The DNP by 2015

A Study of the Institutional, Political, and Professional Issues that Facilitate or Impede Establishing a Post-Baccalaureate Doctor of Nursing Practice Program

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Preface

In 2004, members of the American Association of Colleges of Nursing (AACN) voted to endorse a position statement identifying the doctor of nursing practice (DNP) degree as the most appropriate degree for advanced-practice registered nurses (APRNs) to enter practice.[1] At the same time, AACN members voted to approve the position that all master's programs that educate APRNs to enter practice should transition to the DNP by 2015. While the number of DNP programs for APRNs has grown significantly and steadily over this period, at this time, not all nursing schools have made this transition. In order to better understand why, the AACN contracted with RAND to investigate schools' progress toward this goal and the factors that facilitate or impede this transition.

We acknowledge that the DNP is a terminal degree for all areas of advanced nursing practice and not just the four APRN roles. The DNP degree is designed to provide education to advanced nursing practice roles, which include those focused on practice at the aggregate, systems, or organizational level. For the purposes of this study, however, RAND was commissioned by AACN to focus on only the APRN master's degree program transition to the DNP.

The purpose of this report is to describe the results of a RAND study undertaken between October 2013 and April 2014 that sought to understand schools' program offerings to prepare APRNs to enter practice and the reasons for those offerings, as well as the barriers or facilitators to nursing schools' full adoption of the DNP.

This work was sponsored by the AACN. The research was conducted by RAND Health, a division of the RAND Corporation, with assistance from RAND's Survey Research Group (SRG). A profile of RAND Health, abstracts of publications, and author and ordering information can be found at www.rand.org/health.

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[1] These are certified registered nurse anesthetists, certified nurse midwives, nurse practitioners, and nurse midwives.

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Summary

In 2004, membership of the American Association of Colleges of Nursing (AACN) voted on and adopted a position statement supporting the doctor of nursing practice (DNP) degree as the most appropriate degree for preparing advanced-practice registered nurses (APRNs) to enter clinical practice.[2] At the same time, AACN members voted to approve the position that all master's programs that educate APRNs to enter practice should transition to the DNP by 2015. However, at this time, less than a quarter of the schools with APRN programs have fully met this goal. We employed a mixed-method approach (surveys and qualitative interviews) to investigate schools' progress toward the adoption of the DNP for preparing APRNs for clinical practice and the barriers and facilitators to that progress. Specifically, we analyzed data from a comprehensive survey of schools fielded annually by the AACN, an online survey developed and fielded specifically for this project, as well as qualitative interviews with deans and directors of 29 nursing schools.

Schools' Program Offerings

Schools continue to adopt the DNP, both as an option to be completed for practicing master's-level APRNs (the MSN-to-DNP) and as an entry-level APRN option for those with a bachelor of science in nursing (BSN) degree (the BSN-to-DNP). Overall, the number of schools with a DNP program has grown tenfold in the past seven years. The AACN Annual Survey of Baccalaureate and Graduate Nursing Programs revealed that, of 400 schools offering some level of APRN education in 2013, 98 (25 percent) had active BSN-to-DNP programs and 229 (57 percent) had MSN-to-DNP programs. Data from the RAND/AACN online survey, which obtained responses from two-thirds of nursing schools with APRN programs and was fielded six months later than the AACN Annual Survey, suggest even more movement toward BSN-to-DNP programs. Incorporating data from the online survey, we estimate that 30 percent of schools have BSN-to-DNP programs for APRNs (rather than 25 percent), and that 11–14 percent of schools have fully transitioned to the BSN-to-DNP and do not offer the terminal MSN, up from just a single school with that status in 2010. An additional 77 schools that are currently offering only MSN-level APRN education report in the 2013 AACN Annual Survey that they are planning a

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BSN-to-DNP. In the RAND/AACN online survey, 63 such schools report planning to offer a BSN-to-DNP for APRNs by 2016. Another 33 schools that currently have such programs report planning more for additional APRN roles, and eight schools without any current APRN education also plan to offer BSN-to-DNP programs by 2016. Overall, in the next several years, the percentage of schools (with any APRN education) that have a BSN-to-DNP program for at least one APRN group could approach 50 percent.

Nevertheless, the MSN remains the predominant entry-level APRN program for schools of nursing. Seventy percent of schools that educate APRNs currently offer only the MSN. Furthermore, 65 percent of schools that do adopt the BSN-to-DNP continue to retain their MSN programs—and for schools that simultaneously offer both options, the MSN programs currently enroll roughly three times as many students, on average. As noted above, schools' plans suggest further expansion of the BSN-to-DNP in the near future. And a further 27 percent of schools with only MSN-level APRN education responded to the RAND/AACN survey that they plan on closing their MSN programs. Yet even with these planned changes, the MSN would still remain the majority form of APRN education.

This diversity in approach toward APRN education was reflected in our survey data and discussions with schools. Based on conversations with nursing school leaders and responses to the RAND/AACN Online Survey, we find that school representatives largely value the content of the DNP education in preparing nurses for the rising challenges of the U.S. health care system, but differ in ways they seek to offer this content to students. A number of schools can be considered "early adopters" of the DNP and have enthusiastically moved forward by adopting the BSN-to-DNP and discontinuing their MSN programs. Other schools, even among the school representatives who find significant value in the DNP, have not moved as aggressively toward full adoption of the DNP, often developing a DNP program while maintaining their MSN programs. A third type of school could be described as "traditionalists" and have decided not to adopt the BSN-to-DNP.

Facilitators and Barriers Toward Offering the BSN-to-DNP

Through our investigation, we uncovered a number of barriers and facilitators important in schools' decisions to offer the BSN-to-DNP. First, we uncovered several structural factors associated with schools' offering choices. Controlling for all factors simultaneously, autonomous or freestanding schools, schools in the West and Midwest, and schools in states with a high density of existing nurse practitioners (NPs) were considerably more likely to offer BSN-to-DNP programs. Though we don't fully understand the mechanisms underlying these factors, autonomous or freestanding schools of nursing appear to face fewer institutional barriers and constraints to offering the BSN-to-DNP.

With respect to contextual factors (factors more malleable and unique to each school), we found the strongest facilitators toward offering the BSN-to-DNP to be enthusiasm and support among the school's key faculty, administration, and decisionmakers. Underlying this support was

typically an endorsement of the value of the DNP content. Fully 93 percent of survey respondents offering or planning on offering the BSN-to-DNP cited the "value of the [DNP] education in preparing for future health care needs" as very important or critical to their decision. The AACN endorsement of the DNP also factored strongly in many schools' decisions to offer the BSN-to-DNP, as did, in some cases, a desire to expand into doctoral-level education.

How that level of support then translated to schools' program choices was influenced by a number of barriers and conditions that appeared key to their ultimate decisions. Key conditions governing schools' choices are the fact that the DNP is still an option and not a requirement for APRN entry into practice, coupled with local demand for DNP-level education among students and employers as perceived by each school. With some exceptions, most schools did not perceive strong employer awareness of the DNP in particular. Practicing APRNs expressed strong interest in the DNP, and the convenience of completing the degree while working, in many cases, has led to a high rate of adoption of the MSN-to-DNP. Some incoming students expressed strong interest in the BSN-to-DNP (perceived demand for the DNP among students was rated as a facilitator by some survey respondents and as a barrier by others) while others were interested in the MSN—and thus, it was typically a complex calculation among schools whether to meet both simultaneously or to offer only the BSN-to-DNP and accept the potential loss of some students to other schools offering the MSN.

With respect to specific barriers toward adopting the BSN-to-DNP, many schools, particularly those that are part of larger public systems (rather than freestanding or autonomous schools of nursing), cite internal and institutional barriers, such as obtaining approval from numerous levels of leadership, boards, and regional bodies. Cost, faculty resources, securing clinical sites and preceptors, and managing capstone projects were also barriers cited by schools (although in some cases, particularly concerning faculty and clinical sites, schools may not have been able to isolate barriers particular to the DNP versus those relevant to APRN education in general). While these barriers can usually be overcome when schools and program directors are highly motivated (and in the case studies in Chapter Six, we describe innovative approaches taken by several schools to overcome barriers and manage transitions to the DNP), full adoption of the DNP will likely continue to be incremental and incomplete unless the certifying and accrediting bodies require the DNP for entry into APRN practice and the benefits of the DNP are more widely recognized by students and employers.

Based on the findings in this report, we derive the following conclusions (which are presented roughly in the order in which the content from which they are derived is discussed in the full report) as well as recommended action steps that could help AACN achieve its goal.[3]

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[3] RAND does not hold an official position in favor of, or against, this goal.

Further discussion of these and recommendations that follow from many of them appears in Chapter Five.

Conclusions

- The DNP continues to expand steadily.
- The MSN remains the dominant pathway for APRN entry-into–practice education, though there is some limited movement toward replacement with the BSN-to-DNP.
- There will likely be two tracks toward the DNP for the near future (defined by schools' planning horizons): a single-step process (BSN-to-DNP) and a two-step process (BSN-to-MSN followed by an MSN-to-DNP at a later date).
- The value of the added content of the DNP education is almost universally agreed-upon.
- Requirement of the DNP for certification and accreditation is an important factor in schools' decisions.
- From the point of view of the nursing school leaders we spoke to, demand for DNP-educated APRNs on the part of employers is generally nondifferentiated between the MSN and the DNP, albeit with a few exceptions. Student demand for the DNP on the part of currently practicing APRNs appears robust, given the proliferation of MSN-to-DNP programs. Student demand for the BSN-to-DNP is more variable—with some seeking the BSN-to-DNP and others seeking the MSN.
- Freestanding or autonomous nursing schools are more likely to offer the BSN-to-DNP, a finding that may be associated with fewer institutional barriers faced by these schools.
- Identifying sufficient number of clinical sites is sometimes cited as an issue, but it is unclear how much this concern is specific to the DNP.
- Faculty and administrative support within the university is, more often than not, a strong facilitator toward offering the BSN-to-DNP.
- Many schools cite faculty resources as constraints to the development of DNP programs, sometimes noting the capstone project as a particular resource challenge.
- Costs and budgetary concerns are a key barrier to many schools—particularly those that are not freestanding or autonomous schools.
- Schools noted additional specific challenges in operating and sustaining BSN-to-DNP programs, some of which the AACN could help them overcome. We do not see evidence of a significant risk to these programs' being discontinued once begun.

Recommendations

The AACN should:

I. Conduct, and collaborate with others to conduct, outcome studies of DNP practice to better understand the impact of DNP graduates on patient care.

II. Provide outreach and data to help employers and health care organizations understand the added competencies and capabilities of DNP-educated APRNs.

III. Focus on understanding and documenting successful strategies in overcoming barriers to offering BSN-to-DNP programs of departments or divisions within larger universities, since they face greater hurdles or barriers to offering BSN-to-DNP programs.

IV. Document and showcase examples of collaborative partnerships between schools and hospitals or other health care organizations for the purpose of providing clinical practice sites.

V. Provide greater clarity and guidance related to requirements for the capstone project.

VI. Continue with ongoing efforts to assist schools in overcoming challenges to offering the BSN to DNP.

Acknowledgments

Abbreviations

AACN	American Association of Colleges of Nursing
AGNP	adult gerontology nurse practitioner
APRN	advanced-practice registered nurse
BSN	bachelor's of science in nursing
CNM	certified nurse-midwife
CNL	clinical nurse leader
CNS	clinical nurse specialist
CRNA	certified registered nurse anesthetist
CSU	California State University
FNP	family nurse practitioner
FPMHNP	family psychiatric mental health concentration
IOM	Institute of Medicine
IRB	Institutional Review Board
MD	medical doctor
MSN	master's of science in nursing
NP	nurse practitioner
PA	physician's assistant
SRG	Survey Research Group (RAND Corporation)
UC	University of California

We also use a number of acronyms and terms throughout the remainder of this report to describe different program offerings. Because the acronyms are not standardized but extremely important for this report, we provide more expanded definitions here. In the context of this report:

- APRN refers to advanced-practice registered nurses, which includes four separate roles: NPs, CNSs, CNMs, and CRNAs. Today, a master's degree is required for certification in any of these roles.
- MSN refers to a master's of science in nursing program that prepares bachelor's-level registered nurses to be APRNs (in this report). Other non-APRN nursing specialties exist, such as in nursing administration or public health.
- DNP refers generically to any doctor of nursing practice program.
- MSN-to-DNP refers to a DNP program for APRNs (or other nurses) who have already completed an MSN program and are now completing their practice doctorate.
- BSN-to-DNP refers to a specific kind of DNP program that educates bachelor's-prepared registered nurses to be APRNs at the doctorate level.

We also refer to the AACN Annual Survey of Baccalaureate and Graduate Nursing Programs throughout (abbreviated variably as the Annual Survey and AACN Survey) and the RAND/AACN Online Survey, sometimes abbreviated as the online survey.

1. Introduction and Background/Purpose

In 2004, members of the American Association of Colleges of Nursing (AACN) voted to endorse a position statement identifying the doctor of nursing practice (DNP) degree as the most appropriate degree for advanced-practice registered nurses (APRNs) to enter practice (AACN, 2004). This position represents a change from the current standard, the master of science in nursing (MSN) degree, adding between one and two additional years of education (on a full-time basis). As opposed to research-focused doctorates, the DNP focuses on scholarship in the practice setting, innovation and testing of care delivery models, practice improvement, examination of health care outcomes, and proficiency in establishing clinical excellence. The DNP places less emphasis on conducting research, and instead targets the evaluation and utilization of research to solve practice problems. The position statement demonstrated unprecedented support for the DNP degree, and member institutions voted to establish the year 2015 as the goal date for moving all APRN preparation from MSN-to-DNP programs (AACN, 2004).

This position statement has been and remains controversial. Some have argued that the DNP is most appropriate for existing APRNs who are able to draw on their clinical experience to embrace and benefit from the DNP curriculum (Cronenwett, Dracup, et al. 2011). Cronenwett et al. expressed concern about the cost and faculty burdens that schools face in requiring the DNP for entry-level APRN practice, and worry about provider supply considerations, given that APRNs are in high demand and there is not yet evidence of any added value in terms of outcomes of care provided by DNP-prepared APRNs over MSN-prepared APRNs.

Proponents of the DNP degree as a replacement for the master's level education, on the other hand, argue that this transition will address a number of important societal, educational, and professional issues (Udlis and Mancuso, 2012). The primary motivation behind the degree is related to additional knowledge required in the clinical area to meet increasing demands of patients, work in complex health care systems, and improve quality and outcomes of care. A 2003 Institute of Medicine (IOM) report by Greiner and Knebel related to health professionals' education highlighted the need to prepare nursing leaders in the areas of evidence-based care and quality improvement—areas in which DNP programs focus (Greiner and Knebel, 2003). A subsequent IOM report on the "future of nursing" (IOM, 2010) called for a doubling of the number of doctoral-prepared nurses to help meet the future demands of increasingly integrated health care delivery systems, new payment methods that promote care coordination, quality incentives, and cost pressures. Generally, managing these tasks will require additional preparation.

Proponents often note several additional arguments in support of the DNP. For example, MSN programs typically require more credit hours than similar master's degrees in other

disciplines. Many nurse educators have argued that students should be recognized for this extra time by offering doctoral-level degrees to these students. Also, the nursing discipline has long been plagued by a shortage of adequately prepared faculty members, and the DNP program offers a pathway for practitioners to continue their education in the clinical realm, with the possibility of serving as faculty (National Academy of Sciences, 2005). Finally, some have argued that advanced clinical training within nursing should be on par with other disciplines such as physical therapy, psychology, and pharmacy, which have moved to doctoral-level minimum entry requirements.

Since that position statement, nursing schools have made significant progress toward developing DNP programs. In 2004 (at the time of the position statement), only three schools in the United States had DNP programs, enrolling 107 students that year and graduating seven (Raines, 2010). As of 2013, 241 schools (more than 60 percent of schools with APRN education) had DNP programs, enrolling 14,699 students and graduating 2,443 (Kirschling, 2014). Another 105, as of 2013, were in the planning stages of offering such programs. However, a significant number of schools still do not offer or plan to offer a DNP.

Moreover, even among programs offering or planning a DNP program, uncertainty remains regarding the role of master's-level APRN education, (for reasons noted later), which may hinder the full transition to the DNP program. A survey conducted by the AACN in 2010 sought to understand potential barriers to a one-step program going from a bachelor's of science nursing (BSN) degree to a DNP and why schools continue to offer the master's option. Respondents noted that students were still seeking the master's degree and the schools and their faculty were worried about losing students if they did not retain their programs (Raines, 2010). There were also concerns about employer responses to the DNP and whether current master's students would be "grandfathered in" so they could continue practice. In that same survey, schools that had difficulty in offering the DNP cited problems with resources, state regulations, and faculty support.

Building on some of the findings from the AACN 2010 survey noted above, the purpose of this report is to provide AACN with a full investigation of their progress toward this goal. Particularly, this report aims to address three key objectives:

1. Describe the progress of schools of nursing toward adoption of the DNP for preparing APRNs.
2. Describe barriers and facilitators to full adoption of the DNP by schools of nursing.
3. Provide recommendations to AACN to support adoption of the DNP by schools of nursing.

Importantly, this report focuses specifically on the adoption of the BSN-to-DNP as the degree program to prepare APRNs to practice clinically. We also considered the post-master's DNP (MSN-to-DNP) for currently practicing APRNs as a separate issue.

In achieving these objectives, we undertook three main analytic tasks, including 1) a quantitative analysis of offer status and factors related to schools' decisions on program offerings using the AACN Annual Survey of Baccalaureate and Graduate Nursing Programs data on all schools, 2) the RAND/AACN Online Survey, geared toward understanding schools' reasons for their program offerings, as well as determining facilitators and barriers toward offering the BSN-to-DNP, and 3) in-depth interviews with representatives of several groups of schools of varying status with regard to the types of APRN programs that they currently offer or are planning. We supplement the report with case studies that highlight some of the specific experiences and challenges of five schools that have been successful in overcoming barriers and developing and maintaining a DNP program. These in-depth discussions contain specific examples and details that should prove useful to both the AACN and schools struggling with their own decisions or implementation challenges.

Finally, we note here that in seeking this understanding, *RAND does not take a position on the value or wisdom of the position of the AACN with regard to the DNP—rather, we report on our understanding of the decisions and positions of nursing schools as gained through the investigation described here.*

The report is organized as follows:

- Chapter Two describes the methods used in the report to collect information in each of the above three tasks.
- Chapter Three describes schools' current (and near-term-expected) program offering status with respect to the DNP as the entry-level degree for APRNs.
- Chapter Four discusses the underlying reasons for schools' current program status, including a focus on specific barriers and facilitators, drawing on material from the AACN Annual Survey, the online survey, and the in-depth interviews.
- Chapter Five provides recommendations and conclusions based on the findings presented in Chapters Three and Four.
- Chapter Six details the case studies with fuller discussions of the challenges and solutions faced by a number of individual schools.
- Appendixes include a discussion of the MSN-to-DNP, a reproduction of the online survey instrument, and a list of the interviewed schools.

2. Methods

This report uses a mixed-method approach to address the key objectives of the project. Specifically, we use data from three sources: AACN Annual Survey data, data from an online survey fielded for this project, and key informant interviews with leaders from nursing schools. This chapter of the report describes the data and how we collected them, as well as the methods we used to analyze them.

AACN Annual Survey Data Analysis

AACN provided data from their Annual Survey, which is fielded every year between September and early November and obtains responses from more than 90 percent of U.S. nursing schools offering graduate level nursing education. The survey collects data on characteristics of the nursing programs, degree offerings, enrollment and graduate numbers by degree offering, and faculty salaries. RAND requested a subset of the data that included information on graduate degree offerings and other key variables potentially correlated with offering a DNP degree. This section outlines the data.

Data

RAND submitted a detailed data request to AACN and received an Excel file with an accompanying codebook. The data initially provided to RAND was from the 2012 survey wave and included information related to the school's location, private versus public status, relationship to a school or university, type of programs offered, Carnegie Codes, acceptance rates, and board exam pass rates. That data set was used both as the basis for selecting schools for interviews and for the online survey. Midway through the project, data from the 2013 AACN Annual Survey became available and was thus used for the primary analyses as described instead of the 2012 data. That data set included information on 564 schools that reported offering at least one graduate degree program. We focused much of the data analysis on a subset of 400 schools that offered some type of APRN education (either an APRN MSN degree and/or an APRN DNP degree), as these schools are particularly focused on the decision of what level of APRN education to offer—the key interest of this study.[4]

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[4] Some schools are not currently offering any APRN education but plan to do so in the future, often at the BSN-to-DNP level. These are noted in some analyses that follow.

