## Title

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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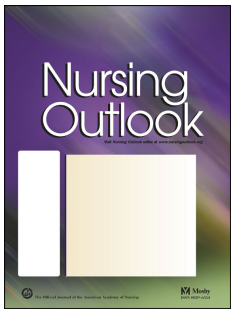


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# DNP by 2015: An examination of nursing schools' decisions to offer a Doctor of Nursing Practice degree

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**Abstract**

*Background* The American Association of Colleges of Nursing recommends that nursing schools transition their APRN programs to doctoral of nursing practice (DNP) programs by 2015. However, most schools have not yet made this full transition.

*Purpose* To understand schools' decisions regarding the full transition to the DNP.

*Methods* Key informant interviews and an online survey of nursing school deans and program directors.

*Discussion* The vast majority of schools value the DNP in preparing APRNs for the future of the healthcare system. However, other important factors influence many schools to fully transition or not to the BSN-to-DNP, including perceived student and employer demand, issues concerning accreditation and certification, and resource constraints.

*Conclusion* Multiple pathways to becoming an APRN are likely to remain until various factors (e.g., student and employer demand, certification and accreditation issues, and resource constraints) yield a more favorable environment for a full transition to the DNP.

**Introduction**

In 2004, the membership of the American Association of Colleges of Nursing (AACN) approved a position statement supporting the adoption of the doctor of nursing practice (DNP) as the most appropriate level of education for advanced practice registered nurses (APRNs) and recommended that schools transition their current masters of science (MSN) programs to DNP programs by 2015 (American Association of Colleges of Nursing, 2004). This position statement has been controversial among nursing school faculty and leadership. Proponents of the DNP degree as a replacement for the MSN argue that this transition will address a number of important societal, educational, and professional issues (Udlis & Mancuso, 2012). Particularly, with the adoption of the Affordable Care Act, the healthcare system will require more and better-educated APRNs to manage patient care, develop and execute quality improvement programs, and participate in the healthcare policymaking process. A recent Institute of Medicine (IOM) report, titled *The Future of Nursing* (2011), called for a doubling of the number of doctoral-prepared nurses to help meet the future demands of increasingly integrated healthcare delivery systems, new payment methods that promote care coordination and reward quality, and the impending retirements of nursing faculty. Many advocates of the DNP as the entry-level education for APRNs also point to other health professions that have transitioned to doctoral-level entry, such as pharmacy (Accreditation Council for Pharmacy Education, 2007) and physical therapy (American Physical Therapy Association, 2013).

Those more critical of establishing the DNP as the entry-level degree for APRNs have expressed concern that moving toward the DNP would impose significant costs and faculty burden on schools and worry that such a move will further limit the supply of APRNs at a time when they are in high demand (Cronenwett et al., 2011). Furthermore, these critics argue that

there is not yet evidence of added value in terms of outcomes of care provided by DNP-prepared APRNs compared with MSN-prepared APRNs.

Since the AACN's position statement, many schools have developed DNP programs for APRNs, including both post-baccalaureate DNP and post-masters DNP programs—BSN–to-DNP and MSN-to-DNP, respectively. According to a recent report, of the schools offering graduate education in 2013, nearly half offer any DNP(Auerbach et al., 2015). Likewise, many schools are offering the DNP as the entry-level degree for APRN education. Roughly 30% of schools that offer APRN education currently offer the BSN-to-DNP, while that percentage could approach 50% in the next several years based on reported plans to adopt BSN-to-DNP programs in the future. However, schools have moved toward *replacing* their MSN APRN programs with the BSN-to-DNP at a much slower rate. Less than 15% of schools that offer some APRN education provide only the BSN-to-DNP and do not offer MSN-level APRN education. Furthermore, only 27% of schools that had an MSN and offered or planned to offer a BSN-to-DNP planned to discontinue the MSN (Auerbach et al., 2015). This suggests that many schools are deciding to retain the MSN as an educational option for APRNs.

Little is known about how and why schools decide to offer various combinations of APRN education options. The purpose of this study is to understand schools' decisions related to adopting DNP programs and transitioning toward the BSN-to-DNP as the sole entry-level option for APRNs, in accordance with the AACN position statement. To do this, we use a mixed-methods approach based on key informant interviews and data from a structured online survey of nursing school deans and program directors.

**Methods**

This study uses a mixed-methods approach to describe the views of representatives from nursing schools with varying levels of adoption of the DNP. The study relies on two novel sources of data: (1) qualitative key informant interviews and (2) an online survey. This section describes the data sources and the methods.

