



North Carolina's Certificate-of-Need Program: Three Numbers Everyone Should Know about CON Laws

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In North Carolina, healthcare providers who wish to open or expand facilities must first obtain a certificate of need (CON). They can acquire this only if they can prove to the satisfaction of the North Carolina Department of Health and Human Services that their community needs the service in question. The purpose of CON regulation is to limit spending by discouraging providers from acquiring unnecessary medical equipment. Unfortunately, in practice, the rules appear to protect incumbent providers from competition more than they protect patients from harm or payers from unnecessary costs.

In this brief, I review the economic evidence on the effects of CON laws and highlight some important statistics that North Carolina legislators should know when discussing CON law reforms. I have identified 93 peer-reviewed papers assessing the effects of CON laws on cost, access, quality, and other market conditions.¹ These papers compare outcomes in CON states with those in non-CON states. They also track outcomes over time to see what happens in states that repeal their CON laws or pare those laws back. These studies typically span years, if not decades, and they employ regression analyses that control for possibly confounding factors such as local economic, demographic, and health conditions. Although my colleagues and I have conducted several peer-reviewed studies, most of the 93 papers are not authored by us.

Three numbers from the research on CON laws are of paramount importance:

1. *Zero.* CON regulation was initially intended to rein in healthcare spending, and many people continue to support the regulation out of a belief that it reduces spending. It does not. Of the 31 papers assessing the effects of CON regulation on spending, 0 find clear evidence that

it limits spending.² In fact, about 60 percent of the studies that have assessed the effects of CON laws on spending find that the regulations are associated with more spending (per service or per patient), whereas the remaining studies obtain mixed or inconclusive results.³

For example, one study finds that reimbursement costs for coronary artery bypass grafts fell 2.8 percent in Ohio and 8.8 percent in Pennsylvania following repeal.⁴ Another finds that hospital charges are 5.5 percent lower five years after repeal.⁵ Medicare reimbursements for total knee arthroplasty are 5 percent to 10 percent lower in non-CON states than in CON states.⁶ Spinal surgery reimbursements have fallen faster in non-CON states (about 11 percent per year) than in CON states.⁷ Medicaid community-based care expenditures per capita are lower in non-CON states than in CON states.⁸ Hospital expenditures per adjusted admission are lower in non-CON states than in CON states.⁹ And states that eliminate CON experience a 5 percent reduction in real per capita healthcare spending.¹⁰ According to some of the studies that find negligible effects, CON laws appear to have no effect on Medicaid nursing home reimbursement rates.¹¹ Nor do they seem to affect per diem Medicaid nursing home charges or per diem Medicaid long-term care charges.¹²

2. *Seventy-four percent.* By far, the most-studied aspect of CON laws is their effect on access to care. Most analyses—74 percent—show that CON laws limit patient access to care.

The typical patient in a CON-law state has access to fewer hospitals,¹³ hospice care facilities,¹⁴ dialysis clinics,¹⁵ cancer treatment facilities,¹⁶ home health agencies,¹⁷ psychiatric care facilities,¹⁸ drug and substance abuse centers,¹⁹ open-heart surgery programs,²⁰ revascularization programs,²¹ and percutaneous coronary intervention programs.²² Patients in these states have access to fewer hospital beds and are more likely to have been denied a bed during the COVID-19 pandemic.²³ These patients have access to fewer medical imaging devices.²⁴ Patients in states with CON laws must travel longer distances for care,²⁵ are more likely to leave their state for care,²⁶ and must wait longer for care.²⁷ And whereas CON programs do not seem to increase charity care,²⁸ they do exacerbate Black-White disparities in the provision of care.²⁹

3. *Four times.* Although the CON approval process does not typically involve an assessment of provider quality, advocates of the regulation often claim that it enhances quality. In most cases, this does not seem to be so. Four times as many studies find that CON laws undermine quality than find that they enhance quality.