Variables of Interest

Using the AACN survey data, we constructed specific variables describing the DNP-offering status for each program. Our primary categorization of schools' offering status is based on their programs that prepare APRNs to enter practice, as this was the primary interest of the study:

- Offer MSN only
- Offer combination of MSN and BSN-to-DNP
- Offer BSN-to-DNP only

These categorizations were constructed based on a number of variables from the AACN Annual Survey. We first constructed a variable that designated schools as having an MSN program based on the number of full-time and part-time students currently enrolled in programs for nurse practitioners (NP), clinical nurse specialists (CNS), certified nurse-midwives (CNM), and certified registered nurse anesthetists (CRNAs). If a school had at least one student enrolled in any of the aforementioned APRN programs, it was considered to have an APRN MSN program. We likewise considered a program as having an APRN BSN-to-DNP if it had students currently enrolled in the BSN-to-DNP program. Importantly, focusing only on schools that have enrolled students likely creates a lower bound on the estimate of the number of BSN-to-DNP programs. We also considered another question in the AACN survey that asked schools if a program "has students or graduates" to identify the existence of a particular program. Forty schools responded "yes" to the latter and "no" to the former with respect to APRN BSN-to-DNP programs. We visited the websites of the 40 schools for which these variables disagreed and spoke with ten of them by phone, which helped us determine that basing program identification on reports of enrolled students was the most accurate approach.

We then used these designations to create the three-level offering status measure as already indicated. Programs were considered to offer "MSN-only" if they offered any APRN MSN program and no APRN BSN-to-DNP offerings. Schools were categorized as offering a "combination of MSN and BSN-to-DNP" if they had any APRN MSN and any APRN BSN-to-DNP program simultaneously. This combination could include offering both an MSN and a BSN-to-DNP for a specific APRN role, or offering an MSN for one and a BSN-to-DNP for another (for example, a BSN-to-DNP for nurse practitioners and an MSN for nurse-midwives). Finally, schools were classified as "BSN-to-DNP only" if they had a BSN-to-DNP program for any APRN role and no APRN MSN programs. We separately categorized schools' offering status within each of the four APRN roles.

While our primary analyses focused on these three categories described above, for supplementary analyses, we also categorized schools as having MSN-to-DNP programs if they had any current students in programs for master's-prepared nurses seeking DNP degrees. We did not attempt to distinguish MSN-to-DNP programs for APRNs specifically because many such programs are not designed to apply specifically to APRNs, but are general to registered nurses with various areas of master's nursing education (Mancuso and Udlis, 2012).

For all of these program designations, we explored a number of different specifications, as multiple variables in the AACN Annual Survey could be used to describe the DNP offerings of programs. For a subset, we drew a sample of schools and confirmed our designated offering status based on their websites. The specifications described above yielded designations that were most consistent with the schools' websites.

We then created a number of variables that we deemed to be structural characteristics potentially associated with DNP offering status. These variables describe aspects of the school, the local region surrounding the school, and the state regulatory environment (some of which were gathered from outside sources and merged with the AACN data by geography). The variables, their specifications, and mean values can be found in Table 2.1. These values are based on the 400 schools that reported offering any graduate APRN education in the AACN Annual Survey.

Table 2.1. Structural Characteristics Sources and Specifications

Label	Source	Specifications	Mean (StD) or Percentage
School characteristics			
Average number of graduate students	AACN Annual Survey	Continuous variable calculated as summation of students currently enrolled in each master's and doctoral program at the school including (but not limited to) MS, MSN, DNP, and PhD	259.8 (606.4)
Public	AACN Annual Survey	Binary variable designating school type	55.5%
Private, religious	AACN Annual Survey	Binary variable designating school type	27.0%
Private, nonreligious	AACN Annual Survey	Binary variable designating school type	17.5%
Autonomous or freestanding program	AACN Annual Survey	Binary variable designating the nursing school's relationship with the parent institution. Schools were coded as a 1 if described as an autonomous school or college within the university, a freestanding or single-purpose college, or school of nursing. All other schools coded as 0.	53.3%
Have research doctorate	AACN Annual Survey	Binary variable designating whether a school has research doctorate.	31.8%
Percentage of graduate students accepted	AACN Annual Survey	Continuous variable calculated by dividing the number of accepted master's students by the number of master's students meeting admissions qualifications	81.4% (.220)
Percentage of undergraduates accepted	AACN Annual Survey	Continuous variable calculated by dividing the number of accepted baccalaureate students by the number of baccalaureate students meeting admissions qualifications	75.3% (.228)
Carnegie Classification Codes	Supplied by AACN	Categorical variable designating schools as bachelors, master's, doctorate, medical or other	Bachelor's: 3.5% Master's: 48.3% Doctoral: 36.3% Medical: 5.8% Other: 6.3%

Label	Source	Specifications	Mean (StD) or Percentage
Market characteristics			
Large, metropolitan	Area Health Resource File	Binary variable designating schools as located in large metro areas or not, as defined by metropolitan statistical area of more than 1,000,000 people	49.9%
Largest grad program in state has DNP	AACN Annual Survey	Binary variable designating schools as located in a state in which the largest school of nursing (according to the number of graduate students enrolled) has a DNP	15.3%
Region	U.S. Census Bureau	Categorical variable designating schools as located in states in Northeast, Midwest, South, West	Northeast: 22.7% Midwest: 27.9% South: 34.1% West: 15.3%
Population density (per square mile)	U.S. Census Bureau	Continuous variable calculated by dividing the state's population by total square miles	358.7 (1023.8)
Medical doctors (MDs) per capita (per 100,000)	Area Health Resource File	Continuous variable calculated by dividing number of medical doctors in a state by the state's total population times 100,000	278.1 (83.7)
Physician assistants (PAs) per capita (per 100,000)	Area Health Resource File	Continuous variable calculated by dividing number of physician assistants in a state by the state's total population times 100,000	24.6 (10.7)
NPs per capita (per 100,000)	Area Health Resource File	Continuous variable calculated by dividing number of NPs in a state by the state's total population times 100,000	47.0 (15.9)
State regulatory environment			
APRN Independent Practice Scale (range: 0-1)	National Council of State Boards of Nursing	Continuous variable calculated as the proportion of eight scopes of practice regulations that a state has adopted, including independent practice and prescribing privileges for NPs, CRNAs, CNMs, and CNSs. This scale was confirmed based on the results of factor analysis.	.167 (.297)
Tiers in public higher education system	Primary data collection	Categorical variable measuring the number of governing structures within a state's higher education system.	0: 16.5% 1: 39.7% 2+: 43.8%

Analysis Methods

We use tabular analyses to describe the extent to which nursing programs have adopted or are planning to offer a BSN-to-DNP program for nurses seeking to enter practice as APRNs (Chapter Three). In Chapter Four, we describe the variation in APRN offerings based on the aforementioned structural characteristics. We use bivariate correlations and multivariate regression to identify characteristics that are correlated with offering the BSN-to-DNP. We first describe bivariate differences in the independent variables by programs' degree-offering status. For continuous independent variables, we use ANOVA, and for categorical independent variables we use chi-square tests. We then regress APRN–offering status on all of the independent variables previously noted. Specifically, we use a measure of APRN–offering status

that combines information from the AACN Annual Survey with the RAND/AACN Online Survey. This combined information is discussed in more detail in Chapter Three. We use linear probability models, as the resultant coefficients are readily interpretable compared to logistic models.[5] To perform these analyses, we collapsed the three-level APRN offering status variable into a simple binary indicator for whether the school offered a BSN-to-DNP for APRNs because of the small number in the BSN-to-DNP-only category. The properties of the chi-square and ordinal logit estimators (a possible model to investigate a three-part hierarchical dependent variable, such as APRN–offer status characterized as MSN only, both MSN and BSN-to-DNP, and BSN-to-DNP only) do not support particularly small sample sizes in any one category. In sensitivity analyses, we found the results to be qualitatively similar when basing the analysis on two-level and three-level categorical variables.

RAND/AACN Online Survey of Nursing Schools

The second data source used for this report comes from an online survey of nursing schools developed by RAND researchers, with input from the AACN, and fielded by the RAND Survey Research Group (SRG). This section describes this survey, particularly related to survey fielding and population, survey content, and data analysis.

Survey Fielding and Population

The survey was fielded online between December 9, 2013, and January 23, 2014. The sampling frame, which was provided by AACN in an Excel spreadsheet, included any nursing school program that offered at least one graduate degree program based on the 2012 AACN annual survey (n=550).[6] The spreadsheet also included the name and contact information (i.e., email address) for the primary contact for the nursing school at each institution. The survey was fielded after extensive testing of the survey tool by RAND researchers as well as deans of select nursing schools. Before the SRG sent the recruitment email to the sample, the AACN president (on behalf of the association) sent an email to the contacts describing the importance of the survey and encouraging programs to participate. The email from the SRG included directions for taking the survey as well as the survey link and a unique identification number. Schools were instructed that they could stop and restart the survey if they needed to consult with others in the institution to obtain further information. Seven days after the initial email, SRG sent a follow-up

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[5] We investigated logit specifications; results did not substantially differ between LPM and logit models.

[6] Although the data analysis of the AACN Annual Survey in this report used the 2013 data (which included 564 schools with at least one graduate program), as already described, the 2013 data was not available to us at the time of the fielding of the online survey, so we used the 550 schools identified in the 2012 data as the sampling frame.

email encouraging nonresponders to take the survey. SRG sent a final reminder email 29 days after the original email was sent, just after a reminder email was sent by the AACN encouraging contacts to respond to the survey if they had not done so already. The final number of completed surveys obtained was 345 (of 550) for a response rate of 63 percent. Later, the universe of schools of interest for the study was subset to include only those 383 schools (based still on the 2012 AACN data) with programs for entry to APRN practice (including either MSN or BSN-to-DNP programs for APRNs). From among this group, the online survey had yielded 252 respondents for an effective response rate of 66 percent. The survey took, on average, 15 minutes to complete. Most of the analysis of the online survey is restricted to these 252 respondent schools.

Given the high response rate, we were not very concerned with response bias—i.e., that the schools that responded to the survey might represent a different set of schools with respect to their views on the DNP than those that did not respond. Nevertheless, we assessed whether we received a higher response rate from schools with BSN-to-DNP programs (according to the 2012 AACN survey) than those without, which could be an indicator that schools with more enthusiasm about the DNP were more likely to respond to the survey. Ultimately, the response rate was 75 percent among schools with BSN-to-DNP programs compared with 60 percent among those without. Thus, we consider the online survey to be only slightly skewed toward schools with more favorable attitudes toward the BSN-to-DNP.

Survey Content

The survey tool was developed iteratively based on feedback from the AACN and their advisory panel comprising a number of nursing school deans who provided feedback on wording and flow. The survey focused on six broad topics:

1. reasons for offering or not offering the DNP
2. reasons for offering or not offering the BSN-to-DNP specifically
3. factors affecting the development of the DNP
4. factors affecting programs' ability to sustain the DNP program
5. reasons for retaining the master's program while also offering the DNP
6. forms of assistance that could be helpful to schools in offering or sustaining a DNP program.

We used 3- to 5-point Likert scales to measure the importance of different barriers, factors, or reasons. We also asked schools about their current and future (by 2016) expected offering status related to APRN programs for each of the four roles. The full survey instrument is available in Appendix B.

Importantly, if schools had multiple programs that included a CRNA program, for the majority of questions they were asked to provide answers in terms of their decisions related to the NP, CNS, and CNM programs. We made this decision because programs' decisions related

to the CRNA degree offerings are likely different compared to other APRN degree offerings. (Unlike the other three roles, the Council on Accreditation of Nurse Anesthesia Education has decided that all CRNA programs must be at the doctoral level by 2022 and all new candidates for certification must hold a doctoral degree by 2025). Separately, we included some specific questions related to CRNA programs.

Analysis Methods

The analysis of the survey data was primarily descriptive in nature, as we were not testing specific hypotheses. In some analyses of survey responses, we collapsed categorical responses. For example, we employed Likert scales in assessing the importance of various reasons for offering a DNP, with choices being: not important, somewhat important, important, very important, and critical/decisive. In some cases, we collapsed those responses by combining the two responses on either extreme end of the scale and retaining the middle category to create the new categories of "less important," "important," and "more important."

Interviews

We sought to speak with deans (and/or other representatives) from 31 representative schools with graduate nursing programs to gain a more in-depth understanding of their facilitators, barriers, and reasons underlying their current and planned program offerings. All 564 schools with master's-level education were placed into substrata defined by both their current or planned offering status and their Carnegie Classification, which defined whether their school is classified as a doctoral or master's-level granting institution. This designation was based on the 2012 AACN survey. Each school in the substrata was given a random number through an Excel-based random number generator. Schools with the smallest random number within each substrata were selected for inclusion in the survey.

Initially, our chosen schools were slightly smaller than the full set of nursing schools, on average. When schools declined to be interviewed, as happened on occasion, we replaced them with larger schools where possible, to better match representation on this characteristic. Table 2.2 depicts the offering status (as determined during the interview itself) and other characteristics of the final set of interviewed schools. The schools are broadly representative of the full set of schools with APRN education. Of the 31 interviews initially sought, two were not completed due to scheduling issues. The final 29 interviewed schools are listed in Appendix C.

Table 2.2. Characteristics of Interviewed Schools (n=29)

Characteristic	Number of Schools	Percentage of Interviewed Schools
Offers BSN- to-DNP	10	34
Planning BSN-to-DNP but does not currently offer	6[a]	21
Offers MSN-to-DNP	22	76
Carnegie Classification: baccalaureate or master's	12	43
Public	17	59
Autonomous or freestanding program	18	60
Has research doctorate	14	48
Larger than median number of graduate students	15	52

[a] Two schools are planning a BSN-to-DNP only for CRNAs. An additional school not included in this total is considering or exploring a BSN-to-DNP, but not actively planning one.

The interviews proceeded for approximately one hour (by phone) and were attended by a lead interviewer and a note-taker. Interviews were all recorded and transcripts were obtained using an outside transcript service. The main topics discussed during the interviews were

1. the school's background and history of program offerings
2. its status of program development
3. arguments in favor of offering a DNP program
4. arguments against offering a DNP program
5. facilitators and barriers with respect to offering a DNP program
6. reasons for retaining or closing a master's APRN program
7. reasons for adopting the BSN-to-DNP specifically.

Analysis Methods

Interview data were categorized according to the main groups of themes discussed and which emerged from the interviews. These themes generally followed those used in the RAND/AACN Online Survey included in Appendix B. These groupings were as follows:

- Local demand for the DNP on the part of students and employers
- Perceived value of the DNP education and curriculum
- Institutional issues and barriers (such as school, state, and regional level)
- Program feasibility and implementation considerations including:
  - Faculty availability
  - Cost and budgetary issues
  - Clinical sites and placements
- Issues surrounding the MSN-to-DNP
- Role of the AACN

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One exception was the issues surrounding the MSN-to-DNP, which we did not initially anticipate would involve a set of unique issues (these are discussed separately in Appendix A). We analyzed the interview data based on the notes and transcripts systematically according to the topic areas noted above. Once categorized in this way, predominant, common, and minority themes across schools and within topics were analyzed overall, and by school offer type. These themes, with representative quotations from the interview transcripts, are described in Chapter Four.

Case Studies

Finally, we selected five schools from among those we had interviewed to be represented as case studies in Chapter Six. We based our selection criteria on experiences and challenges with developing and offering DNP programs that we felt would be broadly applicable and useful to the audience. The schools understood that, given the detail of the exposition, they might be identifiable, and were provided with a draft of their write-up for comment prior to inclusion in the report.

3. Schools' Offering of the DNP

This section describes the past, current, and expected status of nursing schools with respect to their DNP program offerings—focusing on offerings for entry-level APRN education. We also briefly discuss schools' offerings of MSN-to-DNP programs. The chapter primarily relies on data from the AACN Annual Survey, but includes additional data from the program-offering questions in the RAND/AACN Online Survey.

Trends in Offering of DNP Programs

There has been rapid growth in the number of DNP programs over time (see Figure 3.1). In a previous report, AACN demonstrated that DNP programs have experienced more than a tenfold growth in the last seven years (Kirschling, 2014).

Figure 3.1. Growth in Schools Offering DNP (Either BSN-to-DNP or MSN-to-DNP) Programs Over Time
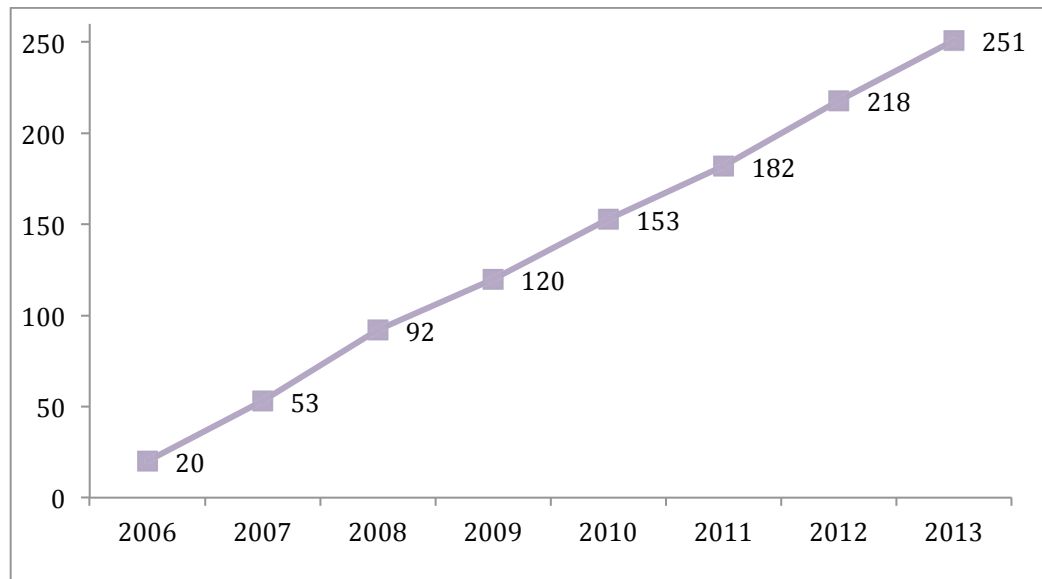
SOURCE: AACN Annual Survey (2013). All schools of nursing included.

This steady growth in offering the DNP means that nearly half of nursing schools with any graduate-level nursing education (251 of 564, or 45 percent) offer a DNP program. As described in more detail later, we expect this growth to continue.

Current Offering Status for APRN Entry-into-Practice Education

Despite the significant growth in the adoption of the DNP, the stated goal of the AACN is to have nursing programs transition away from the MSN as the entry-level degree for APRNs.

(Many of the schools in Figure 3.1 classified as having a DNP have only an MSN-to-DNP completion program.) The next section analyzes progress toward this goal.

In this analysis, we combined data from both the AACN annual survey and the RAND/AACN online survey. We first subset the 564 schools in the AACN Annual Survey that offer at least one nursing graduate degree (from Figure 3.1) to the 400 (71 percent) that offer an entry-level APRN degree for CNMs, NPs, CNSs, or CRNAs. We then grouped their stated program offerings for entry-level APRN education as shown in the first column in Table 3.1.

Table 3.1. Offering Status for APRN Entry-Level Degree Programs

Program Offering	AACN Annual Survey (2013) (n=564)		RAND/AACN Online Survey (2013/2014) (n=345)		Annual Survey Data Adjusted Based on Online Survey	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
MSN only	302	75.5	159	61.4	284	69.6
Combination of MSN and BSN-to-DNP	73	18.3	64	24.7	81	19.9
BSN-to-DNP only	25	6.3	36	13.9	43	10.5
Total	400	100.0	252	100.0	408[a]	100.0

SOURCE: AACN Annual Survey (2013) and RAND/AACN Online Survey.
NOTE: Table includes schools with any APRN education.
[a] The total number of schools increased to 408 after the adjustment because the online survey indicated that eight additional schools had graduate education for APRNs that were not indicated as such in the 2013 AACN Annual Survey.

