroll in a BSN or higher degree nursing program.

**6. Individual characteristics of work family/family work conflict have a negative impact on perceived effort (motivation) and nurses' behavioral intent to return for a BSN or higher nursing degree.**

Work family conflict/family work conflict was not a significant predictor of nurses' willingness to return for a BSN or higher nursing degree.

## Summary

Results from the data analysis for the Nursing Organizational Incentives and Rewards Survey were presented in this section of a total of 552 responses received; only 297 met the eligibility criteria. Data were screened for missing data, outliers, normality, multicollinearity and linearity. Exploratory factor analyses for each of the scales were then conducted. Each of the scales showed acceptable internal consistency as measured by Cronbach's alpha. Items were reduced for the researcher developed scales of organizational rewards importance and difference, organizational incentives importance and difference, barriers to receiving a nursing degree, and BSN role. Internal consistency was reanalyzed following this data reduction and found to be acceptable for each of the reduced scales.

Descriptive statistics were presented for the dependent variables. Only 19.4% of nurses planned to enroll in a nursing degree program which was fairly consistent with findings for the state of Maryland, 16% reported 2001 (Maryland Statewide Commission on the Crisis in Nursing, 2001). Crosstabulations demonstrated that motivation to enroll in a BSN or higher degree program if the right combination of rewards and incentives were offered was predictive of nurses' plan to enroll in an additional nursing degree program, nurses' plan to continue a career in nursing, and nurses' willingness to return for a BSN degree if it were a job requirement. These analyses also suggested that nurses who were undecided regarding their plans to enroll in a nursing degree program, plans to continue their career in nursing or willingness to return for a BSN as a job requirement might be motivated by organizational incentives and rewards to return for an additional nursing degree.

Findings from the logistic regression analysis suggested that lower career satisfaction, higher professional commitment, perception that the BSN role was associated with greater job and promotional opportunities, and the offering of organizational incentives were predictive of nurses willing to return for an additional nursing degree. However, when these relationships were modeled using SEM, the data did not fit the model suggesting their may be additional psychosocial, demographic, or socioeconomic variables to better explain these relationships.

A second SEM examined a proposed theoretical framework for variables associated with nurses' perceived importance to receive a BSN or higher nursing degree. Lower career satisfaction, professional commitment, and greater perceived barriers to returning to school explained 18% of the variance for desiring organizational incentives to return to school for an additional nursing degree. Lower career satisfaction, higher professional commitment, perceptions that the BSN role was of value in patient care, and *fewer perceived barriers* explained 56% of the variance nurses' who perceived it important to receive a BSN or higher nursing degree. Although the model did not fit the data well, these findings were of interest.

The final section of this chapter summarized the findings for each of the research questions and hypotheses. Chapter Five discusses the findings, implications, and recommendations for future research.

## CHAPTER V: DISCUSSION, IMPLICATIONS, RECOMMENDATIONS

The primary purpose of this study was to: 1) examine preferences of acute care AD/diploma nurses for organizational incentives and rewards that would motivate them to obtain a BSN or higher nursing degree, 2) examine individual characteristics of nurses to identify who would most likely to take advantage of these incentive and reward programs, and 3) determine the best combination of organizational incentives and rewards and characteristics of nurses to motivate RN's to obtain a BSN of higher degree. Additionally, this study tested the proposed motivational model using structural equation modeling (SEM). The motivational model theorized that organizational incentives and rewards were mediated by individual characteristics, which influenced the nurse's motivation to obtain an advanced nursing degree and ultimately determined their resultant action to enroll in a nursing degree program.

This chapter presents those findings and is divided into four sections. A summary and discussion of the study findings are presented in the first section. The next section, examines methodological considerations focusing on the data collection process, questionnaire and research instruments, and proposed theoretical model. The third section addresses implications and recommendations for future research. The final

discussion addresses the research limitations and presents recommendations for future studies.

## Study Findings

### *Demographics*

Advancing age, family, and money have been cited in the literature as main barriers by nurses to completing a BSN degree (Delaney et al., 2004). However, using logistic regression analysis, this study showed that none of these demographic variables were predictive of nurses' decision-making to enroll in a BSN or higher nursing degree program. The results on family care are similar to those from the Maryland Colleagues in Caring Nursing Education Survey (2002), which found that the offering of childcare or elder care were not significant. Therefore, although nurses may state that these are potential barriers their influence appears to be minimal in their final decision-making process suggesting that other limiting factors may be more important in preventing them to return to school. For this study, age was controlled for by restricting eligibility criteria of respondents to less than or equal to 50 years old.

### *Specific Aim Number 1*

The first specific aim of this study was to examine preferences of acute care AD/diploma nurses for organizational incentives and rewards that would motivate them to obtain a BSN or higher nursing degree. Logistic regression analysis found that organizational incentives were predictors of nurses' who would enroll in a BSN or higher nursing degree program. In order of ranked preference, the list of incentives was as follows: 1) pay to attend class (mean = 5.93); 2) classes offered at their work site (mean = 5.69); 3) the offering of tuition reimbursement (mean = 5.63; 4) the ability to match work

and class hours; 5) the offering of a paid sabbatical (mean = 5.48); 6) the offering of forgivable loans for service (5.43); and 7) the availability of web based classes (5.34).

These findings corresponded well with the literature. The top two limiting factors of 1555 nurses considering applying to a BSN program in the state of Maryland were tuition and matching work and class hours (Maryland Colleagues in Caring: Regional Collaboratives for Nursing Workforce Development, 2002). Delaney and Piscopo (2004) found that respondents wanted support for time off, tuition reimbursement, and professional rewards, as well as, better scheduling, reimbursement at the time of enrollment, and courses offered on hospital premises.

But, unlike Delaney and Piscopo's (2004) study, the offering of organizational rewards was not a significant predictor of nurses to enroll in a BSN or higher nursing degree program. According to these authors, the major theme about what employers could do to facilitate enrollment was "make it worthwhile" by employers recognizing the value of education and support and reward their efforts. Qualitatively, many respondents in this present study stated that pay and professional advancement were important. Yet, these qualitative findings were also contradicted by many of the respondents who wrote that they were satisfied with their pay and nursing role, thus saw no need to go back because nothing professionally nor financially would be gained.

To further explore and gain insight into these contradictory findings, responses to nurses' perceptions regarding the BSN role and their readiness to enroll were examined. A scale was used to measure AD/diploma nurses perceptions of the BSN role. When nurses were asked whether roles and pay should be differentiated by educational degrees 73.1% disagreed (48.1% strongly disagreed). Most respondents' (90.9%) disagreed that

education was more important than experience, with 59.3% strongly disagreeing. Respondents did not believe that nurses were currently undereducated compared to other healthcare providers (66.8% disagreed), with 41.1% strongly disagreeing. Most disagreed (83.6%) that the BSN nurse had greater theoretical knowledge and nearly all disagreed (92%) that BSN nurses were able to manage more complex patients. Finally, the majority of nurses *did not* find that it was becoming increasingly important to obtain a BSN degree (disagreed 80.5%). To summarize, most of the respondents disagreed with each of the previous statements taken from the literature describing the beliefs, benefits, and needs for BSN nurses.

Although a considerable amount has been written by nursing leaders on the difference between the AD/diploma and BSN roles and differentiating practice at the bedside (American Association Colleges of Nursing et al., 1995; Bednash, 2000; Baker et al., 1997; Vena et al., 1994; Ehrat, 1991; Boston, 1990), what is evident is that AD/diploma nurses for this study did not ascribe to the same philosophical beliefs held by these leaders. For over 50 years, the subject of role differentiation among AD/diploma and BSN nurses has been debated. This controversy was heatedly addressed by many of the respondents. "I feel very strongly that nursing is creating a lose-lose situation. As a well prepared diploma RN with many years experience, I am offended (underlined twice) that others in the profession intimate my abilities to care for patients are lessened due to my educational level." Anecdotally, many of the respondents wrote that they believed that as an AD/diploma nurse they had better preparation and clinical skills compared to a BSN nurse. "It has been my experience that nurses with the least clinical experience seek BSN's and aspire for management and positions requiring decision making skills."

Moreover, few saw the benefits of receiving a BSN degree. As one respondent wrote, "Too tired after work to study. We also have personal lives that are #1 – our family. BSN's don't get enough clinical experience - who will take care of the pts while they are in their offices?" From these responses, it appeared that nurses valued their current education and saw no benefit in completing a BSN. These nurses identified their families as priorities and were satisfied in their career.

These findings were supported by the SEM model, which found that nurses who believed the BSN role was of value, perceived fewer barriers, had lower career satisfaction, and greater professional commitment were more likely to perceive that obtaining a BSN or higher nursing degree was important. However, only 24.8% indicated that obtaining a BSN or higher nursing degree was important. Furthermore, 69.2% of the respondents were unwilling to pay for this degree. Although respondents did not hold to the same belief systems of role differentiation for clinical bedside nurses, conceptually, many of the respondents associated the BSN with management positions. Many wrote that they did not want to be a manager and therefore saw no reason to pursue the BSN degree. Findings demonstrated that respondents were in greater agreement that BSN nurses were preferred by Chief Nurse Executives (52.1%), were more likely to be promoted (63%), and that BSN nurses had greater job opportunities (49.3%). However, as evident from the qualitative data a large percentage of these nurses had no aspiration for promotion and believed that they already had great job opportunities, hence had no reason to return for an additional nursing degree. As explained by one respondent "I love pt contact and have no desire for management. I am very hands on and love pt care. I would not be interested in a BSN as long as I keep my current love of bedside nursing ☺"

The concept of pay differentiation between AD and BSN nurses was also controversial and may be a factor in nurses not selecting organizational rewards as motivators to return for an additional nursing degree. Few hospitals in the state of Maryland differentiate clinical bedside practice between AD/diploma and BSN nurses (Maryland Colleagues in Caring: Regional Collaboratives for Nursing Workforce Development, 2001b). According to the Maryland Colleagues in Caring Nursing Education Survey (2002), the third most frequently cited reason nurses did not apply to a BSN program was because it was not a job requirement and little if any pay differential was offered, so they did not see a return on investment. A focus group by Heller and Sweeney (2003) supported this finding noting that little differentiation existed between AD and BSN nurses in terms of work and pay.

For this current study, pay was repeatedly mentioned qualitatively by respondents as a factor in their decision-making not to return for a BSN degree. Yet, the offering of organizational rewards including pay and professional advancement opportunities were found not to make a difference in nurses willingness to enroll in a BSN or additional nursing degree program if offered by the organization. Theoretically, this finding might be explained by Vroom's Valence, Instrumentality and Expectancy theory. Nurses may value increased pay. However, what is the perceived likelihood that enough pay will be provided by an organization to make receiving a BSN degree worth pursuing? To many of the respondents, the current difference in pay offered by their organizations was not worth the time investment. According to respondents pay differentials ranged from as low as 25¢ to $1 extra per hour. The highest reported pay increase was a 6% (if using $50,000 as an average salary this amounts to approximately $1.44/hr). Unless

organizations are willing to substantially increase the pay differential, AD/diploma nurses will not be motivated to return for an additional nursing degree.

To summarize, these findings suggested nurses indicating that it was important to obtain a BSN degree were more likely to perceive the BSN role as of value. However, this was only a small minority of nurses. The majority of respondents perceived little worth in pursuing a BSN degree and the offering of organizational rewards were not perceived as motivators to return for an additional nursing degree. Neither pay nor professional advancement opportunities were enough to motivate nurses. Rather, if organizations want nurses to return for an additional nursing degree findings suggested that organizations needed to facilitate this by (in rank order) 1) paying nurses to attend class, 2) offering courses on site, or by 3) providing tuition reimbursement.

These findings are similar to those of Delaney and Piscopo (2004) who identified that the major theme for returning for a BSN degree was raising potentials, major theme for barriers were competing priorities, and that employers needed to make it worthwhile. In essence for this current study, nurses appear to be saying, provide the education for me and I will complete the degree. But it is not something I will electively pursue because it may not be of value to me, worth the time investment due to competing priorities, and/or the rewards are not enough to make it worthwhile. I am satisfied with my career and I have other things in my life, like my family that is more important to me.

