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Economic benefits of less restrictive regulation of advanced practice nurses in North Carolina

Chris Conover, PhD[a], Robert Richards, BA[b,*]
[a] Duke Center for Health Policy and Inequality Studies, Duke University, Durham, NC
[b] Sanford School of Public Policy, Duke University, Durham, NC

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ABSTRACT

Background: With looming provider shortages and increased demand for health care, many states are looking for low-cost ways to alleviate the shortages.
Purpose: The purpose of this study was to assess the economic impact of less restrictive regulations for advanced practice registered nurses (APRNs) in North Carolina.
Method: We use economic impact analysis to demonstrate the economic impacts of making state scope-of-practice regulations on APRNs less restrictive in North Carolina. Outcomes include economic output, value-added, payroll compensation, employment, and tax revenue for North Carolina and for various subregions.
Discussion: If North Carolina adopted the same approach to APRN regulation as the least restrictive states, its economy will benefit from substantial increases in economic output and employment. The state will also see increases in tax revenue.
Conclusions: In addition to substantially shrinking the size of projected physician shortages, allowing full scope-of-practice for APRNs will bring significant economic benefits to the state of North Carolina. Our analysis should be helpful to policy makers considering ways to deal with provider shortages.

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As the Affordable Care Act (ACA) is implemented and health insurance coverage increases, demand for health care services is projected to increase by 2% or 3% (Huang & Finegold, 2013). However, a looming shortage of primary care practitioners (Health Resources and Services Administration, 2013) threatens to constrain access and raise prices, potentially counteracting recent favorable trends in those areas. More detailed analyses also find that certain areas and populations will be affected more severely by these shortages (Huang & Finegold, 2013). Various observers have suggested that greater reliance on advanced practice registered nurses (APRNs) potentially offers a "quicker, better, cheaper" alternative to addressing such shortages (Bodenheimer & Smith, 2013). Doing so could also have important economic benefits. In this article, we show the potential of one particular health reform policy already undertaken in some states to significantly reduce the supply shortage and boost state economies, less restrictive regulation of APRNs.

APRNs are a critical component of the health care system, making a vital contribution to the health of

* *Corresponding author:* Robert Richards, Sanford School of Public Policy, Duke University, 201 Science Dr, Box 90315, Durham, NC 27708.
E-mail address: robert.richards@duke.edu (R. Richards).
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the communities in which they practice. APRNs include nurse practitioners (NPs), certified registered nurse anesthetists, certified nurse midwives (CNMs), and clinical nurse specialists. These practitioners provide patient care in a broad range of settings, including private or group practices in offices and clinics as well as hospital inpatient and outpatient settings. Recent research comparing these classes of APRNs with their medical doctor (MD) counterparts finds similar and in some cases, better outcomes for patients of APRNs relative to MDs (Dierick-van Daele, Metsemakers, Derckx, Spreeuwenberg, & Vrijhoef, 2009; Newhouse et al., 2011). APRNs also play a vital role in state and local economies. Like other professional workers, APRNs often create jobs in addition to their own, purchase goods and services, and create tax revenues for their communities and states. Using a novel methodological approach, we examine the economic impacts of changing the regulatory environment surrounding APRNs in a specific state, North Carolina. Our hope is that other states might find this approach useful in assessing the potential benefits of reducing the barriers to independent practice of APRNs.

Background

APRNs have a demographic and practice profile that differs from physicians in a number of ways. Compared with primary care physicians, primary care NPs tend to practice more in rural and urban areas, make less money, and treat more patients from vulnerable populations such as the uninsured and racial/ethnic minorities. Practices employing primary care NPs, with or without a physician supervisor, tend to accept new patients on Medicare or Medicaid more frequently (Buerhaus, DesRoches, Dittus, & Donelan, 2014; DesRoches et al., 2013). Although physicians and NPs disagree on their respective roles in delivering care (Donelan, DesRoches, Dittus, & Buerhaus, 2013), the two groups seem to have comparative advantages in reaching somewhat different patient populations and support for increased health system utilization of NPs and APRNs in general has grown in recent years (Bodenheimer & Smith, 2013).

APRNs seem to have an advantage over physicians in terms of cost. For all four types of APRNs discussed in this report, the cost of education/training is substantially less than that of training for physicians (American Association of Nurse Practitioners, 2010; Hogan, Seifert, Moore, & Simonson, 2010). Wage and reimbursement costs also tend to be significantly lower for APRNs. According to the Bureau of Labor Statistics (2014), in May 2013, the annual average wages (excluding fringe benefits) for NPs in North Carolina were $94,910, which is half the equivalent figure reported for physicians in family or general practice ($192,140) or pediatricians ($192,330). The annual average wage for CNMs was $85,460, which is 40% of the amount for Obstetrician-Gynecologists ($213,250). The same pattern holds for other types of APRNs and their physician counterparts according to the best available data (Hogan et al., 2010).

Medicare has reimbursed NPs at slightly lower rates than physicians (American Association of Nurse Practitioners, 2010). Certified registered nurse anesthetists and CNMs are reimbursed at the same rate as physicians for Medicare Part B, although Medicaid plans often reimburse these practitioners at lower rates. Some other third party payers can and do pay APRNs less than physicians for the equivalent services. However, the payment rates vary considerably across payers. For anesthesia providers, for example, the Medicare payment rate is 58% lower than the amount paid by private insurers (Hogan et al., 2010), whereas that for Medicaid is 70% lower. Thus, from a social point of view, there unequivocally is a savings whenever an APRN substitutes for a physician.

APRNs and their patients tend to use fewer other medical resources, such as emergency department visits and cesarean sections, than physicians do (Newhouse et al., 2011). Advanced nurses also tend to be associated with reductions in lost work time for injured workers (Sears, Wickizer, Franklin, Cheadle, & Berkowitz, 2008) and lower hospitalization rates (Konetzka, Spector, & Limcangco, 2008; National Association of Clinical Nurse Specialists, 2013). In general, greater utilization of APRNs tends to lead to lower medical costs (Eibner, Hussey, Ridgely, & McGlynn, 2009; Kleiner, Marier, Park, & Wing, 2014; Office of Technology Assessment, 1981; Perryman Group, 2012).

Many studies examining the looming provider shortfall suggest that nonphysician clinicians, such as physician assistants and APRNs, could help alleviate the shortage. Indeed, APRNs and physicians have been shown to be reasonably close substitutes (Dierick-van Daele et al., 2009). It follows, then, that policy makers interested in avoiding these dire physician shortages may consider policies that encourage APRN and other provider activity.

Some states require APRNs to collaborate with licensed physicians in diagnosing and treating patients and prescribing medications. Such restrictive state scope-of-practice regulations (SSoPRs) have been shown to decrease the number of practicing APRNs (Declercq, Paine, Simmes, & DeJoseph, 1998; Reagan & Salsberry, 2013; Sekscenski, Sansom, Bazell, Salmon, & Mullan, 1994) and enrollment in APRN training programs (Kalist & Spurr, 2004). These findings indicate that one way to reduce a shortage of medical care is to remove burdensome restrictions on APRNs, allowing them to practice to the full extent of their training.

The literature is mixed on whether removing these restrictions on APRNs is associated with a reduction in the supply of physicians. However, many studies find that lower restrictions on APRNs lead to more physicians (Declercq et al., 1998; Sekscenski et al., 1994) and more physician hours worked (Kleiner et al., 2014;