Of these 400 schools, three-fourths (or 302) have maintained the master's degree as the only entry-to-practice degree for these APRNs (Table 3.1). A further 18 percent (n=73) offer some combination of both MSN and BSN-to-DNP programs. This combination may include either offering both an MSN and a BSN-to-DNP for the same APRN role or offering an MSN for some roles and a BSN-to-DNP for others. A relatively small number of schools (n=25, or 6 percent) offer only BSN-to-DNP degrees for all APRN programs that they offer and do not offer the MSN option for APRNs seeking to enter practice.

We then adjust the results in the first column of Table 3.1 based on data from the RAND/AACN Online Survey. Though the primary purpose of the online survey was to understand the facilitators and barriers toward offering the BSN-to-DNP, the beginning of the survey asked schools about all of the DNP programs they offered currently or planned to offer for each type of APRN. The survey was conducted roughly six months after the 2013 AACN Annual Survey was fielded, so it would have picked up changes in schools' offering status in the intervening period. The offering status of the survey respondents (345 of the 564 schools responded to the survey) is shown in the second column of Table 3.1. The survey data shows schools considerably farther toward offering the BSN-to-DNP as entry-level education for

APRNs than the AACN Annual survey. For example, 39 percent of respondent schools had a BSN-to-DNP for APRNs, compared to 25 percent of schools in the AACN Annual Survey. In fact, more schools in the RAND/AACN Online Survey report having a BSN-to-DNP program and no MSN than in the annual survey (36 compared to 25) despite the fact that only two-thirds of schools responded to the survey.[7]

These differences appeared larger than we would have expected based on schools' changing their program offerings in the six months between the two surveys. We sought to gain the most accurate depiction of schools' offering status as possible, though within our project constraints of not being able to contact each school to confirm their offering status. Thus, we investigated the websites of a selection of 40 schools with response discrepancies (and made phone calls to ten of them), under the assumption that programs reported on schools' websites represent an accurate depiction of current offerings (Udlis and Mancuso, 2012). We found that the online survey data was more consistent with schools' current offering status than the AACN Annual Survey data collected six months prior to the online survey, particularly with respect to the current status of schools' MSN programs.

To paint a more accurate picture of the proportion of schools that had fully transitioned to the BSN-to-DNP, we replaced the categorizations of schools from the first column of Table 3.1 (based on the AACN annual survey only) with the characterization from the online survey for the roughly two-thirds of the schools that responded to both. The final results are shown in the last column of Table 3.1. After the program offerings were adjusted, roughly 11 percent of schools in the AACN Annual Survey would be considered BSN-to-DNP only. Thus, our best estimate is that the proportion of schools that are BSN-to-DNP-only is between 11 percent and 14 percent (the range reflecting uncertainty about the schools that did not respond to the RAND/AACN Online Survey), higher than the 6 percent reported in the AACN Annual Survey. In addition, even the 6 percent as revealed in the 2013 AACN Annual Survey is higher than the comparable figure of 4 percent in the 2012 survey (and the single school noted in this category in Udlis and Mancuso, 2012). This suggests increasing movement toward the BSN-to-DNP and away from the MSN. The proportion of schools offering a BSN-to-DNP in the combined data is now 124/408, or 30 percent, versus 25 percent as suggested by the AACN survey alone.

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[7] In this case, the difference was largely driven by a large number of schools (16) that were classified as having an MSN program in the AACN Annual Survey but not in the online survey. This may have stemmed from different classifications between the online survey and the annual survey of schools that have transitioned to the BSN-to-DNP but still had cohorts of MSN students that were finishing their degrees. The approach that we used to measure the presence of an MSN program using the annual survey would count those schools as still having a MSN program whereas the online survey would not. Second, we also found a number of schools (25) that reported having a BSN-to-DNP in the online survey but not in the annual survey.

We now explore schools' current program offerings further in two respects, 1) those offering both MSN and BSN-to-DNP programs simultaneously, and 2) MSN-to-DNP programs and their relationship with schools' entry-level APRN programs. In both cases, we return to the AACN Annual Survey data because of the availability of data on all schools.

Schools Offering Both MSN and BSN-to-DNP Programs Simultaneously

Roughly 20 percent of schools offer both an MSN and a BSN-to-DNP program at the same time. Our categorization allows for the possibility of schools' offering one level of education for one APRN program and offering another level for a different program—thus, we examined program offerings within each of the APRN specialties to further clarify schools' offering status (see Table 3.2). Among all subsets, the results are similar. With respect to NPs, the largest and fastest-growing group of APRNs, 76 percent of schools offer only master's programs for entry-to-practice education, 17 percent offer both an MSN and a BSN-to-DNP, and 7 percent offer BSN-to-DNP only. Thus, for the most part, schools in Table 3.1 that offer both MSN and BSN-to-DNP programs do so for the same APRN roles.

Table 3.2. Percentages of Offering Status by Degree Program

Degree Program Offered	CNM (n=40)	CNS (n=124)	NP (n=385)	CRNA (n=69)
MSN only	82.5	86.3	76.1	81.2
Combination of MSN and BSN-to-DNP	10.0	17.3	16.6	10.1
BSN-to-DNP only	7.5	6.5	7.3	8.7

SOURCE: AACN Annual Survey (2013).
NOTE: Table includes all schools with any APRN education as identified in survey.

When schools offer both the MSN and BSN-to-DNP option within a degree program, the MSN and BSN-to-DNP programs vary significantly in terms of size (see Table 3.3). For NP programs that have both an MSN and BSN-to-DNP option, the MSN option is larger than the BSN-to-DNP track by a factor of nearly three. These programs have, on average, 136 full- or part-time students in the MSN track, compared to 47 in the BSN-to-DNP track. Even these figures understate the size difference because the longer length of time to complete the BSN-to-DNP program means that more students would be enrolled at any given time.

Table 3.3. Average Number of Students per Program for Combination Programs

Program	MSN	BSN-to-DNP
NM (n=4)	17.2	9
CNS (n=9)	7.8	7.9
NP (n=64)	135.5	47.0
CRNA (n=7)	48.4	53.4

SOURCE: AACN Annual Survey, 2013).
NOTE: Table includes all schools with any APRN education as identified in survey.

The smaller number of students in the BSN-to-DNP track also surely reflects the fact that many of these programs have just begun and are likely still ramping up to full capacity. As suggested later in this report, some of them may also be educating a student body that is differentiated from those seeking the MSN. In any case, at this point in time, the findings in Tables 3.2 and 3.3 support the observation from Table 3.1 that *the MSN is still the dominant form of entry-level APRN education*.

Offering of MSN-to-DNP Programs

We also analyzed offering of the MSN-to-DNP (Table 3.4). We found that 57 percent of schools with an APRN program offered an MSN-to-DNP program. Among the 98 of the 400 schools that offer a BSN-to-DNP (alone, or alongside an MSN option) for APRNs, nearly all (93 percent) offer an MSN-to-DNP as well. And roughly half (46 percent) of schools that offer *only* an MSN program for nurses seeking APRN entry-to-practice education *also* offer an MSN-to-DNP program. The 229 MSN-to-DNP programs collectively enrolled roughly 8,000 students in 2013 compared to nearly 6,000 students in the 98 BSN-to-DNP programs. Given that the BSN-to-DNP programs take nearly double the length of time to complete compared to the MSN-to-DNP (Udlis and Mancuso, 2012), the total outflow from MSN-to-DNP programs in any given year is currently more than twice that of the BSN-to-DNP programs. However, these enrollment figures for MSN-to-DNP students cannot distinguish which are APRNs and which are obtaining a DNP to practice in other fields such as leadership and administrative roles.

Table 3.4. Percentage of Schools That Offer MSN-to-DNP Completion Programs

Entry-Level APRN Education	All Schools	Offer MSN-to-DNP (#)	Offer MSN-to-DNP (%)
MSN only	302	138	45.6%
Combination of MSN and BSN-to-DNP	73	67	91.7%
BSN-to-DNP only	25	24	96.0%
All	400	229	45.9%

SOURCE: AACN Annual Survey (2013).
NOTE: Table includes all schools with any APRN education as identified in survey.

It is possible that starting with the MSN-to-DNP makes it easier for schools to subsequently offer the BSN-to-DNP. Schools with BSN-to-DNP programs are much more likely to offer an MSN-to-DNP than schools without, though there could be common factors leading to schools' offering both, rather than a chain of causality in that direction. In Appendix A, we explore some of the possible reasons for the high rate of adoption of the MSN-to-DNP.

Expected Future Changes in DNP Offering Status

Finally, we turn to what we can learn from both surveys as to the expected growth of the DNP based on questions about schools' future plans. We discuss results from each survey in turn—the AACN Annual Survey asked all schools about planned DNP programs without a specific time horizon while the online survey asked about programs expected to be in place by 2016. We draw upon both surveys because their strengths are complementary—the AACN Annual Survey draws upon virtually all schools but the questions about future programs are more limited.

Data from the AACN Annual Survey

Figure 3.1 showed steady growth in the number of schools with a DNP program of any sort over the past ten years. Data from the AACN Annual Survey suggests that such growth is likely to continue. According to the survey, 105 schools are planning to start a DNP program of some sort. Of those schools planning a DNP program, 37 already have a one—thus, 68 schools are planning to start a DNP program for the first time. If these plans translate to actual degree offerings, more than 300 schools (roughly three-quarters of programs with some graduate-level APRN education) will thus have a DNP program in the near future.

We also find significant expected future growth in offering of the BSN-to-DNP program. Of those 105 schools that are planning a DNP, 77 schools currently without a BSN-to-DNP report

that they plan to offer one in the future.[8] If all schools that report planning such a program ultimately do so, this implies substantial growth in the number of schools offering a BSN-to-DNP program. However, the annual survey data does not allow us to discern if these programs will replace existing MSN programs or merely be offered alongside them, or whether they are BSN-to-DNP programs for CRNAs, other APRNs or non-APRNs. Therefore, it is hard to make definitive conclusions about the future adoption of the BSN-to-DNP as the sole entry-level pathway for APRN education.

Data from RAND/AACN Online Survey

The RAND/AACN Online Survey allows us to better estimate the extent to which schools are moving toward adoption of the BSN-to-DNP for APRNs (with the caveat that we only have data for the two-thirds of schools that responded to the survey; previous analysis suggested that schools responding to the survey appear to be somewhat more enthusiastic toward the BSN-to-DNP than nonrespondent schools). The survey asked respondents about future plans to offer BSN-to-DNP programs by 2016, specifically by APRN role, and about plans to discontinue MSN programs. Results regarding expected future offerings are shown in Table 3.5.

Table 3.5. Future Planned APRN Programs (by 2016)

School Type (Current Offer Status)	Number of Schools Responding to Survey	Number of Schools Planning BSN-to-DNP Programs for the Following APRN Groups (By 2016)				
		NP	CNM	CNS	CRNA	At Least One[a]
MSN APRN only	159	57	9	15	18	63
MSN and BSN-to-DNP	64	26	8	7	12	33
BSN-to-DNP only	36	14	1	3	3	15
No MSN or BSN-to-DNP	86	8	1	2	1	8
All schools	345	105	19	27	34	118

SOURCE: RAND/AACN Online Survey.
NOTE: Table includes all schools that responded to the online survey, regardless of program offerings.
[a] This column represents the number of schools planning a BSN-to-DNP program for at least one APRN group. The figure is not the simple summation of the four previous columns because many schools plan on offering BSN-to-DNP programs for multiple APRN, but are only counted once in this column.

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[8] There is some ambiguity in the 77 figure. The way the question is asked, schools are not permitted to respond that they both 1) have a BSN-to-DNP program and 2) are planning a BSN-to-DNP program (for example, for a different APRN role), though this is certainly true for a number of schools. Schools for which both are true are forced to choose one or the other, which likely results in some misclassification in both the number of offered (98) and the number of planned (77) BSN-to-DNP programs.

In the RAND/AACN Online Survey, we find that 118 schools are planning on offering a BSN-to-DNP of some sort by 2016. New BSN-to-DNP programs for APRNs are planned among schools that already offer a BSN-to-DNP (33/64, or 52 percent); among schools that only offer MSN APRN education at this point (63/159 or 40 percent); and even among schools that have no APRN education currently (8/86, or 9 percent). We note that these numbers of planned BSN-to-DNP programs are comparable to those reported in the AACN annual survey, despite the shorter time horizon in which the planning questions were asked in the RAND/AACN Online Survey (2016 versus open-ended) and the fact that only two-thirds of schools are represented in the online survey. We are unclear of the reasons for the difference, but note that questions about future-planned programs offer even more room for interpretation and ambiguity than questions about current programs. Overall, based on these data, the proportion of *respondent* schools that offer a BSN-to-DNP for APRNs would grow from 100 of 259 (39 percent) survey respondents to 171 of 267, or 64 percent.

The RAND/AACN Online Survey also asked schools about their plans to discontinue MSN programs. Of the schools that currently offer or are planning on offering a BSN-to-DNP and currently offer an MSN program, 27 percent are planning on discontinuing their MSN program for APRNs.

Summary

Schools continue to adopt the post-master's DNP and the BSN-to-DNP for APRNs. Overall, the number of schools with a DNP program has grown tenfold in the past seven years. According to the AACN Annual Survey of 400 schools offering some level of APRN education in 2013, 98 (25 percent) had active BSN-to-DNP programs and 229 (57 percent) had MSN-to-DNP programs. Data from the RAND/AACN online survey suggest that 30 percent of schools have BSN-to-DNP programs for APRNs rather than 25 percent, and that 11–14 percent of schools have fully transitioned to the BSN-to-DNP and do not offer the MSN, up from just a single school with that status in 2010. An additional 77 schools currently offering only MSN-level APRN education stated in the 2013 AACN Annual survey that that they are planning a BSN-to-DNP. In the RAND/AACN online survey, 63 such schools report planning to offer a BSN-to-DNP for APRNs by 2016. Another 33 schools that currently have BSN-to-DNP programs report planning BSN-to-DNP programs for additional APRN roles, and eight schools without any current APRN education also plan to offer BSN-to-DNP programs by 2016. Overall, in the next several years, the percentage of schools with APRN education that have a BSN-to-DNP program for at least one APRN group could approach 50 percent.

However, the MSN remains the predominant entry-level APRN program for schools of nursing. Seventy percent of schools that educate APRNs currently offer only the MSN. Furthermore, most schools (65 percent) that do adopt the BSN-to-DNP continue to retain their MSN programs—and for schools that simultaneously offer both options, the MSN programs currently enroll roughly three times as many students, on average. As noted above, schools'

plans suggest further expansion of the BSN-to-DNP in the near future. And a further 27 percent of schools with only MSN-level APRN education that responded to the RAND/AACN survey reported planning on closing their MSN programs. Nevertheless, even with these planned changes, the MSN would still remain the majority form of APRN education.

4. Determinants, Barriers, and Facilitators Toward Adoption of the DNP as the Entry-Level Educational Pathway for APRNs

In this chapter, we discuss the reasons underlying schools' APRN program offerings characterized in Chapter Three. Schools face a number of factors at once, some working toward and some working against adoption of the DNP, and specifically the BSN-to-DNP option. Generally, when the factors pushing toward adoption are stronger than those pushing against, the school would adopt the BSN-to-DNP. We observed and heard from schools in all possible situations - for example, some facing very difficult barriers but also strong facilitators that pushed them toward offering the BSN-to-DNP, some with few barriers that faced a very easy decision, and some with seemingly insurmountable barriers. First, we use the AACN Annual Survey data to identify schools' structural characteristics associated with adoption of the BSN-to-DNP. Second, we use the online survey data to describe the barriers and facilitators identified by nursing school representatives as key toward deciding to adopt the BSN-to-DNP. Finally, we draw upon the interviews to elucidate further those categories of barriers and facilitators through schools' personal experiences.

Structural Characteristics

To identify program structural characteristics associated with adoption of the BSN-to-DNP, we calculate correlations between such characteristics and programs' entry-to-practice APRN offerings. These are objective characteristics, such as size and location, that are generally not amenable to change. Each of the individual variables is shown in Table 4.1 and the specifications for each variable are described in the methods section (Chapter Two). These analyses use the updated categorization of schools' offering status as shown in the final column of Table 3.1 in Chapter Three.

Table 4.1. Bivariate Correlations Between Entry-Level APRN Offering Status and Structural Characteristics

Structural Characteristics	Do Not Offer Any APRN BSN-to-DNP (n=284)	Offer Any APRN BSN-to-DNP (n=124)	pvalue
Average number of graduates	243.1	312.4	0.324
Public (%)	52.5%	59.1%	0.247
Private, religious (%)	28.5%	25.7%	0.583
Private, non-religious (%)	18.7%	15.2%	0.433
Autonomous or freestanding program (%)	45.1%	71.4%	<0.001
Have research doctorate (%)	23.9%	47.6%	<0.001
% of graduate students accepted	81.7%	80.0%	0.535
% of undergraduates accepted	77.3%	71.3%	0.025
Carnegie class- codes:			
Bachelors	3.9%	4.8%	0.002
Masters	54.9%	33.3%	
Doctoral	29.2%	48.6%	
Medical	4.9%	7.6%	
Other	7.0%	5.7%	
Large metro (%)	52.0%	46.7%	0.353
Largest grad program in state has BSN-to-DNP	9.7%	16.2%	0.083
Region:			
Northeast	24.9%	15.2%	0.187
Midwest	26.4%	32.4%	
South	35.0%	35.2%	
West	13.7%	17.1%	
Population Density (per square mile)	379.7	307.1	0.541
MD Per Capita (per 100,000)	278.7	272.2	0.502
PA Per Capita (per 100,000)	24.3	24.9	0.663
NP Per Capita (per 100,000)	45.8	49.6	0.037
APRN Independent Practice Scale (range: 0-1)	0.139	0.217	0.021
Tiers in public higher education system:			
Zero	14.4%	20.0%	0.328
One	39.0%	40.0%	
Two or more	46.6%	40.0%	

SOURCE: AACN Annual Survey (2013), RAND/AACN Online Survey, and other sources.

We find that a number of structural characteristics are correlated with schools' decisions to offer the BSN-to-DNP. First, schools that offer such a program are significantly more likely to be autonomous or freestanding (as opposed to a department or division within a college or

university, or part of a health professions school) and have a doctoral research program. We also find that schools with a BSN-to-DNP are more likely to admit a smaller proportion of the undergraduates that apply, compared to schools that do not offer a BSN-to-DNP. Schools that have a BSN-to-DNP are also located in states that have more NPs per capita and less restrictive Scope of Practice laws for NPs. Schools with Carnegie Classification as a master's level school are less likely to offer a BSN-to-DNP than doctoral-classified schools. The combination of the school types and the Carnegie codes reveals strikingly large differences in rates of offering the DNP as displayed in Table 4.2.

Table 4.2. Rates of Offering BSN-to-DNP for APRNs for Different School Types

Carnegie School Classification	Freestanding or Autonomous Program	Department or Division Within School or Part of Health Professional School
Bachelor's or master's	19/65 (30%)	21/142 (14.8%)
Doctoral	42/94 (44.7%)	9/40 (23%)
Medical or other	14/44 (31.8%)	0/4 (0%)

SOURCE: AACN Annual Survey (2013) and RAND/AACN Online Survey

Bachelor's or master's level nursing programs that are departments or divisions within the larger college or university appear to face greater barriers (some of which may be administrative in nature, as will be discussed later) to offering a BSN-to-DNP.

When the full set of variables in Table 4.2 are entered in a multivariate regression model, however, relatively few remain statistically significant. Many of the structural variables tested are highly correlated and some were associated with offering a BSN-to-DNP merely because they were related to other variables in the data set. Coefficients in Table 4.3 represent the percentage point increase in the proportion of schools of offering a BSN-to-DNP for schools that have the given characteristic (or, for continuous variables, for schools with one additional unit of the variable).