*Specific Aim Number 2*

The second specific aim of this study was to examine individual characteristics of nurses to identify who would most likely take advantage of incentive and reward programs offered by organizations. Logistic regression analysis showed that nurses with

lower career satisfaction, higher professional commitment, and a perception of the BSN role as providing greater promotional and job opportunities, and a belief that Chief Nurse Executives preferred BSN nurses were more likely to enroll in an additional nursing degree program if the right combination of rewards and incentives were offered.

Originally, nurses scoring higher on career satisfaction were proposed to be more likely to return for an advanced nursing degree. In the literature, career satisfaction was positively correlated with sponsorship, acceptance, job discretion, supervisory support, career strategies, job performance, perceptions of upward mobility, and perceived personal-organizational congruence value, and negatively correlated with career plateau (Greenhaus et al., 1990; Aryee et al., 1994). However, in reviewing the qualitative responses, many nurses wrote that they were very satisfied with their careers and hence, saw no need to return for an additional nursing degree.

A resounding theme was that AD/diploma nurses are better prepared clinically, experience far out weighs education, and the reason these nurses joined this profession was to do clinical bedside care. Perceptions were that preparation at the AD/diploma level better prepared nurses in clinical bedside care, whereas BSN programs better prepared nurses for management positions. Many respondents wrote that they had no desire to return to school because their ultimate goal was to function as a clinical bedside nurse, not as a manager. One respondent wrote "Throughout my education as a diploma nurse I constantly had hands on patient experience. I have always been annoyed with BSN nurses that don't know how to do basic nursing procedures such as inserting a urinary catheter. The real world in nursing is at the bedside, not in a book." Another wrote, "I have no desire to be anything more than a staff nurse. Nothing could entice me to go

back to school for nursing. It has served me well." In keeping with results from Heller and Sweeney (2003) and Zuzelo (2001), many of the respondents felt pressured to continue their education and felt negative about the perceived necessity to do so.

Items identified by the career satisfaction scale where nurses appeared to be less satisfied were with their goals for meeting income and advancement opportunities. Hence, the small percentage of nurses returning for an additional nursing degree might be explained by these items. A total of 56 respondents or 19.4% indicated that they planned to enroll in a nursing degree program. This statistic is consistent with state and national findings, approximately 16% enroll in an additional nursing degree program (Maryland Statewide Commission on the Crisis in Nursing, 2001; Spratley et al., 2000). Reasons cited by respondents for enrollment included career advancement, promotional and job opportunities, higher pay, personal and professional growth, and self satisfaction. As indicated by the logistic regression analysis the perception that the BSN role would lead to promotional and job opportunities supported these results. Results from a focus group of 35 RN-BSN students found reasons for enrollment were to use the BSN as a stepping stone, the desire to receive a college degree, preparation for future work, sense of transforming self and personal growth (Zuzelo, 2001).

Career satisfaction and work environment may be factors in influencing nurses' decision-making process to enroll in an additional nursing degree program. Trainor (2000) found that nurses enrolled in an additional nursing degree program were more likely to persist if they perceived working conditions as stressful, whereas, Delaney and Piscopo (2004) identified the work environment as a barrier because the organization did not value this endeavor by rewarding the RN.

The discrepancy of these results may be potentially explained by the concept of career satisfaction and perception of the BSN role. Nurses satisfied with their careers have little if any impetus to return for an additional nursing degree. As stated, they are satisfied with their career choice, and feel pressured and negative about the perceived necessity to obtain an additional nursing degree. As findings demonstrated rewards were not enough to motivate this group to return to school. However, nurses less satisfied with their career goals for income and advancement, may perceive the current work environment as stressful, and believe that an additional nursing degree would provide them with greater opportunities; hence these nurses may be more inclined to enroll and persist in their degree programs. Whether, positive or negative the ultimate goal of these nurses may be to move away from their current bedside role and into a new nursing role which is perceived as less stressful. Further research is recommended to explore these relationships.

As discussed, lower career satisfaction and perceptions that an additional nursing degree would lead to greater promotional and job opportunities were associated with nurses' willingness to enroll in a BSN or higher nursing degree program if the right combination of incentives and rewards were offered. Additionally, nurses with greater professional commitment were associated with enrollment. Professional commitment was defined as "a person's identification with the goals and values of an occupation" (Vandenberg et al., 1994, p. 539) and was associated with the intent to stay with the profession. As expected, nurses with higher professional commitment would be more likely to enroll and are more likely to remain in the profession having made that educational commitment. Although respondents indicated that they cared about the fate

of the profession (mean = 6.11), respondents were less willing to talk up the profession (mean = 4.77) or make an effort to help the profession be successful (mean = 4.81). Potentially, these results reflect attitudes of dissatisfaction with the work environment.

As previously discussed, the barriers scale and work family conflict/family work conflict scale were not predictors of nurses willingness to enroll in an additional nursing degree program; although, a small association was found with nurses who perceived fewer barriers and the importance of obtaining a BSN degree. It may be postulated that although anecdotally for this study and in focus groups with previous research studies (Zuzelo, 2001; Heller et al., 2003; Maryland Colleagues in Caring: Regional Collaboratives for Nursing Workforce Development, 2002; Delaney et al., 2004), nurses state these items are barriers these do not fully explain their lack of motivation for electing not to return for an additional nursing degree. As identified by Trainor (2000), these concepts may become more important for nurses currently enrolled in a program, where she identified that 26% of RN-BSN students who did not persist with their degree was due to work responsibilities, family responsibilities, and financial concerns. Concepts of the BSN role, career satisfaction, and professional commitment appeared to be more important factors. Research is suggested to explore where in the process these factors serve as true barriers; whether it is at the decision-making phase to enroll or at the phase of actual enrollment.

*Specific Aim Number 3*

The third specific aim was to determine the best combination of organizational incentives and rewards and characteristics of nurses to motivate them to return for an additional nursing degree. Results showed that nurses with lower career satisfaction,

higher professional commitment, perception that the BSN role would lead to greater promotional and job opportunities and the offering of organizational incentives would serve as motivators for nurses to return for an additional nursing degree. In reviewing these results, it is postulated that potentially two different groups of nurses may exist.

The first group consists of the 16% or for this study 19.4% who plan to enroll in a nursing degree program. These nurses may be less satisfied with their career advancement and income, are committed and desire to continue in the profession, and perceive the BSN role as an opportunity for career advancement. This group believes that obtaining a BSN degree is important and perceives that they have fewer barriers to obtaining it. Most likely this group would pursue the degree on their own accord. However the offering of organizational incentives would greatly assist these nurses in their pursuit. Organizational rewards may be perceived of lesser value because these nurses are more internally motivated by their desire for personal satisfaction and believe that the degree will provide them with greater opportunities.

The second group consists of those who are satisfied with their current career. These nurses may be committed to the profession but acknowledge that they have lives outside of nursing, and have no desire to return to school. This group sees little value in the BSN degree and believes it not to be of worth and/or in keeping with their career goals. A percentage of these nurses may be motivated to return for an additional degree however the organization must provide the time and resources for them to complete their degrees. This group is not motivated by organizational rewards because they believe that the rewards such as pay are not worth the effort. Moreover, due to the lack of role differentiation they have opportunities to serve in clinical leadership roles. As

summarized by one respondent "I am currently in a middle management position at my civilian job and am a Major in the Air Force Reserve-so BSN degree isn't an incentive to me".

*Structural Equation Model*

The final purpose of this study was to explore the proposed theoretical model. As the findings demonstrated, the theoretical model did not fit the data. Thus, the proposed research hypotheses could not be answered.

The model used for this study was a combination of work motivation and social influence theory (Porter et al., 1968; Sussman & Vecchio, 1982). Work motivation is concerned with how motivational processes relate to work behavior. As noted by Steers and Porter (1983), the process of work motivation is highly complex and confounded by relationships between the major variables. As identified by these authors, 1) motives can only be inferred not seen, 2) motives are viewed as dynamic, 3) differences exist in how persons select certain motives over others and how they pursue such motives, and 4) the impact of goal attainment and subsequent motives and behaviors may be very different than originally expected. To explain motivated behavior Lawler (1994) recommended that three separate yet interrelated questions needed to be asked: 1) what qualities or characteristics in individuals caused outcomes to be desirable; 2) what classes or groups of outcomes did people find desirable or undesirable; and 3) what factors influenced the desirability of the outcomes.

Only partial answers could be suggested based on this studies findings. The characteristics of lower career satisfaction, higher professional commitment, and nurses' perceptions of the BSN role only partially explained nurses' motivation to return for an

additional nursing degree. Some information was presented regarding the desirability or undesirability of returning to school based on nurses' perceptions of the BSN role. And finally, it appeared that influences of organizational incentives might make obtaining a BSN degree more desirable. But, the selected variables from Porter and Lawler's (1968) motivational model and Sussman and Vecchio's (1982) social influence of worker motivation model did not explain enough of the variance for interpretation of the proposed conceptual model for this study

In reviewing potential pertinent variables for inclusion in future studies, cognitive factors are stated to play a role in explaining both choice of action and degrees of success (Steers et al., 1996). Goals are chosen based on persons beliefs about what they can achieve, their recollection of past performance, and their judgments about what is appropriate. An individual's philosophy will influence value choice. Related to this value choice is an understanding of an individual's thinking which will affect whether he or she sets specific goals (Steers et al., 1996). For future research exploration of the individual's values and philosophical premises associated with additional nursing education and the BSN degree is recommended to better understand what may or may not motivate an individual. Additionally, internal motivators such as self efficacy or the concept of locus of control may be explored as predictors of nurses' behaviors.

Current research has examined benefits of a BSN degree, external barriers to receiving a degree, mechanisms to assist nurses with degree completion, and to some extent why nurses elect not to return for a degree, (Zuzelo, 2001; Krawczyk, 1997; Heller et al., 2003; Maryland Colleagues in Caring: Regional Collaboratives for Nursing Workforce Development, 2002; Delaney et al., 2004), but more needs to be written on the

nature of nurses' thinking regarding why they choose to, or choose not to, pursue a BSN or additional nursing degree and their reasons or benefits for their actions. Currently, the research suggests that nurses' don't perceive the BSN degree as of value possibly due to the lack of role and pay differentiation or lack of perceived return on investment. Additionally, nurses' appear to perceive a BSN degree as only for person's interested in management positions. Few nurses' perceived this degree as benefiting them in their ability to provide a higher quality of clinical bedside care. To summarize, it is suggested that further research explore these underlying philosophical beliefs before a theoretical model be proposed.

## Methodological Considerations

A conceptual model for nursing motivation was developed for this study to explain the relationships of how the offering of organizational rewards and incentives are mediated by individual characteristics, which in turn influence nurses in their decision-making process to return for an additional nursing degree. This was an exploratory study which used a combination of well developed and researched instruments from the literature, as well as, six researcher developed instruments, not previously tested.

Reliability and validity of the researcher developed scales was not performed prior to the mailing of the main survey. Although, the survey was pilot tested, a low response rate made this testing not possible. The reliability for each of the scales fell into the acceptable range showing internal consistency of the measures. But, significant problems with multicollinearity were identified for several of the scales, especially the organizational reward importance and difference scales. As an example, professional advancement and growth was highly correlated with the concepts of autonomy, hospital

decision-making, promotional opportunities, variety of work assignments, clinical oversight, and leadership role. Because of these high correlations, these scales were reduced from 10 items to 6 and 5 item scales. Similarly, item reduction was performed on the other scales. The internal structure was assessed for each new scale to identify whether these new scales described a single or multiple constructs. Furthermore, the internal consistency (Cronbach's alpha) was reevaluated to determine if these were within acceptable ranges. However, construct validation was not adequately performed on each of the measures to assure scientific generalization.