*Data Sources*

Key informant interviews

Key informant interviews were conducted with deans and chairs in nursing schools. In a small number of circumstances, the dean or chair asked other representatives (i.e., concentration directors) to also participate in the interview to provide concentration-specific information. The interview participants were selected to obtain a sample of schools representing varying entry-level APRN program offerings. The schools included those with no graduate-level APRN education, only MSN-level APRN education, a mix of MSN- and DNP-level APRN education, and only DNP-level APRN education. The sampling frame for the study was 550 schools that reported to the 2012 AACN Annual Survey of Nursing Schools and had at least one graduate program. To select the sample, we first placed the schools into eight strata, defined by both their current or planned offering status and their Carnegie Classification codes. Schools were randomly selected within each stratum; if a school refused to participate or did not respond, we replaced it with another school in the same stratum. We conducted interviews with 29 schools.

The interviews lasted approximately one hour and were conducted over the telephone by a trained interviewer. The interviews were guided by a semi-structured interview protocol, which was developed iteratively by the authors; a panel of nursing school deans (who did not participate in the interviews) provided expert feedback on the content and organization of the protocol. 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 to offering a DNP program, (6) reasons for retaining or closing a master's degree APRN program, and (7) reasons for adopting the BSN-to-DNP specifically.

Online survey data

The second data source was an online survey of nursing schools developed by the authors and fielded by the RAND Survey Research Group. A link to the survey was sent to deans and chairs at nursing schools. They were given explicit instruction to solicit assistance from other nursing school representatives such as concentration directors. We did not, however, collect specific information on all individuals that participated in responding to the survey. The survey was fielded online between December 9, 2013, and January 23, 2014, to 555 schools of nursing that reported offering at least one graduate-level nursing program on the 2012 AACN Annual Survey of Nursing Schools. An initial email was sent by the president of the AACN, and after the survey link was sent, there were two follow-up emails. The final number of completed surveys obtained was 345 (of 550), for a response rate of 63%.

The survey questionnaire was iteratively developed by the authors with input from the panel of deans and focused on six broad topics: (1) the reasons for offering or not offering the DNP, (2) the reasons for offering or not offering the BSN-to-DNP specifically, (3) the factors affecting the development of the DNP, (4) the factors affecting programs' ability to sustain the DNP program, (5) the reasons for retaining the master's program while also offering the DNP, and (6) the forms of assistance that could be helpful to schools in offering or sustaining a DNP program. The survey included a total of 20 questions. Except for introductory questions eliciting information about specific degrees offered by the nursing program, all questions used 3- to 5-

point Likert scales to measure the importance of different barriers, factors, and reasons. The survey took roughly 15 minutes for respondents to complete. We also asked schools about their current and planned (by 2016) offerings of APRN programs for each of the four APRN roles (nurse practitioners, certified registered nurse anesthetists, certified nurse-midwives, and clinical nurse specialists).

*Analysis*

We used content analysis to describe the thoughts and experiences of nursing school representatives (Hsieh & Shannon, 2005). Each section of the notes was read by two authors, and key themes related to each research question were extracted. The themes were reviewed by all authors for content and face validity. Once the authors agreed on the content of the themes, illustrative quotes were pulled from the transcripts.

The analysis of the survey data was descriptive. . We collapsed categorical responses for some analyses. For example, we employed Likert scales to assess the importance of reasons for offering a DNP, with choices being: not important, somewhat important, important, very important, and critical/decisive. In some analyses, we combined the two responses on either extreme end of the scale and retained the middle category to create new categories of less important, important, and more important.

Using a mixed-method approach, we integrated the results from the interview and online survey data. We used both the online survey and interview data to develop a number of key thematic areas related to schools' decisions to develop a BSN-to-DNP. Many of these thematic areas were identified primarily using the qualitative data, while fewer were based primarily the online survey data. We integrated interview and survey data in an iterative fashion until the authors felt that the themes were supported in both the online survey and the interview data. The

results from the survey data were used to validate, illustrate, and bolster the results of the qualitative data and vice-versa. Throughout the findings section, we attempt to demonstrate how each source of data helped to inform each of the thematic areas. More detailed data and information from the interviews and the online survey have been published previously (Auerbach et al., 2015).

