A national study comparing Baldrige core values and concepts with AACN indicators of quality: facilitating CCNE-baccalaureate colleges of nursing move toward more effective continuous performance improvement practices

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A National Study Comparing Baldrige Core Values and Concepts with AACN Indicators of Quality: Facilitating CCNE-Baccalaureate Colleges of Nursing Move toward More Effective Continuous Performance Improvement Practices

by

Deborah C. Mattin

Submitted to the Graduate Faculty as partial fulfillment of the requirements for the Doctor of Philosophy Degree in Higher Education Administration

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December, 2012
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An Abstract of

A National Study Comparing Baldrige Core Values and Concepts with AACN Indicators of Quality: Facilitating CCNE-Baccalaureate Colleges of Nursing Move toward More Effective Continuous Performance Improvement Practices

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December, 2012

The AACN has asked academic leaders to align the performance of their organizations to the prescribed standards within the Essentials of Baccalaureate Education for Professional Nursing Practice document and has provided indicators of quality suggestions for program enhancement as a means of promoting continuous performance improvement. However, the AACN has not prescribed a strategy that specifies the manner in which colleges should achieve these benchmarked standards, which has created uncertainty among administrators about whether the indicators of quality lead to improvements that are actually indicative of improved performance.

This dissertation used multiple linear regression research design to determine whether predictive relationships exist between the American Association of Colleges of Nursing (AACN) indicators of quality and the Baldrige core values and concepts of performance improvement within Commission on Collegiate Nursing Education accredited baccalaureate colleges of nursing.

The purpose of this study was to determine whether the behaviors associated with specific AACN indicators of quality reflect behaviors that the Baldrige core values and
concepts have already proven to be successful in achieving continuous performance improvement. The results revealed nine AACN indicators of quality behaviors most likely to enhance performance improvement outcomes within baccalaureate colleges of nursing. They include; (1) Resources are budgeted for research, development, business operations, public relations, marketing, and human resources; (2) Establishing and upholding policies that reflect faculty and leadership development resources; (3) Student experiences include service learning opportunities; (4) Practice partnerships include collaborative practice initiatives; (5) Collecting data and making program changes that focus on the level of graduate satisfaction with their preparation for the profession; (6) Faculty have input into the governance of the college/school; (7) The majority of faculty have a presence in state, regional, national, and international professional activities; (8) Opportunities for baccalaureate graduate’s employment with practice partnerships; and (9) Formal mentoring program for clinical preceptors.

The results underline the fact that continuous performance improvement within baccalaureate colleges of nursing is a deliberate and dynamic analysis-driven endeavor dependent on an organization’s ability, willingness, and initiative to continually strive to narrow the chasm between actual and potential performance results.
This dissertation is dedicated to C.W., who has unconditionally believed in my ability and has supported me every step of the way. I would also like to dedicate this dissertation to my dear mother, my greatly missed late father, and to Ann for all of the delicious meals you loving provided weekly, and my family for the many forms of unwavering support, encouragement, and loving acts of kindness you have provided. I love you all and am eternally thankful for each of you. Lastly, I would like to dedicate this dissertation to my beautiful granddaughters with the hope that they will grow up to be confident, joyful, loving, peaceable, gentle, faithful, and self-controlled women who fearlessly pursue their dreams throughout their lives.
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List of Abbreviations

AACN ..................American Association of Colleges of Nursing  
AQIP ...................Academic Quality Improvement Program  
CCNE ..................Commission on Collegiate Nursing Education  
CPI ....................Continuous Performance Improvement  
GST ...................General Systems Theory  
NCLEX ................National Council Licensure Examination  
NLNAC .................National League for Nursing Accrediting Commission  
TQM ...................Total Quality Management
Chapter One

Introduction

Chapter one is organized into five sections. The first section focuses on the significance of the problem; theoretical framework; problem statement; and purpose of the research. The second section includes the research questions. The third section describes the participants, survey instrument, and data analysis. The fourth section discusses assumptions, delimitations, and limitations. The final section provides definition of terms to ensure understanding and interpretation of these terms throughout the study.

Nursing education in the United States has been structured to include built-in outcome performance drivers. Public nursing colleges typically have operated within a competitive marketplace, contending for students and funding while also attempting to maintain a high degree of accountability to stakeholders, accreditation agencies, and students facing high-stakes exit testing. As institutional stewards, nursing administrative leaders understand they must deliver educational value and deliver sustainable quality results to all constituent’s with a proactive focus on continuous performance improvement (National Institute of Standards and Technology [NIST], 2010). Academic programs applying continuous performance improvement efforts at the administrative level, with a futuristic focus, have experienced a higher degree of sustainable success primarily because of the long-term global value these efforts have provided for the institution (Dew & McGowan-Nearing, 2004). The American Association of Colleges of Nursing (American Association Colleges of Nursing [AACN], 2008) has asked academic
leaders to align the performance of their organizations to a set of essential standards, and the AACN has provided program indicators of quality that exemplify performance improvement; however, the AACN has not prescribed a strategy that specifies the manner in which colleges should go about achieving these benchmarked standards.

**Significance of the Problem**

Temponi (2005) has defined continuous performance improvement (CPI) as an enduring philosophy focused on practices designed to progressively improve all activities and processes within an organization, unit, or department. When applied, CPI provides a strategy designed to bridge the gap between actual performance and ideal performance (Temponi, 2005). The concepts associated with CPI and its practices have been expressed in a rich and successful history within industry and business. During the past four decades, three sophisticated performance improvement and quality improvement models have emerged, leading to tremendous improvements in the management and performance of organizations globally. The Deming Cycle, the Balanced Scorecard, and Six Sigma (Deming, 1982; Kaplan & Norton, 2001; Aboelmaged, 2010) all have made substantial contributions to the concepts and practices of organizational CPI within public organizations, for-profit business and industry organizations, governmental organizations, and non-profit organizations as well as organizations within the healthcare sector. The unifying theme of these CPI strategies is the application of a formulated strategy aimed at achieving positive future performance improvement outcomes.

In addition to business, government, and healthcare, applied performance improvement strategies have gradually found their way into the arena of higher education as well. The application of formal CPI initiatives in higher education has consisted of
incremental self-assessment techniques used to explore the needs and expectations of stakeholders as well as evaluate the effectiveness of programs. Currently, two higher education CPI systems have been used across the United States to evaluate quality improvement: the Baldrige Educational Criteria for Performance Excellence Framework (National Institute of Standards and Technology, 2011d) and the North Central States Academic Quality Improvement Program (AQIP) (Higher Learning Commission, 2010). Institutions using the Baldrige model have applied a set of established CPI criteria to conduct self-assessments using a benchmarked standard (Dew & McGowan-Nearing, 2004).

The study of CPI strategies that have been applied within baccalaureate colleges accredited through the Commission on Collegiate Nursing Education (CCNE) is particularly timely and important in view of the American Association of Colleges of Nursing’s (AACN) recent endorsement of the Essentials of Baccalaureate Education for Professional Nursing Practice document (AACN, 2008). The Commission on Collegiate Nursing Education (CCNE) is recognized by the United States Secretary of Education as an autonomous accreditation agency dedicated to improving America’s public health. As a voluntary self-regulatory process, the CCNE encourages colleges of nursing to self-assess their baccalaureate and graduate education programs to ensure the quality and integrity of collegiate nursing education (American Association of Colleges of Nursing [AACN], 2009a). Accreditation standards provide the framework for the application of relevant organizational CPI strategies. The 2008 AACN Essentials of Baccalaureate Education for Professional Nursing Practice document has transformed baccalaureate nursing education by providing a critical framework for building baccalaureate nursing
programs in the 21st century. The purpose of the document is to help nursing colleges prepare graduates to practice within a complex healthcare environment and assume a variety of entry-level nursing roles as they enter into the profession (AACN, 2008).

Studying CPI in colleges of nursing is important for three primary reasons. First, studying CPI in a healthcare educational setting has the potential to make important contributions to the research literature and to nursing education administrative practice. By and large, higher education institutions have been slow to embrace formal continuous improvement initiatives, especially at the academic program level, because of the ongoing controversy about whether these efforts apply to teaching and curriculum development. There also has been a long-standing reluctance within higher education to accept quality improvement concepts and practices customarily used in industry and business (Temponi, 2005). This reluctance might be one reason why there has been little or no research published exploring the application of formal CPI models within colleges/schools of nursing. This disparity in the body of nursing research is strangely inconsistent with post-education nursing practice settings, where applying concepts and practices of CPI are of paramount importance to healthcare providers and organizations.

Secondly, studying CPI in a healthcare educational setting has the potential to increase administrative awareness concerning the impact of CPI and its ability to transform the economic challenges facing universities/colleges and the United States economy at a grass-roots level. Colleges of nursing have made significant economic contributions to the United States economy. Creating jobs in a struggling economy has been and continues to be of paramount importance. Starck (2005) reported that just one college of nursing has the potential to contribute $69 to $75 million to a local and state
economy annually. However, the long-standing nursing shortage problem has continued to limit the number of new job opportunities. Numerous individuals have expressed their desire to become nurses, and jobs do exist for qualified applicants; however, a lack of faculty and clinical site resources has prevented educational institutions from expanding educational capacity to meet this need (Starck, 2005). Applying principles of CPI with a focus on expanding educational capacity through academic practice partnerships could potentially make a substantial impact on the number of qualified nurses entering the job market. The prospect of this potential impact is based on a preponderance of evidence supporting the fact that Baldrige Award recipients, especially those within the business and healthcare industries, consistently have outperformed their competitors both financially and in market-share (NIST, 2010).

Third, studying CPI in a healthcare educational setting is important because nursing program accreditation agencies have continued to play a critical role in maintaining the quality of nursing education and in the profession of nursing by holding subscribers to a high level of accountability to the community of interest (AACN, 2008). Current CCNE-accreditation ideals ultimately impact the effectiveness of future nursing programs and serve as a signal for program leadership at colleges of nursing to launch formal CPI agendas that bridge benchmarked gaps. By identifying the indicators of quality that most closely align with the Baldrige core values and concepts of performance improvement, CCNE-accredited colleges of nursing decision-makers can manage risks and maximize the odds of favorable performance improvement outcomes.
Theoretical Framework

According to Infante, Rancer, and Womack (1997), the open nature of systems models accounts for the complexity and unpredictability of most systems. Because of its flexibility, the theoretical foundation for this study is General Systems Theory (GST). From a broad perspective, GST explains the ways in which members of a society and individuals within organizations achieve their goals. GST is useful as a framework for explaining the complex relationships that exist between organizational practices and processes that progressively promote continuous performance improvement.

General systems theory was proposed in the 1930s by biologist Ludwig von Bertalanffy in an attempt to revive the unity of science. Systems theory focuses on the arrangement of and relationships among the components of a system as well as the interactions that transform these components into a complete system. In short, GST is a multidisciplinary study of the phenomena of organization. Bertalanffy (1968) characterized a system as having four core components. The first component consists of the multiple elements within the system. These elements may be physical or abstract or both, depending on the nature of the system. The second component consists of attributes or properties of the system. The third component consists of the internal relationships among the elements within the system. The fourth component consists of an open environment that allows the system to receive information, interact with its environment, and adapt. Bertalanffy (1968) defined a system as having properties that are not present when the parts are separate. Related fields of systems theory include information theory and cybernetics, which have helped scientists understand a wide variety of physical, biological, social and behavioral processes, including communication. Systems theory
attempts to explain principles common to all complex entities and the models that can be used to describe them. In other words, all phenomena, including CPI, can be viewed as a system or a part of another system.

The Baldrige Performance Excellence Program: Education Criteria for Performance Excellence provides this study with a systems perspective for understanding performance management within higher education and, more specifically, colleges of nursing. The Baldrige model was built on an eclectic mix of systems, organizational, and leadership theories. These theories were based on the premise that an organization’s leadership and its ability to respond to continuous improvement initiatives directly affect an organization’s systems outcomes (Winn & Cameron, 1998).

The Baldrige Award is given by the President of the United States to non-profit organizations that have been judged to be outstanding in seven areas: leadership; strategic planning; customer and market focus; measurement, analysis, and knowledge management; workforce focus; process management; and results. Congress established the award program in 1987 to recognize United States organizations for their achievements in quality and performance and to raise awareness about the importance of continuous quality improvement and performance excellence as a competitive edge. The Baldrige Criteria for Performance Excellence have been accepted nationally and internationally as a model for performance excellence and reflect benchmark CPI practices against which organizations can measure themselves (NIST, 2010).
**Problem Statement**

The AACN has asked academic leaders to align the performance of their organizations to the prescribed standards within the *Essentials of Baccalaureate Education for Professional Nursing Practice* document; however, the AACN has not prescribed a strategy that specifies the manner in which colleges should achieve these benchmarked standards. The specific strategies and tactics by which organizations might achieve these performance improvements have been left to the discretion of each college. The AACN *Essentials of Baccalaureate Education for Professional Nursing Education Faculty Toolkit* (2009b) has provided suggestions for program enhancement as a means of promoting CPI. The AACN indicators of quality serve to guide baccalaureate nursing programs as they strive for excellence. However, administrators are uncertain about whether the indicators of quality lead to the kind of improvements that are actually indicative of improved performance.

**Purpose and Significance**

The purpose of this non-experimental quantitative study was to examine the predictive relationships that exist between the AACN indicators of quality and the Baldrige core values and concepts of performance improvement within CCNE-accredited baccalaureate colleges of nursing. More specifically, the purpose was to determine whether the behaviors associated with specific AACN indicators of quality reflect behaviors that the Baldrige core concepts have already proven to be successful in achieving continuous performance improvement.

This study provides a quantitative snapshot of the current status of CPI strategies applied in colleges of nursing across the United States. As a result of this nationwide
study, deans, college administrators, and the greater healthcare community of interest are able to gain knowledge about the application and potential benefits of deploying a formal CPI plan that aligns with the Baldrige values and concepts. The Baldrige core values and concepts have been proven to be empirically valid, and organizations that implement them have been proven to engage in meaningful performance improvement. Therefore, discovering which specific AACN indicators of quality behaviors most frequently lead to and correlate with the Baldrige criteria is not only important, but essential for colleges of nursing and the healthcare industry. As a result, colleges of nursing are able to engage in more of the AACN behaviors that align with Baldrige core values and concepts than those colleges of nursing that do not. Furthermore, as a result of this study, a variety of future research opportunities have been identified related to the topics of best practices and benchmark CPI standards for colleges of nursing. Lastly, this research supports the link between performance improvement and quality in the research literature, and extends the scholarly knowledge on the topic.

**Research Questions**

The following research questions guided the study:

1. What are the contributing AACN indicators of quality behaviors with the potential to predict enhanced performance results within the Baldrige core concept and value of “Visionary Leadership”?

2. What are the contributing AACN indicators of quality behaviors with the potential to predict enhanced performance results within the Baldrige core concept and value of “Student-centered Excellence”?
3. What are the contributing AACN indicators of quality behaviors with the potential to predict enhanced performance results within the Baldrige core concept and value of “Organizational and Personal Learning”? 

4. What are the contributing AACN indicators of quality behaviors with the potential to predict enhanced performance results within the Baldrige core concept and value of “Valuing Workforce Members and Partners”? 

5. What are the contributing AACN indicators of quality behaviors with the potential to predict enhanced performance results within the Baldrige core concept and value of “Agility”? 

6. What are the contributing AACN indicators of quality behaviors with the potential to predict enhanced performance results within the Baldrige core concept and value of “A Focus on the Future”? 

7. What are the contributing AACN indicators of quality behaviors with the potential to predict enhanced performance results within the Baldrige core concept and value of “Managing for Innovation”? 

8. What are the contributing AACN indicators of quality behaviors with the potential to predict enhanced performance results within the Baldrige core concept and value of “Management by Fact”? 

9. What are the contributing AACN indicators of quality behaviors with the potential to predict enhanced performance results within the Baldrige core concept and value of “Societal Responsibility”? 

10. What are the contributing AACN indicators of quality behaviors with the potential to predict enhanced performance results within the Baldrige core concept and value of “Societal Responsibility”?
10. What are the contributing AACN indicators of quality behaviors with the potential to predict enhanced performance results within the Baldrige core concept and value of “Focus on Results and Creating Value”?

11. What are the contributing AACN indicators of quality behaviors with the potential to predict enhanced performance results within the Baldrige core concept and value of “Systems Perspective”?

Participants and Procedures

Administrative leaders presiding over the 556 baccalaureate colleges of nursing accredited by the CCNE in the United States were e-mailed the survey. E-mail addresses were obtained through the CCNE website (American Association of Colleges of Nursing [AACN], 2010b). Vovici survey software was used to deploy the survey, capture the data, and store the data. Before beginning the e-data collection process, potential participants were provided informed consent information, including the name of the principal investigator, the purpose of the study, the description of the procedures, potential risks and benefits of participating in the study, and details about efforts to ensure anonymity and confidentiality. All participation was voluntary. No names of any participants or individual colleges/institutions were mentioned in this study, and the responses were aggregated to ensure participants’ anonymity and confidentiality. Participant response rates were monitored, and a follow-up survey was e-mailed to non-responders. Participants who did not respond to the first two emails were sent a hardcopy of the survey via regular mail with a self-addressed stamped envelope.
Survey Instrument

The Continuous Performance Improvement Survey (see Appendix A) is divided into three sections. The first section of the survey includes statements related to program enhancement characteristics identified within the five categories of quality program indicators found in the AACN Essentials of Baccalaureate Education for Professional Nursing Practice Faculty Tool Kit. The second section of the survey includes a series of categorical statements related to the 11 core values and concepts found in the Baldrige Education Criteria for Performance Excellence. The third section of the survey solicits relevant college profile data, such as demographic location, degree programs offered, and number of students currently enrolled in the college.

Data Analysis

The investigator used multiple linear regression to examine the relationships between the 52 indicators of quality characteristics and the Baldrige 11 core values and concepts. Statistical Package for the Social Sciences (SPSS) analysis software was used to analyze the data. Multiple linear regression research is widely used method of data analysis in professional and applied science disciplines (Rubinfeld, 2011). This method of data analysis is appropriate for this study because the investigation seeks to find statistically significant relationships between the independent, or “predictor” variable (indicators of quality) and the dependent, or “outcome” variables (Baldrige core values and concepts).

Assumptions

Researchers make a variety of assumptions when conducting research projects. Assumptions refer to conditions that exist within the research context. They can include
assumptions about participants, data collection procedures, and data analysis techniques. The researcher made three assumptions while conducting this study: (a) respondents were truthful when completing the survey; (b) the survey was completed by the intended recipient and (c) the AACN indicators of quality used in this study do not represent an exhaustive list of all potential behaviors that could lead to improved performance within baccalaureate colleges of nursing

**Delimitations**

The study has two noteworthy delimitations. First, the question of the quality of nursing education will not be examined, because all CCNE-accredited colleges of nursing have executed a thorough self-assessment and have successfully passed a systematic and rigorous evaluation process intended to ensure the integrity of quality within individual nursing education programs. Secondly, colleges and schools of nursing accredited through the National League for Nursing Accrediting Commission (NLNAC) are not included in the research population because they do not subscribe to the AACN *Essentials of Baccalaureate Education for Professional Nursing Practice*. CCNE and NLNAC each have independent process systems for approval and accreditation. Although both organizations require high standards of practice within nursing education, the constructs of the accreditation criteria and the types of nursing programs they accredit are different. The CCNE accredits baccalaureate, masters, and doctoral programs of nursing, and the NLNAC accredits diploma, practical, associates, baccalaureate, and master’s programs of nursing (National League for Nursing Accrediting Commission [NLNAC], 2002).
Limitations

The study has six limitations. First, consumers of this scholarship should be cautious about generalizing the study’s findings to colleges of nursing located in areas of the country with fewer opportunities for collaborative practice initiatives (i.e., colleges of nursing located in rural or remote areas of the country). Secondly, internal budgets may influence the amount of dollars available for research, development, business operations, public relations, marketing, and human resources (i.e., colleges of nursing with an organizational finance structure that dictate how funds are distributed). Third, the data for this research study indicating which AACN indicators and Baldrige core values and concepts colleges implemented were collected via a self-report instrument (survey) rather than via direct observation. In addition, the same participants provided the survey data both for the independent variables and the dependent variables, which may have made the study susceptible to measurement error. Fourth, the survey response scales were different for the AACN indicators of quality data (counts) and the Baldrige core values and concepts scores (Likert scale). Although multiple regression analyses can be conducted based on variables that are comprised of ordinal data, they are most often conducted based on variables that are comprised of interval or ratio data. When variables are comprised of ordinal data, interpreting the coefficients becomes slightly more problematic. Fifth, the data scores for the Baldrige core values and concept scores were aggregated, which could have resulted in reduced sensitivity in the data analysis process as well as minor loss of detail in the multiple regression results. Lastly, multiple regression requirements suggest that a good rule of thumb is to include a minimum of 30 observations and to add at least an additional 10 observations for each additional
independent variable added to the equation. Based on this guideline, this study would require approximately 540 observations; however, the sample size (n=156) for this study was much smaller. This limitation was addressed by conducting a chi-squared test, which confirmed that the sample was representative of the population.

**Definition of Terms**

The following definitions are provided to ensure uniformity in the understanding and interpretation of these terms throughout the study.

**Academic Quality Improvement Program.** One of two alternative evaluation processes which organizations can take to maintain accreditation by the Commission of the North Central Association of Colleges and Schools. The principles and benefits of continuous improvement require the organization to engage in a structured set of goal-setting, networking, and accountability activities (Commission on Colleges, 2010).

**Administrative Leadership.** Primarily refers to a dean overseeing a college or school. However, collectively, administrative leadership could include assistant and associate deans, department chairs, and/or directors within a college/school of nursing.

**American Association of Colleges of Nursing.** “Serves the United States public interest by setting standards, providing resources, and developing the leadership capacity of member schools to advance nursing education, research, and practice” (AACN, 2009a, p.1).