Validity is defined as "how well it measures what it purports to measure" (Nunnally & Bernstein, 1994, p. 83). The meaning of validity encompasses construct, content, and predictive validity, with construct validity serving as the one overarching form. Content validity "relates to a rather direct issue in scientific generalization – the extent to which one can generalize from a particular collection of items to all possible items in a broader domain of items" (Nunnally & Bernstein, 1994, p. 104). Although the development of these instruments was guided by theory, each of the important items for the measures might not have been included. Hence, for each of the proposed scales construct validity might have been affected by inadequate preoperational explication of the construct. Further testing of construct, content, and predictive validity is suggested for each of these scales.

The model proposed that nurses might identify organizational rewards and incentives as important however based on their individual characteristics these items might or might not affect their decision-making process in returning for an additional nursing degree. Four separate scales were developed based on the importance and then

difference in how organizational rewards and incentives would influence nurses' decision-making process to return for school. Results from the paired t-test analysis demonstrated that respondents did rate the perceived importance of the items higher than the perceived difference these items would make on influencing them to return to school. Thus, support was provided for Vroom's theory.

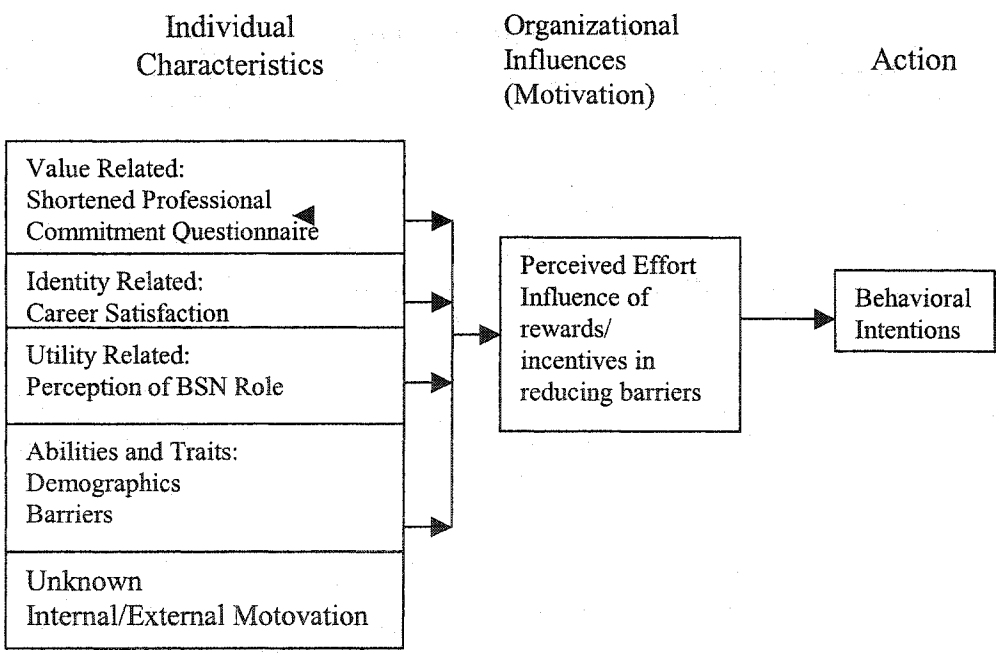
But, due to problems with mutlicollinearity of the items on each of the importance and difference rewards scales and importance and difference incentives scales, each importance and difference scale had to be entered separately into the logistic regression analysis. The final results of the analysis demonstrated that organizational incentives were both important and would make a difference in nurses' decision-making process to return to scale. Hence, the use of both scales appeared to be unnecessary and only added to the complexity of the model. Furthermore, by having such a large number of measures these added to the overall respondent burden and may have contributed to the low response rate.

Finally, the ability to test the original model that proposed the importance of rewards or incentives were mediated by individual characteristics, which in turn, affected the perceived difference in how these organizational rewards and incentives would influence nurses' decision-making processes to return for an additional nursing degree could not be examined due to these multicollinearity issues. Although, theoretically the responses to the importance and difference scales lent support for Vroom's theory, these separate scales added to the overall complexity of the model and made analysis difficult.

For future research, it is suggested that one scale be used to examine only the difference in how organizational influences (combined rewards and incentives scale)

would affect nurses' decision-making process to return for an additional nursing degree. This single measure would contain the significant items from the rewards and incentives scale, thus contain two sub dimensions or factors. Results from this study showed that rewards were not a significant predictor of nurses' returning to school, however this result might have been due to measurement error. Using this study's findings from the factor analyses of these measures and the logistic regression analysis, a more simplified measure can be created that may reduce measurement error and prove to have greater reliability and validity. Furthermore, the overall model would be simplified as presented in Figure 5.1.

*Figure 5.1* Revised conceptual model of nursing motivation




The full model tested by SEM did not fit the data indicating that other variables were contributing to the decision-making process. Measurement error might have affected these results and each of the researcher developed instruments should be

reevaluated. Additionally, as explained in the previous section more should be learned about the cognitive process and internal motivators which may be added to this model.

Another methodological issue potentially was with the selected dependent variable which asked whether you would enroll in a BSN or additional nursing degree program if the right combination of rewards and incentives were offered to you by the organization. This dependent variable was dichotomized for the logistic regression analysis. First, the wording of this variable could be improved by asking "if the items that you identified as making a difference on the organizational influences scale were offered would these motivate you to enroll in a BSN or additional nursing degree program". Second, a Likert scale ranging from 1 to 7 should be used versus a dichotomized item to permit more robust analysis using multiple regression or SEM.

## Implications and Recommendations

### *Research*

The models constructed for this study were significant, but explained only a very small amount of the variance (Cox and Snell = 23.7%, Nagelkerke = 32.2%) and partial correlations for career satisfaction (1.9%), professional commitment (1.0%), BSN role (2.5%), and organizational incentives (5.9%) were also very small. Furthermore, the SEM models did not converge. Factors that might have contributed to these small variances include: 1) potential problems with validity of the researcher developed measures; 2) issues with multicollinearity; and 3) complexity of the model. Based on these findings, reliability and validity of each of the researcher developed measures should be further explored.

In reviewing the findings, lower career satisfaction was associated with nurses' willingness to enroll in an additional nursing degree program if the right combination of incentives and rewards were offered. More research is needed on this concept and how this may relate to the work environment. Trainor (2000) identified that stressful work environments were a reason for nurses to persist in a RN-BSN program, whereas Delaney and Piscopo (2004) found that work environments were a barrier to nurses enrolling in a nursing degree program. Stressful and poor working conditions are associated with the current shortage. How are these influences affecting nurses' decision-making in returning to school? Are nurses returning to school as a mechanism to move away from the bedside due to these stressful working conditions, and if so is this truly good or bad for the profession? Nurses are desperately needed to serve in faculty roles and future leadership roles. Moreover, higher job satisfaction, intent to stay, and more years of work experience are associated with increased educational preparation (Institute of Medicine of the National Academies, 2004; Rambur et al., 2003; Spratley et al., 2000; McNeese-Smith et al., 2000; Sochalski, 2002). To summarize, the effects of the nursing shortage and working conditions should be explored in relation to career satisfaction and intent to enroll in a nursing degree program.

Findings from this study also suggested a potential relationship among perceived barriers to returning to school, perceived value of the BSN role, and importance in obtaining a BSN degree. Of interest, were the findings that neither demographic variables nor work family conflict/family work conflict were related to nurses willingness to enroll in an additional nursing degree program. Anecdotal findings from this study and in the literature cite family, children, and income as major barriers to returning to school.

More research is needed to explain these discrepancies. Research should be conducted to explore how internal motivation and the belief that obtaining a BSN degree is important impact on individual's perceptions of barriers to returning for a nursing degree.

Finally, a replication of this study is suggested using a more parsimonious model. A large amount of the variance was not explained suggesting that there may be several unknown variables contributing to nurses' decision-making process. Organizational rewards and incentives items should be incorporated into one measure for ease of answering. Additionally, focus groups should be conducted to obtain more qualitative data on nurses' perceptions of the BSN role, cognitive processes, internal motivators, and reasons for not returning to school.

Studies have focused on the benefits of returning for an additional nursing degree, but little has been written on why AD/diploma nurses choose *not* to return to school. Do nurses *not* return because of perceptions that the additional education *will not* be beneficial in improving their ability to perform patient care? How strong is the belief among AD/diploma nurses that the BSN role is only for individual's aspiring to serve in managerial roles? What are their beliefs concerning differentiated practice models? And finally, is there a perceived lack of return on investment by the organization for receiving this degree? Answers to these last questions may help explain what may or may not serve as rewards and incentives for motivating nurses to enroll in an additional nursing degree program.

Ultimately, with an improved understanding of nurses' decision-making process, a tool may be developed which can be used by organizations to assess which nurses would be most likely to take advantage of organizational reward and incentive programs.

Resources may then be appropriately allocated to support these individuals in returning to school.

*Health Care Organizations*

Health care organizations, health care foundations, professional nursing organizations and nursing leaders are advocating for BSN prepared nurses. Furthermore, evidence suggests that higher levels of nursing education are associated with better patient outcomes (Aiken et al., 2003). However, as recognized by the Joint Commission on Health Care Organizations (2002) significant resources must be invested by organizations to create incentives for nurses to achieve a higher educational level.

Findings from this study suggested that the offering of organizational incentives might motivate a portion of the AD/diploma nurses to return for an additional nursing degree. But, in reviewing the top incentives listed as motivators the offering of these could prove very costly for the health care organization. In rank order of preference the organizational incentives nurses identified as motivators were: 1) pay while attending class; 2) classes at the work site; 3) tuition reimbursement; 4) matching of work and school hours; 4) the offering of a sabbatical for degree completion; 5) forgivable loans and 6) the offering of web based classes. According to respondents, tuition reimbursement and slight pay increases were the most frequently offered incentives and rewards by their organizations for obtaining an additional nursing degree.

Prior to implementing findings from this study, questions health care organizations and Chief Nurse Executives should ask include: 1) can the organization assume these costs; 2) what is their return on investment for recruitment, retention and

improved patient outcomes; and 3) how many nurses will avail themselves of these incentive programs and successfully complete their programs of study.

The recommendation for implementation of the findings from this study is to select a cohort of nurses and partner with a School of Nursing to provide either web based training on-site or on-site class instruction. Nurses identified as most likely to enroll in an additional degree program were those with lower career satisfaction, higher professional commitment, and beliefs that the BSN role would provide greater promotional and job opportunities. Potentially, nurses could be selected according to these individual characteristics. Education could be attended before, after, or during work hours.

Critical to the implementation of such a program would be the measurement of outcomes. Direct and indirect costs associated with salary dollars for time spent in class and indirect costs of replacing workers to attend class should be analyzed. Measurement of organizational outcomes including increased recruitment and/or retention, effects on patient care by changing nurses' practice and increased participation on hospital committees and/or the assumption of leadership roles may be evaluated. In addition, the number of nurses who start the program and successfully complete the program should be examined and a cost benefit analysis completed on the outcomes of the program. Currently, organizations and Schools of Nursing are partnering together to offer on-site education. The findings from these programs may assist Chief Nurse Executives in determining whether the return on investment is worthwhile.

Other innovative programs such as scholarship programs in partnership with Schools of Nursing or loan repayment programs for completion of degrees may be

alternative creative mechanisms to support nurses in returning to school. However, with any of these programs come risks. Major deterrents to implementation of these costly programs include; 1) nurses may not successfully complete these programs after the money has been invested; 2) nurses may elect to leave the organization after receipt of these benefits; and 3) nurses see no change in their job roles or benefits upon completion their degrees serving as a deterrent to others from desiring to enroll.

Repayment mechanisms for not completing degrees and service obligations are potential mechanisms to decrease financial losses incurred due to nurses not completing their degrees or desiring to leave the organization. But, even with these mechanisms in place, costly lawsuits may be required to hold nurses to these service obligations. Enhanced job roles with pay differentials should be developed to both better utilize these nurses upon degree completion and make the degree worthwhile to the employee.

Performance standards, clinical ladders with educational requirements, or new position descriptions should be put into place for these nurses. Requirements may include serving in mentorship or preceptor roles, serving in expert clinician roles on the unit or as case managers, and serving as charge nurses or in other leadership roles. Additionally, obligations to serve on nursing committees, and/or being involved in policy formation, performance improvement activities, evidence-based research, or other activities to enhance patient care may be performance expectations.

