A Dissertation
Entitled
A Statewide Study of Nursing Faculty Intent to Leave Academe:
Key Influencing Factors
By
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National predictions forecast a significant shortage of registered nurses by 2020, with one of the major causes of the shortage being a lack of qualified nurse educators. Predictions for the state of Ohio mirror the national picture; however, there is little research about nursing faculty in the state, or their intentions related to their academic role.

This dissertation analyzed what factors, if any, predict intent to leave academe within five years. Participants included 426 full-time nursing faculty from 60 public and private, not-for-profit nursing programs in Ohio, including both pre-licensure and advanced degree programs. A web-based survey was used to obtain faculty data. Blocked stepwise regression analysis revealed four significant predictors of intent to leave academe within five years—age, years ago highest nursing and non-nursing degree were earned, and overall satisfaction.

The results of the research can be used to guide the development of strategies to retain nursing faculty in academe in the state of Ohio. Future research should be encouraged to explore the underlying issue related to the faculty shortage and its implications for the nursing shortage.
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Chapter 1

Introduction

The prediction of a nursing shortage is a frequently discussed topic in health care. An estimated one million registered nurses (RN) will be needed by 2018 due to both job growth and retirements among current practicing nurses (Fulcher & Mullin, 2011). The U.S. Bureau of Labor Statistics (BLS) projects a 26% increase in RN employment by 2020 due to “technological advancements; an increased emphasis on preventative care; and the large, aging baby-boomer population who will demand more health care services as they live longer” (2012, para. 5). In Ohio, the “shortage is projected to be 32,000 nurses or a 29% shortage by 2020” (Health Policy Institute of Ohio [HPIO], 2009, p. 3).

There are multiple reasons for the RN shortage. One significant factor is the shortage of qualified nursing faculty (Allan & Aldebron, 2008; Berlin & Sechrist, 2002; Candela, Gutierrez, & Keating, 2012; Fulcher & Mullin, 2011; Halstead, 2012; National League for Nursing [NLN], 2010; U.S. Department of Health & Human Services [USDHHS], 2010b; Yordy, 2006). Full-time nursing faculty must have a minimum of a master’s degree; a doctoral degree is preferred or required, depending upon the institution and accreditation requirements (Accreditation Commission for Education in Nursing [ACEN], 2013; Commission on Collegiate Nursing Education [CCNE], 2009; Hinshaw, 2001). The concern related to lack of qualified faculty is exacerbated by the age of current nurse educators, many of whom are in their late 50s and plan to retire in 5-10 years (Halstead 2012; NLN, 2010; USDHHS, 2010a). The pipeline of new faculty is not sufficient to replace anticipated retirements (Barlag, 2008; Halstead, 2012; USDHHS, 2010b).
The nursing shortage has led to an interest in nursing as a career for the general public. However, qualified student applicants are turned away from nurse education schools, or are placed on waiting lists for several years, due to the lack of faculty and clinical sites. In 2003, the NLN estimated that 30,000 qualified applicants from all nurse education program types—including practical nurse, diploma, associate degree, baccalaureate, master’s and doctoral programs—were turned away, with upwards of 28% of qualified applicants turned away from nursing schools in 2012 (NLN, 2012; Valiga, 2004). The American Association of Colleges of Nursing (AACN) reports that 58,327 qualified applications were turned away from bachelor of science in nursing programs in 2011 (2011). The increase is alarming, given that the AACN data did not include all program types. In Ohio, 4,863 qualified nursing student applicants were denied admission to the state’s pre-licensure programs in 2011-12 (Ohio Board of Nursing, 2012). The paradox is that, if all qualified student applicants completed nursing programs, the nursing shortage would be alleviated (Allan & Aldebron, 2008).

Allan and Aldebron (2008) noted that the shortage of nursing faculty began in the mid-1990s, when hospitals reduced the number of RNs to contain costs. What followed was a decline in nursing school enrollment, which subsequently led to a reduction in faculty among educational institutions. Institutions offering master’s degrees in nursing focused on management and clinical practice instead of education, leading to decreased interest in nursing education as a career choice (AACN, 2005; USDHHS, 2010b; Valiga, 2004). Strategies to alleviate issues related to limited educational offerings for nurse educators have been developed and are currently being implemented (USDHHS, 2010b).
A number of studies have examined nursing faculty intentions related to their academic role; however, Cranford (2009) notes “intent to stay is inadequately understood in the research and the literature” (p. 95). Factors impacting the educator shortage include faculty compensation, workload, and satisfaction. Nursing faculty salaries are less than comparably educated nurses who choose clinical careers (Allen & Aldebron, 2008; Anderson, 2002; Berlin & Sechrist, 2002; Kaufman, 2007a; NLN, 2010; USDHHS, 2010b). Based on data from the 2005-2006 NLN/Carnegie Foundation National Survey of Nurse Educators, Kaufman (2007a) found that nurse educators earn 33% less than nurse anesthetists, 17% less than nurse managers, and 12% less than nurse practitioners. In addition, nursing educators earn 76% of overall U.S. faculty salaries (Kaufman, 2007a).

Workload also impacts retention of nursing faculty. The NLN/Carnegie survey found that many faculty members work on average 56 hours a week, with administrative duties added to their teaching load (NLN, 2010). In addition, 62% of educators surveyed said they work outside their academic institutions, many in clinical practice (Gazza, 2009; Kaufman, 2007b). This dedication may lead to burnout and difficulty with retention and recruitment. The NLN/Carnegie survey found that 45% of faculty members were dissatisfied with their workload, and 25% said it would be a reason to leave academe (NLN, 2010). Baker, Fitzpatrick, and Griffin (2011) found a lack of current research about the satisfaction of nurse educators, an important area related to recruitment and retention. This study examined the specific factors that influence faculty decisions about intent to stay in academe.
Problem Statement

The nursing faculty shortage is a serious national and statewide issue, given the number of qualified students who are turned away from nursing programs each year, and despite the fact that graduates are desperately needed in health care. Kowalski and Kelley (2013) note “a search of over 85 state board of nursing and nursing workforce center web sites yields remarkably little substantive mention and analysis of each state’s nursing faculty shortage” (p. 70). Little is known about nursing faculty in Ohio, their intent to leave academe, or the specific reasons underlying their decision, which is crucial in developing retention strategies. Anderson (2002) aptly stated, “nursing education needs to discern the root causes of the problem and also look at the environment in which faculty work, and develop effective solutions that will attract more individuals to academic positions” (p. 43).

Purpose of the Dissertation

The purpose of this study was to identify factors, including level of education, demographics, institutional characteristics, workload, job characteristics, productivity, the adequacy of the workplace and its resources, rewards, flexibility, visibility, and satisfaction with work life that influence full-time nursing faculty intent to leave academe in the state of Ohio.

Research Questions

1. What influence, if any, do selected faculty characteristics have on full-time, Ohio nursing faculty intent to leave academe in the next five years?

2. What influence, if any, do institutional characteristics have on full-time, Ohio nursing faculty intent to leave academe in the next five years?
3. What influence, if any, do selected environmental characteristics have on full-time, Ohio nursing faculty intent to leave academe in the next five?

**Theoretical Framework**

Two theories informed this study: involvement theory and turnover theory. Involvement theory characterizes the degree of involvement faculty members have in the academic environment (Astin, 1985). Astin (1985) defines involvement as the “amount of physical and psychological energy that the [faculty member] devotes to the academic experience” (p.134). Involvement is a key factor in overall faculty satisfaction and productivity. Astin (1985) acknowledges that other external life factors compete with a faculty member’s degree of involvement. Turnover theory examines some of these external factors that influence faculty choices.

Turnover theory focuses on individual behavior choices, and examines the multiple variables that influence turnover. According to Mobley (1982), empirical research historically examined individual factors related to turnover, with satisfaction being the variable studied most frequently. However, he felt development of a theoretical model that examined the interaction of all factors influencing turnover was needed (Mobley, 1982). Mobley’s model included major turnover factors identified in the literature. These two theories, involvement and turnover, were applied through the lens of Astin’s Input-Environment-Outcome (I-E-O) conceptual model (see Figure 1).

**Conceptual Framework**

Astin views education as an experience that develops student and faculty talent (Astin, 1985). Astin’s I-E-O model is based on the premise that faculty members enter higher education with *inputs* (I), which are the academic and non-academic factors that
influence their career. Faculty encounters a variety of experiences, which are influences in the \textit{environment} (E). The combination of I and E leads to \textit{outcomes} (O), which is talent development (Astin, 1991). Talent development for faculty includes such characteristics as “teaching ability, mentoring ability, and scholarly ability and productivity” (Astin, 1985, p. 61). The outcome is the result of input and environmental characteristics. The true impact of the environment can only be determined by controlling for the influence of input characteristics.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{astin-model.png}
\caption{Astin’s I-E-O Model (1991)}
\end{figure}

Astin’s model provides an excellent framework for this study. Relevant inputs include such demographics as gender, age, race, the highest degree earned by full-time faculty, and job characteristics and rank. Environmental factors include: workload; productivity; adequacy of the workplace and its resources; satisfaction with work life; and rewards, flexibility, and visibility. The outcome studied was full-time nursing faculty intent to leave academe in Ohio.

\textbf{Significance of the Dissertation}

The nursing shortage is a major health care concern, and the nursing faculty shortage a major contributor to the problem, both at a state and national level. Berlin and Sechrist (2002) stated, “the key issue that deserves immediate attention is the increasing number of faculty leaving academia. Further study of the full range of issues
contributing to this problem is imperative” (p. 55). Retaining nursing faculty is critical, as they are essential in addressing the pending nursing shortage.

Ohio is an intensive health care region, with registered nursing the largest occupation (Ohio Department of Job and Family Services [ODJFS], 2009). “Health care…accounts for approximately one out of every eight payroll jobs in Ohio. It is expected to be one of the fastest-growing sectors of the economy over the next ten years” (Ohio Department of Job and Family Services [ODJFS, 2009, p. 3). Health care is projected to create more new jobs than any other industry both nationally and at the state level between 2006-2016 (ODJFS, 2009).

However, there is a serious lack of data and empirical studies related to nursing faculty members. The Ohio Nursing Education Study Committee stated, “Ohio is lacking substantial statewide statistics on the nursing workforce” (Health Policy Institute of Ohio [HPIO], 2009, p. 18). Although the Ohio Board of Nursing requires pre-licensure nursing programs to include projections about expanding program capacity and projected faculty needs, the data are only an estimate, and may not be consistently reported from program to program (OBN, 2012). ODJFS (2009) anticipates that the need for nursing faculty will not meet the demand. It is critical to understand why faculty intends to leave academe, in order to guide policy and practice in the state. The empirical findings of the dissertation provide nursing education and health care associations with specific data that can be used for the development of strategies to facilitate retention of nurse educators.

This dissertation definitely fills a gap in the literature for the state of Ohio. Further, it establishes a model that can be replicated in other states.
Definition of Terms

The following definitions are common terms used throughout the dissertation.

Accreditation Commission for Education in Nursing (ACEN) – provides specialized accreditation of clinical doctorate, master’s, baccalaureate, associate, diploma, and practical nursing programs.

American Association of Colleges of Nursing (AACN) – the national organization representing baccalaureate and higher-degree nursing education.

ADN – associate degree in nursing, one of three educational pathways leading to the role of registered nurse.

All program types – refers to inclusion of data from diploma, associate, baccalaureate, and graduate degree faculty and programs in surveys and research studies.

American Nurses Association (ANA) – the “only full-service professional organization representing the interests of the nation's 3.1 million registered nurses through its constituent and state nurses associations and its organizational affiliates. The ANA advances the nursing profession by fostering high standards of nursing practice, promoting the rights of nurses in the workplace, projecting a positive and realistic view of nursing, and by lobbying the Congress and regulatory agencies on health care issues affecting nurses and the public” (ANA, 2013, About ANA, para. 1).

Blocks – variables that are grouped together due to shared characteristics. A block is entered into a multiple regression in a sequential or hierarchical order.

Clinical expertise – “the ability to analyze evidence about a treatment, determine its appropriateness for a particular patient, and deliver the right treatment at the right time” (Gerolamo & Roemer, 2011, p. 260).
Commission on Collegiate Nursing Education (CCNE) – a national nursing accreditation agency designed to ensure the quality and integrity of baccalaureate, graduate, and residency programs in nursing.

Diploma nursing program – a three-year, hospital-based, education program option for entry-level nursing students.

Doctor of Nursing Practice (DNP) – a clinical or professional doctorate designed to focus on nursing clinical practice as opposed to research (Loomis, Willard, & Cohen, 2006.)

Employee turnover – the voluntary “cessation of membership in an organization by an individual who received monetary compensation from the organization” (Mobley, 1982, p. 10).

I-E-O – Astin’s input-environment-output conceptual framework.

Involvement – “the amount of physical and psychological energy that the [faculty member] devotes to the academic experience” (Astin, 1985, p.134).

Integrated Postsecondary Education Data System (IPEDS) – “the primary source for data on colleges, universities, and technical and vocational postsecondary institutions in the United States” (U.S. Department of Education, n.d., Welcome to IPEDS section, para. 1).

Licensed practical nurse (LPN) – the most basic level of nursing. LPNs function according to each state’s Nurse Practice Act and perform tasks as delegated by the registered nurse (Scheckel, 2009).

National League for Nursing (NLN) – a national organization that represents nurse educators.
Northeast Ohio Nursing Initiative (NEONI) – “[NEONI] works to develop, implement and sustain healthcare workforce collaboratives that empower, strengthen and grow the Northeast Ohio healthcare workforce….The intent of NEONI is to create and sustain a strong professional healthcare workforce in Northeast Ohio by attracting individuals to the profession, facilitating education and increasing public understanding of the healthcare workforce shortage across the region” (Center for Health Affairs, 2014).

Ohio Action Coalition – “The Ohio Action Coalition, led by the Ohio League for Nursing and the Ohio Hospital Association, is working to create innovative solutions where nurses are leading the way to address Ohio’s health challenges” (Future of Nursing Campaign for Action, n.d., State action coalition section, para. 1).

Ohio Board of Nursing (OBN) – a nursing regulatory board that “exists solely to enforce the law and rules regulating practice” (OBN, 2011). OBN approves pre-licensure nursing programs.

Ohio Council of Associate Degree Nursing Education Administrators (OCADNEA) – “The purpose of the Council is to formulate, disseminate and interchange ideas and information for the promotion of the definition, functions, education and role of associate degree nurses” (OCADNEA, 2010, Mission).

Ohio Council of Deans and Directors of Baccalaureate and Higher Degree Nursing Programs (OCDD) – an organization that promotes activities, including public policy development, to support nursing education, with a focus on baccalaureate and higher degree programs (OCDD, n.d.).

Ohio League for Nursing (OLN) – a state-level constituent of the National League for Nursing (NLN), with a vision of addressing “nursing education issues through
advocacy and leadership” (OLN, n.d., Vision, mission, and goals).

Registered nurse (RN) – a licensed professional who has graduated from an accredited and approved program of nursing and who possesses the competencies required to provide and coordinate safe patient care.

Shared service(s) agreements – according to Massey (2010), an “organizational collaboration in service provision” (p. 1).

Statistical Package for the Social Sciences (SPSS) – a statistical software package used to analyze quantitative data.

U.S. Department of Health and Human Services (USDHHS) – “The Department of Health and Human Services (HHS) is the United States government’s principal agency for protecting the health of all Americans and providing essential human services, especially for those who are least able to help themselves” (USDHHS, n.d., About us section, para. 1).

Delimitations

A delimitation is “a boundary to which a study was deliberately confined” (Pyrczak & Bruce, 2007, p. 73). The first delimitation of this study was including only public and private, not-for-profit schools. For-profit institutions were eliminated from the study, as information about full-time faculty was not accessible via college websites. Diploma programs were eliminated, as institutional characteristics, which were study variables, were not available through IPEDS.

The second delimitation was only including nursing faculty from Ohio. The third delimitation is the focus on intent to leave as the dependent variable, as opposed to choosing a different variable.
Limitations

A limitation is “a weakness or handicap that potentially limits the validity of the results” (Pyrczak & Bruce, 2007, p. 73). There are five limitations in this study. The first includes the limited sample of faculty from Ohio. This limitation impacts the ability to generalize the findings to a broader faculty population (Pyrczak, 2008). A second limitation is the survey focus on full-time faculty only, which eliminates any consideration of the role of part-time faculty in the faculty shortage. The third limitation is the fact that the research is limited to the data collected in the survey. There was no opportunity to obtain additional information from participants related to intent to leave. The fourth limitation is the fact that the data were based on one point in time and did not account for factors that may have temporarily impacted faculty consideration of intent to leave.

The last limitation is the researcher’s professional background. The researcher is a faculty member and program director of an associate-degree nursing program. The researcher was highly interested in studying nursing faculty members and their intentions related to academia. However, the researcher’s background may have resulted in bias.

Summary

This chapter of the dissertation discussed problems related to the nursing faculty shortage, identified gaps in the literature, and stated the research questions. The remaining chapters of this dissertation include the literature review, the methodology, the results, and discussion. Chapter 2, the review of the literature, provides the background and rationale for this study. Empirical research related to the nursing faculty shortage and related issues are discussed in detail. Astin’s involvement theory and Mobley’s
turnover theory frame the study, with Astin’s I-E-O model providing the conceptual framework. The study’s methodology is described in Chapter 3 and includes discussion of the sample participants, instrumentation, and the data collection and analysis procedures. Chapter 4 focuses on the results of the research, including detailed quantitative findings for each research question. Chapter 5 summarizes the study and discusses the findings and conclusions, including practice implications and recommendations for further research. This chapter provides useful information for identifying priorities and developing strategies related to the nursing faculty shortage.
Chapter 2

Literature Review

Introduction

This dissertation examined factors that lead full-time nursing faculty to leave the profession; factors which, by extension, impact the current nursing shortage (Allan & Aldebron, 2008; Berlin & Sechrist, 2002; Candela et al., 2012; Fulcher & Mullin, 2011; NLN, 2010; USDHHS, 2010b; Yordy, 2006). The nursing faculty shortage is well documented, but few studies have focused on faculty retention (Tourangeau, Thomson, Saari, Widger, Ferron, & MacMillan, 2012). “There are no recent nationwide studies relating to the work life of faculty and their intent for moving into, staying, or leaving the role” (Candela et al., 2012, p. 2). It is essential to determine faculty intent related to academic roles, so that strategies can be developed to retain and attract nurses to academia (Anderson, 2002).

An understanding of the context and cause of the problem, and the research in this area, is important to understanding the critical nature of the study. The literature review begins with a discussion of the overall nursing shortage, including the history and cause of the shortage, the effect on the quality of patient care, and current issues impacting the shortage. The literature review then focuses on nursing educational pathways, which play a major role in the faculty shortage. Concerns at both the pre-licensure and graduate level are highlighted.

The next section of the literature review focuses on overall issues related to the faculty shortage, followed by an examination of specific factors, including faculty age, compensation, work environment, workload, satisfaction, faculty intent to leave academe,
and strategies to address the faculty shortage. The theoretical and conceptual frameworks that inform the study are discussed in the last section of the literature review. This section sets the stage for the discussion of the research methodology found in Chapter 3.

**Nursing Shortage**

Predictions of a nursing shortage are evident in the literature (Aiken, Cheung, & Olds, 2009; Allen, 2008; Buerhaus, Auerbach, & Staiger, 2009; Duvall & Andrews, 2010; Hassmiller & Cozine, 2006; Janiszewski Goodin, 2003). The nursing shortage began in the late 1990s as hospital reimbursement mechanisms became more restrictive. Hospitals downsized, replacing registered nurses (RNs) with non-licensed personnel so as to reduce costs, which also led to a decline in nursing recruitment efforts (Allen, 2008). Nurses were stressed by deteriorating bedside conditions, so many left the field (Allen, 2008; Shipman & Hooten, 2008). Societal factors also played a role, as increasing career opportunities became available for women outside of nursing (Allen, 2008; Hinshaw, 2001). Salaries in nursing were not competitive, the work environment was poor, and the hours were undesirable (Allen, 2008).

Patient outcomes declined as the number of RNs in the staffing mix decreased (Hassmiller & Cozine, 2006; Shipman, & Hooten, 2008). In 2002, an estimated 24% of negative patient occurrences were related to low RN staffing levels (LaRocco, 2006). Hospitals recognized the significant role RNs played in patient outcome, and responded by creating new nursing positions. In addition to increased job availability, working conditions and flexibility in scheduling improved as hospitals sought to lure nurses back to the bedside (Allen, 2008). Public relations and recruitment campaigns intensified as the need for nurses peaked in 2002 (Allen, 2008; LaRocco, 2006). Educational
incentives, such as loan forgiveness programs, increased the number of students interested in nursing as a career choice (Allen, 2008).

The start of the 2007 recession led to a temporary reprieve from the nursing shortage, as nurses who were not employed returned to the workforce, due to the failing economy (Buerhaus et al., 2009). The USDHHS report, *Registered Nurse Population: Findings from the 2008 National Sample Survey of Registered Nurses* (2010a) showed that in 2008, 84% of licensed RNs were employed, representing the largest rate of RN employment since 1977. However, as the economy improves, yet another imbalance in the supply and demand for nurses is anticipated (Buerhaus et al., 2009). Aiken et al. (2009) estimates 587,000 jobs will be available between 2006 and 2016, due to job growth and attrition. An RN vacancy rate of 36% is anticipated by 2020 (Shipman & Hooten, 2008).

Nursing schools will need to graduate as many as 50% more graduates to account for this projected demand (Yordy, 2006). Buerhaus et al. (2009) warn against complacency in the face of the current reprieve. They recommend using this time to prepare for the long-term, which forecasts a significant shortage.

The age of current RNs is also a concern. Duvall and Andrews (2010) project that 36.4% of nurses will be 50-64 years of age by 2015, resulting in an increased rate of retirement. The USDHHS estimates that 1 million RNs will reach retirement age in the next 10-15 years (USDHHS, 2013). “Retirement of large numbers of RNs over the next two decades means a loss of experiential knowledge and leadership brought to the workforce by seasoned RNs” (USDHHS, 2013, p. 22).
The average age of RNs in Ohio is 47 and 40 percent of Ohio’s RNs (more than 61,000) are expected to leave the field, primarily due to retirement, within the next 10 years” (Ohio Hospital Association [OHA], 2011, p. 6). The retirement of these seasoned nurses coincides with increasing numbers of individuals requiring access to health care, due to health care reform and aging baby boomers with increasing health problems (OHA, 2011).

Nursing requires physical stamina, and the risk of injury is significant; therefore, retirement rates among RNs occur at an earlier age than in the general population (Duvall & Andrews, 2010). There is also a concern about the future pipeline of nurses (Duvall & Andrews, 2010). LaRocco (2006) stated that, in 1980, 25% of nurses were under the age of 30, but in 2000, this decreased to 9%. In addition to concerns about the age of current nurses, other reasons cited for the nursing shortage include poor working conditions and fewer nurses in the field (Allen, 2008; Buerhaus et al., 2009; Hassmiller & Cozine, 2006; Janiszewski Goodin, 2003; Viterito & Teich, 2002). Duvall and Andrews (2010) found that psychosocial factors, such as poor relationships with physicians and verbal abuse from peers, patients, and families, as well as environmental factors, such as strenuous physical labor, risk of injury, and the need for improved leadership, lead to nurse dissatisfaction. There is confusion about the nursing role, due in part to the multiple education pathways leading to the profession. Nursing is not viewed as an “intellectual enterprise,” despite the complexity inherent in the role (Janiszewski Goodin, 2003, p. 338).

The nursing shortage has a direct impact on the quality of patient care (Hassmiller & Cozine, 2006). A survey of nurses and chief nursing officers indicated that the quality
of patient care is directly impacted by the nursing shortage (Duvall & Andrews, 2010). Both groups reported that nurses have inadequate time to spend with patients for early detection of complications and to maintain a safe environment. This leaves nurses feeling stressed and dissatisfied.