**Analysis.** The examination of facts and data to determine the possible cause-and-effect relationships that provides a basis for strategic and effective decision making (National Institute of Standards and Technology [NIST], 2009a).
**Baccalaureate College of Nursing.** A four-year program of nursing education in a college or university that results in a Bachelor of Science in Nursing (BSN) degree. All graduates of a baccalaureate nursing program are eligible to sit for the state Registered Nurse examination for licensure (Webster’s, 2011).

**Balanced Scorecard.** The balanced scorecard is a strategic planning and management system that is used in business and industry, government, and nonprofit organizations worldwide to align business activities to the vision and strategy of the organization, improve internal and external communications, and monitor organizational performance against strategic goals (Kaplan & Norton, 2001).

**Baldrige Performance Excellence Program.** A nationally recognized program that purposes to improve the competiveness and performance of United States organizations (NIST, 2011e).

**Baldrige Educational Criteria for Performance Excellence.** A systems perspective for understanding organizational performance that provides a framework and an assessment tool for understanding organizational strengths and opportunities for improvement and guides future planning efforts (NIST, 2009a & 2011e).

**Benchmark(ing).** The processes and results that represent best practices in performance for similar activities, inside or outside the education community. Organizations engage in benchmarking to understand the current dimensions of world-class performance and/or breakthrough improvements (NIST, 2009a).

**Best Practices.** Indicators of quality related to baccalaureate nursing program outcomes. Identified indicators of quality can serve as a measure of progress toward improvement and identify strengths (American Association of Colleges of Nursing [AACN], 2009b).
**Commission on Collegiate Nursing Education.** Recognized by the United States Secretary of Education as an autonomous national accreditation agency, the CCNE contributes to the improvement of public health and ensures the quality and integrity of baccalaureate, graduate, and residency programs in nursing (AACN, 2009a).

**Continuous Performance Improvement.** An enduring philosophy focused on practices designed to progressively improve all activities and processes within an organization, unit, or department.

**Customer (Focus).** Students and stakeholders who are actual and potential users of an organization’s educational programs, offerings, or services (NIST, 2009a).

**Deming Cycle.** The Deming Cycle is a set of activities (plan, do, check, and act) designed to drive continuous improvement within business and industry (Deming, 1982).

**Essentials of Baccalaureate Education for Professional Nursing Practice.** The *Essentials of Baccalaureate Education for Professional Nursing Practice* documents outline the necessary curriculum content and expected competencies of graduates from baccalaureate, master’s, and doctor of nursing practice programs, as well as the clinical support needed for the full spectrum of academic nursing (AACN, 2008).

**Knowledge Management.** Examines an organization’s selection and use of data and information for performance measurement, analysis, and review in support of organizational planning and performance improvement (NIST, 2011e).

**Baldrige Award.** Formerly referred to as The Malcolm Baldrige National Quality Award, the Baldrige Award is the nation’s highest presidential honor for innovation and performance excellence within business, non-profit, healthcare, and education organizations (National Institute of Standards and Technology [NIST], 2011a).
**National League for Nursing Accrediting Commission.** A nationally recognized specialized accrediting agency both for post-secondary and higher degree programs in nursing education. The commission has authority and accountability for carrying out the responsibilities inherent in the application of standards, criteria, and accreditation processes as well as the affairs, management, policy-making, and general administration of the organization (NLNAC, 2002).

**Practice Partnerships.** Practice partnerships are key organizations or individuals who work in concert with a college/school to achieve a common goal or to improve performance (NIST, 2011e). The AACN defines academic practice partnerships as a mechanism for advancing nursing practice and improving public health. An academic-practice partnership is developed between a nursing education program and a patient-care setting (American Association of Colleges of Nursing, 2011).

**Performance.** The outputs and their outcomes obtained from (1) programs and services; (2) students and stakeholders; (3) budgetary, financial, and market sources; and (4) operational information that permit evaluation and comparison relative to goals, standards, past results, and the performance of other organizations (NIST, 2011e).

**Performance Improvement.** Performance improvement in the education sector refers to the processes used to move an organization from actual performance or results to the desired performance or results for the purpose of providing the highest level of sustainable educational quality.

**Performance Indicators/Measures.** The numerical information that quantifies input, output, and performance dimensions of processes, programs, offerings, services, and overall organizational outcomes (NIST, 2011e).
Process (Management). All activities performed by an organization with the purpose of producing a program or service for students and/or stakeholders within or outside the organization (NIST, 2011e).

Results. The evaluated outputs and outcomes achieved by an organization (NIST, 2011e).

Senior Leadership. Individuals primarily responsible for overall management of an organization, including administrators, department heads, and/or faculty leaders (NIST, 2011e).

Six Sigma. A business management strategy used within a variety of organizational settings that applies a systematic method for improving the operational performance of an organization by eliminating variability and waste (Antony, 2004).

Strategic Planning. Developing and executing plans to ensure adequate resources are available to accomplish goals and long-term organizational sustainability within a competitive environment (NIST, 2011e).

Workforce (Focus). All individuals actively involved in accomplishing the work of the organization, including administrators; supervisors; paid permanent, part-time, temporary, and telecommuting employees; and contract employees supervised by the organization and volunteers (NIST, 2011e).

Summary

This dissertation applies the Baldrige Education Criteria for Performance Excellence as a means to examine the potential predictive relationships that exist between the AACN indicators of quality and the Baldrige core values and concepts of performance improvement within CCNE-accredited colleges of nursing in the United
States and consists of five chapters. Chapter 1 is comprised of the following sections: the introduction, the significance of the problem, the theoretical framework, the problem statement, the purpose and significance of the study, the research questions, the participants and procedures, the survey instrument, data analysis methods, assumptions, delimitations, limitations, definition of terms, and summary. Chapter 2 reviews information from research literature found in scholarly peer-reviewed journals and other credible sources that establish a clear practical and scholarly research context for this study. It summarizes the history of continuous performance improvement within the United States, describes the Baldrige Educational Performance Excellence program and previous Baldrige award winners, describes the role of accreditation and performance improvement, and summarizes the role of the AACN Essentials in achieving improved performance. Chapter 3 explains the methodology of this study. It presents the research design and describes the sample, the instrumentation, the data collection procedures, and the data analysis procedures. Chapter 4 presents the results of the study. Chapter 5 summarizes the results of the study, presents implications for practice, and provides recommendations for further research.
Chapter Two
Review of the Literature

Introduction

Chapter two is organized into four topic sections. The first section provides an overview of the history of continuous quality improvement within the United States. The second section reviews the Baldrige Performance Excellence Program. The Baldrige Program section presents the history of the program; performance profiles of Baldrige Award winners; and a review of the Baldrige model criteria for performance excellence, core values, and concepts. This section also describes the benefits and drawbacks of using the Baldrige model, presents research that has been conducted using the Baldrige model within education, and describes the use and value of the Baldrige Criteria for organizational self-assessment and ongoing performance improvement management. The third section covers the research and the Baldrige framework. The fourth section covers institutional and program accreditation standards and the AACN Essentials and describes their importance in organizational performance improvement.

Continuous Performance Improvement History in the United States

There is a long history of quality performance improvement within industry and business that can be broken down into three major eras. Each era builds on and incorporates the previous. The initial era started in the early 1900s and continued through the 1930s, when quality improvement was centered on the individual craftsman and when the responsibility for quality production was grounded in the personal skills of each individual. Within the early era, mass production and the industrial assembly line began to dominate production, and quality was determined by end-of-line inspection. The
middle era—the 1940s to the 1960s—started with the use of statistical process control systems. Rather than a product of individual craftsmanship or assembly line production, quality was viewed as a process. Thereafter, a period of quality assurance systems evolved, and quality was viewed as a function of an organization and its infrastructures. Today, the concept of strategic quality management focuses on customer needs and satisfaction and places the impetus and emphasis for achieving quality on the involvement of leaders and eliminating waste. In many organizations today, quality management is considered a competency for all employees in an organization (Improvement Foundation, 2011).

The Kaizen philosophy, a well-known CPI strategy originating in Japan, places the responsibility for achieving quality on activities that continually improve all functions within an organization (Singh & Singh, 2009). During the 1950s, the concept of quality improvement started in Japan, when the country began to rebuild after World War II. Japan embraced the ideas of W. Edwards Deming (1900-1993), an American physicist and statistician, whose methods and theories contributed to Japan's postwar recovery. Deming has been heralded as the “guru” of quality improvement management. Deming’s work is significant because of his progressive ideas about organizational management, leadership, and quality improvement. Deming’s systems approach to achieving continuous quality improvement uses a Plan-Do-Check-Act cycle, now known as The Deming Cycle (Deming, 1982). Japan had been implementing Deming’s methods of quality improvement for nearly 30 years before United States industry and manufacturing embraced Deming's innovative quality improvement methods. During the 1980s, American automotive and electronic industries took an interest in his ideas only when
they began having trouble competing within the foreign marketplace. The Ford Motor Company called on Deming to help refine their management and operational processes in the 1980s, after learning that Japanese car manufacturers had captured nearly 25% of the market-share in the United States. Deming’s book, *Out of Crisis*, published in 1986, outlined his approach to quality management and provided a plan for how to transform western world industry, which he believed to be in a state of crisis (Petersen, 1999).

Deming described continuous improvement as “improvement initiatives that increase successes and reduce failures” (Bhuiyan & Baghel, 2005, p.761). The Deming philosophy is grounded in the belief that long-term success depends on a uniform commitment to quality in all components of an organization. Deming believed that a commitment to quality requires transforming an entire organization. Deming’s management system was based on 14 points, or actions, required for an organization to achieve continuous improvement toward the perfect ideal. The actions include:

- Create constancy of purpose for improvement of product and service. Make money by staying in business and provide jobs through innovation, research, and constant improvement.
- Adopt a new philosophy. Companies need to change into learning organizations where negativism is not unacceptable.
- Cease dependence on mass inspection. Eliminate the need for mass inspection by building quality into the product from the start.
- End awarding business on price. Aim for cost containment and move towards single suppliers.
● Improve the system of production and service constantly. Management should continually look for ways to reduce waste and improve quality.

● Institute training. Train workers to do the job properly.

● Institute leadership. Leading consists of helping people to do a better job and to learn by objective methods.

● Drive out fear. To assure better quality and productivity, people need to feel secure in their job.

● Break down barriers between departments. Work as a team to solve and foresee problems.

● Eliminate slogans, exhortations, and numerical targets from the workforce. Let workers formulate their own slogans; then they will be committed to the contents.

● Eliminate numerical quotas or work standards. Quotas take into account only numbers, not quality or methods.

● Remove barriers that prevent workers from taking pride in their workmanship. Supervisors, faulty equipment, and defective materials can hinder good performance.

● Institute a vigorous program of education. Provide management and the workforce with new knowledge and techniques.

● Take action to accomplish the transformation. A management team with a plan of action to carry out the quality mission is needed, and people in the company must understand the fourteen points (Petersen, 1999).
**Total Quality Management.** Although Deming sometimes has been associated with the “total quality management” (TQM) movement within United States industry during the 1980s and 1990s, he did not use the term (Petersen, 1999). However, his work did lay the foundation for the TQM approaches of Crosby (1979), Ishikawa (1982), and Juran (1989), which gained popularity in the mid 1980s. The primary focus of TQM remains centered on customer-centered quality improvement. The essentials of TQM can be summarized as follows:

- **Satisfy the customer.** Organizations should work with customers on an ongoing basis to understand and meet their needs.
- **Satisfy the supplier.** Organizations should work with suppliers to ensure they are meeting the organization’s needs for timeliness, quality, and quantity.
- **Continuous improvement of work processes.** Workers should be involved in an ongoing analysis of work processes and be involved in improving current practice. These improvements should be documented and analyzed (Vinzant & Vinzant, 1999).

**Six Sigma.** During the past three decades, numbers of continuous improvement methodologies have evolved to meet the quality or process improvement needs of service organizations, including higher education entities. Six Sigma and the Balanced Scorecard are two well-known quality improvement methods. Six Sigma is a powerful business management tool that heavily emphasizes achieving measurable financial returns by correcting business process problems through statistical thinking. Between the 1990s and 2008 more than 400 publications have been distributed globally on Six Sigma techniques and methodologies (Aboelmaged, 2010). Six Sigma began in the 1980s as a
statistically-based method of reducing variation in the manufacturing process within the Motorola Corporation. Today, Six Sigma is a branded business performance methodology used within a wide range of organizational types, including corporate manufacturing companies such as General Electric and a host of medical service organizations (Raisinghani, Ette, Pierce, Cannon, & Daripaly, 2005). The essence of the Six Sigma methodology of process improvement is summarized within the following six characteristics:

- Focuses on achieving quantifiable financial returns to the organization.
- Stresses the importance of sound leadership for the successful deployment of any strategy.
- Solves improvement problems by integrating the human elements of customer focus and process management.
- Applies specific techniques for fixing problems in business processes in a sequential and disciplined order.
- Creates an infrastructure of organizational champions to lead, deploy, and implement the plan.
- Applies statistical techniques to data as a part of the fact-finding and decision-making process (Antony, 2004).

**Balanced Scorecard.** The Balanced Scorecard (BSC) provides a continuous performance improvement method that describes and communicates organizational performance in operational terms. It uses existing tangible and intangible resources to create strategy maps and Balanced Scorecards to address the organization’s shortcomings using a measurement system. It has been reported that by 2001 about 50% of the Fortune
1000 companies in North America and 40% to 45% of companies in Europe were using the BSC (Kaplan & Norton, 2001). The basic assumption behind the use of the BSC is that fiscal results alone cannot capture value-added, or business-driving activities within an organization. According to the balanced scorecard approach, in addition to financial measures, organizations should develop a set of quality improvement perspective measures that are in alignment with the organization’s vision and strategic objectives. The essential principles of the BSC are captured within the following suggested perspective measures on quality performance improvement:

- Financial perspective measures should address how an organization appears to its shareholders.
- Customer perspective measures should address how an organization appears to its customers.
- Internal business processes perspective measures should address the processes at which the organization must excel.
- Learning and growth perspective measures should address the ability for sustainable change and improvement (Karathanos & Karathanos, 2005).

The unifying theme among the Balanced Scorecard, Six Sigma, and Total quality Management approach to continuous performance improvement is they all require an organization to apply a formulated strategy aimed at achieving positive future improvement outcomes. These performance improvement models are used in a wide range of organizational types and are primarily useful within business and industry.
The Baldrige Performance Excellence Program

Congress signed The Malcolm Baldrige National Quality Improvement Act into law in 1987 in response to the growing awareness that in order for the United States to remain competitive in the global marketplace, the central focus must be on quality and performance excellence (America, 1987). The Malcolm Baldrige National Quality Award program (1987-2010), named after the late Malcolm Baldrige, the late United States Secretary of Commerce from 1981 to 1987, recognizes the advancement of performance excellence practices within education, healthcare, business, and nonprofit organizations. The Baldrige Criteria for Performance Excellence provides a framework and an assessment tool for understanding an organization’s strengths and opportunities for improvement. Performance excellence represents a non-prescriptive, integrated method of performance management that produces improved organizational efficiency, capacity, and sustainability. The Baldrige program is devoted to this nation’s goal of modeling organizations that exemplify quality and performance excellence. Through education and information sharing, leaders in the education, healthcare, business, and nonprofit sectors can learn about best practices that lead to world-class levels of performance. The National Institute of Standards and Technology in the United States Department of Commerce manages the program in collaboration with public-private partnerships, the American Society for Quality, a board of overseers, a board of examiners, a panel of judges, and current and past award recipients. The joint work of these groups helps fulfill the program’s mission “to improve the competitiveness and performance of the United States organizations” (NIST, 2010, para. 2) and the program’s vision “to be the partner of choice for excellence in every sector of the economy” (NIST,
As a means of highlighting the mission and as part of an overall National Institute of Standards and Technology (NIST) realignment, the Obama Administration and the Baldrige Congressional oversight committees have changed the name of the Malcolm Baldrige National Quality Program to the Baldrige Performance Excellence Program. The name was changed to describe the program more clearly and highlight the leading-edge performance management practices contained within the framework (Newman, 2010).

The Baldrige Criteria for Performance Excellence provides a systems approach for understanding performance management. A system can be viewed as a network of co-dependent parts and the relationships between them working together to achieve the purpose of the system. Each part has influence and contributes to the system’s performance (Houston, 2008). The select criteria reflect confirmed, cutting-edge management practices against which an organization can conduct a self-assessment. Businesses, nonprofit organizations, and educational institutions can use the 2011-2012 Criteria for Performance Excellence. The requirements are represented by seven categories: leadership; strategic planning; customer focus; measurement, analysis, and knowledge management; workforce focus; operations focus; and results. The comprehensive framework has been accepted worldwide as a model for performance excellence. The criteria use a common language for sharing best practices among organizations.

More than 25 countries have used the Baldrige Criteria as the basis for their own national awards. Notable international awards heavily influenced by the Baldrige Award include the European Foundation for Quality Management, the Mexican National Quality
Award, the Brazilian National Quality Award, the Egyptian National Quality Award, and the Japanese Quality Award. The impact of the Baldrige Framework is broad and has an impact on the elements of performance excellence within the global business community (Ruben, Russ, Smulowitz, & Connaughton, 2007).

**Performance Profiles of Baldrige Award Winners.** Organizations of varying types and sizes use the Baldrige Criteria to drive performance improvement efforts. Of the 91 Baldrige Award recipients since 1988, four have been among the Fortune 500. These recipients are Motorola (1988), Federal Express Corporation (1990), Eastman Chemical Company (1993), and Solectron Corporation (1991, 1997). Several other award recipients are subunits of Fortune 500 companies, including 3M, AT&T, Boeing, Caterpillar, Dana Corporation, Verizon Communications, Honeywell Federal Manufacturing and Technologies, IBM, Marriott, Merrill Lynch, Xerox, and Cadillac, a division of General Motors Corporation. The 2010 award year was the first year that three small businesses were selected at one time and only the second instance in the award’s 24-year history that a total of seven organizations were honored (National Institute of Standards and Technology [NIST], 2011-2012).

The criteria were extensively reviewed and modified for education and healthcare organizations in the mid-1990s. There have been three higher education Baldrige Award recipients. The first of the three was the University of Wisconsin-Stout in 2001, followed by Kenneth W. Monfort College of Business in 2004, and Richland College received the Baldrige Award in 2005. Thirteen healthcare organizations have received the Baldrige Award. Baptist Hospital, Inc., and Saint Luke’s Hospital of Kansas City received the Baldrige Award in 2003, Robert Wood Johnson University Hospital Hamilton in 2004,
Bronson Methodist Hospital in 2005, North Mississippi Medical Center in 2006, Mercy Health System and Sharp HealthCare in 2007, and Poudre Valley Health System in 2008. In 2009, AtlantiCare and Heartland Health were named Baldrige Award recipients, and Advocate Good Samaritan Hospital received the award in 2010 (NIST, 2010). Three healthcare organizations received the Baldrige Award in 2011: Henry Ford Health System, Detroit, Michigan; Schneck Medical Center, Seymour, Indiana; and Southcentral Foundation, Anchorage, Alaska (National Institute of Standards and Technology, 2011c).

Evidence has confirmed that organizations that receive high scores on Baldrige Criteria are more successful than those that receive lower scores, which substantiates claims that the Baldrige Criteria provide a standard of excellence to which organizations can and should aspire (National Institute of Standards and Technology [NIST], 2011b). A study conducted by Link and Scott (2001) on the United States economic impact of the Baldrige National Quality Program estimated that the total net economic benefits from private companies associated with the program equaled $24.65 billion. When compared to the total social costs of the program of $119 million, the social benefit-to-cost ratio was 207 to 1. Jacob, Madu, and Tang (2004) found that Baldrige Award winners, within the industry sector, have stood out as performance leaders in the area of financial performance and are highly valued for setting industry benchmarks.

Baldrige Award recipients have reported an increase in market-share, which suggests improved success in a competitive market place (NIST, 2011d). In the healthcare industry a 2009 Baldrige Award recipient increased its market-share in the primary service area by 62% in 2008, and improved its market-share in the regional
service area by 57% between 2000 and 2009 (NIST, 2010). Between 1999 and 2005, Sharp HealthCare, a 2007 Baldrige Award recipient, gained more than four percentage points in market-share, an unprecedented achievement in a mature healthcare marketplace (NIST, 2010).

In business, a 2009 Baldrige Award recipient achieved a level of financial performance that resulted in a sales growth rate of nearly 30% for 2008, compared to 10% for one of its competitors (NIST, 2010). Park Place Lexus, a 2005 Baldrige Award recipient, held 50% or more of regional market-share from 2002 through 2005 (NIST, 2010). A two-time Baldrige Award recipient in 1999 and in 2005, increased revenue 93% after it first received the Baldrige Award. Since 1997, MESA Products, Inc.’s total sales from existing customers grew from 70% to more than 90% (NIST, 2010).

**Baldrige Education Criteria for Performance Excellence.** The Baldrige Education Criteria for Performance Excellence consists of seven performance indicator categories. These categories provide a structure that individual higher education organizations can use to assess and improve their processes and outcomes. The education criteria were developed with the input of more than 200 experts and theorists in the area of organization quality within North America and Asia (Winn & Cameron, 1998). Education recipients of the Baldrige Performance Excellence Award include the 2005 award winner, Richland Community College in Dallas, Texas, and the 2004 award winner, the University of Northern Colorado’s College of Business (NIST, 2009a).

As a conceptual framework for leaders, the Baldrige Education Criteria were designed to be adaptable to the needs of a broad range of higher education institutions. The seven categories are applicable for assessing departments with academic or co-
curricular programs and services that benefit students, faculty and staff, professional communities, state and local government, or the general public (Rubin, 2007). The National Institute of Standards and Technology (2011a) described the interrelated seven categories that makeup the Educational Criteria for Performance Excellence framework as follows:

1. The Leadership category examines how an organization’s administrative leadership guides and maintains the organization and supports its key communities while fulfilling its legal, ethical, and societal responsibilities.