Employees should be rewarded based on their annual performance ratings. Pay-for-performance and performance-based rewards programs should be instituted (Lawler, 2000); however, this would require a complete shift in the current philosophies of the health care organization and restructuring of their performance and reward systems. But,

as noted by Lawler (2000), to be successful health care organizations must invest in their human resources. Likewise, to obtain and maintain a competitive edge a health care organization must put into place systems that will attract, retain and motivate persons to advance, especially in light of the current nursing shortage.

The final question raised is how realistic is it for health care organizations to assume the burden of moving the workforce to the desired 2/3 of nurses with BSNs. The increased numbers of BSN nurses will shift the current workforce in a positive direction to potentially improve patient care. But, at what cost to the organization? Economically, not only will the organization assume the costs for nurses' education but also future costs of providing reward systems to retain these nurses. One potential unintended consequence may be a flattening of nurses wages because organizations can not support the increased salary dollars and rewards programs. As has been seen historically with nursing care delivery systems, skill mixes could be affected by increasing the numbers of unlicensed personnel to accommodate for these more expensive workers. With finite resources, health care organizations will need to make tough decisions to determine whether they can afford to move the nursing workforce to a higher educational level.

*Schools of Nursing*

In this study, the AD/diploma nurses voiced serious issues about the perceived value of receiving a BSN degree. For 50 years, strong debate has ensued among nursing leaders and other stakeholders surrounding the difference in roles between AD and BSN nurses. For nurses, this issue has created a great chasm between the AD and BSN nurses and their educational communities. Findings from this study suggested that this chasm not only remains, but may be ever enlarging.

Internally, stratification and divisiveness among nurses continues to vex the profession as reflected in respondents' written comments. Although some efforts have been made to rectify these issues by defining and differentiating nursing practice among the various educational levels (American Association Colleges of Nursing et al., 1995), the American Association of Community Colleges continues to be frequently at odds with the American Association of Colleges of Nurses as pushes are made for advancing the number of BSN nurses. Partnerships need to be established among associate degree, diploma, and baccalaureate or higher degree programs and nursing leaders and educators need to develop collegial dependent relationships amongst themselves.

Part of this process should start by nurses recognizing that differentiation is not placing a statement of value on various roles, but rather recognizes that varying levels of education, experience, and competencies are required to deliver efficient, cost effective care. Moreover, the desire to advance the educational level of nurses is not synonymous with changing the entry level for practice and calling for an end to all AD/diploma programs. Like engineering and computer science, several levels of practitioners are required by the market place. However, as Bednash (2000) stated decisions regarding nursing roles and competencies should be based on a clear analysis of the health care system's requirements for nursing care. Thus, first Nursing Leaders and all other stakeholders must have an open and honest discussion about the various nursing roles and their associated educational levels.

Educators must support and make available higher education for all nurses. With the ever expanding nursing faculty shortage all types of nursing programs will feel these effects. Nurses are required in a variety of roles; each with differing educational

requirements. AD/diploma faculty should encourage students at the time of enrollment to pursue higher education and instill a sense of value for furthering education whether it is to enhance patient care, enhance job and promotional opportunities, or serve in future faculty roles.

At the completion of student's basic nursing education programs, baccalaureate or higher nursing degree educational programs should be invited to discuss their educational offerings and requirements, methods to articulate into these higher degree programs, as well as scholarship and loan repayment programs. To accommodate nurses, educational institutions must recognize that the RN-BSN students may have special needs as potentially older students. As so aptly stated by Delaney and Piscopo (2004), "From academia, AD and diploma graduates need to be welcomed back to school, engaged in an innovative curriculum, given the advanced professional skills they seek within an accessible and flexible environment, and receive advisement and emotional support" (p. 160).

*Policy*

Nursing as a profession continues to be fraught by shortages, variable working conditions, a generally favorable, but mixed image, and lack of recognition and professional esteem conferred on by society that is commensurate with their responsibilities of the job. Moreover, strong heated debate continues, among nurses, nursing leaders, and nursing professional associations, on whether changes in educational policy would improve education, working conditions, and attract and retain more young persons to the profession.

Only 19% of the RN population completed additional academic nursing or nursing related preparation after graduating from their basic nursing program (Spratley et al., 2000). Although a notable recommendation, calling for 2/3rds of nurses to have a BSN degree by 2010, is this realistic? The reality may be that AD/diploma nurses do not want to go back to school, whether out of a desire to remain at the bedside or belief that the BSN degree is of little value. Rewards of pay and professional advancement appeared not to motivate nurses to return for an additional degree. As these findings suggested potentially only very costly innovative incentives programs will shift the educational level of this workforce. Economically, can the market support this infusion of more educated nurses or will salaries actually become depressed by the infusion of these more educated workers. Moreover, can organizations assume this financial burden without diluting the workforce by hiring less educated workers? Research on different educational pathways strongly suggests that BSN nurses are associated with better patient outcomes (Aiken et al., 2003; Aiken et al., 1994), and better patient safety and quality of care ((Delgado, 2002; Powers et al., 2002; Fagin, 2001). But, what remains unknown is whether a 2/3rds skill mix is ideal to see the benefits of this higher education.

To move this potentially unwilling workforce, government, nursing professional and health care organizations, and employers will need to team together to come to terms on the benefits of educational advancement, numbers required, and then delineate effective strategies. The following is a series of potential recommendations to advance nursing education.

*Recommendation 1.* Hospital-based diploma programs have significantly decreased in number unable to compete against AD or BSN programs. Currently, only 89

diploma programs exist (Bednash, 2000). From 1980 to 2000 the percentage of nurses who received their degree from a diploma based program decreased from 60% to 30% (Spratley et al., 2000). Clearly, viability of these few programs is tenuous. According to Aiken (1995) even though most nursing education occurs in university or collegiate settings these hospital-based programs received in excess of 100 million dollars of Medicare Funds.

A recommendation put forward by the American Association of Colleges of Nurses is to alter the current authorizing language of Medicare to open funds to nursing instead of restricting these funds exclusively to hospitals. Money should be redirected to hospitals willing to develop new educational standards and practices according to education, experience, and competency levels with funding made available to nurses to achieve the higher educational requirements. The intent of this program would be to directly affect the supply and specialty mix of nurses with the goal of increasing the proportion of BSN nurses in alignment with Congress's mandate for 2/3rds of nurses prepared at the BSN level by 2010. The overall goal of this program would be to improve the quality of care for Medicare beneficiaries by enhancing the educational mix of nurses. Benefits of this program for nursing and hospitals would include 1) increasing the number of nurses with BSN degrees, 2) enhancing quality pf patient care, and 3) improving retention and recruitment for the health care organization sponsoring these programs. Hospitals will not be willing to relinquish these funds to nursing to support nursing education without a battle. Therefore, partnerships with hospitals will be needed that correspond with these proposed policy changes.

The Department of Veteran's Affairs (VA) model may be used as an example for other health care organizations. The VA initiative called for 1) new performance standards with new educational and practice requirements for advancement, 2) establishment of the BSN as the educational requirement for all positions above first entry level pay grades by 2005, 3) $50 million dollars to be earmarked to assist nursing personnel with attainment of their BSN degree, and 4) the nursing workforce to develop innovative methods including partnerships with professional organizations to facilitate nurses with obtaining their degrees. Medicare funds could be offered to hospitals implementing similar differentiated practice models developed around education and practice.

Furthermore, the Federal Government should be encouraged to take the lead on this initiative. Nursing associations could lobby the U.S. Congress to change current pay grade levels for all Federal government agencies including the Department of Defense and Public Heath Services to become consistent with standards set by the VA. Potentially, the Federal Government Office of Personnel Management could be viewed as supporting inequitable practices when comparing pay grade systems of the VA with other agencies or departments nursing pay structures.

*Recommendation 2.* The U.S. Congress should be lobbied to appropriate money to support attainment of BSNs by nurses working for the government. These initiatives would demonstrate support for the federal policy set forth by Congress calling for 2/3rds of the basic RN workforce to have at least a BSN degree by the year 2010. But, this additional enrollment to BSN programs could potentially place an added demand on Schools of Nursing for faculty. Establishment of new partnerships with hospital

associations, healthcare organizations, pharmaceutical companies, and physicians to facilitate and assist with this educational process could assist to alleviate some of these teaching demands.

*Recommendation 3.* The third recommendation is to mandate additional nursing education State-by-State similar to New York's proposal that AD/diploma nurses receive a BSN degree within 10 years after initial licensure. This resolution was based on Dr. Linda Aiken's study, national recommendations, a 2002 Survey of Registered Professional Nurses conducted by New York State Education Department in which 68% of the respondents stated that the BSN degree should be the degree as a registered professional nurse, and that 37% of RNs planned to further their education in New York State which was perceived as RNs welcoming such a policy. Organizations not supporting this resolution included the Healthcare Association of New York State, the Associate Degree Council of New York joined by the American Association of Community Colleges, and the Public Employees Federation (New York State Nurses Association, 2004).

New York State may serve as an example for other states to follow. Of interest will be how this resolution affects enrollment into nursing programs, nursing faculty shortages, and retention of AD/diploma nurses licensed in the state. Findings from this study suggested that 21.5% of nurses would not return for a BSN degree if it was a job requirement and 32.5% of the respondents were undecided. Thus, worst case scenario potentially half of the nurses might not return for a BSN degree if mandated. Significant questions need to be addressed regarding how this resolution will affect the future workforce, especially in light of the projected worsening shortage, as well as, whether

current nursing education programs can accommodate what may be a large influx of nurses to pursue higher education, in light of faculty shortages.

To conclude, incremental changes of State-by-State licensure changes and movement by the Federal government to differentiate roles may be potential policy changes to advance the nursing workforce. But, like past initiatives to enhance nursing education, nursing will have to overcome the same political challenges presented by hospital associations, community colleges, medical associations, and the public. However, with the increasing negative reports on healthcare errors and if more research is generated on the benefits of an educated nursing workforce, these groups may welcome the promotion of higher educational standards for nurses.

## Limitations

First, generalizability of this study is limited because the proposed sample size of 384 could not be achieved (total 297 responses). In addition, generalizability is limited because this study was conducted only with acute care nurses, less than or equal to 50 years old, working greater than 20 hours per week, and licensed in the state of Maryland. A random sampling was drawn from the Maryland Board of Nursing database, although because of problems with the database oversampling was necessary. A low overall response rate (31%) was received and only about half (55%) were eligible.

Another methodological problem was the inability to implement Dillman methods fully, by sending out follow up second and third mailings of the survey due to cost constraints. A web site was provided for participants, however only 76 out 552 respondents answered using this mechanism. It was unknown how many respondents had

access to the internet or computers. However, no differences were found among the web and paper respondents using this mixed mode methodology.

The assumption was made that respondents would read carefully the criterion for eligibility. Several surveys were completed by nurses greater than 50 years old, individuals not working in acute care settings, or had completed BSN degrees. At the completion of the survey, some of these respondents identified that they did not meet the criteria but expressed an interest in the survey so elected to complete it. These surveys were not used but it remains unknown how many others not meeting eligibility criteria might have completed the survey.

A major limitation to this survey was the use of untested researcher developed instruments. The instrument was piloted but the poor response rate limited the ability to perform adequate psychometric analysis on these instruments. In addition, these instruments were significantly changed based on feedback from content experts and responses from the pilot. Again, due to cost and time constraints a second pilot using the revised survey was not conducted prior to the main study. For the future, these instruments need further refinement and testing.

Serious issues arose with problems of multicollinearity among items on the organizational rewards scales resulting in significant data reduction which may have affected the validity. In addition, multicollinearity issues were found using the separate importance and difference scales for organizational rewards and incentives making data analysis more complicated. Suggestions were made to eliminate the two organizational rewards and incentives scales to simplify the model and strengthen findings. Moreover, the rewards and incentives scales could be combined under the concept of organizational

influences. Once appropriate measures are developed and tested this study could be replicated.