Previous analysis has demonstrated that autonomous schools (i.e., autonomous school or college within the university, a freestanding or single-purpose college, or school of nursing) were significantly more likely than non-autonomous schools (i.e., a department or division within the college or university or a college, department, division, or program merged with other health professions) to have a BSN-to-DNP (Auerbach et al., 2015). Controlling for other key program characteristics, (i.e., program size, Carnegie codes, having a research doctorate) the autonomous nature of the school was the only characteristics significantly associated with offering a BSN-to-DNP. So, where applicable, we compared survey results for autonomous and non-autonomous schools.

The schools with certified registered nurse anesthetist (CRNA) programs were asked to focus their answers on their decisions for their NP, clinical nurse specialist, and certified nurse midwife programs. Programs' decisions related to the CRNA degree offerings are likely different from other APRN degree offerings because the Council on Accreditation of Nurse Anesthesia Education has decided that all CRNA programs must be at the doctoral level by 2022 and that all new candidates for certification must hold a doctoral degree by 2025.

**Findings**

The schools that participated in the online survey and the interviews were diverse (see Table 1). As with the larger population of schools, the largest subset of schools that participated in the

online survey and/or the interviews offered only an APRN master's degree, while roughly 25–30% of the participants had some type of BSN-to-DNP program for APRNs. The schools represented a range of public and religious affiliations, regions, and relationships to a larger educational institution. The mean size for the schools was 181 graduate students with a standard deviation of 240.

**Table 1. Descriptive Statistics for Online Survey Respondents and Interview Participants**

| | **Online Survey Respondents (n=345)** (%)* | **Interview Participants (n=29)** (%)* | **All programs (n=550) (%)*** |
|---|---|---|---|
| Entry-level APRN offerings | | | |
| No APRN education | 25.4 | 13.8 | 25.4 |
| Masters only | 45.4 | 55.2 | 52.3 |
| BSN-to-DNP and masters | 15.5 | 13.8 | 13.6 |
| BSN-to-DNP only | 11.0 | 17.2 | 8.7 |
| School affiliation | | | |
| Public | 48.3 | 58.6 | 49.8 |
| Private, religious | 18.0 | 20.7 | 19.6 |
| Private, nonreligious | 30.8 | 20.7 | 30.6 |
| Region | | | |
| Northeast | 19.5 | 24.1 | 23.3 |
| Midwest | 30.2 | 31.0 | 28.6 |
| Southeast | 36.2 | 20.7 | 33.8 |
| West | 14.1 | 24.1 | 14.4 |
| Relationship of school to larger institution | | | |
| Freestanding or autonomous school or college within a university | 51.5 | 58.6 | 54.7 |
| Department or division within a larger entity | 48.5 | 41.4 | 45.3 |

| | Mean (SD) | Mean (SD) | Mean (SD) |
|---|---|---|---|
| Size of graduate program | 180.9 (239.7) | 212.3 (161.4) | 203.7 (519.0) |

*Column subgroups may not add to 100% due to missing data and/or rounding

These varied schools were largely supportive of the essential DNP program elements and competencies specified by the AACN [e.g., quality-improvement leadership, interprofessional collaboration, and population health] (American Association of Colleges of Nursing, 2006) and believed that these requirements describe important and useful competencies in APRN education. A small subset of schools was precluded from offering a DNP program either because their states restricted graduate education to certain schools or the schools were not doctorate-granting institutions. Among schools that were permitted to offer doctoral programs, we identified four key factors driving schools' decisions to replace their MSN programs with the BSN-to-DNP: (1) perceived value of DNP education to address future healthcare needs, (2) perceived student demand, (3) perceived employer demand, (4) accreditation and certification, and 5) resource constraints (faculty and financial).

In the online survey, we found other factors that were reported to be important, namely clinical site availability and state regulatory requirements. However, in the interviews we found that these factors often functioned more as facilitators or barriers to developing a DNP program once the decision had been made to start a program. Such issues were generally addressed after the school was committed to pursue the BSN-to-DNP option. In this analysis we focus on the factors that can influence and have influenced schools' initial decisions to adopt the BSN-to-DNP.

*Perceived Value of the DNP*

Eighty-five percent of respondents to the online survey noted that they considered the value of the DNP education in preparing APRNs for the future needs of the healthcare system as at least a

very important reason for offering the DNP. Among schools that currently offer or planned a BSN-to-DNP, that percentage increased to 93 percent. Yet among the schools we interviewed, there was an important diversity of opinion regarding the extent to which the value of the DNP content drove schools' program offerings. The analysis of the interview data revealed three key themes related to the diversity in opinion about the value of the BSN-to-DNP, these themes were used to characterize three specific types of schools.