Compared with patients in non-CON states, patients in CON states experience higher mortality rates following heart attack, heart failure, and pneumonia.³⁰ They have higher readmission rates,³¹ are more likely to die from postsurgery complications,³² and are less likely to give their hospitals top ratings.³³ Nursing homes tend to get lower survey scores in CON states than in non-CON states,³⁴ and nursing home patients are more likely to be restrained in CON states than in non-CON states.³⁵ Home health agencies also receive lower scores in CON states than in non-CON states,³⁶ and home health agency clients are

less likely to see improvements in mobility.³⁷ Finally, surgeries are more likely to be performed by lower-quality surgeons in CON states than in non-CON states.³⁸

Four in ten Americans live in states with either no CON laws or very limited CON laws in health-care (as I write, this number is growing because recent reforms in Florida and Montana are now taking effect).³⁹ In these states, providers may open new facilities or expand their services without first proving to a regulator that their community needs the service in question. These non-CON states include high- and low-income, urban and rural, and coastal and intracontinental communities. Policymakers in North Carolina can learn from the experience of patients in these states to see how CON laws affect spending, access, and quality of care.

Hospital executives and policymakers often worry about what would happen in their state if their CON laws were repealed. They need not worry. And they need not speculate. They can look to the experiences of Americans in non-CON states to see what is likely to happen. These experiences, documented in dozens of careful studies, strongly suggest that patients in a state like North Carolina would gain greater access to higher-quality and lower-cost care if CON laws were to be eliminated.

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NOTES

1. In a forthcoming review of the literature, I intend to add more categories and more papers that look at the effects of CON laws on other factors such as hospital profitability and volume of care within hospitals.
2. Matthew D. Mitchell, “Do Certificate-of-Need Laws Limit Spending?” (Mercatus Working Paper, Mercatus Center at George Mason University, Arlington, VA, September 2016).
3. It is helpful to consider spending in two ways: spending per service and total spending. Two factors tend to cause a supply restriction to increase spending per service. First, compared with unrestrained supply, restrained supply tends to intersect demand at a higher price per quantity. Second, in limiting competition, a supply restriction will give suppliers more pricing power and less cost-cutting discipline, further increasing spending per service. At the same time, a supply restriction may either increase or decrease total spending, because the restriction will tend to decrease the quantity of services received while it increases spending per service. Total spending may go up or down, depending on whether the quantity-reducing effect or spending-per-service effect dominates. The data suggest that the spending-per-service effect dominates.
4. Vivian Ho and Meei-Hsiang Ku-Goto, “State Deregulation and Medicare Costs for Acute Cardiac Care,” *Medical Care Research and Review* 70, no. 2 (2013): 185–205.
5. James B. Bailey, “Can Health Spending Be Reined In through Supply Constraints? An Evaluation of Certificate-of-Need Laws” (Mercatus Working Paper, Mercatus Center at George Mason University, Arlington, VA, August 2016).