For future research it would be of interest to question Chief Nurse Executives about the feasibility of offering these incentive and reward programs. Questions on the type of programs they currently have in place, numbers and type of nurses that take advantage of these programs, as well as the feasibility of offering additional incentive or reward programs could be asked. Finally, longitudinal research may be conducted on the outcomes of reward and incentive programs offered by organizations. A well educated nursing workforce is needed but to accomplish this, health care organizations, schools of nursing, health care and professional nursing organizations as well as policy makers will need to team together to develop effective strategies to motivate a potentially unwilling workforce to return for a BSN or additional nursing degree.

*Organizational Incentives and Rewards Survey*

**Prior to starting this survey, please answer the following questions:**

Is your highest nursing degree an associate or diploma degree?

Yes ____ No _

Are you currently employed in nursing and working greater than 20 hours per week?

Yes ____ No ____

Are you currently working at a hospital?

Yes ____ No ____

**If you answered NO to any of the above questions, kindly sign and return this page of the survey to me. I thank you for your time.**

Are you currently enrolled in a baccalaureate or higher nursing degree program (e.g. RN-MS)?

Yes ____ No ____

**If you answered YES to the above question, kindly sign and return this page of the survey to me. I thank you for your time.**

**Instructions**

This survey consists of eight sections. To begin, please record your starting time on the next page in the Left Upper Corner.

Complete the survey using the instructions provided at the beginning of each section.

When you have completed the survey, record your end time on the last page of the survey.

**Thank you very much for taking your time to complete this survey.**

**Start Time:**

## Demographic and Employment Characteristics

A. Please circle the number of the appropriate response to each question, or where indicated, fill in the blanks.

| | |
|---|---|
| 1. How old are you? _____ | 10. How many years have you worked at your current hospital? _____ |
| 2. Are you of Spanish/Hispanic/Latino descent?<br>a. No<br>b. Yes | 11. The bed size of your current hospital is<br>a. < 100<br>b. 100-300<br>c. 301-500<br>d. > 500 |
| 3. What is your race?<br>a. African American/Black<br>b. Asian/Pacific Islander<br>c. Caucasian/White<br>d. American Indian/ Alaska Native<br>e. Other | 12. How would you best describe your hospital setting: (check one from each column)<br>Location: Urban __ Suburban __ Rural __<br>Teaching Status: Teaching __ Non-teaching __ Government __ |
| 4. What is your gender?<br>a. Female<br>b. Male | 13. Is your hospital part of a multi-hospital system?<br>a. Yes<br>b. No |
| 5. What is your marital status?<br>a. Single<br>b. Married<br>c. Separated<br>d. Divorced<br>e. Widowed<br>f. Cohabitating | 14. How many years have you worked in your current job role? _____ |
| 6. Do you have any dependent children or other dependent relatives who live with you?<br>1. Yes (answer questions 5a and 5b)<br>2. No (continue to question 6)<br>5a. How many dependent children or other dependent relatives live with you?_____<br>5b. What are your dependent children's ages?<br>_____ | 15. What is your current major practice area?<br>a. Administration<br>b. Critical Care/Step Down<br>c. Emergency Room/Trauma<br>d. General Medical/Surgical<br>e. Operating Room/Perioperative<br>f. Pediatric<br>g. Psychiatric/Mental Health<br>h. Women's Health<br>i. Other |
| 7. Are you the primary "breadwinner" (major wage earner) for your household?<br>a. Yes<br>b. No | 16. What type of basic nursing education program did you graduate from?<br>a. Associate Degree<br>b. Diploma |

| 8. What is your gross household income?<br><br>a. Under $40,000<br>b. $40,000 to $59,000<br>c. $60,000 to $79,000<br>d. $80,000 to $99,000<br>e. Greater than $100,000 | 17. What is the highest education degree you hold?<br>a. Associate Degree<br>b. Diploma Degree<br>c. Baccalaureate Degree/other field than nursing<br>d. Masters of higher degree/other field than nursing |
|---|---|
| 9. How many years have you been employed as a Registered Nurse? _____ | 18. What year did you graduate from your basic nursing education program? _____ |

19. Would you return for a Baccalaureate Degree in Nursing (BSN) or higher nursing degree if it were a job requirement?
    a. Yes
    b. No

20. Have you ever left a job because of pressure to complete a BSN or higher degree in nursing?
    a. No
    b. Yes

21. How important is it to you to obtain a BSN or higher nursing degree?

a. Very Important b. Important c. Somewhat Important d. Somewhat Not Important e. Not Important f. Not Important At All

22. Do you intend to enroll in a Baccalaureate Degree in Nursing Program or higher nursing degree program?
    1. Yes (if yes, answer 22a and b)
    2. No (go to 23)

22 a. If yes, when do you plan to enroll?
    1. 6 months
    2. 1 year
    3. 2-3 years
    4. No plan

22b What motivated you to want to return to school for your BSN or higher nursing degree?

_____
_____
_____

23. If no, would you enroll in a Baccalaureate Degree in Nursing Program or higher nursing degree program if the right combination of rewards and incentives were offered by your organization?
    1. Yes
    2. No

24. Does your current employer offer rewards or incentives to obtain a BSN or higher degree?
    1. Yes (if yes, answer 24a.)
    2. No (go to 25)

24a. Please list the incentives and rewards offered by your employer to obtain a BSN or higher nursing degree.

_____
_____
_____

25. Please indicate how likely you believe you can successfully complete a BSN or higher nursing degree?

1. Highly probable 2. Probable 3. Equally probable and improbable, not sure 4. Improbable 5.Highly improbable

26. How willing are you to pay for your education to complete a BSN of higher nursing degree?

1. Very willing 2.Willing 3. Equally willing and unwilling, not sure 4. Probably unwilling 5.Unwilling

27. How difficult would it be for you to obtain at BSN or higher nursing degree?

1. Very difficult 2. Somewhat difficult 3. Difficult 4. Neither difficult nor easy 5. Not difficult

28. List the greatest barrier to your decision to return for a BSN or higher nursing degree?

_____

_____

_____

**A. Job Involvement: Please indicate the degree to which you believe each statement would apply to you personally by circling the appropriate number, according to the following key:**

| | Strongly Agree | Agree | Somewhat Agree | Somewhat Disagree | Disagree | Strongly Disagree |
|---|---|---|---|---|---|---|
| 1. The most important things that happen to me involve my present job. | 1 | 2 | 3 | 4 | 5 | 6 |
| 2. To me, my job is only a small part of who I am. | 1 | 2 | 3 | 4 | 5 | 6 |
| 3. I am very much involved personally in my job. | 1 | 2 | 3 | 4 | 5 | 6 |
| 4. I live, eat, breath my job. | 1 | 2 | 3 | 4 | 5 | 6 |
| 5. Most of my interests are centered around my job. | 1 | 2 | 3 | 4 | 5 | 6 |
| 6. I have very strong ties with my present job which would be very difficult to break. | 1 | 2 | 3 | 4 | 5 | 6 |
| 7. Usually, I feel detached from my job. | 1 | 2 | 3 | 4 | 5 | 6 |
| 8. Most of my personal goals are job oriented. | 1 | 2 | 3 | 4 | 5 | 6 |
| 9. I consider my job to be very central to my existence. | 1 | 2 | 3 | 4 | 5 | 6 |
| 10. I like to be absorbed in my job most of the time. | 1 | 2 | 3 | 4 | 5 | 6 |

B. **Professional Commitment: Listed below is a series of statements that represent possible feelings that individuals might have about the profession for which they work. With respect to your own feelings about nursing, please indicate the degree of your agreement or disagreement with each statement by circling one of the seven alternatives below each statement.**

| | Strongly disagree | Moderately disagree | Slightly disagree | Neither disagree nor agree | Slightly agree | Moderately agree | Strongly agree |
|---|---|---|---|---|---|---|---|
| 1. I am willing to put in a great deal of effort beyond that normally expected in order to help this profession be successful. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2. I talk up this profession to my friends as a great profession to work for. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3. I would accept almost any types of job assignment in order to keep working for this profession. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 4. I find that my values and the profession's values are very similar. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 5. I am proud to tell others that I am part of this profession. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 6. This profession really inspires the very best in me in the way of job performance. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 7. I am extremely glad that I chose this profession to work for over others I was considering at the time I joined. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8. I really care about the fate of this profession. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 9. For me, this is the best of all possible professions for which to work. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

C. **Career Satisfaction: Please indicate the degree to which you believe each statement would apply to you personally by circling the appropriate number, according to the following key:**

| | Strongly Agree | Agree to some extent | Uncertain | Disagree to some extent | Strongly Disagree |
|---|---|---|---|---|---|
| 1. The most important things that happen to me involve my present job. | 1 | 2 | 3 | 4 | 5 |
| 2. To me, my job is only a small part of who I am. | 1 | 2 | 3 | 4 | 5 |
| 3. I am very much involved personally in my job. | 1 | 2 | 3 | 4 | 5 |
| 4. I live, eat, breath my job. | 1 | 2 | 3 | 4 | 5 |
| 5. Most of my interests are centered around my job. | 1 | 2 | 3 | 4 | 5 |
| 6. I am satisfied with the success I have achieved in my career. | 1 | 2 | 3 | 4 | 5 |
| 7. I am satisfied with the progress I have made toward meeting my overall career goals. | 1 | 2 | 3 | 4 | 5 |
| 8. I am satisfied with the progress I have made toward meeting my goals for income. | 1 | 2 | 3 | 4 | 5 |
| 9. I am satisfied with the progress I have made toward meeting my goals for advancement. | 1 | 2 | 3 | 4 | 5 |
| 10. I am satisfied with the progress I have made toward meeting my goals for the development of new skills. | 1 | 2 | 3 | 4 | 5 |

D. **Work-Family Conflict/Family Work Conflict: Please indicate the degree to which you believe each statement would apply to you personally by circling the appropriate number, according to the following key:**

| **Work-family conflict items:** | Strongly disagree | Moderately disagree | Slightly disagree | Neither disagree nor agree | Slightly agree | Moderately agree | Strongly agree |
|---|---|---|---|---|---|---|---|
| 1. The demands of my work interfere with my home family life | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2. The amount of time my job takes up makes it difficult to fulfill family responsibilities | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3. Things I want to do at home do not get done because of the demands my job puts on me. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 4. My job produces strain that makes it difficult to make changes to my plans for family activities. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 5. Due to work-related duties, I have to make changes to my plans for family activities. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| **Family-work conflict items:** | Strongly disagree | Moderately disagree | Slightly disagree | Neither disagree nor agree | Slightly agree | Moderately agree | Strongly agree |
| 1. The demands of my family or spouse/partner interfere with work-related activities | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2. I have to put off doing things at work because of demands on my time at home. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3. Things I want to do at work don't get done because of the demands of my family or spouse/partner. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 4. My home life interferes with my responsibilities at work such as getting to work on time, accomplishing daily tasks, and working overtime. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 5. Family-related strain interferes with my ability to perform job-related duties. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

**E. From the list below of organizational rewards, please indicate how important each reward is to you personally. Use the following key and circle the appropriate number.**

1. **Very Important**
2. **Important**
3. **Somewhat Important**
4. **Somewhat Not Important**
5. **Not Important**
6. **Not Important At All**

**Next, if the following rewards were in place how much of a difference would it make in your decision to return for a BSN or higher nursing degree. Use the following key and circle the appropriate number.**

1. **Very Great Difference**
2. **Great Difference**
3. **Moderate Difference**
4. **Some Difference**
5. **Little Difference**
6. **No Difference**

1. Higher rate of pay based on education, experience, and competency.
   Importance 1 2 3 4 5 6
   Difference 1 2 3 4 5 6

2. Increased autonomy in nursing practice.
   Importance 1 2 3 4 5 6
   Difference 1 2 3 4 5 6

3. Professional advancement and growth opportunities including clinical ladders for career advancement.
   Importance 1 2 3 4 5 6
   Difference 1 2 3 4 5 6

4. Involvement in hospital decision-making by serving as a member on nursing and hospital-wide committees.
   Importance 1 2 3 4 5 6
   Difference 1 2 3 4 5 6