On one end of the spectrum were schools that strongly believed in the added value of the DNP content and were thus extremely enthusiastic about offering it. All believed that the trajectory of the healthcare system necessitated DNP competencies. These schools were generally early adopters of the BSN-to-DNP and were the first to fully transition away from their MSN programs.

A second set of schools thought that 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 for entry-level APRN education, but were inclined to follow rather than lead the charge. Among these schools, many retained their APRN masters programs while developing and offering BSN-to-DNP programs. Some of these schools noted that they were meeting the needs of students; students who were enthusiastic about the DNP could embark on the BSN-to-DNP, while those wanting to enter practice more quickly could select the MSN option.

Finally, a third set of schools was skeptical about the added value of the DNP. As one representative said: "I think that there were some people that felt that it [BSN-to-DNP] 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 value in the additional courses in the DNP curricula but did not see them as necessary for effective practice.

Although many of the schools in the second and third categories could see at least some value in the DNP, they often indicated that they will not fully transition to the BSN-to-DNP until other conditions had been met; these are related to the other four factors driving DNP decisions.

*Perceived Student Demand*

During the interviews, many nursing school representatives expressed that student demand for each type of APRN program was an important factor in determining the types of programs that they would offer. However, the role of perceived student demand was mixed. Many schools saw significant demand for both the BSN-to-DNP and the MSN-to-DNP, as well as demand for the MSN. This has influenced many schools to adopt the BSN-to-DNP but still retain the MSN.

In the online survey, student demand was not one of the most important factors toward offering the BSN-to-DNP. However, it was cited as at least an important factor among 79 percent of schools that already had or were planning a BSN-to-DNP. A group of schools reporting that student demand was important felt that that when offered by a school, the demand for the BSN-to-DNP was strong. One school noted: "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." Furthermore, lack of student demand was not a strong reason that schools did not offer the DNP. Lack of student demand for the DNP

ranked in bottom third of the most important factors among schools that did not offer the BSN-to-DNP.

However, interview participants 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. These schools often pointed to growing enrollment in BSN-to-DNP programs *and* MSN programs as evidence that there was significant demand for both. Ongoing student demand for the MSN was noted as an important reason both for not offering the BSN-to-DNP and for maintaining the MSN while offering the BSN-to-DNP. In the online survey, 78% of representatives whose schools were retaining the MSN cited student demand as at least a very important reason that they did not discontinue their MSN programs.

Overall, perceptions of student demand for the BSN-to-DNP as the only option for entry into APRN practice were mixed. Schools that had BSN-to-DNP programs experienced steady and strong demand among prospective students. However, other schools were reluctant to fully transition to the BSN-to-DNP because they experienced persistent demand for the MSN.

*Employer Demand*

Schools that we interviewed cited demand for the DNP from employers who hire APRNs as a mixed factor influencing decisions to fully transition to the BSN-to-DNP. Schools often mentioned in the interviews that while many employers had strong demand for APRNs, employers often did not understand the value of DNP programs relative to MSN education. Some school representatives noted that demand for DNP-prepared APRNs depended on the specific practice role. Some nursing school representatives referenced employers seeking APRNs to function in roles related to leadership and quality improvement. In those cases, the school representatives commented on the significant demand for DNP-prepared APRNs.

During the interviews, many representatives stated that employers in their areas did not appear to demand DNP-prepared APRNs for day-to-day patient care duties. This observation was supported by the online survey; for schools that planned on offering the BSN-to-DNP, nearly 50% said that employer demand was less important in their decision to offer the BSN-to-DNP. Some school representatives noted during the interviews that some 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 described the perceived lack of employer demand for the DNP: "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."

At the same time, nursing school representatives did not feel that employers were actively lobbying against DNP education either. In the online survey, employer demand was ranked in the bottom third of the most important factors in the online survey as a reason not to offer the DNP among schools that did not offer the BSN-to-DNP. During one of the interviews, one school expressed this sentiment as follows: "We have not yet had any employers even discuss or say, 'oh yes, please, they (APRNs) must have a DNP.' That's really not the atmosphere here. They (also) don't talk against it; I don't want to imply that."

Employer demand has had a mixed influence on schools' decisions to fully transition from the MSN to the BSN-to-DNP. Nursing school representatives that offer the DNP noted that many employers valued their DNP-prepared nurses but were not actively demanding BSN-to-DNP graduates. Some representatives noted in the interviews that until employers clearly prefer BSN-to-DNP graduates, their schools are less likely to make the full transition to the BSN-to-DNP.

