

Matthew Mitchell, PhD
Senior Research Fellow



ALASKA'S CON LAW

LESSONS FROM THREE DECADES OF RESEARCH

Alaska Senate
Health & Social Services Committee

March 27, 2019

WHAT IS A CON LAW ?



A permission slip to compete

Not a quality gate

Designed to assess “need”

Unusual in a market economy

A barrier to entry that restricts supply

Anticompetitive

A SHORT HISTORY OF CON LAWS

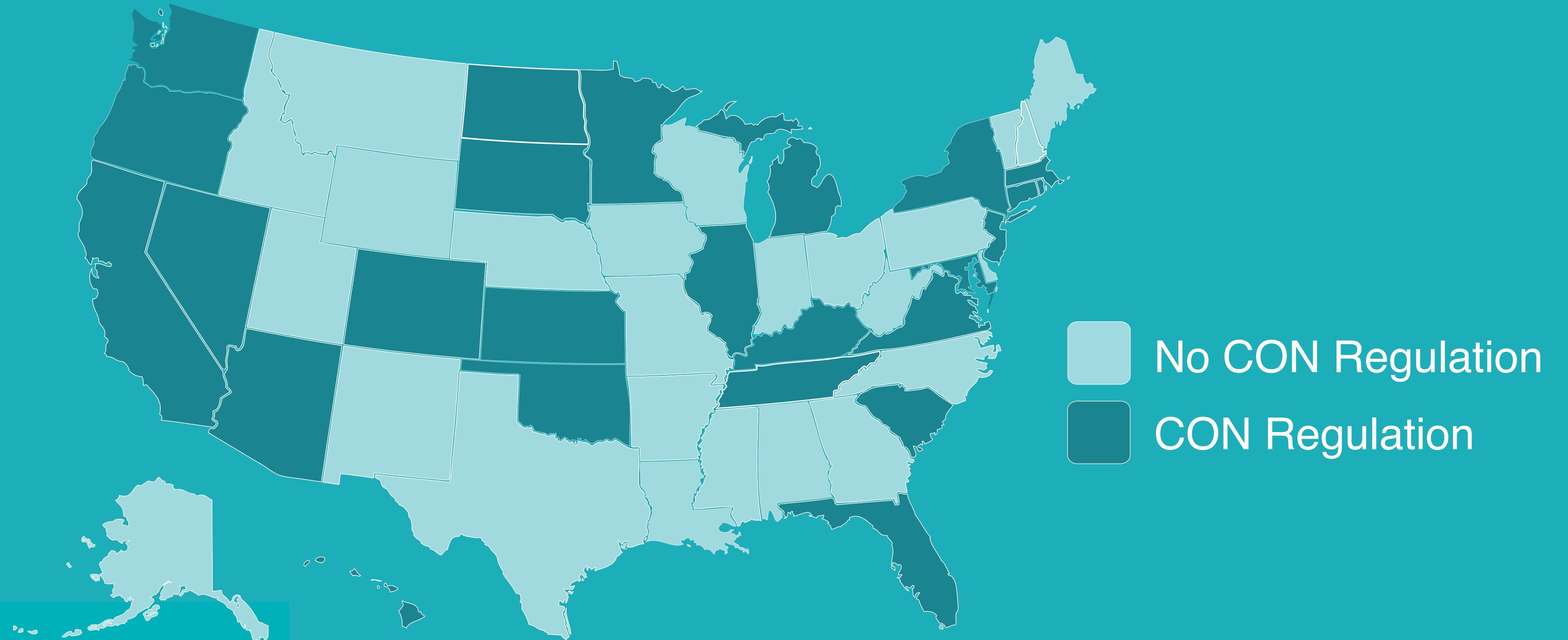


1974
National Health
Planning and
Resources
Development
Act

Ensure an adequate supply of HC
Ensure rural access to HC
Promote high quality HC
Promote charity care
Encourage hospital substitutes
Restrain the cost of care