5. Promotional opportunities.
   Importance 1 2 3 4 5 6
   Difference 1 2 3 4 5 6

6. A one-time incentive pay for obtaining a BSN or higher nursing degree.
   Importance 1 2 3 4 5 6
   Difference 1 2 3 4 5 6

7. Increased variety of work assignments, such as scheduled time to work on educational programs, unit performance improvement projects and other activities.
   Importance 1 2 3 4 5 6
   Difference 1 2 3 4 5 6

8. Seniority with scheduling (choice of hours, fewer weekends and holidays)
   Importance 1 2 3 4 5 6
   Difference 1 2 3 4 5 6

9. Leadership role with involvement in strategic planning and decision-making.
   Importance 1 2 3 4 5 6
   Difference 1 2 3 4 5 6

10. Clinical oversight with greater authority over nursing personnel and material resources.

| | | | | | | |
|---|---|---|---|---|---|---|
| Importance | 1 | 2 | 3 | 4 | 5 | 6 |
| Difference | 1 | 2 | 3 | 4 | 5 | 6 |

**F. From the list below of organizational incentives, please indicate how important each incentive is to you personally. Use the following key and circle the appropriate number.**

1. **Very Important**
2. **Important**
3. **Somewhat Important**
4. **Somewhat Not Important**
5. **Not Important**
6. **Not Important At All**

**Next, if the following organizational incentives were in place how much of a difference would it make in your decision to return for a BSN or higher nursing degree. Use the following key and circle the appropriate number.**

1. **Very Great Difference**
2. **Great Difference**
3. **Moderate Difference**
4. **Some Difference**
5. **Little Difference**
6. **No Difference**

1. Tuition Reimbursement.

| | | | | | | |
|---|---|---|---|---|---|---|
| Importance | 1 | 2 | 3 | 4 | 5 | 6 |
| Difference | 1 | 2 | 3 | 4 | 5 | 6 |

2. Forgivable loans for nursing degree programs in return for required service (e.g. school loans are paid for but in return you must commit to working for the organization for a certain number of years).

| | | | | | | |
|---|---|---|---|---|---|---|
| Importance | 1 | 2 | 3 | 4 | 5 | 6 |
| Difference | 1 | 2 | 3 | 4 | 5 | 6 |

3. The employer guarantees time off by matching your work hours with class hours.

| | | | | | | |
|---|---|---|---|---|---|---|
| Importance | 1 | 2 | 3 | 4 | 5 | 6 |
| Difference | 1 | 2 | 3 | 4 | 5 | 6 |

4. The organization agrees to subsidize childcare or elder care.

| | | | | | | |
|---|---|---|---|---|---|---|
| Importance | 1 | 2 | 3 | 4 | 5 | 6 |
| Difference | 1 | 2 | 3 | 4 | 5 | 6 |

5. Web based training classes for a BSN or higher nursing degree is made available during work hours.

| | | | | | | |
|---|---|---|---|---|---|---|
| Importance | 1 | 2 | 3 | 4 | 5 | 6 |
| Difference | 1 | 2 | 3 | 4 | 5 | 6 |

6. Classes for a BSN or higher nursing degree is offered art your work site.

| | | | | | | |
|---|---|---|---|---|---|---|
| Importance | 1 | 2 | 3 | 4 | 5 | 6 |
| Difference | 1 | 2 | 3 | 4 | 5 | 6 |

7. Receive full pay while attending class.

| | | | | | | |
|---|---|---|---|---|---|---|
| Importance | 1 | 2 | 3 | 4 | 5 | 6 |
| Difference | 1 | 2 | 3 | 4 | 5 | 6 |

8. Work weekends only, maintaining full time pay and benefits.

| | | | | | | |
|---|---|---|---|---|---|---|
| Importance | 1 | 2 | 3 | 4 | 5 | 6 |
| Difference | 1 | 2 | 3 | 4 | 5 | 6 |

9. Work 36 hours, maintaining full time pay and benefits.

| | | | | | | |
|---|---|---|---|---|---|---|
| Importance | 1 | 2 | 3 | 4 | 5 | 6 |
| Difference | 1 | 2 | 3 | 4 | 5 | 6 |

10. After a specified time of employment with the organization is able to take a sabbatical with full pay to obtain a BSN or higher nursing degree.

| | | | | | | |
|---|---|---|---|---|---|---|
| Importance | 1 | 2 | 3 | 4 | 5 | 6 |
| Difference | 1 | 2 | 3 | 4 | 5 | 6 |

G. **Below is a list of position characteristics connected with nursing. For each position characteristic, you will be asked to give three ratings:**

a) **How much of the position characteristic is connected with your current nursing role?**

b) **How much of the position characteristic do you think is connected to the role of a BSN nurse?**

c) **How important is this position characteristic to you?**

**Each rating will be on a seven-point scale, which will look like this:**

**(Minimum) 1 2 3 4 5 6 7 (Maximum)**

**Please circle the number on the scale that best represents the amount of the position characteristic being rated. Low numbers mean a minimum amount and high numbers mean a high amount. For example if little of this position characteristic is connected with your role you would circle 1.**

1. Providing direct care that is based on the nursing process and focused on clients with complex interactions of nursing diagnoses.

How much is there now?

1 2 3 4 5 6 7

How much is connected with a BSN?

1 2 3 4 5 6 7

How important is this to you?

1 2 3 4 5 6 7

2. Serving in a leadership position, as a supervisor, manager or mentor of staff?

How much is there now?

1 2 3 4 5 6 7

How much is connected with a BSN?

1 2 3 4 5 6 7

How important is this to you?

1 2 3 4 5 6 7

3. Assessing the need for information and designing comprehensive teaching plans individualized for the focal client.

How much is there now?

1 2 3 4 5 6 7

How much is connected with a BSN?

1 2 3 4 5 6 7

How important is this to you?

1 2 3 4 5 6 7

4. Collaborating with nurse researchers and incorporating research findings into nursing practice.

How much is there now?

1 2 3 4 5 6 7

How much is connected with a BSN?

1 2 3 4 5 6 7

How important is this to you?

1 2 3 4 5 6 7

5. Integrating all aspects of patient care as a patient care manager.
How much is there now?
1 2 3 4 5 6 7
How much is connected with a BSN?
1 2 3 4 5 6 7
How important is this to you?
1 2 3 4 5 6 7

6. Using complex communication skills with focal clients.
How much is there now?
1 2 3 4 5 6 7
How much is connected with a BSN?
1 2 3 4 5 6 7
How important is this to you?
1 2 3 4 5 6 7

7. Maintaining accountability for own practice and for aspects of nursing care based on identified needs of the focal client from admission to post-discharge.
How much is there now?
1 2 3 4 5 6 7
How much is connected with a BSN?
1 2 3 4 5 6 7
How important is this to me?
1 2 3 4 5 6 7

8. Functioning autonomously in nursing practice.
How much is there now?
1 2 3 4 5 6 7
How much is connected with a BSN?
1 2 3 4 5 6 7
How important is this to me?
1 2 3 4 5 6 7

9. Develops and revises policies, procedures and nursing guidelines used for managing patient care.
How much is there now?
1 2 3 4 5 6 7
How much is connected with a BSN?
1 2 3 4 5 6 7
How important is this to me?
1 2 3 4 5 6 7

10. Works collaboratively with interdisciplinary team members developing plans of care.
How much is there now?
1 2 3 4 5 6 7
How much is connected with a BSN?
1 2 3 4 5 6 7
How important is this to me?
1 2 3 4 5 6 7

**END TIME:** _____

# *Nursing Organizational Incentives and Rewards Survey 2004*

A Study of Personal Preferences, Motivators,
and Barriers in Deciding Whether to **Return** or **Not Return**
for an Additional Nursing Degree

**Survey Number:**

Thank you for taking the time to complete this questionnaire.
Please return your completed questionnaire in the envelope provided to:

Joan Warren
1107 Netherlands Court
Silver Spring, MD 20905

***Start Here:***

## Participation

**The following questions address basic study requirements for participation in this survey. Please place an X in the appropriate box.**

1. Are you currently employed in a nursing position?
   Yes ☐
   No ☐ (If **No**, kindly sign and return the survey to me. I thank you for taking your time.)

2. Are you employed by a hospital?
   Yes ☐
   No ☐ (If **No**, kindly sign and return this page to me. I thank you for your time.)

3. Do you work 20 hours or more a week?
   Yes ☐
   No ☐ (If **No**, kindly sign and return this page to me. I thank you for your time.)

4. Is your most recent degree in nursing an associate degree or diploma degree?
   Yes ☐
   No ☐ (If **No**, kindly sign and return this page to me. I thank you for your time.)

5. Are you currently enrolled in a formal education program leading to an academic degree with nursing as a major (e.g. RN-BSN, RN-MSN, etc.)?
   Yes ☐ (If **Yes**, kindly sign and return this page to me. I thank you for your time.)
   No ☐

6. Are you 50 years old or older in age?
   Yes ☐ (If **Yes**, kindly sign and return this page to me. I thank you for your time.)
   No ☐

## Section A — Career Satisfaction

**Using the following 5-point scale where 1=Strongly Agree and 5=Strongly Disagree, indicate the extent to which you believe each statement would apply to you personally by placing an X in the appropriate box. (Please mark one box only).**

| | To what extent do you agree/disagree... | | | | |
|---|---|---|---|---|---|
| | 1 Strongly Agree | 2 Agree to Some Extent | 3 Uncertain | 4 Disagree to Some Extent | 5 Strongly Disagree |
| 7. I am satisfied with the success I have achieved in my career. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 8. I am satisfied with the progress I have made toward meeting my overall career goals. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 9. I am satisfied with the progress I have made toward meeting my goals for income. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 10. I am satisfied with the progress I have made toward meeting my goals for advancement. | ☐ | ☐ | ☐ | ☐ | ☐ |
| 11. I am satisfied with the progress I have made toward meeting my goals for the development of new skills. | ☐ | ☐ | ☐ | ☐ | ☐ |

## Section B — Work-Family Conflict/Family-Work Conflict

**Using a 7-point scale where 1=Strongly Disagree and 7=Strongly Agree, indicate the extent to which you believe each statement would apply to you personally by placing an X in the appropriate box. (Please mark one box only).**

| | To what extent do you disagree/agree... | | | | | | |
|---|---|---|---|---|---|---|---|
| Work-Family Conflict Items | 1 Strongly Disagree | 2 | 3 | 4 | 5 | 6 | 7 Strongly Agree |
| 12. The demands of my work interfere with my home family life. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 13. The amount of time my job takes up makes it difficult to fulfill family responsibilities | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 14. Things I want to do at home do not get done because of the demands my job puts on me. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 15. My job produces strain that makes it difficult to make changes to my plans for family activities. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 16. Due to work-related duties, I have to make changes to my plans for family activities. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Family-Work Conflict Items | 1 Strongly Disagree | 2 | 3 | 4 | 5 | 6 | 7 Strongly Agree |
| 17. The demands of my family or spouse/ partner interfere with work-related activities | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 18. I have to put off doing things at work because of demands on my time at home. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 19. Things I want to do at work don't get done because of the demands of my family or spouse/partner. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 20. My home life interferes with my responsibilities at work such as getting to work on time, accomplishing daily tasks, and working overtime. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 21. Family-related strain interferes with my ability to perform job-related duties. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |

## Section C – Professional Commitment

**Listed below is a series of statements that represent possible feelings that individuals might have about the profession for which they work. With respect to your own feelings about nursing, please indicate the degree of your agreement or disagreement with each statement by placing an X in the box using one of the 7 alternatives listed for each statement. (Please mark one box only).**

| | To what extent do you disagree/agree... | | | | | | |
|---|---|---|---|---|---|---|---|
| | 1 Strongly Disagree | 2 Moderately Disagree | 3 Slightly Disagree | 4 Neither Disagree or Agree | 5 Slightly Agree | 6 Moderately Agree | 7 Strongly Agree |
| 22. I am willing to put in a great deal of effort beyond that normally expected in order to help this profession be successful. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 23. I talk up this profession to my friends as a great profession to work for. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 24. I would accept almost any types of job assignment in order to keep working for this profession. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 25. I find that my values and the profession's values are very similar. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 26. I am proud to tell others that I am part of this profession. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 27. This profession really inspires the very best in me in the way of job performance. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 28. I am extremely glad that I chose this profession to work for over others I was considering at the time I joined. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 29. I really care about the fate of this profession. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 30. For me, this is the best of all possible professions for which to work. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |

## Section D – Barriers to Receiving a Nursing Degree

**This section is interested in identifying some of the barriers you may face in being able to return for a BSN or additional nursing degree (RN-MSN, etc.) Using a 7-point scale where 1=Not At All and 7=To A Very Great Extent, indicate how each item may affect your ability to return for a nursing degree. (Please mark one box only).**

| | To what extent do these potential barriers affect your decision to return for a nursing degree... | | | | | | |
|---|---|---|---|---|---|---|---|
| | 1 Not At All | 2 | 3 | 4 | 5 | 6 | 7 To A Very Great Extent |
| 31. Cost of tuition payment | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 32. Family responsibilities | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 33. Proximity of nursing school (too far a distance to travel) | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 34. Your age | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 35. Time investment to complete the degree | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 36. Ability to balance school (class hours and study) with current job role and family responsibilities | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 37. Ability to meet the academic requirements | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 38. Ability to match work hours with class hours | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |

39. Please list any other barriers to your decision to return for a BSN or additional nursing degree:

_____

_____

## Section E – Organizational Rewards: Importance

**The following questions address your perceptions about organizational rewards that might be offered to registered nurses upon completion of a BSN or additional nursing degree (e.g. RN-MSN.) Using a 7-point scale where 1= Not At All Important and 7=Very Important, indicate how important each reward would be to you personally by placing an X in the appropriate box. (Please mark one box only).**

| | Upon completion of a BSN or additional nursing degree... | Importance of organizational reward is... 1 Not At All Important | 2 | 3 | 4 | 5 | 6 | 7 Very Important |
|---|---|---|---|---|---|---|---|---|
| 40. | ...you would receive a higher rate of pay based on your education. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 41. | ...you would receive increased autonomy in your nursing practice. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 42. | ...you would receive professional advancement and growth opportunities such as selection for higher level positions on clinical ladders for career advancement. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 43. | ...you would have increased involvement in hospital decision-making by serving as a member on nursing and hospital-wide committees. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 44. | ...you would have greater promotional opportunities. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 45. | ...you would receive an increased variety of work assignments, such as scheduled time to work on educational programs, unit performance improvement projects and other activities. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 46. | ...you would have higher priority for scheduling your work hours, including choice of hours, fewer weekends, and holidays. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 47. | ...you would receive a leadership role with involvement in strategic planning and decision-making for your practice area. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 48. | ...you would receive clinical oversight (charge nurse responsibility) with greater authority over nursing personnel and material resources. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 49. | ...you would receive a one-time incentive pay for obtaining a BSN or additional nursing degree. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |

## Section F – Organizational Rewards: Difference

**Next, the questions address how much of a difference these organizational rewards would make in influencing your decision to return for a BSN or additional nursing degree (e.g. RN-MSN, etc.) Using a 7-point scale where 1=No Difference and 7=Very Great Difference, indicate the amount of difference these rewards would make by placing an X in the appropriate box. (Please mark one box only).**

| | Upon completion of a BSN or additional nursing degree... | To what extent would it make a difference in influencing your decision to return for an additional nursing degree... 1 No Difference | 2 | 3 | 4 | 5 | 6 | 7 Very Great Difference |
|---|---|---|---|---|---|---|---|---|
| 50. | ...you would receive a higher rate of pay based on your education. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 51. | ...you would receive increased autonomy in your nursing practice. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 52. | ...you would receive professional advancement and growth opportunities such as selection for higher level positions on clinical ladders for career advancement. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 53. | ...you would have increased involvement in hospital decision-making by serving as a member on nursing and hospital-wide committees. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 54. | ...you would have greater promotional opportunities. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 55. | ...you would receive an increased variety of work assignments, such as scheduled time to work on educational programs, unit performance improvement projects and other activities. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 56. | ...you would have higher priority for scheduling your work hours, including choice of hours, fewer weekends, and holidays. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 57. | ...you would receive a leadership role with involvement in strategic planning and decision-making for your practice area. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 58. | ...you would receive clinical oversight (charge nurse responsibility) with greater authority over nursing personnel and material resources. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 59. | ...you would receive a one-time incentive pay for obtaining a BSN or additional nursing degree. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |

## Section G – Organizational Incentives: Importance

**Now, the questions will address your perceptions about organizational incentives that might be offered to assist you in returning for a BSN or additional nursing degree (e.g. RN-MSN). Using a 7-point scale where 1=Not At All Important and 7=Very Important, indicate how important each incentive is to you personally by placing an X in the appropriate box. (Please mark one box only).**

| To assist you in receiving an additional nursing degree the organization would... | Importance of organizational reward is... 1 Not At All Important | 2 | 3 | 4 | 5 | 6 | 7 Very Important |
|---|---|---|---|---|---|---|---|
| 60. ...offer tuition reimbursement. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 61. ...agree to subsidize childcare or elder care. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 62. ...allow you to work weekends only, while maintaining full time pay and benefits. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 63. ...allow you to work 36 hours per week, while maintaining full time pay and benefits. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 64. ...guarantee you time off by matching your work hours with class hours. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 65. ...pay you while attending class. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 66. ...make web based training classes available during work hours. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 67. ...have classes for nursing degree(s) offered at your work site. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 68. ...provide forgivable loans for nursing degree programs in return for required service (e.g. school loans are paid for but in return you must commit to working for the organization for a certain number of years). | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 69. ...offer after a specified time of employment with the organization the ability to take a sabbatical with full pay to obtain an additional nursing degree. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |

## Section H – Organizational Incentives: Difference

**Next, if the following organizational incentives were in place how much of a difference would these make in influencing your decision to return for an BSN or additional nursing degree (e.g. RN-MSN). Using a 7-point scale where 1=No Difference and 7=Very Great Difference, indicate the amount of difference each incentive would have in influencing your decision to return for an additional degree by placing an X in the appropriate box. (Please mark one box only).**

| To assist you in receiving an additional nursing degree the organization would... | To what extent would it make a difference in your decision to return for an additional nursing degree... 1 No Difference | 2 | 3 | 4 | 5 | 6 | 7 Very Great Difference |
|---|---|---|---|---|---|---|---|
| 70. ...offer tuition reimbursement. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 71. ...agree to subsidize childcare or elder care. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 72. ...allow you to work weekends only, while maintaining full time pay and benefits. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 73. ...allow you to work 36 hours per week, while maintaining full time pay and benefits. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 74. ...guarantee you time off by matching your work hours with class hours. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 75. ...pay you while attending class. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 76. ...make web based training classes available during work hours. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 77. ...have classes for nursing degree(s) offered at your work site. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 78. ...provide forgivable loans for nursing degree programs in return for required service (e.g. school loans are paid for but in return you must commit to working for the organization for a certain number of years). | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 79. ...offer after a specified time of employment with the organization the ability to take a sabbatical with full pay to obtain an additional nursing degree. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |

## Section I – BSN Role

**Using a 7-point scale where 1=Strongly Disagree and 7=Strongly Agree, indicate the extent to which you agree/disagree with each statement by placing an X in the appropriate box. (Please mark one box only).**

| | To what extent do you disagree/agree... | | | | | | |
|---|---|---|---|---|---|---|---|
| | 1 Strongly Disagree | 2 | 3 | 4 | 5 | 6 | 7 Strongly Agree |
| 80. Nursing roles and pay for clinical bedside nurses should be differentiated by educational degrees. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 81. A nurse with a BSN degree has more theoretical knowledge enhancing their ability to provide clinical bedside care. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 82. A nurse with a BSN is able to manage more complex patients, groups, and communities compared to a nurse with an AD/Diploma degree. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 83. It is becoming increasingly more important to obtain a BSN or higher nursing degree due to technological advancements, increased patient acuity, and complexity of care. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 84. Chief Nurse Executives prefer to hire BSN nurses. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 85. A nurse with a BSN degree is more likely to be promoted. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 86. Nurses are undereducated compared to other health care professionals. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 87. A nurse with a BSN degree has more job opportunities within the hospital setting compared to a nurse with an AD/Diploma degree. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 88. A nurse with a BSN degree has more advanced management skills compared to nurses prepared at the AD/Diploma level. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 89. Nursing education is more important than nursing experience. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |

## Section J – Nursing Degree

**The next set of questions will ask you about your own personal intent to return or not return for a BSN or additional nursing degree. Please place an X in the appropriate response for each question, or where indicated, fill in the blanks.**

90. Do you plan to continue your career in nursing?
- Yes ☐
- No ☐
- Undecided ☐

91. Would you return for a Baccalaureate Degree in Nursing (BSN) or additional nursing degree if it were a job requirement?
- Yes ☐
- No ☐
- Undecided ☐

92. Using a 7-point scale where 1=Not At All Important and 7=Very Important, indicate how important is it to you to obtain a BSN or additional nursing degree.

| 1 Not At All Important | 2 | 3 | 4 | 5 | 6 | 7 Very Important |
|---|---|---|---|---|---|---|
| ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |

93. On a 7-point scale where 1=Unwilling and 7=Very Willing, how willing are you to pay for your education to complete a BSN or additional nursing degree?

| 1 Unwilling | 2 | 3 | 4 | 5 | 6 | 7 Very Willing |
|---|---|---|---|---|---|---|
| ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |

94. On a 7-point scale where 1=Highly Improbable and 7=Highly Probable, indicate how likely you believe you can successfully complete a BSN or additional nursing degree.

| 1 Highly Improbable | 2 | 3 | 4 | 5 | 6 | 7 Highly Probable |
|---|---|---|---|---|---|---|
| ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |

## Section J – Nursing Degree (continued)

95. Do you plan to further your nursing education by enrolling in a Baccalaureate Degree in Nursing Program or additional nursing degree program?
Undecided ☐
No ☐ → (**If No**, Skip to 98)
Yes ☐

96. (**If Yes**) When do you plan to enroll in a nursing degree program?
6 months ☐
1 year ☐
2-3 years ☐
No plan ☐

97. What were the top three reasons that motivated you to want to return to school for your BSN or additional nursing degree?
1. _____
2. _____
3. _____

98. Would you enroll in a Baccalaureate Degree in Nursing Program or additional nursing degree program if the right combination of rewards and incentives were offered to you by your organization?
Yes ☐
No ☐
Undecided ☐

99. Does your current employer offer rewards or incentives to obtain a BSN or additional nursing degree?
No ☐ → (**If No**, Skip to 101)
Yes ☐

100. (**If Yes**) Please list the incentives and rewards offered by your employer to obtain a BSN or additional nursing degree.
1. _____
2. _____
3. _____

## Section K – General Information

**Finally, I would like you to answer some additional questions for use in statistical interpretation of your responses. Please place an X in the appropriate response for each question, or where indicated, fill in the blanks.**

101. What is your gender?
Female ☐
Male ☐

102. Are you Hispanic or Latino?
No ☐
Yes ☐

103. What is your racial background? **(Mark all that apply)**
African American or Black ☐
Asian ☐
Native Hawaiian or Other Pacific Islander ☐
Caucasian/White ☐
American Indian or Alaska Native ☐
Other (Please Specify_____) ☐

104. What is your year of birth?
19_____

105. What is your marital status?
Single, Never Married and Not Cohabitating ☐
Married ☐
Separated ☐
Divorced ☐
Widowed ☐
Cohabitating ☐

106. Do you have children at home?
No ☐ → (**If No**, Skip to109 )
Yes ☐

107. How many children do you have at home?
_____ children

108. How old are the children who live at home with you? **(Include all children who live with you 6 months of the year or more)**
All less than 6 years old ☐
All 6 years old or older ☐
Some less than 6 and some 6 or over ☐

