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Does the Healthcare Educational Market Respond to Short-Run Local Demand?

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POLICY BRIEF

Does the Healthcare Educational Market Respond to Short-Run Local Demand?

Marcus Dillender, Andrew Friedson, Cong Gian, and Kosali Simon

BRIEF HIGHLIGHTS

- *The ACA could exacerbate concerns about shortages of healthcare workers.*
- *We examine the response of healthcare education to changes in health insurance.*
- *We do not find that healthcare degrees rise when health insurance coverage rises, even for specialties that we would expect to be particularly responsive.*
- *Healthcare education has not immediately responded to the ACA's coverage increases.*

Concerns about the adequacy of the U.S. healthcare workforce have guided public policy for several decades. The continued need for policies to support the training of healthcare workers suggests that healthcare education may not adequately adjust to healthcare demand. Since increasing access to healthcare is a common goal of healthcare policies, understanding how healthcare education and training respond to changes in healthcare demand is important for assessing additional needs from increased health insurance coverage.

The 2014 provisions of the Affordable Care Act (ACA) led to an additional 20 million low- to-middle-income, non-elderly adults having health insurance, which has increased the demand for healthcare services. In perfectly competitive markets with prices and supply that could freely adjust, this increase in demand would be expected to increase the number of healthcare workers and thus the number of healthcare degrees conferred.

However, several factors could mute any potential healthcare education response to the ACA. One factor is that much of the increase in health insurance coverage from the ACA has come from increased Medicaid enrollment. As Medicaid tends to reimburse providers at low rates for their services relative to other insurers, it is not clear that increased demand from Medicaid patients will trigger an increase in the number of healthcare degrees. Another possible factor that could limit the response of healthcare education is that colleges, universities, and teaching hospitals may not be able to expand programs sufficiently, perhaps due to a lack of faculty or insufficient clinical sites. Lastly, it is possible that actors in the educational market did not see the ACA as a permanent change and therefore did not make changes in their investment decisions.

To consider the implications of the ACA for the healthcare education market, we examine whether increases in demand for healthcare resulting from the ACA's Medicaid expansion led to subsequent responses in the healthcare education market (i.e., training additional workers to meet that demand) in the short run. Specifically, we examine whether the number of new healthcare degrees increased in states that expanded Medicaid under the ACA relative to states that did not expand Medicaid.

Our analysis yields no evidence of an immediate effect of the ACA's Medicaid expansion on the educational pipeline, even for degrees that would be expected to be particularly responsive in the short run (such as one-year degrees). Our results are robust to alternative modeling assumptions and imply that increases in healthcare degrees are not a major way in which the supply side is adjusting to increased healthcare demand in the short run.

Theoretical Response of Healthcare Education to Increased Demand Is Unclear

The ACA has the potential to impact the educational pipeline by altering employment stability and earnings for healthcare workers. From the point of view of a potential student in healthcare, the effect of the ACA on employment and earnings is ambiguous. Increased Medicaid coverage could increase earnings for healthcare workers by

For additional details, see the working paper at: https://research.upjohn.org/up_workingpapers/311/.

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increasing overall demand or by reducing the likelihood that patients cannot pay for the services they receive. However, increased Medicaid coverage could also decrease earnings for healthcare workers by shifting providers' patient mix toward patients with less generous insurance plans. Furthermore, if potential students see the ACA as temporary, any effect of the policy on their decisions would be muted.

It is also possible that the ACA could impact the educational pipeline for the healthcare workforce by influencing the behavior of educational institutions. For schools to respond to the ACA, they would need to believe that the ACA creates additional demand for their educational services, that this increase justifies expanding their offerings (either by increasing cohort sizes or by offering new programs), and that the increase is sustainable (i.e., that the ACA will not be short-lived). But even if schools want to increase their healthcare offerings, it is not clear that they will be able to do so, as an inability to find faculty or clinical sites can often prevent schools from expanding healthcare education. For example, it is possible that increases in utilization of care may force hospitals to reallocate staff time toward meeting patient needs and away from training, making it difficult for schools to get students needed clinical experience. Additionally, institutions that depend heavily on public funding may be less flexible if public budgets are not adjusted to match desired growth of the institution.