2. The Strategic Planning category examines how an organization develops, implements, and measures achievement of its strategic objectives and action plans.

3. The Customer Focus category examines how an organization strategizes to engage and listen to the voices of its students and stakeholders. The information is used to improve execution and identify opportunities for innovation leading to long-term market performance success.

4. The Measurement, Analysis, and Knowledge Management category examines how an organization selects, gathers, analyzes, and manages data; deploys information technology, and allocates knowledge assets to improve performance.

5. The Workforce Focus category examines how an organization engages, manages, and develops its workforce to reach its full potential. Alignment of the workforce with the organizational strategic plan builds an environment that contributes to high performance.
6. The Operations Focus category examines how an organization designs its work systems and how it designs, manages, and improves its key processes to deliver student and stakeholder value as well as build a successful and sustainable organization.

7. The Results category examines an organization’s performance and improvement in all six of the previous key outcome areas.

The Baldrige framework and the integrated categories begin with an overarching “Organizational Profile” and is the context for the way an organization operates (e.g. key working relationships, competitive environment) and is the overarching guide for organizational performance management. The “Performance System” is composed of the six Baldrige categories that define the processes and the results achieved. The Leadership (category 1), Strategic Planning (category 2), and Customer Focus (category 3) represent the leadership triad. These categories are placed together to emphasize the importance of a leadership focus on students, stakeholders, and strategy. The Workforce Focus (category 5), Operations Focus (category 6), and Results (category 7) represent the results triad. All actions point toward Results. The results category is a composite of student learning and process outcomes, customer-focused outcomes, workforce-focused outcomes, leadership and governance outcomes, and budgetary, financial, and market outcomes. The horizontal arrow in the center of the framework links the leadership triad to the results triad. The two-headed arrows indicate the importance of feedback in performance improvement management. Category 4, Measurement, Analysis, and Knowledge Management, serve as a foundation for the performance management system (see Figure 1) (NIST, 2011e p.1). The Baldrige Education Criteria is built on a set of
interrelated core values and concepts. These core values and concepts are the beliefs and behaviors of high-performing organizations (NIST, 2011e).

Core Values and Concepts. The National Institute of Standards and Technology (2011) designed the Education Criteria based on a set of interrelated core values and concepts. The role of these 11 core values and concepts is played out in the systematic processes found in high-performing organizations. These criteria are the foundation for integrating key performance requirements that yield results. The core values and concepts of (1) visionary leadership; (2) student-centered excellence; (3) organizational and personal

1 Figure reprinted with permission from the Baldrige Performance Excellence Program at the National Institute of Standards and Technology from the Criteria for Performance Excellence (Gaithersburg, MD: 2011).
learning; (4) valuing workforce members and partners; (5) agility; (6) focus on the future; (7) managing for innovation; (8) management by fact; (9) societal responsibility; (10) focus on results and creating value; and (11) systems perspective are summarized below (see Figure 2) (NIST, 2011e).

*Figure 2. The Baldrige Education Criteria is built on a set of interrelated core values and concepts. These core values and concepts are the beliefs and behaviors of high-performing organizations (Adapted from NIST, 2011e).*

**Visionary Leadership.** Visionary leadership refers to an organization’s senior leaders’ ability to set directions and creates a student and stakeholder focus, clear and visible organizational values, and high expectations for the workforce. Leaders create strategies, systems, and methods for achieving performance excellence, stimulating innovation,
building knowledge and capabilities, and ensuring organizational sustainability (NIST, 2011e, p. 49).

Student-centered Excellence. Student-centered excellence is a strategic concept that is directed toward student and stakeholder loyalty, market-share gain, and growth. It demands constant sensitivity to changing and emerging student, stakeholder, and market requirements and to the factors that drive customer engagement (NIST, 2011e, p. 49).

Organizational and Personal Learning. Organizational and personal learning refers to sharing knowledge via systematic processes. Organizational learning includes both continuous improvement of existing approaches and innovation that will lead to new goals and approaches. Organizations invest in personal learning through education and training (NIST, 2011e, p. 50).

Valuing Workforce Members and Partners. Valuing people refers to an organization’s commitment to workforce engagement, satisfaction, development, and well being. Internal and external partnerships address the key requirements for success. These partnerships provide a means for regular communication, approaches for evaluating progress, and methods for adapting to changing conditions (NIST, 2011e, p. 51).

Agility. Agility refers to an organization’s capacity for rapid change and flexibility. In educational institutions, agility is a major factor in successfully designing and delivering new educational programs or services. Improvements in work systems and a cross-trained workforce are process improvements that support responding to rapid change (NIST, 2011e, p. 51).

Focus on the Future. A focus on the future includes developing leaders, workforce, and suppliers; accomplishing effective succession planning; creating opportunities for
innovation; and anticipating societal responsibilities and concerns (NIST, 2011e, p. 51-52).

**Managing for Innovation.** Managing for innovation means organizations are making meaningful change to improve an organization’s programs, services, processes, operations, and business model to create new value for the organization, students, and stakeholders (NIST, 2011e, p. 52).

**Management by Fact.** Management by fact refers to an organization depending on the measurement and analysis of its performance. Measurements are derived from an organization’s needs and strategies, and they provide critical data and information about key processes, outputs, and results (NIST, 2011e, p. 52).

**Societal Responsibility.** Societal responsibility refers to an organization’s efforts to stress its responsibility to the public, the need for ethical behavior, and the need to consider societal well being. This includes focusing on public health, public safety, and environmental conservation (NIST, 2011e, p. 53).

**Focus on Results and Creating Value.** A focus on results and creating value refers to an organization’s performance measurements with a focus on key results. Results should be used to create and balance value for students and key stakeholders within the community, including, parents, employers, the workforce, suppliers, partners, and the public (NIST, 2011e, p. 54).

**Systems Perspective.** A systems perspective means managing the whole organization, as well as its components, to achieve success. A systems perspective refers to a focus on strategic directions and on students and stakeholders. It means senior leaders monitor, respond to, and manage performance based on results. A systems perspective includes
using measures, indicators, core competencies, and organizational knowledge to build key strategies. It means linking these strategies with work systems and key processes and aligning resources to improve performance (NIST, 2011e, p. 54).

**Praises and Criticisms.** The Baldrige program is a time-tested framework that facilitates information sharing, learning, and systematic assessment. Since the program’s inception, nearly three million copies of the *Performance Excellence* booklets have been distributed to individuals and organizations in the United States and abroad or accessed from the Baldrige website. The program actively facilitates sharing through numerous forums, including the annual Quest for Excellence Conference, where Award recipients share best practices across the seven categories. Learning comes through application and assessment using the criteria, which are updated annually (NIST, 2011a). The Education Criteria incorporate fundamental and enduring dimensions of organizational quality and effectiveness. The framework has a transferability and portability that transcends a broad range of administrations, organizations, and time frames. It has been used as a guide to organizational assessment, planning, and improvement, and has been used as the basis for numerous workshops and retreats (Ruben, 2008). Lastly, the Education Criteria address all key areas required for running a successful educational organization. The Education Criteria are compatible with other performance improvement initiatives, such as ISO 9000, Lean, and Six Sigma (NIST, 2011d).

Critics of the Baldrige Award have argued that the site-visit fees are expensive, thus making it little more than a pricey organizational assessment tool (Davis, 2010). It has been said the application process creates a labyrinth of meetings, paperwork, and bureaucratic jargon (Banister, 2001). Others have argued that imposing a business
paradigm in an educational setting is inappropriate because students should not be regarded as “raw material” subject to uniform processes (Davis, 2010). Still others have argued that the Baldrige model’s emphasis on quantitative data and continuous improvement indicators is rigid and does not consider the uniqueness of teachers and students. Moreover, Banister (2001) has argued that this approach to educational improvement seems senseless in light of changing state regulations and expectations.

**Research on the Validity of the Baldrige Framework**

Research on the theoretical validity of the Baldrige framework (see Figure 1) has been conducted. Flynn and Saladin (2001) empirically examined the validity of the theoretical model found in the Baldrige frameworks of business, education, and healthcare. Path analysis was used to test the fit of all three of the frameworks, and the sums of direct effects were used to estimate the category weights implied by each of the categories. As a result, they found that all three frameworks were a good fit with the theoretical model. Wilson and Collier (2000), tested the Baldrige framework categories and causal performance linkages implied by the Baldrige framework. In summary, the research concluded that (1) the underlying theory of the Baldrige framework supports the linkage that leadership drives the system that causes results; (2) leadership is the most important driver of system performance; (3) leadership does not directly affect financial results but does influence overall organizational performance; (4) measurement and analysis is statistically the second most important Baldrige category; (5) operational processes are important when predicting customer satisfaction; and (6) set of these five Baldrige causal relationships is a good predictor of organizational performance.
Research Using the Baldrige Framework in Higher Education

Research on the value and use of the Baldrige model within higher education is varied. Winn and Cameron (1998) examined the validity of the relationships among the Baldrige Education Criteria dimensions using data from a Midwestern university. The purposes of the study were (a) to determine whether leadership significantly influenced systems and significantly influenced outcomes and (b) to determine the extent to which systems significantly influenced outcomes. As a result, these researchers concluded that an organization’s leadership undeniably plays a central role in influencing organizational operations and systems. In addition, the research showed that a significant relationship existed between leadership and workforce systems outcomes. Specifically, leaders that select, reward, and develop an organization’s faculty and staff leads to improved quality outcomes.

In 2004, Belohlav, Cook, and Heiser (2004) determined that the Baldrige Framework and core values provide a useful foundation for educational planning and implementation. Faculty members in the department of management at DePaul University designed, developed, and delivered course material using the Baldrige Framework. The end-of-term student evaluations showed that the approach led to a higher level of student engagement in the learning process, as evidenced by the amount and quality of feedback given to the instructors.

Evans (1997) discussed the Baldrige Framework and higher education by relating it to what was being taught on the topic of performance improvement and quality in quality-related courses and what the experts recommend should be taught. The results identified extremely low correlations between the quality-related topics identified as
important by the Baldrige Award winners’ companies, and the topic emphases in quality courses offered in United States higher education. Using the findings of Evan’s study as a baseline, Weinstein, Petrick, and Saunders (1998) identified a gap between Baldrige Award winners’ perceptions of what students learn about quality-related topics and the current teaching practices of higher education institutions. The results pointed to the fact that there is a need to reassess the curriculum on quality-related course topics to meet the needs of industry and business-preferred quality training topics.

In 2001, the University of Wisconsin-Stout was the first university to receive the Malcolm Baldrige Award. As a result, the University of Wisconsin-Stout became the state of Wisconsin’s higher education training exemplar for using a business-oriented model in higher education to improve daily operations (Arif & Smiley, 2004). Even today the University of Wisconsin-Stout continues to show strength and growth in many of the key Baldrige processes, even though the university encountered major changes in leadership during that time and challenging financial issues. As a result of adopting the Baldrige framework, the University of Wisconsin-Stout developed approaches to ensure revenue growth and cost containment that have resulted in sustained affordability for students, in spite of reduced state funding for higher education (Furst-Bowe & Wentz, 2006). In addition, the Baldrige examination team noted that the University of Wisconsin-Stout has implemented a variety of comprehensive strategies (surveys and forums) for listening to students and to the university’s primary stakeholder groups, including alumni and employers. These strategies helped to identify program needs, as well as enrollment and employment trends. To date, collecting this type of data and analyzing trends to identify the changing needs of key stakeholders, including alumni and
employers, has provided the University of Wisconsin-Stout with valuable information for refining and improving programs and services. Employer feedback about graduate skills also has been considered critical to assessing program improvement needs. For the past decade, more than 95% of graduates have been placed in career positions (Furst-Bowe & Bauer, 2007).

In a case study of Rutgers University, Ruben (2004) found that their Excellence in Higher Education Assessment Program, a self-assessment program for academic and administrative departments, is effectively being used to reduce institutional inefficiency, indifference to external constituencies, and address resistance to change. This program also serves the university community by encouraging information sharing between, business, health care, and government communities. The program has been shown to be successful means of providing support of personal and professional development opportunities for faculty and staff. Rutgers program is a Baldrige-based program that assists in clarifying organizational strengths and aids in establishing priorities for improvement. To date, more than 30 academic and administrative departments at Rutgers have participated in the program and 25 other colleges and universities have found this program helpful in their performance improvement efforts.

Research on the Value of the Self-Assessment Process

The Baldrige-based self-assessment in the higher education setting is a positive step toward organizational excellence and can be valuable in attaining a variety of organizational development goals. The purpose of self-assessment using the Baldrige Criteria is to strive toward the highest standard of excellence.
Rice and Taylor (2003) surveyed more than 300 colleges and universities across the United States to investigate the adoption of continuous improvement concepts and practices. The results identified four primary areas of engagement in performance improvement practices. Fifty-six percent were engaged in assessing student learning, 56% were involved in areas related to improving institutional effectiveness, 46% were involved in preparing for accreditation, and 40% were involved in process improvement initiatives at the department level. The research revealed the three most common formal performance improvement models in use include Baldrige, State Quality Award Program, and the Balanced Scorecard. The results of the study indicated that the CPI movement within higher education is active and evolving. A study conducted in North Carolina exploring the opinions of community college deans regarding their knowledge of the principles of continuous quality improvement found that 68% of administrative leaders possessed some knowledge and understanding about continuous quality improvement, and 14% reported having extensive knowledge and understanding of the topic (Farmer & Paris, 2000).

A series of research studies was conducted by the Center for Organizational Development and Leadership at Rutgers University from 2003 to 2005. The research focused on the impact of organizational self-assessment using the European Higher Education (EHE) Framework resulted in favorable outcomes. Rubin, Russ, Smulowitz, and Connaughton (2007) found that 62% to 79% of participants acknowledged that the self-assessment program was “valuable” or “very valuable” for acquiring knowledge of the Baldrige Framework. Furthermore, findings indicated that more than 75% of the respondents rated the self-assessment process as “valuable” or “very valuable” for
fostering a better understanding of organizational strengths and areas that are in need of improvement. In addition, more than 60% indicated that the program was “valuable” or “very valuable” for motivating self-reflection and creating priorities for improvement. Therefore, the findings suggested that that the self-assessment process initiated a genuine commitment to organizational change. To date, 45 academic and administrative departments at Rutgers have participated in the program, and more than 35 colleges and universities have found this program helpful in their assessment and improvement efforts (Ruben, 2008).

In summary, the Baldrige-based self-assessment is a positive step toward organizational excellence, and it can be valuable in attaining a variety of higher education organizational development goals, including the following:

- Provides a framework for organizational self-reflection.
- Provides a means to identify improvement needs.
- Establishes performance measurement benchmarks.
- Improves success in a competitive market place.
- Provides a model for organizational excellence (Ruben, 2007).

**Accreditation and Performance Improvement**

“Accreditation is a process of external quality review created and used by higher education to scrutinize colleges, universities and programs for quality assurance and quality improvement” (Eaton, 2009, p. 1). The accreditation process presents a number of substantial opportunities and challenges. The process provides an opportunity to view institutional and program review less as a mandated, compartmentalized event and more as a motivational opportunity to take a proactive approach toward program evaluation
and improvement. The challenges have to do with clarifying the activities that need to be accomplished to continue to improve. There is a growing emphasis on the approaches institutions use for ongoing, integrated, research-based planning and evaluation processes resulting in continuous improvement. Determining which data will be gathered to evaluate progress, documenting comparisons, and determining the methods that organizations systematically use for analyses are relevant in today’s academic environment (Ruben, 2007).

According to Mizikaci (2006), there has been renewed focus on reforming higher education to align its systems with the needs and expectations of the community and business sector. Universities are looking for more effective systems to address the increasing dissatisfaction with the performance of higher education systems. Within higher education, there has been a movement away from traditional models in which students are viewed as passive recipients of their education to a student focus, also referred to as a customer focus. It is for this reason that performance improvement approaches and practices used within management and industry have been attractive to the decision makers within higher education organizations.

The Baldrige Framework has had a substantial influence on the approaches that regional accrediting associations use (Ruben, 2007). For example, the Higher Learning Commission of the North Central Association of Colleges and Schools has developed and implemented an alternative accreditation process supporting institutions that use continuous improvement systems. This process, referred to as the Academic Quality Improvement Program (AQIP), shifts the focus of accreditation from inputs, such as national test scores and faculty credentials, to an outcomes-based, continuous review
process that identifies how well an institution meets the needs of its students and stakeholders. Currently, more than 175 postsecondary institutions have selected this method of accreditation, and the number continues to increase each year (Higher Learning Commission, 2010). Like Baldrige, AQIP is a non-prescriptive approach to performance improvement and change management. It enables institutions that are committed to continuous improvement to incorporate accreditation into their everyday practice so that accreditation becomes a systematic and ongoing process, rather than a single event. In addition to the regional accrediting organizations, many program-specific accrediting bodies, such as the Accreditation Board for Engineering and Technology (ABET) and the National Council for Accreditation of Teacher Education (NCATE) are moving in the direction of an outcomes-based, continuous review process rather than the traditional periodic assessment to ensure that programs achieve their mission and continue to flourish within today’s competitive educational market place (Furst-Bowe & Bauer, 2007).

The philosophy of quality improvement is at the heart of the Commission on the Southern Association of Colleges and Schools. Each member institution that is engaged in an ongoing program of improvement should be able to demonstrate how well it fulfills its stated mission (Commission on Colleges, 2010). The Higher Learning Commission of the North Central Association of Colleges and Schools developed the AQIP program. The AQIP was developed in 1999 as a means of enabling organizations to focus on systems and processes as the basis for continuous improvement. Participating in the AQIP process allows organizations to develop their CPI initiatives into action projects and stretch targets within an accreditation framework. The model is now used by
approximately 10% of all colleges and universities accredited by the Higher Learning Commission of the North Central Association of Colleges and Schools (Higher Learning Commission, 2010).

**CCNE Accreditation Standards**

There is a long history of accreditation of nursing programs that can be broken down into three major eras. The first accreditation of nursing education programs began in the 1890s with the founding of the American Society of Superintendents of Training Schools for Nurses. In the early 1900s, this organization became the National League of Nursing Education (NLNE). In the middle era, beginning in the late 1930s, the NLNE provided accreditation services for programs preparing registered nurses. In the early 1950s, the Association of Schools of Nursing, the NLNE, and the National Organization for Public Health Nursing merged to become the National League for Nursing. The National League for Nursing Accrediting Commission (NLNAC) was formed as an accreditation arm of the NLN and has continued to offer accreditation services for practical nursing, diploma nursing, and associate’s degree nursing, as well as baccalaureate and higher degree nursing programs (NLNAC, 2002). Finally, during the 1980s and again in the 1990s, leaders in nursing education asked the AACN to consider a new accreditation agency that focused on baccalaureate and graduate nursing programs. The request was made as a result of concerns about both the processes and outcomes of nursing accreditation within higher education (2009a). At the same period of time, higher education began focusing more on assessment of student educational outcomes and how students actively participate in the teaching-learning process to achieve the defined learning outcomes (Furst-Bowe & Bauer, 2007). As nursing education adopted
and emphasized this focus on assessment of outcomes, accreditation processes required revision in order to reflect this emphasis. In 1996, the Commission on Collegiate Nursing Education (CCNE) was formed and continues to exist today (Commission on Collegiate Nursing Education [CCNE], 2009).

The CCNE is an autonomous accrediting agency designed to contribute to the improvement of public health. The commission ensures that baccalaureate and graduate education programs prepare effective nurses. The commission serves the public interest by assessing and identifying programs that engage in effective educational practices. A voluntary, self-regulatory process, CCNE accreditation supports and encourages continuing self-assessment by nursing education programs as well as the continued growth and improvement of collegiate professional education. To date, more than 80% of baccalaureate and master’s programs are affiliated with the CCNE (American Association of Colleges of Nursing [AACN], 2010a). Based upon the CCNE mission, CCNE accreditation has five general purposes:

1. To hold nursing education programs accountable to the community of interest, the nursing profession, consumers, employers, higher education, students and their families, and one another by ensuring that these programs have mission statements, goals, and outcomes that are appropriate for programs preparing individuals to enter the field of nursing.

2. To evaluate the success of a nursing education program in achieving its mission, goals, and outcomes.

3. To assess the extent to which a nursing education program meets accreditation standards.
4. To inform the public of the purposes and values of accreditation and to identify nursing education programs that meet accreditation standards.

5. To foster continuing improvement in nursing education programs and thereby in professional practice. (AACN, 2009a, p.16).

In addition to the five general purposes, CCNE formulated 12 goals to serve as the foundation for the accreditation process:

1. Developing and implementing accreditation standards that foster continuing improvement within nursing education programs.

2. Enabling the community of interest to participate in significant ways, including reviewing, formulating, and validating accreditation standards and policies as well as determining the reliability of the conduct of the accreditation process.

3. Establishing and implementing an evaluation and recognition process that is efficient, cost-effective, and cost-accountable with respect to each institution and its student.

4. Assessing whether nursing education programs consistently fulfill their stated missions, goals, and purposes.

5. Assuring that nursing education program outcomes are in accordance with the expectations of the nursing profession in order to adequately prepare individuals for professional practice, life-long learning, and graduate education.

6. Encouraging nursing education programs to pursue academic excellence through improved teaching, learning, and assessment practices, as well as in scholarship and public service that are in accordance with the unique mission of the institution.
7. Assuring that nursing education programs engage in self-evaluation of personnel, procedures, and services. and that they facilitate continuous improvement through planning and resource development.

8. Acknowledging and respecting the autonomy of institutions and the diversity of programs involved in nursing education.

9. Ensuring consistency, peer review, agency self-assessment, due process, identification and avoidance of conflict of interest, and confidentiality as appropriate in accreditation practices.