In any discussion of the nursing shortage, the shortage of nursing faculty is cited as one of the major causative factors (Aiken et al., 2009; Allen, 2008; Buerhaus et al., 2009; Candela et al., 2012; Duvall & Andrews, 2010; Hassmiller & Cozine, 2006; USDHHS, 2010b; Janiszewski Goodin, 2003; Viterito & Teich, 2002). When the nursing shortage peaked in 2002, leading to a rush of student applications, academic institutions were not prepared, resulting in significant numbers of qualified applicants being turned away. In the current environment, the situation could worsen, as the capacity of some education programs are impacted by budget cuts. Health care reform will increase the need for and role of nurses, so the need for nursing education is critical (Aiken et al., 2009). Duvall and Andrews (2010) and Hassmiller and Cozine (2006) recommend research to examine capacity constraints and to identify viable solutions. It is imperative that students be admitted to nursing programs now to prevent a worsening of the nursing shortage (Aiken et al., 2009).

**RN Educational Pathways**

Discussion of educational pathways for RNs, both at the pre-licensure and graduate level, is an important precursor to discussion of the faculty shortage. There are three primary pre-licensure educational options: diploma, associate degree (ADN), and baccalaureate degree (BSN). There is currently no differentiation in entry-level job duties, title, or salary based on the degree earned (Scheckel, 2009). In the United States,
all nursing graduates take the same licensure examination, which “requires a candidate for licensure to pass an examination that measures the competencies needed to perform safely and effectively as a newly licensed, entry-level nurse” (National Council of State Boards of Nursing [NCSBN], 2012, para. 1).

Diploma programs are hospital-based and are typically three years in length. Diploma programs educated 63.7% of nurses in 1980, dropping to 20.4% by 2008, and the percentages continue to decrease (USDHHS, 2010b). In Ohio, 20% of licensed RNs earned their initial nursing degree in a diploma program (OBN, 2013). A 1965 American Nurse Association (ANA) position statement recommended that nursing education occur in institutions of higher learning (Lysaught, 1970). This position statement resulted in the growth of both associate and baccalaureate programs, with a subsequent decline in diploma programs.

Associate degree nursing programs take at least two years to complete and currently educate the majority of nurses (Fulcher & Mullin, 2011). According to USDHHS, ADN programs graduated 45.4% of nurses in 2008, compared to 34.2% from BSN programs (USDHHS, 2010a). In Ohio, 44% of licensed RNs earned their initial nursing degree in an ADN program (OBN, 2013). Data from the USDHHS (2013), indicates that 60% of first-time NCLEX test takers are from non-bachelor’s prepared RN candidates, with 95% of this group from ADN programs.

Baccalaureate programs traditionally take four years to complete, but now offer accelerated options. Accelerated programs are for students with a bachelor’s degree in another field, with program length ranging from 11-18 months (Raines & Taglaireni, 2008). There are also RN-to-BSN bridge programs designed to provide seamless
transition from ADN-to-BSN programs, thus encouraging advanced education (Raines & Taglaieni, 2008).

The pre-licensure educational pathway chosen by students has a direct impact on the educator shortage. “In Ohio, the initial education level of 37% of RNs is an associate degree; 23% started at the bachelor’s degree level; and 29% started with Diploma programs” (OHA, 2011, p. 6). Although equal numbers of ADN and BSN graduates continue their education, it is most typically to the next degree level (Aiken et al., 2009). Aiken et al. (2009) found “only 6 percent of nurses who initially obtained an ADN had gone on to earn a master of science in nursing (MSN) degree or doctorate by 2004, nearly 20 percent of the initially BSN-prepared nurses had done so” (para. 13). As an MSN is the minimum requirement to teach full-time in ADN programs and a doctorate (PhD or doctor of nursing practice) required or preferred in BSN programs, this means ADN graduates, who comprise the majority of nurses, are not qualified to teach (Accreditation Commission for Education in Nursing [ACEN], 2013; CCNE, 2009; Hinshaw, 2001). These pre-licensure enrollment patterns have a tremendous impact on the faculty shortage.

Graduate education also impacts the faculty shortage. The American Association of College Nursing (AACN) estimates “13,198 qualified applicants were turned away from master's programs, and 1,156 qualified applicants were turned away from doctoral programs” primarily due to the faculty shortage (2012, para. 11). There are also a limited number of MSN programs that offer an education track as part of the degree (Cathro, 2011). The number of graduates from MSN programs focused on education has decreased significantly. In 1977, 24.9% of MSN graduates were nursing education
majors, compared to 11.3% in 1994 and 5.9% in 2004 (AACN, 2005). The majority of graduates are prepared for advanced practice roles with no background in educational theory (Tanner, 2005).

Potential advanced-degree students are concerned about the lack of financial aid for graduate school, and the loss of income due to school commitments, particularly in programs that do not offer flexible schedules (AACN, 2005; Cathro, 2011; Yordy, 2006). The economic decline has led to cutbacks in employer-assisted tuition reimbursement, aggravating the situation (Cathro, 2011). More than half of nursing graduate students enroll part-time, which increases the length of time to prepare them for the faculty role (Livsey, Campbell, & Green, 2007).

Acceptance into an MSN program traditionally requires clinical work experience (Allen, 2008; Anderson, 2002; McDermid, Peters, Jackson, & Daly, 2012; Potempa, Redman, & Landstrom, 2009; Yordy, 2006). As a result, nurses who begin their graduate education are often older, compared to students in other academic disciplines. This requirement has the advantage of offsetting the nursing shortage, but it creates a problem related to the faculty shortage. Berlin & Sechrist (2002) reported that in 1999, 48.8% of nursing doctoral graduates were between 45-54 years of age, 12% were older than 55, and only 6.8% were younger than 35. AACN (2005) reported the median age of nursing doctoral graduates in 2002 was 47.7 years, compared to 33.3 years for non-nursing doctoral graduates that same year, which is a significant difference (AACN, 2005; Berlin & Sechrist, 2002). This means nurses with doctoral degrees have fewer productive years, given that the average age of retirement is 62.5 (Berlin & Sechrist, 2002; Yordy, 2006).
Another concern cited is that it takes nurses approximately 15.9 years between “entry in a graduate program to completion of the doctorate,” compared to 8.5 years for graduates in other fields (Berlin & Sechrist, 2002, p. 52). There are now programs that facilitate earlier attainment of advanced degrees, including pathways for baccalaureate to research-focused doctoral programs and baccalaureate-to-DNP programs (AACN, 2012).

Approximately 46.9% of faculty teaching in BSN programs holds a doctoral degree, which is low compared to other academic disciplines (AACN, 2012; Hinshaw, 2001). In examining all program types, only one-third of nursing faculty hold a doctoral degree, compared with 60% of all academic faculty members (Kaufman, 2007c). The low numbers of doctoral faculty impacts rank, compensation, and tenure. Some of the reasons for the lack of doctoral-prepared faculty include the faculty shortage, educational costs, inadequate academic salaries, and a lack of interest in academics as a career path (Hinshaw, 2001).

There are also concerns about the impact of the DNP degree, which is a clinical practice doctorate, on the faculty shortage. Most academic institutions require a PhD for tenure-track faculty (Loomis et al., 2006). The DNP degree decreases the number of nurses seeking a PhD, thus impacting the number of doctoral-prepared nurses prepared to conduct research and teach at the university level (Hinshaw, 2001; Tanner, 2005).

The current number of nurses completing graduate school is not enough to replace retiring faculty (Cathro, 2011). “Unfortunately, too few nurses choose to advance their education to the graduate level, despite the great need for nurse practitioners, clinical nurse specialists, nurse anesthetists, nurse midwives, researchers, faculty, administrators, and other roles requiring expert level preparation” (Raines & Taglaireni, 2008, para. 1).
One percent of nurses hold an MSN or doctoral degree, and only 8-12% of MSN graduates become educators (Duvall & Andrews, 2010; USDHHS, 2010b; McDermid et al., 2012). At the doctoral level, 37% of PhD graduates enter academia, with only 33% of DNP graduates entering academia (USDHHS, 2010b). There are not enough nurses interested in advanced degrees, and those that have the degrees are not interested in academe. The impact is significant for nursing education.

Although more than half of nurse educators in BSN programs are educated at the master’s level, Bartels (2007) advocates that it should be “doctoral programs in nursing that prepares individuals for the academic roles of teaching, research/scholarship, and professional service, as well as for the roles of advanced clinicians and administrators” (p. 154). The 2010 Institute of Medicine report, *Future of Nursing*, recommended doubling the numbers of nurses with doctoral degrees (McDermid et al., 2012). However, increasing the number of nurses with doctoral degrees may not positively impact the faculty shortage, as many are already employed in academic positions (AACN, 2005; Valiga, 2004).

The spectrum of nursing education from entry-level to a terminal degree is complex and confusing. The public has difficulty understanding the differences in the various degrees, and there are genuine concerns about the impact on the faculty shortage. There is also disagreement within the profession about the best educational strategies needed to address the faculty shortage.

**Faculty Shortage**

There have been three major sources of national, quantitative data related to the faculty shortage that have focused on all program types: the National League for Nursing
(NLN), the NLN/Carnegie Foundation, and the USDHHS. NLN conducts periodic surveys to identify factors that influence the faculty workforce. The National Study of Faculty Role Satisfaction, conducted in 2003, surveyed 5,561 full-time faculty members (NLN, 2005b). The NLN/Carnegie National Survey of Nurse Educators, conducted in 2006, included 8,498 full-time faculty members (Kaufman, 2007c). The NLN also conducted a Faculty Census Survey of RN and Graduate Programs in 2006, which surveyed 801 nursing programs to obtain faculty data (Kovner, Fairchild, & Jacobson, 2006). The USDHHS conducted a National Sample Survey of Registered Nurses in 2008, which included a subsection related to nursing educators. The survey, conducted every four years, is the principal data source for predictions of supply and demand in nursing (USDHHS, 2010a). One limitation of the data is that it reports raw numbers and percentages. Further statistical analysis was not reported in the survey report, but the data are still useful in setting the stage for issues related to the faculty shortage. In addition, AACN reports findings on baccalaureate and graduate degree faculty issues on a regular basis. Individual states also monitor the current status of the faculty shortage. These reports provide essential data, but leave many unanswered questions about the faculty shortage. Some of the major faculty shortage issues identified in these studies include the age of nursing faculty, compensation, satisfaction, and workload. An overview of these issues follows.

Age was a major concern in the USDHHS survey, the 2003 and 2006 NLN surveys, and the NLN/Carnegie Foundation study. Thirty-nine percent of full-time faculty members were over the age of 55, with an additional 21% aged 50-54 (USDHHS, 2010a, p. 4-2). This means that in 2008, 60% of full-time nurse educators were over the
age of 50. As the average age of retirement for nursing faculty has been reported to be 62.5 years of age, the majority of these faculty members will be eligible to retire by 2020 (Berlin & Sechrist, 2002; Yordy, 2006).

Compensation is a significant factor in the faculty shortage. The average annual salary for full-time faculty in 2008 was $63,985, while average annual earnings for RNs who hold an MSN degree earn $87,363 per annum (USDHHS, 2010a, p. 4-6). It is a struggle for academia to compete with the clinical arena, given the national compensation figures.

Satisfaction has also been cited as a driver of the faculty shortage. Overall, faculty members are more satisfied in their teaching role than RNs in practice. ADN faculty members are slightly more satisfied than faculty teaching in BSN and higher degree programs (USDHHS, 2010a). The USDHHS survey did not include specific questions related to satisfaction, so there is no indication as to the reason for increased ADN faculty satisfaction. Satisfaction is a key variable in discussing intent to leave academe, so data related to this variable are critical, and are discussed in detail later in the literature review.

Workload was an area of concern identified in the NLN/Carnegie Foundation study. Nursing faculty report working an average of 56-58 hours/week, compared to 45-55 hours/week for non-nursing faculty (Kaufman, 2007c). Nurse educators also report working an average of 24-31 hours/week during academic breaks (Kaufman, 2007b). Workload is a major source of dissatisfaction and is cited as a reason for leaving academe (Kaufman, 2007b).

Understanding the scope of the faculty shortage is important. Since 2000, AACN
has conducted an annual survey of faculty from BSN and higher degree programs to assess the current state of the faculty shortage (Fang & Yan Li, n.d.). The *Special Survey on Vacant Faculty Positions for Academic Year 2012-2013* data indicates that the total number of full-time, budgeted vacancies is 7.6%, with 15.6% of schools reporting the need for additional faculty beyond budgeted positions (Fang & Yan Li, n.d.). Baccalaureate and graduate schools reported that 10.3% of vacancies were left unfilled (Fang & Yan Li, n.d.). The majority of the vacant positions, 56.3%, require a doctoral degree, which is an issue, given the shortage of faculty prepared at this level (Kaufman, 2007c). The 2006 NLN *Faculty Census Survey* showed the faculty vacancy rates for ADN programs were 5.9%, a 10% increase from 2002 (Kovner et al., 2006). These vacancy rates place an added burden on remaining faculty, which can result in retention problems.

The reasons cited for inability to hire faculty included lack of funding, lack of administrative support for new positions, marketplace competition, and lack of qualified applicants in the region (Fang & Yan Li, n.d.). According to the NLN, “many schools reported placing limits on student admissions, increasing class sizes, assigning faculty to teach outside of their areas of expertise, or delaying students progression in their programs as ways to deal with [faculty] vacancies” (Valiga, 2004, p. 4). Lack of institutional funding for faculty positions is a major concern, particularly with budget cuts in higher education (Allan & Aldebron, 2008; Yordy, 2006). Some schools offer increased salaries to new hires, reduce the teaching load of new faculty, and hire more part-time faculty to fill the gap (Kovner et al., 2006). These strategies have the potential to create resentment among senior faculty.
Another reason for inability to hire faculty is decreased interest in academe as a career choice. In reviewing trends from the 1992, 1996, and 2000, *The National Sample Survey of Registered Nurses* reports the proportion of nurses with a doctorate employed as faculty in BSN or higher programs declined steadily from 68% in 1992 to 49% in 2000 (AACN, 2005). The decreasing interest in academe for faculty with doctoral degrees is yet another cause for concern.

One reason for decreased interest is that the nursing faculty role has expectations beyond that of faculty in other academic disciplines (AACN, 2005; Candela et al., 2012; Shirey, 2006). Most nursing faculty members work with students in clinical settings, with an estimated 20% of their faculty time devoted to clinical supervision (AACN, 2005; Kaufman, 2007b). This requires that faculty maintain clinical competence in order to provide safe care to patients with high levels of acuity (McDermid et al., 2012). Competition for clinical sites makes planning experiences for students challenging (Cleary, McBride, McClure, & Reinhard, 2009). Limited clinical sites demand creative solutions, such as the use of simulation. However, regulatory bodies restrict these educational avenues, leading to frustration for faculty (Cleary et al., 2009).

In addition, nursing curricula must be updated frequently in response to the changing health care environment (AACN, 2005). Nursing programs now offer evening, weekend, and year-round accelerated options, which impact the flexibility that previously existed in the faculty schedule (Barlag, 2008). These factors increase the stress and workload of nursing faculty, leading to burnout and difficulty with retention and recruitment (Shirey, 2006). These educational priorities also decrease the amount of time faculty members have to devote to research and scholarship (Potempa et al., 2009).
Several phenomenological studies have examined factors that impact the faculty shortage. The phenomenological approach describes the experience from the individual’s perspective, which provides insights not evident in quantitative methodology (Herron, 2007; Klocke, 2009). Klocke (2009) examined the perspective of MSN-prepared faculty from all program types, compared to MSN individuals working in the clinical realm, to explore their perceptions of the faculty shortage. Participants felt that compensation, multiple career options, lack of education-focused MSN programs, and a low number of master’s-prepared nurses contributed to the shortage. Participant comments mirrored the results of quantitative studies, which indicated that working with students was a motivating factor for working in academe. Non-faculty nurses viewed themselves as educators, despite not being in the formal academic role.

A study by Herron (2007) examined gender issues impacting the shortage. Nursing is a predominately female profession, with the NLN 2009 faculty census survey noting that 95% of full-time faculty members are female (Kaufman, 2009). The research demonstrated that nursing faculty participants perceived inequities in salary and work environments based on gender. Participants felt that nursing educators were not valued in higher education, as evidenced by stricter tenure policies, fewer women in administrative roles, and lack of responsiveness to the shortage. Gender characteristics also contributed to the stress and burnout felt by nursing faculty. Anderson (2002) also questions the role of gender in salary inequities. She notes that in many disciplines, such as law, that academicians make less than counterparts in the field. However, their academic salaries tend to be at the high end of the spectrum, which is not the case in nursing education. Astin (1985) noted the same gender-based concerns in his research.
Another qualitative study focused on 22 nursing faculty from all program types, following their journey from their pre-entry education to their current academic position. Smith (2012) studied factors that influence an RN to move into academe. Smith (2012) found that the study participants did not enter academe for financial gain. Family and the flexible academic schedule that accompanies teaching was a primary motivating factor. However, participants reported they were surprised by the academic workload once they became faculty. Self-fulfillment and the rewards associated with teaching were also significant variables. Interactions with others, particularly nursing peers and faculty, influenced their decision to enter academe (Smith, 2012). The need to advance their education in order to teach was not a deterrent to the participants, though Smith notes that it took an average of 18 years from the time of the initial degree to obtain the advanced degree that qualified them to teach. Faculty entered academe at an average age of 42, which supports the quantitative studies cited earlier.

Although quantitative studies, which are primarily derived from surveys, result in useful data, qualitative studies provide in-depth, personal descriptions of individual experiences. The limited sample size prohibits generalizing the findings, but can be used to support quantitative data, develop strategies to address the shortage, and derive future research questions. Survey research does not provide the richness that qualitative research uncovers. Smith’s (2012) conclusion that, despite efforts to address the faculty shortage for years, little progress has occurred, is valid when considering the extensive research into the faculty shortage, dating back to the late ’90s.

The following sections expand on the major issues related to the faculty shortage, specifically faculty age and retirements, compensation, workload, work environment,
satisfaction, faculty intent to stay or leave academics, and strategies to alleviate the faculty shortage. Relevant empirical studies and national literature are analyzed to provide insights into this significant issue.

**Age and retirement.** Faculty age and pending retirements have been cited as major contributing factors to the faculty shortage (AACN, 2011; Allen, 2008; Berlin & Sechrist, 2002; Halstead, 2012; Hinshaw, 2001; Kaufman, 2007c; USDHHS, 2010a). In 2009, the NLN reported that 30% of full-time faculty members were 60 and older; 63% were 46-60 years of age; 6% were 30-45 years of age; and 0.7% were under 30 years of age (NLN, 2009). Nursing faculty members are aging, and there are an inadequate number of junior faculty members. In Ohio, the Ohio Nursing Education Study Committee estimates that 3,600 nurse educators will need to be replaced by 2018, which is approximately 40% of the state’s nursing faculty members (Health Policy Institute of Ohio [HPIO], 2009).

The 2003 NLN *National Study of Faculty Role Satisfaction* found that the age of faculty decreased across program type (NLN, 2005b). Faculty members who taught in graduate programs were the oldest, followed by BSN faculty, then, in decreasing order, ADN faculty, diploma faculty, and licensed practical nurse (LPN) faculty (NLN, 2005b). This has implications for educational programs due to expected retirements. Graduate programs will experience the highest rate of impact from retirements; LPN programs will be impacted the least.

An estimated “200-300 Doctorally-prepared faculty will be eligible for retirement each year between 2003 and 2012 while 220-280 Master's-prepared nurse faculty will be eligible for retirement between 2012 and 2018” (Barlag, 2008, p. 1). Given the current
vacancy rates for budgeted positions and the need for additional faculty positions to meet enrollment trends, the loss of these faculty members will worsen the current situation.

One proposed strategy to mitigate the faculty shortage is to retain older nursing faculty. Understanding the factors that are important to faculty considering retirement is important when considering this strategy. Kowalski, Dalley, and Weigand (2006) conducted a cross-sectional, randomized study of 129 nurse educators teaching in BSN and graduate programs. The survey tool was designed to determine the personal decisions that influenced faculty retirement plans.

The major categories considered by retirement-age faculty included workplace issues, financial security, personal and family health, and attitudes about retirement (Kowalski et al., 2006). Job satisfaction was the most important workplace issue, with 77.5% of respondents indicating that this was very influential in their retirement decision. Another relevant workplace issue was the type of retirement plan available, as financial security was the most important factor when considering retirement (Kowalski et al., 2006). Another factor in making the decision to retire was support from significant others. The mean age of planned retirement was 64. Despite removal of a federal retirement age mandate, participants did not want to work after the age of 65 (Kowalski et al., 2006). The retirement age reported by Kowalski et al. (2006) is higher than reported in previous studies. However, the sample size was small, and the study was limited to BSN and graduate faculty. This dissertation provides data about faculty intentions to retire based on age, providing important statewide data.

Williamson, Cook, Salmeron, and Burton (2010) studied factors influencing retention of retirement age faculty in a qualitative study of six faculty members from all
program types. Faculty indicated that work was important for sustaining health, though some indicated the need for accommodations due to their age. Maintenance of relationships was critical to prevent the isolation sometimes found in retirement. As such, interactions with students and other faculty were highly valued. Older faculty were concerned with remaining current in the field, but believed they had expertise to share with younger faculty. Remaining in academe made these six faculty members feel self-fulfilled, motivating them to put off retirement. The views of this small group provide insight into the perceptions of older faculty, and a starting point for future research.

In 2002, Berlin and Sechrist warned:

> Nurse educators must now arrive at creative, innovative, short-term solutions in tandem with the implementation of long-term solutions. Both approaches will require intense examination of some of the sacrosanct traditions of nursing education and an unbiased scrutiny of the faculty workplace environment. (p. 54)

Eleven years later, the situation is intensifying and, as Smith (2012) noted, little has changed to reverse the trend. Retaining retirement-age faculty in some capacity could be an effective way to address some of the faculty shortage issues.

**Compensation.** Faculty compensation is a major reason for the educator shortage (Allen, 2008; Allan & Aldebron, 2008; Kaufman, 2007a; Kaufman, 2009; Kovner et al., 2006; LaRocco, 2006). The 2006 NLN Faculty Census Survey data indicated that, based on a nine-month schedule, the median annual salary of full-time nursing faculty ranged from $41,394 to $65,000, depending upon rank, a slight increase from the 2002 survey results, which ranged from $36,000 to $61,452 (Kovner et al., 2006). Both Kovner et al. (2006) and the USDHSS (2010a) found that median salaries of faculty teaching in BSN and graduate programs were higher than faculty teaching in ADN programs, particularly at the professor rank. However, the 2009 NLN Faculty Census Survey data shows that
faculty in BSN programs make the least across all ranks, which is a change from previous studies (Kaufman, 2009). Highest salaries were earned in doctoral/research universities, followed by master’s colleges and universities and ADN programs (Kaufman, 2009). This shift in compensation has potential ramifications for the BSN faculty shortage. This research provides important data related to faculty compensation in the state.

Nursing faculty members make less than their academic counterparts, and nurses working in clinical positions (Kaufman, 2007a). Faculty base salary was directly associated with the Carnegie classification for public institutions. With each incremental increase in level, faculty base salary increased five percent (Kaufman, 2007a). Kaufman (2007a) reported that nurse educators make 76% of US faculty salaries. Faculty in private institutions fares worse, earning 68% of their academic counterparts (Kaufman, 2007a).

The 2009 NLN Faculty Census Survey report compared nursing salaries to average full-time faculty salaries, based on data from the American Association of University Professors (AAUP). Although nursing faculty begin their academic career at a higher rate of pay, $52,877 at the instructor level, compared to $47,592 for non-nursing faculty, by the time faculty reached the rank of professor, nursing faculty compensation was 45% lower than non-nursing faculty, $75,922 compared to $109,843, which supports the earlier findings of salary discrepancy (Kaufman, 2009). The 2009 comparison may be misleading, as AAUP surveys university faculty, while NLN surveyed faculty from all program types.