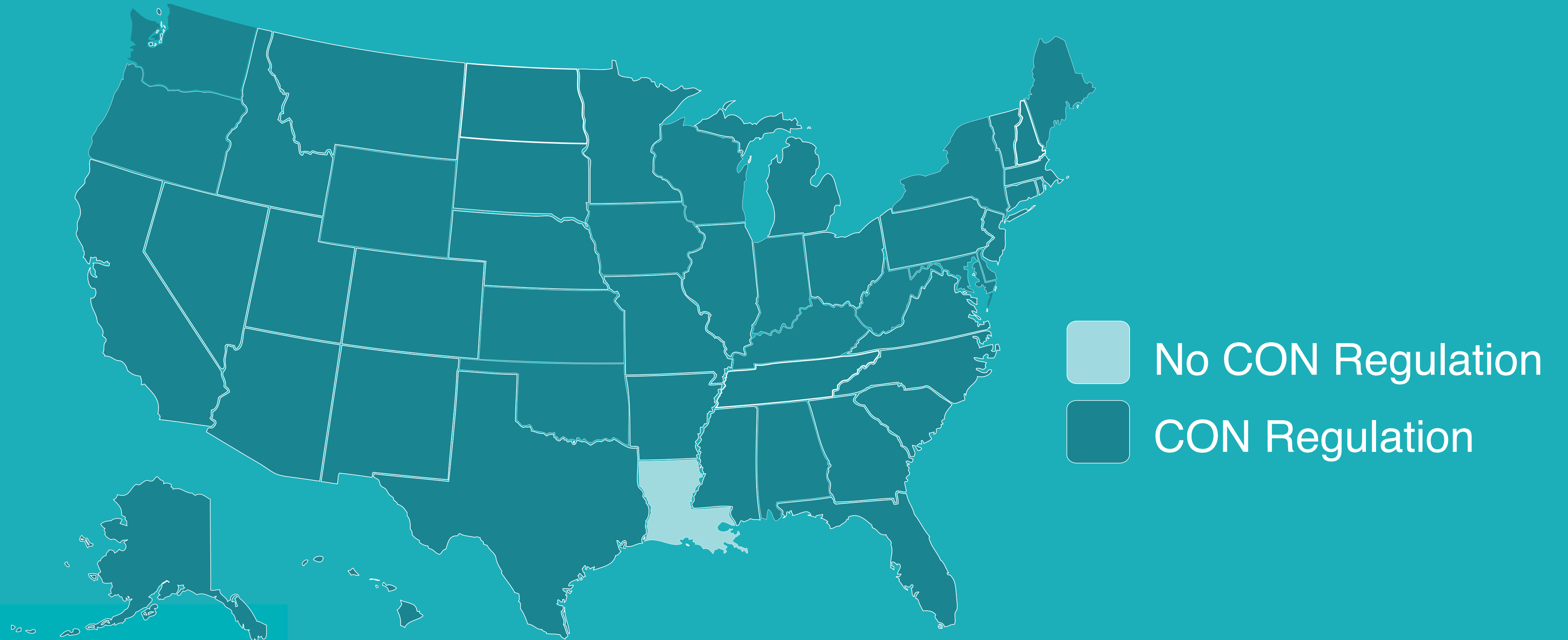
A SHORT HISTORY OF CON LAWS

1974



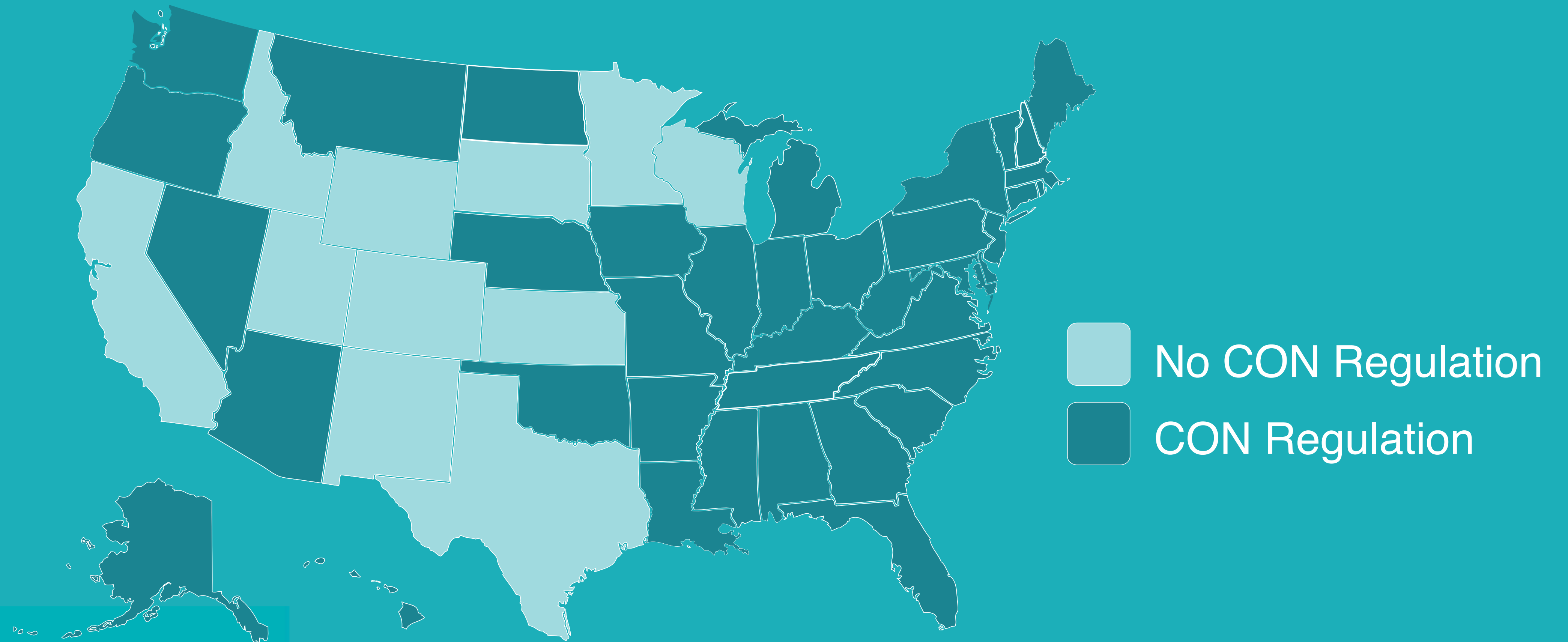
A SHORT HISTORY OF CON LAWS

1980



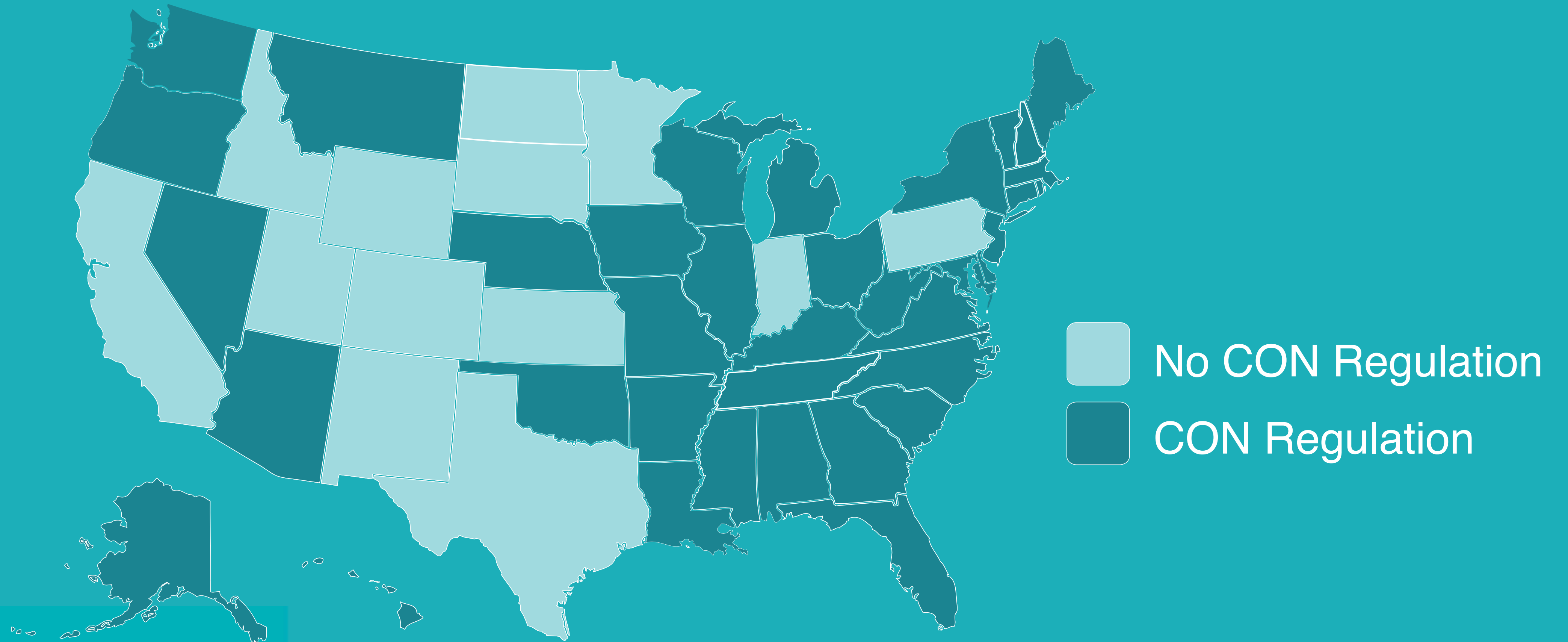
A SHORT HISTORY OF CON LAWS

1990



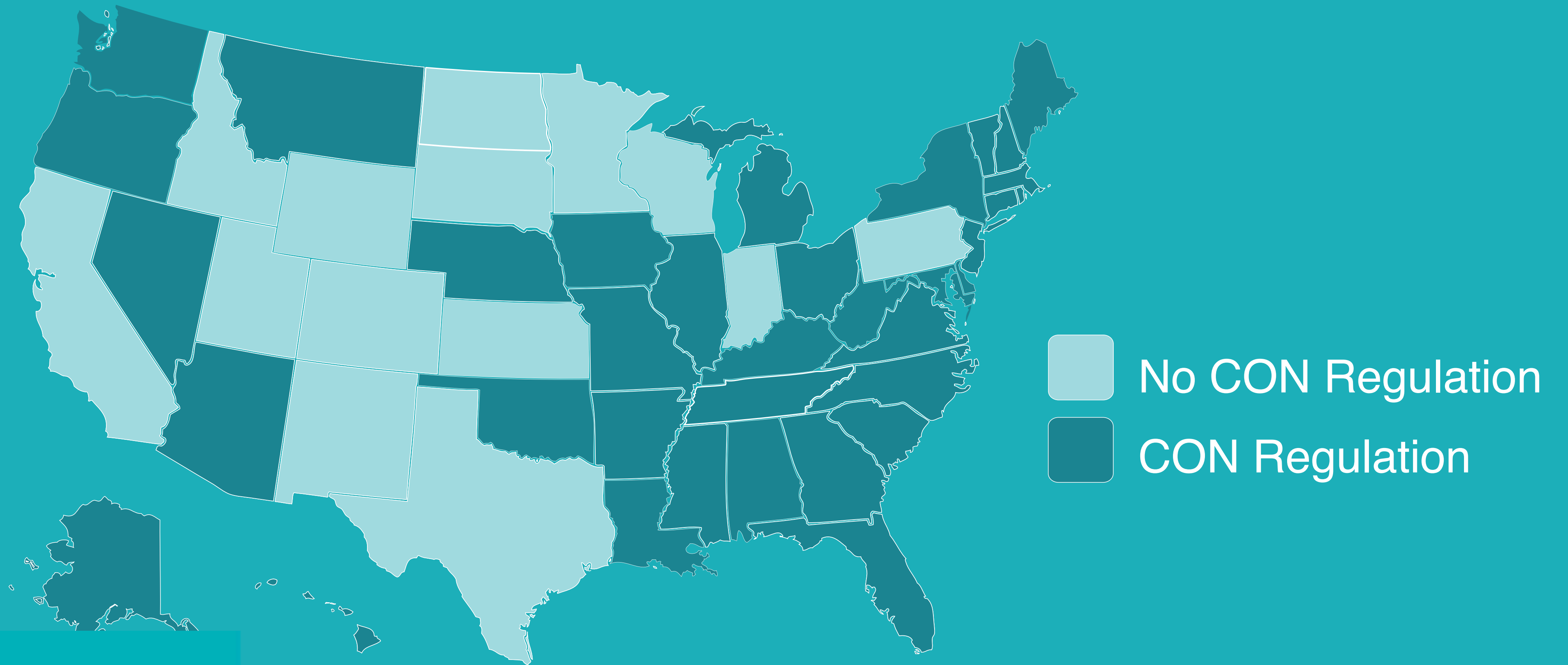
A SHORT HISTORY OF CON LAWS

2000



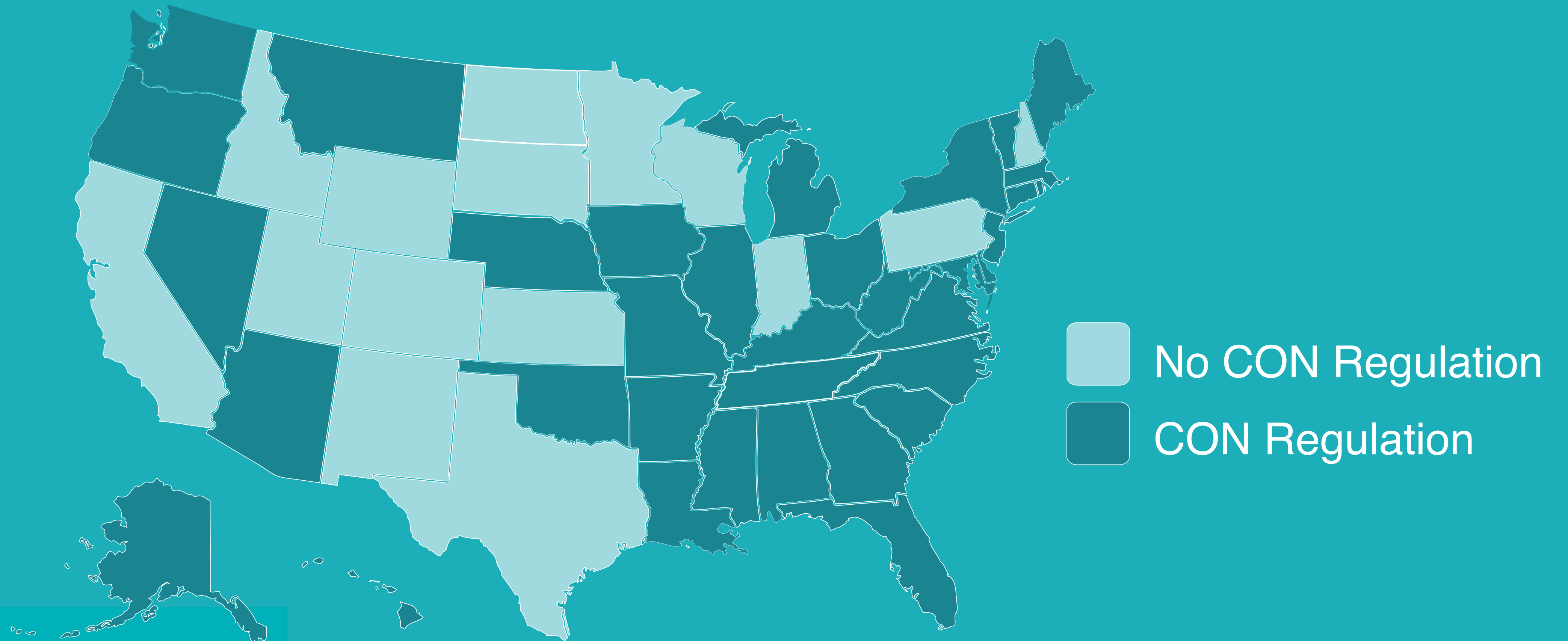
A SHORT HISTORY OF CON LAWS

2015



A SHORT HISTORY OF CON LAWS

2019



ALASKA'S CON LAW

lithotripsy radiation therapy organ transplants
PET Scanners MRI Scanners
burn care Nursing home beds
psychiatric services CT Scanners
open-heart surgery NICU Renal failure / dialysis
cardiac catheterization obstetrics mobile Hi tech
long-term acute care acute hospital beds
subacute services
Ambulatory surgical centers