10. Enhancing public understanding of the functions and values inherent in nursing education accreditation.

11. Providing to the public an accounting of nursing education programs that are accredited and merit public approbation and support.

12. Working cooperatively with other agencies to minimize duplication of the review processes (AACN, 2009a, p.16).

The CCNE board established a set of values to guide the commission in its decision-making processes. These values have been incorporated into the CCNE Standards for Accreditation of Baccalaureate and Graduate Nursing Education Programs. The core values of CCNE were developed to reflect core beliefs about accreditation. CCNE’s core values are as follows:

1. Foster trust in the process, trust in the CCNE, and trust in the professional community.

2. Focus on stimulating and supporting continuous quality improvement in nursing education programs and their outcomes.
3. Be inclusive in the implementation of its activities and maintain openness to the diverse institutional and individual issues and opinions of the interested community.

4. Rely on review and oversight by peers within the community of interest.

5. Maintain integrity through a consistent, fair, and honest accreditation process.

6. Value and foster innovation both in the accreditation process and the programs to be accredited.


8. Foster an educational climate that supports students, graduates, and faculty in their pursuit of lifelong learning.

9. Maintain a high level of accountability to the public served by the process, including consumers, students, employers, programs, and institutions of higher education.

10. Maintain a process that is both cost effective and cost accountable.

11. Encourage programs to develop graduates who are effective professionals and socially responsible citizens.

12. Ensure autonomy and procedural fairness in its deliberations and decision-making processes. (AACN, 2009a, p.17).

**AACN Essentials**

All baccalaureate nursing programs engage in continuous improvement practices for accreditation. Since CCNE’s inception, the organization has promoted continuous quality improvement and has been respected by its constituents as well as the accreditation community because of its role in fostering quality and effectiveness in
nursing programs. Quality improvement is dependent on self-assessment and evaluation, and those programs accredited by CCNE have identified the self-study process as a valuable tool in the continuous quality improvement process (AACN 2008). Baccalaureate nursing programs are expected to go beyond the required accreditation standards and adopt elements of excellence identified in *The Baccalaureate Essentials*. The AACN has identified essential values that are to serve as a guide to progress toward increasing baccalaureate nursing program excellence. The expressed *Essentials* are not to be considered an accreditation standard; rather, they serve as guidelines for building program excellence. The AACN *The Baccalaureate Essentials* (AACN, 2008) are as follows:

**Essential I. Liberal Education for Baccalaureate Generalist Nursing Practice.** Integrating the knowledge acquired within liberal education and nursing education provides graduates with the foundation to practice nursing within a twenty-first century global society (p. 3).

**Essential II. Basic Organizational and Systems Leadership for Quality Care and Patient Safety.** Baccalaureate graduates have knowledge and skills in leadership, quality improvement, and patient safety, all of which are necessary to provide high-quality healthcare (p. 3).

**Essential III. Scholarship for Evidence-Based Practice.** Professional nursing practice is grounded in the translation of current evidence into practice standards (p. 3).

**Essential IV. Information Management and Application of Patient Care Technology.** Knowledge and skills in information management and patient care technology are critical in the delivery of quality patient care (p. 3).
Essential V. Healthcare Policy, Finance, and Regulatory Environments. Healthcare policies, including financial and regulatory, directly and indirectly influence the nature and functioning of the healthcare system and thereby are important considerations in professional nursing practice (p. 3).

Essential VI. Interprofessional Communication and Collaboration for Improving Patient Health Outcomes. Communication and collaboration among healthcare professionals are critical to delivering high quality and safe patient care (p. 3).

Essential VII. Clinical Prevention and Population Health. Health promotion and disease prevention at the individual and population level are necessary to improve population health, and they are important components of baccalaureate generalist nursing practice (p. 4).

Essential VIII. Professionalism and Professional Values. Professionalism and the inherent values of altruism, autonomy, human dignity, integrity, and social justice are fundamental to nursing (p. 4).

Essential IX. Baccalaureate Generalist Nursing Practice. The baccalaureate-graduate nurse is prepared to practice with patients, including individuals, families, groups, communities, and populations across the lifespan and continuum of healthcare environments (p. 4).

Pursuing CPI through Program Enhancement Indicators of Quality

In 2009, the AACN published the Essentials of Baccalaureate Education for Professional Nursing Education Faculty Toolkit, which includes resources and exemplars that help faculty implement the Essentials of Baccalaureate Education for Professional Nursing Practice (2008). The AACN Essentials of Baccalaureate Education for
Professional Nursing Education Faculty Toolkit (2009b) has outlined five categories, or areas of focus for program enhancement, with suggested indicators of quality within each category. The categories include program, leadership, faculty, student, and academic and practice partnership indicators. As baccalaureate nursing programs pursue continuous improvement, the selection of best practices support the uniqueness of the organization’s mission, philosophy, and values. In addition, the selection of quality indicators builds on current strengths and demonstrates promotion of improvement in areas of identified weakness. Each category consists of multiple indicators believed to improve the quality of a baccalaureate nursing program. Examples of program indicators of quality include (1) collection of data on level of student and graduate program satisfaction; (2) employment satisfaction post graduation; and (3) processes colleges develop to expand and sustain technology-enhanced virtual learning environments within clinical laboratories, simulation laboratories, and Web-enhanced courses.

Leadership indicators of quality examples include faculty support for work-life balance between faculty practice, teaching, scholarship, and service roles. In addition, faculty and leadership development resources are reflected in policy and budget and formal mentoring programs for faculty.

Faculty indicators of quality examples include faculty credentials, experience, and educational preparation that promote exemplary program outcomes, with a portion of the faculty engaged in a well-developed program of research and scholarship. Examples also include faculty service to the profession and the community, as well as faculty participating in peer-reviewed publications and presentations.
Student indicators of quality examples include illustrating commendable student life and academic support services through honors programs, internships, student organizations, academic remediation, and career planning services. Examples also include providing students with culturally diverse or globally enriching opportunities, including international study and service learning. Further examples include providing student access to resources for scholarships and support for research projects or scholarly activities, as well as providing students with precepted, capstone, immersive, service, and externship clinical learning experiences.

Academic and practice partnership indicators of quality examples include students and faculty engaging in interdisciplinary work; diverse academic and practice partnerships that provide opportunities for student internships, externships, and residency programs; formal mentoring and development programs for preceptors; post-graduation residency programs; university-to-university and external organizational partnerships to increase access to educational resource (AACN, 2009b).

**Role of Leadership in CPI with Nursing Education**

Individuals leading academic nursing organizations have been continually challenged by higher education financial constraints, the continued nursing shortage, the recruitment of diverse populations of students, and the need to develop partnerships with external practice environment stakeholders. These challenges have emerged to ensure that training opportunities are available to appropriately educated professional nurses (AACN, 2008). Effective leadership is the catalyst for the transformation of baccalaureate nursing education and is considered critical if future nurses are to be prepared to meet the public healthcare needs within a complex healthcare environment in
the 21st century (AACN, 2010a). Leading implies moving forward and demands change. Bednash (2003) stated, “Strong leadership is needed to bring about dramatic change in the nursing profession. Leaders must be risk takers and be willing to show initiative, foster collaboration, and challenge the established order” (p. 257). Therefore, the role of nursing education leadership is to align organizational performance to the prescribed AACN Essentials, through the implementation of select best practices, using a strategy designed to foster continuous performance improvement.

According to Jagersma (2009), strategic plans are formulated and implemented by leadership to produce the needed supportive academic environments. These strategic plans first and foremost should be customer focused; secondly, they should focus on continuous improvement rather than meeting a list of objectives and goals; finally, they must be flexible enough to deliver excellence throughout many dimensions of the organization. Furthermore, execution of a continuous performance improvement plan is not a project, but rather a way of life. A commitment to the changes that need to occur requires input from all levels of leadership. For continuous improvement to be effective, leaders must be dispersed throughout an organization to infuse ongoing enthusiasm for the work being done, and to ensure that everyone is focusing on agreed-upon strategies (NIST, 2011e). Leaders must have a clear vision of the changes that need to occur and then inspire, motivate, and empower others to want to make these changes. All individuals within an organization must understand how their contributions facilitate strategy execution (Shirey, 2011).

According to Jagersma (2009), purposeful leadership direction is needed to drive results in customer (student) satisfaction, workforce commitment, and increasing
shareholder value. Achieving and sustaining performance improvement is entirely dependent on the people who do the work of the organization. Empowering people to do their work means leaders spend the majority of their time clarifying goals and shaping the values of the organization.

Summary

Chapter Two provides insight into the value and benefits of the self-assessment process and implementing a formal improvement strategy in a higher education setting. The chapter has provided a brief historical view of continuous performance improvement within the United States. The discussion moved to the Baldrige Performance Excellence Program and a review of the research literature that has focused on the success of and benefits to organizations that have embraced the Baldrige program as a means to achieve a sustainable level of excellence. Higher education and nursing program accreditation was discussed to fully explain the value of accreditation standards within higher education and programs of nursing. The accreditation process remains the essential foundation upon which to build a performance improvement framework. Lastly, the chapter clarified that the ultimate goal of performance improvement is to provide a high level of sustainable educational quality.
Chapter Three

Research Methodology

Introduction

Chapter three is organized into three sections. The first section focuses on the general methods used to conduct this research study; it includes a description of the research design, information about the target population, and information about the sample. This section also describes the steps followed to develop and validate the data collection instruments. The second section of this chapter describes the data collection procedures and identifies the dependent and independent variables. The third section of this chapter describes the quantitative methods used to analyze the data.

Research Design

A non-experimental, multiple linear regression research design was used to determine whether predictive relationships exist between the American Association of Colleges of Nursing (AACN) indicators of quality and the Baldrige core values and concepts of performance improvement within CCNE-accredited baccalaureate colleges of nursing. A non-experimental descriptive quantitative research design was appropriate for this study because these studies are designed to identify characteristics or to determine the prevalence of a phenomenon (Onwuegbuzie, 2000).

A survey consisting of 18 items was used to collect data. Performance improvement was based on the 2011-2012 Education Criteria for Performance Excellence Core Values and Concepts as defined by the Baldrige Performance Excellence Program (NIST, 2011e). Indicators of quality were defined using the Opportunities for Program Enhancement suggested in the AACN Essentials Faculty Tool Kit (AACN, 2009b).
Research Purpose

The purpose of this non-experimental quantitative study was to determine whether predictive relationships exist between the AACN indicators of quality and the Baldrige core values and concepts of performance improvement within CCNE-accredited baccalaureate colleges of nursing. More specifically, the purpose was to determine whether the behaviors associated with specific AACN indicators of quality are associated with behaviors that the Baldrige educational criteria for excellence have already proven to be successful in achieving continuous performance improvement.

Research Questions

Eleven research questions were established to investigate whether predictive relationships exist between the AACN indicators of quality and the Baldrige core values and concepts of performance improvement within CCNE-accredited baccalaureate colleges of nursing:

1. What are the contributing AACN indicators of quality behaviors with the potential to predict enhanced performance results within the Baldrige core concept and value of “Visionary Leadership”?  
2. What are the contributing AACN indicators of quality behaviors with the potential to predict enhanced performance results within the Baldrige core concept and value of “Student-centered Excellence”?  
3. What are the contributing AACN indicators of quality behaviors with the potential to predict enhanced performance results within the Baldrige core concept and value of “Organizational and Personal Learning”?
4. What are the contributing AACN indicators of quality behaviors with the potential to predict enhanced performance results within the Baldrige core concept and value of “Valuing Workforce Members and Partners”?

5. What are the contributing AACN indicators of quality behaviors with the potential to predict enhanced performance results within the Baldrige core concept and value of “Agility”?

6. What are the contributing AACN indicators of quality behaviors with the potential to predict enhanced performance results within the Baldrige core concept and value of “A Focus on the Future”? 

7. What are the contributing AACN indicators of quality behaviors with the potential to predict enhanced performance results within the Baldrige core concept and value of “Managing for Innovation”?

8. What are the contributing AACN indicators of quality behaviors with the potential to predict enhanced performance results within the Baldrige core concept and value of “Management by Fact”? 

9. What are the contributing AACN indicators of quality behaviors with the potential to predict enhanced performance results within the Baldrige core concept and value of “Societal Responsibility”? 

10. What are the contributing AACN indicators of quality behaviors with the potential to predict enhanced performance results within the Baldrige core concept and value of “Focus on Results and Creating Value”? 

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11. What are the contributing AACN indicators of quality behaviors with the potential to predict enhanced performance results within the Baldrige core concept and value of “Systems Perspective”?

**Population**

The population for this study consisted of administrative leaders who were responsible for the 556 CCNE-accredited baccalaureate colleges of nursing within 49 of the United States and the District of Columbia (AACN, 2010b). Administrative leadership within colleges of nursing were chosen as the population for this study because they readily have the knowledge, experience, and frame of reference to assess their respective college’s involvement in continuous performance improvement practices. Alaska was excluded from this study because no CCNE-baccalaureate colleges are located within the state. Puerto Rico also was excluded from this study because it is a commonwealth of the United States and not considered a part of the 50 states. Additionally, the study excluded all schools that were new applicants (AACN, 2010b) in the process of applying for CCNE accreditation. This exclusion was made based on the fact that “new applicants for accreditation are eligible for a maximum accreditation term of five years. New applicant status signifies an affiliation with CCNE; it is not a status of accreditation” (CCNE, 2009, p. 5).

**Instrumentation**

Individuals who serve in an administrative leadership capacity overseeing CCNE-accredited baccalaureate colleges of nursing (N = 556) were invited to participate in this study. This study employed an 18-item survey to collect data (see Appendix A). The first section of the survey asked participants to identify specific AACN-program enhancement
indicators of quality practices that were currently in place within their institution. Items in the second section of the survey asked participants to rate the extent to which their institution engaged in activities identified as Baldrige core values and concepts of continuous performance improvement strategies. Items in the third section of the survey asked participants to provide basic demographic information.

The independent variables in this study (i.e., the number of AACN indicators of quality that participants indicated were currently in practice) were grouped into five categories: (1) program, (2) leadership, (3) faculty, (4) student, and (5) academic and practice partnerships. The dependent variables (i.e., the degree to which participants indicated that specific Baldrige core values and concepts were implemented at their respective institutions) were grouped into 11 categories: (1) visionary leadership (2) student-centered excellence, (3) organizational and personal learning (4) valuing workforce members and partners, (5) agility, (6) focus on the future, (7) managing for innovation, (8) management by fact, (9) societal responsibility (10) focus on results and creating value, and (11) systems perspective. The degree to which the Baldrige core values and practices were implemented at each institution was measured using a five-point Likert scale consisting of the following response options: “strongly agree,” “agree,” “neutral,” “disagree,” and “strongly disagree.”

Several steps were taken to develop the study’s survey items. First, the researcher engaged in multiple readings of the Education Criteria and the Essentials documents to gain a thorough understanding of the principles associated with both systems of continuous performance improvement. The researcher then conducted a thorough review of the Nightingale College of Nursing Case Study. The case study was prepared for use
in the 2009 Malcolm Baldrige Quality Award Examiner Preparation Course and describes a fictitious educational organization and mock application (National Institute of Standards and Technology, 2009b). The researcher then conducted a review of available instruments mentioned in published model-validation studies within the educational setting.

During the literature review process, written summaries of research conducted in the educational setting using the Baldrige Framework influenced the researcher’s thoughts about how to develop the survey instrument. Winn and Cameron’s (1998) national research on organizational quality in higher education using the Baldrige Framework was reviewed. The survey instrument developed by Farmer and Paris (2000) to evaluate the improvement practices of educational organizations using the 1994 Baldrige Education Pilot Criteria was examined. Lastly, a survey instrument developed by Olsen (2009) designed to find quantitative evidence of quality management practices in Minnesota K-12 public school districts using the 2007 Malcolm Baldrige National Quality Award framework was reviewed. All of these surveys were very long and none of them met the needs of this research direction; however the review process assisted the researcher in determining the need to keep the survey shorter.

A three-part survey was constructed to collect the data. The first section of the survey identified the AACN program enhancement indicators of quality. A total of 52 indicators-of-quality statements were included in the survey (e.g., “A formal mentoring program for faculty is in place.” “Faculty demographics mirror the demographics of the student population.” Etc.). The indicators were divided into five sections: Programs (7 items), Leadership (8 items), Faculty (8 items), Students (16 items), and Partnerships (13 items).
items). Participants were asked to indicate which indicators applied to the baccalaureate nursing program at their respective colleges.

The second section of the survey was constructed to identify the degree to which Baldrige core values and concepts were implemented. The Baldrige core values and concepts were divided into 11 sections: Visionary Leadership (9 items), Student-Center Excellence (3 items), Organizational and Personal Learning (5 items), Valuing Workforce Members and Partners (5 items), Agility (3 items), Focus on the Future (6 items), Managing for Innovation (4 items), Management by Fact (7 items), Societal Responsibility (4 items), Focus on Results and Creating Value (3 items), and a Systems Perspective (4 items). The items in this section were presented as statements (e.g., “There is a high level of focus on key results.” “We have the capacity for rapid change and flexibility.”). Using a five-point Likert scale (“Strongly Agree,” “Agree,” “Neutral,” “Disagree,” “Strongly Disagree”), participants were asked to indicate the extent to which they agreed or disagreed with each statement.

The third section of the survey was constructed to identify demographic information about the types of educational programs offered at their respective colleges (e.g., BSN, RN-BSN, etc.) and the total number of students currently enrolled in their baccalaureate nursing program (e.g., 50 or less, 51-100, 101-150, etc.).

Survey Review

In order to improve the clarity and completeness of the survey instrument, three survey reviewers were asked by the researcher to participate in reviewing the survey. Criteria for selecting reviewers were based on individual expert knowledge of the Baldrige Criteria for Performance Excellence and/or the AACN Essentials. A letter was
sent to each reviewer providing background information about the study and review instructions. Reviewers were asked to read the 2011 Education Criteria for Performance Excellence and the survey items representing the 11 Baldrige core values and concepts. Reviewers were asked to assess the items for readability and provide feedback concerning how accurately the items represented the 11 Baldrige core values and concepts. In addition, reviewers were asked to read the *Essentials of Baccalaureate Education for Professional Nursing Education Faculty Toolkit* and the survey items representing the indicators of quality. Survey reviewers were asked to assess and provide feedback concerning the survey items that were designed to represent the indicators of quality. Reviewers were sent via e-mail a copy of the 2011 Education Criteria, a copy of the Essentials Faculty Tool Kit, and a copy of Continuous Performance Improvement Survey (see Appendix A).

Two Baldrige Examiners and a Fellow of the American Academy of Nursing reviewed the survey. One survey reviewer is an associate dean of a college of nursing and a member of the Baldrige Board of Examiners. This reviewer’s comments included suggestions for clarifying the definitions of “organization” and “senior leadership” as well as minor formatting revisions. The reviewer stated the content of the survey clearly reflected the Baldrige criteria.

The second survey reviewer is a former Baldrige Examiner as well as a national thought leader, consultant, and expert in leadership and change management principles within industry, healthcare, and education. This reviewer recommended that the researcher define key terms with descriptive sentences to help participants better understand the survey items. This reviewer indicated that the survey captured the key
elements of the Baldrige criteria and the AACN indicators of quality. This reviewer made additional observations concerning deficiencies in the survey in the area of faculty governance.

The third survey reviewer is a former dean of a college of nursing and known internationally as an expert on the topics of nursing leadership, policy, and politics, as well as former chair of the AACN Commission of Nurse Certification (CNC) board. This reviewer recommended that the researcher define key terms with descriptive sentences to help participants better understand the items within the survey. The reviewer stated that the survey captured the key concepts within the AACN indicators of quality and the Baldrige core values and concepts.

The researcher revised the survey to reflect changes in three ways. First, descriptive phrases were added to the survey to increase clarity about definitions of the terms “leadership,” “workforce,” and “organization.” In addition, survey items that reflected multiple topics that were not closely related were divided into individual questions. Lastly, general format changes were made to enhance the survey’s readability.

Data Collection Procedures

An invitational letter providing a brief description of the study and an invitation to participate in this study was sent via email to administrative leadership personnel at the 556 CCNE-accredited baccalaureate colleges of nursing within 49 of the United States and the District of Columbia. The e-mail addresses and postal addresses of administrative leadership personnel at these institutions were obtained from the AACN website. The invitation to participate in the study was the first contact made with potential participants. Two weeks later, a second contact was made via an e-mail that
included the Continuous Performance Improvement Survey (see Appendix A). The IRB Adult Research Informed Consent Form and the URL online access link needed to access the survey were also provided. Administrative leadership personnel were given two weeks to respond to the survey and received up to three additional contacts from the researcher.

The third contact was sent via e-mail to non-respondents two weeks after the second contact. The third contact provided the consent form and URL online access link. Participants were given an additional two weeks to respond. The third contact was made to non-respondents during week six of the data collection via United States Postal Service. A packet of materials included an introductory letter, an IRB consent form, a complete paper copy of the survey, and a postage-paid return envelope were sent to the third non-respondent group. Electronic surveys and paper surveys were both used to collect data for the study, and the survey items were identical in both electronic and paper formats.

The researcher accessed online survey data using the password-secure Vovici account provided by the University of Toledo. Data from the electronic survey were transferred to SPSS electronically. Data from the paper survey was entered into SPSS manually. All electronic data files were stored in password-protected folders on the researcher’s personal computer, and paper surveys will be stored for a period of three years in a locked file cabinet owned by the researcher and to which only the researcher has the key. After three years, the electronic data will be erased and the paper copies destroyed.
Survey Distribution and Responses

On January 23, 2012, an e-mail invitation to participate in this doctoral research project was sent to administrative leadership personnel presiding over the 556 CCNE-accredited baccalaureate colleges of nursing within 49 of the United States and the District of Columbia. On January 27, 2012, the researcher emailed participants the Continuous Performance Improvement survey (see Appendix A) and the Informed Consent document. The initial e-mail yielded 44 responses. On February 4, 2012, a follow-up reminder was e-mailed to non-responders. This second invitation yielded an additional 37 survey responses. On February 18, 2012, a third invitation to complete the survey was mailed to non-responders. In addition, 475 administrative leaders were mailed a hardcopy of the survey (see Appendix A) and Informed Consent document with a postage-paid return address envelope. This third hardcopy invitation yielded 75 additional responses. Of the 556 administrative leaders who were sent an invitation to participate in this doctoral research project, 156 responded, and 400 did not respond, resulting in a 28% response rate. A total of 29 of the survey respondents included additional comments related to performance improvement; however, they were not included in the results section.