It is evident a compensation discrepancy exists between nursing and non-nursing faculty. “Despite a national shortage of nurse educators, in 2009 the salaries of nurse
educators remained notably below those earned by similarly ranked faculty across higher education. This was true at almost every rank” (Kaufman, 2009, salary section, para. 1). Anderson (2002) noted that the low number of nurses without doctoral degrees, as well as the fact that females dominate nursing, contributed to the disparity. There were no studies that explored the impact of this discrepancy on the nursing faculty shortage.

Faculty salaries are also lower than salaries among nurses in clinical practice (Kaufman, 2007a). The NLN reported that, in 2004, assistant professors earned a median salary of $47,435 compared to RNs who made $56,784 (Kovner et al., 2006). The highest degree earned by the RNs was not indicated; however, the survey included ADN graduates, which increases the concern about the low faculty salaries. LaRocco (2006) also highlighted salary discrepancies:

The median salary for a chief nurse executive in the United States as of January 2006 was $161,472; for a chief nurse anesthetist, it was $146,478; for a head nurse in an intensive care unit, it was $82,912; and for an associate professor, it was $59,640. (Nursing faculty section, para. 5)

This comparison may not be a fair representation, as the responsibilities of a chief nurse executive and chief nurse anesthetist are different from that of an associate professor. However, Lane, Esser, Holte, and McCusker (2010) reported that faculty salaries for all program types have stagnated for the past 10 years, when compared to nonacademic nurses with the same advanced degree.

Compensation in Ohio mirrors the national picture. “The 2008 Ohio Nurse Education Study Committee report found that within the state, the average salary for a master’s prepared nurse practitioner is $81,517, in comparison with an associate professor’s average salary of $66,588” (HPIO, 2009, p. 5).
Poor compensation results in faculty looking outside their primary workplace for additional income. Faculty earn 78% of their salaries at their primary institution, 7% from nonacademic employers, 5% from secondary academic jobs, and 3% from consulting work (Kaufman, 2007a). “Combined, these additional jobs augment educator salaries by 23 percent, or an average of $11,534 annually” (Kaufman, 2007a, p. 223). The need for faculty members to work in multiple positions may contribute to dissatisfaction and burnout, thus impacting recruitment and retention.

Numerous studies point to compensation as a major reason for leaving academe (Kaufman, 2007a; Kovner et al., 2006). Kovner et al. (2006) noted that 15.4% of faculty report compensation as the reason for leaving their academic position; in 2002, less than 10% of faculty indicated compensation as the primary reason for leaving (Kovner et al., 2006). The NLN/Carnegie study concluded that salary was the factor that caused the highest level of faculty dissatisfaction (Kaufman, 2007a). Fifty-four percent of faculty indicated that they were somewhat or very dissatisfied with compensation, with those indicating they were likely to leave citing salary as a major motivator (Kaufman, 2007a).

Higher education is limited in its ability to increase compensation for nursing faculty, due to budgetary constraints. As a result, average salaries for clinical nursing positions have risen more rapidly (AACN, 2005). Potempa et al. (2009) have called the faculty shortage “a worldwide crisis,” citing increased funding for nursing education as one of many solutions (p. 19).

In summary, nursing faculty compensation is a primary factor in the current nursing shortage. Nurse educators make less money than their counterparts in academe and in clinical practice. This is a major cause of faculty dissatisfaction and leads to
problems with recruitment and retention of nursing faculty.

**Work environment.** The conceptual framework for this study is Astin’s Input-Environment-Outcome (I-E-O) model (1985). Astin emphasizes the importance of the environment in relation to faculty outcomes. Disch (2002) defined a healthy work environment as “a work setting in which policies, procedures and systems are designed so that employees are able to meet organizational objectives and achieve personal satisfaction in their work” (p. 3). Poor faculty work environments have been cited as a factor in the shortage (Brady, 2010).

The 2003 *NLN Faculty Satisfaction Survey* identified certain work-environment factors as key to faculty satisfaction (NLN, 2005a, 2005b). The survey looked at career development, the culture, available resources, rewards, opportunity for promotion, and effective leadership.

Institutional factors associated with satisfaction included having a high degree of input into how one spent one’s time, a well-organized network of colleagues, and a sense of community and collegiality. Leadership factors associated with satisfaction included a commonly held vision for school, and confidence in the direction in which the school was headed. (NLN, 2005b, p. 2)

Faculty identified improved work environment as a way to promote recruitment and retention (NLN, 2005b). In response to survey findings, the NLN identified the principles and elements essential to fostering a healthy academic work environment (NLN, 2005a). These principles include: creating a culture of collaboration; a communication-rich culture; a culture of accountability; adequate numbers of qualified faculty and support staff to ensure reasonable workloads and work-home life balance; recognition of faculty contributions and accomplishments through competitive wages, benefits, and promotion and tenure opportunities; presence of expert, competent, credible,
and visible leadership; shared decision-making at all levels; and, encouragement of professional development through mentoring, peer review, and support for continuing education (NLN, 2005a).

Using the same framework as the NLN 2003 survey, Disch, Edwardson, and Adwan (2004) found that faculty wanted a work environment that supported professional development for “acquiring new skills” related to research, teaching, and clinical activities (p. 330). Faculty also felt a need for adequate support staff, particularly to assist with scholarly activity. Overall, faculty members were satisfied with leadership in their institution (Disch et al., 2004).

Solid leadership is critical in creating a positive work environment. The leader of the nursing program must possess the professional competencies necessary to develop a quality program and a healthy work environment. Numerous studies have examined the importance of the leadership role (Byrne, 2011; Disch et al., 2004; Gormley, 2003). Byrne (2011) found that leadership style impacts professional satisfaction and organizational commitment. There was a significant correlation between transformational leadership style and organizational commitment and professional satisfaction, though the majority of faculty in the study reported working with a transactional leader (Byrne, 2011). This has implications related to the need for additional leadership training. The role of the leader will be explored in more depth in the section related to satisfaction.

Cash, Doyle, Von Tettenborn, Daines, and Faira (2011) conducted a mixed-method study on the work environment in Canada, which also faces a severe nurse faculty shortage. The study identified workplace factors important to faculty. Faculty
focused on the multiple professional and organizational demands placed upon them that compromise the academic unit and impact intent of faculty to remain in academe (Cash et al., 2011). Faculty cited a need for balance in order to maintain a healthy workplace.

Faculty also expressed the desire for a workplace in which there was shared leadership, as opposed to institutional control (Cash et al., 2011). Shared leadership recognizes the education and practice expertise of faculty, by allowing them to make decisions for the program.

The last theme related to autonomy in practice. Faculty felt it was important that they determine the learning needs of students and have flexibility in schedules. Cash et al. (2011) determined “the findings of this study suggest recruitment and retention of nurse educators are best addressed by a critical reexamination of organizations” (p. 257). Clearly, faculty perceived that extensive control over nursing education by the institution decreased the opportunities for a positive environment.

Baker (2010) and Cash et al. (2011) acknowledged that the empirical research related to healthy academic work environments is limited, even though it is being increasingly recognized as an important aspect in the recruitment and retention of nursing faculty. The work environment should be assessed on an annual basis as a way to aggregate and analyze data to monitor trends and determine the need to make workplace changes (Baker, 2010).

**Workload.** Workload has been identified as a major reason for faculty dissatisfaction and intent to leave academe. In the 2003 NLN National Study of Faculty Role Satisfaction, 50% of respondents cited workload as a factor in their decision to leave academe, findings supported in the 2006 NLN/Carnegie National Survey of Nurse
Educators and both the 2002 and 2006 NLN Faculty Census Survey of RN and Graduate Programs (Kaufman, 2007b; Kovner et al., 2006; NLN, 2005b).

The heavy teaching loads, enormous student responsibilities, requirements to maintain their clinical competence, and other demands placed on faculty may lead to many nursing faculty to consider retiring earlier than might otherwise have been the case, or leaving academia altogether for positions that are more financially rewarding. (Kovner et al., 2006, p. 8)

The work life of nursing faculty has become increasingly complex as educators navigate the demands of teaching, which includes: ever-changing technology; clinical supervision and practice in a multifaceted health care environment; ongoing curriculum revisions; requirements for service at the departmental, institutional, and professional organization level; and, the need for research and scholarly activities to advance the profession (AACN, 2005; Candela et al., 2012; Elliott & Wall, 2008; Emerson & Records, 2005; Gazza, 2009). Many faculty hold advanced practice certifications in their specialty, which requires additional clinical hours and/or continuing education (Gerolamo & Roemer, 2011; Gwyn, 2011). Many faculty members are stressed by the significant role demands they face (Candela et al., 2012; Ruel, 2009).

The 2006 NLN/Carnegie National Survey of Nurse Educators found that tenured faculty worked an average of 53.3 hours per week during the academic year, and slightly less than 25 hours per week during breaks (Kaufman, 2007b). Almost 70% of faculty reported working more than 40 hours each week, with 32.8% working more than 48 hours per week (USDHHS, 2010a).

Ellis (2013) compared policies on nursing faculty workload, finding that the majority of faculty from BSN or advanced-degree programs reported a workload of 12 credit hours per semester. Institutions with an emphasis on research reported a six credit
hour workload. “For clinical workload, the majority of nursing programs provided one
workload credit for three clock hours of teaching” (Ellis, 2013, p. 307). Ellis
recommends additional research in this area to determine the effectiveness of workload
formulas, particularly as they relate to quality education and the goals of nursing
education.

Academic tenure and experience did not decrease workload (Kaufman, 2007b). The workload of both experienced and novice faculty was statistically comparable during
the academic year, though during breaks, novice faculty worked more than tenured
faculty (Kaufman, 2007b). AACN (2005) noted a difference among novice and senior
faculty in BSN and graduate programs, with 54.7% of junior faculty expressing
dissatisfaction with workload, almost twice that of senior faculty (29.5%). Faculty
members in graduate programs have greater workloads than faculty teaching in pre-
licensure programs, though Kaufman (2007b) acknowledges that inclusion of ADN
faculty significantly impacts the data. Gerolamo and Roemer (2011) and the NLN
(2005b) also note that nursing program type influences workload levels. Spurlock (2008)
found that faculty in BSN and graduate programs have the heaviest workload. Faculty
from BSN and graduate programs spend more time engaged in research activities and less
time in clinical supervision (Disch et al., 2004).

Seventy-five percent of faculty time is spent on direct student interaction,
including classroom teaching (46%), clinical supervision (20%), and advising (9%)
(Kaufman, 2007b). “The remaining 25 percent of faculty workload is divided roughly
equally between clinical practice (7 percent), institutional or departmental service (7.2
percent), research (5.6 percent), and administrative duties (5.1 percent)” (Kaufman,
2007b, p. 297). As academic rank increases, faculty tend to spend less time doing
clinical supervision, and more time with administrative and institutional or department
service. These statistics applied consistently to all program types (Kaufman, 2007b).

The NLN/Carnegie National Survey of Nurse Educators asked faculty preferences
related to workload. Almost half of the faculty (48%) indicated they would prefer to
teach less, and more than 35% indicated they would like less clinical supervision and
service (Kaufman, 2007b). Two-thirds of faculty wanted to spend more time on research,
38% wanted additional time for clinical practice, and 29% wanted to spend more time
advising (Kaufman, 2007b).

Emerson and Records (2005) address the risks inherent to nursing as a profession,
due to workload and inadequate time for research. “What will happen to nursing
scholarship and, ultimately, the profession of nursing, if workloads in teaching and
service continue to escalate and expectations for maintaining clinical practice expertise
are added?” (p.11). Although the faculty shortage is an immediate crisis, the damage to
the profession from decreased scholarship should be a major concern.

“In sum, the literature provides indications that there is a relationship between
workload and the nurse faculty shortage. Further, the literature lacks a consistent
theoretical and operational definition of workload and other related factors” (Gerolamo
& Roemer, 2011, p. 262). Faculty dissatisfaction with workload is a factor in the faculty
shortage, which deserves additional attention.

**Satisfaction.** The USDHHS (2010b) cites satisfaction as a major factor related to
the faculty shortage and to decisions about the timing of retirement. Many studies
indicated that nursing faculty members overall are satisfied with their academic positions
Although nursing faculty are satisfied overall in their positions, several variables impact the level of satisfaction, including: empowerment (Chung, 2011; Kirking, 2007; Sarmieneto, Laschinger, & Iwasiw, 2004); mentoring (Chung, 2011); leadership (Byrne, 2011; Disch et al., 2004; Gormley, 2003; NLN, 2005b); salary (Chung, 2011; Disch et al., 2004; Kaufman, 2007a; NLN, 2005b); work environment and workload (Bittner & O’Connor, 2012; Kaufman, 2007b; NLN, 2005b); stress (Chung, 2011; Spurlock, 2008); autonomy (Gormley, 2003); and, organizational climate and characteristics (Gormley, 2003). For purposes of this discussion, similar variables will be grouped together in this section.

Psychological empowerment is defined as “fundamental personal beliefs that employees have about their role in relation to the employing organization” (Chung, 2011, p. 12). These beliefs are organized into four dimensions: the meaning of the work to the individual; self-determination in the approach to work; the degree of competence felt by the individual; and, the degree to which individuals can impact their surroundings (Chung, 2011). Chung (2011) found that psychological empowerment showed a high
correlation with increased faculty satisfaction. Although causality was not determined in Chung’s study (2011), there was a correlation between mentoring and higher levels of empowerment and less job stress. Chung’s samples were doctoral-prepared faculty who were not employed outside academe. As previously noted, this is not the norm, as the majority of faculty holds an MSN as the terminal degree. In addition, many faculty members hold positions in addition to their primary role, so caution should be used in generalizing the findings to the overall faculty population.

The quality of mentoring increased the affective dimension of occupational commitment in a quantitative, cross-sectional, correlational study conducted by Gwyn (2011). The affective dimension of organizational commitment is the “feeling of attachment that individuals have toward their chosen occupation. It is an emotional response to being in an occupation, and individuals stay in an occupation because they want to” (Gwyn, 2011, p. 293). Mentoring can play an important role in a healthy work life and subsequent retention and recruitment. Gwyn’s research was based on a small sample size, but underscores the importance of commitment in faculty retention.

Kirking (2007) also studied satisfaction and occupational commitment through the lens of psychological empowerment, structural empowerment, and work centrality among 218 ADN faculty members in Minnesota and Wisconsin. As with other studies, faculty participating in this study also had high levels of job satisfaction and job commitment. Structural empowerment, specifically availability of resources, support and information, were strong predictors of job satisfaction. A strong relationship was found between psychological empowerment and occupational commitment, while there was a weak although statistically significant relationship between job satisfaction and
occupational commitment (Kirking, 2007).

Sarmiento et al. (2004) studied workplace empowerment among full-time nursing faculty in Canada. Workplace empowerment provides “opportunity for growth and access to power needed to carry out job demands” (Sarmiento et al., 2004, p. 135). Burnout was the variable used to describe a syndrome in which there was a decrease in or loss of commitment due to stress. The study found that “higher levels of empowerment were associated with lower levels of burnout and greater work satisfaction” (Sarmiento et al., p. 135). Spurlock (2008) also studied the impact of stress and burnout among nursing faculty, offset with the degree of faculty “hardiness” (p. 10). In addition to levels of overall job satisfaction consistent with other research, Spurlock (2008) found moderate levels of stress and burnout among faculty. Faculty with higher levels of hardiness had lower levels of burnout. Stress was found to have a statistically significant inverse link to job satisfaction (Chung, 2011),

Although each of these studies examined a different aspect of empowerment and resultant commitment, it is evident that these are important variables when considering job satisfaction. The need for attention to faculty empowerment when planning strategies to address the shortage is crucial. In times of limited financial resources, psychological, workplace, and structural empowerment may be threatened, adversely affecting faculty commitment, which could aggravate the shortage.

Leadership was another significant variable evident in the literature that impacts satisfaction. Gormley’s (2003) analysis examined faculty perception and expectations of the leader in curriculum and instruction. A narrow gap between perception and expectation led to greater satisfaction. Leadership included behaviors such as “mutual
trust, respect, warmth, and rapport between a supervisor and his or her group. Initiating structure was defined as behavior in which the supervisor organizes and defines group activities and relationships to the group” (Gormley, 2003, p. 177).

The NLN (2005b) found that, overall, faculty believed their leaders supported them in the areas of teaching, service, and scholarship. The study also reported that faculty felt the vision of the program was “kept visible” by nursing leadership, and that the college was headed in the right direction (NLN, 2005b, p. 20). Disch et al. (2004) found faculty were satisfied with most aspects of leadership, including having the opportunity to make meaningful contributions to decisions. However, ADN faculty reported higher levels of satisfaction than their diploma and BSN counterparts, believing that their “opinions were routinely solicited and seriously considered” to a higher degree (NLN, 2005b, p. 24). When compared with BSN and diploma faculty, ADN faculty also felt a significantly stronger sense of community, felt that the school’s vision was clear, would choose to work at their school again, and had colleagues available to discuss ideas (NLN, 2005b). ADN faculty focus on teaching and are not mandated to do research and scholarly work, which may decrease their workload and, by extension, contribute to their overall satisfaction (Brady, 2007). Clearly, leadership is an important variable in faculty satisfaction.

Faculty compensation and workload issues have been repeatedly discussed in the literature as sources of dissatisfaction, as previously noted. In addition to salary issues, Disch et al. (2004) found that only 26% of faculty felt that the reward system “matched the vision and goals of the organization” (p. 328). Compensation and workload are two of the most important factors impacting the nursing shortage, requiring new approaches
in the midst of economic constraints.

In a study by Bittner and O’Connor (2012), work environment significantly or moderately impacted satisfaction for 71.3% of faculty. The study examined barriers to satisfaction among 226 faculty members from all program types in the New England region. The barrier rankings were based on the degree of impact, whether significant or moderate. The barriers identified as having a moderate-to-significant impact on satisfaction included: support for professional growth (76.7%); a sense of accomplishment (76.4%); autonomy in the role (73.9%); full use of abilities (75.6%); relationships with colleagues (70.8%); and, an atmosphere of academic freedom (74.1%) (Bittner & O’Connor, 2012). Bittner and O’Connor (2012) also asked nurse educators about their level of satisfaction related to workload and work-life balance. Forty-four percent of faculty members were very or somewhat dissatisfied with workload, while 37% of faculty members were very or somewhat dissatisfied with work-life balance (Bittner & O’Connor, 2012). Gazza (2009) and Kaufman (2007b) also reported dissatisfaction with work-life balance.

Disch et al. (2004) examined the impact of organizational factors on satisfaction. Overall, faculty felt satisfied that organizational communication systems kept them informed of major issues, expectations for tenure were clear, and they had a well-developed network of colleagues in the department. The study also examined perceived support for role differences based on program type. Faculty in BSN and graduate programs reported a significantly higher level of support for research and scholarly work, while ADN faculty reported support for provision of patient care, which is appropriate given the mission of the respective programs (Disch et al., 2004). Faculty in all program
types perceived support related to the teaching role. Gormley (2003) also looked at organizational factors, but found low-to-moderate effect sizes for these variables. She determined that organizational characteristics and climate have “little to no predictive power related to job satisfaction and do not rank as important characteristics for career gratification for nursing faculty” (Gormley, 2003, p. 177).

Lane et al. (2010) conducted a mixed-method study of ADN faculty satisfaction from 23 community colleges in Florida. Positive faculty perception of supervision, work environment, organizational policies, and interpersonal relations were moderate predictors of satisfaction (Lane et al., 2010). Faculty members in this study were dissatisfied with compensation, which supports previous findings. The work that faculty engage in was strongly predictive of satisfaction, and was the most significant variable in the study (Lane et al., 2010). Workload and work environment impact the degree of faculty satisfaction, although the work itself and the overall satisfaction of nurse educators appear to override dissatisfaction with these areas. However, in light of the shortage, improvements in workload and work environment should not be overlooked.

In summary, nurse educators are satisfied overall with their academic positions. They are highly committed to the work they do and derive satisfaction from that work. Autonomy, feelings of competence, and participation in decision-making increase their satisfaction. Faculty values leaders who are supportive and express a clear vision for the department. Compensation is a major source of faculty dissatisfaction. Research is limited in scope and varying approaches to variable definitions make it difficult to determine predictors of satisfaction. However, “the job satisfaction of current and future
nursing faculty must be of paramount importance to administrators in halting the decline in the number of faculty” (Gormley, 2003, p. 178).

**Intent to leave.** The largest study focusing on faculty intentions related to their role was the 2003 NLN *National Study of Faculty Role Satisfaction*. The survey asked faculty to indicate the factors that influenced their decisions to become a faculty member, stay as a faculty member, or think about leaving (NLN, 2005b). Faculty cited the primary reason for staying in academe was work with students, followed by making a contribution to the profession, working in an intellectually stimulating environment, and having autonomy and flexibility (NLN, 2005b). Gazza (2009) and Garbee and Killacky (2008) found that working with students was the factor that ranked highest in faculty satisfaction, which supports findings from the NLN study. A qualitative study by Tourangeau et al. (2012) also showed “in all focus groups, students were identified as a key factor influencing faculty ITR [intention to remain]” (p. 258). Williamson et al. (2010) reported that relationships with students increased faculty sense of fulfillment.

Making a contribution to the profession, the second reason cited by NLN for faculty staying in academe, was a major motivational factor influencing intent to stay in a study by Berent and Anderko (2011). Professional satisfaction with faculty identity, which included meaningfulness of the work and the ability to shape the profession’s future, accounted for 21% of the variance, “reflecting the greatest reason that these faculty remained in higher education” (Berent & Anderko, 2011, p. 205). This supports findings from the 2003 NLN study (NLN, 2005b). Gazza’s (2009) qualitative study also found that faculty value making a difference in the profession, believing they impact health care and patients through the students they educate.
Berent and Anderko (2011) found evidence that faculty view their role as intellectually stimulating. Faculty “enjoy [the] educational environment [mean, 4.3, SD, 0.9]”; “have [a] fulfilling and important role [mean, 4.3, SD, 0.8]”; and, “find higher education exciting [mean, 4.2, SD, 0.9]” (p. 206). These findings support the NLN data that working in an intellectually stimulating environment is important to faculty retention (NLN, 2005b). Foxall, Megel, Grigsby, and Billings (2009) found intellectual stimulation enticed faculty to stay in academe past retirement age.

From the 2003 NLN study, salary, workload, and work hours were identified as the primary reasons for a desire to leave the profession (NLN, 2005b; Roughton, 2013). As discussed, compensation has been cited as a major factor in numerous studies (Allan & Aldebron, 2008; Kaufman, 2007a; Kaufman, 2009; Kovner et al., 2006).

Compensation was also a predictor of intent to leave in five years in Roughton’s (2013) cross-sectional analysis of a subset of respondent data from the 2006 Survey of Nurse Educators: Compensation, Workload, and Teaching Practice. Roughton (2013) found that other reasons impacting intent to leave included a desire for “more flexibility to balance work and life issues, more career development opportunities, more opportunity to use skills and abilities, more amenable institutional culture, and more work variety” (p. 218). Interestingly, age had a negative influence on intent to leave, and faculty reported they would leave for a position with less work.

Several other studies validate the issue of workload. Candela et al. (2012) found workload was a significant predictor of intent to stay or leave academics. Workload was noted to be extremely important to faculty, with autonomy and flexibility in their role as markers of adequate workload (Tourangeau et al., 2012). Extreme workloads interfered
with the ability to maintain autonomy and flexibility. Faculty intent to stay at the three-year mark was much higher for faculty working 40 hours, compared to those working 60 hours each week (Garbee & Killacky, 2008).