Table 4.3. Multivariate Regression of Presence of BSN-to-DNP Program on Key Structural Characteristics

Characteristic	Coefficient	pvalue
Average number of graduates	3.91E-05	0.268
Public	-0.054	0.469
Religious	0.034	0.633
Autonomous or freestanding program	0.156	0.003
Have research doctorate	0.110	0.100
% of graduate students accepted	0.064	0.570
% of undergraduates accepted	-0.160	0.166
Carnegie class- codes:		
Masters	-0.054	0.654
Doctoral	0.031	0.821
Medical	0.079	0.639
Other	-0.174	0.265
Large metro	-0.053	0.303
Largest grad program in state has DNP	0.083	0.272
Region:		
Midwest	0.179	0.046
South	0.062	0.511
West	0.203	0.066
Population density (per square mile)	-1.86E-05	0.659
MD per capita (per 100,000)	4.34-04	0.536
PA per capita (per 100,000)	0.002	0.487
NP per capita (per 100,000)	0.006	0.001
APRN Independent Practice Scale (range: 0-1)	0.015	0.899
Tiers in public higher education system:		
One	-0.016	0.832
Two or more	0.013	0.868
Intercept	-0.065	0.821

Similar to the descriptive statistics, schools that are autonomous or freestanding are significantly more likely to have a BSN-to-DNP program—by 16 percentage points. These schools are distinct from schools that are described as a department or division within the college or university or a college, department, division, or program merged with other health professions. This suggests that schools that are outside of the specific structure of a university department may have more freedom to develop and introduce new degree programs. Schools in the Midwest and the West are also more likely to offer the BSN-to-DNP. Finally, we find that schools in states with more NPs per capita are more like to offer a BSN-to-DNP. The higher

number of NPs (along with a more rural status) may reflect a practice style or health care delivery systems that rely more on NPs for care—which may thus place greater value or weight on the full capabilities of a DNP-educated NP.

Overall the results from Table 4.3 suggest a number of structural factors that can significantly impede or foster offering the BSN-to-DNP for APRNs. For example, a Midwestern autonomous or freestanding nursing school is several times more likely to offer a BSN-to-DNP than a Northeastern school that is part of a larger university system. These schools are starting from very different places in terms of their facilitators and barriers toward adopting the entry-level DNP.

Contextual Characteristics

The structural factors described above represent a core set of facilitators and barriers toward the BSN-to-DNP that schools face. In a sense, they begin consideration of the BSN-to-DNP from different starting points—those with a host of factors working against them may have to expend significantly greater effort or need exceedingly strong facilitators or push factors toward offering the BSN-to-DNP. There are also additional 'contextual' factors. Many of these are specific to each school—the characteristics of its faculty, the perception among program leaders of the value of the education, the school's competitive environment, or local demand among students and employers. It is these factors, which are more difficult to capture quantitatively, that we explored in detail in the online survey and the interviews. An understanding of these factors helps to explain variation in offering status within schools of a given type, which is considerable (as evident, for example, from Table 4.2).

To understand the influence of these factors in greater detail, we explore the results from the RAND/AACN Online Survey (see Appendix B for survey instrument). First, we asked schools that are either offering or planning a BSN-to-DNP for APRNs about the most important factors in their doing so. The results are reported in Table 4.4.

Table 4.4. Reasons for Offering a DNP—Respondents Who Are Offering or Planning an APRN BSN-to-DNP, Excluding CRNA (n = 154)

Reasons Cited	Less Important[a] (% of Respondents)	Important (% of Respondents)	More Important[b] (% of Respondents)	n
Value of education in preparing for future health care needs	0	7	93	153
Breadth of DNP content relative to master's provides better preparation	3	10	87	151
Desire to enter into or expand doctoral program offerings	8	12	79	153
AACN's endorsement of DNP	5	17	78	152
Support from college/university president	14	23	63	152
Belief that DNP is validated to warrant offering	15	25	60	149
Enthusiasm among our faculty to offer DNP	11	36	54	152
Impact of influential articles by nursing thought leaders in favor of DNP	17	31	51	150
Requests from applicants for info about DNP	21	36	43	151
Support of DNP by influential nursing schools in area	31	30	40	144
Concern about losing students	32	32	36	149
Interest in increasing tuition-based revenue	46	31	23	149
Feedback from employers that would prefer DNP	49	32	20	136

SOURCE: RAND/AACN Online Survey
[a] Includes response categories "not important" and "somewhat important"
[b] Includes response categories "very important" and "critical/decisive"

Respondents almost universally cited the added value of the DNP education (over and above the MSN) as either "critical/decisive" or "very important" in their decision (combined into the column in Table 4.5 denoted "more important") to offer or plan a BSN-to-DNP program. We explored these factors in more detail in the interviews, which will be discussed later in the chapter. A great majority of schools also cited the AACN's endorsement of the DNP and support among school faculty and administration as key to their offering the BSN-to-DNP. A desire to enter into or expand doctoral program offerings was also an interesting finding—suggesting that for many schools (also echoed in a number of interviews), offering the DNP was potentially helpful toward achieving other goals within the school, such as entering into doctoral education.

We then explored the converse—reasons for not offering a DNP, among the 98 survey respondent schools that do not offer or plan a BSN-to-DNP for NPs, CNSs or CNMs but that do have APRN education.

Table 4.5. Reasons for Not Offering a DNP—Respondents Who Are Neither Offering Nor Planning a BSN-to-DNP, CRNA Status Not Considered (n=98)

Reasons Cited	Less Important[a] (% of Respondents)	Important (% of Respondents)	More Important[b] (% of Respondents)	n
Regulations or requirements associated with the establishment of new education programs	21	23	56	84
Already have a strong and successful master's program	20	27	53	83
Costs/budgetary limitations for the development of the program	24	27	49	85
Lack of faculty in the area that could teach at doctoral level	30	23	48	84
We are not a doctoral-granting institution	41	14	45	51
Lack of adoption of DNP as required entry-level degree for advanced practice	33	23	44	82
Cost to students of additional education	36	27	37	83
Challenges of having a new program accredited	32	33	35	82
Faculty concerns about the DNP	39	28	34	80
Lack of statutory and/or regulatory pathway for legal recognition of DNP graduate	37	29	33	75
Administration concerns about DNP	35	34	31	77
Concern in reducing the number of APRN graduates upon lengthening the program	48	21	31	77
Lack of support from campus leadership for a new program	49	23	28	61
Employer feedback that program graduates would not be valued	39	33	27	66
Lack of demand from students	44	29	27	79
Resistance to creating the DNP due to potential impact on school's Carnegie Classification	63	14	23	65
Faculty concerns about having DNP program compete with PhD program	65	15	21	62
Inconsistency with the university's strategic plan	58	22	20	59
The impact of influential articles by nursing thought leaders skeptical of the DNP	51	29	19	78

SOURCE: RAND/AACN Online Survey
[a] Includes response categories "not important" and "somewhat important"
[b] Includes response categories "very important" and "critical/decisive"

The most common reasons cited among these schools for not offering a BSN-to-DNP were largely related to institutional and resource barriers. Regulations or requirements associated with

the establishment of new programs, cost and budgetary limitations, lack of faculty, and not being doctoral-granting institutions were noted as critical or very important reasons for not offering a BSN-to-DNP among a majority or a near-majority of schools who responded. As for the latter, we note that only 51 of the 98 schools responded to the question—presumably because it was not applicable to those who did not. But for the 23 schools responding that this is a very important or critical barrier, the hurdles associated (in some cases) with changing a school's status to offer a doctoral program can be very high, and can represent a different sort of barrier than many of the others. Also scoring similarly high were features related to the nonrequirement of the DNP: already having a successful master's program and lack of adoption of the DNP as required for advanced practice. Problems such as a potential lack of demand for the DNP on the part of employers or students were important but not as much as some of the above factors.

We further explored whether freestanding and non-freestanding schools not pursuing a BSN-to-DNP cited different barriers from among the above list. Three reasons stood out as significantly different between the two groups of schools. Freestanding or autonomous schools were more likely (31 percent versus 10 percent) to cite "faculty concerns about having DNP program compete with PhD program" as representing a critical or very important barrier to offering a BSN-to-DNP, while they were *less* likely to cite "lack of faculty in the area that could teach at doctoral level" (34 percent versus 60 percent) or "costs/budgetary limitations for the development of the program" (39 percent versus 59 percent) as key barriers.

We next explore one level further—once a school had decided to offer or plan a BSN-to-DNP program (154 schools in this group responded to the survey), we asked about factors that could be *either* barriers or facilitators toward that development. The results are shown in Table 4.6.

Table 4.6. Factors Affecting the Development of the DNP—Respondents Who Are Offering or Planning a BSN-to-DNP, Excluding CRNA (n=154)

Factors	Significant Barrier (%)	Somewhat of a Barrier (%)	Neither Barrier Nor Facilitator (%)	Somewhat of a Facilitator (%)	Significant Facilitator (%)	n
Support from the nursing school administration	1	2	8	25	64	154
Support from university/college leadership	1	2	21	32	44	154
Faculty support for the DNP	2	23	12	28	36	154
Prospective student demand	1	20	22	38	19	152
Access to materials for curriculum development	1	5	39	42	14	153
Number of faculty at institution	7	33	23	23	14	153
State approval for doctoral program	6	14	52	14	14	152
Competition with area schools	3	9	44	34	11	152
Qualified faculty expertise to teach in the DNP program	11	42	16	20	11	151
Financial resources	7	45	31	9	9	152
Mentorship from a university or college that successfully offers the DNP	3	9	72	9	7	152
Market demand for DNP graduates	5	27	42	20	6	154
Availability of clinical placement	10	37	39	8	6	154
Collaboration and cooperation with health care disciplines outside nursing	3	5	63	25	4	153
Scholarships for DNP students	14	31	36	16	3	153

SOURCE: RAND/AACN Online Survey

Few factors were noted as significant barriers, but factors that were cited as either significant or more minor barriers by roughly half of schools included the availability of clinical placement (for DNP students), scholarships for DNP students, financial resources, and qualified faculty who could teach in the DNP program. Support from the nursing school administration was the strongest facilitator cited—rated as significant by almost two-thirds of practices. Support from university or college leadership and faculty were the next two most highly ranked facilitators. Other, more-moderate facilitators cited were student demand, having access to materials for curriculum development, and competition with area schools.

We next asked schools that were offering or planning an MSN-to-DNP but not a BSN-to-DNP why they were not pursuing the BSN-to-DNP (see Table 4.7).

Table 4.7. Reasons for NOT Pursuing BSN-to-DNP— Respondents Offering or Planning an MSN-to-DNP, but no BSN-to-DNP (n=54)

Reason Cited	Less Important[a] (% of Respondents)	Important (% of Respondents)	More Important[b] (% of Respondents)	n
Inability to achieve the 1,000 practice hours due to lack of preceptor/site resources	33	19	48	54
Concern about maintaining student application/ admission numbers	24	29	47	55
Fundamental belief that MSN-to-DNP is the better educational option	35	18	47	51
Uncertainty about market demand for BSN-to-DNP (i.e., employer demand)	23	36	42	53
Lack of resources and faculty expertise to guide students in BSN-to-DNP	37	21	42	52
Lack of student demand	27	33	39	51
Too significant a change in curriculum and education to take on	28	34	38	53
Opposition from policymakers beyond nursing school (at university or state level)	35	28	37	43

Source: RAND/AACN Online Survey
[a] Includes response categories "not important" and "somewhat important"
[b] Includes response categories "very important" and "critical/decisive"

The 64 schools in this category did not provide a large degree of differentiation among the options provided in the question as to why they were not pursuing the BSN-to-DNP—most reasons were cited as important by most schools, including factors associated with program implementation, costs and resources, and perceptions about student and employer demand for the DNP in particular.

Next we asked schools specifically about reasons for retaining the MSN. We report the reasons given for the 78 respondent schools that offer or plan a BSN-to-DNP, that have an APRN MSN and did not report that they were planning on closing the MSN (see Table 4.8).

Table 4.8. Reasons for Retaining Master's—Respondents Who Are Either Offering or Planning a BSN-to-DNP, Have an APRN Master's, and Are Planning to Retain the Master's (n=78)

Reasons Cited	Less Important[a] (% of Respondents)	Important (% of Respondents)	More Important[b] (% of Respondents)	n
Cannot afford to lose students who only want master's	10	12	78	77
Allows students to qualify for APRN certification prior to completion of DNP degree	20	14	66	71
Faculty desire to maintain master's program	14	22	65	74
Uncertainty about market demand for DNP	15	21	64	75
Worried about competition from other schools for master's students	25	19	56	77
University desire to maintain the master's program	36	23	41	66
Opposition or lack of interest from stakeholders (i.e., area health systems or organizations)	35	27	38	66
Ability to revert to master's degree should the university choose to discontinue the DNP	50	20	30	64
Opposition from policymakers beyond nursing school (at university or state level)	58	17	25	59

SOURCE: RAND/AACN Online Survey
[a] Includes response categories "not important" and "somewhat important"
[b] Includes response categories "very important" and "critical/decisive"

The most common reason cited for retaining the MSN (78 percent of schools cited as a very important or a critical reason) was that schools could not afford to lose students who only wanted the MSN. Other top reasons also reflected perceived ongoing interest among students for MSN-level education.

We next focused on more of the nuts and bolts of running and sustaining BSN-to-DNP programs and tools the AACN might provide to help. In Table 4.9, we report on challenges to implementing or sustaining programs among 94 school respondents with active BSN-to-DNP programs.

Table 4.9. Challenges to Implementing and Sustaining a Program— Respondents That Offer Any BSN-to-DNP Program, CRNA status not considered (n=94)

Challenges	Somewhat of a challenge (%)	Significant challenge[a] (%)	n
Maintaining clinical sites or capstone programs	47	37	91
Competition with area schools that continue to offer the master's	41	23	91
Program cost growth	53	20	91
Maintaining new student enrollment	45	17	89
Faculty burnout	51	13	91
Lack of student demand	30	13	91
Student attrition	51	12	91
Maintaining faculty support	34	11	90
Faculty turnover	33	10	91
Maintaining administration support	14	4	91
Limited support from university/college leadership	14	3	91

SOURCE: RAND/AACN Online Survey
[a] Excluded category was "not a challenge"

Most of the schools (76 of 91) cited challenges maintaining clinical sites or capstone programs. Other difficulties noted by more than half of schools were competition with area schools offering the MSN, cost growth, maintaining new student enrollment, student attrition, and faculty burnout. Support from the university, administration, or faculty (though less so) were more minor concerns. Despite these difficulties, we note that no schools reported having discontinued a BSN-to-DNP program after starting one in either survey and we have only heard of one such instance.

Finally, we recorded the responses of schools about what types of assistance that the AACN could provide would be helpful in running or maintaining BSN-to-DNP programs. Responses are separated in Table 4.10 for schools that offer or plan BSN-to-DNP programs and those who do not.

Table 4.10. How Helpful Might Be Certain Types of Assistance (Both for Schools That Offer or Plan a BSN-to-DNP or Do Not; Excluding CRNA)

Assistance	Plan or Offer BSN-to-DNP (n=154)			Neither Offer Nor Plan BSN-to-DNP (n=98)		
	Very (%)	Somewhat/ Minimal (%)	n	Very (%)	Somewhat/ Minimal (%)	n
Curriculum patterns or plans	65%	25%	102	49%	49%	53
Course syllabi	53%	36%	101	47%	51%	53
Opportunity to discuss issues with colleagues at other schools	71%	30%	104	61%	39%	54
A better understanding of how clinical hours are managed	71%	26%	102	57%	43%	51
Revisit the number of clinical hours required for the DNP	49%	42%	103	48%	42%	52
Information on strategies for securing clinical placements	63%	34%	104	51%	45%	53
Data demonstrating the benefits of DNP to population and students	79%	22%	106	69%	31%	52
DNP scholarly project guidelines	79%	18%	105	72%	26%	53
Access to faculty expertise	60%	35%	103	58%	40%	52

SOURCE: RAND/AACN Online Survey

When schools were asked what sorts of materials or activities would be helpful, almost all schools (including those that do or do not currently offer BSN-to-DNP programs) noted all of the items we listed as being very helpful. Different responses between offering/planning and nonoffering schools may merely reflect realizations that come with program implementation. Most helpful items among these were the following: "opportunity to discuss issues with colleagues at other schools," "a better understanding of how clinical hours are managed," "DNP scholarly project guidelines," and "data documenting the benefit of the DNP to population and students."

Key Barriers and Facilitators in Adoption of the DNP as Entry-Level Education for APRNs

We now turn to a further in-depth analysis of the key barriers and facilitators toward offering the DNP for APRNs, and as the entry-level form of education in particular. Many of these barriers were identified and ranked in terms of importance by schools in the online survey results above. This section primarily draws on the interviews to provide additional context around those findings. Most of the factors we focus on below are the contextual characteristics noted above that can be unique to each school, and can sometimes act as either a barrier or a facilitator (such as faculty support)—but they also interact with the structural factors (such as school size and

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type) to exacerbate or mitigate barriers. We categorize the groups of barriers and facilitators discussed below in the following way:

- perceived value of DNP education and stance toward adoption
- conditions that might help AACN achieve its goal (such as local demand and requirement for certification)
- barriers to developing the DNP program (such as faculty and resource constraints and institutional issues).

Perceived Value of the DNP Education and Stance Toward Adoption

The 2004 DNP position statement of the AACN called for "a transformational change in the education required for professional nurses who will practice at the most advanced level of nursing. The recommendation that nurses practicing at the highest level should receive doctoral-level preparation emerged from multiple factors including the expansion of scientific knowledge required for safe nursing practice and growing concerns regarding the quality of patient care delivery and outcomes. Practice demands associated with an increasingly complex health care system created a mandate for reassessing the education for clinical practice for all health professionals, including nurses." In the DNP Essentials, the AACN laid out the principal justification and core of the additional content that makes up the DNP beyond the core master's level courses (American Association of Colleges of Nursing, 2006). The Essentials includes coursework and clinically based projects in the areas of systems thinking and delivery system efficiency and optimization, data analysis and evidence-based practice toward quality and outcomes improvement, use of technology and health IT, health policy and advocacy, inter-professional collaboration, and population health.

The nursing school representatives we spoke with nearly universally agreed with the added value of the DNP content as stated in the Essentials. Eighty-five percent of online survey respondents noted that they considered the value of the DNP education in preparing APRNs for the future needs of the health care system as an important reason for offering the DNP. Among schools that currently offer or plan a BSN-to-DNP, the percentage that considered the value of DNP education to be an important factor was 93 percent. Yet among the schools we interviewed, there was important diversity of opinion regarding the extent to which the value of the DNP content drove schools' choices of program offerings. The schools we spoke to could be broadly grouped into the following types, based very loosely on the Rogers' Innovation Diffusion process (Rogers, 2003):

- **Early Adopters:** Enthusiastic about added value of DNP curriculum and concept as exactly what is needed for effective care delivery. School is seeking to be leader and pioneer in realizing the concept. School is likely to adopt the BSN-to-DNP as the only entry-to-practice degree option.

- **Cautious Adopters:** Accepting that DNP is the likely future of APRN education and adds value—school is moving along at a measured pace to realize this vision and typically offers (or plans) BSN-to-DNP and MSN.
- **Traditionalists:** Appreciative of the value of the education, but skeptical that it should be required education for APRNs and seeking greater evidence. School typically offers MSN and sometimes MSN-to-DNP or BSN-to-DNP, depending on student demand or other factors.

On the early-adopter end of the scale, a number of schools were completely behind the added value of the DNP content and extremely enthusiastic about offering it and graduating students with these skills and competencies. Many cited the Affordable Care Act, the IOM, the AACN, and the direction health care as supporting the need for the DNP. One school representative (from a school that had already required additional courses beyond the master's for family nurse practitioners, or FNPs) noted:

> They were darn good when they came out of the post-master's FNP program. I'm not saying that they weren't. But now they have more depth and I honestly believe they're better at leading evidence-based practice projects than the graduates were before. So they're performing at a doctoral level instead of a master's level."

Another summarized their decisionmaking process as follows:

> Well, at the time, part of the decision to go ahead as quickly as we did was because we wanted to be out front, not running after the wagon. So, we wanted to be leading the pack, not saying, "Okay, we'll sit back and watch and see what happens and see what other places do and then if that's just catching on, then we'll go with it." Well, that's ridiculous. So why not be first? So we decided this was a wonderful thing for us to go forward with.