gamma knives

THE STATED GOALS OF CON LAWS

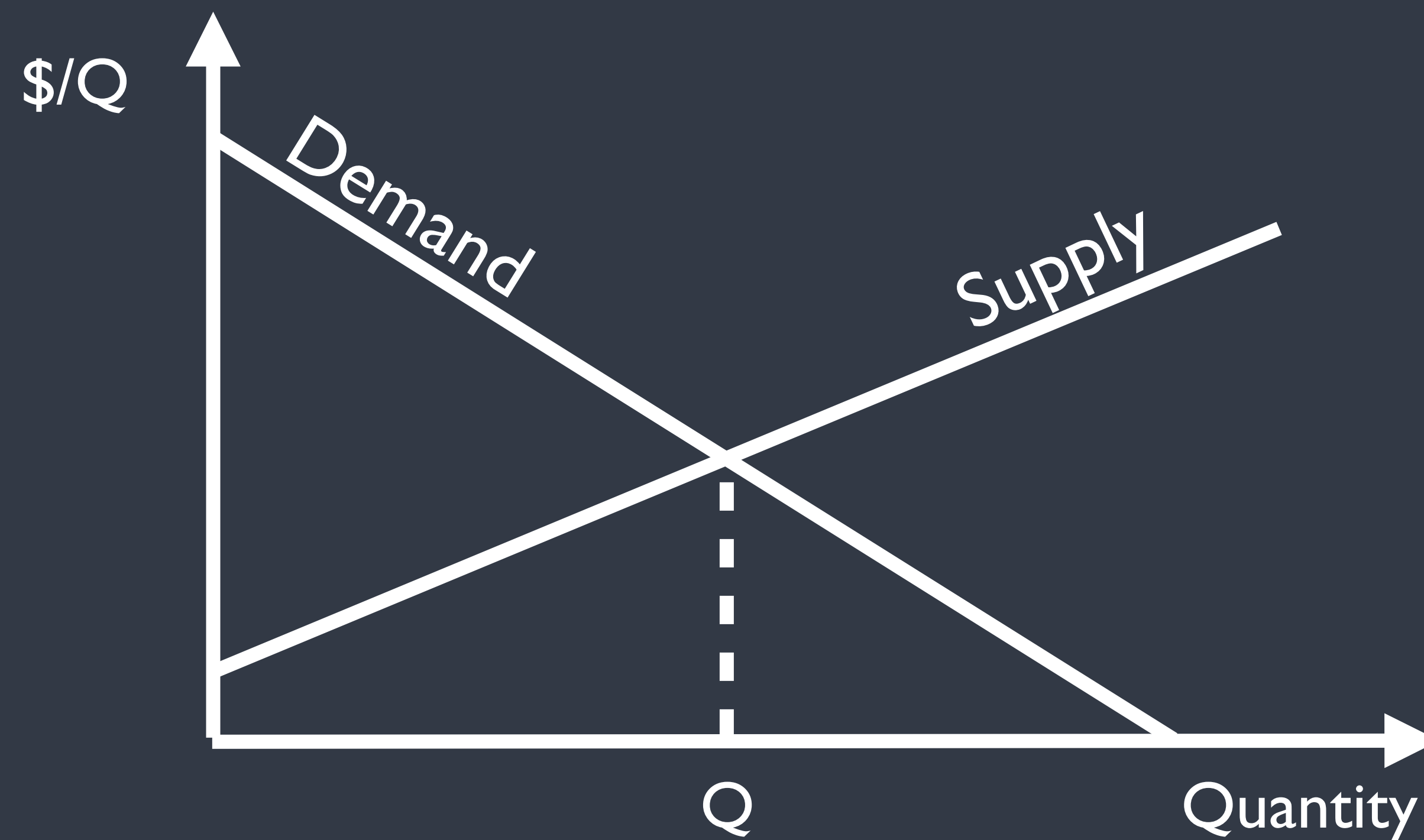


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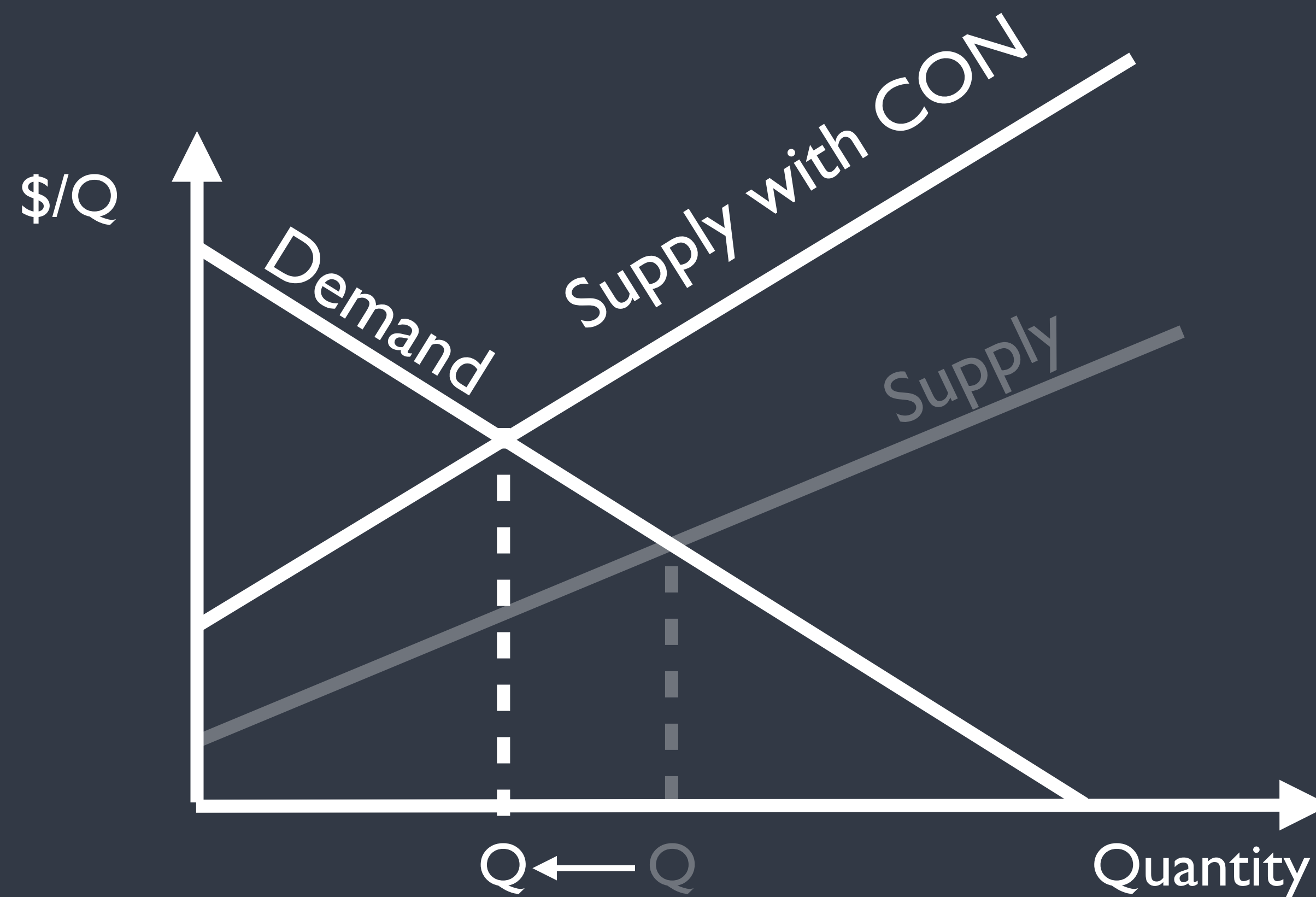
THE REALITY OF CON LAWS

Ensure an adequate supply of HC?



THE REALITY OF CON LAWS

Ensure an adequate supply of HC?



THE REALITY OF CON LAWS

Ensure an adequate supply of HC?

Limited supply of dialysis clinics (Ford and Kaserman, 1993)

Limited supply of hospice care (Carlson et al., 2010)

Fewer hospitals per capita (Stratmann and Russ, 2014)

Fewer hospital beds per capita (Stratmann and Russ, 2014)

Fewer hospitals with MRIs (Stratmann and Russ, 2014)

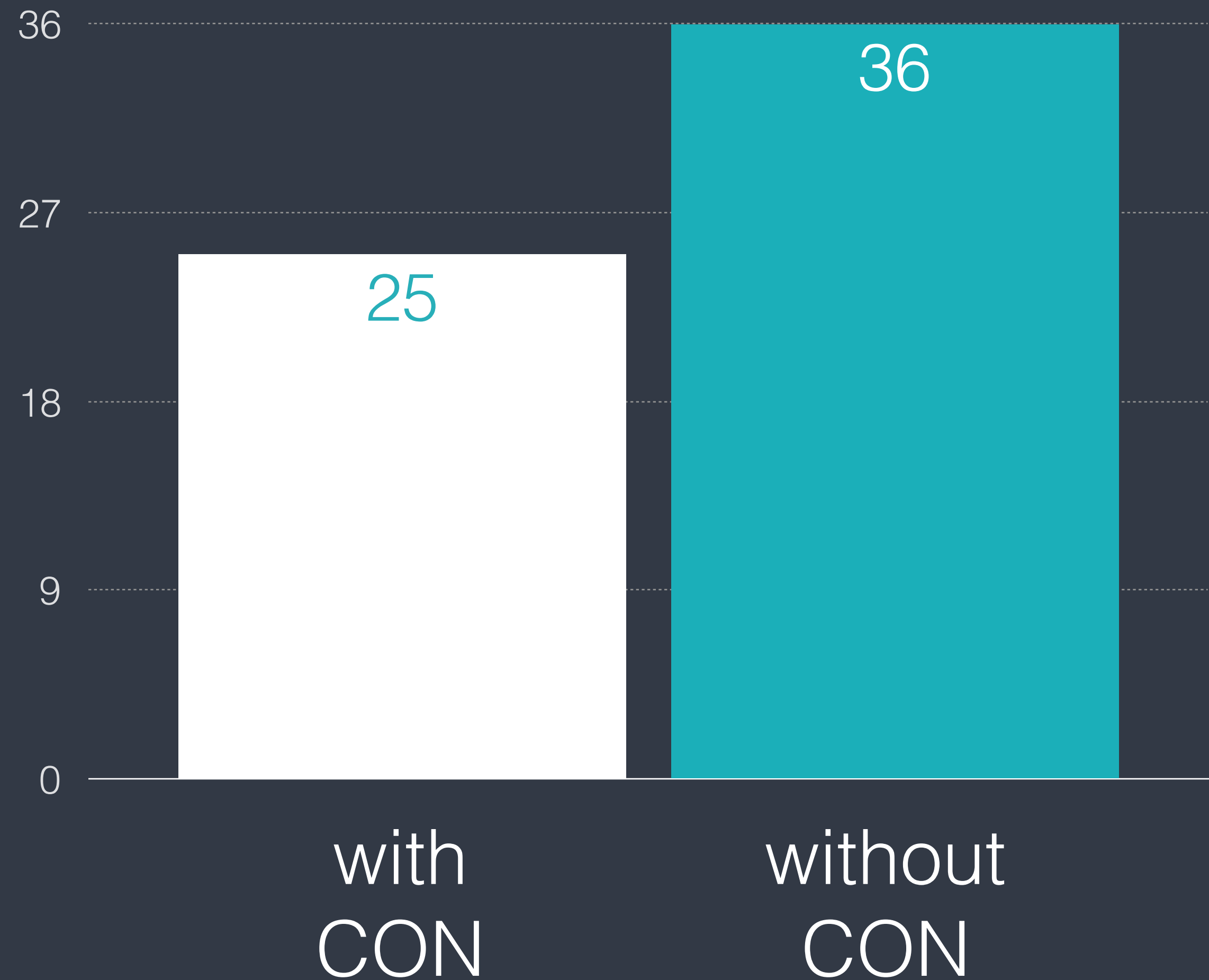
Fewer CT, MRI, PET scans (Stratmann and Baker, 2017)

More out-of-county CT, MRI, PET scans (Stratmann and Baker, 2017)

THE REALITY OF CON LAWS

Ensure an adequate supply of HC?