In their national study, Candela et al. (2012) examined factors pertaining to work-life that predicted the intention to “become, stay, or leave the faculty role” (p. 4). Leadership was an important factor, but was referred to as “administrative support” in several studies (Candela et al., 2012; Garbee & Killacky, 2008; Tourangeau et al., 2012). Significant predictors of intent to stay in the faculty role included administrative support for faculty improvement and productivity (Candela et al., 2012). Tourangeau et al. (2012) found that administrative support, including respect, concern for professional development and faculty workload, and fairness in the distribution of work, was identified as essential by the study focus groups. Gormely and Kennerly (2011) found that turnover intention increased with “poor working relationships with their academic unit head and coworkers, unclear work expectations, and disagreement on relevant norms” (p. 194). Garbee and Killacky (2008) examined predictor variables for faculty intent to stay, finding that administrative support explained less than 10% of the variance in intent to stay, though high quality leadership led to greater satisfaction and poor leadership lead to low satisfaction. Since satisfaction has been noted to be highly predictive of the intent to stay or leave academics, leadership and administrative support is clearly an important factor (Garbee, 2006).

An interesting finding from Candela et al. (2012) related to faculty age. The general concern is that the faculty shortage will increase due to the “graying professoriate” (Hinshaw, 2001, abstract, para. 1). However, Candela et al. (2012) found
that Baby Boomer faculty reported the greatest desire to “remain in the faculty role.... [while the] Millennial generation exhibited the greatest overall intent to leave the faculty role” (p. 6). The intent of millennial-aged faculty to leave the role was postulated to be due to role conflict and stress.

Organizational commitment was not identified as a factor in the NLN study. However, Garbee and Killacky (2008) noted this as a significant predictor of intent to stay. Organizational commitment was significantly predictive of faculty intent to remain in education for one to five more years (Garbee, 2006). When commitment level is high, nursing faculty choose to remain at the institution, even when there is evidence of role strain and ambiguity (Cranford, 2009).

Tourangeau et al. (2012) found that “personal characteristics such as proximity to retirement (age), marital status, job opportunities for partners, and family circumstances (e.g., having dependents) as being important to their ITR” (p. 259). These individual, non-work variables are important considerations in Mobley’s turnover theory.

In summary, current empirical studies identify numerous factors influencing intent to stay, including faculty enjoyment in working with students, pride in the contributions made to the profession, an intellectually stimulating environment, and high levels of commitment to the profession and academics. Primary reasons for intent to leave include compensation and workload. These themes have been recurrent throughout the literature review. The findings of this dissertation directly contribute to a gap in the research related to intent to leave academe for faculty in Ohio.

**Strategies to Alleviate the Faculty Shortage**

There is extensive literature offering strategies to alleviate the faculty shortage,
yet, few studies demonstrate the success of these initiatives (Allan & Aldebron, 2008). Allan and Aldebron (2008) conducted a systematic review of the literature from 2000-2008, focusing on “strategies to educate more faculty or expand the teaching capacity of existing faculty” (p. 287). From their research, four themes emerged: advocacy; educational partnerships; academic innovation; and, external funding. Although many strategies have been suggested in the literature, Allan and Aldebron (2008) warn that “quick fixes” should be avoided (p. 295). Instead, the focus should be on “sustainable solutions that result in a more robust nursing education infrastructure” (p. 295). Allan and Aldebron’s (2008) framework was used to explore strategies proposed in the literature.

The first theme—advocacy—includes the need to educate and gain the support of the public for issues related to the faculty shortage (Allan & Aldebron, 2008). Advocacy includes both mass media campaigns, as well as the tracking of data and policies related to faculty. Many of Allan and Aldebron’s (2008) exemplars of best practices, such as Johnson & Johnson’s “Campaign for Nursing’s Future,” focus primarily on nursing in general, but are extended to include faculty. Allan and Aldebron (2008) found that 36 states have developed nursing workforce centers to “aggregate statistical data, propose strategies, pilot solutions, promote information exchange and encourage stakeholder collaboration across sectors or geographic boundaries” (Allan & Aldebron, 2008, p. 289). Both the 2003 and 2006 NLN surveys included recommendations related to advocacy. The 2003 National Study of Faculty Role Satisfaction recommended “designing programs and marketing initiatives that will attract nurses into faculty positions…. develop a national educational campaign for the public and key policy makers on the nursing
faculty shortage” (NLN, 2005b, p. 38). Kovner et al. (2006) recommended encouraging students to consider academia and for professional organizations to develop programs aimed at recruiting nurses to the faculty role.

Recruiting males and racial/ethnic minorities to nursing education is crucial, as these are underrepresented groups (Evans, 2013). Efforts have been made to provide minority scholarships (Allan & Aldebron, 2008). In a survey of 2,083 nursing faculty from all program types, Evans (2013) found that encouraging males and minorities to consider the faculty role is an effective recruitment strategy.

Evans (2013) found that many of the strategies suggested by current faculty are no-to low-cost, such as emphasizing work with students, the degree of flexibility in work hours and job content, the degree of collaboration that occurs in academe, and the opportunity to contribute to the profession through teaching and scholarly work. Tourangeau et al. (2013) also emphasize collaboration as a recruitment and retention tool, recommending team building and work spaces to foster collaboration.

The USDHHS (2010b) also recommends public marketing campaigns and creation of “a national database of nurse faculty supply and demand” (p. 5). Hinshaw (2001) recommends tracking cohorts of faculty in order to anticipate retirement trends.

Another area related to advocacy is promoting attainment of advanced degrees in nursing. Encouraging nurses to begin graduate education earlier in their careers is critical (Halstead, 2012; Hinshaw, 2001). An innovative, cost-effective curriculum is needed to meet the needs of working adults (Cathro, 2011). Doctoral degrees should be designed to “facilitate completion in a timely manner” (Kovner et al., 2006, p. 9). Ensuring adequate numbers of advanced degree programs with adequate faculty is a priority (McDermid et
Roughton (2013) recommended tuition reimbursement for a work or time commitment.

Allan and Aldebron’s (2008) second theme—educational partnerships—involves the collaboration of two or more institutions, one of which is an academic institution. The literature promotes the development of partnerships extensively (Kovner et al, 2006; MacIntyre, Murray, Teel, & Karshmer, 2009; NLN, 2005b; Proto & Dzurec, 2009; Reinhard & Hassmiller, 2009; USDHSS, 2010b). Partnerships are a way to market the role of faculty, generate funding, and provide faculty development (Proto & Dzurec, 2009). Inter-organizational collaboration, recognizing and leveraging local networks, and aligning stakeholder priorities are approaches recommended by Proto and Dzurec (2009).

MacIntyre et al. (2009) suggested nurse education institutions strengthen partnerships with community-based health care providers by enlisting the provider’s nursing staff to actively participate in the student clinical experience. Tapping into the expertise of the staff by having them work directly with students can ease the shortage. Bristol (2004) recommended using nurses with advanced degrees and employed by the health care facility to teach distance-learning courses. These partnership examples require that the health care agency allow employees to use work time to assist with teaching. Regional collaborations between health systems and nursing schools can result in development of databases of clinical nurses interested in teaching with the collaborating agencies providing professional development (Lotas, McCahon, Kavanagh, Dumpe, Talty, Knittel, & O’Malley, 2008). However, Tanner (2005) cautioned:

The practice of partnering with health systems is common, with clinical faculty obtained from the ranks of practicing clinicians. But this strategy will not hold us for very long. As the nursing shortage grows, the capacity of clinical agencies to loan clinicians as teachers will become increasingly limited. (p. 247)
Additional education at the doctoral level is needed for the faculty role, so this approach provides a disservice to the profession and students. Kowalski and Kelley (2013) also advise caution given the limited availability of resources. Health care partners need to understand the return-on-investment for allocating their own limited resources to supporting nursing faculty and education.

In Ohio, multiple nursing education and healthcare organizations are working collaboratively as part of the Ohio Action Coalition to help nurses obtain advanced degrees, particularly at the RN to BSN level. The group is working on development of a competency education model that would be used across the state. This initiative, if successful, could dramatically change nursing education (Robert Wood Johnson Foundation, 2013).

Allan and Aldebron’s (2008) third theme—academic innovation—abounds in articles that recommend new models of teaching and the development and mentorship of new faculty. NLN recommended new models of teaching in both its 2003 and the 2006 survey recommendations, including the development of creative, flexible scheduling and innovative learning strategies (Kovner et al., 2006; NLN, 2005b). NLN also advocated for faculty development programs (Kovner et al., 2006; NLN, 2005b). However, these recommendations were very broad and provided no specific strategies.

On the other hand, Allan and Aldebron (2008) offered more specific recommendations, including the use of non-nursing faculty to teach concepts from other disciplines and the retention of retired faculty. The pipeline of new faculty is insufficient to meet the current need; therefore, retaining faculty of retirement age is imperative and can be accomplished by: allowing older faculty to focus on teaching and service instead
of research; offering reduced workloads after a certain age with continued, full benefits; sharing positions between two senior faculty members; hiring retired clinicians for part-time faculty work; and, hiring faculty as independent contractors (Bellack, 2004). Falk’s (2007) recommendations focus on a positive work environment that offers alternative, flexible work options for senior faculty and necessary physical accommodations. Intergenerational teaching can be used so as to mentor novice faculty, while using the technological acumen of novice faculty to teach senior faculty (Falk, 2007).

Faculty mentoring and professional development is a strategy designed to recruit and retain faculty (Halstead, 2012). McDermid et al. (2012) reflected on the difficulties new faculty have with the transition from clinical practice to teaching. Candela et al. (2012) advocated for mentoring networks, the use of consultants to improve specific areas related to teaching and learning, and support for continuing education through conference attendance. Dattilo, Brewer, and Streit’s (2009) phenomenological study of 11 BSN faculty members identified the need for a “dedicated” mentor and a tailored orientation (p. 370). Hessler and Ritchie (2006) reflected on the needs of Generation X faculty, citing the need for mentoring, socialization, and orientation. Brady (2010) provided a framework for a faculty orientation program, which could be used as a potential model. Roughton (2013) also supports development of mentoring programs, comprehensive professional development, and creation of alternatives to the tenure system, as these strategies are valued by younger generations of faculty.

The last theme relates to external funding (Allen & Aldebron, 2008). Funding plays a role in: faculty compensation; recruitment, retention, and hiring; development of innovative teaching and learning initiatives; and, financial aid and loan forgiveness
programs for graduate studies. Allen and Aldebron (2008) identified three sources of funding, including public funding at the state or federal level, philanthropy, and funding from the health care industry. In the area of public funding, Yordy (2006) recommended grants to support centers of excellence in which to train faculty, expanded federal aid for advanced degrees, and state-level grants for initiatives to increase faculty. Shipman and Hooten (2008) discussed the importance of public funding, in exchange for a work commitment, so as to increase the number of advanced-degree students. Kowalski and Kelley (2013) stated the “environment and supporting infrastructure surrounding existing and new faculty must change” (p. 76). They recommend offering education loan repayment programs, compensation contributions from external health care organizations, and changing the existing nursing education culture.

In summary, most articles that discuss the nursing faculty shortage include a section devoted to potential solutions. The problem is that the literature does not “articulate outcomes and define standardized baseline and evaluation indicators” (Allan & Aldebron, 2008, p. 295). In addition, few empirical studies describe the effectiveness of the proposed solutions. “Solving the nursing faculty shortage will take behavior and priority changes by leaders from academia, health care, government, and existing and potential new nursing faculty” (Kowalski & Kelley, 2013, p. 71). Given the gravity of the faculty shortage and its impact on the nursing shortage and patient outcomes, the development and documentation of effective, sustainable, long-term solutions are essential.
Involvement Theory

Higher education strives for institutional excellence. Historically, reputation and the number of resources defined academic excellence. The quality of the faculty was characterized by the highest degree earned, research, and writing. However, Astin (1985) criticized this approach as the primary mission of higher education—educating students—was not included in the measure of quality. Astin proposed that excellence be based on the talent development of faculty and students. “True excellence lies in the institution’s ability to affect its students and faculty favorably, to enhance their intellectual and scholarly development, to make a positive difference in their lives” (Astin, 1985, p. 61).

Talent development is directly related to the amount of involvement faculty members devote to their academic role (Astin, 1985). A highly involved faculty member is one who invests significant physical and psychological energy. Involvement is based on what the faculty member “does, how he or she behaves” (Astin, 1988, p. 519). Involvement can be generalized in terms of the overall faculty experience or can include specific behaviors, such as the amount of time spent preparing for class (Astin, 1988). An involved faculty member is highly invested in preparing thoroughly for class, interacting with students and colleagues, conducting scholarly activity, and participating in committee work and professional development activities (Astin, 1985). Astin (1985) acknowledges that many forces compete with faculty time and energy, such as institutional policies and practices, workload, and family and personal activities. Research shows that faculty involvement increases cognitive and affective outcomes, one
of which is satisfaction (Astin, 1991). Faculty members who are satisfied with their careers are less likely to leave the institution and academe (Gormley, 2003).

In *Achieving Educational Excellence*, Astin (1985) discussed the decreased interest in education as a career path, which is a contributing factor to the nursing faculty shortage. He also discusses the lack of prestige enjoyed by certain academic disciplines, including nursing, and the resultant issues with faculty compensation and rank. The dominance of women in the field is another factor contributing to issues in the education arena. Although Astin’s work focused on four-year institutions, Kauffman (2007a) cited the disparities in compensation between nursing faculty and other academic disciplines in both two- and four-year institutions, supporting Astin’s findings.

Involvement theory is useful in framing the research questions for this study. Factors that impact involvement, such as adequacy of the work environment, available resources, workload, and satisfaction, are analyzed to determine the impact on intent to leave academe.

**Turnover Theory**

Employee turnover is a “major organizational phenomenon” because of its impact on both the organization and the individual (Mobley, 1982, p. 1). Employee turnover can have negative and positive consequences (Mobley, 1982). There are significant direct and indirect costs for the organization associated with turnover, including recruiting, hiring, placement, and training new hires, as well as separation costs, which can include pay, loss of efficiency prior to separation, and the cost of vacant positions (Mobley, 1982). In addition, turnover disrupts social and communication patterns, which can affect the morale of the remaining employees, particularly if the departing employee was
The loss of the individual may result in decreased productivity, particularly if the person was involved in key functions or had specific knowledge that is difficult to replace. Mobley (1982) noted the potential positive impact of turnover for the organization as well. New employees may bring innovation, flexibility, and adaptability that increase energy levels throughout the organization (Mobley, 1982). Poor performers may also be eliminated.

There are also negative and positive consequences of turnover for the individual employee. Although employees anticipate benefits to leaving an organization, this may be an inaccurate assumption, if they have not fully explored alternative options (Mobley, 1982). Loss of seniority, certain employee benefits, relationships with others in the organization, and the stress associated with a major life change can have unintended, negative consequences (Mobley, 1982). Alternatively, if the employee has investigated all options fully, the consequences could be positive (Mobley, 1982).

Mobley (1982) cited four major reasons for turnover, including: external factors, such as the economy; organizational variables, such as size, rewards, job design, and centralization; individual non-work variables, such as having a spouse and family; and, individual work variables, such as commitment, satisfaction, abilities, intentions, and expectations. Mobley, Griffeth, Hand, and Meglino’s (1979) turnover framework (see Appendix A) includes individual work variables as the central component, with other factors included as influences on an individual’s decision to stay or leave an organization. Mobley et al. (1979) believed development of a framework related to the turnover process as an individual behavior choice was a better way to study the problem, than by examining specific variables in isolation. Because multiple variables may impact
individual decisions, the model includes all factors related to the turnover process.

Mobley et al. (1979) conducted a comprehensive review of the literature related to variables influencing turnover. Mobley’s theory provides an excellent framework for this dissertation as it addresses: the influence of organizational variables of size and rewards; individual variables of age, tenure, and education; and, individual work variables, including commitment, satisfaction, and the intention to leave academe.

Mobley et al. (1979) reported that age has a negative relationship with turnover, but with a variance less than seven percent. “Since age is correlated with many other variables, it alone contributes little to the understanding of turnover behavior” (Mobley et al., 1979, p. 496). Younger employees tend to have higher turnover rates, possibly because there are more entry-level positions and because younger employees have fewer personal responsibilities, which allows for increased mobility (Mobley, 1982). Candela et al. (2012) supported this finding.

There was no relationship between sex and turnover, though isolated studies found that females have higher turnover rates (Mobley et al., 1979). Similarly, level of education was found to have “neither a strong nor consistent relationship between education and turnover” (Mobley, 1982, p. 98). Tenure was defined as “length of service” for Mobley’s purpose (1982, p. 97). Mobley (1982) found a consistent, negative relationship between length of service and turnover.

Job satisfaction showed a weak, but consistent, negative correlation with turnover. Satisfied employees tended to remain at the organization (Mobley et al., 1979; Mobley, 1982). The correlation, reported as $r = -0.4$, is so weak that other variables must be considered (Mobley, 1982, p. 102). Satisfaction with pay also had a consistent negative
relationship with turnover, and Mobley suggested this be considered as a “primary hypothesized contributor to turnover in any organizational study” (Mobley, 1982, p. 103).

Mobley et al. (1979) and Mobley (1982) found that the best predictor of turnover was intention to quit. Intention to quit is usually preceded by searching behaviors as the individual explores alternative options. Four determinants related to intention to quit are job satisfaction, expected utility of internal roles, expected utility of external alternative work roles, and non-work values and roles (Mobley, 1982). These four determinants involve the future potential inherent in employment (Mobley, 1982). Although employees may not be satisfied with the current situation, they may anticipate that changes will take place in the future, thus impacting their ultimate decision to stay or leave. In a review of multiple studies on faculty intent to leave, Johnsrud and Rosser (2002) found that “in 19 of 20 studies where comparisons were made, intent to leave was the strongest predictor of actual voluntary turnover” (p. 520).

Mobley’s framework provides a comprehensive approach to examining the variables and their relationship to turnover for the individual. Although it includes environmental, organizational, and non-work variables, its focus on an individual’s decision-making process is valuable to this study.

**I-E-O Conceptual Framework**

Astin’s I-E-O model (1985) provides the conceptual framework for the research. Astin (1985) believed that involvement is a critical factor in faculty talent development. Talent development is based on the characteristics the individual faculty member brings to the institution, as well as the teaching environment. Faculty characteristics are identified as the inputs (I). Astin defines inputs as “fixed or invariant
characteristics…and characteristics that can change over time” (1991, p. 70). The input measures for this study include gender, age, race, job characteristics and rank, and the highest degree earned by full-time nursing faculty.

Environment (E) includes the experiences within the academy. “Input and outcome refer simply to the state of the person at two different time points, and environment refers to the intervening experiences” (Astin, 1991, p. 22). Environment refers to “the programs, personnel, curricula, teaching practices, and facilities that we consider to be part of any education program but also the social and institutional climate in which the program operates” (Astin, 1991, p. 80). Environmental factors that were studied in this research include: workload; productivity; adequacy of the workplace and its resources; satisfaction with work life; and, rewards, flexibility and visibility.

Outcomes (O) can be classified as either cognitive or affective and are the characteristic the institution hopes to influence (Astin, 1991). This dissertation is focused on affective outcomes such as “feelings, attitudes, values, beliefs” (Astin, 1991, p. 43). The outcome that was studied is full-time nursing faculty intent to leave academe. The I-E-O model provided a useful framework for studying the relevant variables.

Summary

The nursing faculty shortage has been discussed extensively in the literature. Reasons cited for the shortage include: multiple educational pathways at the pre-licensure level; an inadequate number of potential faculty in the pipeline due to lack of interest in academics; delayed progression into graduate programs; advanced faculty age; compensation that is less than salaries of clinical nurses; workload; and, dissatisfaction with a variety of issues. Some studies have specifically examined faculty reasons for
intent to stay in or leave academe. Despite the proliferation of articles, most include a statement about the lack of research and conclusive findings.

Clearly, compensation, workload, and faculty age are three predominant issues that affect the nursing faculty shortage. There is a serious lack of doctoral-prepared faculty necessary for the research and scholarly work needed to advance the practice of nursing. In addition to the teaching, service, and research demands placed upon all educators, nursing educators have the added requirements of maintenance of clinical knowledge and expertise, as well as keeping abreast of a constantly changing health care environment.

There are no statewide studies that focus solely on faculty intent to leave academe, even though this is a major barrier to increasing educational capacity. This dissertation provides significant information about what variables, if any, impact faculty intent to leave academe in Ohio.

Astin’s involvement theory and Mobley’s turnover theory informed the study. The literature illustrates that nursing educators are highly involved and committed to their faculty roles. They value their work with students and take great pride in graduating competent students. Despite major concerns about the significant work load inherent in nursing education, faculty members are satisfied overall with their career. They love the autonomy and flexibility inherent in the educator role, though those benefits are threatened by general workload demands and pressures to increase enrollment.

Mobley’s framework examines individual behaviors that influence turnover decisions and includes the impact of organizational issues, the economy and labor market, and non-work variables. The literature review supports the need for an
organization that: provides strong leadership and professional development of faculty; discusses the influence of the economy in creation of the RN and faculty shortage, and now, the temporary relief of the RN shortage; and, the needs of the family in influencing faculty decisions to become faculty, stay as faculty, or leave the faculty role.

The faculty shortage is a serious issue, with ramifications for faculty, students, patients, the health care arena, and the nation. From Allan and Aldebron (2008), “every crisis presents an opportunity for positive change. The nurse shortage creates both an incentive and a moral imperative for the nursing profession and key stakeholders to act” (p. 295). This dissertation clearly filled a gap in the faculty shortage literature by examining the variables that impact faculty intention to leave academe in the state of Ohio.

Chapter 3 discusses the methodology for this dissertation, including sample participants, instrumentation, and data collection and analysis procedures. Chapter 4 focuses on the results of the research. Chapter 5 summarizes the study and discusses the findings and conclusions, including practice implications and recommendations for further research.
Chapter 3

Methodology

This chapter focuses on the methodology used to study the influence of selected faculty, institutional, and environmental characteristics on the intent of full-time, Ohio nursing faculty to leave academe. Sections in this chapter include the theoretical framework, the data analysis framework, the selection of participants, the survey instrument, data collection procedures, data analysis procedures, assumptions, limitations, and the summary.

This dissertation used data collected from a quantitative survey developed by the Center for State Health Policy at Rutgers University in order to gain insight into which factors, if any, predict full-time nursing faculty intent to leave their academic position. Minimal modifications were made to the survey tool. Institutional characteristics were obtained from the Integrated Postsecondary Education Data System (IPEDS). Survey data were organized into blocks to determine which variables, if any, were significant predictors of intent to leave academe.

Theoretical Frameworks

The two theoretical frameworks used in this study were involvement theory and turnover theory. The basic tenet of Astin's (1985) involvement theory is that faculty members are more satisfied with their role when they are involved in both the academic and social aspects of the institution. An involved faculty member is one who devotes considerable energy to academe, spends much time on campus, participates actively in institutional committees and activities, and interacts often with other faculty and students (Astin, 1985). Faculty development is “directly proportional to the quality and quantity”
of involvement (Astin, 1985, p. 136).

Turnover theory focuses on economic, organizational, and individual variables that influence turnover. Intent to leave has been identified as the most significant predictor of turnover, which relates directly to this dissertation (Mobley, 1979, 1982). A significant nursing shortage is predicted for Ohio, so understanding the intentions of nursing faculty is critical to developing strategies to address the RN shortage, including retention and recruitment of educators.

Data Analysis Framework

Astin’s I-E-O model provided the data analysis framework for this study. Inputs are faculty characteristics, skills, and abilities (Astin, 1985). Input measures can be fixed or change over time (Astin, 1991). The fixed input measures for this dissertation included gender, race, and ethnicity. Input measures that may change over time include age, highest nursing degree earned, highest degree earned in any field, certification in advanced practice, and job characteristics and rank. “Inputs are always related to outputs…and inputs are almost always related to environments” (Astin, 1991, p. 64). It is important to control for inputs, because any relationship between the environment and outcomes might be due to the effect of inputs, rather than due to the effect of the environment (Astin, 1991).