The data from the survey respondents who participated in the study using the electronic survey method were exported from the Web-based survey software Vovici into the SPSS statistical software application. Survey data received from participants who completed a hardcopy of the survey were entered into the SPSS (version 17) statistical software application by the researcher. Incomplete or missing answers were treated as missing data and recorded in SPSS as “0.” All responses were anonymous, and no data
were identifiably linked to any specific college or university. In addition to collecting quantitative data, the researcher also collected qualitative data. More specifically, the researcher provided respondents the opportunity to make additional comments about the five categories of AACN indicators of quality they selected.

**Data Analysis**

Multiple regression analysis (MRA) is a common statistical technique used in educational research to evaluate the effects of more than one independent variable on a dependent variable (Rubinfeld, 2011). In this study, multiple linear regression analysis was used to identify which AACN indicators of quality behaviors most closely aligned with the Baldrige core values and concepts. Each of the 11 dependent variables was calculated based on the Baldrige core values and concepts. Responses for each Likert-scale item were converted from words (e.g., “strongly agree,” “agree,” “neutral,” “disagree,” and “strongly disagree”) to values (e.g., 1-5) Using SPSS, the values from all participants for each Likert-scale item in each of the 11 Baldrige core concept categories were added together to form the total score for each dependent variable (e.g., Visionary Leadership, Student-Center Excellence, Organizational and Personal Learning, Valuing Workforce Members and Partners, Agility, Focus on the Future, Managing for Innovation, Management by Fact, Societal Responsibility, Focus on Results and Creating Value, and a Systems Perspective). The independent variables consisted of the AACN indicators of quality behaviors. Values for the 52 independent variables were calculated by adding the total number of responses for each indicator from all participants.

The data were entered into SPSS, and a multiple regression analysis was conducted to determine which AACN indicators of quality behaviors most closely
aligned with the Baldrige core values and concepts. The level of significance was set at 0.05 because it is the most common level used in research. Significance levels indicate how likely a result is due to chance. Results that reach the 0.05 level of significance suggest that there is only 5% likelihood that any treatment effect or relationship between variables is due to chance (Rubinfield, 2011).

Summary

A non-experimental, multiple linear regression research design was used to examine the predictive relationships that exist between the AACN indicators of quality and the Baldrige core values and concepts of performance improvement within CCNE-accredited baccalaureate colleges of nursing. The 540 administrative leaders overseeing CCNE-accredited baccalaureate colleges of nursing comprised the study’s population. After approval from the IRB, the survey was reviewed, and ultimately an electronic survey and self-administered paper survey were used to collect data for the study. Multiple linear regression analysis was used to examine the relationship between 52 AACN indicators of quality characteristics and the 11 Baldrige core values and concepts of performance improvement.
Chapter Four

Data Analysis and Results

Introduction

Chapter four is organized into twelve sections. The first section reviews the representativeness of the colleges surveyed and the survey participants. The remaining eleven sections discuss the results of the study. The purpose of this non-experimental quantitative study was to determine whether predictive relationships exist between the American Association of Colleges of Nursing (AACN) indicators of quality and the Baldrige core values and concepts of performance improvement within CCNE-accredited baccalaureate colleges of nursing. More specifically, the purpose was to determine whether the behaviors associated with specific AACN indicators of quality are associated with behaviors that the Baldrige educational criteria for excellence have already proven to be successful in achieving continuous performance improvement.

The AACN has asked academic leaders within colleges of nursing to align the performance of their organizations with the prescribed Essentials of Baccalaureate Education (i.e., the AACN indicators of quality behavior); however, the AACN has not prescribed a strategy that specifies the manner in which colleges should achieve these benchmarked standards. The specific strategies and tactics by which organization expected to achieve these performance improvements have been left to the discretion of each college. The AACN Essentials Toolkit (2009b) has provided “indicators of quality” behaviors as a suggested means of enhancing their programs and fostering continuous performance improvement (CPI). However, while these indicators of quality reflect
principles and behaviors that are important in the field of nursing education, they have not been empirically validated as the most effective way to achieve CPI.

In contrast to the AACN indicators of quality, the Baldrige core values and concepts have been proven to be empirically valid, and research has verified that organizations that implement the Baldrige core values and concepts do achieve meaningful and superior ongoing performance improvement. Therefore, because the Baldrige core values and concepts have been proven effective as a means of helping organizations achieve superior continuous performance improvement, it seemed reasonable to explore which AACN indicators of quality behaviors are most frequently associated with behaviors described by the Baldrige criteria. By understanding which AACN indicators of quality behaviors most closely align with the Baldrige core values and concepts (based on self-reported data from participants), colleges of nursing can then focus more effort on implementing those AACN indicators of quality behaviors that correspond to the Baldrige core values and concepts—values and concepts that have been proven to lead to effective CPI. As a result of understanding which AACN indicators of quality behaviors lead to continuous performance improvement (ostensibly due to their association with the Baldrige core values and concepts), colleges of nursing can then make more informed, evidence-based decisions about how to allocate limited resources so that these resources are devoted to achieving the most effective continuous performance improvement.

**Representativeness of the Sample**

Data were collected from the 2011 Integrated Postsecondary Education Data System (IPEDS) website to compare institutional data that was collected from survey
participants with the overall population of colleges surveyed in the areas of (1) undergraduate enrollment size, (2) type of institutional funding, and (3) geographic location. The Pearson chi-squared statistical technique was conducted on all three areas to determine whether the group of colleges that data were collected from was significantly different from the overall population of colleges surveyed. A Pearson chi-squared test of independence was conducted to ensure that the frequency distribution of the surveys received was consistent with the population in terms of enrollment size. The results of the chi-squared analysis between the frequency distribution of the surveys received and the enrollment population indicated that there was no statistically significant difference, $X^2 (2, N= 556) =1.581$. In other words, there was no significant difference in enrollment size between the colleges surveyed and the survey participants.

Type of funding institutions received included the categories of public, private-for-profit, and private-not for profit. A Pearson chi-squared test of independence was conducted to determine whether there was a statistically significant difference in the types of funding that institutions receive between the colleges that completed surveys and the population under investigation. The relationship between these variables was not significant, $X^2 (2, N= 556) =1.675$. In other words, there was no statistically significant difference found in public, private-for-profit, and private-not for profit funding institutions between the colleges surveyed and the survey participants.

Geographic location of the colleges surveyed was determined using the IPEDS system for state-by-state region division. A Pearson chi-squared test of independence was conducted to determine whether there was a statistically significant difference in the geographic region between the colleges that completed surveys and the population under
investigation. The relationship between these variables was not significant, $X^2 (2, N=556) = 11.675$. In other words, there was no significant difference found in the geographic location between colleges of nursing surveyed and survey participants. The greatest percent of survey participants came from the Great Lakes region (25.2%) and the Southeast (22.6%).

Lastly, frequency descriptive statistics were calculated for the types of nursing education programs offered by survey participants. The largest percentage of baccalaureate colleges of nursing has BSN programs (89.7%) and RN-BSN programs (80.1%).

Within the “Program” AACN indicators of quality behaviors, 16 respondents commented that they had collected data about NCLEX pass rates. NCLEX pass rates were not included in the survey as indicators of quality because all NCLEX pass rates within colleges of nursing are monitored and reported to the Council of State Board of Nursing. It was assumed all colleges of nursing track this data and make program changes based on outcomes, since the level of graduate performance on the test is directly linked to individual state boards of nursing. Colleges of nursing pre-licensure graduates who perform poorly on the test are mandated to make program changes to improve their pass rate scores. The remaining 13 “Other” comments were reiterations of previous response selections within the survey.

**Results for Research Question 1:** What are the contributing AACN indicators of quality behaviors with the potential to predict enhanced performance results within the Baldrige core concept and value of “Visionary Leadership”? 
In order to determine which AACN indicators of quality behaviors most closely reflect the Baldrige core value of “Visionary Leadership,” a multiple linear regression analysis was conducted. The following results identify the AACN indicators of quality behavior that reflect a statistically significant relationship (p < .05) with the Baldrige core concept of “Visionary Leadership” (see Table 1).

Table 1

<table>
<thead>
<tr>
<th>Visionary Leadership Indicators of Quality</th>
<th>p</th>
<th>t</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collecting data and making program changes that focus on the level of satisfaction among graduates with preparation for the professional nursing role at one year following graduation</td>
<td>0.046</td>
<td>2.020</td>
<td>.223</td>
</tr>
<tr>
<td>Establishing and upholding policies that reflect faculty and leadership development resources</td>
<td>0.007</td>
<td>2.753</td>
<td>.246</td>
</tr>
<tr>
<td>Resources are budgeted for research, development, business operations, public relations, marketing, and human resources</td>
<td>0.002</td>
<td>3.163</td>
<td>.304</td>
</tr>
<tr>
<td>Student experiences include service learning opportunities</td>
<td>0.034</td>
<td>2.145</td>
<td>.198</td>
</tr>
<tr>
<td>Practice partnerships that include collaborative practice initiatives</td>
<td>0.011</td>
<td>2.592</td>
<td>.285</td>
</tr>
</tbody>
</table>

Note. β = standardized coefficient

Collecting data and making program changes that focus on the level of satisfaction among graduates with preparation for the professional nursing role at one year following graduation. The AACN has recommended that colleges of nursing collect data and make program changes based on the degree to which graduates are satisfied with their preparation for the nursing profession. There is a statistically significant relationship between (a) the AACN-recommended practice of collecting data and making program changes that focus on the degree to which graduate students are satisfied with their preparation for the nursing profession one year following graduation and (b) the Baldrige core value of “Visionary Leadership” (p=0.046, t=2.020). In other words, colleges of nursing that collect data and make program changes based on the
degree to which graduates are satisfied with their preparation for the profession one year following graduation may be engaged in specific behaviors that Baldrige suggests are effective in enhancing performance results in the area of “Visionary Leadership.”

**Faculty and leadership development resources are reflected in college/school policies.** The AACN has recommended that colleges of nursing include in their policies a commitment to provide resources specifically allocated for faculty and leadership development. There is a statistically significant relationship between (a) the AACN-recommended practice of establishing and upholding policies that reflect faculty and leadership development resources and (b) the Baldrige core value of “Visionary Leadership” (p=0.007, t=2.753). In other words, colleges of nursing that develop, implement, and maintain policies that promote faculty and leadership development may be engaged in specific behaviors that Baldrige suggests are effective in enhancing performance results in the area of Visionary Leadership.

**Resources are budgeted for research, development, business operations, public relations, marketing, and human resources.** The AACN has recommended that colleges of nursing provide resources that are specifically earmarked for research, development, business operations, public relations, marketing, and human resources. There is a statistically significant relationship between (a) the AACN-recommended practice of providing adequate resources in the academic budget specifically designated toward research, development, business operations, public relations, marketing, and human resources and (b) the Baldrige core value of “Visionary Leadership” (p=0.002, t=3.163). In other words, colleges of nursing that budget resources for research, development, business operations, public relations, marketing, and human resources may
be engaged in specific behaviors that Baldrige suggests are effective in enhancing performance results in the area of “Visionary Leadership.”

**Service learning.** The AACN has recommended that colleges of nursing provide students with opportunities for service learning. Service learning has been defined as “a teaching and learning strategy that integrates meaningful community service with instruction and reflection to enrich the learning experience, teach civic responsibility, and strengthen communities” (National Service-Learning Clearinghouse, 2012, para.1). There is a statistically significant relationship between (a) the AACN-recommended practice of providing student experiences that include service-learning opportunities and (b) the Baldrige core value of “Visionary Leadership” (p=0.034, t=2.145). In other words, colleges of nursing that offer service-learning opportunities may be engaged in specific behaviors that Baldrige suggests are effective in enhancing performance results in the area of “Visionary Leadership.”

**Practice partnerships include collaborative practice initiatives.** The AACN has recommended that colleges of nursing establish collaborative practice initiatives in their collaborative partnerships. There is a statistically significant relationship between (a) the AACN-recommended practice of establishing practice partnerships that include collaborative practice initiatives and (b) the Baldrige core value of “Visionary Leadership” (p=0.011, t=2.592). In other words, colleges of nursing that develop and maintain collaborative practice partnerships may be engaged in specific behaviors that Baldrige suggest are effective in enhancing performance results in the area of “Visionary Leadership.”
Results for Research Question 2: What are the contributing AACN indicators of quality behaviors with the potential to predict enhanced performance results within the Baldrige core concept and value of “Student-Centered Excellence”? 

In order to determine which AACN indicators of quality behaviors most closely reflect the Baldrige core value of “Student-Centered Excellence,” a multiple linear regression analysis was conducted. The following results identify the AACN indicators of quality behavior that reflect a statistically significant relationship (p<.05) with the Baldrige core concept of “Student-Centered Excellence” (see Table 2).

<table>
<thead>
<tr>
<th>Student-Centered Excellence Indicators of Quality</th>
<th>p</th>
<th>t</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resources are budgeted for research, development, business operations, public relations, marketing, and human resources</td>
<td>0.040</td>
<td>2.084</td>
<td>.233</td>
</tr>
</tbody>
</table>

Note. β = standardized coefficient

Resources are budgeted for research, development, business operations, public relations, marketing, and human resources. The AACN has recommended that colleges of nursing provide resources that are specifically earmarked for research, development, business operations, public relations, marketing, and human resources. There is a statistically significant relationship between (a) the AACN recommended practice of providing adequate resources in the academic budget specifically designated toward research, development, business operations, public relations, marketing, and human resources and (b) the Baldrige core value of “Student-Centered Excellence” (p=0.040, t=2.084). In other words, colleges of nursing that budget resources for research, development, business operations, public relations, marketing, and human resources
resources may be engaged in specific behaviors that Baldrige suggests are effective in enhancing performance results in the area of “Student Centered Excellence.”

Results for Research Question 3: What are the contributing AACN indicators of quality behaviors with the potential to predict enhanced performance results within the Baldrige core concept and value of “Organizational and Personal Learning”?  

In order to determine which AACN indicators of quality behaviors most closely reflect the Baldrige core value of “Organizational and Personal Learning,” a multiple linear regression analysis was conducted. The following results identify the AACN indicators of quality behavior that reflect a statistically significant relationship (p<.05) with the Baldrige core concept of “Organizational and Personal Learning” (see Table 3).

Table 3  
Organizational and Personal Learning Indicators of Quality

<table>
<thead>
<tr>
<th></th>
<th>p</th>
<th>t</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>The level of satisfaction among graduates with preparation for the professional nursing role at one year following graduation</td>
<td>0.024</td>
<td>2.285</td>
<td>.264</td>
</tr>
<tr>
<td>Faculty have input into the governance of the college/school</td>
<td>0.008</td>
<td>2.688</td>
<td>.236</td>
</tr>
<tr>
<td>Students experiences include service learning opportunities</td>
<td>0.002</td>
<td>3.205</td>
<td>.308</td>
</tr>
<tr>
<td>International study programs</td>
<td>0.027</td>
<td>-2.242</td>
<td>-.222</td>
</tr>
<tr>
<td>Practice partnerships include collaborative practice initiatives</td>
<td>0.036</td>
<td>2.128</td>
<td>.241</td>
</tr>
<tr>
<td>Opportunities for baccalaureate graduate’s employment with practice partnerships</td>
<td>0.015</td>
<td>2.466</td>
<td>.282</td>
</tr>
</tbody>
</table>

Note. β = standardized coefficient

Collecting data and making program changes that focus on the level of satisfaction among graduates with preparation for the professional nursing role at one year following graduation. The AACN has recommended that colleges of nursing collect data and make program changes based on the degree to which graduates are
satisfied with their preparation for the nursing profession one year following graduation. There is a statistically significant relationship between (a) the AACN-recommended practice of collecting data and making program changes that focus on the degree to which graduate students are satisfied with their preparation for the nursing profession at one year following graduation and (b) the Baldrige core value of “Organizational and Personal Learning” ($p=0.024$, $t=2.285$). In other words, colleges of nursing that collect data and make program changes based on the degree to which graduates are satisfied with their preparation for the profession one year following graduation may be engaged in specific behaviors that Baldrige suggests are effective in enhancing performance results in the area of “Organizational and Personal Learning.”

**Faculty have input into the governance of the college/school.** The AACN has recommended that faculty provide input into the governance of the college/school. There is a statistically significant relationship between (a) the AACN-recommended practice of establishing and maintaining a mechanism that allows faculty to provide input into the governance of the college/school and (b) the Baldrige core value of “Organizational and Personal Learning” ($p=0.008$, $t=2.688$). In other words, colleges of nursing in which faculty provide input into the governance of the college/school may be engaged in specific behaviors that Baldrige suggests are effective in enhancing performance results in the area of “Organizational and Personal Learning.”

**Service learning.** The AACN has recommended that colleges of nursing provide students with opportunities for service learning. There is a statistically significant relationship between (a) the AACN-recommended practice of providing student experiences that include service-learning opportunities and (b) the Baldrige core value of
“Organizational and Personal Learning” (p=0.002, t=3.205). In other words, colleges of nursing that offer service learning opportunities may be engaged in specific behaviors that Baldrige suggests are effective in enhancing performance results in the area of “Organizational and Personal Learning.”

**International study programs.** The AACN has recommended that colleges of nursing provide students with opportunities to participate in international study programs. There is a statistically significant relationship between (a) the AACN-recommended practice of providing students with opportunities to participate in international study programs and (b) the Baldrige core value of “Organizational and Personal Learning” (p=0.027, t=-2.242). However, because the standardized coefficient and the t value are negative, the nature of this relationship suggests that colleges of nursing that provide students with opportunities to participate in international study programs may not be engaged in specific behaviors that Baldrige suggests are effective in enhancing performance results in the area of “Organizational and Personal Learning.”

**Practice partnerships include collaborative practice initiatives.** The AACN has recommended that colleges of nursing develop and sustain practice partnerships that include collaborative practice initiatives. There is a statistically significant relationship between (a) the AACN-recommended practice of developing and sustaining practice partnerships that include collaborative practice initiatives and (b) the Baldrige core value of “Organizational and Personal Learning” (p=0.036, t=2.128). In other words, colleges of nursing that have collaborative practice partnership initiatives may be engaged in specific behaviors that Baldrige suggests are effective in enhancing performance results in the area of “Organizational and Personal Learning.”
Opportunities for baccalaureate graduate employment with practice partnerships. The AACN has recommended that colleges of nursing facilitate opportunities for baccalaureate graduates to gain employment with practice partnerships. There is a statistically significant relationship between (a) the AACN-recommended practice of having processes in place that facilitate opportunities for baccalaureate graduates to gain employment with practice partnerships and (b) the Baldrige core value of “Organizational and Personal Learning” \( (p=0.015, t=2.466) \). In other words, colleges of nursing that facilitate opportunities for baccalaureate graduates to gain employment with practice partnerships may be engaged in specific behaviors that Baldrige suggests are effective in enhancing performance results in the area of “Organizational and Personal Learning.”

Results for Research Question 4: What are the contributing AACN indicators of quality behaviors with the potential to predict enhanced performance results within the Baldrige core concept and value of “Valuing Workforce Members and Partners”? To determine which AACN indicators of quality behaviors most closely reflect the Baldrige core value of “Valuing Workforce Members and Partners,” a multiple linear regression analysis was conducted. The following results identify the AACN indicators of quality behavior that reflect a statistically significant relationship \( (p<.05) \) with the Baldrige core concept of “Valuing Workforce Members and Partners” (see Table 4).

Resources are budgeted for research, development, business operations, public relations, marketing, and human resources. The AACN has recommended that colleges of nursing provide resources that are specifically earmarked for research,
development, business operations, public relations, marketing, and human resources. There is a statistically significant relationship between (a) the AACN-recommended practice of providing adequate resources in the academic budget specifically designated toward research, development, business operations, public relations, marketing, and human resources and (b) the Baldrige core value of “Valuing Workforce Members and Partners” (p=0.028, t=2.226). In other words, colleges of nursing that budget resources for research, development, business operations, public relations, marketing, and human resources may be engaged in specific behaviors that Baldrige suggests are effective in enhancing performance results in the area of “Valuing Workforce Members and Partners.”

Table 4

<table>
<thead>
<tr>
<th>Valuing Workforce Members and Partners Indicators of Quality</th>
<th>p</th>
<th>t</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resources are budgeted for research, development, business operations, public</td>
<td>0.028</td>
<td>2.226</td>
<td>.248</td>
</tr>
<tr>
<td>relations, marketing, and human resources.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Practice partnerships include collaborative practice initiatives</td>
<td>0.020</td>
<td>2.368</td>
<td>.300</td>
</tr>
<tr>
<td>Practice partnerships include collaborative research initiatives</td>
<td>0.041</td>
<td>-2.068</td>
<td>-.298</td>
</tr>
</tbody>
</table>

*Note. β = standardized coefficient*

**Practice partnerships that include collaborative practice initiatives.** The AACN has recommended that colleges of nursing develop and sustain practice partnerships that include collaborative practice initiatives. There is a statistically significant relationship between (a) the AACN recommended practice of developing and sustaining practice partnerships that include collaborative practice initiatives and (b) the Baldrige core value of “Valuing Workforce Members and Partners” (p=0.020, t=2.368).
In other words, colleges of nursing that have collaborative practice partnership initiatives may be engaged in specific behaviors that Baldrige suggests are effective in enhancing performance results in the area of “Valuing Workforce Members and Partners.”