If the ACA Medicaid expansion has indeed induced the training of more healthcare workers, then we might expect certain types of training and degree production to be more responsive. Specifically, degrees that take less time to complete represent a smaller time investment for students and a smaller resource investment for educational institutions, and as such may be the quickest to respond to labor market signals, even when these have an uncertain future. These short programs also correspond to careers that are easier to enter, such as those with fewer and less complicated licensing exams.

Approach and Findings of Study

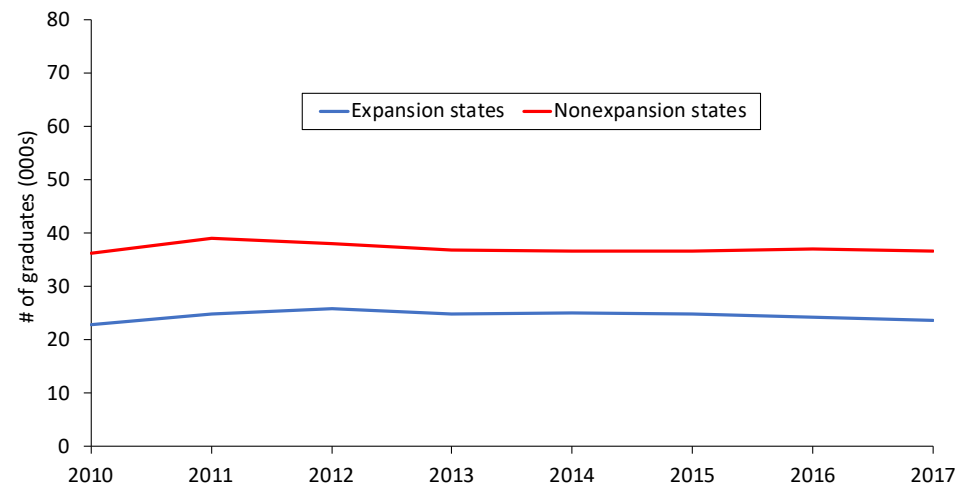
We estimate the impact of the ACA Medicaid expansion, which states could begin opting into in 2014, by comparing how healthcare education changed in states that expanded Medicaid relative to states that did not. Our college-level data on degree completion come from the Integrated Postsecondary Education Data System (IPEDS), compiled from surveys conducted by the U.S. Department of Education's National Center for Education Statistics. In addition to containing information about each academic institution, IPEDS contains counts of the number of graduates receiving degrees and certificates for each of the schools' programs, including several in the field of healthcare, and these constitute our main outcome of interest.

Figure 1 plots trends in the number of graduates with healthcare degrees separately for expansion and non-expansion states. For both groups of states, the number of graduates remains steady and roughly parallels both pre- and post-ACA. Figure 2 plots trends in the number of graduates for different kinds of healthcare degrees. Again, states that expand Medicaid do not see an increase in the number of healthcare degrees completed, even for degrees that could be completed in one year. Thus, these figures show no obvious changes in the overall number of healthcare degrees being completed each year before or after the ACA expansion, whether in states with or without the expansion. The main difference-in-differences estimates in our paper, which control for other factors that could affect degree production, also suggest no measurable effect of Medicaid expansion on the number of healthcare graduates at either the state or county level. We are able to rule out year-over-year increases in statewide degree counts as small as 2.8 percent.