Environmental variables are the experiences that impact the individual, and may include teaching practices, curricula, personnel, facilities, and social and institutional policies and practices (Astin, 1991). Astin (1985) noted the “institution…represents an intervention in the life of these individuals that is designed to improve and strengthen their talents” (p. 16). Environmental variables can be divided into two types, “the
characteristics of the total institution (its size, selectivity, etc.)…. and the particular educational experiences within the institution,” to which only some faculty members are exposed (Astin, 1991, p. 85).

The characteristics of an institution are known as “between-institution” environmental variables (Astin, 1991, p. 86). This dissertation included: size; type of control (public, private); program type (ADN, BSN, 2nd degree BSN/MSN; LPN to RN; RN-to-BSN, RN-to-MSN; master’s, DNP, RN-to-DNP; PhD); and, locale (rural: distant or fringe; town: distant or fringe; suburb: small, medium, or large; and, city: small, medium, or large) as between-institution variables. Institution size, type of control, and locale were obtained from IPEDS data. Program type was obtained from the survey. Nursing faculty members at different types of institutions have different work responsibilities, particularly related to research, scholarship, and clinical practice, so between-institution variables are important to study in terms of their impact on intent to leave academe.

Within-institution measures are the “particular educational experiences” (Astin, 1991, p. 85). Within-institution variables examined in this dissertation included: workload; productivity; adequacy of the workplace environment and resources; and rewards, flexibility, and visibility. The subset of variables associated with each of the within-institution variables is listed in Appendix B.

Intermediate educational outcomes can also be classified as part of the institutional environment. Faculty are exposed to different experiences as a result of the choices they make within the environment. Any faculty member’s environment is “self-produced” to some extent (Astin, 1991, p.83). It is important to measure the effect of
these experiences on the dependent variable. Faculty satisfaction was the intermediate educational outcome variable examined in this dissertation. Astin (1991) states “perhaps the single most important affective-psychological area for outcomes assessment is [faculty] satisfaction” (p. 61). The subjective experience and perceptions of faculty “should be given significant weight” (Astin, 1991, p. 62).

Outputs are classified as either affective or cognitive (Astin, 1991). Affective outcomes relate to “feelings, attitudes, values, beliefs, self-concept, aspirations, and social and interpersonal relationships” (Astin, 1991, p. 43). Cognitive outcomes lie in the intellectual domain. This dissertation focused on intent to leave academe, which falls in the affective domain.

The I-E-O framework was selected for this dissertation because the study examined the impact of input and environmental variables on the outcome.

Input and outcomes refer simply to the state of the person at two different points, and environment refers to the intervening experiences. We are particularly interested in learning about environmental experiences that can be controlled or changed, since it is these experiences that offer the possibility of improving outcomes in the future. (Astin, 1991, p. 22)

This dissertation sought to identify variables that influence full-time faculty intent to leave academe, so that educational policies and practices can be modified to improve recruitment and retention.

**Population and Sample of Interest**

The population of interest for this dissertation included full-time, pre-licensure and graduate faculty from nursing programs in Ohio. From the Ohio Board of Nursing’s 2013 licensure renewal survey, 3,644 nurses identified their primary practice as education, though the data did not indicate full- or part-time status (OBN, 2013). The
assumption is that a majority of these RNs teach in a nursing education program, however, some may be employed as educators in hospital and industry settings, or licensed practical nursing programs, which were not part of this study. No report was found that gave the definitive number of full-time nursing faculty in the state.

The sample for the dissertation included full-time nursing faculty from 60 two- and four-year public and private, not-for-profit institutions in Ohio. Diploma programs were not included as IPEDS data are not available for this program type. For-profit nursing programs were eliminated, as faculty email addresses were not accessible from institutional websites. One four-year, private, not-for-profit institution was eliminated from the study as the institution required formal Institutional Review Board approval.

A nonrandom, purposive sample was used for sample selection (Lunenburg & Irby, 2008). All full-time pre-licensure and graduate faculty from two- and four-year public not-for-profit and private not-for-profit nursing schools in Ohio were asked to complete the survey, in order to determine the intent of faculty to leave academe. Faculty members were asked to participate, regardless of tenure status, rank, or length of time at the institution.

The names and email addresses of faculty were obtained from each school’s website. As many websites did not specify whether the individual was full-time, part-time, or serving in an administrative capacity, the survey was sent to all RNs listed on the nursing department website, yielding an N = 1,528. Using Cohen’s model, with a probability of 0.05, an effect size of 0.15, a power level of 0.8, and 60-predictor variables, a minimum sample of 260 is required (Chuan, 2006). A statistical level of significance of 0.05 is a standard research norm (Chuan, 2006). The effect size of 0.15 is
considered a medium effect and is “desirable as it would be able to approximate the average size of observed effects in various fields” (Chuan, 2006, p. 81). A power level of 0.8 minimizes the risk of a Type II error, while allowing for a sample size that is practical (Chuan, 2006). To attain this number of returned surveys, it was important to include all nursing faculty from the specified programs in the sample.

**Survey Instrument**

The survey tool was based on the *National Survey of Nurse Faculty*, developed by the Center for State Health Policy at Rutgers University, with funding by the Robert Wood Johnson Foundation. The Center’s website indicates the survey’s “items and measures were drawn from prior studies (e.g., NLN and NLN-Carnegie faculty surveys) whenever possible” (Rutgers University Center for State Health Policy, 2011, Research findings and tools section, para. 3). The principal investigator, Dr. Michael Yedidia, granted permission to use the survey tool posted on the *Evaluating Innovations in Nursing Education* website, http://evaluatinginnovationsinnursing.org/nufaqs-nurse-faculty-data-query/?intro=yes.

The survey instrument was modified to minimize responses that required a written response. Modifications included elimination of certain open-ended questions. Questions related to the reason for intent to leave academe were modified to include factors such as health and family/personal considerations. Twelve questions that did not relate to the purpose of the study were eliminated. One goal of the researcher was to limit the time it took to complete the survey to 15 minutes or less, as this is an important factor in increasing the rate of survey completion (Baruch & Holtom, 2008; Fan & Yan, 2010).
The survey consisted of 45-items designed to study “workload, job characteristics, and attitudes toward work-life” (Rutgers University Center for State Health Policy, 2011, Nurse faculty query section, para. 1). This dissertation included pre-licensure and graduate-level faculty, while the Rutgers’ study focused only on pre-licensure faculty. The survey was sent electronically to all full-time nursing faculty from two- and four-year public, not-for-profit and private, not-for-profit nursing schools in Ohio.

The dependent variable—intent to leave academe—had two questions included in the survey. Faculty were asked how likely they were to leave academe within the next 5 years and the next 10 years. A five-point Likert scale included very likely, somewhat likely, somewhat unlikely, very unlikely, and not applicable as response options. This study focused on intent to leave in the next five years, as this identifies emergent issues to be addressed by educational and health care institutions.

Validity of the instrument is an important aspect of sound research. The survey was developed by a national group of experts in consult with nursing leaders and based on previous nursing survey studies (Rutgers University Center for State Health Policy, 2011, Nurse faculty query section, para. 1). Although minor modifications were made to the Rutger’s survey, it has been administered at a national level and, as such, has been previously tested for validity. A pilot of the survey was conducted with an Associate-degree nursing program in Michigan to ensure the survey modifications were clear, to validate the time for survey completion, and to identify any technology issues. The pilot was conducted the first week of the semester, so only two of six faculty members
completed the survey, but the feedback resulted in clarification of the survey and correction of a technology issue.

Data Collection Procedures

This dissertation employed quantitative survey methodology. Approval from the University of Toledo Institutional Review Board (IRB) was obtained prior to data collection in order to ensure ethical standards were followed.

Baruch and Holtom (2008) found “the content of the study was found to be the most important factor in stimulating response rates, followed by sponsorship of the study” (p. 1145). As such, the researcher contacted three of the state’s major collaborative groups, the Northeast Ohio Nursing Initiative (NEONI), the Ohio League for Nursing (OLN), and the Ohio Action Coalition (OAC), to secure letters of support for the study so as to improve response rates.

In September, 2013, a letter was mailed to all nursing program deans and directors from two- and four-year, public not-for profit, and private not-for-profit schools in Ohio, informing them of the study and requesting their support. The mailing included the letters of support from NEONI, OLN, and OAC, along with notification of IRB approval. Mixed-method approaches, including pre-notification letters coupled with emails, have been found to increase survey response rates (Baruch & Holtom; 2008; Cobanoglu, Warde, & Moreo, 2001). A meeting of deans and directors from baccalaureate and advanced-degree programs coincided with the receipt of the letter. During this meeting, one dean endorsed the survey, stating it was essential that faculty participate. The researcher did not solicit this endorsement.

Full-time faculty were sent an email with an informed consent document, the
letters of support, and the survey link approximately 10 days after the letter was mailed to
the deans and directors. Faculty names and email addresses were obtained from each
school’s website. The subject line of the email indicated that the request was from a
doctoral student and that the topic related to faculty issues. An opportunity to participate
in a raffle for five different prizes was offered as an incentive for survey completion.
Capturing the interest of faculty is a key element in obtaining a high response rate, which
was the goal of these measures (Baruch & Holtom, 2008; Fan & Yan, 2010). The email
provided assurance of confidentiality and estimated a 15-minute survey completion time.
Recipients were informed that activating the survey link implied they had read the survey
description and agreed to participate. The researcher’s contact information was provided.
All emails were sent from the researcher’s education institution to minimize spamming
filters. A picture of the researcher was included in the email, as personalization increases
motivation to take and complete the survey (Dillman, 2007; Sánchez-Fernández, J.,

Six days after the initial faculty survey was sent, deans and directors were sent a
reminder email, asking them to encourage faculty to participate in the survey. Upon
receipt of this email, one baccalaureate program dean indicated that the researcher would
need to go through the school’s formal IRB process in order for faculty to participate.
The 64 faculty members from this program were eliminated from the sample. One
associate-degree program required that the researcher contact the Institutional Research
(IR) office for approval. The IR administrator requested a copy of the survey, the IRB
application, and the approval document from the University of Toledo. Approval was
granted once these documents were reviewed.
A second email was subsequently sent to faculty, requesting survey completion and thanking them for their time. “Experimental studies have consistently proved the effects of pre-notification and reminders on response rates. The effect size ranges from modest to doubling the response rate” (Fan & Yan, 2010, p. 135). The survey was closed 10 days after this second survey reminder email was sent.

**Data Analysis Procedures**

Data for this dissertation was obtained from the electronic survey distributed to full-time nursing faculty and IPEDS. The methodology used for the study was a step-wise, multiple regression analysis using seven blocks with variables from the survey. Regression analysis controls or eliminates the effect of input variables, so that the researcher can determine the impact, if any, of the environmental variables (Astin, 1991). Multiple regression identifies “the best combination of predictors (IVs) [independent variables] of the dependent variable” (Mertler & Vannatta, 2005, p.14).

The Statistical Package for the Social Sciences (SPSS, version 21.0) was the software package used to analyze the data. The step-wise methodology, also known as Causal Analytic Modeling with Blocked Regression Analysis (CAMBRA), was used to determine which variables were significant predictors of full-time nursing faculty intent to leave academe in Ohio. CAMBRA has multiple advantages. It allows the researcher to “block variables in order of their presumed temporal sequencing” (Astin & Denson, 2009, p. 355). In addition, there is an ability to conduct a path-wise analysis in order to “show all direct and indirect paths to the dependent variable, but which also shows…how each indirect path has been mediated by the action of specific intervening variables” (Astin & Denson, 2009, p. 355). The advantage to step-wise multiple regression for this
study was that analysis showed the influence of the input variable on the environmental and dependent variables, as well as the influence of the environmental variables on the dependent variable (see Figure 2). The mediating effect of the environment was evident, so that there was not a false assumption of the effect of the input variables on the outcome.

Prior to running the regression, a preliminary bivariate correlation was conducted to determine the degree of relationship between the dependent variable, full-time Ohio nursing faculty intent to leave, and each of the individual independent variables from the

\textit{Figure 2. Model for the Study}
survey. The independent variables that showed no relationship to the dependent variable were eliminated from the analysis.

Independent variables that showed a relationship to the dependent variable were placed in blocks based on similar characteristics, then added to the equation one at a time “until no additional variable is capable of adding significantly to the prediction of” intent to leave (Astin, 1991, p. 284). The researcher controlled the order of entry to observe which variables in each block added to the equation at the point of entry (Polit, 2010).

The input variables were placed in blocks one and two. Block one included faculty characteristics, and block two consisted of faculty education and job characteristic variables. The third block included the “between college” variables, including size, type of control, program type, and locale.

The next four blocks were the “within college” environmental variables. These variables relate to workload, productivity, adequacy of the workplace environment and resources, and rewards, flexibility, and visibility characteristics. The last block was the intermediate educational outcome, which included satisfaction with work-life characteristics.

**Assumptions**

An assumption is a “condition that is presumed to be true and, when ignored or violated, can lead to misleading or invalid results” (Polit, 2010, p. 32). There were three assumptions in this study.

The first assumption was that nursing faculty found this subject to be of critical importance and, by extension, answered survey questions honestly. It is possible that faculty responses were skewed due to temporary conditions in the environment. For
example, if a faculty member who responded to the survey had a disagreement with a colleague or administrator prior to taking the survey, his/her response to a particular survey question may be influenced by the event. It is possible that if the survey was taken at a different time, the response would be different.

The second assumption was that non-respondents would have the same answer to survey questions as respondents. The researcher assumed that, since faculty characteristics and work environments are similar for both respondents and non-respondents, either group’s response would be the same. However, in a study of employee responses to organizational surveys, Rogelberg, Luong, Sederburg, and Cristol (2000) found that non-respondents “possessed greater intentions to quit, less organizational commitment, and less satisfaction toward supervisors and their own jobs” (p. 284). Although this dissertation is not an organizational survey, the researcher must consider these reasons for non-response in the analysis of data.

The third assumption was that faculty members did not discuss the survey. This assumption is of particular importance. The survey was sent to all full-time faculty members, with several weeks allowed for response. Once a faculty member takes the survey, s/he would have the opportunity to discuss the survey with peers. It is impossible to control for this variable.

**Limitations**

The major limitation of the survey was the sample. The dissertation focused on all full-time faculty members from two- and four-year, public not-for-profit and private not-for-profit nursing programs in Ohio. As a result, findings cannot be generalized to all nursing faculty in the state or nation.
The accuracy of the nursing program websites is not guaranteed, which is another limitation. The website search was conducted in the summer, resulting in some inaccuracy due to faculty turnover. Institutions can be slow in updating a website, so it is likely the survey did not reach all full-time nursing faculty from the desired sample.

The third limitation is omitting part-time nursing faculty, who play a significant role in nursing education. In a 2004 survey of Northeast Ohio pre-licensure nursing education programs, 24% of classroom faculty members and 76% of clinical faculty members were part-time, indicating a high degree of involvement in nursing education (Center for Health Affairs, 2004). Part-time faculty members were not included in the study, because many of the variables are different. For example, part-time faculty members are not tenured, are paid a different scale, and have different workload requirements. Input from part-time nursing education faculty members was excluded from this study for these reasons.

Survey methodology results in data that are obtained at one point in time. As mentioned, faculty responses to certain variables, such as workload and satisfaction, change over time, making this another limitation.

Quantitative studies have limitations because they do not provide an opportunity to speak with participants. There may be variables not included in the study that influence faculty intent to leave academe. Qualitative studies provide the opportunity to let the participants reflect on the topic in depth.

Summary

This chapter provided an overview of the methodology used to determine what factors, if any, influence full-time, nursing faculty intent to leave academe in Ohio. The
sections of this chapter included the theoretical framework, data analysis framework, selection of participants, survey instrument, data collection procedures, data analysis procedures, assumptions, and limitations. A survey, developed by the Center for State Health Policy at Rutgers University, with funding by the Robert Wood Johnson Foundation, was modified and sent to all nursing faculty in the state of Ohio. A step-wise block multiple regression was used to analyze the data. The researcher hopes results will be used by nursing education institutions in the state to develop strategies to address the faculty shortage through policies aimed at recruitment and retention of nursing faculty. The study can also be replicated in other states.

Chapter 4 discusses detailed results of the research. Chapter 5 includes the findings, conclusions, and recommendations for further research. It is hoped the findings from this study provides crucial information to educational institutions and health-care advocates regarding full-time nursing faculty and what factors, if any, influence their intent to leave academe. Important policies related to recruiting and retaining nursing educators can be developed in an effort to address this serious issue.
Chapter 4  
Presentation and Analysis of the Data  

Introduction  

The purpose of the study is to identify which factors, if any, influence full-time nursing faculty intent to leave academe in Ohio. This chapter describes the results of data analysis for the following research question:  

1. What influence, if any, do selected faculty characteristics have on full-time nursing faculty intent to leave academe in the next five years?  
2. What influence, if any, do institutional characteristics have on full-time nursing faculty intent to leave academe in the next five years?  
3. What influence, if any, do selected environmental characteristics have on full-time, nursing faculty intent to leave academe in the next five years?  

The chapter begins with descriptive statistics, including an overview of the survey response rate and a description of faculty, institutional, and environmental characteristics that directly relate to the three research questions. Frequencies for the dependent variable—intent to leave academe in five years—are also be reported. The process used in analyzing the data are described, including preparation of the data and testing for underlying assumptions. Results of the Pearson correlation coefficient and the step-wise, multiple regression analysis are reported.  

Descriptive Statistics  

The population for the study was comprised of full-time nursing faculty from 60 two- and four-year public and private not-for-profit Ohio institutions. Faculty names were obtained from institutional websites, though it was unclear how many were full-
time faculty versus part-time faculty or administrators. The survey was sent to 1,528 faculty members from ADN, BSN, and advanced-degree programs. There were 494 (32.3%) surveys returned. Of these, 426 (86.2%) responses from full-time faculty were entered into the regression analysis. As discussed in the methodology section, a minimum sample of 260 was required. The number of useable surveys—426—exceeded this requirement. An adequate sample size increases predictive value and decreases the risk of Type II errors (Polit, 2010).

Reasons for elimination included 18 faculty members who indicated they were part-time, and 21 full-time faculty members who did not respond to the dependent variable question. After the initial email was sent to faculty, one institution indicated that the researcher would have to apply for Institutional Review Board approval. For this reason, responses from the 14 faculty members from this school who had completed the survey were eliminated. Five faculty members received a forwarded link. As their institutional identification (i.e., size, control, geographic location) was unknown, these records were deleted. Finally, 10 responses were deleted due to inability to match these programs with Integrated Postsecondary Education Data System (IPEDS) data.

Faculty characteristics included the demographics of age, sex, and race; the level of faculty education and advanced practice certification; and, job characteristics and rank. Institutional characteristics included program type, locale, size, and control. Environmental characteristics included workload, productivity, adequacy of the workplace environment and resources, and rewards, flexibility, and visibility. The last set of variables—the intermediate educational outcomes—relate to respondents’ work life.
satisfaction. An overview of the faculty, institutional, and environmental characteristics follows.

**Faculty characteristics.** Nursing faculty members who responded to the survey were primarily female (95.7%) and Caucasian (93.1%), ranging in age from 27-77 years. Approximately 50.6% of nursing faculty members are over the age of 55, with a mean age of the sample respondents of 52.8 years. The majority, 67.5%, holds a master’s degree in nursing, while 30% have a doctoral degree, and 28% have certification as advanced practice RNs. An additional 21% are currently enrolled in doctoral education programs (see Table 1). The ranks most frequently marked were assistant or associate professor (61.3%). Almost 30% of faculty are not on the tenure track; 20.4% are on the tenure track, but not tenured; 26.1% are tenured; and 23.5% work at an institution without tenure status. Most faculty members have 9-month academic appointments (52.6%), while 17.7% have 10-month appointments and 27.1% work the full calendar year. Twenty-three percent of respondents indicated that more than 50% of their faculty position is dedicated to administrative duties. Sixty-seven percent of faculty members have been at their current institution for 1-10 years. In addition, 80.6% have taught full-time at another institution for 1-10 years.

Compensation is an important variable related to the nursing faculty shortage. The majority of respondents (58.4%) earned between $50,000 and $74,999 in their primary academic position (see Table 2). Almost 15% earn this same amount through another income source, with an additional 10% earning $75,000-$100,000 from another source. Only 34.4% of faculty indicated they hold some type of secondary employment. The majority who engage in secondary employment (59.8%) work in clinical positions,
while 13% are consultants, 13% work a second academic job, and 13% hold non-nursing positions. The reasons cited for secondary employment included to augment pay (20.9%), maintain clinical expertise (20.2%), personal interest (14.3%), and professional development (13.1%). Most faculty members (90.8%) work less than 20 hours/week at a secondary position.

Table 1

Faculty Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>N</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>27-40</td>
<td>54</td>
<td>13.4</td>
</tr>
<tr>
<td>41-54</td>
<td>145</td>
<td>36</td>
</tr>
<tr>
<td>55-65</td>
<td>184</td>
<td>45.6</td>
</tr>
<tr>
<td>66-77</td>
<td>20</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>403</td>
<td>100</td>
</tr>
<tr>
<td>Highest Degree Earned</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BSN</td>
<td>6</td>
<td>1.5</td>
</tr>
<tr>
<td>MSN</td>
<td>272</td>
<td>67.5</td>
</tr>
<tr>
<td>DNP</td>
<td>38</td>
<td>9.4</td>
</tr>
<tr>
<td>PhD</td>
<td>87</td>
<td>21.6</td>
</tr>
<tr>
<td>Total</td>
<td>403</td>
<td>100</td>
</tr>
<tr>
<td>Enrolled in Advanced Degree Program</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Master's in Nursing</td>
<td>6</td>
<td>1.4</td>
</tr>
<tr>
<td>DNP</td>
<td>35</td>
<td>8.2</td>
</tr>
<tr>
<td>PhD in Nursing</td>
<td>32</td>
<td>7.5</td>
</tr>
<tr>
<td>PhD in another field</td>
<td>13</td>
<td>3.1</td>
</tr>
<tr>
<td>EdD in another field</td>
<td>8</td>
<td>1.9</td>
</tr>
<tr>
<td>Total</td>
<td>94</td>
<td>22.1</td>
</tr>
</tbody>
</table>
### Table 2

*Estimated Annual Salary at Primary Academic Job and Annual Income From Other Sources*

<table>
<thead>
<tr>
<th>Salary From Primary Academic Job</th>
<th>N</th>
<th>Percent</th>
<th>Income From Other Sources</th>
<th>N</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0</td>
<td>-</td>
<td>-</td>
<td>$0</td>
<td>152</td>
<td>36.6</td>
</tr>
<tr>
<td>$1-$24,999</td>
<td>-</td>
<td>-</td>
<td>$1-$4,999</td>
<td>38</td>
<td>9.2</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>-</td>
<td>$5,000-$9,999</td>
<td>36</td>
<td>8.7</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>-</td>
<td>$10,000-$14,999</td>
<td>23</td>
<td>5.5</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>-</td>
<td>$15,000-$24,999</td>
<td>15</td>
<td>3.6</td>
</tr>
<tr>
<td>$25,000-$49,999</td>
<td>50</td>
<td>11.8</td>
<td>$25,000-$49,999</td>
<td>22</td>
<td>5.3</td>
</tr>
<tr>
<td>$50,000-$74,999</td>
<td>248</td>
<td>58.4</td>
<td>$50,000-$74,999</td>
<td>61</td>
<td>14.7</td>
</tr>
<tr>
<td>$75,000-$99,999</td>
<td>95</td>
<td>22.4</td>
<td>$75,000-$100,000</td>
<td>42</td>
<td>10.1</td>
</tr>
<tr>
<td>$100,000-$149,000</td>
<td>25</td>
<td>5.9</td>
<td>&gt;$100,000</td>
<td>26</td>
<td>6.3</td>
</tr>
<tr>
<td>$150,000-$199,999</td>
<td>7</td>
<td>1.6</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>425</td>
<td>100</td>
<td>Total</td>
<td>415</td>
<td>100</td>
</tr>
</tbody>
</table>

**Institutional characteristics.** The majority of institutions in the study were small, with less than 5,000 students (58.2%), public (60.3%), and located in a city or suburb (71.1%). As Table 3 shows, faculty respondents taught in BSN (46.7%), ADN (41.8%), and master’s programs (30%). Some faculty members teach in multiple program types. Only 15% of faculty participants taught in doctoral programs.