Many of the representatives who were similarly enthusiastic about the DNP did not yet have graduates out in the workplace whom they could observe or offer such experiences about. But some expressed the sentiment that health care was changing in ways that required more organizational complexity, more responsibility, and greater roles and challenges. Particularly, many respondents felt that the DNP was the right step toward meeting these related changes that will be introduced through the Affordable Care Act. These feelings often went hand-in-hand with a sense of pride and leadership in being in a prominent program or the first program in their area to offer the program. Schools such as these were often the same schools that were phasing out (or had already phased out) their master's level APRN education.

A second set of schools, roughly similar in number, felt the DNP had added value, but were not as emphatic in their opinions. Schools in this group often placed a great deal of weight on the AACN's stance and felt that the DNP was the inevitable future in entry-level APRN education, but were following rather than leading the charge. In that sense, many of these schools retained their APRN master's programs and allowed both tracks simultaneously—those students more enthusiastic about the DNP could embark on the BSN-to-DNP while those wanting to practice as

quickly as possible were also accommodated. The schools would be positioned to shift to an exclusive BSN-to-DNP track if that ultimately became a requirement.

Finally, a third set of schools, several of them prominent research universities, was more skeptical about the added value of the DNP. As one representative said:

> I think that there were some people that felt that it wasn't necessary, that we were kind of doing degree creep to some extent. Nurse practitioners have been very successful, and they're very well educated and there hasn't been a problem. So why are we (the field) changing a program that's been very popular, it's been very successful? Now we (the field) are going to increase the length of time and the cost for creating nurse practitioners?

Such schools typically saw some value in the additional courses involved in the DNP program, but did not see them as necessary for effective practice, or believe they should be required. These schools rarely offered the BSN-to-DNP option and typically planned to retain their master's programs as long as the program could still be accredited. The lack of evidence-based research justifying the DNP was mentioned as a factor that made development and transition to the DNP difficult. Many of these programs have adopted the MSN-to-DNP option.

Conditions That Might Help AACN Achieve Its Goal

Although schools generally saw the value of the DNP, some also noted that several conditions still need to be in place to push schools that have not fully adopted the BSN-to-DNP toward doing so. Three particular conditions that came up often were market demand, student demand, and accreditation and certification. One respondent summarized this aptly saying:

> We will not see complete adoption of the BSN-to-DNP as the entry-level degree until three conditions are in place. If the state says you need to implement it, and employers are saying they need DNP graduates, along with the student demand for it, then it will happen.

Below we summarize our findings in terms of accreditation/certification, student demand, and market demand.

Accreditation and Certification

A key factor that would push schools closer to adopting the BSN-to-DNP is related to accreditation and certification. Accreditation refers to the process through which colleges and universities meet the essential requirements as defined by a given educational governing board, whereas certification is a designation earned by an individual affirming their qualifications to perform a certain job. Particularly, many schools suggested that they would continue to offer both the DNP and the MSN as long as the certifying and/or accrediting bodies do not require the DNP for APRNs. For example, one typical representative noted:

> I think a lot of us would like to keep the master's program. We don't know that [our state] is going to move towards expecting the DNP since they haven't even gotten to the point of expecting a national certification. I think as long as [our

state] will let NPs work with a master's and the jobs are there, the master's
program will be viable. If we get legislation that says that people have to have
national certification and they have to be doctoral-prepared to practice, I think
the master's program will disappear.

As an example, movements by the certification body related to the CRNA have influenced
schools without a DNP to adopt the BSN-to-DNP for CRNA preparation. Of 35 schools
currently offering only MSN-level CRNA education based on their responses to the online
survey, 17 (49 percent) are planning a BSN-to-DNP for CRNAs. This is double the percentage of
schools offering only MSN-level education for NPs that are planning a BSN-to-DNP for that
group (21 of 83 survey respondents, or 25 percent). Also, 97 percent of schools that have or are
planning a BSN-TO-DNP for CRNAs note that certification was a highly important factor for
adopting the BSN-to-DNP. One program representative noted that:

We faced the prospect of not being able to offer the CRNA program at all in the
future. So, we made the hard decision to develop a DNP for CRNAs only.

Despite the lack of a requirement, many schools noted that the AACN recommendation that
entry-level APRNs be prepared at the doctoral level by 2015 was a strong impetus to develop the
programs. For many schools, this was interpreted as a sign that accrediting bodies would move
toward making accreditation of APRN programs contingent on having a DNP. Several schools
noted this as their primary motivation, which concurs with the large number of schools citing this
as important in the online survey (78 percent, see Table 4.3). Others took it for granted that if
this was the position of the AACN, then this was where nursing education was going and they
essentially had to follow along whether they agreed with that position or not. One representative
stated that:

And we knew that, credibility-wise, if our professional organization is moving
towards a resolution to require the DNP for certification, whether the certifying
body's put any teeth into it or not, the resolution will still be there. So, we saw
that our program was not where it needed to be. I mean if that's the resolution,
then why would we continue to prepare those graduates not at that level?

Others mentioned the 2010 IOM report urging the preparation of more doctoral-prepared
nurses as also increasing their sense that the field would eventually move in this direction (IOM,
2010).

<u>Student Demand</u>

Prospective enrollment is an important factor to consider in the development of any
educational program. Ensuring that tuition revenue meets the fixed and variable costs incurred to
run a program is a key calculation made by many educational institutions. The nursing school
representatives experienced varying levels of student interest in the DNP. Demand was noted as
strong for MSN-to-DNP programs among extant APRNs. School representatives believed that
many APRNs view the MSN-to-DNP as a way to advance their education and learn about
process improvement, education, and health policy. One school representative noted that:

> We had about 21 people in our first MSN-to-DNP cohort because people had been waiting for us to get the DNP implemented and onboard.

However, nursing schools perceived that the student demand for the BSN-to-DNP as the entry-level degree option was more mixed. Schools perceived that many students specifically wanted to enroll in a BSN-to-DNP program, while other students preferred to take the shorter route to becoming an APRN. This is evident in growing enrollment in BSN-to-DNP programs, as well as sustained enrollment in MSN programs.

In the online survey, student demand was noted as an important facilitator toward offering the BSN-to-DNP among more than half of schools that were offering or planning a BSN-to-DNP but a barrier to a large minority of others (Tables 4.5 and 4.6). A group of schools in this category felt there was significant demand for the BSN-to-DNP option among students. One school noted that:

> One big push to move to this as quickly as we could was that, in our applicant pool last year, a lot of the applicants were very interested, they wanted to know when were we going to have the DNP.

Another stated:

> Enrollment has not been a problem in the post-baccalaureate program. We turn away more students than we can accept. So every year we have tried to have a post-baccalaureate cohort of about 30 students. And every year we usually get more than twice that in terms of people who apply.

On the other hand, residual student demand for the MSN was also noted as an important factor for schools that were not offering a BSN-to-DNP as well as for maintaining the MSN among schools that had chosen to pursue BSN-to-DNP Demand for the MSN typically remained strong. In the online survey, 78 percent of representatives whose schools were retaining the MSN cited student demand as a key reason that they did not discontinue their MSN program. One school that has not developed a DNP noted that:

> There are a lot of students who came here and say, "We came here because it's master's level." Now, with that being said, I always remind every class that whether they do [the DNP] now or do it later . . . they will be doing it.

Another noted:

> At the master's level, we have been at capacity and have had a great interest. I think as long as there are master's programs still available . . . we'll always see that kind of competition. Older student who [are] not fresh out of a BSN program are more likely to pursue the master's level and then maybe later go on for a DNP.

The latter quote echoed a theme heard from a number of schools—that they observed strong interest from some students in a master's level APRN program and in a DNP among others. Thus, facing demand for the MSN, many of them paired their BSN-to-DNP with a post-master's option (MSN-to-DNP) to accommodate MSN-prepared APRNs that wanted to complete the doctorate and an MSN option for those students less interested in the BSN-to-DNP. Some others

that ceased offering a formal MSN option ensured a 'stop-out' was present in the DNP program progression for students who decided mid-program to matriculate with the MSN. One school considering DNP development shared:

> [If we open a BSN-to-DNP], I think we won't necessarily close the master's because I think people recognize you want to have an exit point for the students who won't complete. You want to be sure that these have something for their post-baccalaureate time.

Overall, feelings on student demand for the BSN-to-DNP as the only option for entry into APRN practice are mixed. Schools that have programs tended to see steady-to-strong demand among prospective students, while those in the beginning stages of development or without DNP programs often cited uncertainty about persistent student demand for the MSN as a reason for delaying DNP development or offering an MSN-to-DNP option.

Market and Employer Demand

Demand for the DNP from employers who hire APRNs was also an important potential factor influencing whether schools would offer the DNP, particularly the BSN-to-DNP. Schools usually noted that employers (that is, from the schools' point of view) have strong demand for APRNs, and that many do understand the value of DNP education in particular. However, they perceived demand for the DNP-prepared APRN as being differentiated by the role that employers see the APRN playing in practice. Some nursing school representatives referenced employers seeking APRNs to function in roles related to leadership and quality improvement— and in these cases, noted demand for DNP-prepared APRNs. One northwestern school representative perceived strong demand in the region for DNPs driven by, in her opinion, the added complexity of consolidated, multispecialty practices that were on the rise, as well as by additional reporting requirements, quality initiatives, and new delivery organizations, such as patient-centered medical homes. Chief nursing officers she was in contact with specifically valued the leadership and quality-improvement skills inherent in the new graduates and many had firsthand experience with DNP students embarking on quality-improvement projects within their organizations.

We also heard instances of MSN-to-DNP graduates returning to former organizations and taking on additional roles and responsibilities and receiving salary increases. One school representative commented:

> Anecdotally, I understand that our students who come in and get a post-master's DNP do usually get a pay raise or take positions that increase their pay because of their degrees. So, that definitely seems to be value added.

Another representative noted regional differences in employer or market demand, suggesting that some areas were, indeed, catching on to the potential value of the DNP while others were not:

> Here in [major city], it's pretty amazing, actually—we have seven magnet
> hospitals and they hire DNP and PhD graduates, without a doubt. They have, I
> think, ten to 20 doctoral-prepared nurses at University Hospital, which is just
> unheard of. [However], when I was in [rural state], we did focus groups and if
> you showed them the competencies, everyone said, "We'd like someone to be
> able to do that." But, they really didn't know what the degree was and they
> weren't going to pay more, either. So, it was interesting an situation.

The latter situation was echoed by additional interviewees who felt that employers in their
areas did not particularly see value of DNP-prepared APRNs for day-to-day patient care duties
above and beyond MSN-prepared APRNs. Some school representatives noted that employers
were not familiar with the different capabilities of DNP-prepared APRNs and were unsure how
to use them compared with MSN-prepared APRNs in a clinical setting. One school illustrated the
perceived lack of employer demand for the DNP above and beyond the MSN by saying:

> I would say more in the majority [of employers] do not want a DNP, or have not
> spoken on it; a few have said they do not think a DNP is necessary.

Among interviewees who spoke to the topic, most also noted employers were generally not
prepared to offer higher compensation for DNP-prepared APRNs delivering patient care.
Moreover, some schools discussed the fact that many employers presumed that they would have
to pay DNP APRNs more for a questionable return; this was noted as a deterrent to hiring DNP-
prepared APRNs as opposed to MSN-prepared APRNs. One school expressed this sentiment as
follows:

> We have not yet had any employers even discuss or say, "oh, yes, please, they
> must have a DNP." That's really not the atmosphere here. They don't talk against
> it; I don't want to imply that. There is just more of a concern about what are they
> are going to call these people and whether they have to pay them more. But even
> that has been very low-lying. It's not been a real push.

This sentiment is not entirely surprising, considering DNP-prepared APRNs are new to the
workforce; the first graduating cohorts have only recently entered the market. Once a critical
mass of these providers is working in the health care sector, employer demand could grow.

Barriers and Facilitators to Developing a DNP Program

Once schools have been convinced of the value of the education and/or decide that conditions
are sufficiently favorable to offer a DNP program, they still face substantial barriers and
facilitators to implementation. These barriers include clinical site availability; fiscal and cost
issues; insufficient faculty; internal institutional issues; and state regulations, laws, and boards.
The barriers and facilitators were not always specific to the BSN-to-DNP versus the MSN-to-
DNP. Where possible, we attempt to differentiate between the two.

The availability of clinical sites was consistently mentioned as a challenge across schools and all APRN programs, including MSN APRN programs. The online survey confirms this, as 47 percent of schools note that this is at least somewhat of a barrier. Schools face competition from neighboring nursing schools, medical schools, and other clinical programs. This challenge is not necessarily unique to the DNP, however; any school that had trouble finding clinical sites for MSN students has also likely experienced difficulty finding clinical sites for DNPs. In some cases, the problem has been exacerbated by the development of the DNP to the extent that this has increased the school's total number of APRN students. One school representative said of this difficulty:

> Clinical placements are becoming harder and harder across the board, MSN or DNP. Because the number of nurse practitioner students that are coming through, we are all increasing enrollment, I think, to some extent. So, we are competing. It seems like the boundary line goes further, extends further and further out for schools every year, just to try to secure more opportunities.

Many schools have responded to the challenge by forging partnerships with nearby hospitals and clinics. For example, one school noted that they leveraged a relationship with a nurse-managed care clinic and allowed different levels of students to mentor each other, which is a unique opportunity afforded by having DNP students working with undergraduates.

> We're trying new things. For example, we have been trying to "layer students." In a nurse-managed clinic, for instance, we've been experimenting with bringing undergrads, MSN, and DNP students all together. The MSN students are mentoring the undergrad, the DNP students are mentoring the MSN, with the physician or NP/DNP overseeing all of it. So, we're experimenting with these different tactics.

One particular challenge to finding clinical sites for BSN-to-DNP, as compared to MSN-to-DNP students, is that BSN-to-DNP students do not have licensure and certification as APRNs. However, this can also be a challenge for MSN APRN students as well, and therefore is again not a challenge necessarily unique to the development of a BSN-to-DNP program. One school describes the challenge by saying:

> [Finding clinical preceptors is different for BSN-to-DNP and post master's] because [MSN-to-DNP students] are already practicing practitioners. [So], we can quantify the clinical hours and we can do more creative things in terms of how you capture that clinical. But, when you're doing BSN-to-DNP, then you have to consider the clinical hours and the clinical needs, which are very different and the regulations are different state to state.

Fiscal and Cost Issues

Many of the schools interviewed mentioned fiscal challenges to their efforts to establish and/or implement a DNP program. In the online survey, 52 percent of the respondents that were offered or were planning to offer a BSN-to-DNP said financial resources were at least somewhat

of a barrier, and 49 percent of respondents not offering a DNP cited costs as a very important or critical barrier to developing a program. Costs were also more likely to be cited as a barrier for schools that were divisions or programs within larger universities or colleges versus freestanding or autonomous nursing schools (59 percent vs. 39 percent). One school stated that:

> Cost is also an issue. At least, from my perspective, educating doctoral students in nursing is expensive. So, it's a bit of a challenge. We're not a university who gets direct dollars from tuition. That's one of those double-edged swords, because now we're not rushed to take on more students because we get the tuition dollars. We get a certain amount of money, and then we want to be able to provide things to the students. And sometimes it's hard with a shrinking budget for higher education.

This quote also points to the fact that schools were also concerned that the program would not be financially viable if they did not have high levels of enrollment in their programs, and they were concerned that they would not be able to cover the costs of any needed program expansions. Although enrollment in DNP programs is growing substantially, a number of respondents voiced these concerns, saying they had heard other universities were having enrollment difficulties. Maintaining student enrollment was cited by more than 60 percent of online survey respondents as challenges to maintaining programs. One respondent was worried that the school would not be able to recruit sufficient students for a BSN-to-DNP program because the program length would be too long to attract students who would need to attend part-time. The respondent from another MSN-to-DNP school, currently in the process of planning a BSN-to-DNP, said the institution was very focused on maintaining student enrollment so as to not lose tuition:

> One of our large revenue streams is tuition, so we need to develop a five-year forecast that assures our revenue doesn't drop. That's one thing we've worked on a lot, is just the revenue. So, I think the biggest concern, financial, is, will we have the student body so our revenue won't go down.

However, not all schools were concerned that low enrollment in the program would cause financial difficulty. In the online survey, roughly the same proportion of respondents named student enrollment as a barrier and facilitator to program development. Some of this variation among schools' experience seemed to be related to the strength of the schools' position in their region and of their applicant pool, based on discussions with schools. Schools in stronger positions tended to believe that students previously enrolling in their master's program would now switch over to the DNP. However, these schools are still concerned enough about tuition losses that they are paying attention to that possibility. One representative noted that the school has worked on forecasting models that they could use to assure themselves that the switch to the DNP would not cost them financially.

> The DNP students will take the spots that the current master's students have. We have created all these formulas, as you can imagine, to roll this out. Partly, this has to do with how to move the students through, but also to make sure that we

don't lose revenue. All the current master's positions will all be filled with DNP
students, so it's sort of a switch-out. Yes. The master's students, those spots will
be the future DNP students.

Respondents from four schools expressed concern over the financial burden placed on students by the additional time needed to complete the DNP program. A couple of schools also mentioned a lack of financial aid for DNP students as a particular issue. Finally, though only specifically mentioned in one instance, the recession that began in 2008 may have had adverse consequences for school resources and finances that continue to linger today.

<u>Faculty</u>

Interview respondents varied as to how faculty resources represented constraints or barriers in offering DNP programs. Along with financial considerations, having "qualified faculty expertise to teach in the DNP program" was the only other factor noted as a barrier by more than half of respondents who had offered or planned on offering BSN-to-DNP programs (Table 4.6). As with cost concerns, faculty availability was cited as a barrier by considerably more schools that were divisions or programs within larger universities or colleges (60 percent) versus freestanding or autonomous nursing schools (34 percent). Faculty resources and cost constraints were, in fact, anticipated as potential barriers to implementation of the DNP a decade ago in the AANP position paper (AACN, 2004) on the DNP, as well as the subsequent roadmap to the DNP published in 2006. A typical school citing faculty constraints noted:

We have a tremendous faculty shortage in [our region]. We cannot compete with
salaries. We're about 200 miles from [one major city] and about 150 miles from
[another major city] but we have just been searching for three faculty positions
and had no candidates with doctoral degrees applying.

A substantial portion of respondents noted that nursing schools are growing quickly and many are facing faculty shortages as they grow their existing programs, develop additional tracks, or establish new degree programs. This is true of current MSN programs but could be exacerbated by the development of DNP programs. Particularly, some schools were concerned that the capstone courses would cause increasing strain on already strained faculty. There is also likely a steep learning curve as faculty members, many of whom have PhDs, develop a better understanding of the scope and contents of a DNP capstone project compared to a doctoral dissertation. One school noted that:

It means that we have to educate our PhD faculty, who may be involved in these
capstone projects, about what a capstone project in a DNP looks like. It's not
going to be traditional research. It's not going to look like a dissertation. It's not
going to smell like a dissertation. But if that's all some of our faculty know, then
we have to make sure we promulgate the notion that capstone courses are unique
and not the same as dissertations. I've been a consultant to a number of places
and many of them, as they've started DNP programs, had their PhD faculty
teaching in the program and half of their students were doing human subjects
research. And it wasn't very good research, because they didn't have any

coursework in how to do it, but that's not the point of the DNP. So I think that's the biggest issue is helping our faculty to be able to know how to serve these students well.

One potential solution to faculty shortages, cited by many schools, was developing new faculty through the DNP program itself. The concept of "growing your own" was mentioned frequently as a way to meet increasing demand for nursing faculty. In fact, some schools noted that developing a DNP program was at least partially motivated by a desire to fill their own faculty shortages with graduates from their DNP program. As such, many schools are using their DNP programs to prepare, in house, the next generation of nursing faculty. For example, one representative remarked:

> We had concern over where we were going to get adequate faculty numbers. But we took care of that quickly by enrolling seven of the College of Nursing faculty members into the DNP program. And they were NPs anyway, so they just needed the post-master's piece. So we grew our own . . .

Another similarly noted:

> Geographically, we are 250 miles from two major areas, meaning [metro area], and most of our faculty have gone away and then come back, and it's been a real struggle for people to advance their degrees here. It has also been a huge struggle for us to get qualified faculty. So, my predecessor started a grow-your-own faculty, and likewise we started the grow-your-own nurse practice or family nurse practitioners.