6. James A. Browne et al., "Certificate-of-Need State Laws and Total Knee Arthroplasty," *Journal of Arthroplasty* 33, no. 7 (2018): 2020–24.
7. Chason Ziino, Abiram Bala, and Ivan Cheng, "Does ACDF Utilization and Reimbursement Change Based on Certificate of Need Status?," *Clinical Spine Surgery* 33, no. 3 (2020): E92–E95.
8. Nancy A. Miller, Charlene Harrington, and Elizabeth Goldstein, "Access to Community-Based Long-Term Care: Medicaid's Role," *Journal of Aging and Health* 14, no. 1 (2002): 138–59.
9. Patrick A. Rivers, Myron D. Fottler, and Mustafa Zeedan Younis, "Does Certificate of Need Really Contain Hospital Costs in the United States?," *Health Education Journal* 66, no. 3 (2007): 229–44.
10. James B. Bailey, "Can Health Spending Be Reined In through Supply Restraints? An Evaluation of Certificate-of-Need Laws," *Journal of Public Health* 27, no. 6 (2019): 755–60.
11. Charlene Harrington et al., "The Effect of Certificate of Need and Moratoria Policy on Change in Nursing Home Beds in the United States," *Medical Care* 35, no. 6 (1997): 574–88.
12. David C. Grabowski, Robert L. Ohsfeldt, and Michael A. Morrissey, "The Effects of CON Repeal on Medicaid Nursing Home and Long-Term Care Expenditures," *Inquiry* 40, no. 2 (2003): 146–57.
13. Traci L. Eichmann and Rexford E. Santerre, "Do Hospital Chief Executive Officers Extract Rents from Certificate of Need Laws," *Journal of Health Care Finance* 37, no. 4 (2011): 1–14; Thomas Stratmann and Jacob Russ, "Do Certificate-of-Need Laws Increase Indigent Care?" (Mercatus Working Paper, Mercatus Center at George Mason University, Arlington, VA, July 2014); Thomas Stratmann and Christopher Koopman, "Entry Regulation and Rural Health Care: Certificate-of-Need Laws, Ambulatory Surgical Centers, and Community" (Mercatus Working Paper, Mercatus Center at George Mason University, Arlington, VA, February 2016).
14. Melissa D. A. Carlson et al., "Geographic Access to Hospice in the United States," *Journal of Palliative Medicine* 13, no. 11 (2010): 1331–38.
15. Jon M. Ford and David L. Kaserman, "Certificate-of-Need Regulation and Entry: Evidence from the Dialysis Industry," *Southern Economic Journal* 59, no. 4 (1993): 783–91.
16. Marah N. Short, Thomas A. Aloia, and Vivian Ho, "Certificate of Need Regulations and the Availability and Use of Cancer Resections," *Annals of Surgical Oncology* 15, no. 7 (2008): 1837–45.
17. Daniel Polsky et al., "The Effect of Entry Regulation in the Health Care Sector: The Case of Home Health," *Journal of Public Economics* 110 (2014): 1–14; Susan L. Ettner et al., "Certificate of Need and the Cost of Competition in Home Healthcare Markets," *Home Health Care Services Quarterly* 39, no. 2 (2020): 51–64.
18. James B. Bailey and Eleanor Lewin, "Certificate of Need and Inpatient Psychiatric Services," *Journal of Mental Health Policy and Economics* 24, no. 4 (2021): 117–24.
19. James B. Bailey, Thanh Lu, and Patrick Vogt, "Certificate of Need and Substance Use Treatment" (working paper, December 29, 2020).
20. Jamie L. Robinson et al., "Certificate of Need and the Quality of Cardiac Surgery," *American Journal of Medical Quality* 16, no. 5 (2001): 155–60.
21. Iona Popescu, Mary S. Vaughan-Sarrazin, and Gary E. Rosenthal, "Certificate of Need Regulations and Use of Coronary Revascularization after Acute Myocardial Infarction," *Journal of the American Medical Association* 295, no. 18 (2006): 2141–47; Vivian Ho et al., "Cardiac Certificate of Need Regulations and the Availability and Use of Revascularization Services," *American Heart Journal* 154, no. 4 (2007): 767–75; Vivian Ho, Meei-Hsiang Ku-Goto, and James G. Jollis, "Certificate of Need (CON) for Cardiac Care: Controversy over the Contributions of CON," *Health Services Research* 44, no. 2 (2009): 483–500; Jonathan T. Kolstad, "Essays on Information, Competition and Quality in Health Care Provider Markets" (PhD diss., Harvard University, 2009), <https://healthpolicy.fas.harvard.edu/people/jonathan-kolstad>; Mary S. Vaughan-Sarrazin, Levent Bayman, and Peter Cram, "Trends during 1993–2004 in the Availability and Use of Revascularization after Acute Myocardial Infarction in Markets Affected by Certificate of Need Regulations," *Medical Care Research and Review* 67, no. 2 (2010): 213–31; David M. Cutler, Robert S. Huckman, and Jonathan T. Kolstad, "Input