**Environmental characteristics.** Environmental characteristics included workload, productivity, adequacy of the workplace environment and resources, and rewards for innovation, flexibility, and visibility.
Table 3
Institutional Sample by Size, Control, Geographic Locale, and Type of Program Taught

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;5,000</td>
<td>248</td>
<td>58.2</td>
</tr>
<tr>
<td>5,001-14,999</td>
<td>54</td>
<td>12.7</td>
</tr>
<tr>
<td>15,000+</td>
<td>124</td>
<td>29.1</td>
</tr>
<tr>
<td>Control</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private, not-for-profit</td>
<td>169</td>
<td>39.7</td>
</tr>
<tr>
<td>Public</td>
<td>257</td>
<td>60.3</td>
</tr>
<tr>
<td>Geographic Locale</td>
<td></td>
<td></td>
</tr>
<tr>
<td>City</td>
<td>176</td>
<td>41.3</td>
</tr>
<tr>
<td>Suburb</td>
<td>127</td>
<td>29.8</td>
</tr>
<tr>
<td>Town</td>
<td>107</td>
<td>25.1</td>
</tr>
<tr>
<td>Rural</td>
<td>16</td>
<td>3.8</td>
</tr>
<tr>
<td>Respondent College/University Carnegie Classification</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research University</td>
<td>123</td>
<td>28.9</td>
</tr>
<tr>
<td>Master’s College and University</td>
<td>99</td>
<td>23.2</td>
</tr>
<tr>
<td>Baccalaureate</td>
<td>41</td>
<td>9.6</td>
</tr>
<tr>
<td>Associate Degree</td>
<td>163</td>
<td>38.3</td>
</tr>
<tr>
<td>Type of Program Taught</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ADN</td>
<td>178</td>
<td>41.8</td>
</tr>
<tr>
<td>BSN</td>
<td>199</td>
<td>46.7</td>
</tr>
<tr>
<td>2nd degree BSN/MSN</td>
<td>39</td>
<td>9.2</td>
</tr>
<tr>
<td>LPN to RN</td>
<td>32</td>
<td>7.5</td>
</tr>
<tr>
<td>RN to BSN</td>
<td>75</td>
<td>17.6</td>
</tr>
<tr>
<td>RN to MSN</td>
<td>15</td>
<td>3.5</td>
</tr>
<tr>
<td>Master’s (MSN, MS, MN, MA)</td>
<td>128</td>
<td>30</td>
</tr>
<tr>
<td>DNP</td>
<td>42</td>
<td>9.9</td>
</tr>
<tr>
<td>PhD</td>
<td>20</td>
<td>4.7</td>
</tr>
<tr>
<td>RN to DNP</td>
<td>6</td>
<td>1.4</td>
</tr>
</tbody>
</table>

Note. ADN = Associate Degree in Nursing; BSN = Baccalaureate Degree in Nursing; 2nd degree BSN/MSN = students with another degree pursuing either a BSN or a Master of Science in Nursing; LPN to RN = Licensed Practical Nurse to Registered Nurse; RN to BSN = Registered nurse to BSN program; RN to MSN = Registered nurse to MSN program; MSN = Master of Science in Nursing; MS = Master of Science; MN = Master’s in Nursing; MA = Master of Arts; DNP = Doctor of Nursing Practice; PhD = Doctor of Philosophy; RN to DNP = Registered Nurse to Doctor of Nursing Practice
Workload. As for hours spent on all work activities, 38.2% of respondents report working 51 hours or more a week. Specific work activities include: advising/mentoring students (1-15 hours: 92.5%; 0 hours: 1.9%); didactic teaching (1-15 hours: 56.2%; 0 hours: 3.8%); clinical teaching (1-15 hours: 55%; 0 hours: 19.1%); research (1-15 hours: 38.3%; 0 hours: 58%); service (1-15 hours: 89.6%; 0 hours: 1.9%); clinical practice (1-15 hours: 15.3%; 0 hours: 82.4%); and, other work activities (1-15 hours: 65.7%; 0 hours: 25.6%). Survey findings demonstrate that most respondents are involved in advising/mentoring students, didactic and clinical teaching, and institutional service. The majority of respondents (82.4%) are not engaged in clinical practice.

Productivity. During the 2012-13 academic year, 66% of the nursing faculty surveyed served on 2-4 institutional or department committees, 65.9% developed or revised 1-2 courses or programs, and 27.9% converted an existing course into an online format. Respondents were least likely to be engaged in serving on a master’s-level thesis or capstone committees (20.6%) or a doctoral-level thesis or capstone committees (15.8%), presenting at national conferences (43.3%), publishing (25.9%), preparing grant proposals (28.7%), or reviewing refereed journals (31.7%), which may be explained by the fact that only 15% of respondents teach at the doctoral level. In addition, many nursing faculty may likely work at teaching-oriented versus research-oriented institutions.

Adequacy of the workplace environment. Responses to questions related to workplace environment indicate that faculty agree strongly or somewhat that they have: the necessary equipment and supplies to adequately teach students (84.4%); sufficient office space (83.5%); colleagues to ask advice on promotion (82.3%); sufficient classroom space (72.6%); sufficient teaching support (72.1%); sufficient technology
support (74.8%); a sense of community within the department or school (70.1%); adequate opportunities for fitness and recreation (65.5%), and confidence in the direction of the department or school (64.9%). Forty-four percent agree strongly or somewhat that they have adequate travel funds for professional development.

Forty-five percent of faculty felt their peers offered research advice when needed, while 33.3% indicated this category did not apply to them. Only 12.5% indicated they had sufficient internal research funding, and another 54.5% reported this category was not applicable.

**Rewards for innovation, flexibility, and visibility.** The next set of environmental variables (see Table 4) included rewards for innovation in the job, amount of flexibility in the job, and the amount of visibility of work-related activities within the institution. The question had a five-point rating scale, with one indicating none and five indicating a lot. Faculty indicated at a level four or higher that they have flexibility in their job (52.3%), are rewarded for innovation (23.4%), and have an amount of visibility of work-related activities within the institution (21.6%). Forty-four percent of faculty indicated they had little to no rewards for innovation (44.2%).

**Intermediate educational outcomes.** The last set of variables focused on satisfaction with work life. The majority of faculty (81.1%; N = 342) is somewhat to very satisfied with their academic job at their primary institution. In reviewing all subcategories of satisfaction, nursing faculty are somewhat to very satisfied with their relationships with students, the variety of work, and the meaningfulness of work. Salary, workload, opportunities for career advancement, opportunities to influence important decisions, and flexibility to balance work and family life had the lowest satisfaction
ratings at less than 70% (see Table 5). The scale ratings ranged from one (very dissatisfied) to four (very satisfied).

Table 4

*Environmental Variables: Rewards for Innovation, Flexibility, and Visibility*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Never 1.0</td>
</tr>
<tr>
<td>Rewards for innovation in job</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>93</td>
</tr>
<tr>
<td>Percent</td>
<td>22</td>
</tr>
<tr>
<td>Amount of flexibility in job</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>8</td>
</tr>
<tr>
<td>Percent</td>
<td>1.9</td>
</tr>
<tr>
<td>Amount of visibility of work-related activities within the institution</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>37</td>
</tr>
<tr>
<td>Percent</td>
<td>8.7</td>
</tr>
</tbody>
</table>

**Dependent Variable Frequencies**

The dependent variable question included two parts. Faculty were first asked how likely they were to leave the field of academic nursing within the next five years, then asked how likely they were to leave the field in 10 years (Table 6). The frequencies indicate 43.7% of faculty members are somewhat to very likely to leave academe in the next five years, and 60.4% within the next 10 years.
Table 5

*Satisfaction with Aspects of Primary Academic Job*

<table>
<thead>
<tr>
<th>Job Aspect</th>
<th>Somewhat to very satisfied N</th>
<th>Somewhat to very satisfied Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student relationships</td>
<td>409</td>
<td>96.7</td>
</tr>
<tr>
<td>Variety of work</td>
<td>391</td>
<td>92</td>
</tr>
<tr>
<td>Meaningfulness of work</td>
<td>390</td>
<td>91.7</td>
</tr>
<tr>
<td>Climate for racial and ethnic faculty members</td>
<td>330</td>
<td>88</td>
</tr>
<tr>
<td>Relationships with nursing faculty relations</td>
<td>368</td>
<td>87</td>
</tr>
<tr>
<td>Job security</td>
<td>361</td>
<td>86</td>
</tr>
<tr>
<td>Opportunity to use skills and abilities</td>
<td>357</td>
<td>84</td>
</tr>
<tr>
<td>Relationships with your faculty colleagues outside of nursing</td>
<td>328</td>
<td>82.6</td>
</tr>
<tr>
<td>Autonomy and independence</td>
<td>349</td>
<td>82.7</td>
</tr>
<tr>
<td>Work schedule</td>
<td>327</td>
<td>76.9</td>
</tr>
<tr>
<td>Benefits</td>
<td>313</td>
<td>75.7</td>
</tr>
<tr>
<td>Quality of your relationship with school administrator</td>
<td>301</td>
<td>70.8</td>
</tr>
<tr>
<td>Flexibility to balance work and family life</td>
<td>294</td>
<td>69</td>
</tr>
<tr>
<td>Opportunity to influence important decisions in your department</td>
<td>282</td>
<td>66.5</td>
</tr>
<tr>
<td>Opportunity for career advancement</td>
<td>248</td>
<td>61.7</td>
</tr>
<tr>
<td>Workload</td>
<td>248</td>
<td>58.5</td>
</tr>
<tr>
<td>Salary</td>
<td>207</td>
<td>48.8</td>
</tr>
</tbody>
</table>
Table 6

Dependent Variable: Intent to Leave Academe

<table>
<thead>
<tr>
<th></th>
<th>Leave academe in 5 years</th>
<th>Leave academe in 10 years</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Very unlikely</td>
<td>166</td>
<td>39.1</td>
</tr>
<tr>
<td>Somewhat unlikely</td>
<td>73</td>
<td>17.2</td>
</tr>
<tr>
<td>Somewhat likely</td>
<td>94</td>
<td>22.1</td>
</tr>
<tr>
<td>Very likely</td>
<td>92</td>
<td>21.6</td>
</tr>
<tr>
<td>Total</td>
<td>425</td>
<td>21.6</td>
</tr>
</tbody>
</table>

The reasons cited for intent to leave academic nursing included: retirement (47.4%); seek a higher salary (18.3%); seek a more manageable workload (8.5%); family/personal considerations (8%); seek a more meaningful job (5.6%); health issues (1.4%); and seek more job security (1.2%).

When asked to describe the position they might hold after leaving academe, 17.8% indicated work in a patient setting, 17.6% unemployed, 16.7% in a non-patient setting, and 8.5% employed, but not in nursing.

The frequencies provide an overview of the survey results, leading to a description of the data analysis and answering the three research questions.

Data Preparation

The electronic survey results were downloaded to a Microsoft Excel file. As described earlier, 68 responses were deleted from the sample. An institutional identification number obtained from IPEDS was correlated with each response. Data
obtained from IPEDS, including control, size, and campus setting, were merged with the survey responses. The data were then uploaded into Statistical Package for the Social Sciences (SPSS, v. 21.0), the software package used for the data analysis.

Twenty-six responses were recoded or dummy coded into different variables prior to data analysis. Reasons for recoding included questions that were on a nominal scale. Several Likert-scale questions were reverse-coded. The original 60-predictor variables, which were broad categories, were transformed into a total of 113 predictor variables, which were entered into the regression as independent variables.

After recoding, the data were carefully analyzed, with modifications made as needed. Reviewing the frequencies helps identify values for variables that fall outside of the normal range (Garson, 2012). This increases confidence in the data and decreases concerns with coding errors.

**Assumptions**

When conducting multiple regression analysis, a number of underlying assumptions should be considered to ensure accuracy of the analysis, including linearity, multicollinearity, and normality (Pallant, 2010; Polit, 2010; Tabachnick & Fidell, 2007).

Linearity is an important assumption in multiple regression analysis. A two-tailed Pearson coefficient was conducted to test for a linear relationship and gauge the strength of the relationship. Thirty-nine predictor variables had a significant bivariate relationship with the dependent variable at the $p < .05$ level and were utilized in the regression analysis.

Lack of multicollinearity is another assumption. According to Garson (2012), “multicollinearity is an unacceptably high level of intercorrelation among the
independents, such that the effects of the independents cannot be separated” (p. 43).

Multicollinearity makes the strength of the variables as predictors unreliable. Tabachnick and Fidell (2007) stated, “if a bivariate correlation is too high, it shows up in a correlation matrix as a correlation about .90” (p. 89). No independent variables in the correlational analysis for this study were related with one another at a .90 or higher level, thus indicating that there were no initial concerns regarding multicollinearity. However, the Variance Inflation Factor (VIF) and tolerance scores from the regression analysis were reviewed for multicollinearity. For purposes of this study, a VIF > 10 and tolerance < .10 were used (Pallant, 2011). Scores for both VIF and tolerance met these criteria, providing assurance that there were not high levels of intercorrelation.

Normality is the last assumption that was considered. A normal probability plot of the regression-standardized residual demonstrated that there were no major deviations from normality.

**Regression Analysis**

As outlined in Chapter 3, the methodology used for the research was step-wise, multiple regression analysis, using seven blocks with predictor variables grouped according to shared characteristics. In stepwise regression,

[The] equation starts out empty and IVs are added one at a time if they meet statistical criteria, but they may also be deleted at any step when they no longer contribute significantly to regression. Statistical regression is typically used to develop a subset of IVs that is useful in predicting the DV, and to eliminate those IVs that do not provide additional prediction to the IVs already in the equation. (Tabachnick & Fidell, 2007, p. 140)

The statistical criteria that was used for the regression was the SPSS default criteria for entry and exit. The default criteria allow predictor variables to enter the
equation with a p-value less than .05. Variables remain in the equation until they exceed a p-value of .10.

The variables that were included in the step-wise regression were the predictor variables with zero-order correlations that had a significant relationship at the p ≤ .05 level with the criterion variable. The preliminary bivariate correlation determined the degree of relationship between the dependent variable—full-time Ohio nursing faculty intent to leave academe—and each of the survey’s 113 individual predictor variables. Thirty-nine predictor variables showed a statistically significant relationship with the criterion variable at the p ≤ .05 level of significance. Missing data were replaced with the mean value.

The variables were entered in a step-wise block form as follows:

- Block 1: Faculty education
- Block 2: Faculty characteristics
- Block 3: Between-college variables
- Block 4: Productivity variables
- Block 5: Adequacy of the workplace environment and resource variables
- Block 6: Rewards, flexibility and visibility variables
- Block 7: Satisfaction variables

The methodology chapter included a block on workload characteristics, but as none of the bivariate correlations were significant, no predictor variables from this block were entered into the regression analysis. Table 7 summarizes the findings related to the dependent variable, *intent to leave academe within five years*. The regression analysis produced nine models in which a new predictor variable was entered. Only four
predictor variables—*number of years ago highest nursing degree was earned* (p < .01); *number of years ago highest non-nursing degree was earned* (p < .01); *age* (p < .000); and, *overall satisfaction* (p < .000) were significant in the last model. Five other variables entered the final model, but were not significant predictor variables.

Table 7

**Significant Predictors of Intent to Leave Academe in Five Years**

<table>
<thead>
<tr>
<th>Predictor Variable</th>
<th>Block</th>
<th>Zero r</th>
<th>Step β</th>
<th>Final Step</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of years ago highest nursing degree was earned</td>
<td>1</td>
<td>.31**</td>
<td>.31***</td>
<td>.14** 43.72***</td>
</tr>
<tr>
<td>Number of years ago highest non-nursing degree was earned</td>
<td>1</td>
<td>.40**</td>
<td>.13**</td>
<td>.11** 21.13***</td>
</tr>
<tr>
<td>Age</td>
<td>2</td>
<td>.38**</td>
<td>.25***</td>
<td>.24*** 22.88***</td>
</tr>
<tr>
<td>Overall satisfaction</td>
<td>7</td>
<td>-.30**</td>
<td>-.20***</td>
<td>-.20*** 18.37***</td>
</tr>
</tbody>
</table>

*Note. n = 426; R² = .284; Adjusted R² = .269  
* p < .05; ** p < .01; *** p < .001*

The first column of Table 7 identifies the variable. The second column shows the block in which that variable was entered into the stepwise regression. The simple zero-order correlation showing the relationship between the criterion variable and each predictor variable is given in the third column. The fourth column includes Step β, which are the “values for the regression equation for predicting the dependent variable from the independent variable” when the variable entered the model (UCLA, 2013). The “Final Step β” is the standardized coefficients, which allows for comparison of “the magnitude of the coefficients to see which one has more of an effect” (UCLA, 2013). The last
column is the F statistic, which indicates if the model has significant predictive capability, thus negating the null hypothesis.

The ANOVA results show that for the overall regression, $F(9,416) = 18.37, p = .000$ level, which means the regression model is statistically significant. The multiple correlation in the last model was .533, which indicates a moderate, positive linear relationship. The adjusted $R^2$ shows that the regression model explains 26.9% of the variance. Tabachnick & Fidell (2007) recommend use of adjusted $R^2$ with smaller samples, as it is a better estimate of the true population value than $R^2$, which would inflate the value.

**Research Questions Results**

Research question one: What influence, if any, do selected faculty characteristics have on full-time nursing faculty intent to leave academe in the next five years?

Faculty characteristics were included in Block 1 (faculty education) and Block 2 (faculty characteristics). Block 1 had four IVs with significant zero-order correlations and Block 2 had seven IVs with significant zero-order correlations (see Table 8). Three of the 11 variables were significant predictors of intent to leave academe within 5 years.

The regression results show that, among all predictor variables for the model, age, from Block 2, was the most significant predictor of intent to leave academe in five years ($\beta = .24, p < .000$). As a positive predictor, it suggests that the older the respondent, the more likely he or she is to leave academe within five years.
Table 8

*Research Question 1: Pearson Correlation Table for Variables Entered into Blocks 1 and 2*

<table>
<thead>
<tr>
<th>Block 1: Faculty education (Input variables)</th>
<th>zero r</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of years ago highest non-nursing degree earned</td>
<td>.398**</td>
</tr>
<tr>
<td>Number of years ago highest nursing degree earned</td>
<td>.306**</td>
</tr>
<tr>
<td>What nursing degree are you currently working on? DNP</td>
<td>-.153**</td>
</tr>
<tr>
<td>Are you currently working on another nursing degree?</td>
<td>-.166**</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Block 2: Faculty characteristics (Input variables)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>.377**</td>
</tr>
<tr>
<td>How many years have you been a full-time faculty member at your current institution?</td>
<td>.278**</td>
</tr>
<tr>
<td>Rank: Full professor</td>
<td>.153**</td>
</tr>
<tr>
<td>Tenured</td>
<td>.145**</td>
</tr>
<tr>
<td>How many years have you been a full-time faculty member at any other institution?</td>
<td>.106*</td>
</tr>
<tr>
<td>Rank: Instructor</td>
<td>-.104*</td>
</tr>
<tr>
<td>On tenure track but not tenured</td>
<td>-.127**</td>
</tr>
</tbody>
</table>

*Note. *p<.05; **p<.01

*Number of years ago highest nursing degree was earned* (β = .14, p < .01) and *number of years ago highest non-nursing degree was earned* (β = .11, p < .01) from Block 1 were also significant predictors. Both were positive predictors, suggesting that the longer it has been since the respondent earned either the highest nursing or non-nursing degree, the more likely he or she is to leave academe within five years. These
variables appear to be age-related factors, which will be discussed further in Chapter 5. Working on another nursing degree or credential ($\beta = -.08$, $p < .01$), another Block 1 variable, was in the last model, but was not a significant predictor. It entered the equation in the third model and was significant until age entered in the fourth model, at which time it became non-significant. Astin (2012) refers to the mediation of a second entering variable in the model as an indirect effect.

Research question two: What influence, if any, do institutional characteristics have on full-time nursing faculty intent to leave academe in the next five years? Block 3 included between-college, institutional characteristics. Only one variable—teaching in an RN to MSN program—demonstrated a significant zero-order correlation with intent to leave academe (see Table 9). As it was excluded from the last model, however, no institutional characteristics influence intent to leave academe.

Table 9

Research Question 2: Pearson Correlation Table for Variables Entered into Block 3

<table>
<thead>
<tr>
<th>Block 3: Between-college variables (Environmental)</th>
<th>zero r</th>
</tr>
</thead>
<tbody>
<tr>
<td>In which programs do you teach? RN to MSN</td>
<td>.108*</td>
</tr>
</tbody>
</table>

*Note. * $p < .05$

Research question three: What influence, if any, do selected environmental characteristics have on full-time nursing faculty intent to leave academe in the next five years?

The last four blocks included the environmental variables. Table 10 shows the predictor variables with zero-order correlations that had a significant relationship at the $p \leq .05$ levels with the criterion variable for this research question.
Table 10

Research Question 3: Pearson Correlation Table for Variables Entered into Blocks 4-7

<table>
<thead>
<tr>
<th>Block 4: Productivity variables (Environmental)</th>
<th>zero r</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review of a manuscript for a refereed journal</td>
<td>.117</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Block 5: Adequacy of workplace environment and resource variables (Environmental)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have sufficient technology support</td>
</tr>
<tr>
<td>I have colleagues to ask advice on promotion issues</td>
</tr>
<tr>
<td>I have necessary equipment and supplies to adequately teach my students</td>
</tr>
<tr>
<td>My school offers adequate opportunities for fitness and recreation</td>
</tr>
<tr>
<td>I have adequate school travel funds for professional development</td>
</tr>
<tr>
<td>I have sufficient teaching support</td>
</tr>
<tr>
<td>There is a sense of community within my department or school</td>
</tr>
<tr>
<td>I have confidence in the current direction in which my department of school of nursing is headed</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Block 6: Rewards for innovation, flexibility, and visibility variables (Environmental)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rewards for innovation in job</td>
</tr>
<tr>
<td>Amount of visibility of work-related activities within the institution.</td>
</tr>
<tr>
<td>Amount of flexibility in job</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Block 7: Intermediate educational outcome: Satisfaction (Environmental)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursing peer relationships</td>
</tr>
<tr>
<td>Job security</td>
</tr>
<tr>
<td>Benefits</td>
</tr>
<tr>
<td>Variety of work</td>
</tr>
<tr>
<td>Salary</td>
</tr>
<tr>
<td>Meaningfulness of work</td>
</tr>
<tr>
<td>Workload</td>
</tr>
<tr>
<td>Flexibility to balance work and family life</td>
</tr>
<tr>
<td>Opportunities for career advancement</td>
</tr>
<tr>
<td>Autonomy and independence</td>
</tr>
<tr>
<td>Work schedule</td>
</tr>
<tr>
<td>Opportunity to use your skills and abilities</td>
</tr>
<tr>
<td>Opportunity to influence important decisions in your department or school</td>
</tr>
<tr>
<td>Quality of your relationship with your school's administrator</td>
</tr>
<tr>
<td>Overall satisfaction with academic job at primary academic institution</td>
</tr>
</tbody>
</table>

Note. * p < .05; ** p < .01
Block 4 focused on productivity. Only one out of seven productivity variables—*review of a manuscript for a refereed journal*—demonstrated a significant zero-order correlation, but it did not appear in the last model.

Block 5 included eight variables related to adequacy of the workplace environment and resources. Two predictor variables—*sufficient teaching support* and *adequate opportunities for fitness and recreation*—appeared in the last model, but were not significant. *Sufficient teaching support* was significant until *overall satisfaction* entered the model in the ninth step. *Adequate opportunities for fitness and recreation* was significant until *amount of flexibility to balance work and life* entered the equation at step eight. This suggests an indirect effect.