Yet there was also some confusion about the viability of this strategy. Specifically, a number of schools noted that the AACN Essentials do not explicitly address the issue of teaching as a core component of the DNP education and are unsure how they relate to faculty preparation.

> It seems that, with the DNP, there's the confusion around the Essentials. The document states that it's for advanced practice. And at the national conferences, the push has been that advanced practice could be that person in organizational leadership. And so I've struggled with that personally, figuring out how educators and education fits within the DNP and the Essentials.

Similarly, another school struggled with the decision to advertise that their advanced-practice DNP was preparing nurse faculty. Rather than explicitly marketing the curriculum as preparation for teaching, they encouraged students to complete additional coursework in preparation for the teaching role alongside the DNP.

> [When] we advertise our program, we kind of stick with AACN's guidance and we say we are not preparing nurse faculty. If you want to actually pursue a nurse faculty role with the DNP you get from [our school], we strongly encourage you to get the nurse educator certificate along with it. But with that said . . . we just hired three or four [of our] graduates.

Another school representative we spoke with who did not have a DNP program (but did have a large BSN program) noted that many students from nearby DNP programs apply for tenure-track faculty positions at her school, though they are not eligible. She suggested that such

students were sometimes given the erroneous impression that they could do so from their current DNP programs. Other schools were more flexible, however. A group of schools we interviewed were able to grant tenure-track positions to advanced-practice DNP graduates to teach in graduate programs. Others, despite school decorum limiting tenure-track positions to PhD-prepared candidates, created faculty positions for DNP-prepared graduates.

> We've only had two DNP graduates that have actually been employed here but, yes, we do honor advanced practice. We have our faculty policies and procedures that establish timelines for tenure. But we are largely a teaching institution. We're not research intensive. We have always believed that faculty in the School of Nursing should maintain clinical expertise. And we know the time it takes, the energy it takes, to do that. So we have always honored that in our tenure. I understand many schools cannot do that, but we believe strongly in that.

Finally, faculty constraints were related to cost constraints in some cases, as noted by one representative:

> There's a "risk of income" to the school. Tuition is 50 percent of our revenue, and a huge problem with the DNP is the capstone. And this is true in every place you look at these programs. The faculty effort to support capstone is huge. And so it's one thing to have 28 DNP students, but we have a total of 110 students in a master's class. I can't even imagine what the financial cost would be of having enough faculty to manage all those capstone projects [if the MSN are replaced by DNPs].

As noted in the above quotation, transitioning from an MSN to a BSN-to-DNP sometimes implied suddenly having to supervise a large cohort of students embarking on the capstone projects or entering new DNP courses at once. At least one school, as noted in the third case study in this report, overcame this problem by terminating the MSN while gradually adding the DNP content to what would have been the next year's entering MSN cohorts (who were now BSN-to-DNP cohorts, and somewhat smaller). Thus, by the time they reached the bulk of the DNP content and the capstone project, the faculty had had ample time to prepare the additional coursework.

Internal Institutional Issues

For schools that have successfully developed a DNP program, support from university administration, faculty members, and university boards and committees usually played a significant role in facilitating DNP program development. There were often many levels of approval or hurdles to overcome—one representative noted requiring approval (to offer the DNP) from the nursing division, the School of Health Sciences, the graduate council, the university senate, the president's council, the president, and the board of trustees of the university.

Eighty-nine percent of schools that have or are planning a BSN-to-DNP noted that support from university administrators was at least somewhat of a facilitator toward implementing the BSN-to-DNP. More than half of the interview informants were deans of schools of nursing (most

of the remainder were program directors) who themselves have been the champions of adding a DNP program at their schools. While there was variation across schools in terms of degree of support and exact source of support (e.g., faculty or administration), most of the schools interviewed noted that internal support was positive and often a key reason why a DNP program was started or planned.

Some concerns were raised by faculty or administration about the readiness of the school to take on a new program—including faculty preparedness or amount of time that would be needed to launch such a program—but these were relatively benign oppositions. For example, one school representative stated:

> We really did not encounter that much resistance. At the university, I passed it all the way through, and people wanted a justification, but it was kind of easy to do.

And another noted:

> We have had very good support from the university from the president down working through the DNP. So, I would say we've had a lot of support, encouragement, money.

However, where schools have been slower to adopt the DNP or are divided about which track to pursue (BSN-to-DNP, MSN-to-DNP, transition away from the MSN), the reasons could often be traced to lack of internal support from deans, individual faculty, faculty senate, or university provost. For example, one school noted that colleagues from other departments who were part of the faculty senate did not understand the purpose of the DNP:

> The biggest issues were coming from our PhD colleagues [in other departments] not understanding the DNP as being a terminal clinical degree and why were we not doing an FNP with a PhD then, and just not understanding the clinical doctorate.

One respondent noted difficulty explaining the concept of the DNP to other university departments that were only experienced in research-based doctorates until she described the program as resulting in a "professional degree," akin to a JD or MD, which greatly facilitated approval.

<u>State Laws, Regulations, and Boards</u>

Even if the college or university has approved the DNP program, many public institutions, in particular, still need to contend with state laws, regulations, and boards of education, which detail the criteria necessary to establish doctoral programs in public higher education schools. These criteria vary in substance from state to state, as well as in form. The issues that must be addressed—including faculty, curricula and credit details, financial resources, admissions and administration—are often common across states but the level of detail that must be included are not. In addition, public institutions may have multiple layers of education boards, commissions, and committees from which public schools must secure approval.

Given such variation, schools' perspectives on these requirements also varied considerably. In the online survey, schools nearly evenly split between those that viewed the state approval process as a facilitator and those that viewed it as a barrier. Some thought the process was not a barrier at all and considered the process merely a "formality;" others were stymied from launching a DNP program either because they could not meet the requirements or because approval by any one of several layers of boards could not be secured. Some schools noted that the boards were often unpredictable and idiosyncratic; although forms and applications were completed and apparently met stated criteria, a final decision could go either way—approval or denial—depending on the people who served on the various state education departments, boards, or commissions. Approving bodies were not always transparent in terms of what they wanted to see or how they would interpret the information. As an example, one school seeking a DNP program reported that a letter of denial from the state higher education board noted there is no evidence that employers prefer the DNP to a master's degree. However, the school had not been told in advance that such evidence needed to be submitted in its application.

Even among the schools that were able to receive approval, most noted that completing all the forms and reports and traversing the approval process took a substantial amount of time and effort. In a somewhat extreme case, one school also had to gain approval from its regional accrediting body (Association of Colleges and Schools) to offer the DNP because it was not a doctoral-granting institution. Even with strong support within the university, it took four years from when the school began developing the program until their first students enrolled (in the MSN-to-DNP). As we noted earlier, not being a doctoral-granting institution was cited as a very important or critical barrier by roughly one-fourth of schools not offering or planning a DNP in the RAND/AACN online survey. Though it clearly can be overcome in some cases, the degree of difficulty likely varies by school.

Moreover, many states have multiple tiers of schools of public higher education. There is, first, a distinction between junior and community colleges, which offer two-year associate's degrees and certificates, and universities that offer four-year baccalaureates and higher. It is not uncommon for larger states to have two or more tiers of schools. Often when this is the case, only the highest tier of schools may offer doctoral degrees. In other states, only one "flagship" university may offer doctoral degrees. For example, California has the California State University (CSU or Cal State) system and the University of California (UC) system. While schools in both systems offer bachelor's and master's degrees, only schools in the UC system may offer doctoral degrees. Such standards are meant to address educational opportunities in a comprehensive and coordinated way with the resources available in a given state. Schools that are not in the right category but still interested in offering doctoral degrees have pursued various paths. For example, some CSU schools have partnered with UC schools to offer doctoral degrees in physical therapy. Recently, legislation was passed in California to permit a consortium of CSU schools in Southern California to offer the DNP as a pilot program that will be tracked and

evaluated to determine whether other CSU schools will be permitted to offer the DNP more widely across the state.

In contrast to public schools, private schools are not subject to the same level of restrictions. Beyond their own internal policies and boards of trustees, private schools of higher education have few, if any, substantial requirements from external bodies when considering adding a new doctoral program or changing or expanding an existing one. As one school noted:

> We're thankfully private, so I don't have to go through the [state] higher commission.

In contrast to state education boards, state nursing boards, which license and regulate nurses in each state, were not identified as playing as much of a decisive role in starting a DNP program at any particular school. While many schools did have to secure their state nursing board approval at some point in the process, this was not described as very difficult.

Summary

Though our investigation, we uncovered a number of barriers and facilitators important in schools' decisions to offer the BSN-to-DNP. First, we uncovered several structural factors associated with schools' offering choices. Controlling for all factors simultaneously, autonomous or freestanding schools, schools in the West and Midwest, and schools in states with a high density of existing NPs were considerably more likely to offer BSN-to-DNP programs. Though we don't fully understand the mechanisms underlying these factors, autonomous or freestanding schools of nursing appear to face fewer institutional barriers and constraints to offering the BSN-to-DNP.

With respect to contextual factors (factors that are more malleable and unique to each school), we found the strongest facilitators toward offering the BSN-to-DNP to be enthusiasm and support among the school's key faculty, administration, and decisionmakers. Underlying this support was typically an endorsement of the value of the DNP content. Fully 93 percent of survey respondents offering or planning on offering the BSN-to-DNP cited the "value of the [DNP] education in preparing for future health care needs" as very important or critical to their decision. The AACN endorsement of the DNP also factored strongly in many schools' decisions to offer the BSN-to-DNP, as did, in some cases, a desire to expand into doctoral-level education.

How that level of support then translated to schools' program choices was influenced by a number of barriers and conditions that appeared key to schools' ultimate decisions. Key conditions governing their choices are the fact that the DNP is still an option and not a requirement for APRN entry into practice, coupled with local demand for DNP-level education among students and employers as perceived by each school. With some exceptions, most schools did not perceive strong employer awareness of the DNP in particular. Currently practicing APRNs expressed strong interest in the DNP, and the convenience of completing the degree while working, in many cases, has led to a high rate of adoption of the MSN-to-DNP. Some

incoming students expressed strong interest in the BSN-to-DNP (perceived demand for the DNP among students was rated by some survey respondents as a facilitator and some as a barrier) while others were interested in the MSN—and thus, it was typically a complex calculation among schools whether to meet both simultaneously or to offer only the BSN-to-DNP and accept the potential loss of some students to other schools offering the MSN.

With respect to specific barriers toward adopting the BSN-to-DNP, many schools, particularly those that are part of larger public systems (rather than freestanding or autonomous schools of nursing), cite internal and institutional barriers, such as obtaining approval from numerous levels of leadership, boards, and regional bodies. Cost, faculty resources, securing clinical sites and preceptors, and managing capstone projects were also barriers cited by schools (although in some cases, particularly concerning faculty and clinical sites, schools may not have been able to isolate barriers particular to the DNP versus those relevant to APRN education in general). While these barriers can usually be overcome when schools and program directors are highly motivated (and in Chapter Six, we describe innovative approaches taken by several schools to overcome barriers and manage transitions to the DNP), full adoption of the DNP will likely continue to be incremental and incomplete unless the certifying and accrediting bodies require the DNP for entry into APRN practice and the benefits of the DNP are more widely recognized by students and employers.

5. Conclusions and Recommendations

Based on the findings in the earlier sections of this report, we derive the following conclusions and recommendations. These are grouped into subsections mirroring the order of discussion in the body of the report.

Current State of the DNP

DNP Continues to Expand

The DNP continues to expand steadily. Each year since 2006, roughly 30 additional nursing schools have joined the ranks of those offering a DNP program. In 2013, among 408 schools offering APRN education, 30 percent offered a BSN-to-DNP for at least one APRN role and more than 50 percent offered an MSN-to-DNP program. Factoring in those who state they are planning BSN-to-DNP programs, nearly half will have such a program if their stated plans come to fruition. Data from our online survey suggests that that milestone could be reached not long after 2016.

MSN Remains Dominant

The MSN remains the dominant pathway for APRN entry-into–practice education, though there is some movement toward replacement with the BSN-to-DNP. Despite the growth in DNP programs, the MSN remains the dominant pathway to prepare APRNs for entry into practice. Roughly two-thirds of schools with APRN education offer only the MSN. Among those offering the BSN-to-DNP, about two-thirds of *those* offer both options (MSN and BSN-to-DNP) simultaneously; with their MSN programs enrolling roughly three times as many students as those enrolled in the BSN-to-DNP option. The small minority that offers only the BSN-to-DNP is growing, however, and a significant minority of schools offering both options state that they plan on transitioning from an MSN program to a BSN-to-DNP program only. Many of those that have transitioned fully to the BSN-to-DNP could be characterized as the more enthusiastic "early adopters." Attempts to encourage remaining schools to transition MSN programs may be challenging, given perceived uncertainty about market demand as well as the position of the accrediting and certifying bodies.

Two Tracks to DNP Expected

There will likely be two tracks toward the DNP for the near future (defined by schools' planning horizons): a single-step process (BSN-to-DNP) and a two-step process (BSN-to-MSN, followed by an MSN-to-DNP at a later date). There is considerable demand for the DNP among existing APRNs, who can typically convert to a DNP while continuing to work. The

higher prevalence of MSN-to-DNP programs compared to BSN-to-DNP programs likely reflects this demand, as well as interest among APRNs in advancing their education to the terminal degree. As long as many schools continue to offer the MSN (which seems likely) there will be a steady supply of MSN-prepared APRNs seeking to convert to a DNP at some point. The two tracks appear to meet the needs of two different types of students with distinct levels of educational attainment (post-BSN and post-MSN).

Facilitators and Barriers Toward Adopting the BSN-to-DNP as Entry-Level APRN Education

This section describes the key structural and contextual facilitators and barriers toward adopting the BSN-to-DNP as the standard for entry-level education for APRNs.

DNP Adds Value

The value of the added content of the DNP education is almost universally agreed-upon. Most schools and online survey respondents enthusiastically supported the DNP content and the Essentials. Many linked the material with health reform and the IOM report on the future of nursing, agreeing that this was an important direction for nursing education (IOM, 2010). The sentiment fueled considerable enthusiasm among many deans and faculty to overcome barriers to the DNP. However, this support did not necessarily lead all schools to transition away from MSN, but rather to retain multiple tracks.

DNP Requirements Play a Key Role

Requirement of the DNP for certification and accreditation is an important factor in schools' decisions. Perhaps the largest factor that would convert the two-track dynamic we have noted to one in which the DNP is the dominant entry-level pathway for APRNs would be a change in stance of the certifying and accrediting bodies (following the suit of the CRNAs) to require the DNP. An often-cited factor related to that stance is the lack of studies showing differences in quality or outcomes of care between DNP-prepared APRNs and MSN-prepared APRNs.

Recommendation I: Outcome Studies.

The AACN should conduct, and collaborate with others to conduct, outcome studies of DNP practice to better understand the impact of DNP graduates on patient care.

Employer Demand Is Nondifferentiated

Demand for DNP-educated APRNs on the part of employers is generally nondifferentiated between the MSN and the DNP. From the point of view of the nursing school leaders we spoke to, demand for DNP-educated APRNs on the part of employers is generally nondifferentiated between the MSN and the DNP, albeit with a few exceptions.

Student demand for the DNP on the part of currently practicing APRNs appears robust, given the proliferation of MSN-to-DNP programs. Student demand for the BSN-to-DNP is more variable—with some seeking the BSN-to-DNP and others seeking the MSN.

Though we did not undertake a comprehensive assessment of demand for the DNP, we asked school leaders their perceptions of such in the online survey and the interviews. As reported by schools, most employers did not understand the differences and were not prepared to offer higher earnings to DNP-prepared APRNs. Demand for the DNP among currently practicing APRNs appears strong. Uncertainty about the demand for the BSN-to-DNP was evidenced by some survey respondents—with some students seeking the DNP and others seeking the shortest and cheapest route (the MSN) to APRN practice. Schools with BSN-to-DNP programs often cite concern (in the online survey) about student attrition in maintaining their programs. Yet several schools that we spoke to that have transitioned their MSN programs to a BSN-to-DNP did not report problems retaining applicants or enticing students. These schools also tended to be in strong market positions with regard to numbers of applicants and could weather the potential loss of some students to MSN programs.

Recommendation II: Outreach.

The AACN should provide outreach and data to help employers and health care organizations understand the added competencies and capabilities of DNP-educated APRNs.

Free-Standing Schools More Likely to Offer BSN-to-DNP

Freestanding or autonomous nursing schools are more likely to offer the BSN-to-DNP, a finding that may be associated with fewer institutional barriers faced by these schools. Controlling for other factors, freestanding or autonomous schools (as opposed to schools that are departments or divisions within larger universities or health professions schools) are 20 percentage points more likely to offer a BSN-to-DNP. Such schools appear to face fewer institutional hurdles and barriers toward offering the BSN-to-DNP. In the online survey, they also cite fewer cost, budgetary, or faculty resource barriers to offering the BSN-to-DNP. For some schools, however, institutional barriers can be formidable and idiosyncratic to the school, in some cases presenting a nearly insurmountable hurdle given that the DNP remains optional.

Recommendation III: Address Barriers.

The AACN should focus on understanding and documenting successful strategies in overcoming barriers to offering BSN-to-DNP programs of departments or divisions within larger universities since they face greater hurdles or barriers to offering BSN-to-DNP programs.

Clinical Sites May Be an Issue

Identifying a sufficient number of clinical sites is sometimes cited as an issue, but it is unclear how much this concern is specific to the DNP. Of note, some schools have forged innovative partnerships with hospitals and health care organizations by promoting DNP students as helpful toward achieving quality improvement goals, which have met with some success.

Recommendation IV: Showcase Successes.

The AACN should document and showcase examples of collaborative partnerships between schools and hospitals or other health care organizations for the purpose of providing clinical practice sites.

Support Is a Strong Facilitator

Faculty and administrative support within the university is, more often than not, a strong facilitator toward offering the BSN-to-DNP. Also, in the cases of some otherwise nondoctoral-granting institutions, school administration saw the DNP as a pathway to gain additional prestige or to pave the way for other doctoral programs in the future.

Faculty Resource Constraints

Many schools cite faculty resources as constraints to the development of DNP programs, sometimes noting the capstone project as a particular resource challenge.

Recommendation V: Clarify Requirements.

The AACN should provide greater clarity and guidance related to requirements for the capstone project

Costs, and Budgetary Concerns

Costs and budgetary concerns are a key barrier to many schools—particularly those that are not freestanding or autonomous schools. More than half of nonfreestanding/autonomous nursing schools not offering or planning a BSN-to-DNP cited these barriers as very important or critical. These barriers may be difficult to overcome, though they might be addressed through joint programs and collaborative educational models.

Additional Specific Challenges

Schools noted additional specific challenges in operating and sustaining BSN-to-DNP programs, some of which the AACN could help them overcome. Still, we do not find evidence of a significant risk of these programs' being discontinued once begun. When schools were asked what sorts of materials or activities would be helpful, almost all schools (including

those that do or do not currently offer BSN-to-DNP programs) noted the items we listed as being very helpful. The most-helpful items among these were the following: "opportunity to discuss issues with colleagues at other schools," "a better understanding of how clinical hours are managed," "DNP scholarly project guidelines," and "data documenting the benefit of the DNP to population and students."

Recommendation VI: Continue Assisting with Challenges.

The AACN should continue with ongoing efforts to assist schools in overcoming challenges to offering the BSN to DNP.

6. Case Studies

In this section, we present five case studies highlighting various aspects of schools' experiences with DNP programs in greater depth than in the previous sections of this report. We paid particular attention to issues with transitioning an MSN program to a BSN-to-DNP one, overcoming resource, faculty, and institutional barriers as noted earlier in the report, and in sustaining programs. The schools highlighted are at various points in their processes, and facing various sets of facilitators and barriers; thus, the discussions focus on different aspects of the programs that were relevant in each particular case.

Enthusiastic Early-Adopter with Strong Student Demand

Our first case study is of a large Midwestern public university that we consider to be an early and enthusiastic adopter of the DNP program. It began its first APRN DNP program in 2007, which was an MSN-to-DNP program. From the beginning, the university was convinced that the DNP was necessary to educate the next generation of APRNs, and was particularly convinced by recommendations from both the IOM and the AACN.