- Constraints and the Efficiency of Entry: Lessons from Cardiac Surgery," *American Economic Journal: Economic Policy* 2, no. 1 (2010): 51–76.
22. Ho et al., "Cardiac Certificate of Need Regulations."
 23. Paul L. Joskow, "The Effects of Competition and Regulation on Hospital Bed Supply and the Reservation Quality of the Hospital," *Bell Journal of Economics* 11, no. 2 (1980): 421–47; Harrington et al., "The Effect of Certificate of Need"; Fred J. Hellinger, "The Effect of Certificate-of-Need Laws on Hospital Beds and Healthcare Expenditures: An Empirical Analysis," *American Journal of Managed Care* 15, no. 10 (2009): 737–44; Eichmann and Santerre, "Do Hospital Chief Executive Officers Extract Rents"; S. A. Lorch, P. Maheshwari, and O. Even-Shoshan, "The Impact of Certificate of Need Programs on Neonatal Intensive Care Units," *Journal of Perinatology* 32, no. 1 (2012): 39–44; Stratmann and Russ, "Do Certificate-of-Need Laws Increase Indigent Care?"; Matthew D. Mitchell and Thomas Stratmann, "The Economics of a Bed Shortage: Certificate-of-Need Regulation and Hospital Bed Utilization during the COVID-19 Pandemic," *Journal of Risk and Financial Management* 15, no. 1 (2022): 10.
 24. Stratmann and Russ, "Do Certificate-of-Need Laws Increase Indigent Care?"; Matthew C. Baker and Thomas Stratmann, "Barriers to Entry in the Healthcare Markets: Winners and Losers from Certificate-of-Need Laws," *Socio-Economic Planning Sciences* 77 (2021): 101007.
 25. Carlson et al., "Geographic Access to Hospice in the United States;" Cutler, Huckman, and Kolstad, "Input Constraints and the Efficiency of Entry."
 26. Baker and Stratmann, "Barriers to Entry in the Healthcare Markets."
 27. Molly S. Myers and Kathleen M. Sheehan, "The Impact of Certificate of Need Laws on Emergency Department Wait Times," *Journal of Private Enterprise* 35, no. 1 (2020): 59–75.
 28. Stratmann and Russ, "Do Certificate-of-Need Laws Increase Indigent Care?"
 29. Joel C. Cantor et al., "Reducing Racial Disparities in Coronary Angiography," *Health Affairs* 28, no. 5 (2009): 1521–31; Derek DeLia et al., "Effects of Regulation and Competition on Health Care Disparities: The Case of Cardiac Angiography in New Jersey," *Journal of Health Politics, Policy, and Law* 34, no. 1 (2009): 63–91.
 30. Thomas Stratmann and David Wille, "Certificate of Need Laws and Hospital Quality" (Mercatus Working Paper, Mercatus Center at George Mason University, Arlington, VA, September 2016).
 31. Polsky et al., "The Effect of Entry Regulation in the Health Care Sector"; Stratmann and Wille, "Certificate of Need Laws and Hospital Quality"; Thomas Stratmann and Matthew C. Baker, "Examining Certificate-of-Need Laws in the Context of the Rural Health Crisis" (Mercatus Working Paper, Mercatus Center at George Mason University, Arlington, VA, July 2020).
 32. Stratmann and Wille, "Certificate of Need Laws and Hospital Quality."
 33. Stratmann and Wille.
 34. Bichaka Fayissa et al., "Certificate-of-Need Regulation and Healthcare Service Quality: Evidence from the Nursing Home Industry," *Healthcare* 8, no. 4 (2020): E423.
 35. Jacqueline S. Zinn, "Market Competition and the Quality of Nursing Home Care," *Journal of Health Politics, Policy, and Law* 19, no. 3 (1994): 555–82.
 36. Robert L. Ohsfeldt and Pengxiang Li, "State Entry Regulation and Home Health Agency Quality Ratings," *Journal of Regulatory Economics* 53, no. 1 (2018): 1–19.
 37. Bingxiao Wu et al., "Entry Regulation and the Effect of Public Reporting: Evidence from Home Health Compare," *Health Economics* 28, no. 4 (2019): 492–516.
 38. Cutler, Huckman, and Kolstad, "Input Constraints and the Efficiency of Entry."
 39. Matthew D. Mitchell, Anne Philpot, and Jessica McBirney, "The State of Certificate-Of-Need Laws in 2020," Mercatus Center at George Mason University, February 19, 2021, <https://www.mercatus.org/publications/healthcare/con-laws-2020-about-update>.