Estimated number of Alaska hospitals without CON



THE STATED GOALS OF CON LAWS

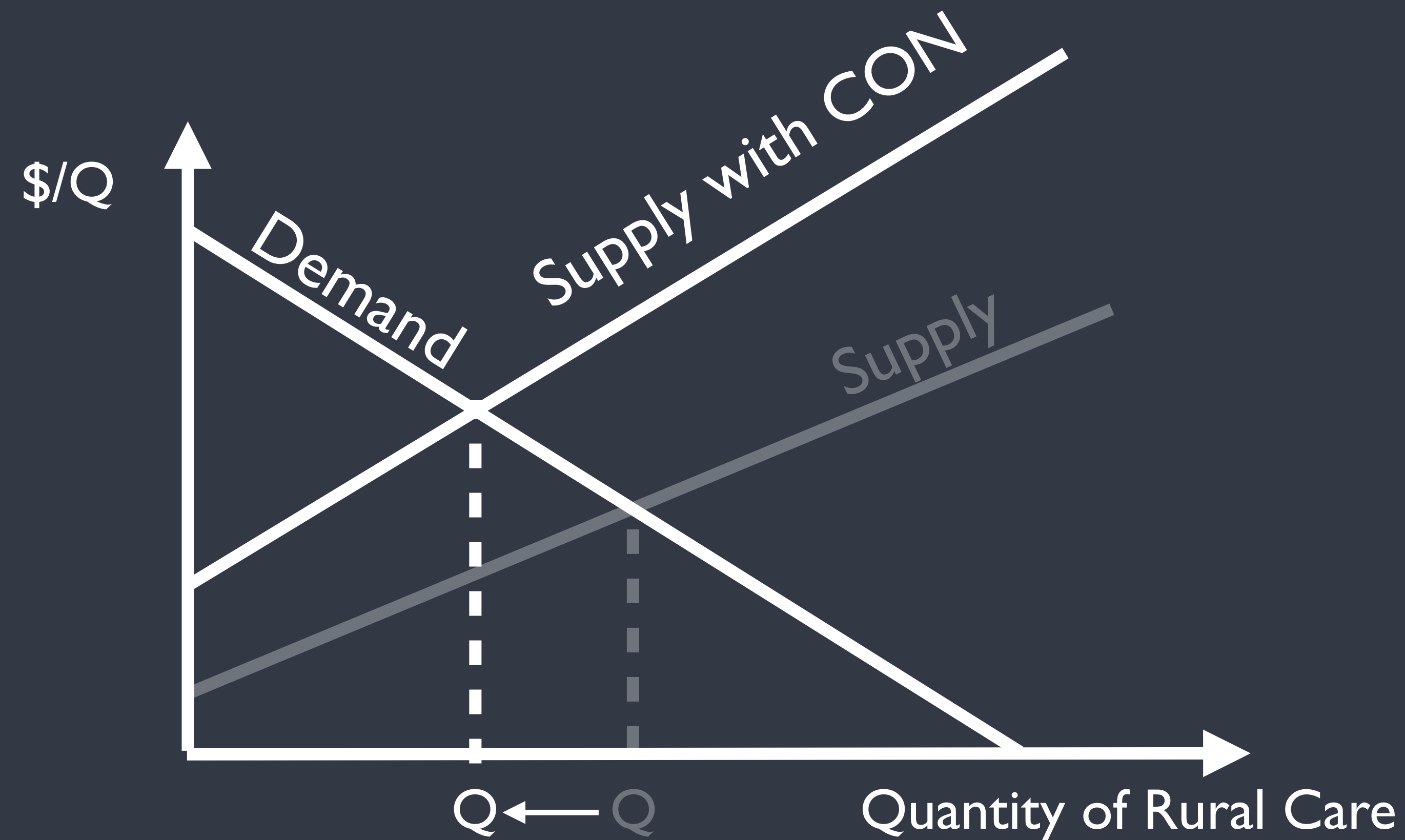


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Ensure rural access to HC

THE REALITY OF CON LAWS

Ensure rural access to HC?



THE REALITY OF CON LAWS

Ensure rural access to HC?

30% fewer rural hospitals (Stratmann and Koopman, 2016)

Less access to rural hospice (Carlson et al., 2010)

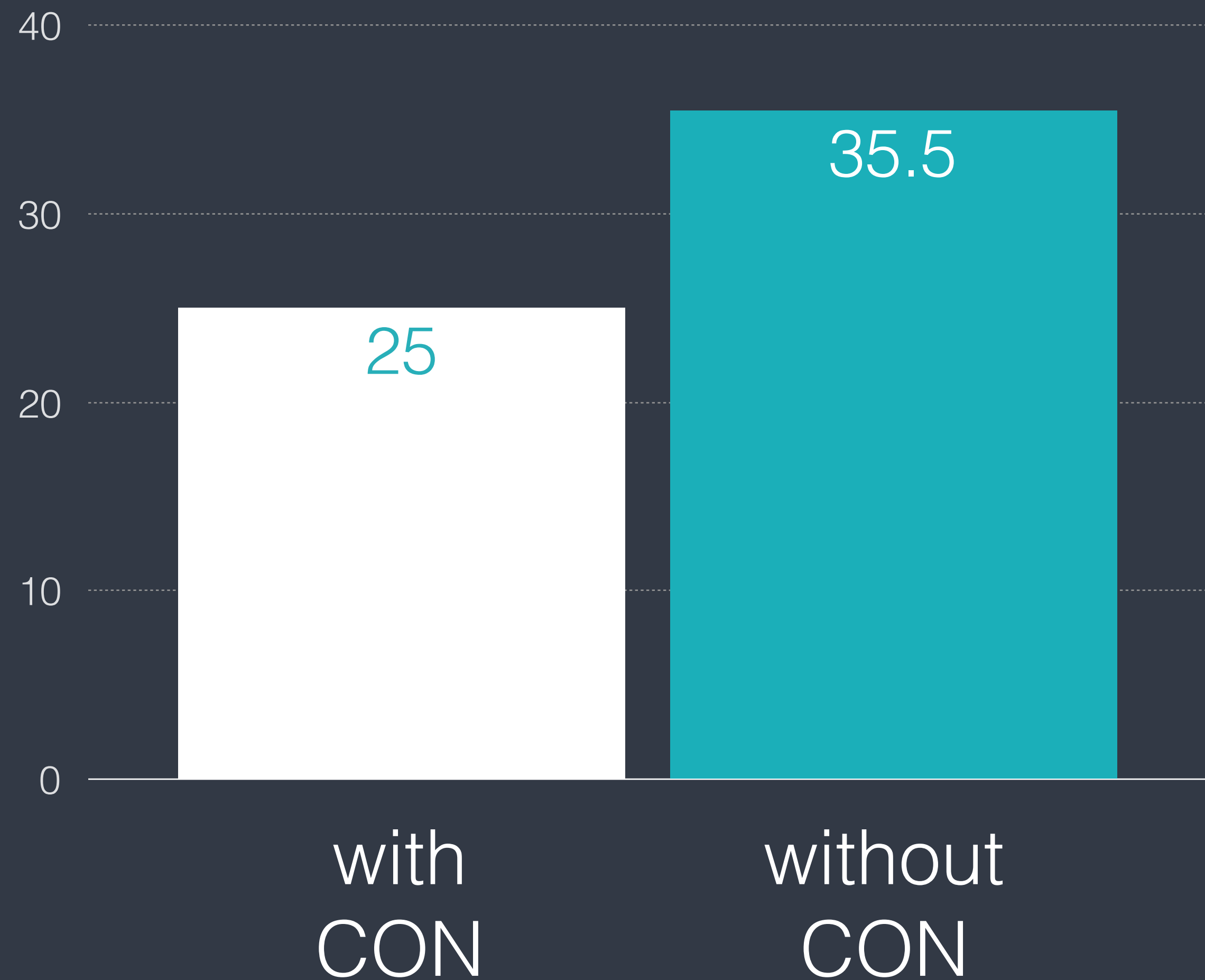
Longer travel distance to care (Cutler et al., 2010)

More out-of-county CT, MRI, PET scans (Stratmann and Baker, 2017)

THE REALITY OF CON LAWS

Ensure an adequate supply of HC?