*Accreditation and Certification*

Another factor in schools' decisions to fully transition to the BSN-to-DNP is the accreditation of nursing education programs and the certification of APRNs. Many schools suggested in the interviews that they will continue to offer both the BSN-to-DNP and the MSN as long as certifying bodies do not require the DNP for APRNs. For example, one representative said: ". 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 be doctoral-prepared to practice, I think the master's program will disappear."

Policy statements from the organization that certifies CRNAs have influenced schools without a DNP program to adopt the BSN-to-DNP for CRNA preparation. Nearly all (97%) 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 representative from a school historically reluctant to adopt the DNP commented: "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."

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 DNP programs. This recommendation was seen by many schools as a sign that accrediting bodies would move toward making accreditation of APRN programs contingent on having a DNP. Several schools explained in interviews that it was their primary motivation, which concurs with the large number of schools citing it as at least a very important in the online survey (78%). Others believed that if the AACN had taken this position, whether they agreed with it or not, then it was the trajectory of nursing education and they needed to follow it. Others mentioned the IOM report urging the

training of more doctoral-prepared nurses as also increasing their sense that the field would eventually move in this direction (Institute of Medicine, 2011).

*Resources*

Respondents also noted that resource constraints, particularly financial and faculty resources were important barriers to the full transition to the DNP. Cost and budgetary limitations ranked as the third most important factor for not offering the DNP among schools that did not have or plan to offer a BSN-to-DNP. Many of the schools interviewed mentioned fiscal challenges to their efforts to establish and/or implement a DNP program. One school noted that: "Cost is also an issue. At least from my perspective, educating doctoral students in nursing is expensive….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 also suggested that cost concerns were linked to concerns about student enrollment. Some schools were concerned that enrollment would not be able to cover the costs of program expansions. 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. The interview data suggested that some of the variation among schools' concerns about costs was related to the strength of the schools' position in their region and of their applicant pool. Schools in stronger positions tended to believe that students previously enrolling in their master's program would switch to the DNP. However, these schools were still concerned enough about tuition losses that they were paying attention to that possibility. One representative noted that the school worked on forecasting models that they could use to assure themselves that the switch to the DNP would not cost them financially.

One representative noted that "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...(We expect that) the current master's students' spots will be the future DNP students."

Along with financial considerations, having "qualified faculty expertise to teach in the DNP program" was another resource constraint that schools viewed as an important factor when deciding whether to transition away from the MSN. Faculty limitations ranked as the fourth most important factor for not offering the DNP among schools that did not have or plan to offer a BSN-to-DNP. During the interviews, respondents commonly noted that nursing schools were growing quickly and many were facing faculty shortages as they grow their existing programs, develop additional tracks, or establish new degree programs. This is also true of current MSN programs, but many schools believed that this concern 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. One respondent noted that "The faculty effort to support the 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]."

We found that such resource constraints were especially pronounced for non-autonomous programs. In the online survey, non-autonomous programs were more likely than autonomous programs to cite "lack of faculty in the area that could teach at doctoral level" (60 percent compared to 34 percent) or "costs/budgetary limitations for the development of the program" (59 percent compared to 39 percent) as a critical or very important reason not to develop a DNP program.

During the interviews, schools indicated they had taken a number of steps to alleviate the potential resource constraints. Some schools offered the MSN-to-DNP as a self-sustaining program, which enabled them to dedicate resources to it without perception that they were removing resources from other successful programs. Some schools terminated enrollment in 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 in enrollment). 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.

**Discussion and Recommendations**

Since the AACN voted on and adopted the position statement encouraging schools of nursing to fully transition to the BSN-to-DNP as the primary educational option for APRNs, many schools have adopted the BSN-to-DNP. However, a majority of schools that offer APRN education still have not adopted the BSN-to-DNP, and fewer still have fully transitioned to the BSN-to-DNP by discontinuing their MSN programs. In this article, we explore the various factors that schools cite as important in influencing them to fully transition to the BSN-to-DNP.