It is possible, however, that production of healthcare degrees may not fully capture preparation or entry of new healthcare workers, some of whom may be trained abroad. We therefore extend our analysis in two ways. Our first extension investigates whether more tests are passed for the national examination for nursing certification for both registered nurses and practical nurses. Our second extension uses data from the Annual Survey of State and Local Government Finances to examine changes in state-level

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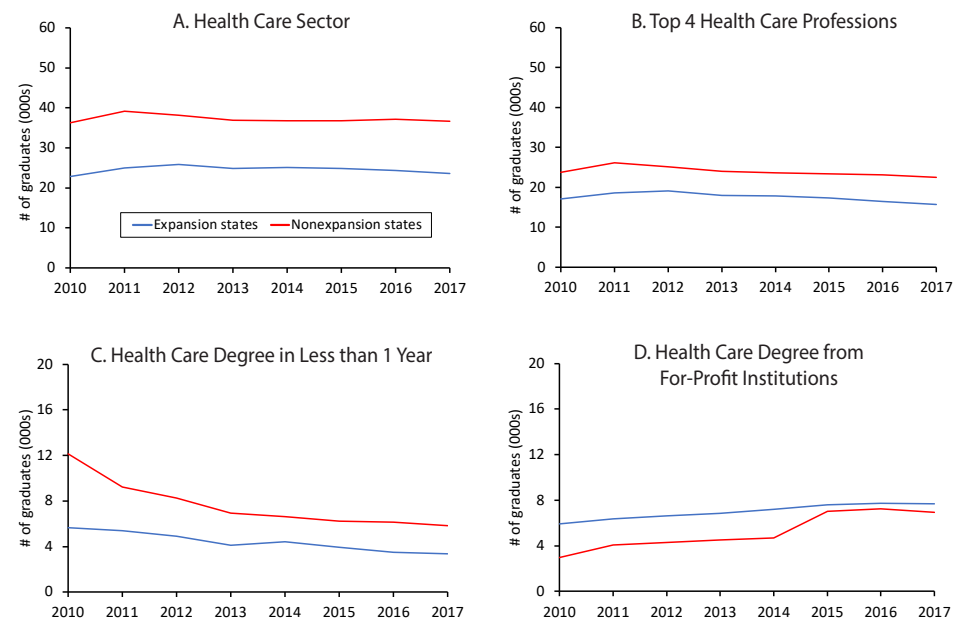
Figure 1 Number of Graduates (Thousands) in the Health Care Sector



NOTE: The graph shows the average number of graduates in healthcare fields per state among Medicaid expansion and non-expansion states, where each state's graduates are weighted by 2010 state population in constructing the average. The sample excludes early expansion states (CA, CT, MN, NJ, WA) and late expansion states (AK, IN, LA, MT, NH, PA). Graduates from counties with a total population of fewer than 10,000 are also excluded.

SOURCE: Authors' analysis of Integrated Postsecondary Education Data System (IPEDS) 2010–2017 and 2010 U.S. Census.

Figure 2 Number of Graduates (Thousands), State Level, by Expansion Status



NOTE: Each graph shows the average number of graduates in healthcare fields per state among Medicaid expansion and non-expansion states, where each state's graduates are weighted by 2010 state population in constructing the average. Figure A includes all graduates in the healthcare sector. Figure B includes graduates from programs in registered nursing, practical/vocational nursing, health and medical administrative services, and medical assisting services. Figure C includes graduates from programs that typically take less than one year to complete. Figure D includes graduates from for-profit institutions. The sample excludes early expansion states (CA, CT, MN, NJ, WA) and late expansion states (AK, IN, LA, MT, NH, PA). Graduates from counties with a population of fewer than 10,000 are not included in these data.

SOURCE: Authors' analysis of Integrated Postsecondary Education Data System (IPEDS) 2010–2017 and 2010 U.S. Census.

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spending on higher education. As with the main analysis, expansion and non-expansion states follow similar trends, and expansion states do not display increases in passed exams or in public spending on education following ACA Medicaid expansions. These results corroborate the finding of no response of the healthcare education market to changes in local health insurance coverage.

Implications

Our results suggest that the healthcare education market has not responded to the ACA's Medicaid expansion in the short run. A lack of increased training does not necessarily indicate a future shortfall of capacity. However, the large increases in health insurance coverage, alongside preexisting shortages of healthcare workers in some areas, suggest that healthcare markets could function more efficiently if the supply of healthcare workers adjusted to changes in healthcare demand. Additional research is needed to fully understand how the healthcare workforce has adjusted to the new post-ACA levels of healthcare utilization.



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