> The impetus for the program was the Institute of Medicine's call for nurses to practice at the highest level of their ability and to increase the number of DNP-prepared nurses, and the recommendation [by the AACN] that entry into advanced practice be at the doctoral level.

Nursing school representatives also noted that theirs is the only public institution in the state that has a graduate nursing program, so they felt the need to be a state leader in that regard.

After the decision was made to develop a DNP program, the school offered its first DNP in 2007: an MSN-to-DNP for NPs. In 2010, the school offered its first BSN-to-DNP program and stopped admissions to all MSN programs with the exception of the clinical nurse leader (CNL) program. Students who were enrolled in MSN programs at that time completed their coursework for the degree over the next five years. Currently, the university offers a total of seven BSN-to-DNP tracks including:

- Adult gerontology NP
- Neonatal NP
- Pediatric NP
- Family NP
- Psychiatric mental health NP
- CRNA
- Health systems

The university still offers both an MSN-to-DNP and a BSN-to-DNP for NPs as well as for health systems. However, they note that the BSN-to-DNP is much larger than the MSN-to-DNP, enrolling roughly 60 and 10 students, respectively, each fall. As of 2014, the university had only a single MSN program for CNLs. That is a reduction from a high of 17 master's degree programs.

One key facilitator of the development of BSN-to-DNP programs was the fact that the dean was highly supportive of the process and convened a work group to focus on the development and refinement of DNP programs. The work group was headed by the assistant dean of graduate programs. When this work group was developed, the school already had the MSN-to-DNP program so the primary focus was on determining what core courses needed to be added or altered to accommodate the BSN-to-DNP track. Another important part of the development process was that the group worked with a consultant from another large public university that had already developed a DNP program. This consultant helped group members think through the development of the program, particularly designing the curriculum. Group members have also found the national AACN conferences to be particularly helpful. One noted:

> When we've gone to conferences, we [looked at] some of the issues that we were grappling with and realized, "Oh, we are not dealing with this for the first time." Everybody's in the same boat. So, it was rather reassuring to know that we're not the only one who is, you know, trying to figure this thing out. So, I think having faculty go to national conferences and coming back and reporting has been helpful.

They also found the entire university to be very supportive from the nursing school administration and faculty to the university provost. Largely, they believe that this support was won by developing an inclusive system for garnering feedback and input from all parties. One school representative stated that:

> I think we did it right in the beginning and I think what was wonderful was when our dean brought in a consultant, had a task force, got anybody involved that wanted to be involved so that everybody felt involved, everybody felt committed, everybody felt communicated with. So, everybody came together as a team and worked together as a team from the get-go, and I think that was one of the biggest positive things for our DNP program. We had PhD faculty on our taskforce working right along with clinical faculty. So, we had that melding together right from the beginning.

In order to accomplish these tasks, the university also committed financial resources to hiring the consultant, as well as providing extra payments for the faculty to work on the task force.

The transition to the full implementation of the DNP has been rapid but relatively smooth. They first offered the MSN-to-DNP program in 2007 primarily online, oriented toward NPs, and the first cohort was relatively large with 23 students. The large cohort was primarily due to the fact that there was pent-up demand for the program among existing NPs. One unique factor that drove demand for the program is that a former president of the American Academy of Nurse Practitioners was a graduate of the program and an early proponent of the DNP program at the

university. Furthermore, because the program was designed to be online, the program could draw from across the United States.

Because of that early experience with the MSN-to-DNP program and the extensive work of the DNP task force, the school was prepared to start enrolling their first class of BSN-to-DNP students in the fall of 2010. The first class of BSN-to-DNP students was relatively large, enrolling approximately 75 students. As part of the early roll out, current MSN students were given the opportunity to seamlessly matriculate into the BSN-to-DNP program, and many students accepted.

Despite the fact that four other schools in the state offer an MSN option for their APRN programs, the university has seen little drop in APRN program enrollment. For example, school representatives stated that they experienced a slight drop in enrollment in some of the programs such as pediatrics, adult gerontology, and psychiatric nursing, but they saw no change at all in their family NP program. In fact, for the family NP BSN-to-DNP program, they have had to turn away highly qualified students, whereas the other programs are generally able to accept all of the qualified students that apply. Largely, the university is constrained by the student-to-faculty ratios outlined by the National Task Force on Quality Nurse Practitioner Education, which recommends a roughly 6:1 ratio of students to clinical faculty member. So, the school never had the ability to expand beyond roughly 60–70 students in each cohort.

Despite the smooth transition, the school experienced three potential challenges that it was able to overcome. First, finding and coordinating preceptors is very time consuming. However, this was not a challenge unique to developing the BSN-to-DNP program; finding preceptors even for the former master's program required diligence and hard work. However, to facilitate the identification and cultivation of preceptors, the school hired a clinical coordinator who reaches out to potential preceptors as the first point of contact. In other schools, students are asked to provide the first contact to clinical preceptors. In this case, the school is particularly careful to minimize the potential burden and manage potential workload, noting:

> Our preceptors are phenomenal, fantastic people and we're very careful with placements and we don't want to overburden them. We don't want to burn our preceptors out. We want them to be happy and love us.

The coordinator has been so successful that many preceptors preemptively call her to request students. So, this careful proactive management of the preceptors is an important step in ensuring that there are enough preceptors to cover all of the students. Having a dedicated preceptor has allowed the program coordinators to use the time they would have spent coordinating clinical placements to advise and support students in their DNP projects.

The second challenge involved the time required to complete the program. Originally, the BSN-to-DNP was designed to be three years full time and five years part time. However, after investigating the financial situation for the program, officials realized it would be more efficient to administer and less expensive for students if the entire program was four years part time,

instead of five. Therefore, they shortened the amount of time required to finish the part-time program.

The final challenge to the development of the program occurred during the transition years when the school still had master's students finishing their degrees and a new cohort of BSN-to-DNP students beginning their studies. This caused a glut of students in clinical courses, as well as a glut of ongoing master's and BSN-to-DNP projects, and was a significant strain on faculty resources. To attend to this issue, the school took two particular steps. First, program leadership developed a process for shepherding DNP projects through the Institutional Review Board (IRB) process. They first brought university IRB representatives to meet with the DNP students and, in many cases, the students finished their IRB applications directly with the representatives. Second, officials moved the DNP project defense away from a paper-based format to a poster-based format. The paper-based format had been extremely time-intensive and the poster format could be better managed using available faculty resources, as well as being more consistent with how information is disseminated to practicing professionals. Officials said this process allowed the school to transition through this period and they believe the process will be much smoother now that the remaining master's students have largely graduated.

In summary, this case-study school is an early and enthusiastic adopter of the DNP. They were able to move smoothly toward the BSN-to-DNP as the only education option for preparing APRNs. Much of their success can be attributed to the support of nursing school administration and faculty, as well as university administration. Despite the relatively smooth transition, they have faced challenges that they have been able to address creatively.

School Begins with BSN-to-DNP as Entry into Graduate-Level Nursing Education

Our second case study is of a rural Western public university that did not offer any graduate-level nursing education prior to the 2011–2012 academic year. They now offer master's degree programs in advanced clinical practice and education. They launched their BSN-to-DNP program in the 2012–2013 academic year, for family NPs (FNPs). This was the first doctoral program offered at the university. The nursing program does not offer any master's-level APRN education but offers advanced placement in the DNP program to students who already have an advanced-practice master's degree or postbaccalaureate NP certificate. They do not offer an option to exit the program with a master's degree.

This school chose to forgo developing a master's APRN program because the leadership strongly believed that APRN education needed to be at the doctoral level. The AACN's endorsement of the DNP was an important factor in forming this belief among the school's leadership. They believed that this issue was especially pertinent as they only started planning a program in 2010, and the AACN recommended that all APRN programs transition by 2015. One school representative stated:

> Why would we start a program and prepare people short-term, thinking that 2015 is a national decision?

The school initially decided to begin offering graduate-level education because the university is more than 200 miles away from the two nearest major cities, which makes it challenging for local residents to advance their education. In addition, the region faces difficulty recruiting health care providers. Employers wanted to hire NPs, noting they face a primary care shortage in a medically underserved area.

The program leadership was also motivated by their own experiences returning to school multiple times to advance their education and wanted to offer an opportunity for students to reach their educational goals in a single, continuous program.

> Most of us got our PhDs in our 40s or 50s. So [we were] wanting to make it easier for the students to work on their career ladder. We were letting the students know it may be hard, it's long right now, but then they've got 20 years [left in their career]. They'll be working for 20 years, not having to go back due to more regulations and things. There will always be updates, but this is the right way to go for our students.

The community was highly supportive of the establishment of the FNP program, and community partners provided substantial financial grants and support. They have eagerly offered sites for clinical training. They had little knowledge of the DNP degree as compared with other NP education options, but trusted the nursing program's leadership.

> They wanted nurse practitioners . . . most of them were not aware of what the Doctorate of Nursing Practice actually meant, and I was one of the first nurse practitioners in the area. So they were kind of going with my recommendations and saying, "You know, if you say we need this, we need this."

University leadership was also supportive of the program. Still, establishment of the DNP program involved many challenges common to the establishment of any new academic program. The curriculum had to be developed, cost issues had to be addressed, and information technology had to be established to offer courses online. School officials had to work carefully with other faculty and campus leadership to ensure that there was an understanding of the distinction between a practice-based doctoral program and a research-based program (such as a PhD). One representative noted that:

> Initially the curriculum issues with our university [involved] just getting it through the curriculum [committee] so that true PhD people not associated with health science centers really understood what we were doing.

One of the most important challenges in establishing the program was recruiting faculty. This has been a long-standing issue for the nursing program recruiting faculty for the DNP program, due to a lack of doctoral-prepared RNs in the region.

> Most of our faculty have gone away [for school] and then come back, and it's been a real struggle for people to advance their degrees here, and also a huge struggle for us to get qualified faculty."

The fact that faculty were difficult to recruit actually provided additional impetus to offer graduate-level education. The school had developed strategies to help local nurses pursue a

doctoral education and assume faculty roles at the university, but this required that the students travel extensively to larger cities. Offering locally based MSN and DNP programs can help the school somewhat to develop its own faculty from local residents.

Another significant challenge was that the faculty who were working on developing the program had to do so while managing a full teaching load. The four faculty members who worked on accreditation of the program faced significant challenges to managing the workload. Their nursing program is small and there is no excess faculty in the program, so the school could not afford to release anyone from teaching responsibilities.

The program leadership found that tapping into the past experience of other universities has been extremely helpful in developing their programs. The team that planned the program consulted with colleagues at other universities, including at their alma maters, that had already developed DNP programs. Furthermore, national conferences, such as the National Organization of Nurse Practitioner Faculty conference, have been particularly helpful.

> You have to have faculty at these national conferences seeing what the challenges have been for other players . . . That has helped us really come through some of those opportunities and challenges with the DNP capstone.

Student interest in the program has been high, although the program is intentionally small. Program leaders were cautious about recruiting students until the program was fully accredited. The program is primarily offered online, with clinical content supervised by local preceptors. Most of the students live near the campus, and thus the preceptors have already been working with the school. Many students work while pursuing their graduate degree, so the program was designed to accommodate both part-time and full-time students, requiring six years for full-time BSN-prepared entrants.

If the program expands, program leaders believe that new challenges will arise. Particularly as the program grows, the leadership believes that more and more students will participate in distance education. This means that faculty will need to assess new clinical preceptors who work away from campus. In this case, monitoring clinical placements may involve distance-based assessments and interviews as well as site visits. The school will also have to grapple with how to offer the program across state lines and contending with regulations that may govern such offerings.

In summary, this case-study school established its program to meet the local need for primary care providers, to offer nurses an opportunity to complete doctoral education efficiently, and to develop faculty for the future. The program leadership received significant support from the community, primarily due to the need for NPs. The leadership strongly believed in the AACN recommendations and consistently educated the local medical community and other faculty on campus about the value of the DNP. Their perseverance, careful planning, and enthusiasm make the long-term prospects for this program very positive.

Strong Community and Employer Demand for DNP-Educated NPs

Our third case study is of a large rural public university in the Northwest. The school has a long history of graduate nursing education—MSN programs for NPs were developed in the 1980s. In fact, the MSN programs were the first graduate programs offered in the university. The program pioneered distance education from the very beginning (using classes recorded on VHS tapes), allowing the school to extend its reach and expand its capacity more than it would have been able to otherwise. The school currently educates students at three campuses across the state. While all programs have a required face-to-face component, the use of distance learning continues today with the use of the Internet.

The school began developing a DNP program in 2005; it was approved by the state legislature in 2007. The state, like many others, incurred significant decreases in state support during the economic recession and between 2008 and 2012, and the university's overall state support decreased by 40 percent, making full funding of the DNP program impossible at the time of state approval. The program opened to postbaccalaureate students in 2012 without new funding, albeit using an innovative approach as we will describe. Noting that many schools begin with the post-master's DNP, the school cited the inability to hire new faculty to teach the DNP content as a reason to transition from the existing MSN to the BSN-to-DNP (rather than begin an MSN-to-DNP) immediately in 2012. If they began with the MSN-to-DNP, the school would have had to develop all of the DNP courses at once (along with finding the faculty to teach them), to offer to the first DNP cohort. That would have involved bringing 32 new semester credits online at once.

What they did instead, in transitioning directly to the BSN-to-DNP, was to revise the content of the relevant former MSN-level courses to include the additional DNP content. Under this plan, in the first year of operation, the school only had to offer four new DNP courses, and in the second year they added four more. Ultimately, through the strong work of the university president and faculty, the college was able to set aside funds for the full implementation of its DNP program beginning in 2013. The school was granted additional faculty positions, which allowed the school to more rapidly increase program capacity and to accept most applicants.

The BSN-to-DNP program has 84 students currently enrolled, and the program is a hybrid face-to-face, distance-education program. Students come to campus once a month, in which they attend the classes they are taking, have adviser meetings, take part in simulations, then return to their home communities to continue their coursework from a distance.

The school's transition to the DNP was also facilitated by a favorable response in the community and among employers, unlike other school representatives with whom we spoke. The school frequently engaged in discussions with health care organizations in the state, partly for the purposes of seeking clinical placements for students, particularly related to their capstone projects. Many of these were large multispecialty clinics that were increasingly facing pressures and incentives to improve quality and coordinate care. The disposition of the clinics toward the school's students was noted as extremely favorable, particularly to the additional skills and capabilities of the DNP content. As noted:

I am nothing short of amazed at how responsive our communities have been to our students who are working on their DNP projects, being really immersed in hospitals, and health care organizations, and clinics; doing these projects, they're just hungry for nurses who can function at that level in the organization, who have the leadership skills and the knowledge of research processes to really go into these organizations and make quality improvements in patient care delivery. The big multispecialty clinics really like that we're preparing students who have skills and talents beyond direct patient care, who really understand organizational change, and leadership, and evidence-based practice, and who really are prepared to go into organizations and help organizations manage large, evidence-based-change projects. So, we have students who are working to develop quality improvement plans in private practices. I mean, it's just a lot of large-scale projects that have gone untackled in these organizations because they have not had individuals who know how to do them.

The school representative further elaborated, providing an example of a large community hospital that had recently acquired roughly 20 family practices. In making this acquisition, they started using a common lab for all of the practices (rather than the myriad labs the practices had been using before) but one side effect of this change was a high labeling error rate (roughly 30 percent). The hospital did not anticipate that problem and didn't know how to proceed. When the problem was introduced to one of the DNP students, the student immediately put together the pieces needed to solve the problem and is now working with the care system to implement the solution. The school representative also cited the long-standing tradition of medical homes and coordinated care, managed care, and integrated, multispecialty group practices of the West Coast as also conducive to being able to capitalize on the capabilities of the DNP.

In making the transition from the MSN to the BSN-to-DNP, however, the school did note that interest in the MSN degree on the part of students did not immediately shift to the DNP. For example, they noted that soon after they announced that the MSN would be transitioning to the BSN-to-DNP in a few years, they began to receive an increased number of applicants to the MSN program (the highest they had ever had) from students seeking to obtain the degree before it was no longer offered. Once the MSN was transitioned to the DNP, enrollment dropped— partly because fewer students were admitted from among the applicants due to capacity constraints, but also partly because of a reduction, and a change, in the applicant pool itself. The DNP applicants were younger than those seeking the MSN. Many of these BSN-to-DNP students began pursuing their BSN with the goal of ultimately becoming an NP, whereas many of those seeking the MSN had been practicing registered nurses for a number of years. The school has since been building its enrolled DNP students back up again with increased acceptance of applicants (and an increasing pool of applicants, as well). However, they do continue to allow an MSN stop-off option for students wishing to leave with a MSN, noting that some students taking advantage of the stop-off option might move to competitor schools if that option were not available.

In summary, the school made the decision to transition the MSN to the BSN-to-DNP based on faculty enthusiasm and supported by strong community interest. Not having additional

funding or faculty forced the school to gradually transition the current MSN courses to DNP courses with a smaller newly entering cohort of students. Enrollment of APRN students dropped in the transition, as some MSN-seeking students sought degrees at other area schools, but DNP enrollment is building up to prior levels in the MSN. Furthermore, as employers of APRNs continue to see value in DNP students and graduates, the school hopes to continue to increase enrollment and meet demand in the state.

Transitioning a Previous Post-Master's Program into a DNP

Our fourth case study report concerns a private Midwestern university that first instituted its FNP program as a post-MSN program in 1994. To prepare for certification, FNP students first obtained their MSN and then completed the post-MSN FNP requirements (a total of approximately 56 credits). Building on this foundation, the school was able to smoothly transition to a DNP program for FNPs more than five years ago. Their post-MSN FNP program already included the FNP basics and their MSN, with its CNS focus, included nursing theory and research. School leaders were able to combine the course work from these degree programs and then add clinical hours, the capstone project, and additional courses (such as organizational culture and leadership) to comply with the AACN-recommended DNP essentials. In addition to the BSN-to-DNP, they crafted an MSN-to-DNP for FNPs who have completed a master's-level FNP program and are board-certified "because we're committed to creating advanced practice nurses who are credentialed at the recommended degree, which is the DNP." They began both the BSN-to-DNP program (which requires 70 credits) and the MSN-to-DNP program (which requires 27 credits) in 2008, graduated their first class of MSN-to-DNP students in 2010, and now have close to five years of experience with the programs.

The school never offered an APRN degree at the master's level. The respondent argued that doing so creates a situation similar to that of nurses with associate's degrees. Instead, they wanted to provide their graduates with the full program they would need for their future practice. The school took the position that "if the DNP is needed, then that's what we're going to have you have." When they transitioned to the DNP, they redesigned their master's program to focus on nursing education (30 hours of credit required) and act as an "emergency stop-out" for students who need to leave the DNP program before completing it.

The AACN recommendation was a clear facilitator of this school's decision to develop a BSN-to-DNP, as was the structure of the school's original APRN educational offering, in which they required FNP students to complete a post-master's FNP program. When their leadership heard the AACN recommendation, they saw their program (MSN plus post-master's FNP) as "really made to move to the DNP." Leaders were interested in a doctoral program and had discussed a PhD program, but decided that a DNP was a much better fit.

Another impetus to move to the DNP was the desire to "get out ahead of the competition." Both university administration and faculty were supportive. The university had a new president who had been a provost over an academic health center and understood the DNP. According to the respondent, "I didn't have to convince him at all . . . He already got it." With the support of

the new president, the school did not have any major administrative hurdles within the university. The faculty fully participated in developing the program. While the respondent thought that the faculty may have expressed concerns privately about the added demands on an already heavy workload, they expressed excitement about having the opportunity to develop a cutting-edge program from the ground up. The respondent stated:

> Rarely do you get the opportunity just to start with a blank sheet [and design a program around your vision of the graduate.] So they were very excited about doing curriculum development according to the book.

School leaders identified faculty numbers and clinical sites as the two major challenges to developing the DNP program and made plans to address them. The strongest argument against developing a DNP was the concern that they would not have adequate staffing. They addressed this challenge by enrolling seven of their certified FNP faculty in the DNP program. "We grew our own," the respondent said. The school addressed the clinical site challenge by directly negotiating with potential preceptors on a daily basis.