We found that most nursing school representatives supported the DNP and believed that the DNP Essentials provide important content that prepares APRNs to address the emerging needs of patients and populations. This sentiment fueled considerable enthusiasm among many deans and faculty to overcome barriers to the DNP. This support makes it likely that DNP programs will continue to grow. However, there was important variation around how this support for the DNP translated to transitioning the MSN to the DNP. Some schools were strongly convinced of its importance, have enthusiastically adopted the BSN-to-DNP, and have either already ended or are moving toward discontinuing their MSN programs. However, other schools,

although supportive of the BSN-to-DNP, were cautiously waiting for certain conditions to be met before fully transitioning their APRN programs toward the BSN-to-DNP and away from the MSN. These important conditions included perceived growth in student and employer demand as well as accreditation and certifying organizations requiring the BSN-to-DNP for the education of APRNs. Faculty and financial resource constraints also were perceived as persistent challenges to schools that are not yet offering DNP-level education.

Due to these factors, there will likely be two tracks toward the DNP for the foreseeable future: a single-step process (the BSN-to-DNP) and a two-step process (the BSN to MSN followed by an MSN-to-DNP). There is considerable demand for the DNP among existing APRNs, who can often complete a DNP while continuing to work as APRNs. MSN-to-DNP programs are currently much more common than BSN-to-DNP programs. Furthermore, MSN continues to be the dominant offering for APRN education. As long as many schools continue to offer the MSN (which seems likely), there will be a steady supply of MSN-prepared APRNs seeking a DNP. The two tracks appear to meet the needs of two different types of students with distinct levels of educational attainment and experience.

More broadly, the growth of the BSN-to-DNP programs coupled with the continued presence of MSN programs highlights an important potential trade-off between the current and future needs of the American healthcare system across the diverse stakeholder groups concerned about APRN education and supply (e.g., students, employers, and nursing schools). Significant research has demonstrated that NPs with masters degrees have historically functioned safely and effectively in various healthcare settings (Naylor & Kurtzman, 2010; Newhouse et al., 2011). A number of studies have also demonstrated that there is a significant shortage of providers (especially primary care physicians) in the United States (Petterson et al., 2012); APRNs' role in

meeting care needs could expand substantially, particularly in underserved communities. Economic theory would suggest that requiring all APRNs to acquire extra years of education raises the financial and time costs to students of APRN education, which would (in theory) lead to a reduction the supply of APRNs at least for some period of time. Unfortunately, little is known about the potential effect of increasing the length of APRN education apart from anecdotal evidence that DNP programs seem to have steady demand. At the same time, the Institute of Medicine has clearly argued that the complexities of the future healthcare system require that all APRNs have training in disciplines such as population health and quality measurement to properly function in their roles in various settings (Institute of Medicine, 2010). So, employers need both more APRNs as well APRNs prepared with a new skill set.

Balancing these competing priorities is an extremely difficult undertaking, and more research and policy debate are required. Such research would help guide nursing leaders to make determinations about the optimal mix of degree offerings for APRNs. Similarly, more work is needed to specify the relative roles of each type of APRN, given that there will continue to be a mix of MSN-prepared and DNP-prepared APRNs in the workforce for quite some time. Furthermore, our findings suggest that more research needs to be performed to determine the effect of DNP-prepared APRNs on quality and costs as well as the effect that transitioning to DNP programs would have on the supply of APRNs.

*Limitations*

Our study is not without limitations. First, our qualitative interviews were based on a purposive sample and were not a random sample of all schools. However, the schools were selected to represent a range of experiences and views on the BSN-to-DNP. Second, our online survey was voluntary, and participation bias may affect some of our results. We did achieve a very good

response rate for a voluntary, online survey with no incentives, but schools that offer BSN-to-DNP programs may have been overrepresented in our data.

**Conclusions**

Despite general support for the DNP concept and rapid growth of DNP programs, schools of nursing have not fully transitioned their APRN programs at the rate at which the AACN proposed or expected. This can be explained by the fact that many schools of nursing believe that student and employer demand, in combination with the accreditation and certification environment, do not sufficiently compel them to fully transition away from MSN programs at this time. Financial and faculty resource constraints also make the decision to transition fully to the DNP challenging. We anticipate that BSN-to-DNP programs will continue to grow but will not overtake MSN programs until these conditions are met. In the meantime, the current environment of multiple pathways for APRN education highlights an important tension between the current and future of needs of the American healthcare system across various diverse stakeholder groups. Finally, more research is needed to better understand and plan for the future of APRN education in America to find the proper balance between optimal education and supply and the needs and expectations of various stakeholders.

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- Schools of nursing have not fully transitioned their APRN programs to the DNP.
- Schools of nursing generally support the DNP concept.
- Schools are unlikely to fully transition to the DNP until key conditions are met.