Of the three variables in Block 6—*rewards for innovation, flexibility, and visibility*—none was shown to significantly influence intent to leave in the last model of the regression analysis.

The regression results show that, among the 27 environmental predictor variables, *overall satisfaction* from Block 7 was the most significant predictor of intent to leave academe in five years ($\beta = -.20, p < .000$) and the second most significant predictor in the overall model. *Overall satisfaction* is a negative predictor of intent to leave, suggesting that the less satisfied faculty members are with the academic job, the more likely they are to leave academe within five years. One other satisfaction variable, *flexibility to balance work and family life*, was in the last model, but was not significant. This variable was significant until *overall satisfaction* entered the model, indicating an indirect effect.

**Summary**

This chapter provided descriptive statistics and described the results of the
stepwise multiple regression analysis based on data from a survey of 426 Ohio nursing faculty. The purpose was to identify which factors, if any, influence full-time nursing faculty intent to leave academe within five years. Thirty-nine predictor variables were entered into the regression analysis. Four variables were identified as significant predictors of intent to leave academe. Three faculty characteristics, answering the first research question, were significant predictors of intent to leave. Age, a faculty characteristic, was the most significant predictor of the entire model. Overall satisfaction was the second most significant predictor of intent to leave academe in the model, and was the only significant environmental characteristic, answering research question three.

Number of years ago highest nursing degree was earned and number of years ago highest non-nursing degree was earned were the third and fourth most significant predictors respectively. There were no significant institutional predictors of intent to leave academe. The final model explained 26.9% of the variance in intent to leave academe within five years.

Chapter 5 discusses the implications of these findings for policy and practice, as well as suggestions for future research. The nursing faculty shortage is one of the major causes of the RN shortage, which is predicted to increase substantially in the next few years. Identifying strategies that can be used to retain current nursing faculty is imperative in order to address this looming crisis. Future research is needed to explore these issues in more detail.
Chapter 5

Discussion, Recommendations, and Conclusions

The first four chapters of the dissertation provided an overview of the research problem, stated the research questions, reviewed the relevant research, described the methodology and population of interest, and presented the findings of the regression analysis. This chapter reviews the purpose of the dissertation and discusses the study findings. Implications of the research findings for theory, policy, practice, and future research are discussed along with the study’s limitations. The conclusion summarizes the research study.

Purpose and Overview of the Dissertation

The purpose of this study was to identify what factors, if any, influence full-time, Ohio nursing faculty intent to leave academe within five years. The literature review discussed research findings for major issues related to the faculty shortage, including, but not limited to, age, compensation, workload, and satisfaction. The review of the literature supported the need for this study, as there is a lack of information and research about nursing faculty in the state of Ohio and their intentions to remain in their academic roles. The Ohio Department of Jobs and Family Services recognizes health care as a major employer in Ohio and predicts a significant nursing shortage by 2020 (2009). The need to educate the next generation of nurses is imperative, but is threatened by a faculty shortage, which is expected to intensify. It is critical to identify factors that influence faculty intention to leave academe.

Astin’s involvement theory and Mobley’s turnover theory informed the study, with Astin’s I-E-O model providing the conceptual framework. Faculty members bring
certain characteristics to academe, known as input variables, some of which are fixed, and some of which may change over time (Astin, 1985). Input variables include such characteristics as age, race/ethnicity, and level of education. The academic environment impacts the faculty experience, and is affected by the degree of faculty involvement. Astin (1991) and Mobley (1982) described environmental characteristics as either organizational traits, such as institution size, or individual work variables, such as commitment, satisfaction, abilities, intentions, and expectations.

Input and environmental factors impact a faculty member’s outcome, which, for this study, was intent to leave academe. Stepwise multiple regression analysis was chosen as the study methodology as it allowed the researcher to control for the effect of inputs in order to make less biased causal inferences about the impact of the environment. This methodological approach identifies variables that predict intent to leave. The discussion of the research results focuses on strategies to increase the retention of current faculty. The implications for theory, practice, policy, and future research are also discussed.

Discussion of the Results

The results of the multiple regression analysis identified four significant predictors of Ohio nursing faculty survey respondents’ intent to leave academe in five years, listed in descending order of significance, as age, overall satisfaction, number of years ago the highest nursing degree was earned, and number of years ago the highest non-nursing degree was earned. The regression model was statistically significant (F [9, 416] = 18.37, p < .000) with a multiple correlation of .53, indicating a moderate, positive,
linear relationship. The adjusted R-squared measure of effect accounted for 26.9% of the variance explained by the model.

*Age, number of years ago highest nursing degree was earned, and number of years ago highest non-nursing degree was earned* were input variables that addressed the first research question: What influence, if any, do selected faculty characteristics have on full-time, Ohio nursing faculty intent to leave academe in the next five years? *Overall satisfaction* answered the third research question: What influence, if any, do selected environmental characteristics have on full-time, Ohio nursing faculty intent to leave academe in the next five years? No institutional characteristics significantly influenced intent to leave academe, thus addressing the second research question.

Age was a positive predictor of intent to leave, which supports national findings related to nursing faculty (AACN, 2011; Allen, 2008; Berlin & Sechrist, 2002; Kauffman, 2007c; USDHHS, 2010a). As McDermid et al. (2012) stated, “There is consensus in the literature that the major contributing factor to the shortage of nurse academics is the aging and rapid increase toward retirement age of the current faculty workforce” (p. 566). Regression analysis showed this concern is relevant for the state of Ohio. The average age of Ohio nursing faculty is 52.8 years (SD 9.23), which approximates the national mean age of 52 (Rutgers, 2011). Approximately 26% of respondents were over the age of 60, compared to 30% nationally (NLN, 2009). Given that the average age of retirement for nursing faculty is 62.5 years, Ohio can anticipate a significant number of faculty retirements by 2018 (Berlin & Sechrist, 2002; Yordy, 2006).

Mobley (1979) and Tourangeau et al. (2013) do not support the idea of age as a
predictor of intent to leave or stay in academe. Age may not take into account personal
factors, such as a decision to delay retirement past the average retirement age
(Tourangeau et al., 2013). Given the state of the economy since 2007, it is possible some
nursing faculty have delayed retirement, due to a change in their personal financial
stability. Mobley felt that age did not contribute to understanding turnover behavior, as it
is correlated with many other variables (Mobley, 1979). The value of Astin’s I-E-O
model lies in recognizing the significance of the input variables, by controlling for them,
to be able to make less biased causal inferences about the influence of environmental
variables on the criterion variable. Few strategies can minimize the impact of faculty age
on intent to leave, but strategies can be developed to address the environment. Despite
this, the increasing age of nursing faculty is a concern that contributes to the shortage,
thus deserving attention.

The input variables number of years ago the highest nursing degree was earned
and number of years ago the highest non-nursing degree was earned, also appeared in the
last model of the regression analysis as significant predictors of Ohio nursing faculty
intent to leave. These variables had a positive relationship with the criterion variable,
meaning the greater the number of years since earning the highest degree, be it in nursing
or another academic field, the more likely faculty members are to leave academe. The
majority of faculty (55.9%) earned their highest nursing degree within 10 years, 25.2%
earned the degree within the last 10-20 years, and 19% earned their highest nursing
degree more than 20 years ago. Of the 85 faculty who listed non-nursing degrees as the
highest degree earned, 36.5% earned the degree within 10 years, 27% within the last 10-
20 years, and 36.5% more than 20 years ago. From the literature review, nursing faculty
tend to earn advanced degrees at an older age (AACN, 2005; Berlin & Sechrist, 2002).

Though the majority of faculty surveyed earned their highest nursing degree within the last 10 years, they may still be approaching retirement age with intentions to leave.

Overall satisfaction was the second most significant predictor of intent to leave academe within five years. As a negative predictor, the results suggest that the less satisfied a faculty member is overall with their academic position, the more likely he or she is to leave. Although overall satisfaction emerged as a significant predictor, 81% of faculty members indicated they were somewhat to very satisfied with their academic positions.

Findings from the literature review are consistent with the findings of this study. The majority of studies found that faculty members are satisfied overall with their academic position, but are dissatisfied with certain aspects of their role (Bittner & O’Connor, 2012; NLN, 2005b; Disch et al., 2004; Kirking, 2007; Lane et al., 2010; Spurlock, 2008). Astin (1991) stated that satisfaction was the most important affective-psychological area for outcomes assessment. Mobley (1979) found that satisfaction had a weak though consistent negative correlation with turnover, while Ruel (2009) found a moderately positive relationship between satisfaction and intent to stay. Satisfaction has also been identified as a factor related to the timing of retirement, which is important given the aging of nursing faculty (USDHHS, 2010b). Although overall satisfaction was significant in this study, Tourangeau et al. (2013) emphasized the need to focus on the specific aspects of satisfaction that influence faculty intentions to leave academe.

Flexibility to balance work and family life was the only other satisfaction predictor variable that entered the last model, suggesting an indirect effect. The literature
highlights the importance faculty members place on flexibility, and national studies have identified lack of flexibility as a factor influencing nursing faculty intent to leave within five years (Roughton, 2013). Strategies focused on supporting flexibility in the academic role are discussed later in this chapter.

Descriptive statistics indicate 43.7% (N = 186) of respondents are somewhat to very likely to leave academe in the next five years, and 60.4% (N = 225) within 10 years. These findings support data from the Ohio Nursing Education Study Committee, which estimated that 40% of the state’s nursing faculty members would need to be replaced by 2018 (HPIO, 2009). Approximately 47% of faculty who said they would leave academics in 5 to 10 years identified retirement as the main reason for leaving.

Other reasons for leaving that are linked to satisfaction include: salary (18.3%); workload (8.5%); meaningfulness of work (5.6%); and job security (1.2%). The literature identified compensation and workload as predictors of intent to leave academe (Allen & Aldebron, 2008; Cranford, 2009; Gazza, 2009; Kaufman, 2007a, 2007b; NLN, 2010). This study did not identify these variables as significant predictors for Ohio faculty respondents. However, the descriptive statistics indicate that 51% of respondents were somewhat to very dissatisfied with compensation, and 42% were somewhat to very dissatisfied with workload. Thirty-eight percent of respondents stated they work 51 hours or more a week, which is higher than national figures that show 32.8% of faculty work more than 48 hours per week (USDHHS, 2010a). Compensation and workload, though not statistically significant, remain ongoing issues for nursing faculty.

Lack of professional development funds was also identified as a concern among 56% of respondents. Reduced funding could reflect budget cuts that have impacted
higher education in the state. When an institution does not support faculty professional development, personal funds must be used to engage in required licensure and recertification activities, further depleting salary and increasing dissatisfaction. As health care changes at a rapid pace, it is imperative that nursing faculty members attend conferences and participate in professional association meetings and activities to keep their skill sets current. Professional growth is important, as nursing faculty value a feeling of competence and full use of their abilities (Bittner & O’Connor, 2012). Professional development provides a venue to promote talent development among faculty and, as such, is critical to a nursing faculty member’s satisfaction with the work environment. Number of years ago the highest nursing degree was earned and number of years ago the highest non-nursing degree was earned were significant predictors of intent to leave. As noted earlier, many faculty members earned their degrees more than 10-20 years ago. Since feelings of competence and full use of abilities are important to nursing faculty, faculty who earned their degrees many years ago may strongly feel the need for ongoing professional development. This could be an important area to consider in faculty retention.

Other demographic variables of special note as they reflect national concerns related to the nursing faculty shortage include:

- Respondents were primarily female (95.7%) and White (93.1%), highlighting the need for greater diversity in nursing education in the state.
- As for highest degree earned, 67.5 % of respondents hold a master’s degree in nursing (MSN), and 30% hold a doctoral-level degree. Data from this study reflects findings from the literature review, which
discussed the low prevalence of doctoral-level faculty in nursing education. Nationally, approximately one-third of nursing faculty members have a doctoral degree, compared to 60% of all academic faculty members (Kaufman, 2007c). The consequences of fewer nursing faculty with a terminal degree can be lower compensation, decreased prestige within the institution, and tenure restrictions. The need for advanced education in nursing education is imperative in order to address the faculty shortage, promote nursing science, advance the profession, and increase the status of nursing faculty in academe.

This study identified age, number of years ago highest nursing degree was earned, number of years ago highest non-nursing degree was earned, and overall satisfaction as significant predictors of Ohio nursing faculty intent to leave academe within five years. Other factors, though not statistically significant as predictors, were identified that reflect national concerns. The next section discusses implications for theory, practice and policy, and recommendations for future research.

**Implications for Theory**

Two theories informed this dissertation—Astin’s involvement theory and Mobley’s turnover theory. Astin found that the greater the amount of energy a faculty member devotes to the academic experience, the higher his or her level of satisfaction and productivity (1985). The environment influences faculty talent development and, in turn, impacts the outcome—intent to leave academe.

The descriptive statistics from this study show that nursing faculty members are highly involved in and committed to nursing education, with resultant high levels of
satisfaction in many areas. Faculty members are satisfied with their relationships with students (91.9%), the variety of work (92.9%), and the meaningfulness of their work (96.7%). This supports the findings of the NLN (2005b), which cited working with students, contributing to the profession, and working in an intellectually stimulating environment as the primary reasons nursing faculty stay in academe. Other researchers found that work with students contributed to faculty satisfaction (Gazza, 2009; Garbee & Killacky, 2008; Tourengeau et al., 2012, Williamson et al., 2010). Berent and Anderko (2011) found that the meaningfulness of work and the ability to shape the profession’s future were major reasons faculty members remain in academe. Identifying factors to retain nursing faculty are as important as identifying factors that predict intent to leave. Knowledge of these factors can be particularly helpful in marketing the academic role so as to attract new faculty.

However, this study identified no involvement factors that influenced faculty intentions. Overall satisfaction, noted by Astin (1991) to be the outcome of involvement, was predictive of intent to leave academe, though one cannot assume that, in this study, satisfaction was the direct result of involvement. Though Astin’s involvement theory is an important framework in exploring factors influencing nursing faculty careers, future researchers might explore alternative theoretical frameworks to inform their study.

While Astin highlighted the effects of the environment on faculty outcomes, Mobley (1982) noted that multiple variables impact an individual’s decision to leave academe. Mobley cited organizational factors as influential in turnover decisions; however, this study’s findings identified no significant organizational or other environmental predictors of intent to leave academe. Two of Mobley’s (1982) individual
variables, age and satisfaction, were influential in this study. Though Mobley postulated that age is impacted by other variables so does not contribute to understanding turnover, this study identified it as a significant predictor of intent to leave, with the immediate need for strategies to offset the pending number of retirements. The descriptive statistic indicating 44% of faculty are somewhat to very likely to leave academe in five years is a concern given Mobley’s (1982) finding that the best predictor of turnover is intention to quit.

External influences, such as the effect of the economy and labor market, and individual non-work variables, such as family needs, most likely play a significant role in faculty intent, but were not included in this dissertation. The impact of health care reform is anticipated to lead to significant changes in health care delivery and the nursing profession, including nursing education. These organizational changes may influence faculty intentions related to their academic role in the future. Future studies should incorporate all four components of Mobley’s theory to determine its value as a framework for understanding faculty intentions to leave.

**Implications for Practice and Policy**

The purpose of this study was to identify what factors, if any, influence Ohio nursing faculty intent to leave academe, so as to recommend strategies to facilitate faculty retention in the face of a shortage. This study’s findings have implications for academic institutions, nursing faculty members, health care providers, health care and nursing professional organizations, and nursing leaders. The strategies are discussed from a practice and policy perspective.
There are three major areas with policy and practice implications for this study, including strategies to address age-related factors, strategies to improve satisfaction, and the development of a centralized nursing faculty database with oversight by a statewide organization.

The first area of focus for policy and practice relates to strategies addressing age-related factors, since study findings indicated that age was the most significant predictor of intent to leave. Retention of senior faculty is one key element in addressing the immediate need for faculty, particularly given that 44-60% of faculty are somewhat to very likely to leave in 5-10 years. This section discusses the development of strategies at the institutional, regional, and state level.

Senior faculty members have a great deal of knowledge and experience to share with junior faculty and students. Retaining faculty in a reduced work capacity can help alleviate the shortage within individual institutions. Senior faculty can mentor faculty who are new to the institution and academe, work on special projects for the nursing department, and provide expert instruction. Some senior faculty members may require accommodations that preclude them from supervising direct patient care provided by students. However, their expertise can be used in the classroom, skills laboratory, and simulation. Since funding models in Ohio are based on student success, retired faculty could provide remediation designed to improve student outcomes. Senior faculty with research expertise could use student outcomes data to develop, implement, and evaluate remediation programs.

Mobley (1982) discussed the disruption in department social and communication patterns that can result from turnover. Retaining retired faculty on a part-time basis may
minimize this disruption. This strategy promotes integration and orientation of new faculty, who bring energy and enthusiasm to the department, while retaining the knowledge and skills of senior faculty. Budgetary constraints may make retention of retiring faculty difficult, such that creative funding mechanisms may need to be developed. Documenting the impact on student outcomes may be one way to convince college and university administrators that retention of senior faculty is worth the investment.

At the regional and statewide level, development of shared services agreements is a strategy that could be used to retain senior faculty. As an organization focused on nursing education, OLN has an existing regional structure within its statewide focus, and could serve as the oversight body for development and maintenance of a shared service agreement. A shared service agreement uses “organizational collaboration in service provision” (Massey, 2010, p.1). The coordinating body could maintain a database of senior faculty interested in ongoing work in nursing education. Lotas et al. (2008) discussed a similar, collaborative, regional model whereby hospital-based nursing staff can express interest in part-time faculty positions within the database. In this model, the health care institution maintains a database, linking regional academic institutions with open positions to nurses who are considering a teaching role. The database includes searchable options for academic institutions to post open faculty positions, as well as review staff nurse information. Staff nurses can post their résumés and areas of interest/expertise, as well as search for faculty positions. This model could be replicated to draw current and retired nurses to nursing faculty positions.

A shared service agreement would dovetail with the current work of OLN as a co-
lead in the Ohio Action Coalition’s (OAC’s) *Future of Nursing: Campaign for Action.*

One of OAC’s goals is to facilitate seamless transition of nurses into higher education through development of a competency-based education model “that is accepted at nursing education programs and nursing practice settings across the state, to make it easier for RNs to advance their education; and by identifying and removing barriers facing nurses who want to earn higher degrees” (Robert Wood Johnson Foundation, 2013, Data, Diversity, and Education, para. 6). Universal competencies would facilitate the ability of senior faculty who participate in the shared service agreement to work for multiple institutions. Most two-year schools have articulation agreements with four-year schools to facilitate RN-to-BSN degree attainment. Senior faculty could easily teach at both institutions. Use of senior faculty in multiple programs would facilitate transition to the use of universal competencies, thus supporting the broader, statewide initiative.

Funding from the Robert Wood Johnson Foundation supports the work of OAC. Leveraging additional funding for a “Retired Nursing Faculty” program model to support incorporation of a universal competency model could be coordinated by OAC, OLN, OCADNEA, and OCDD. Retired faculty could be hired to work on specific projects or teach nursing courses, thus supplementing nursing education at various institutions. Senior faculty could also be pivotal in training junior nurse faculty in universal competencies. Use of this model would be a creative way to conserve and utilize nurse educators nearing retirement, while meeting the needs of multiple academic institutions.

*Number of years ago the highest nursing degree was earned* and *number of years ago the highest non-nursing degree was earned* were also significant predictors of intent to leave. These predictors may also be age-related, though the study’s findings were not
conclusive about this relationship. As discussed earlier in the chapter, ensuring availability of professional development opportunities for senior faculty who earned their formal degrees many years ago may enhance feelings of competence and promote full use of abilities, resulting in improved retention of senior faculty.

The second focus for policy and practice relates to faculty satisfaction. While multiple factors influence satisfaction, the only significant predictor of intent to leave academe within five years was overall satisfaction. However, identifying strategies to address overall satisfaction is difficult, due to its non-specific nature. The environmental variable flexibility to balance work and family life had an indirect effect. The descriptive statistics indicated that 31% of faculty members were somewhat to very dissatisfied with flexibility to balance work and family life. The focus of this discussion will relate to flexibility and related factors as discussed in the literature review.

The literature review identified the multifaceted role of the nursing educator (AACN, 2005; Candela et al., 2012; Elliott & Wall, 2008; Emerson & Records, 2005; Gazza, 2009). In addition to the typical demands faced by all educators, nursing faculty must remain current in the ever-changing clinical realm. Nursing faculty are also involved in accreditation processes and meeting clinical agency requirements. Alternative educational options, such as evening and weekend nursing programs, have impacted faculty flexibility and increased workload (Barlag, 2008; Shirey, 2006). The descriptive statistics indicated that 42% of faculty members were somewhat to very dissatisfied with workload, though this was not a significant predictor in the regression analysis. Faculty may consider an early retirement if workload is unbalanced, exacerbating age-related factors (Kovner et al., 2006).
Strategies to improve flexibility and work-life balance revolve around providing nursing educators the human and material resources to complete work. For example, some nursing programs employ a clinical coordinator, whose role is to manage all aspects of clinical experiences, thus relieving faculty of this role. The database could identify best practices related to the clinical coordinator role. Clear and reasonable role expectations should also be established for nursing faculty. Documentation of activities above and beyond typical role expectations, such as accreditation requirements or clinical coordination, should be provided to the institution’s administration with a request for allocation of load hours for these duties. This documentation would also increase the administrator’s understanding of the nursing faculty role. Accreditation bodies must emphasize the additional workload of faculty when meeting with higher education administrators, encouraging recognition via compensatory mechanisms. Faculty must be open about workload requirements during accreditation visits. Workload is a universal nursing faculty issue, and, as such, should be considered as a priority when developing strategies to address the faculty shortage.

The third focus for policy and practice relates to the serious lack of data about nursing faculty in Ohio, which is clearly supported in the literature (Health Policy Institute of Ohio [HIPO], 2009; Kowalski & Kelley, 2013). Although there were no direct study findings related to the following discussion, the lack of information is a real concern. The researcher was unable to find any data reflecting the actual number of full-time faculty in the state. The institutional nursing department websites were not current and did not consistently identify the specific role of individuals. The researcher had difficulty identifying who served in a full-time faculty capacity. This created an obstacle
in reaching the target sample and resulted in an estimated response rate. The Ohio Board of Nursing included a survey as part of its 2013 RN licensure renewal process, the first time the Board had included such a survey in more than 30 years (Robert Wood Johnson Foundation, 2013). Although nursing faculty participated in the survey, the results provided only minimal data regarding the topic of this study—factors influencing nursing faculty intent to leave academe.

Establishment of a centralized database of nursing faculty, as recommended by the USDHHS (2010b), could allow for more accurate identification of the current faculty workforce and forecasting of future needs. A statewide coordinating body, such as the Ohio League for Nursing (OLN), could oversee the development of such a database, which could include the number of full- and part-time nursing faculty positions at each institution, the specialty practice area, and areas of interest, with direct links to each institution’s faculty webpage. The site could serve multiple purposes by advertising open faculty positions, posting professional development opportunities, and promoting faculty dialog across the state. Periodic surveys could be sent to individuals in the database to identify issues of importance, such as intent to leave. Through postings, surveys, and apps, the site could play an integral role in addressing the pending nursing faculty shortage by: advocating efforts to ensure nursing educator retention; highlighting creative ways in which institutions worldwide have addressed nursing educator shortages; soliciting qualified nursing professionals to open nursing faculty positions; alerting site members to legislation that might impact nurse educators; informing nurses of scholarship opportunities for nurses pursuing nurse educator roles; providing information about advanced-degree programs that offer a focus on nursing education; and, promoting
grant opportunities, including state and federal initiatives, to develop more creative ways to address nursing faculty shortages.