**Practice partnerships that include collaborative research initiatives.** The AACN has recommended that colleges of nursing practice partnerships include collaborative research initiatives. There is a statistically significant relationship between (a) the AACN recommended practice of creating practice partnerships that include collaborative research initiatives and (b) the Baldrige core value of “Valuing Workforce Members and Partners” (p=0.04, t=-2.068). However, because the standardized coefficient and the t value are negative, the nature of this relationship suggests that colleges of nursing with practice partnerships that include collaborative research initiatives may not be engaged in specific behaviors that Baldrige suggest are effective in enhancing performance results in the area of “Valuing Workforce Members and Partners.”

**Results for Research Question 5: What are the contributing AACN indicators of quality behaviors with the potential to predict enhanced performance results within the Baldrige core concept and value of “Agility”?**

In order to determine which AACN indicators of quality behaviors that most closely reflect the Baldrige core value of “Agility” a multiple linear regression analysis was conducted. The following results identify the AACN indicators of quality behavior that reflect a statistically significant relationship (p<.05) with the Baldrige core concept of “Agility” (see Table 5).
Establishing and upholding policies that reflect faculty and leadership development. The AACN has recommended that colleges of nursing establish and uphold policies that support faculty and leadership development. There is a statistically significant relationship between (a) the AACN recommended practice of establishing and upholding policies that reflect faculty and leadership development and (b) the Baldrige core value of “Agility” (p=0.041, t=2.074). In other words, colleges of nursing that establish and uphold policies that reflect faculty and leadership development resources may be engaged in specific behaviors that Baldrige suggests are effective in enhancing performance results in the area of “Agility.”

Faculty participates in peer-reviewed publications and presentations. The AACN has recommended that colleges of nursing encourage and facilitate faculty participation in peer-reviewed publications and presentations. There is a statistically significant relationship between (a) the AACN recommended practice of encouraging faculty to participate in peer-reviewed publications and presentations and (b) the Baldrige core value of “Agility” (p=0.029, t=-2.209). However, because the standardized
coefficient and the t value are negative, the nature of this relationship suggests that colleges of nursing in which the majority (more than 50%) of faculty participates in peer-reviewed publications and presentations may not be engaged in specific behaviors that Baldrige suggest are effective in enhancing performance results in the area of “Agility.”

**Faculty has a presence in state, regional, national, and international professional activities.** The AACN has recommended that colleges of nursing encourage faculty members to maintain a strong presence in state, regional, national, and international professional activities. There is a statistically significant relationship between (a) the AACN recommended practice of encouraging a strong faculty presence in state, regional, national, and international professional activities and (b) the Baldrige core value of “Agility” (p=0.003, t=3.051). In other words, colleges of nursing in which the majority (more than 50%) of faculty have a presence in state, regional, national, and international professional activities may be engaged in specific behaviors that Baldrige suggests are effective in enhancing performance results in the area of “Agility.”

**Scholarships to support student research engagement.** The AACN has recommended that colleges of nursing award scholarships to support student research engagement. There is a statistically significant relationship between (a) the AACN recommended practice of providing scholarships to support student research engagement and (b) the Baldrige core value of “Agility” (p=0.014, t=-2.515). However, because the standardized coefficient and the t value are negative, the nature of this relationship suggests that colleges of nursing that award scholarships to support student research engagement may not be engaged in specific behaviors that Baldrige suggests are effective in enhancing performance results in the area of “Agility.”
Technological enhancements to learning in the area of high-fidelity simulation. The AACN has recommended that colleges of nursing provide students with technological enhancements to learning in the area of high-fidelity simulation. There is a statistically significant relationship between (a) the AACN recommended practice of providing students with technological enhancements to learning in the area of high-fidelity simulation and (b) the Baldrige core value of “Agility” (p=0.036, t= -2.121). However, because the standardized coefficient and the t value are negative, the nature of this relationship suggests that colleges of nursing that offer students technological enhancements to learning in the area of high-fidelity simulation may not be engaged in specific behaviors that Baldrige suggests are effective in enhancing performance results in the area of “Agility.”

Results for Research Question 6: What are the contributing AACN indicators of quality behaviors with the potential to predict enhanced performance results within the Baldrige core concept and value of “A Focus on the Future”?

In order to determine which AACN indicators of quality behaviors most closely reflect the Baldrige core value of “A Focus on the Future,” a multiple linear regression analysis was conducted. The following results identify the AACN indicators of quality behavior that reflect a statistically significant relationship (p<.05) with the Baldrige core concept of “A Focus on the Future” (see Table 6).

Resources are budgeted for research, development, business operations, public relations, marketing, and human resources. The AACN has recommended that colleges of nursing provide resources that are specifically earmarked for research, development, business operations, public relations, marketing, and human resources.
There is a statistically significant relationship between (a) the AACN recommended practice of providing adequate resources in the academic budget specifically designated toward research, development, business operations, public relations, marketing, and human resources and (b) the Baldrige core value of “A Focus on the Future” (p=0.017, t=2.439). In other words, colleges of nursing that budget resources for research, development, business operations, public relations, marketing, and human resources may be engaged in specific behaviors that Baldrige suggests are effective in enhancing performance results in the area of “A Focus on the Future.”

Table 6

<table>
<thead>
<tr>
<th>Focus on the Future Indicators of Quality</th>
<th>p</th>
<th>t</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resources are budgeted for research, development, business operations, public relations, marketing, and human resources</td>
<td>0.017</td>
<td>2.439</td>
<td>.251</td>
</tr>
<tr>
<td>Academic and practice partnerships provide opportunities for student externships</td>
<td>0.028</td>
<td>-2.237</td>
<td>-.211</td>
</tr>
<tr>
<td>Practice partnerships include collaborative practice initiatives</td>
<td>0.031</td>
<td>-2.192</td>
<td>-.290</td>
</tr>
<tr>
<td>Formal mentoring program for clinical preceptors</td>
<td>0.047</td>
<td>2.009</td>
<td>.192</td>
</tr>
</tbody>
</table>

*Note. β = standardized coefficient*

**Academic and practice partnerships provide opportunities for student externships.** The AACN has recommended that colleges of nursing facilitate academic and practice partnerships that provide opportunities for student externships. There is a statistically significant relationship between (a) the AACN recommended practice of providing students with externship opportunities with academic and practice partnerships and (b) the Baldrige core value of “A Focus on the Future” (p=0.028, t=–2.237).

However, because the standardized coefficient and the t value are negative, the nature of this relationship suggests that colleges of nursing that facilitate academic and practice partnerships that provide opportunities for student externships may not be engaged in
specific behaviors that Baldrige suggests are effective in enhancing performance results in the area of “A Focus on the Future.”

**Practice partnerships include collaborative practice initiatives.** The AACN has recommended that colleges of nursing practice partnerships include collaborative practice initiatives. There is a statistically significant relationship between (a) the AACN recommended practice of creating practice partnerships that include collaborative practice initiatives and (b) the Baldrige core value of “A Focus on the Future” (p=0.031, t=-2.192). However, because the standardized coefficient and the t value are negative, the nature of this relationship suggests that colleges of nursing that create practice partnerships that include collaborative practice initiatives may not be engaged in specific behaviors that Baldrige suggests are effective in enhancing performance results in the area of “A Focus on the Future.”

**Formal mentoring program for clinical preceptors.** The AACN has recommended that colleges of nursing provide a formal mentoring program for clinical preceptors. There is a statistically significant relationship between (a) the AACN recommended practice of providing formal programs for the purpose of mentoring preceptors and (b) the Baldrige core value of “A Focus on the Future” (p=0.047, t=2.009). In other words, colleges of nursing that have a formal mentoring program for clinical preceptors may be engaged in specific behaviors that Baldrige suggests are effective in enhancing performance results in the area of “A Focus on the Future.”

Results for Research Question 7: What are the contributing AACN indicators of quality behaviors with the potential to predict enhanced performance results within the Baldrige core concept and value of “Managing for Innovation”? 

90
In order to determine which AACN indicators of quality behaviors that most closely reflect the Baldrige core value of “Managing for Innovation,” a multiple linear regression analysis was conducted. The following results identify the AACN indicators of quality behavior that reflect a statistically significant relationship (p<.05) with the Baldrige core concept of “Managing for Innovation” (see Table 7).

Table 7

<table>
<thead>
<tr>
<th>Managing for Innovation Indicators of Quality</th>
<th>p</th>
<th>t</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resources are budgeted for research, development, business operations, public relations, marketing, and human resources.</td>
<td>0.006</td>
<td>2.797</td>
<td>.294</td>
</tr>
<tr>
<td>Students experiences include service learning opportunities</td>
<td>0.025</td>
<td>2.281</td>
<td>.228</td>
</tr>
</tbody>
</table>

*Note. β = standardized coefficient*

**Resources are budgeted for research, development, business operations, public relations, marketing, and human resources.** The AACN has recommended that colleges of nursing provide resources that are specifically earmarked for research, development, business operations, public relations, marketing, and human resources. There is a statistically significant relationship between (a) the AACN recommended practice of providing adequate resources in the academic budget specifically designated toward research, development, business operations, public relations, marketing, and human resources and (b) the Baldrige core value of “Managing for Innovation” (p=0.006, t=2.797). In other words, colleges of nursing that budget resources for research, development, business operations, public relations, marketing, and human resources may be engaged in specific behaviors that Baldrige suggests are effective in enhancing performance results in the area of “Managing for Innovation.”
**Service learning.** The AACN has recommended that colleges of nursing provide students with opportunities for service learning. There is a statistically significant relationship between (a) the AACN recommended practice of providing student experiences that include service-learning opportunities and (b) the Baldrige core value of “Managing for Innovation” (p=0.025, r=2.281). In other words, colleges of nursing that offer service-learning opportunities may be engaged in specific behaviors that Baldrige suggests are effective in enhancing performance results in the area of “Managing for Innovation.”

**Results for Research Question 8: What are the contributing AACN indicators of quality behaviors with the potential to predict enhanced performance results within the Baldrige core concept and value of “Management by Fact”?**

In order to determine which AACN indicators of quality behaviors that most closely reflect the Baldrige core value of “Management by Fact,” a multiple linear regression analysis was conducted. The following results identify the AACN indicators of quality behavior that reflect a statistically significant relationship (p<.05) with the Baldrige core concept of “Management by Fact” (see Table 8).

<table>
<thead>
<tr>
<th>Table 8</th>
<th>Managing by Fact Indicators of Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establishing and upholding policies that reflect faculty and leadership development resources</td>
<td>0.000</td>
</tr>
<tr>
<td>Practice partnerships include collaborative practice initiatives</td>
<td>0.036</td>
</tr>
</tbody>
</table>

*Note. β = standardized coefficient*

**Establishing and upholding policies that reflect faculty and leadership development.** The AACN has recommended that colleges of nursing establish and
uphold policies that support faculty and leadership development. There is a statistically
significant relationship between (a) the AACN recommended practice of establishing and
upholding policies that reflect faculty and leadership development and (b) the Baldrige
core value of “Management by Fact” (p=0.000, t=4.639). In other words, colleges of
nursing that establish and uphold policies that reflect faculty and leadership development
resources may be engaged in specific behaviors that Baldrige suggests are effective in
enhancing performance results in the area of “Management by Fact.”

Practice partnerships include collaborative practice initiatives. The AACN
has recommended that colleges of nursing practice partnerships include collaborative
practice initiatives. There is a statistically significant relationship between (a) the AACN
recommended practice of creating practice partnerships that include collaborative
practice initiatives and (b) the Baldrige criterion of “Management by Fact” (p=0.036, t= -
2.124). However, because the standardized coefficient and the t value are negative, the
nature of this relationship suggests that colleges of nursing that create practice
partnerships that include collaborative practice initiatives may not be engaged in specific
behaviors that Baldrige suggests are effective in enhancing performance results in the
area of “Management by Fact.”

**Results for Research Question 9: What are the contributing AACN indicators of
quality behaviors with the potential to predict enhanced performance results within
the Baldrige core concept and value of “Societal Responsibility”?**

In order to determine which AACN indicators of quality behaviors most closely
reflect the Baldrige core value of “Societal Responsibility,” a multiple linear regression
analysis was conducted. The following results identify the AACN indicators of quality
behavior that reflect a statistically significant relationship (p<.05) with the Baldrige core concept of “Societal Responsibility” (see Table 9).

Table 9  
**Societal Responsibility Indicators of Quality**  

<table>
<thead>
<tr>
<th>Practice partnerships include collaborative practice initiatives</th>
<th>p</th>
<th>t</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practice partnerships include collaborative research initiatives</td>
<td>0.012</td>
<td>-2.563</td>
<td>-0.350</td>
</tr>
</tbody>
</table>

*Note. β = standardized coefficient*

**Practice partnerships include collaborative practice initiatives.** The AACN has recommended that colleges of nursing practice partnerships include collaborative practice initiatives. There is a statistically significant relationship between (a) the AACN recommended practice of creating practice partnerships that include collaborative practice initiatives and (b) the Baldrige criterion of “Societal Responsibility” (p=0.00, t=3.332). In other words, colleges of nursing with practice partnerships that include collaborative practice initiatives may be engaged in specific behaviors that Baldrige suggests are effective in enhancing performance results in the area of “Societal Responsibility.”

**Practice partnerships include collaborative research initiatives.** The AACN has recommended that colleges of nursing practice partnerships include collaborative research initiatives. There is a statistically significant relationship between (a) the AACN recommended practice of creating practice partnerships that include collaborative research initiatives and (b) the Baldrige core value of “Societal Responsibility” (p=0.012, t=−2.563). However, because the standardized coefficient and the t value are negative, the nature of this relationship suggests that colleges of nursing with practice partnerships that include collaborative research initiatives may not be engaged in specific behaviors that
Baldrige suggests are effective in enhancing performance results in the area of “Societal Responsibility.”

**Results for Research Question 10: What are the contributing AACN indicators of quality behaviors with the potential to predict enhanced performance results within the Baldrige core concept and value of “Focus on Results and Creating Value”?**

In order to determine which AACN indicators of quality behaviors that most closely reflect the Baldrige core value of “A Focus on Key Results and Creating Value,” a multiple linear regression analysis was conducted. The following results identify the AACN indicators of quality behavior that reflect a statistically significant relationship (p<.05) with the Baldrige core concept of “A Focus on Key Results and Creating Value” (see Table 10).

**Table 10**

* A Focus on Results Indicators of Quality

<table>
<thead>
<tr>
<th>Indicator</th>
<th>p</th>
<th>t</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establishing and upholding policies that reflect faculty and</td>
<td>0.004</td>
<td>2.974</td>
<td>.292</td>
</tr>
<tr>
<td>leadership development resources</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faculty have input into the governance of the college/school</td>
<td>0.027</td>
<td>2.250</td>
<td>.210</td>
</tr>
<tr>
<td>Resources are budgeted for research, development, business operations</td>
<td>0.034</td>
<td>2.148</td>
<td>.227</td>
</tr>
<tr>
<td>public relations, marketing, and human resources</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student experiences include service learning opportunities</td>
<td>0.037</td>
<td>2.113</td>
<td>.211</td>
</tr>
<tr>
<td>Student experiences include honors program</td>
<td>0.001</td>
<td>-3.283</td>
<td>-.338</td>
</tr>
</tbody>
</table>

*Note. β = standardized coefficient*

Faculty and leadership development resources are reflected in college/school policies. The AACN has recommended that colleges of nursing establish and uphold policies that support faculty and leadership development. There is a statistically significant relationship between (a) the AACN recommended practice of establishing and upholding policies that reflect faculty and leadership development and (b) the Baldrige
core value of “A Focus on Key Results” (p=0.004, t=2.974). In other words, colleges of nursing that establish and uphold policies that reflect faculty and leadership development resources are engaged in specific behaviors that Baldrige suggests are effective in enhancing performance results in the area of “A Focus on Key Results and Creating Value.”

**Faculty have input into the governance of the college/school.** The AACN has recommended that faculty have input into the governance of the college/school. There is a statistically significant relationship between (a) the AACN recommended practice of encouraging faculty members to provide input into the governance of the college/school and (b) the Baldrige core value of “A Focus on Key Results and Creating Value” (p=0.027, t=2.250). In other words, colleges of nursing in which faculty have input into the governance of the college/school may be engaged in specific behaviors that Baldrige suggests are effective in enhancing performance results in the area of “A Focus on Key Results and Creating Value.”

**Resources are budgeted for research, development, business operations, public relations, marketing, and human resources.** The AACN has recommended that colleges of nursing provide resources that are specifically earmarked for research, development, business operations, public relations, marketing, and human resources. There is a statistically significant relationship between (a) the AACN recommended practice of providing adequate resources in the academic budget specifically designated toward research, development, business operations, public relations, marketing, and human resources and (b) the Baldrige core value of “A Focus on Key Results and Creating Value” (p=0.034, t=2.148). In other words, colleges of nursing that budget
resources for research, development, business operations, public relations, marketing, and human resources may be engaged in specific behaviors that Baldrige suggests are effective in enhancing performance results in the area of “A Focus on Key Results and Creating Value.”

**Service learning.** The AACN has recommended that colleges of nursing provide students with opportunities for service learning. There is a statistically significant relationship between (a) the AACN recommended practice of providing student experiences that include service-learning opportunities and (b) the Baldrige core value of “A Focus on Key Results and Creating Value” (p=0.037, t=2.113). In other words, colleges of nursing that offer service-learning opportunities may be engaged in specific behaviors that Baldrige suggests are effective in enhancing performance results in the area of “A Focus on Key Results.”

**Honors program.** The AACN has recommended that colleges of nursing provide students with honors program opportunities. There is a statistically significant relationship between (a) the AACN recommended practice of providing students with honors program opportunities and (b) the Baldrige criterion of “A Focus on Key Results and Creating Value” (p=0.001, t=-3.283). However, because the standardized coefficient and the t value are negative, the nature of this relationship suggests that colleges of nursing that offer student’s honors program opportunities may not be engaged in specific behaviors that Baldrige suggests are effective in enhancing performance results in the area of “A Focus on Key Results and Creating Value.”
Results for Research Question 11: What are the contributing AACN indicators of quality behaviors with the potential to predict enhanced performance results within the Baldrige core concept and value of “Systems Perspective”?

In order to determine which AACN indicators of quality behaviors most closely reflect the Baldrige core value of “A Systems Perspective,” a multiple linear regression analysis was conducted. The following results identify the AACN indicators of quality behavior that reflect a statistically significant relationship (p<.05) with the Baldrige core concept of “A Systems Perspective” (see Table 11).

Table 11

<table>
<thead>
<tr>
<th>A Systems Perspective Indicators of Quality</th>
<th>p</th>
<th>t</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establishing and upholding policies that reflect faculty and leadership development resources</td>
<td>0.043</td>
<td>2.048</td>
<td>0.213</td>
</tr>
<tr>
<td>Resources are budgeted for research, development, business operations, public relations, marketing, and human resources</td>
<td>0.042</td>
<td>2.061</td>
<td>0.231</td>
</tr>
<tr>
<td>Practice partnerships include collaborative practice initiatives</td>
<td>0.041</td>
<td>-2.075</td>
<td>-0.300</td>
</tr>
</tbody>
</table>

*Note. β = standardized coefficient*

**Establishing and upholding policies that reflect faculty and leadership development resources.** The AACN has recommended that colleges of nursing establish and uphold policies that support faculty and leadership development. There is a statistically significant relationship between (a) the AACN recommended practice of establishing and upholding policies that reflect faculty and leadership development and (b) the Baldrige core value of “A Systems Perspective” (p=0.043, t=2.048). In other words, colleges of nursing that establish and uphold policies that reflect faculty and leadership development resources may be engaged in specific behaviors that Baldrige
suggests are effective in enhancing performance results in the area of “A Systems Perspective.”

**Resources are budgeted for research, development, business operations, public relations, marketing, and human resources.** The AACN has recommended that colleges of nursing provide resources that are specifically earmarked for research, development, business operations, public relations, marketing, and human resources. There is a statistically significant relationship between (a) the AACN recommended practice of providing adequate resources in the academic budget specifically designated toward research, development, business operations, public relations, marketing, and human resources and (b) the Baldrige core value of “A Systems Perspective” (p=0.042, t=2.061). In other words, colleges of nursing that budget resources for research, development, business operations, public relations, marketing, and human resources may be engaged in specific behaviors that Baldrige suggests are effective in enhancing performance results in the area of “A Systems Perspective.”

**Practice partnerships include collaborative practice initiatives.** The AACN has recommended that colleges of nursing practice partnerships include collaborative practice initiatives. There is a statistically significant relationship between (a) the AACN-recommended practice of creating practice partnerships that include collaborative practice initiatives and (b) the Baldrige core value of “A Systems Perspective” (p=0.041, t=-2.075). However, because the standardized coefficient and the t value are negative, the nature of this relationship suggests that colleges of nursing with practice partnerships that include collaborative practice initiatives may not be engaged in specific behaviors
that Baldrige suggests are effective in enhancing performance results in the area of “A Systems Perspective.”