Estimated number
of *rural AK*
hospitals
without CON



THE STATED GOALS OF CON LAWS



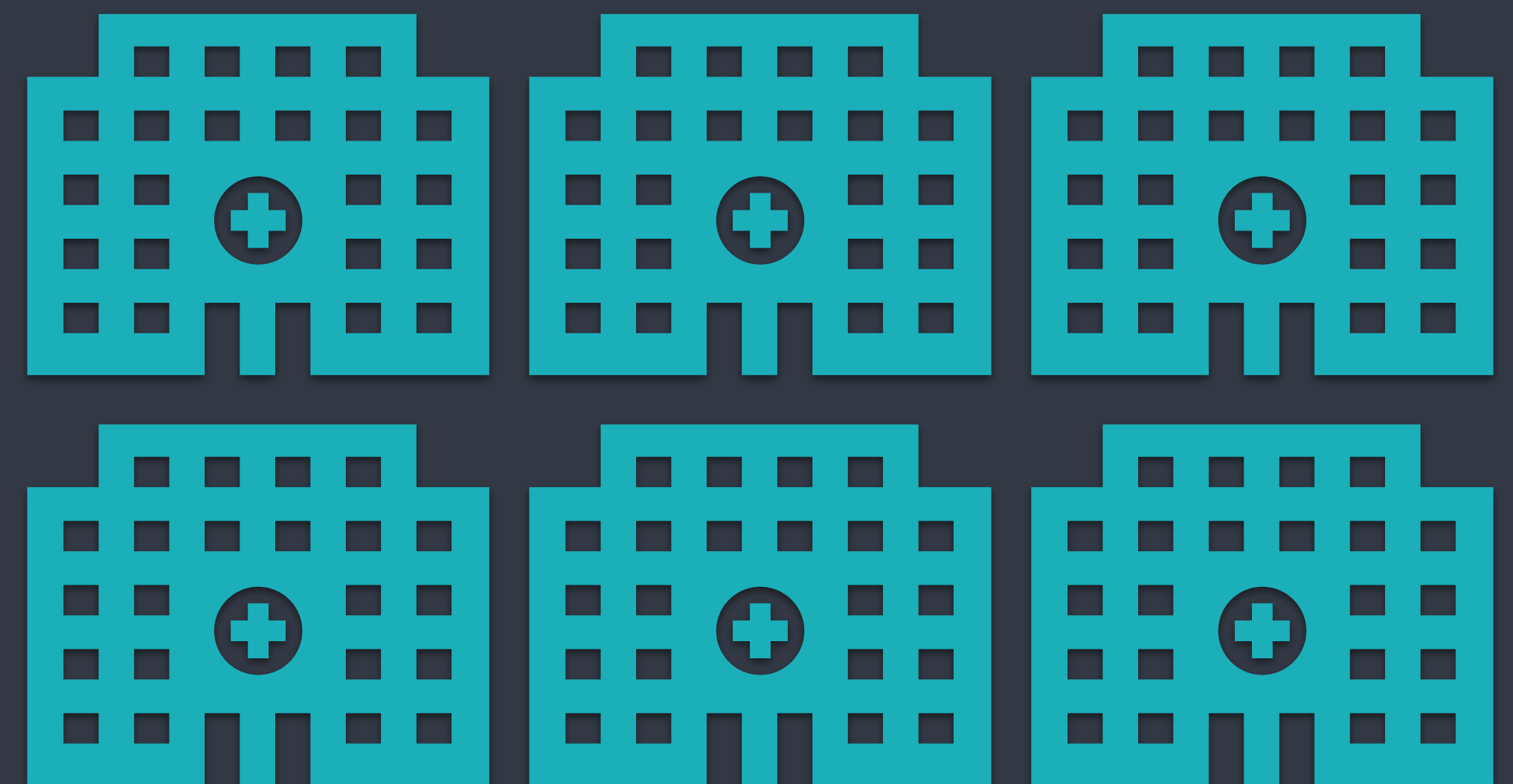
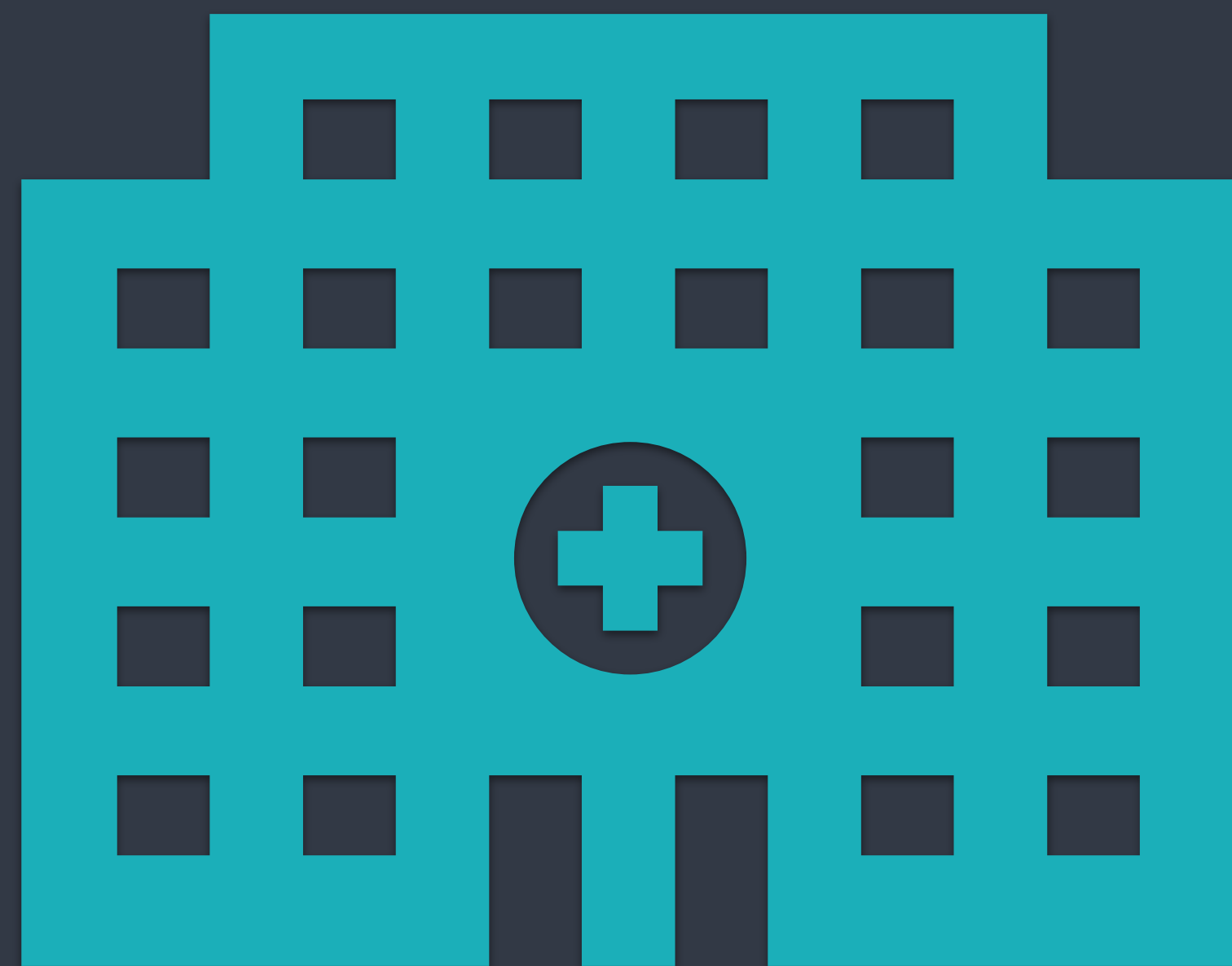
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Promote high quality HC

THE REALITY OF CON LAWS

Promote high quality HC?

scale competence vs. less competition



THE REALITY OF CON LAWS

Promote high quality HC?
scale competence vs. less competition

Mixed early research on particular conditions

No effect on all-cause mortality (Bailey, 2016)

Higher mortality rates following heart failure,
pneumonia, heart attacks (Stratmann and Wille, 2016)

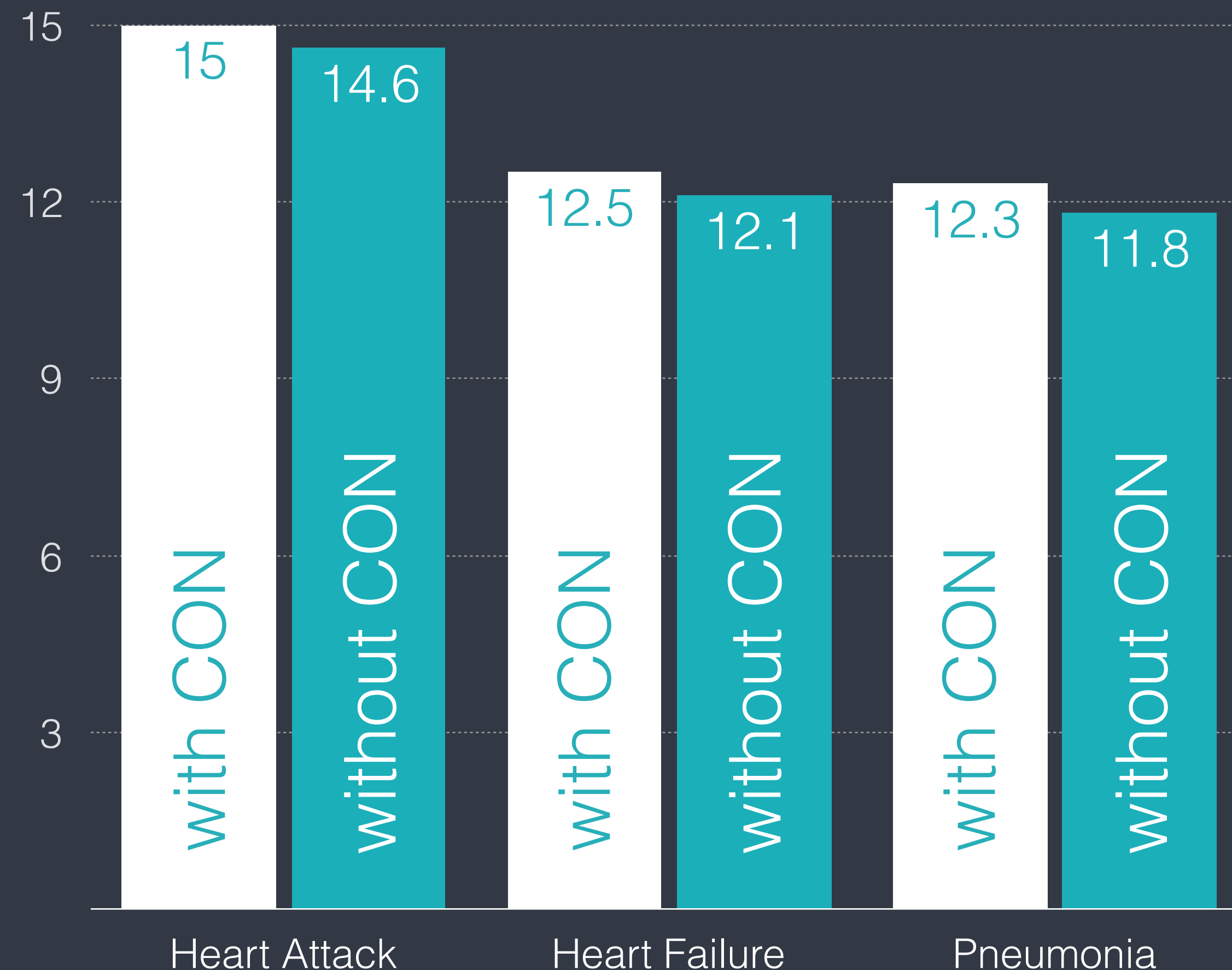
Higher rates of post-surgery complications
(Stratmann and Wille, 2016)

Lower levels of patient satisfaction (Stratmann
and Wille, 2016)

THE REALITY OF CON LAWS

Promote high quality HC?