Clinical sites and faculty continue to pose challenges. While the school is currently fully staffed, leaders are thinking ahead to who might be mentored and prepared to apply for the next open position. Since the possibilities within the school have been exhausted, the search for mentees must now focus on possibilities from outside. While not a barrier, the capstone project has generated some complaints about the high level of faculty support demanded by the projects, particularly in such areas as statistics and writing.

The program has run smoothly over the years. They typically admit 12 BSN-to-DNP students and 12 MSN-to-DNP students. Although are not overwhelmed by the number of applications, the school always ends up with a waiting list. It uses "live-stream" technology, as well as some "online" instruction, to accommodate both students who live at a distance and those who prefer face-to-face instruction. According to the respondent, "this blending of synchronous and asynchronous technology provides versatility for the professor and students alike."

Serving Both MSN and BSN-to-DNP Students Simultaneously

Our fifth case study report is of a large mid-Atlantic public university located outside a large metropolitan area. The school introduced its first NP program in the mid-1980s and expanded its MSN tracks over time. It responded to AACN calls for APRNs to be DNP-prepared by 2015 and launched its DNP program in the fall of 2010. The school housed practice doctorates in both pharmacy and physical therapy prior to DNP development, which facilitated university buy-in for the DNP. Overall, the school had little difficulty launching the program, benefited greatly from the support of nursing program leadership and university administration, and has seen strong demand for the DNP.

The school offers both MSN-to-DNP and BSN-to-DNP pathways for the DNP. Post-master's students arrive with a specialization, but have the opportunity to tailor their DNP coursework and sit for a new specialization certification post-graduation. The core of the program is applicable to

all specialties and it targets statistics and research design, systems learning, evidence-based practice, policy, administration, and informatics. Upon application to the program, BSN-to-DNP students choose the specialization they plan to sit for after graduation. The majority of the program is offered in a hybrid format—in-seat core courses and an online option—which lends a great amount of flexibility to students. The program typically requires only six days on campus per semester, depending on coursework selected, with the exception of weekly in-seat didactic components during the clinical years for the FNP and adult gerontology NP (AGNP) concentrations.

The school initially offered adult NP and FNP concentrations for the DNP, as well as nursing administration and advanced clinical nursing. A focus on primary care, stimulated by the Consensus Model, motivated the school's decision to update its adult NP concentration to adult gerontology NP and to add a family psychiatric mental health concentration (FPMHNP). Low enrollment and limited student interest is leading to a phasing out of the advanced clinical nursing concentration. Currently, DNP students can choose from the following concentrations:

- AGNP
- FNP
- FPMHNP
- Nursing Administration

Student demand for the DNP is strong and the program has expanded rapidly. The BSN-to-DNP program started out smaller than the MSN-to-DNP, but BSN-to-DNP enrollment now exceeds the MSN-to-DNP pathway. The bulk of student demand is for the FNP, but there is strong interest across tracks and programs; enough, in fact, that the school has had to turn away many interested students. The school representative stated:

> Probably 85–90 percent of [the school's DNP] applications are BSN-to-DNP.
> And within that, most are looking for the FNP.

At the same time, the school continues to experience strong demand for the MSN, and thus, they have preserved their terminal MSN and post-master's certificate programs. The representative noted:

> We listen to the market forces. We've considered [closing our MSN program],
> but, really, the community is still demanding it here. So we're going to leave it
> open for the time being. We receive numerous applications in both the MSN and
> DNP programs.

Upon opening its DNP, the school faced little competition from surrounding universities. The nearest program was located more than an hour away and universities in the surrounding metro area were only in the beginning stages of developing their DNP programs. These programs, being relatively new to the market, have not posed a real challenge to the school, but may compete for students in the future.

The search for clinical sites has expanded outside a once-small geographic boundary. In addition to stretching its search frontier, the school has looked for placement in nontraditional settings. One recent experiment involves layering students in a nurse-managed clinic. The goal is to bring undergraduate, MSN, and DNP students together for clinical training where MSNs mentor undergraduates, DNPs mentor MSNs, and a physician or nurse practitioner oversees clinic operations. Nevertheless, it is difficult to parse out the degree to which the DNP has exacerbated the problem of clinical placements, relative to what it would have been if the school had merely continued to expand the MSN.

To meet faculty needs of the DNP, the school grew its own. DNPs were brought on to assist with the MSN program, but are now active in the DNP program as well. University bylaws restrict tenure-track positions to PhDs, but the program has increased its DNP faculty, offering term positions that renew every couple of years. Faculty members are encouraged to maintain clinical activity, and to practice at least one day a week.

The school is hesitant to advertise that they prepare students for faculty positions, but instead encourages those aspiring to be faculty to combine the DNP with a post-master's nurse educator certificate. Officials see a high demand for DNP faculty in the market, but prefer to stick to AACN program recommendations. The school adheres to the AACN Essentials.

Employer demand for DNP students is less certain. The first BSN-to-DNP cohort is about to graduate and results of their performance in the job market are forthcoming. Most MSN-to-DNP graduates remained within their organizations and took on additional roles and responsibilities, but compensation data has not been collected. Currently, the school is optimistic about employer demand and interest in graduates from both pathways.

In summary, this school is a supportive, relatively early adopter of the DNP that offers nearly every combination of APRN degree program. The school quickly and smoothly developed the BSN-to-DNP, but paired the program with an MSN-to-DNP pathway and preserved its MSN APRN programs because of observed student interest and market demand. Much of the school's success in adopting the DNP can be credited to the nursing program leadership and support of the university administration. Program offerings have been informed by observed student demand and challenges have been matched with innovative solutions. There is no reason to believe that this resourcefulness will not persist into the future.

Appendix A: MSN-to-DNP Programs

While not the primary focus of our investigation, many schools we spoke with discussed the MSN-to-DNP at length as either their main or primary experience to date with the DNP. There are some facets of MSN-to-DNP programs that may play a role in schools' decisionmaking about whether to fully transition to the DNP as the entry degree for APRNs. Thus, we summarize the nature of those discussions here.

More than half of schools that offer a DNP do so only as a post-master's program, as we have discussed. There is notable variation in the MSN-to-DNP programs offered. While some are specific to APRN fields, most appear to be generalized, with courses focusing on leadership, health systems, evidence-based practice, and other content that is not specific to advanced practice. Among the schools we interviewed, none had courses in their MSN-to-DNP programs that were APRN-specific clinical courses. At many schools, MSN-to-DNP programs are described as education, leadership, or health policy programs. These general MSN-to-DNP programs may have been preferred by some schools upon first developing DNP programs because they can be offered to a greater number of master's-prepared nurses. Also making them easier to offer to a wide range of students (both in terms of specialty/role and geographic location), most programs we encountered are offered at least partly online, and some are essentially fully online. Those that are partly online may have a few classes that must be taken on campus, but more often have short on-campus sessions for specific program activities or course components.

Also, MSN-to-DNP programs can be offered without the need to search for new clinical sites. Because APRN students in these programs already have licensure and certification, they can meet clinical requirements in a practice setting where they are already employed and continue to be paid by the employer; however, the work would still need to be intentional, have objectives, and overseen by university faculty.

> This may be getting down in the weeds but one of the things we do, of course, now with our DNPs—they're already licensed as nurse practitioners, so they can go into their clinical work fully licensed and able to work as a fully licensed nurse practitioner and the practices love that. They pay them for their work and they're really great students because they're a student but they're also a licensed nurse practitioner.

Because students in MSN-to-DNP programs are able to complete their capstone projects within their workplaces, some program directors believe that the additional workload for faculty is minimal. On transitioning MSN students to the DNP and the increase in capstone projects:

> Well, it is going to increase the workload of the faculty but not by much. They're already chairing master's projects now and working with students. We are implementing for the graduate faculty a reduction in teaching load by one three-

credit-hour load. We have a heavy teaching load, as you might imagine, starting out as a predominantly undergraduate program, and so that transition as we move forward is going to stress us, I think.

Some public university–based MSN-to-DNP programs are "fee-based" programs. These programs operate outside the normal programs of the School of Nursing; for example, at one university we spoke to, the DNP is offered through extended learning, and at another, the DNP is offered through professional and continuing education. Most of these types of programs are self-supporting, and may even be used as a source of extra revenue for the sponsoring school. The fees for these programs are higher than normal state university tuition, because the program is not supported by any state government allocation.

Schools that view the MSN-to-DNP as an opportunity to increase revenues have little incentive to transition away from them. The continued presence of MSN programs will provide a continued supply of candidates for MSN-to-DNP programs, so the potential for continued revenue is high. Transitioning to the BSN-to-DNP could reduce total enrollments and incur financial losses.

> There's somewhat of a need for the MSN-to-DNP, but I think going forward [in developing the BSN-to-DNP] we're going to be competing with that degree. I think we have to address it in some way.

Thus, it is unclear if the MSN-to-DNP represents an additional barrier to offering the BSN-to-DNP in some schools. Nevertheless, more often than not, it probably makes it easier to later offer the BSN-to-DNP, in that it establishes the DNP content at the school. As one director noted:

> I think doing it the way we've been doing it [MSN-to-DNP] is easing us into it a little bit [towards BSN-to-DNP]. Again, it [BSN-to-DNP] was a hard sell to my faculty.

Appendix B: Online Survey Instrument

The following represents the text-based version of the content of the online survey.

Introductory Language

The American Association of Colleges of Nursing has contracted with RAND, a private nonprofit research organization, to better understand the barriers to full adoption of the doctor of nursing practice (DNP) degree, as well as factors that facilitate adoption of the baccalaureate-to-DNP program track; particularly for nurse practitioners (NPs), certified nurse-midwives (CNMs), certified registered nurse anesthetists (CRNA) and certified clinical nurse specialists (CNSs) for advanced practice nursing.

RAND will use the information you provide for research purposes only. Although we ask for information that identifies your school in the survey, your answers will remain confidential and **the AACN will not have access to your answers, nor will it in any way be able to associate your answers with your school.**

There are 20 questions, some with multiple parts, and we expect the survey to take roughly 15 minutes to complete. While your individual answers will not be disclosed beyond the research team, your institution's participation in the survey will be acknowledged in our final report.

We understand that there are many demands on your time. In order to fully understand the challenges and issues surrounding the DNP and, generally, the future of nursing education, we aim to obtain responses from virtually all schools of higher nursing education—your participation is critical to this understanding.

DNP Offer Status:

1. Please tell us about the following Doctor of Nursing Practice (DNP) programs you may have (check one box for each question):

    DNP for Nurse Practitioners
    - a. BSN to DNP only
    - b. Master's to DNP only
    - c. Both
    - d. None

    DNP for Nurse-Midwives
    - a. BSN to DNP only
    - b. Master's to DNP only
    - c. Both
    - d. None

    DNP for Clinical Nurse Specialists
    - a. BSN to DNP only
    - b. Master's to DNP only
    - c. Both
    - d. None

    DNP for Certified Registered Nurse Anesthetists
    - a. BSN to DNP only
    - b. Master's to DNP only
    - c. Both
    - d. None

    Other (specify)_____
    - a. BSN to DNP only
    - b. Master's to DNP only
    - c. Both
    - d. None

2. When did you admit the first cohort of students to your Doctor of Nursing Practice program related to each of the following:
    - a. Nurse Practitioners (year/N/A)
    - b. Nurse-Midwives (year/N/A)
    - c. Certified Registered Nurse Anesthetists (year/N/A),
    - d. Clinical Nurse Specialists (year/N/A)
    - e. Other (year/N/A)

3. Did you have a DNP program for NPs, NMs, CRNAs, or CNSs in the past that you no longer have today?
    - a. Yes
    - b. No

4. What type of Master of Nursing Practice does your institution currently offer? Select all that apply?
   a. Master's program specifically for Nurse Practitioners
   b. Master's program specifically for Nurse-Midwives
   c. Master's program specifically for Clinical Nurse Specialists
   d. Master's program specifically for Nurse Anesthetists
   e. Other: (Specify)_____
   f. We do not offer a Master's program

5. What type of Doctor of Nursing Practice program is your institution planning on offering by 2016? (Please select one response for each question.)

   DNP for Nurse Practitioners
      e. BSN to DNP only
      f. Master's to DNP only
      g. Both
      h. None

   DNP for Nurse-Midwives
      e. BSN to DNP only
      f. Master's to DNP only
      g. Both
      h. None

   DNP for Clinical Nurse Specialists
      e. BSN to DNP only
      f. Master's to DNP only
      g. Both
      h. None

   DNP for Certified Nurse Anesthetists
      e. BSN to DNP only
      f. Master's to DNP only
      g. Both
      h. None

   Other (specify)_____
      e. BSN to DNP only
      f. Master's to DNP only
      g. Both
      h. None

Reasons for Offering the DNP

[For all schools]
Below are some reasons schools have noted for **offering** the DNP (either BSN-to-DNP or Master's-to-DNP). Please state how important each was when you were deciding whether to offer a DNP program (regardless of whether you currently offer a DNP or not). For this question, unless otherwise specified, please answer with regard to the DNP for NP, NM, and CNS groups.

Factors ranked on the following:

Not Important (1)	Somewhat Important (2)	Important (3)	Very Important (4)	Critical/Decisive (5)	Not Applicable

Value of the education in preparing for future health care needs
Enthusiasm among our faculty to offer the DNP
Concern about losing students to other schools in our geographic region that offer the DNP
Feedback from employers that they would prefer DNP graduates
Requests from applicants for information about DNP programs at our school
Belief that the DNP is now sufficiently validated to warrant offering it
Support from college/university president for this program
Interest in increasing tuition-based revenue
AACN's endorsement of the DNP
Support of the DNP by influential nursing schools in your geographic area
CRNA programs only: Adoption of the doctoral requirement for certification

Please list any additional factors that favor offering a DNP program that are not listed above, with an indicator as to their level of importance.
  a. Open-ended

Reasons for Not Offering a DNP

Below are some reasons schools have noted for **not offering** the DNP (either BSN-to-DNP or Master's-to-DNP). Please state how important each of these were when you were deciding whether to offer a DNP program (regardless of whether you currently offer a DNP or not), or in implementing a program if you have already done so. For this question, unless otherwise specified, please answer with regard to the DNP for NP, NM, and CNS groups.

Factors ranked on the following:

Not Important (1)	Somewhat Important (2)	Important (3)	Very Important (4)	Critical/Decisive (5)	Not Applicable

Faculty concerns about having DNP program compete with PhD program
Lack of demand from students
Cost to students of additional education
Lack of faculty in the area that could teach at the doctoral level
Costs/budgetary limitations for the development of the program
Lack of support from campus leadership for a new program
Employer feedback that program graduates would not be valued
The impact of influential articles by nursing thought leaders skeptical of the DNP
Already have a strong and successful master's program
Inconsistency with the university's strategic plan
Lack of statutory and/or regulatory pathway for legal recognition of the DNP graduate
Regulations or requirements associated with the establishment of new education programs (e.g. higher education oversight board policies, state education code or regulations, university charter, funding policies)
Challenges of having a new program accredited
Lack of adoption of DNP as required entry-level degree for advanced practice
Concern in reducing the number of APRN graduates (at least temporarily) upon lengthening the program
We are not a doctoral-granting institution

Please list any additional reasons for not offering a DNP program that are not listed above, with an indicator as to their level of importance.

    a. Open-ended

Reasons for Retaining the MS Degree

[For schools offering or planning to offer a DNP for APRNs]

1. Does your institution plan to retain the BSN-to-Master's option for Advanced Practice Registered Nurses?
   a. Yes
   b. No

[If the respondent answers "Yes" to Question 1.]

2. For any of the APRN DNP programs for which you plan to retain a Master's, how important are the following in your decision to retain the Master's program?

Factors ranked on the following:

Not Important (1)	Somewhat Important (2)	Important (3)	Very Important (4)	Critical/Decisive (5)	Not Applicable

Can't afford to lose students who only want Master's; student demand
Worried about competition from other schools for Master's students
Uncertainty about market demand for DNP
Faculty desire to maintain Master's program
Opposition from policymakers beyond nursing school (at university or state level)
Opposition or lack of interest from stakeholders, i.e. area health systems or organizations
Allows students to qualify for APRN certification prior to completion of DNP degree
Ability to revert to Master's degree should the university choose to discontinue the DNP

3. Please list any additional factors that influenced your decision to retain the Master's program, with an indicator as to their level of importance.
   a. Open-ended

Reasons for Pursuing a BSN-to-DNP Program

[For schools offering or planning to offer a BSN to DNP]

For any of the DNP programs for which you offer a BSN to DNP, how important are the following in your decision to establish the BSN-to-DNP option as opposed to only offering the Master's-to-DNP option?

Not Important (1)	Somewhat Important (2)	Important (3)	Very Important (4)	Critical/Decisive (5)	Not Applicable

Had not offered any graduate program in the past, so decided to go directly to BSN to DNP
Master's programs don't have some of the necessary requirements that are included in the DNP curriculum, and we prefer the DNP option as a result
Interest of prospective students was greater for the DNP than for the Master's
AACN's endorsement of the DNP
Adherence to IOM's report on the future of nursing, that nursing education needs to be streamlined
Lack of student demand for Master's to DNP (i.e., expect to receive more applicants for the BSN to DNP)

Please list any additional factors that influenced your decision to offer the BSN to DNP option, with an indicator as to their level of importance.
   a. Open-ended

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Reasons for Not Pursuing a BSN to DNP Program

[For schools offering or planning to offer a Master's to DNP only]
For any of the DNP programs for which you offer only a Master's-to-DNP, how important are the following in your decision to not develop a BSN to DNP?

Factors ranked on the following:

Not Important (1)	Somewhat Important (2)	Important (3)	Very Important (4)	Critical/Decisive (5)	Not Applicable

Too significant a change in curriculum and education to take on
Lack of student and employer demand
Uncertainty about market demand for DNP
Opposition from policymakers beyond nursing school (at university or state level)
Fundamental belief that Master's to DNP is the better educational option compared to the BSN to DNP
Concern about maintaining student applicant/admission numbers
Lack of resources and faculty expertise to guide students from BSN to DNP
Inability to achieve the 1000 practice hours due to lack of preceptor/site resources

Please list any additional factors that influenced your decision to retain the MSN program, with an indicator as to their level of importance.
   a. Open-ended

Challenges to Sustaining a Program

[For schools offering any program (question 2)]:
The following are some possible challenges to sustaining a DNP program. Please state the extent to which each has been a challenge for your institution:

Factors ranked on the following:

Not a Challenge (1)	Somewhat of a Challenge (2)	Significant Challenge (3)

Student attrition
Program cost growth
Faculty turnover
Maintaining new student enrollment
Maintaining clinical sites or capstone programs
Faculty burnout
Maintaining faculty support
Maintaining administration support
Limited support from university/college leadership
Lack of student demand
Competition with area schools that continue to offer the Master's

Please describe one or two challenges you have encountered in sustaining the DNP program once it has been implemented.
   a. Open-ended

Types of Assistance

[For schools planning to offer any type of DNP program]
Which of the following would be helpful to you as you work to develop and/or sustain your DNP program? If your institution does not currently offer a program, please check all that might encourage your institution to offer a program.

Factors ranked on the following:

Not Helpful (1)	Minimally Helpful (2)	Somewhat Helpful (3)	Very Helpful (4)	Not Applicable

Curriculum patterns or plans
Course syllabi
Opportunity to discuss issues with colleagues at other schools
A better understanding of how clinical hours are managed
Revisit the number of clinical hours required for the DNP
Information on strategies for securing clinical placements
Data demonstrating the benefits of DNP to population and students
DNP scholarly project guidelines
Access to faculty expertise

Appendix C: List of Interviewed Schools

Alverno College
California State University-Los Angeles
Cleveland State University
Colorado Mesa University
Columbia University
Concordia University Irvine (CA)
Gannon University
George Mason University
Georgia College and State University
Millikin University
Morehead State University
Murray State University
North Park University
Northeastern University
Rhode Island College
Saint Peter's University
University of Alabama at Birmingham
University of Colorado at Denver
University of Delaware
University of Hawaii at Manoa
University of Illinois at Chicago
University of Iowa
University of Mary
University of Nevada-Reno
University of Pennsylvania
University of Wisconsin-Madison
Valparaiso University
Washington State University
Yale University

* One school declined to be listed.

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