**Correlations between AACN Indicators and Baldrige Core Values and Concepts**

The results indicate that statistically significant relationships exist between 16 AACN indicators of quality behaviors and behaviors that Baldrige suggests are effective in enhancing performance results. Nine AACN indicators of quality behaviors suggest statistically significant positive correlations with behaviors that Baldrige suggests are effective in enhancing performance results, and seven AACN indicators of quality behaviors suggest statistically significant negative correlations with behaviors that Baldrige suggests are effective in enhancing performance results (see Table 4.12). While the following indicators of quality reflect principles and behaviors that are important in the field of nursing education, they have not been empirically validated as the most effective way to achieve CPI. These indicators of quality include, practice partnerships include collaborative research initiatives; the majority of faculty (>50%) participate in peer-reviewed publications and presentations; scholarships are available to students to support research engagement; honors program; international study programs; students offered technological enhancements to learning in the area of high fidelity simulation; and academic and practice partnerships provide opportunities for student externships.
<table>
<thead>
<tr>
<th>Indicators of Quality Variables</th>
<th>Baldrige Core Values and Concepts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resources are budgeted for research, development, business operations, public relations, marketing, and human resources.</td>
<td>0.002 0.040 0.028 0.017 0.006 0.034 0.042</td>
</tr>
<tr>
<td>Establishing and upholding policies that reflect faculty and leadership development resources.</td>
<td>3.163 2.084 2.226 2.439 2.797 2.148 2.061</td>
</tr>
<tr>
<td>Student experiences include service learning opportunities.</td>
<td>0.07 0.041 0.025 0.004 0.043</td>
</tr>
<tr>
<td>Practice partnerships include collaborative practice initiatives.</td>
<td>2.034 0.002 2.753 3.041 2.281 2.113</td>
</tr>
<tr>
<td>Collecting data and making program changes that focus on the level of graduate satisfaction with their preparation for the profession.</td>
<td>0.046 0.024 2.285 3.332</td>
</tr>
<tr>
<td>Faculty have input into the governance of the college/school.</td>
<td>0.008 2.688 0.027 2.250</td>
</tr>
<tr>
<td>The majority of faculty (&gt;50%) have a presence in state, regional, national, and international professional activities.</td>
<td>0.003 3.051</td>
</tr>
<tr>
<td>Opportunities for baccalaureate graduate's employment with practice partnerships.</td>
<td>0.015 2.466 0.047 2.009</td>
</tr>
<tr>
<td>Formal mentoring program for clinical preceptors.</td>
<td>0.041 0.031 0.036 0.012 0.041</td>
</tr>
<tr>
<td>Practice partnerships include collaborative research initiatives.</td>
<td>-2.068 -2.192 -2.124 -2.563 -2.075</td>
</tr>
<tr>
<td>The majority of faculty (&gt;50%) participate in peer-reviewed publications and presentations.</td>
<td>0.029 2.209</td>
</tr>
<tr>
<td>Scholarships are available to students to support research engagement.</td>
<td>0.014 -2.515</td>
</tr>
<tr>
<td>Honors program.</td>
<td>0.001 -3.283</td>
</tr>
<tr>
<td>International study programs.</td>
<td>0.027 -2.242</td>
</tr>
<tr>
<td>Student’s offered technological enhancements to learning in the area of high fidelity simulation.</td>
<td>0.036 -2.121</td>
</tr>
<tr>
<td>Academic and practice partnerships provide opportunities for student externships.</td>
<td>0.028 -2.237</td>
</tr>
</tbody>
</table>
Four AACN indicators were positively associated with more than one Baldrige core value. One AACN indicator was positively associated with seven Baldrige core values. One AACN indicator was positively associated with five Baldrige core values. Two AACN indicators were positively associated with four Baldrige core values. The following nine AACN indicators of quality have a statistically significant relationship with Baldrige core values and concepts (see Table 13).

Table 13  
*Top Nine AACN Performance Improvement Enhancers and Corresponding Baldrige Core Values and Concepts*

<table>
<thead>
<tr>
<th>AACN Indicators of Quality</th>
<th>Baldrige Core Values &amp; Concepts</th>
</tr>
</thead>
</table>
| Resources are budgeted for research, development, business operations, public relations, marketing, and human resources. | RQ 1 Visionary Leadership  
  RQ 2 Student-centered learning  
  RQ 4 Valuing Workforce Members/Partners  
  RQ 6 Focus on the Future  
  RQ 7 Management by Innovation  
  RQ 10 Results and Creating Value  
  RQ 11 Systems Perspective |
| Establishing and upholding policies that reflect faculty and leadership development resources. | RQ 1 Visionary Leadership  
  RQ 5 Agility  
  RQ 8 Management by Fact  
  RQ 10 Results and Creating Value  
  RQ 11 Systems Perspective |
| Student experiences include service learning opportunities.                               | RQ 1 Visionary Leadership  
  RQ 3 Organizational & Personal Learning  
  RQ 7 Managing for Innovation  
  RQ 10 Results and Creating Value |
| Practice partnerships include collaborative practice initiatives.                          | RQ 1 Visionary Leadership  
  RQ 3 Organizational & Personal Learning  
  RQ 4 Valuing Workforce Members/Partners  
  RQ 9 Societal Responsibility |
| Collecting data and making program changes that focus on the level of graduate satisfaction with their preparation for the profession. | RQ 1 Visionary Leadership  
  RQ 3 Organizational & Personal Learning |
| Faculty have input into the governance of the college/school.                            | RQ 3 Organizational & Personal Learning  
  RQ 10 Results & Creating Value |
| The majority of faculty (>50%) have a presence in state, regional, national, and international professional activities. | RQ 5 Agility |
| Opportunities for baccalaureate graduate’s employment with practice partnerships.       | RQ 3 Organizational & Personal Learning |
| Formal mentoring program for clinical preceptors.                                         | RQ 6 Focus on the Future |
The rank order of the top AACN performance enhancers (as determined by their relationship to the 11 Baldrige core values) are listed according to the number of Baldrige core values and concepts categories and level of statistical significance for each of the indicators of quality.

**Summary**

Chapter 4 includes the results of multiple linear regression analyses of the relationship between AACN indicators of quality behaviors and Baldrige core values and concepts within CCNE-Baccalaureate colleges of nursing. The results indicate that statistically significant positive correlations exist between nine AACN indicators of quality behavior and behaviors that Baldrige suggests are effective in enhancing performance results. The results also indicate that statistically significant negative correlations exist between seven AACN indicators of quality behavior and behaviors that Baldrige suggests are effective in enhancing performance results. Engaging in AACN-recommended indicators of quality behaviors that are negatively correlated with Baldrige core values and concepts may not be the most effective means of enhancing college of nursing performance or achieving effective continuous performance improvement.
Chapter Five

Discussion

Introduction

Chapter five presents a discussion of the research findings of this study. The chapter is divided into four sections. The first section discusses the study’s key findings and is organized according to the five Baldrige organizational performance outcome areas: (1) student learning and process outcomes; (2) customer-focused outcomes; (3) workforce-focused outcomes; (4) leadership and governance outcomes; and (5) budgetary, financial, and market outcomes. The second section identifies implications for practice. The third section provides recommendations for future research, and the final section provides some concluding thoughts.

Studying continuous performance improvement (CPI) in a healthcare educational setting has the potential to make important contributions to the research literature and to nursing education administrative practice. The results of this study suggest that, as a conceptual framework for continuous performance improvement, the Baldrige Education Criteria are adaptable to the needs of a broad range of higher education institutions. The seven systems categories that comprise the Baldrige Education Criteria are appropriate for assessing educational programs and services that benefit students, faculty and staff, and professional communities (Ruben, 2007).

In addition, the results of this study support systems theory and explain performance improvement principles and practices common to complex entities, such as colleges of nursing. Bertalanffy’s (1968) systems theory focuses on the arrangement and relationships of the components within a system as well as the interactions that transform
these components into a complete system. Bertalanffy characterized a system as having four core components. The results of this study support the components of systems theory:

1. A system consists of multiple elements. These elements may be physical or abstract or both. The results of this study identified core elements consistent with improved performance within colleges of nursing (i.e., visionary leadership, organizational and personal learning).

2. A system consists of attributes or properties. The results of this study identified properties common to colleges of nursing (i.e., external practice partnerships, clinical preceptors) and performance improvement attributes (i.e., indicators of quality).

3. A system consists of internal relationships among the elements within the system. The results of this study indicated that a relationship exists between several internal elements (i.e., system processes and outcomes).

4. A system exists in an open environment that allows the system to receive information, interact with its environment, and adapt. The results of this study indicate that colleges of nursing interested in improving performance can do so by collecting data and making changes based on performance outcome results. In addition, the study shows that colleges of nursing are engaged in specific practices that contribute to performance improvement identified within the Baldrige Educational Criteria (i.e., mentoring programs for preceptors and budgeting resources).
Similar to Rice and Taylor’s (2003) study of the adoption of continuous improvement concepts and practices by college administrators, it was reported that a majority were engaged in assessing student learning and involved in areas related to improving institutional effectiveness. Farmer and Paris (2000) found that 68% of administrative leaders possessed some knowledge and understanding about continuous quality improvement, and 14% reported having extensive knowledge and understanding of the topic. Based on the numbers of survey respondents and respondent’s answers to the survey questions, the results of this study indicate that the CPI movement within colleges of nursing is active and evolving.

The Baldrige Education Criteria incorporate fundamental and enduring dimensions of organizational quality and effectiveness. The framework has a transferability and portability that transcends a broad range of administrations, organizations, and time frames. It has been used as a guide to organizational assessment and improvement (Ruben, 2008). The Baldrige perspective on performance improvement is built on a set of eleven interrelated core values and concepts. These core values and concepts are the beliefs and behaviors of high-performing organizations. The Baldrige system process is composed of the six categories that define the processes and the results achieved. The results category is a composite of (1) student learning and process outcomes; (2) customer-focused outcomes; (3) workforce-focused outcomes; (4) leadership and governance outcomes; and (5) budgetary, financial, and market outcomes. The Baldrige Criteria are non-prescriptive and results-oriented and intended not to focus on procedures but rather on yielding positive system outcomes (see Figure 3) (NIST, 2011e).
Figure 3. The Baldrige Education Criteria is built on a set of eleven interrelated core values and concepts. These core values and concepts are the beliefs and behaviors of high-performing organizations. The Baldrige system process is composed of the six categories that define the processes and the results achieved. The results category is a composite of five outcome groups (Adapted from NIST, 2011e)
Discussion

Before discussing the similarities between the results of this study and the results of other studies that used the Baldrige model in higher education, it is important to note a few of the differences. First, to this researcher’s knowledge, the relationships between the core values and concepts in the Baldrige model, or any other performance improvement model, and the AACN Essentials have not been examined using data from colleges of nursing. Secondly, another substantial difference between this study and other previously described studies was the number of core values and concepts examined in the Baldrige model. In this study, all 11 Baldrige core values and concepts were used to examine the potential existing relationships. Lastly, as noted earlier, this study utilizes self-reported data. Participants, specifically college of nursing leadership, provided the data for both the independent variables and the dependent variables, which has some limits not seen in other reported studies.

Student Learning and Process Outcomes. Similar to previous studies that have focused on the Baldrige model as a useful foundation for educational planning, program implementation, (Weinstein, Petrick, & Saunders, 1998; Belohlav, Cook, & Heiser, 2004; Evans, 1997), the results of this study indicate that colleges of nursing that provide student experiences that include service learning opportunities are engaging in best practices that are in alignment with four Baldrige core values and concepts: (a) visionary leadership, (b) organizational and personal learning, (c) management for innovation, and (d) results and creating value in the area of student learning and process outcomes.
The relationship that reflected the highest degree of statistical significance was between the AACN indicator of “student service-learning experiences” and the Baldrige core value and concept of “organizational and personal learning.”

Organizations investing in service-learning experiences create organizational value for students and stakeholders (NIST, 2011e) and create AACN-accreditation exemplars. Additionally, incorporating service-learning opportunities as a component of the educational experience is in alignment with a philosophy that the AACN acknowledges as an important feature of nursing education—i.e., that a liberal arts educational background is the foundation for baccalaureate student nurses. An educational program that combines liberal arts with nursing education provides students with knowledge of human cultures, including spiritual beliefs and languages. Service learning opportunities build on students’ personal value systems related to social responsibility, and provide insight into cultural factors that influence the care of diverse populations of people (AACN, 2008). In this way, students can enhance their ability to apply their total education experience through service-learning experiences and develop a means by which they are able to better understand both themselves and others.

Similar to previous studies that have focused on the Baldrige model as a useful foundation for collecting data to determine the changing needs of key stakeholders (Wilson & Collier, 2000; Furst-Bowe & Bauer, 2007; Rubin, 2004) the results of this study indicate that colleges of nursing that collect data and make program changes that focus on the level of graduate satisfaction with their preparation for the profession are engaging in best practices that are in alignment with two Baldrige core values and concepts: (a) visionary leadership and (b) organizational and personal learning.
The relationship that reflected the highest degree of statistical significance was between the AACN indicator of “collecting data and making program changes that focus on the level of graduate satisfaction with their preparation for the profession” and the Baldrige core value and concept of taking “a systems perspective of organizational and personal learning.”

A key focus of the AACN Essentials document is to address the challenge of educating students to deliver patient-centered care with an emphasis on evidence-based practice and quality improvement. In order for this to happen, nursing education and practice environments must work together to align nursing education with the actual practice environments new graduates will face when they enter the workforce (AACN, 2008). One way to address this challenge is for colleges of nursing to collect data and make program changes that focus on the degree to which graduates are satisfied with their preparation for the profession. If new graduates are to be fully prepared to enter a competitive and highly technical workforce after graduation, then nursing programs must close this performance gap through planning and implementing program changes based on current practice nursing environments. The ability of the United States healthcare system to deliver high-quality and cost-effective care is directly linked to the quality of nursing education delivered, because nursing education is a part of this nation’s larger healthcare system.

**Customer-focused Outcomes.** Results from a study conducted at the University of Wisconsin-Stout (Furst-Bowe & Bauer, 2007; Ruben, 2004) showed that collecting data and analyzing trends in order to determine changing needs of key stakeholders provide leaders with valuable information that can be used to refine and improve programs and
services. Likewise, the results of this present study indicate that colleges of nursing with practice partnerships that include collaborative practice initiatives are engaged in a best practice that promotes customer-focused outcomes across four Baldrige core values and concepts: (a) visionary leadership, (b) organizational and personal learning, (c) valuing workforce members and partners, and (d) societal responsibility.

The relationship that reflected the highest degree of statistical significance was between the AACN indicator of “practice partnerships include collaborative practice initiatives” and the Baldrige core value and concept of “societal responsibility”.

Societal responsibility refers to an organization’s efforts to emphasize its responsibility to the public and the need to consider societal well being (NIST, 2011e). Fostering customer relationships is a fundamental and enduring dimension of organizational quality and effectiveness. Though it seems out of context to identify external practice partners as “customers” of a college of nursing, partnering with community organizations (e.g., hospitals and clinics) demonstrates a college of nursing commitment to providing high-quality services and programs to these organizations and promotes building long-term relationships with these key stakeholders.

**Workforce-focused Outcomes.** Similar to Winn and Cameron’s (1998) study showing that positive outcomes occur among organizations that select, reward, and develop faculty. Specifically, the study suggests that organizational goals and human resource performance improvement are enhanced when reward and development processes and procedures are in place. The results of this study also indicated that colleges of nursing show positive outcomes when their faculty maintain a presence in state, regional, national, and international professional activities as a means to enhance professional
development are engaged in a best practice that are alignment with the Baldrige core value and concept of agility.

The relationship that reflected the highest degree of statistical significance was between the AACN indicator of “the majority of faculty (>50%) have a presence in state, regional, national, and international professional activities” and the Baldrige core value and concept of “agility.”

Developing and retaining outstanding faculty members is critical to any college, since these faculty members contribute substantially to designing and delivering new or updated educational programs. The AACN has acknowledged the call for the need to transform this nation’s healthcare system, which can lead to a change in how nurses are educated. New models of nursing education are emerging as a means of supporting the changing knowledge, skills, and attitudes nurses need to practice effectively within this complex healthcare environment (AACN, 2008). Agility is enhanced when faculty maintain expertise in the areas in which they teach and ground their teaching in clinical practice and current scientific evidence through involvement in state, regional, national, and international professional activities, such as seminars, summits, focus groups, and other professional development continuing nursing education programs. A well-informed faculty facilitates new ideas and trends in education and healthcare to be seeded into the local population of nurse faculty, partnership stakeholders, and healthcare providers (NIST, 2011e).

Similar to Winn and Cameron’s (1998) study showing that positive outcomes occur among organizations that select, reward, and develop students, the results of this study also indicated that colleges of nursing that “facilitate opportunities for
baccalaureate graduates to gain employment through practice partnership” are engaged in best practices that promote workforce-focused outcomes within the Baldrige core value and concept of “organizational and personal learning.”

The relationship that reflected the highest degree of statistical significance was between the AACN indicator of “facilitate opportunities for baccalaureate graduates to gain employment through practice partnership” and the Baldrige core value and concept of “organizational and personal learning.”

Colleges of nursing that facilitate opportunities for baccalaureate graduates to gain employment through practice partnerships can result in increasing value to students and stakeholders. Providing employment opportunities enhances a college’s performance in fulfilling its societal responsibilities and could make a significant impact on the number of qualified nurses entering the job market and remaining in the profession. In 2012, the AACN put forth a set of resources to help colleges of nursing structure and sustain successful academic-practice partnerships as a means to effectively support new nurses as they enter into their first professional roles. As a result of this initiative, the Post-Baccalaureate Nurse Residency Program came to fruition. The latest data from the residency project show the retention rate of first-year baccalaureate graduates was, approximately, 96% at residency sites, which is higher than the national average (73-87%). In addition, new graduate nurses completing the residency program report a higher level of confidence, competence, and perceived ability to organize their work (American Association of Colleges of Nursing, 2012). The success of a graduating nurse workforce depends heavily on providing opportunities for on-the-job learning and for practicing newly learned skills.
In addition, Winn and Cameron’s (1998) study showed that positive outcomes occur among organizations that select, reward, and develop organizational staff members, the results of this study indicated that colleges of nursing that provide a formal clinical preceptor mentoring and development programs are engaged in best practices that promote workforce-focused outcomes within the Baldrige core value and concept of “a focus on the future.”

The relationship that reflected the highest degree of statistical significance was between the AACN indicator of providing a “formal mentoring program for clinical preceptors” and the Baldrige core value and concept of “a focus on the future.”

Colleges of nursing with a willingness to make a commitment to their students, practice partnerships, and healthcare consumers through clinical preceptor mentoring and development programs are focused on the pursuit of sustainable growth. Clinical preceptors continue to play a critical role in the practical skill and clinical reasoning development of student nurses as they rotate through clinical practice areas. Preceptors facilitate direct clinical learning experiences and assist colleges of nursing in ensuring these experiences are focused on developing and refining the knowledge and skills (AACN, 2009b).

Leadership and Governance Outcomes. While Winn and Cameron (1998) concluded that a clear relationship exists between an organization’s leadership and all of the Baldrige system processes, the findings of this study indicated that colleges of nursing that establish and uphold policies that reflect faculty and leadership development resources are engaging in best practices that are in alignment with the five Baldrige core values and concepts of (a) visionary leadership, (b) agility, (c) management by fact, (d)
results and creating value, and (e) a systems perspective in the area of leadership and governance outcomes.

The relationship that reflected the highest degree of statistical significance was between the AACN indicator of “establishing and upholding policies that reflect faculty and leadership development resources” and the Baldrige core value and concept of “management by fact.”

Management by fact refers an organization’s needs and the strategies they develop to address those needs (NIST, 2011e). Jagersma (2009) and the AACN (2008) have highlighted the importance of leadership in formulating and implementing strategic plans to produce a supportive academic environment through resource allocation to achieve program goals. Dew & McGowan-Nearing (2004) found that academic programs applying continuous performance improvement efforts at the administrative level, with a futuristic focus, have experienced a higher degree of sustainable success primarily because of the long-term global value these efforts have provided for the institution.

In addition, this study found that there is a relationship between faculty having input into the governance of the college/school of nursing and the Baldrige core value and concept of “organizational and personal learning.” Organizational and personal learning refers to sharing knowledge via systematic processes (NIST, 2011e). When faculty has input into the governance of a college of nursing they are engaging is a process that promotes a shared governance organizational model.

Shared governance is shared decision making based on the principles of partnership, equity, accountability, and ownership. This common management model in
higher education empowers all members of the faculty to have a voice in making decisions and encourages diverse and creative input that helps advance the business and mission/vision of the organization. In essence, shared governance allows every faculty member to have a stake in the success of the organization, thereby creating value (Swihart, 2006).

**Budgetary, Financial, and Market Outcomes.** Previous studies within the manufacturing industry (Link & Scott, 2001; Jacob, Madu, & Tang, 2004) have indicated that substantial financial benefits arise after organizations apply the Baldrige model to their daily operations. Further, evidence of these financial and market benefits have been identified within the four Fortune 500 companies (Motorola, Federal Express Corporation, Eastman Chemical Company, and Solectron Corporation) that have been Baldrige Award recipients (NIST, 2011-2012).

The first university to receive the Baldrige Award was the University of Wisconsin-Stout, which has become a higher education training exemplar for using a business-oriented model in higher education to improve daily operations (Arif & Smiley, 2004). Furst-Bowe and Wentz (2006) reported that when the University of Wisconsin-Stout developed and applied Baldrige-based approaches to ensure revenue growth and cost containment, they experienced sustained affordability for students, without compromising essential resources needed for growth and development, in spite of reduced state funding for higher education. The findings of this study indicate that colleges of nurses with budgeted resources for research, development, business operations, public relations, marketing, and human resources are engaged in best practices that promote budgetary, financial, and market outcomes, which is in alignment
with the following seven Baldrige core values and concepts: (a) visionary leadership, (b) student-centered excellence, (c) valuing workforce members and partners, (d) focus on the future, (e) managing for innovation, (f) results and creating value, and (g) systems perspective.

The relationship that reflected the highest degree of statistical significance was between the AACN indicator of “resources are budgeted for research, development, business operations, public relations, marketing, and human resources” and the Baldrige core value and concept of “visionary leadership.”

A primary role of senior leadership is to provide direction and align organizational performance to the prescribed AACN Essentials by implementing best practices and using a strategy designed to ensure individual organizational sustainability (NIST, 2011e). Because students and stakeholders determine the quality and value of higher education institutions, this fact demands financial planning for the emerging and evolving student, stakeholder, and market requirements. Leaders that deploy a business model that strategically budgets resources for research, development, business operations, public relations, marketing, and human resources translate their resources into an action plan with a futuristic outlook.