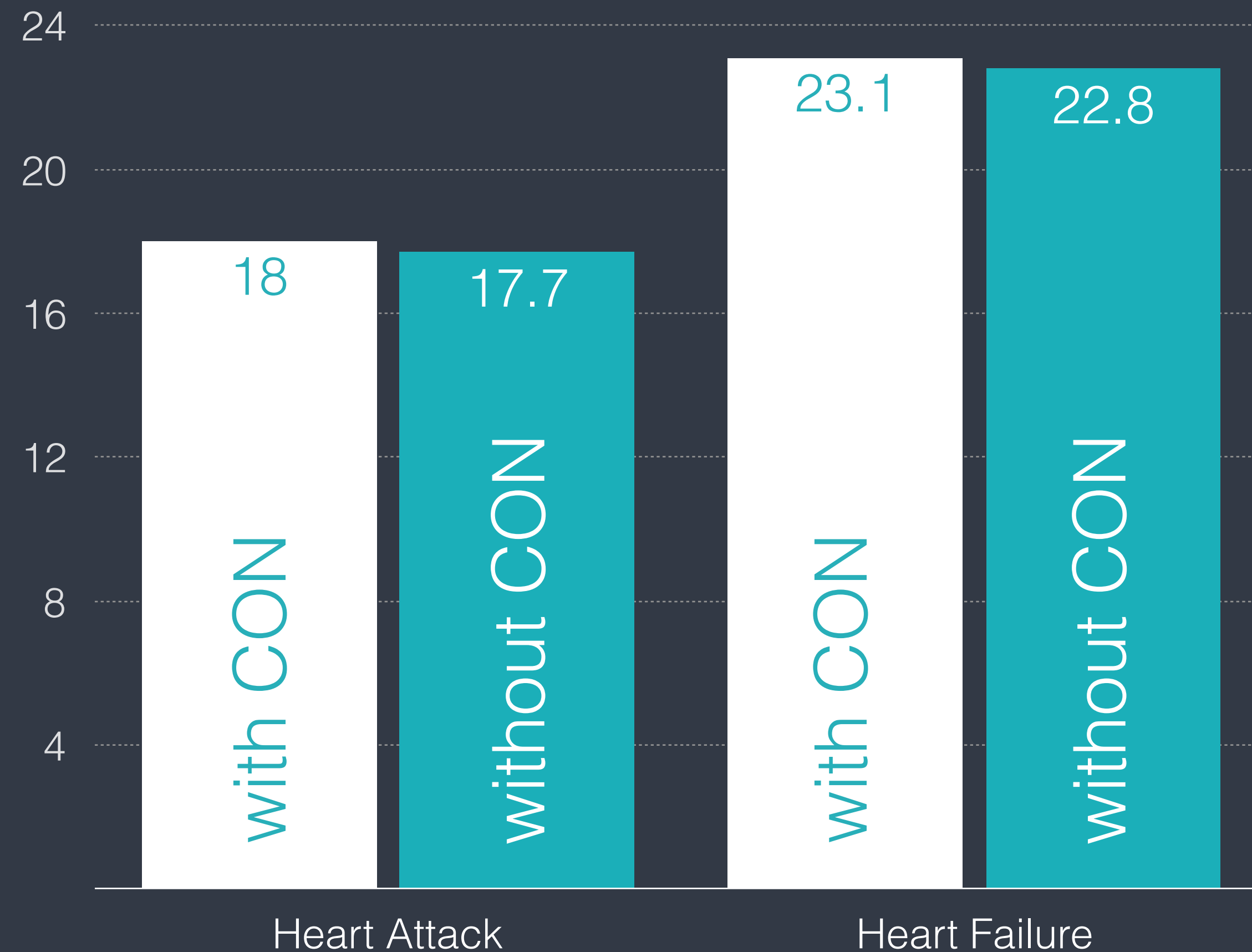
Estimated mortality rates
in AK



THE REALITY OF CON LAWS

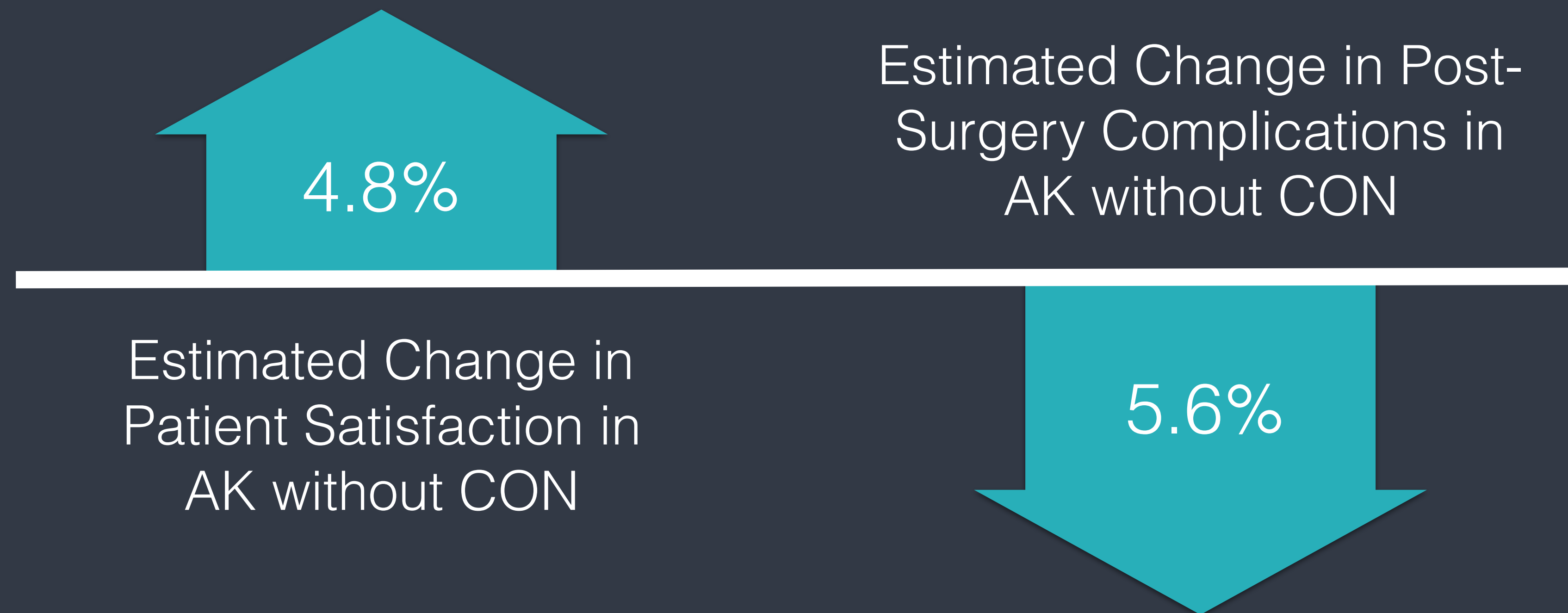
Promote high quality HC?

Estimated readmission rates in AK



THE REALITY OF CON LAWS

Promote high quality HC?



THE STATED GOALS OF CON LAWS



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THE REALITY OF CON LAWS

Promote charity care?

No evidence of higher rates of charity care (Stratmann and Russ, 2014)

Greater racial disparity in the provision of services (DeLia et al., 2009)

THE STATED GOALS OF CON LAWS



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Encourage hospital substitutes

THE REALITY OF CON LAWS

Encourage hospital substitutes?

Ambulatory Surgery Center (ASC)-specific CON states have 14% fewer ASCs per capita (Stratmann and Koopman, 2016)

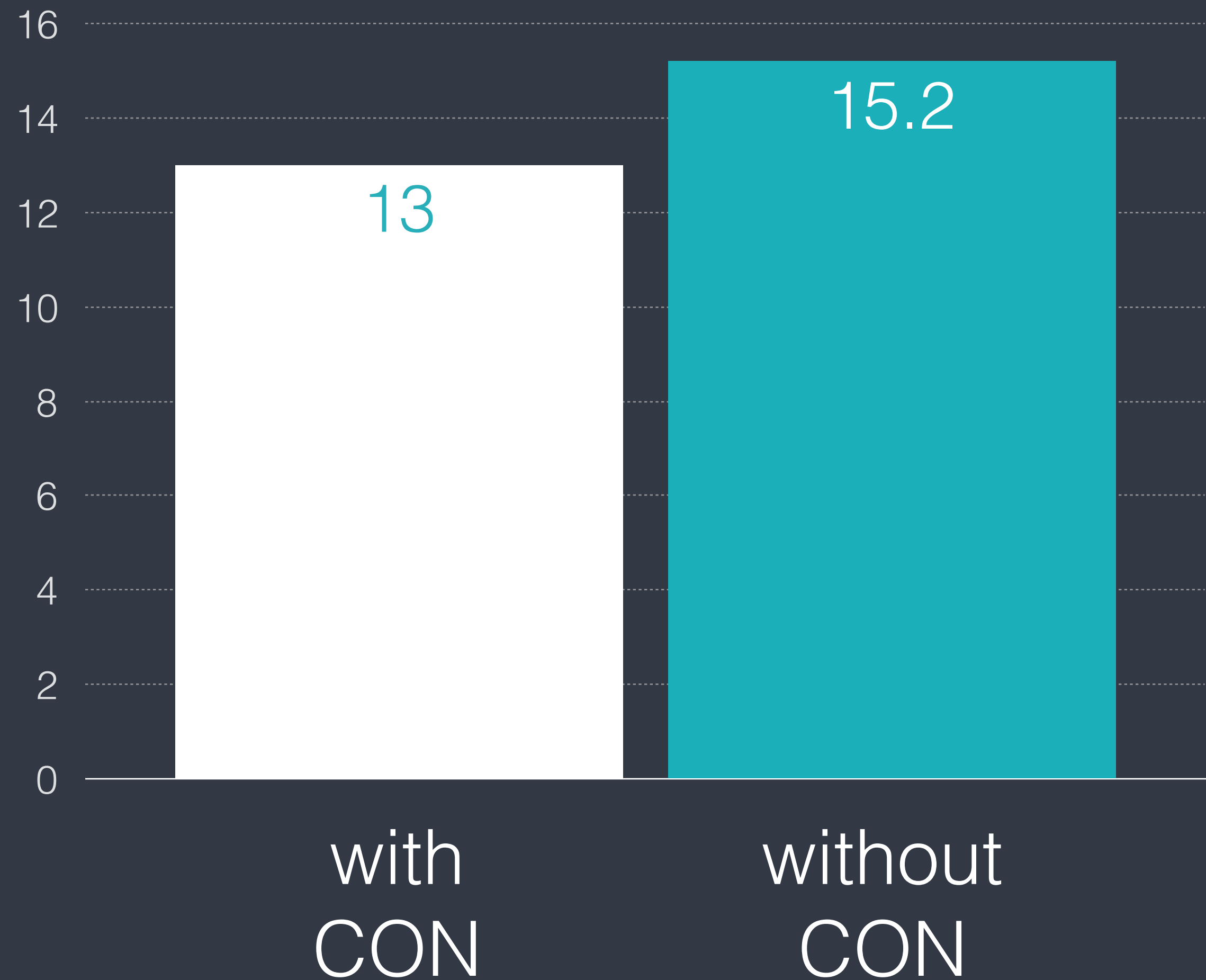
ASC-specific CON states have 13% fewer rural ASCs per capita (Stratmann and Koopman, 2016)

CON limits use of *new* hospitals and *non-hospital* providers, but not existing hospitals (Stratmann and Baker, 2017)

THE REALITY OF CON LAWS

Encourage hospital substitutes?