The Ohio Council of Associate Degree Nursing Education Administrators (OCADNEA) and the Ohio Council of Deans and Directors of Baccalaureate and Higher Degree Nursing Programs (OCDD) could work jointly with OLN to develop, implement, maintain, and evaluate this database. The literature review highlighted educational partnerships, such as the one proposed, as a primary mechanism for addressing the faculty shortage (Allan & Aldebron, 2008; Proto & Dzurec, 2009). The group could determine annual priorities, working at a statewide level to foster change. This collaborative could facilitate and sponsor research on issues impacting nursing faculty, with assistance from master’s- and doctoral-level nursing students. State and regional collaborative groups must work jointly to solicit funding and oversee much needed research in the state. Priority issues would be faculty satisfaction, compensation, workload, professional development, increasing diversity in nursing education, increasing the number of nurses with advanced degrees, and additional research about faculty issues, including retention and recruitment.

Use of a centralized database overseen by a state-wide advocacy body would be a means to further clarify specific issues of concern to faculty, explore current and best practices related to factors such as age, satisfaction, flexibility, workload, and compensation, and provide a mechanism for advocacy. With declining budgets in higher education expected to continue, nursing leaders must present convincing data to demonstrate the impact of the faculty shortage on nursing education, the nursing shortage, and subsequent patient outcomes. As Kowalski & Kelley (2013) noted,
In these difficult economic times, there is a dramatically greater need for visibility, focus, data, and a persuasive set of solutions. To be successful, the rationale for resolving the nursing faculty shortage has to be well defined, strategic, publicly visible, and associated with an economic and health care return-on-investment. (ROI, p. 70)

The Ohio database collaborative should replicate the Colorado model, which, through the Colorado Center for Nursing Excellence, conducted a comprehensive analysis comparing the relationship between the state’s investment in nursing faculty and the cost outcomes to the state’s health care system (Kowalski & Kelley, 2013). The data resulting from an ROI analysis in Ohio would provide legislators, health care organizations and facilities, and higher education institutions the facts about the value of nursing education and the impact a shortage has on the state’s health care system. This approach, accompanied by realistic solutions, would have a greater impact on the future of nursing in Ohio than the efforts of a few faculty members at individual schools of nursing, lobbying for resources and support.

While development of such a database and collaborative would entail significant work, Ohio nursing education has the advantage of an existing, statewide coordinating body, as well as regular meetings of the nursing education administrative groups. The headline of the article from the Robert Wood Johnson Foundation (2013), “Ohio Nurse Leaders Collaborate in Unprecedented Ways,” speaks volumes about the ability of nursing leaders in Ohio to work together on major initiatives. The database and collaborative has the potential to make the issues of nursing faculty a priority in the state. Although not directly linked to this study’s findings, it would provide a mechanism to address issues identified in the study, with continued exploration of the factors impacting nursing faculty.
The policy and practice implications focused on three major areas for development. Recommendations for future research will highlight areas for further study.

**Recommendations for Future Research**

The results of this study expanded on the work of previous research, while highlighting the need for future research to benefit nursing education at the state level. Four areas for future research were identified: further study of the predictors identified in this dissertation; a study of faculty by program type; a study of part-time faculty; and, examination of this data using different methodology.

*Age* was the most significant predictor of intent to leave academe. *Number of years ago the highest nursing degree was earned* and *number of years ago the highest non-nursing degree was earned* were also significant predictors, which may also relate to age. A future research project could eliminate these variables to determine which predictors, if any, emerge as significant. Another approach would be to research predictors of intent to leave academe based on different age groups as very different reasons might emerge. Candela et al. (2012) looked at age according to generational membership. The sample size for this dissertation was not large enough to predict if different factors affected faculty according to their generational age. Identifying the differences, if any, could be key to developing nurse faculty retention strategies pertinent to different age groups.

The predictor variable, *overall satisfaction*, could also be eliminated from a future research study, which may result in the emergence of more specific satisfaction variables as significant predictors of intent to leave academe. Development of strategies to
promote recruitment and retention would be facilitated by identification of more specific indicators. Examining particular components of satisfaction important to various generational groups would also facilitate tailored approaches to recruitment and retention, particularly since junior faculty have been noted to express a higher level of dissatisfaction with workload than senior faculty (AACN, 2005; Berlin & Sechrist, 2002). Since job flexibility emerged as an indirect effect, studies focused on workload and its impact on flexibility would be appropriate. A comparison study of nursing faculty workload and non-nursing faculty workload at the state and institution level would provide evidence of work disparity. This would lay the foundation for increasing nursing faculty compensation or allocating load in different ways.

The literature review revealed differences in faculty based on program type. The NLN (2005b) found that graduate program faculty members tend to be older than other nursing faculty, followed in decreasing order by BSN, ADN, diploma, and LPN faculty, which is important in forecasting faculty needs and identifying nursing faculty retention strategies based on program type. The NLN (2005b) also found that ADN faculty felt a stronger sense of community, had colleagues available for discussion of ideas, and had a stronger sense of the school’s vision, compared to faculty in other program types. Kaufman (2009) found that faculty members teaching in BSN programs had the lowest compensation rates, which could impact retention and recruitment of nursing faculty in this program type. Identifying factors based on program type could lead to more focused retention strategies. Unfortunately, the number of faculty from each program type in this study was too small to elucidate differences. Research into the distinct issues that impact retention at each type of nurse education program might yield more tailored solutions.
This dissertation focused on full-time nursing faculty. As noted in the first chapter, part-time nursing faculty play a significant role in nursing education. Although this study clearly stated that the survey was intended for full-time faculty, 18 part-time faculty members attempted to take the survey. One part-time faculty member emailed the researcher, expressing interest in sharing her story. The issues impacting part-time faculty are very different from those facing full-time faculty. As many full-time faculty members begin their academic careers as part-time faculty, research involving part-time faculty might inform stakeholders on ways to support their role, and to encourage their continued academic careers.

The last area identified for future research relates to methodology. In this study, the strength of the Pearson R correlations, while significant, showed small (r = .10 to .29) to medium (r = .30 to .49) relationships between the predictor and criterion variables (Pallant, 2010). Different statistical tests, such as ordinal regression, could determine if the same predictors emerge based on different methodology. Ordinal regression would be an appropriate choice because the dependent variable and a number of the independent variables were ordinal variables measured on Likert scales.

**Limitations of the Study**

Every study has inherent limitations (Astin, 1991). As discussed, the study’s findings cannot be generalized to the broader faculty population, as the sample included only full-time faculty from the state of Ohio. Given the limited information about faculty in the state, it is not possible to determine if the sample is representative of full-time nursing faculty in Ohio, which can result in sampling error. All full-time faculty members were invited to participate, but response occurred by self-selection. However,
the data still provide insight into the perceptions of faculty. Although the 32.3% return rate was adequate for an initial analysis, a larger sample size would increase the study’s validity.

The survey design is another limitation. Although the survey included input and environmental variables that support Astin’s I-E-O model, it did not include some of Mosby’s external and individual non-work factors that influence turnover, such as the economy, or individual, non-work variables, such as whether faculty members had a spouse and children (Mobley et al., 1979). In future studies, inclusion of these variables might provide essential data.

The survey instrument was developed by the Center for State Health Policy at Rutgers University, with minor modifications for use in this dissertation (Rutgers, 2011). There were four issues with the survey instrument. Survey items could have been written in such a way as to provide more consistency from item to item, lessening confusion for respondents. For example, the wording of the Likert scales varied among the questions. Also, some questions offered a “select all that apply” option, making analysis more challenging. Further, the wording of certain items was unclear. For example, on the item related to quality of the relationship with the school administrator, it did not specify administrative level, such that an administrator could have been viewed as the institution’s president, dean, or nursing program director. Lastly, the survey was quantitative, providing few opportunities for respondents to clarify their answers.

A major limitation of regression analysis is that the researcher only determines relationships, not causation. It is important not to jump to conclusions based on the findings, as further study is warranted to identify causation. However, the study’s
findings provide a starting point for future research, as well as development of strategies to address faculty concerns.

**Conclusion**

The purpose of this study was to identify what factors, if any, influence Ohio nursing faculty intent to leave academe within five years. The three research questions focused on faculty, institutional, and environmental characteristics. Three faculty characteristics—*age, number of years ago the highest nursing degree was earned,* and *number of years ago the highest non-nursing degree was earned*—and one environmental characteristic—*overall satisfaction*—were significant predictors of intent to leave.

This dissertation made a significant contribution to the literature, as it is the first study focusing on nursing faculty in the state of Ohio intentions to leave academe. There is limited information, data, or research about nursing faculty in the state, so this study fills that gap by identifying significant factors that predict intent to leave. In addition, the descriptive statistics provide useful information about faculty in the state. The study revealed that, among respondents, approximately 44% will leave academe within 5 years, and 61% will leave within 10 years. The results of the descriptive statistics support national findings. Nursing education leaders in the state need to develop an immediate plan for ways to retain and recruit nursing faculty to academics. Buerhaus et al. (2009) emphasized “policymakers and educators need to hear messages that reinforce the need to preserve budgets for nursing education and remove the barriers to rapidly expanding the size of the future RN workforce” (p. 667). Maintaining the supply of nursing faculty is critical to ensuring that the public receives quality health care services. All nurse education leaders in the state of Ohio can, and must, develop cutting-edge strategies to
address faculty issues.

Major conclusions from the study include the need to explore alternative theoretical frameworks to inform future studies. Astin’s involvement theory was not validated in the results, as no predictive involvement factors were identified. The identification of age and satisfaction as significant predictors of intent to leave academe validated Mobley’s theory, though components of his theory were not significant predictors. The descriptive statistics related to intent to leave are concerning as Mobley found this was the best predictor of turnover.

Although there are limitations to every study, this dissertation offers insight into the issues impacting nursing faculty. Because no specific environmental predictors of intent to leave were found that could result in immediate policy and practice recommendations, this study underscores the need for data about nursing faculty. The research was difficult to conduct because there was no way to identify the number of full-time faculty in the state or where they were employed. A state-wide faculty database would provide a mechanism to identify and communicate relevant issues. It would also promote additional research. This would be the most effective way to facilitate significant change.

Based on the study’s findings, strategies designed to retain senior faculty could decrease the immediate impact of the shortage. Senior faculty could serve as mentors to new faculty and as expert educators. A strategy geared to addressing faculty satisfaction includes the use of human and material resources to support faculty, such as the use of clinical coordinators. Documentation of workload and discussion of workload issues with higher education administrators and nursing accreditation groups are strategies
aimed at increasing compensation for nursing faculty to be commensurate with non-
nursing faculty and clinical nursing colleagues.

The nursing faculty shortage is a significant contributor to the nursing shortage.
Nursing faculty members are a valued resource, bringing much expertise and
commitment to their role. They educate the next generation of nurses, who require high-
level skills in a complex, demanding health care environment. Understanding issues of
importance to nursing faculty is the first step in retaining these valuable professionals,
with this dissertation making a significant contribution to understanding predictors of
intent to leave academe in the state of Ohio.
References


Evans, J. D. (2013). Factors influencing recruitment and retention of nurse educators


Appendix A

Mobley’s Turnover Model

Appendix B

Survey Variables

Education and demographic characteristics
- Highest nursing degree earned
- Highest degree earned in any field
- Certified advanced practice RN
- Age
- Race and ethnicity
- Gender

Institutional characteristics
- Size
- Program type (ADN, BSN, RN-to-BSN, MSN, RN-to-MSN; MN, DNP, RN-to-DNP, PhD)
- Type of control (public or private not-for-profit)
- Locale (rural – distant or fringe; town – distant or fringe; suburb – small, medium, or large; and, city – small, medium, or large)

Job characteristics and rank
- Administrative responsibilities
- Salary
- Years as full-time faculty at current institution
- Years as full-time faculty at any institution
- Rank
- Tenure Status

Workload
- Advising or mentoring students
- Teaching, clinical
- Service
- Other regular activities
- Teaching, didactic
- Research
- Clinical practice
- All work activities

Productivity
- Courses created or revised
- Articles published in peer-reviewed journals
- Grant proposals prepared

Adequacy of workplace environment & resources
- Equipment and supplied
- Office space
- Colleagues advising on promotion issues
- Current direction of department/school
- Opportunities for fitness and recreation
- Travel funds
- Classroom space
- Technology support
- Teaching support
- Sense of community within department/school

Rewards, flexibility, and visibility
- Rewards for innovation in the job
- Amount of visibility of work within institution
- Amount of flexibility in the job
Satisfaction with work life

• Work overall
• Work schedule
• Climate for racial/ethnic minority faculty
• Flexibility to balance work and family life
• Opportunity to use skills and abilities
• Opportunity for career advancement
• Flexibility to balance work and family life
• Opportunity to influence decisions
• Relationships with nursing colleagues
• Relationship with non-nursing colleagues

• Workload
• Salary
• Benefits
• Job security
• Variety of work
• Autonomy and independence
• Meaningfulness of work
• Relationship with students
• Relationship with students
• Quality of relationship with school administration

Intent to leave academic nursing

• Intent to leave academic nursing in 5 years
• Intent to leave academic nursing in 10 years
Appendix C

Ohio Survey of Full-Time Nursing Faculty

In which programs do you teach? (Select all that apply.)
- Diploma
- ADN
- BSN
- 2\textsuperscript{nd} Degree BNS/MSN
- LPN to RN
- RN to BSN
- RN to MSN
- Masters (MSN, MS, MN, MA)
- Doctor of Nursing Practice (DNP)
- PhD
- RN to DNP
- Other (Specify)
- Not Applicable

Does the nursing school consider you a...
- Full-time faculty member
- Part-time faculty member

What is your rank? (Select all that apply.)
- Full Professor
- Associate Professor
- Assistant Professor
- Instructor
- Lecturer
- Other (Specify)

How many years have you been a full-time faculty member at your current institution?
- < 1
- 1 - 5
- 6 - 10
- 11 - 15
- 16 - 20
- 21 - 25
- 26 - 30
- 31 - 35
- > 35

Is 50% or more of your full-time faculty position dedicated to administrative responsibilities?
- Yes
- No

What is your administrative title? (Select primary position only)
- Dean
- Associate Dean
- Assistant Dean
- Chair
- Director
- Head
- Coordinator
- Associate Director
- Assistant Director
- Other (Specify)
- Not applicable

Are you...
- On tenure track but not tenured
- NOT tenured because institution has no tenure system
- NOT on tenure track
- Tenured

How many months of the year does your appointment cover?
- 8 Months
- 9 Months
- 10 Months
- 12 Months
Work Activity Related to Your Academic Job

During the 2012-2013 academic year, in an average week while school was in session, approximately how many hours did you spend at each of the following work activities related to your academic job? Do not include additional work that is not part of your faculty position (e.g. - working as a staff nurse when it is not included in your faculty salary).

If this is your first year as a full-time faculty member, please estimate for the current academic year.

Total hours per week spent on all work activities
20 - 25    26 - 30    31 - 35    35 - 40    41 - 45    46 - 50    51 - 55    56 - 60    > 60

Total hours per week ...
The sum should equal “total hours spent per week on all work activities”

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<th>6-10</th>
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<th>21-25</th>
<th>26-30</th>
<th>31-35</th>
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<tr>
<td>Total hours per week spend on advising/mentoring students</td>
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<td>(include dissertation/-thesis/capstone committees, office hours)</td>
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<td>Teaching – primarily didactic</td>
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<td>(include instruction, preparation and grading for teaching in class, online, and independent study)</td>
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<td>Teaching – primarily clinical</td>
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<td>(include clinical supervision in hospitals or elsewhere, skills or simulation laboratory, and preparation)</td>
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<td>Research (Funded and non-funded, including preparation of grant proposals and manuscripts)</td>
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<td>Service – university, school, and departmental (include administrative responsibilities, meetings)</td>
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<td>Clinical practice</td>
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<td>Any other regularly recurring work activities</td>
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</table>
On how many university, school, and/or departmental committees did you serve during the 2012-2013 academic year? (Do not include dissertation/thesis/capstone committees.)

If this is your first year as a full-time nursing faculty member, please estimate for the current academic year.

- 0
- 1
- 2
- 3
- 4
- 5
- > 5

For about how many students are you currently the academic advisor?

- 0
- 1-5
- 6-10
- 11-15
- 16-20
- 21-25
- 26-30
- 31-35
- >35

On how many Master’s-level thesis or capstone committees did you serve during the 2012-2013 academic year? If this is your first year as a full-time nursing faculty member, please estimate for the current academic year.

- 0
- 1-5
- 6-10
- 11-15
- 16-20
- 21-25
- 26-30

On how many Doctoral-level thesis or capstone committees did you serve during the 2012-2013 academic year? If this is your first year as a full-time nursing faculty member, please estimate for the current academic year.

- 0
- 1-5
- 6-10
- 11-15
- 16-20
- 21-25
- 26-30

How many of each of the activities below did you accomplish between July 1, 2012 and June 30, 2013 regardless of whether you were a full-time faculty member at that time?

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<thead>
<tr>
<th>Activity</th>
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<th>3 - 4</th>
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<tbody>
<tr>
<td>A course or program developed or significantly revised</td>
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<td>An existing course converted to an online format</td>
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<tr>
<td>Presentation at a national or local conference</td>
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<td>Publication in a peer-reviewed journal</td>
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<td>Other publication or report</td>
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<td>Preparation of a grant proposal</td>
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<td>Review of a manuscript for a refereed journal</td>
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</table>

144
How much do you agree or disagree with each of the following statements about the resources available to you at your school?

<table>
<thead>
<tr>
<th>Statement</th>
<th>Agree Strongly</th>
<th>Agree Somewhat</th>
<th>Disagree Somewhat</th>
<th>Disagree Strongly</th>
<th>Not Applicable</th>
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<tr>
<td>I have the necessary equipment and supplies to adequately teach my students.</td>
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<td>I have adequate school travel funds for professional development.</td>
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<td>My office space is sufficient.</td>
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<td>My classroom space is sufficient.</td>
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<td>I have sufficient internal funding to conduct my research.</td>
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<td>I have peers who give me advice on research when I need it.</td>
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<td>I have sufficient teaching support.</td>
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<td>I have sufficient technology support.</td>
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<td>I have colleagues to ask advice on promotion issues.</td>
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<td>There is a sense of community within my department or school.</td>
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<td>I have confidence in the current direction in which my department or school of nursing is headed.</td>
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<td>My school offers adequate opportunities for fitness and recreation.</td>
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</table>

Overall, how satisfied are you with your academic job at your primary academic institution?

- [ ] Very Satisfied
- [ ] Somewhat Satisfied
- [ ] Somewhat Dissatisfied
- [ ] Very Dissatisfied
- [ ] Not Applicable
How satisfied are you with each of these aspects of your academic job at your primary academic institution?

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Very Satisfied</th>
<th>Somewhat Satisfied</th>
<th>Somewhat Dissatisfied</th>
<th>Very Dissatisfied</th>
<th>Not Applicable</th>
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<tr>
<td>Workload</td>
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<td>Work schedule</td>
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<td>Salary</td>
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<td>Benefits</td>
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<td>Climate for racial and ethnic minority faculty members</td>
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<td>Job security</td>
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<td>Flexibility to balance work and family life</td>
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<td>Opportunity to use your skills and abilities</td>
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<td>Authority and independence</td>
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<td>Quality of your relationship with your school’s administration</td>
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<td>Opportunity to influence important decisions in your department or school</td>
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<td>Meaningfullness of your work</td>
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<td>Variety of work</td>
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<td>Opportunities for career advancement</td>
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<td>Your relationship with your students</td>
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<tr>
<td>Your relationships with your nursing faculty colleagues</td>
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<tr>
<td>Your relationships with your faculty colleagues outside of the nursing department/school</td>
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</tbody>
</table>

Please rate the following items on a 1-to-5 scale where 1=”None” and 5=”A lot”

<table>
<thead>
<tr>
<th>Item</th>
<th>1-None</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5-A lot</th>
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</thead>
<tbody>
<tr>
<td>The rewards for innovation in your job.</td>
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<td>The amount of flexibility in your job.</td>
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<td>The amount of visibility of your work-related activities within the institution.</td>
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</tbody>
</table>
How likely are you to *leave the field* of academic nursing...

<table>
<thead>
<tr>
<th></th>
<th>Very Likely</th>
<th>Somewhat Likely</th>
<th>Somewhat Unlikely</th>
<th>Very Likely</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>... in the next 5 years?</td>
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<td>... in the next 10 years?</td>
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</table>

Which of the following is the *main* reason why you would *leave the field of academic nursing?* *(Select only one)*

- Retired
- Seek more job security
- Seek higher salary
- Seek a more manageable workload
- Seek a more meaningful job
- Family/personal considerations
- Health issues
- Other (Specify)
- Not applicable

Which best describes the *next* position you might have?

- Employed as a nurse in a patient care setting
- Employed as a nurse in a non-patient care setting
- Employed, but not in nursing
- Not employed
- Other (Specify)
- Not applicable

Please estimate your annual *salary* at your *Primary academic job*, including summer, administrative, and research pay.

- $0
- $1 - $24,999
- $25,000 - $49,999
- $50,000 - $74,999
- $75,000 - $99,999
- $100,000 - $149,999
- $150,000 - $199,999
- $200,000 - $300,000
Not counting the salary from your primary academic job or any income from other household members, please estimate your annual income from all other sources.

- $0
- $1 - $4,999
- $5,000 - $9,999
- $10,000 - $14,999
- $15,000 - $24,999
- $25,000 - $49,999
- $50,000 - $74,999
- $75,000 - $100,000
- More than $100,000

Do you have secondary employment?

- Yes
- No

What is the source of your secondary salary? (Select all that apply.)

- Clinical employment
- Secondary academic job
- Consulting work
- Non-nursing employment

What is the reason for secondary employment?

- To augment compensation
- To develop alternative career options
- Professional development
- Interest
- Maintain clinical expertise
- Other

How many hours do you work in a secondary position?

- 0 - 5
- 6 - 10
- 11 - 15
- 16 - 20
- 21 - 25
- > 25

What is the highest NURSING credential or degree you have earned?

- Baccalaureate
- Master’s
- Doctor of Nursing Practice (DNP)
- PhD
- Other (Specify)

How many years ago did you earn your highest NURSING degree?

- 0 - 1
- 2 - 5
- 6 - 10
- 11 - 15
- 16 - 20
- 21 - 25
- 26 - 30
- 31 - 35
- > 35
Are you currently working on a/another NURSING credential or degree?
  ○ Yes ○ No

What NURSING credential(s) or degree(s) are you currently working on? (Select all that apply)
  ○ Baccalaureate ○ PhD
  ○ Master’s ○ Other (Specify)
  ○ Doctor of Nursing Practice (DNP)

Do you have a NON-NURSING degree?
  ○ Yes ○ No

What is the highest NON-NURSING degree you have earned?
  ○ Bachelor’s (BA, BS, etc.) ○ LLB, JD
  ○ Master’s (MA, MS, MBA, etc.) ○ EdD
  ○ PhD ○ Other (Specify)

How many years ago did you earn your highest NON-NURSING degree?
  0 - 1  2 - 5  6 - 10  11 - 15  16 - 20  21 - 25  26 - 30  31 - 35  > 35

Are you currently working on a/another NON-NURSING credential or degree?
  ○ Yes ○ No

What NON-NURSING credential(s) or degree(s) are you currently working on? (Select all that apply)
  ○ Bachelor’s (BA, BS, etc.) ○ LLB, JD
  ○ Master’s (MA, MS, MBA, etc.) ○ EdD
  ○ PhD ○ Other (Specify)

Are you certified as an advanced practice registered nurse (APRN)?
  ○ Yes ○ No

Did your preparation for your role as a faculty member include any of the following? (Select all that apply)
  ○ Graduate courses in education
  ○ Post-master’s certificate in nursing education
  ○ Assignment to a mentor
  ○ Service as a teaching assistant during graduate study
  ○ Other (Specify)
  ○ None/I have NOT received any preparation for my role as a faculty member
What is your year of birth?

What is your gender?
- Female
- Male

What is your race?
- American Indian or Alaska Native, Aleut, Eskimo
- Asian or other Pacific Islander
- Black or African-American
- Hispanic, Latino, Spanish
- White or Caucasian
- Two or more races (Specify)
- Other (Specify)