Implications for Practice

The results of this study suggest four primary implications for practice for individuals and organizations that have a vested interest in pursuing improved organizational performance practices, capabilities, and results in nursing education today and in the future.
First and foremost, the results of this study can be used as a strategic decision-making tool to help improve performance practices and capabilities as colleges of nursing begin to develop or enhance their current formal performance improvement action plan. Deming (1982) described continuous improvement as “improvement initiatives that increase successes and reduce failures” (as cited in Bhuiyan & Baghel, 2005, p. 761). This same principle holds true for decision makers within colleges of nursing. By identifying the indicators of quality that are in alignment with the Baldrige core values and concepts of performance improvement, leadership within these organizations can manage risks and maximize the odds of favorable performance improvement outcomes. As institutional stewards, nursing administrative leaders understand they must deliver educational value and sustainable quality results to all constituents, with a proactive focus on continuous performance improvement (NIST, 2010). As nursing leaders develop their CPI strategic plans, they will need to align their budgets with the value of the program as viewed by students, faculty, and practice partners. The competition for scarce budget resources among educational departments and grant funding will likely become fiercer during the next decade. This means colleges of nursing leadership will need to select performance improvement best practices that are driven by research to ensure sustainability and financial viability. Nursing practice stands on the concepts and principles of evidence-based practice. Likewise, continuous performance improvement values and concepts in nursing education must be evidence based. In essence, understanding and sharing high-performing behaviors that lead to improved performance provide a means for nursing education to have a collective movement toward performance excellence in this decade.
Secondly, the results of this study provide a framework for (a) facilitating organizational self-reflection as a means of identifying improvement needs and (b) understanding and guiding the planning process as well as identifying opportunities for learning. Nursing education leadership has an obligation to align organizational performance with the prescribed AACN *Essentials* and to identify actions that lead to higher levels of nursing education excellence. A college that has been successful at adopting a culture of performance excellence throughout the organization will engage in a shared governance model that functions from the perspective of aligning and achieving goals that are consistent with performance requirements across all categories of quality indicators, with an integrated approach to the measurement and assessment of organizational performance. Administrative leaders need to be in the center of this feedback loop to be able to assess real-time levels of achievement and communicate these results to all individuals with a vested interest or influence and manage system performance based on results. Nursing faculty members have the obligation to teach students how to think like nurses. A performance improvement plan must be student centered and flexible enough to align the learning needs of nursing students to the current health care system environment within which their practice partnerships exist. Administrative leaders have the obligation to teach faculty members to think within a CPI framework. In this way, everyone with a vested interest in the organization becomes equal partners, with equal accountability in creating a culture of CPI.

Third, the results of this study can facilitate communicating and sharing best-practice information among colleges of nursing by providing a quantitative snapshot of the current status of CPI strategies applied in colleges of nursing across the United States.
Facilitating the sharing of information among and within organizations is a primary goal of the Baldrige performance excellence framework (NIST, 2011a). As regional accrediting organizations and many program-specific accrediting bodies move in the direction of an outcomes-based, continuous-review process (rather than traditional periodic assessments) to ensure that programs achieve their mission and continue to flourish within today’s competitive educational market place (Furst-Bowe & Bauer, 2007), colleges will have more opportunities to move out of their silos and begin sharing their outcome-based best practices.

Lastly, the results of this study have established nine best practices for program enhancement as a means of fostering performance improvement within colleges of nursing.

1. College of nursing leaders need to budget resources for research, development, business operations, public relations, marketing, and human resources.
2. Colleges of nursing leaders need to establish and uphold policies that reflect faculty and leadership development resources.
3. Student learning experiences should include service learning opportunities.
4. Practice partnerships should include collaborative practice initiatives.
5. Colleges of nursing should find a means to collect data and make program changes that focus on the level of satisfaction that graduates have with their preparation for the profession.
6. Faculty within colleges of nursing should have input into the governance of the college/school.
7. Colleges of nursing should encourage faculty to regularly participate in state, regional, national, and international professional activities. This best practice has a direct relationship with the best practice of establishing and upholding policies that reflect faculty and leadership development resources.

8. Colleges of nursing should provide opportunities for baccalaureate graduates to gain employment with practice partnerships.

9. Colleges of nursing should develop and maintain a formal mentoring program for clinical preceptors.

In addition to identifying AACN practices that correspond with Baldrige CPI core values and concepts, the results also revealed seven areas of practice that were not associated with Baldrige CPI core values and concepts. These practices may not be an effective means of improving performance within colleges of nursing. These indicators of quality include the following:

1. Colleges of nursing with practice partnerships that include collaborative research initiatives may not be improving their organizational performance.

2. The practice of faculty participating in peer-reviewed publications and presentations may not improve a college of nursing performance.

3. Making scholarships available to students to support research engagement may not improve a college of nursing performance.

4. Providing honors program to students may not improve a college of nursing performance.

5. Providing international study programs to students may not improve a college of nursing performance.
6. Colleges of nursing that offer students technological enhancements to learning in the area of high fidelity simulation may not be improving their performance.

7. Colleges of nursing with academic and practice partnerships providing opportunities for student externships may not be improving their performance.

One indicator of quality that may not result in improved CPI within colleges of nursing is offering technological enhancements to learning in the area of high-fidelity simulation. According to Hicks, Coke, and Li (2009), the effects of simulation on student learning outcomes remain elusive, and the notion that clinical experience in combination with simulation-based training may provide the best performance outcomes for nursing students has not been significantly proven. The results of this study indicate that high-fidelity simulation may not result in CPI among colleges of nursing. This fact may be important to colleges of nursing that are struggling to obtain the financial resources needed to equip expensive, high-fidelity simulation learning labs. In colleges of nursing where resources are limited, the application of less expensive best practices may lead to more effective outcomes.

**Recommendations for Future Research**

Based on the results of this study, several recommendations for further research may be made for exploring the relationship between AACN indicators of quality and performance improvement. For future researchers intending to explore this topic, the following recommendations may serve as a guide.

One recommendation for future study is to develop a scoring system for the independent variable, the Baldrige Performance Excellence in Education Criteria core values and concepts and the AACN indicators of quality. Developing a scoring system
for these performance improvement measures would reduce the limitations in future studies exploring this topic. In addition, a scoring system would facilitate implementation of performance improvement initiatives within individual colleges of nursing based on their unique organizational characteristics. A scoring system that is in alignment with the Baldrige assessment criteria would allow for a greater understanding of the linkages between the elements of the Baldrige Performance Excellence Education Criteria and the AACE-indicators of quality. Scores for the dependent variable (Baldrige core values and concepts) and the independent variables (AACN indicators of quality) would be calculated by converting responses to particular questions into scores based on a 10-point scale. A score of 10 would represent the best possible response. Therefore, the higher the score for each question, the better the performance. Conversely, a lower score would suggest an area for improvement. Using a scoring system in future studies would make results easy to interpret and actionable in that a high score would reflect good performance and a lower score would reflect areas for improvement. Additionally, this would allow the results of particular questions to be grouped and aggregated to form a single composite score.

The AACN Baccalaureate *Essentials* (2008) has made it clear that nursing education is in need of transformational realignment to adequately prepare future nurses with the knowledge, skills, and attitudes needed to practice effectively within this complex and changing healthcare environment. For a transformation to be realized, then applying a more formalized analysis of performance improvement will drive future change in nursing education.
A second recommendation for future study is to replicate this study using CCNE-accredited colleges of nursing with master’s and doctoral nursing programs. Replicating the study using the same methods, dependent variables, and independent variables would be important for a number of reasons. Replication would provide further evidence that the results of this study were valid and reliable, and determine whether the study can be generalized across different levels of nursing education.

A third recommendation for future research is to replicate this study within National League for Nursing Accrediting Commission (NLNAC) two-year community college associate degree programs and baccalaureate and master’s degree nursing programs. NLNAC colleges and schools do not subscribe to the Essentials as AACN colleges and schools; however, researching specific behaviors that Baldrige suggests are effective in enhancing performance results would be valuable and add to the limited body of knowledge on the topic of CPI within nursing education.

A fourth recommendation for future research is to explore additional AACN indicators of quality not addressed in this study or that may evolve over time. This study was not all-inclusive of potential indicators of quality that may exist now or may exist in the future. As additional research is conducted on the topic and as baccalaureate nursing programs continue to refine and develop formal CPI plans, new or additional best practices may be identified. Ultimately, further research may lead to the AACN identifying and recommending a set of core best practices. The benefit of research-tested best practices for CPI within baccalaureate colleges of nurses would be to establish clearer benchmark practices for nursing education.
A fifth recommendation for future research is to explore the perspectives of students, faculty, and practice partnerships regarding the application of the Baldrige core values and concepts of performance improvement within AACN-accredited colleges of nursing. Researching individual groups of stakeholders would provide valuable information concerning the perception of performance improvement within these groups versus what is reported by administrative leadership. Because the Baldrige Education Criteria for Performance Excellence is first and foremost about students excelling during their educational experience and after graduation as they enter the workforce, exploring the perspectives of students, faculty, and practice partnerships concerning the indicators of quality that best reflect the Baldrige core values and concepts may provide additional information and best practices and benchmark standards.

Conclusion

The purpose of this study was to examine potential relationships between the AACN indicators of quality and the Baldrige core values and concepts of performance improvement within CCNE-accredited baccalaureate colleges of nursing. More specifically, the purpose was to determine whether the behaviors associated with specific AACN indicators of quality reflect behaviors that the Baldrige core values and concepts have already proven to be successful in achieving continuous performance improvement.

The results of this study suggest that some Baldrige core values and concepts and areas of outcome measurement are reflected in the AACN indicators of quality. The research identified the top indicators of quality behaviors most likely to enhance performance improvement outcomes within baccalaureate colleges of nursing. In addition, the results validated the fact that applying a systems approach to understanding
performance improvement within colleges of nursing is appropriate since dynamic linkages exist between multiple systems within these organizations. Moreover, the results emphasize the fact that continuous performance improvement within baccalaureate colleges of nursing cannot be accomplished exclusively through opinions, instinct, or creative thinking. Rather, performance improvement is a deliberate movement that embraces and leverages external and internal resources and stakeholders. Winn and Cameron (1998) have defined the gap between actual performance and ideal performance as the “change gap” (p. 495). Developing a CPI strategy to address the change gap cannot be accomplished through opinions, instinct, or creative thinking. Rather, addressing the change gap requires an analysis-driven endeavor dependent on an organization’s ability, willingness, and initiative to change.

This research makes a significant contribution to the body of literature on the topic of performance improvement within colleges of nursing in two ways. First, the study provides an answer to a question that was previously unknown: Which indicators of quality lead to the kind of improvements that are actually indicative of improved performance? Secondly, the study provides a set of best practices that, when applied, may lead to what Baldrige indicates as improved performance.
References


National League for Nursing Accrediting Commission, I. (2002). About the NLNAC,


Appendix A

The Survey: Continuous Performance Improvement

Continuous Performance Improvement

I appreciate your willingness to assist in this research effort and hope you will find the experience rewarding. Before you begin the survey please note the following definition of terms used within the survey:

Statements referring to “leadership/leaders” includes Dean’s; Assistant and Associate Dean’s; Department Chairs; and/or Directors within your baccalaureate college/school of nursing.

The term “partner’s or practice partnerships” refers to those key organizations or individuals who are working in concert with your college/school to achieve a common goal or to improve performance. Partnerships are formal arrangements for a specific aim or purpose. Partners might include other schools, colleges, employers and workplaces, social service organizations, private foundations, with which your college/school has cooperative relationships to facilitate effective student learning.

A statement referring to “workforce” includes all people actively involved in accomplishing the work of the college/school, including administrators, supervisors, paid permanent, part-time, temporary, and telecommuting employees, as well as, contract employees supervised by the college/school and volunteers.

1) Within the last two years, your baccalaureate nursing program has collected data and made program changes based on data results in the following areas. Select all that apply.
   - Retention rates at different points in your program.
   - The level of satisfaction among employers with the knowledge and skills of your graduates.
   - The percentage of graduates employed in nursing five years following graduation.
   - The percentage of graduates attaining generalist certification within five years.
   - The level of satisfaction among your graduates with preparation for the professional nursing role at one year following graduation.
   - The proportion of graduates participating in professional organizations.
   - Job satisfaction and retention of your graduates employed by partnership agencies.
   - Other.
   If you selected other, please specify ________________________________

2) Select all statements that apply to your baccalaureate college/school of nursing.
   - Faculty and leadership development resources are reflected in your policies.
   - Faculty and leadership development resources are reflected in the budget.
   - Policies support faculty practice.
   - A formal mentoring program for faculty is in place.
   - Leadership participates in the governance of the academic institution.
Faculty have input into the governance of the college/school.

Fund-raising activities are established specific to your nursing college/school.

Resources are budgeted for research, development, business operations, public relations, marketing, and human resources.

Other.
If you selected other, please specify ________________________________________

3) Select all statements that apply to the majority (greater than 50%) of your baccalaureate nursing faculty.

- Has preparation in curriculum development and educational methods.
- Engages in service to the profession and the community.
- Participates in peer-reviewed publications and presentations.
- Has a presence in state, regional, national, and international professional activities.
- Has advanced expertise in the areas of content they teach.
- Has well-developed programs of research or scholarship.
- Has doctoral preparation in nursing.
- Faculty demographics mirror the demographics of the student population.
- Other.
If you selected other, please specify ________________________________________

4) Select all statements that apply to the types of experiences offered to your baccalaureate nursing students.

- Service learning.
- Research experiences.
- Scholarships to support student research engagement.
- Honors program.
- International study programs.
- Capstone experiences.
- Immersive clinical experiences.
- Opportunities for interprofessional team learning.
- Experiences with diverse populations.
- Second language immersion.
- Student nursing organizations.
- Virtual learning environments.
- Technological enhancements to learning: E-portfolio.
- Technological enhancements to learning: Electronic medical records.
- Technological enhancements to learning: High fidelity simulation.
- Technological enhancements to learning: Web-enhanced courses.
- Other.
If you selected other, please specify ________________________________________

5) Select all statements that apply to your baccalaureate nursing program practice partnerships.

- Academic-organizational partnerships are utilized to increase access to resources.
- University-to-university partnerships are utilized to extend academic resources.
- Academic and practice partnerships provide opportunities for student internships.
- Academic and practice partnerships provide opportunities for student externships.
- Joint faculty appointments exist within education and practice partnerships.
- Practice partnerships provide opportunities for residency programs.
- Practice partnerships include collaborative grant initiatives.
- Practice partnerships include collaborative project initiatives.
- Practice partnerships include collaborative practice initiatives.
- Practice partnerships include collaborative research initiatives.
- Opportunities for baccalaureate nursing student employment with practice partnerships.
- Opportunities for baccalaureate graduate employment with practice partnerships.
- Formal mentoring program for clinical preceptors.
- Other

If you selected other, please specify ________________________________________

6) Select your level of agreement with each statement about the leadership within your baccalaureate college/school of nursing. Your leadership:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
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<tr>
<td>Creates a student and stakeholder focus.</td>
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<td>Has clear and visible values that are in alignment with the institution's vision.</td>
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<td>Creates strategies, systems, and methods for achieving performance excellence.</td>
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<td>Stimulates innovation that ensures nursing program sustainability.</td>
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<td>Inspires and encourages your entire workforce to contribute, develop and learn, and to embrace meaningful change.</td>
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<td>Performance is responsible to your college/school governance body.</td>
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<td>Serves as role models through their ethical behavior.</td>
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<td>Is involved in planning, communicating, and coaching the workforce.</td>
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<td>Designs plans for faculty who are under-performing.</td>
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7) Select your level of agreement with each statement about the student-centered efforts within your baccalaureate nursing college/school. Student-centered efforts:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
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<tr>
<td>Are a strategic concept your college/school</td>
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<tr>
<td>Are directed toward student and stakeholder loyalty, market share gain, and growth.</td>
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<tr>
<td>Are constantly sensitive to changing and emerging student, stakeholder, and market requirements.</td>
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139
8) Select your level of agreement with each statement about sharing knowledge through systematic processes within your baccalaureate nursing college/school.

Sharing knowledge is:

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
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<tbody>
<tr>
<td>A regular part of daily work at our college/school.</td>
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<tr>
<td>Practiced at a personal and workforce level.</td>
<td>○</td>
<td></td>
<td></td>
<td></td>
<td>○</td>
</tr>
<tr>
<td>A part of solving problems at their source or &quot;root cause&quot;.</td>
<td>○</td>
<td></td>
<td></td>
<td></td>
<td>○</td>
</tr>
<tr>
<td>Focused on building and sharing knowledge throughout your college/school of nursing.</td>
<td>○</td>
<td></td>
<td></td>
<td></td>
<td>○</td>
</tr>
<tr>
<td>Driven by opportunity.</td>
<td>○</td>
<td></td>
<td></td>
<td></td>
<td>○</td>
</tr>
</tbody>
</table>

9) Select your level of agreement with each statement about your baccalaureate college/school of nursing commitment to your workforce and partners and their engagement, satisfaction, development, and well-being.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provides recognition that goes beyond the regular compensation system.</td>
<td>○</td>
<td></td>
<td></td>
<td></td>
<td>○</td>
</tr>
<tr>
<td>Offers development and progression opportunities.</td>
<td>○</td>
<td></td>
<td></td>
<td></td>
<td>○</td>
</tr>
<tr>
<td>Shares knowledge so your workforce can better serve your students and stakeholders.</td>
<td>○</td>
<td></td>
<td></td>
<td></td>
<td>○</td>
</tr>
<tr>
<td>Has an environment that encourages intelligent risk taking.</td>
<td>○</td>
<td></td>
<td></td>
<td></td>
<td>○</td>
</tr>
<tr>
<td>Has a supportive environment for a diverse workforce.</td>
<td>○</td>
<td></td>
<td></td>
<td></td>
<td>○</td>
</tr>
</tbody>
</table>

10) Select your level of agreement with each statement about the capacity for rapid change and flexibility within your baccalaureate nursing college/school.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>We have the capacity for rapid change and flexibility.</td>
<td>○</td>
<td></td>
<td></td>
<td></td>
<td>○</td>
</tr>
<tr>
<td>Methods are in place to make rapid improvements to work systems.</td>
<td>○</td>
<td></td>
<td></td>
<td></td>
<td>○</td>
</tr>
<tr>
<td>Our leadership and workforce are cross trained for greater flexibility.</td>
<td>○</td>
<td></td>
<td></td>
<td></td>
<td>○</td>
</tr>
</tbody>
</table>

11) Select your level of agreement with each statement about your baccalaureate nursing college/school capacity to develop future leaders, workforce, and partnerships and create opportunities for innovation, anticipating societal responsibilities and concerns. Our college/school:
<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meets students’ and stakeholders’ expectations.</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Has new education and partnering opportunities.</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Addresses changing economic conditions, workforce development, and hiring needs.</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Anticipates global market changes, technological developments, and evolving regulatory requirements.</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Is sensitive to changes in community and societal expectations and needs.</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Plans strategic moves by comparable programs of nursing.</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
</tbody>
</table>

12) Select your level of agreement with each statement about innovation and making meaningful change to improve your baccalaureate nursing program, services, processes, operations, and business model to create new value for the institution, students and stakeholders. Innovation and meaningful change is:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leading your college/school to new dimensions of performance.</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Integrated into daily work processes.</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>A part of your learning culture.</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Supported by your performance improvement system.</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
</tbody>
</table>

13) Select your level of agreement with each statement about the performance measurement outcomes data collected at your baccalaureate nursing college/school.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data is collected on student, stakeholder, program, service, and process performance.</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Comparisons of operational, market, and competitive performance are made.</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Supplier, workforce, and partner, cost, budgetary and financial performance is collected.</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Data is segmented by groups to facilitate analysis. (for example, student learning results, markets, programs, services, and workforce)</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Analysis of data is used to determine trends, projections, and cause and effect.</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Analysis of data is used to benchmark best practices.</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Outcomes are shared with your college/school</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
</tbody>
</table>
nursing workforce.

14) Select your level of agreement with each statement about your baccalaureate college/school of nursing efforts to stress their responsibility to the public and the need to consider societal well-being and benefit. Your college/school:

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focuses on ethics and the protection of public health, safety, and the environment.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Emphasizes resource conservation and waste reduction at the source.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Stresses ethical behavior in all student and stakeholder transactions and interactions.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Influences other organizations private and public, to partner for the purpose of improving societal well-being.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

15) Select your level of agreement with each statement about your baccalaureate college/school of nursing performance measurements that focus on key results. Key results are the essential outcomes that are most important to a college/school.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is a high level of focus on key results.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Key results are used to create value for students and stakeholders.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Key results are used to create value for employers and partners.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

16) Select your level of agreement with each statement about how leadership manages the whole college/school of nursing and its components to achieve success and focuses on strategic directions, students and stakeholders.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has a high level of focus on strategic direction as it relates to students and stakeholders.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Monitors, respond to, and manage performance based on results.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Builds your key strategies using measures, indicators, core competencies, and institutional knowledge.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Links your key strategies with your work systems, students, and stakeholder’s processes and then aligns your resources to improve.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
17) What nursing educational programs do you offer?

- BSN
- RN-BSN
- Accelerated BSN
- Clinical Nurse Leader (CNL) Pre-licensure
- MSN Nurse Educator
- Masters of Advanced Practice Nursing
- BSN-DNP
- Doctorate of Nursing Practice (DNP). Post-master.
- PhD
- BSN-PhD
- Other

If you selected other, please specify ________________________________

18) Total number of students currently enrolled in your baccalaureate nursing program?

- 50 or less
- 51-100
- 101-150
- 151-200
- 201-250
- 251-300
- 351-400
- 401-450
- 451-500
- More than 500

Thank you for participating in this survey, please click on the "submit" button before exiting.

Best Regards,

Deborah Mattin