Estimated number
of AK ASCs
without CON



THE STATED GOALS OF CON LAWS

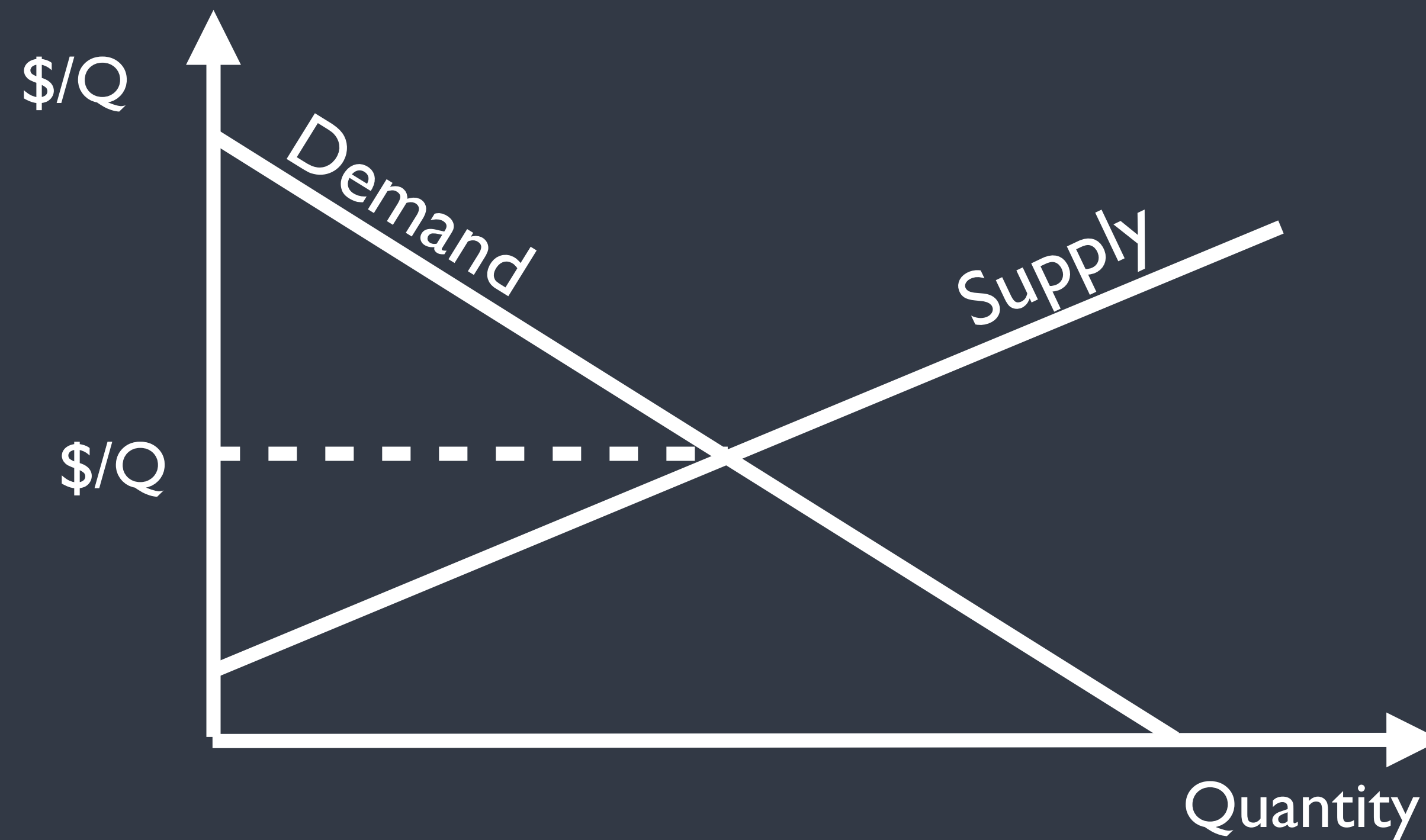


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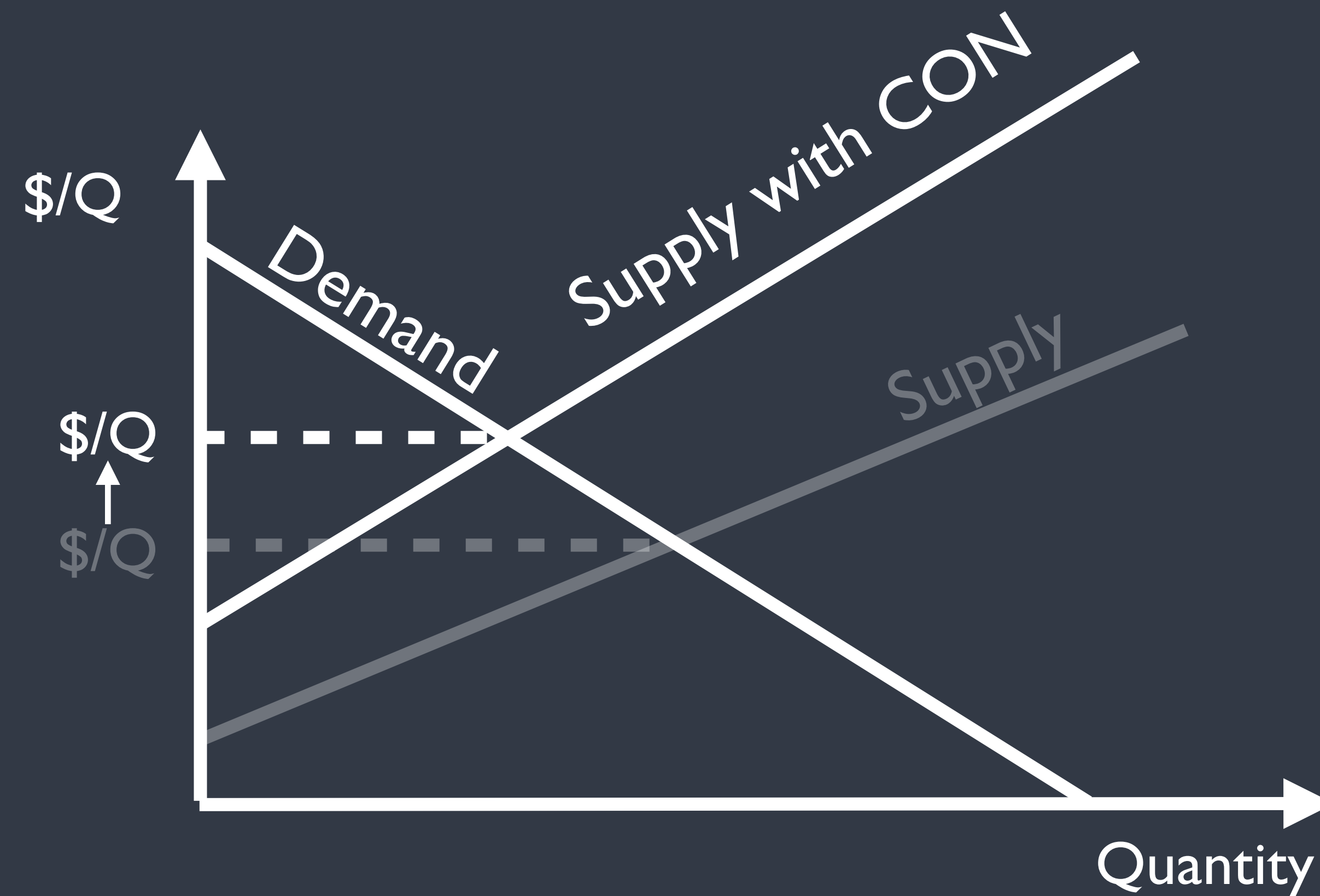
THE REALITY OF CON LAWS

Restrain the cost of care?



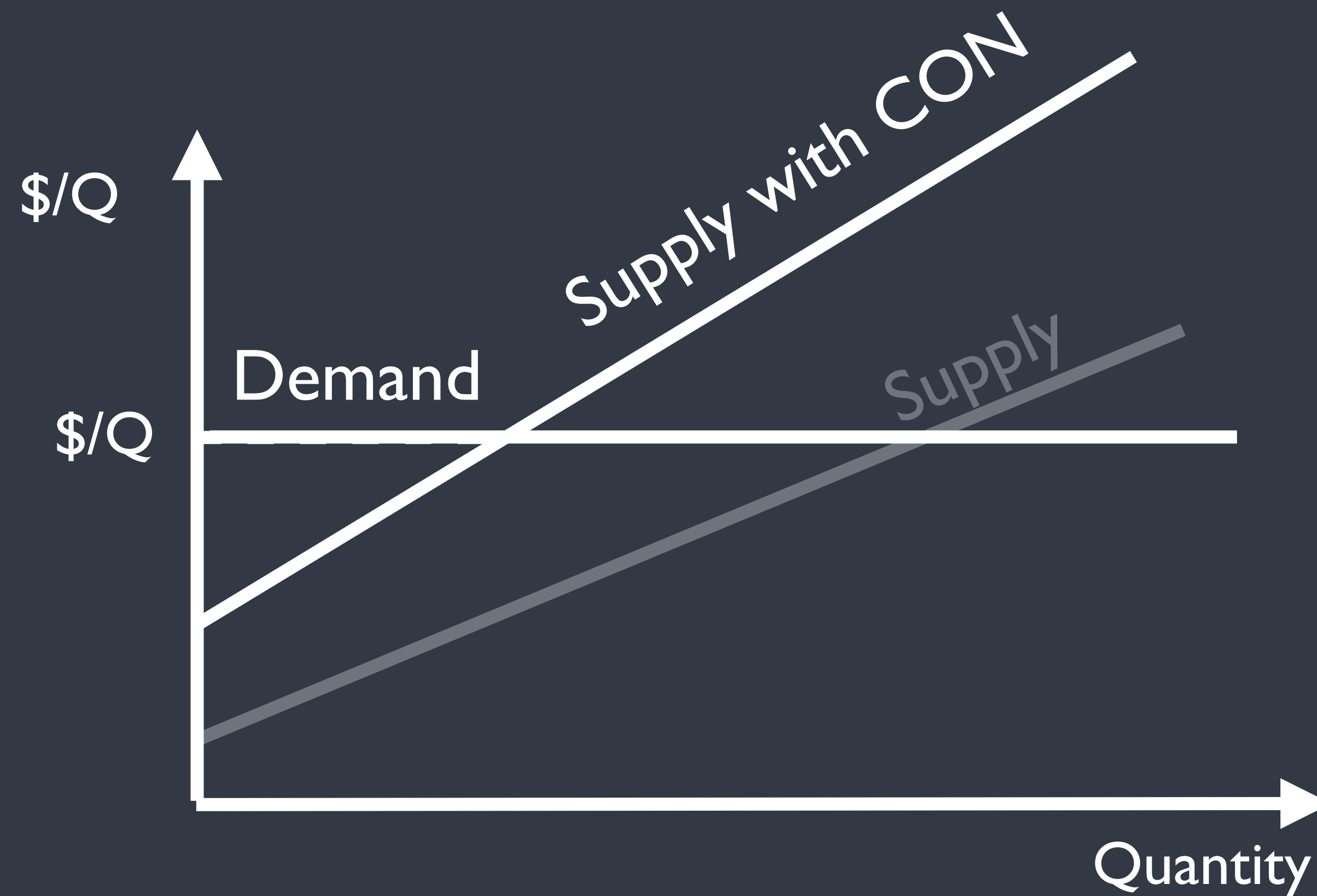
THE REALITY OF CON LAWS

Restrain the cost of care?



THE REALITY OF CON LAWS

Restrain the cost of care when demand is elastic?



Do Certificate-of-Need Laws Limit Spending?