109. Do you have any other dependent relatives who live with you other than your children?
No ☐ → (**If No**, Skip to 111)
Yes ☐

110. (**If Yes**) How many dependent relatives live with you? _____

What are your dependent relative's ages?
_____

111. Are you the primary "breadwinner" (major wage earner) for your household?
No ☐
Yes ☐

## Section K – General Information (continued)

112. Which category best describes how much income you (or you and your spouse together if you are currently married) anticipate earning during 2004 (gross income)?

| | | | |
|---|---|---|---|
| Under $35,000 | ☐ | $75,001 to $100,000 | ☐ |
| $35,001 to $50,000 | ☐ | $100,001 to 150,000 | ☐ |
| $50,001 to $75,000 | ☐ | More than $150,000 | ☐ |

113. In what type of nursing education program were you prepared to become a registered nurse?

| | | | |
|---|---|---|---|
| Associate Degree | ☐ | Diploma | ☐ |

114. In what year did you graduate from your nursing education program?

19_____

115. In addition to your nursing degree, do you have any other degrees from postsecondary education programs?

No ☐ → **(If No**, Skip to 117 )

Yes ☐ →

116. **(If Yes)** What is your highest degree that is not in nursing?

| | |
|---|---|
| Associate Degree | ☐ |
| Baccalaureate Degree | ☐ |
| Master's Degree | ☐ |
| Doctorate | ☐ |

117. How many years have you been employed as a Registered Nurse?

| | | | |
|---|---|---|---|
| Less than 1 year | ☐ | 11 to 15 years | ☐ |
| 1 to 5 years | ☐ | 16 to 20 years | ☐ |
| 6 to 10 years | ☐ | More than 20 years | ☐ |

118. How many years have you worked at your current hospital?

| | | | |
|---|---|---|---|
| Less than 1 year | ☐ | 11 to 15 years | ☐ |
| 1 to 5 years | ☐ | 16 to 20 years | ☐ |
| 6 to 10 years | ☐ | More than 20 years | ☐ |

119. How many years have you worked in your current job role?

| | | | |
|---|---|---|---|
| Less than 1 year | ☐ | 11 to 15 years | ☐ |
| 1 to 5 years | ☐ | 16 to 20 years | ☐ |
| 6 to 10 years | ☐ | More than 20 years | ☐ |

120. In what type of unit do you work?

| | |
|---|---|
| General Medical/Surgical | ☐ |
| Critical Care/Step Down Unit | ☐ |
| Preoperative/Operating Room/Post Anesthesia Recovery Unit | ☐ |
| Emergency Room/Trauma | ☐ |
| Labor/Delivery Room/Women's Health | ☐ |
| Newborn/Pediatric Unit | ☐ |
| Psychiatric/Mental Health Unit | ☐ |
| Ambulatory Care/Outpatient Department | ☐ |
| Oncology/Hospice Unit | ☐ |
| Administration | ☐ |
| Work In Multiple Units Not Specifically Assigned | ☐ |
| Other Specific Area (Please Specify) _____ | ☐ |

121. What is the bed size of your current hospital?

| | | | |
|---|---|---|---|
| Less than 100 | ☐ | 301 to 500 | ☐ |
| 100 to 300 | ☐ | More than 500 | ☐ |

122. How would you best describe your hospital? **(Mark all that apply)**

| | | | |
|---|---|---|---|
| Urban | ☐ | Teaching | ☐ |
| Suburban | ☐ | Non-Teaching | ☐ |
| Rural | ☐ | University | ☐ |
| Government | ☐ | Community | ☐ |

123. Is your hospital part of a multi-hospital system?

| | |
|---|---|
| Yes | ☐ |
| No | ☐ |
| Not Sure | ☐ |

**Thank you very much for taking the time to complete this questionnaire. Your assistance in providing this information is very much appreciated. If there is anything else that you would like to tell me about this survey, please do so in the space provided below.**

**Please return your completed questionnaire in the envelope provided to:**

**Joan Warren**
**1107 Netherlands Court**
**Silver Spring, MD 20905**

University of Maryland, Baltimore . Institutional Review Board. Assurance No. M1174

Date: Thursday, October 02, 2003
To: MARY ETTA MILLS, ScD
Re: IRB protocol **#0903919**

Risk designation: **Minimal**

This is to certify that the Institutional Review Board has **fully approved** the above referenced protocol entitled, "*Organizational Incentives and Rewards as Motivators for Registered Nurses to Obtain a Baccalaureate or Higher Nursing Degree.*" The IRB has determined that this protocol qualifies for expedited review pursuant to Federal regulations 45 CFR 46.110 (1), 46 FR 8392, category # 7.

The anniversary date of this project is **10/1/2004.** HHS regulations at *45* CFR 46.109 (e) require that **continuing review** of research be conducted by the IRB at intervals appropriate to the degree of risk and **not less than once per year**. The regulations make **no provision for any grace period extending the conduct of the research beyond the expiration date of IRB approval.** Please mark your calendar now to insure that the IRB receives a renewal request 30 days before the anniversary date of the project, if this study is expected to extend beyond one year.

This protocol has been approved for **a maximum number of 384 subjects** to be enrolled at this site for the duration of the project. If you wish to increase enrollment beyond this number, you must submit a modification request to the IRB and obtain approval before exceeding this number.

Investigators are reminded that all **UMB IRB approved consent forms display an expiration date on the last page**. Please make a practice of checking this date carefully each time any UMB IRB consent form is used, as using expired forms to consent subjects is considered a significant deviation from Federal Regulations governing research involving human subjects.

Investigators are also reminded that the IRB must be notified if the project is altered in any way (change in location, personnel, number of subjects, age of subjects, or any change in research protocol). If you have any questions, please do not hesitate to contact the Office for Research Subjects by email (ORS@som.umaryland.edu) or by phone (at 706-5037)

Robert Edelman, M.D.
Chairman, IRB

University of Maryland, Baltimore · Institutional Review Board · Assurance No. M1174

# LETTER OF INVITATION
# SURVEY

Dear Nursing Colleague,

My name is Joan Warren and I am a doctoral candidate at the University of Maryland, Baltimore, School of Nursing. I am writing to ask you to participate in a research study. I recognize that your time is important however would greatly appreciate your participation.

The purpose of my research is threefold 1) to examine preferences of acute care associate degree/diploma registered nurses for organizational incentives and rewards that would assist them to obtain a baccalaureate or higher nursing degree; 2) identify RNs that would most likely to take advantage of these incentive and reward programs; and 3) determine the perceived best combination of organizational incentives and rewards and individual characteristics, to predict who might return for an advanced degree.

You qualify for this research because you are an associate degree or diploma registered nurse, working 20 hours or more in an acute care (hospital) setting in the state of Maryland and not enrolled in a baccalaureate or higher nursing degree program (e.g. RN-MS).

Your participation in this study will include you completing the enclosed survey. This survey will ask you about such things as demographic information, employment characteristics and work history, desire to enroll in an advanced degree nursing program, job involvement, professional commitment, career satisfaction, and work-family/family-work conflict. It should take you approximately 30-45 minutes to complete the survey.

No risks are anticipated by participating in this study. Your participation in this study will be confidential and all responses to the survey will be reported in aggregate and not by individual. Your decision to participate or not participate in this study will not affect any current or future care you receive at UMB, UMMS. You will not benefit from your participation in this study, however from this research cost effective educational opportunities or career enhancement programs may be developed by hospital organizations. You will not be compensated for your participation.

If you do not wish to participate in this study, please sign and return the attached pre-addressed and postage paid postcard. If I do not hear from you in two weeks, I will send a follow up letter. Your participation is entirely voluntary.

If you have any questions, please feel free to contact me at (410) 605 – 7296.

Sincerely

Joan Warren, Doctoral Candidate, MS, RN
University of Maryland, School of Nursing

# Letter of Invitation
# Survey

Dear Nursing Colleague,

I am writing to ask for your participation in the *Nursing Organizational Incentives and Rewards Survey.* This survey is part of a research study to learn more about your opinions on what **may help** or **may not be helpful,** encouraging you to obtain an additional nursing degree. The information you provide will assist administrators, educators, and policymakers to better understand why registered nurses **decide to** or **not to** return for an additional nursing degree. Also, this information will be used to identify organizational benefits that may be offered to registered nurses to encourage them in obtaining an additional nursing degree.

**Your opinions are important. I am interested in each of your opinions, whether you are interested or not interested in obtaining an additional nursing degree.** Your answers are completely confidential. Attached is a letter that contains pertinent information about this research study and your participation.

**As a way of thanking you for your time and effort, upon receipt of your returned survey, your survey number will be entered into a drawing for one, of four, $25.00 Hecht's Gift Certificates.** To ensure your confidentiality, a third party will manage the drawing and database linking your survey number with your name. Following selection and notification of the recipients, this database will be destroyed. If you do not wish to participate in this drawing, write that request on the front of your returned survey. **Your time and efforts are greatly appreciated.**

**If you are not eligible to participate or do not wish to participate,** please take a moment to complete the front page of this survey and return the entire survey in the pre-addressed and postage paid envelope. All returned surveys will be entered into the drawing. **Again, your efforts are appreciated.**

If you have any questions or comments about this study, please feel free to contact me at (410) 605-7296, or you may write to me at JIWarren@erols.com, or use my mailing address located on the return envelope.

Thank you so much for your help.

Sincerely,

Joan I. Warren, Doctoral Candidate, MS, RN

University of Maryland, School of Nursing

# Letter of Invitation
# Survey

Dear Nursing Colleague,

I am writing to ask you to respond to the *Nursing Organizational Incentives and Rewards Survey.* **If you have already completed and returned the survey, please accept my sincere thanks.** If you have not yet completed this survey, please do so today. I am especially grateful for your help because it is only by asking a nurse like you to share your experiences that we can understand why nurses **may or may not** return to school for an additional nursing degree.

I am interested in each of your opinions, whether **you are interested or not interested** in obtaining an additional nursing degree. If you are not eligible to participate or do not wish to participate, I would appreciate if you would also take a moment to complete the first page and return the survey to me.

If you did not receive the survey or can not locate your survey, you may either 1) complete the survey electronically or 2) call me at (410) 605-7296 or email me at JIWarren@erols.com and I will mail another one to you.

**If you prefer to complete the survey electronically, the Web site address is http://nursing.umaryland.edu/research/survey.htm and your password is**

_____.

Please type in this password to enter the survey. Should you have any questions regarding this electronic survey, please call or email me using the above contact information.

**As a way of thanking you for your time and effort, upon receipt of your returned survey (mail or electronic), your survey number (or password, if completing electronically), will be entered into a drawing for one, of four, $25.00 Hecht's Gift Certificates.**

Please feel free to contact me if you have any questions or comments about this study,.

Thank you for your help.

Sincerely,

Joan I. Warren, Doctoral Candidate, MS, RN

University of Maryland, School of Nursing

Dear Nursing Colleague,

About 3 weeks ago I wrote to you seeking your views on obtaining an additional nursing degree. As of today I have not received your survey. I realize this is a busy time of year, however I would very much like to hear from you.

I am writing to you again because of the importance each survey has to the usefulness of this study. The purpose of this study is to identify important factors that influence nurse's decisions **to return or not to return** for an additional nursing degree. Unfortunately, we know little about nurse's decision making regarding their desire to seek additional formal education, the barriers they may experience, and whether the organization is offering the right type of incentives or rewards to motivate you to want to return for an additional nursing degree. The information from this study may lead to improvements in reward and incentive systems offered by organizations to nurses seeking to continue their education, as well as, assist nurse educators in their understanding as to why nurse's elect to or not to return to school.

If you wish to participate you may either 1) complete the survey electronically or 2) call me at (410) 605-7296 or email me at JIWarren@erols.com and I will mail another one to you. If you prefer to complete the survey electronically, the Web site address is http://nursing.umaryland.edu/research/survey.htm and your password is _____. I would greatly appreciate if you could please respond by July, 26, 2004.

**If you are not eligible to participate or do not wish to participate, I would appreciate if you would take just a moment to complete the first page of the web based survey.**

Thank you for your help.
Sincerely,

Joan Warren

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