Matthew D. Mitchell

September 2016

MERCATUS WORKING PAPER

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**Do Certificate-of-Need Laws
Limit Spending?**

Matthew D. Mitchell

September 2016

MERCATUS WORKING PAPER

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- 20 peer-reviewed academic studies
- CON laws work as economic theory predicts
- They fail to achieve their stated goal of cost reduction
- CON laws are associated with higher per unit costs
- CON laws are associated with higher total expenditures

Matthew Mitchell, PhD
Senior Research Fellow



MERCATUS CENTER
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ALASKA'S CON LAW

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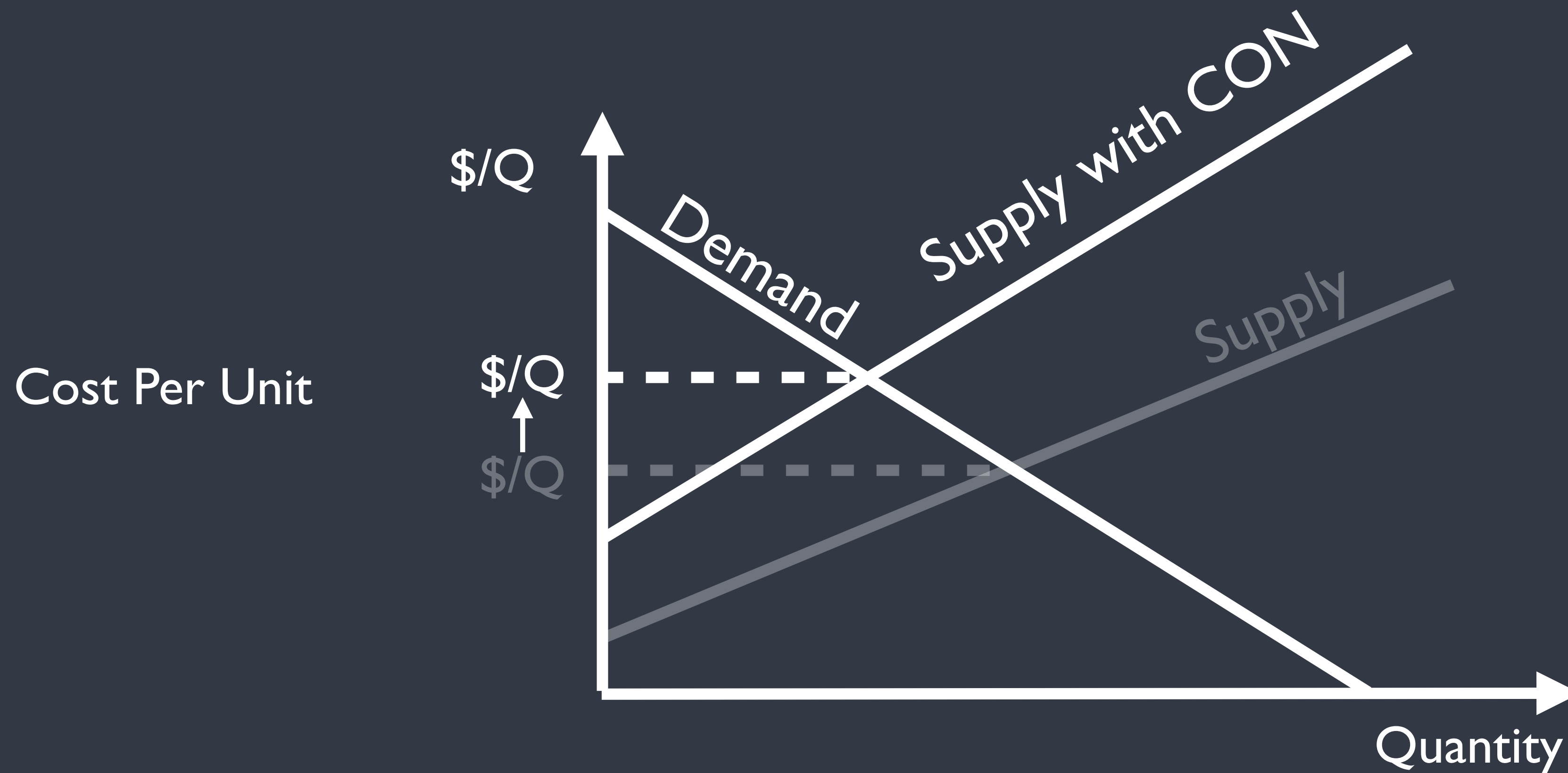
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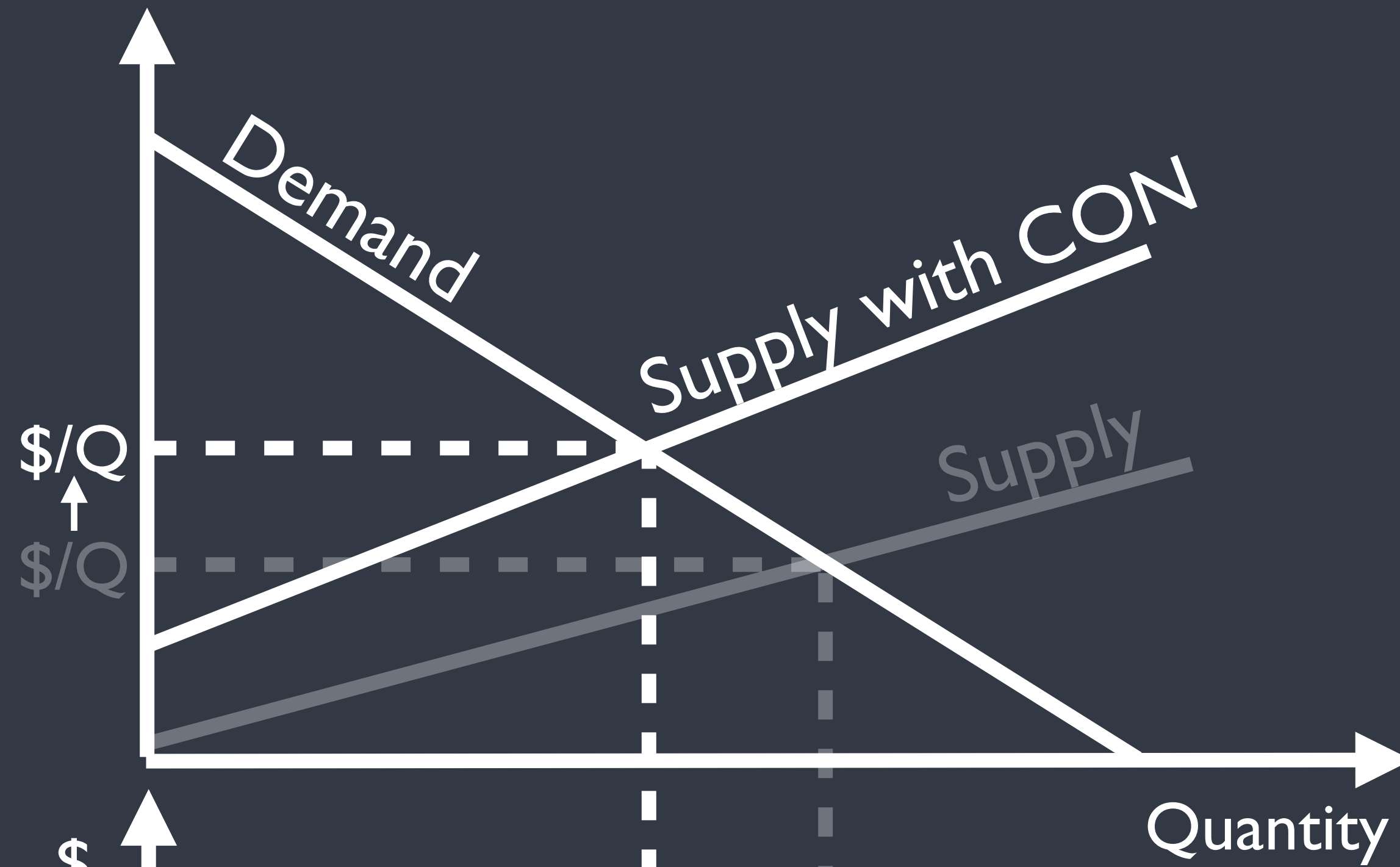
Appendix

WHY WOULD ANYONE THINK CON LAWS

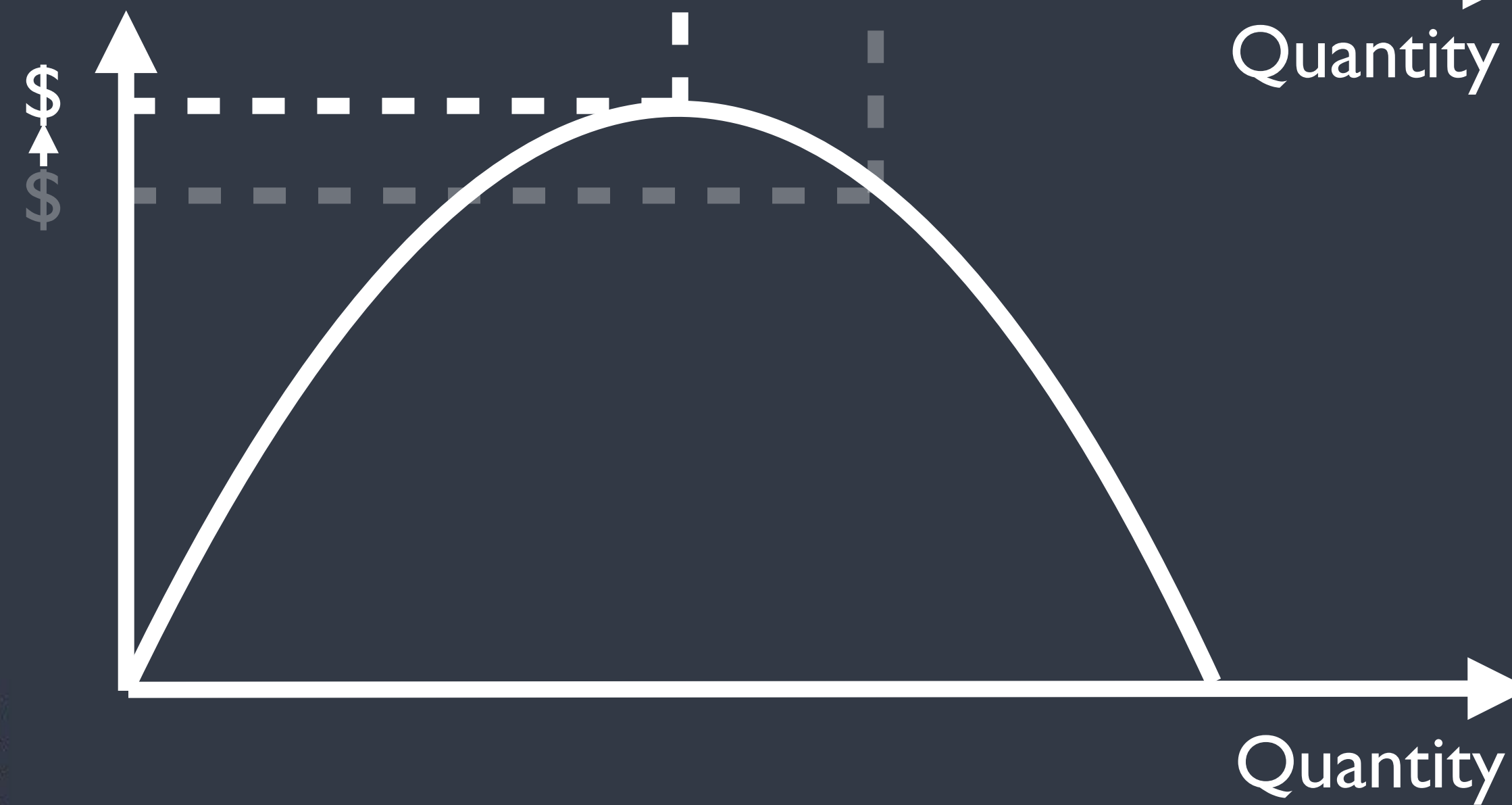
Restrain the cost of care?



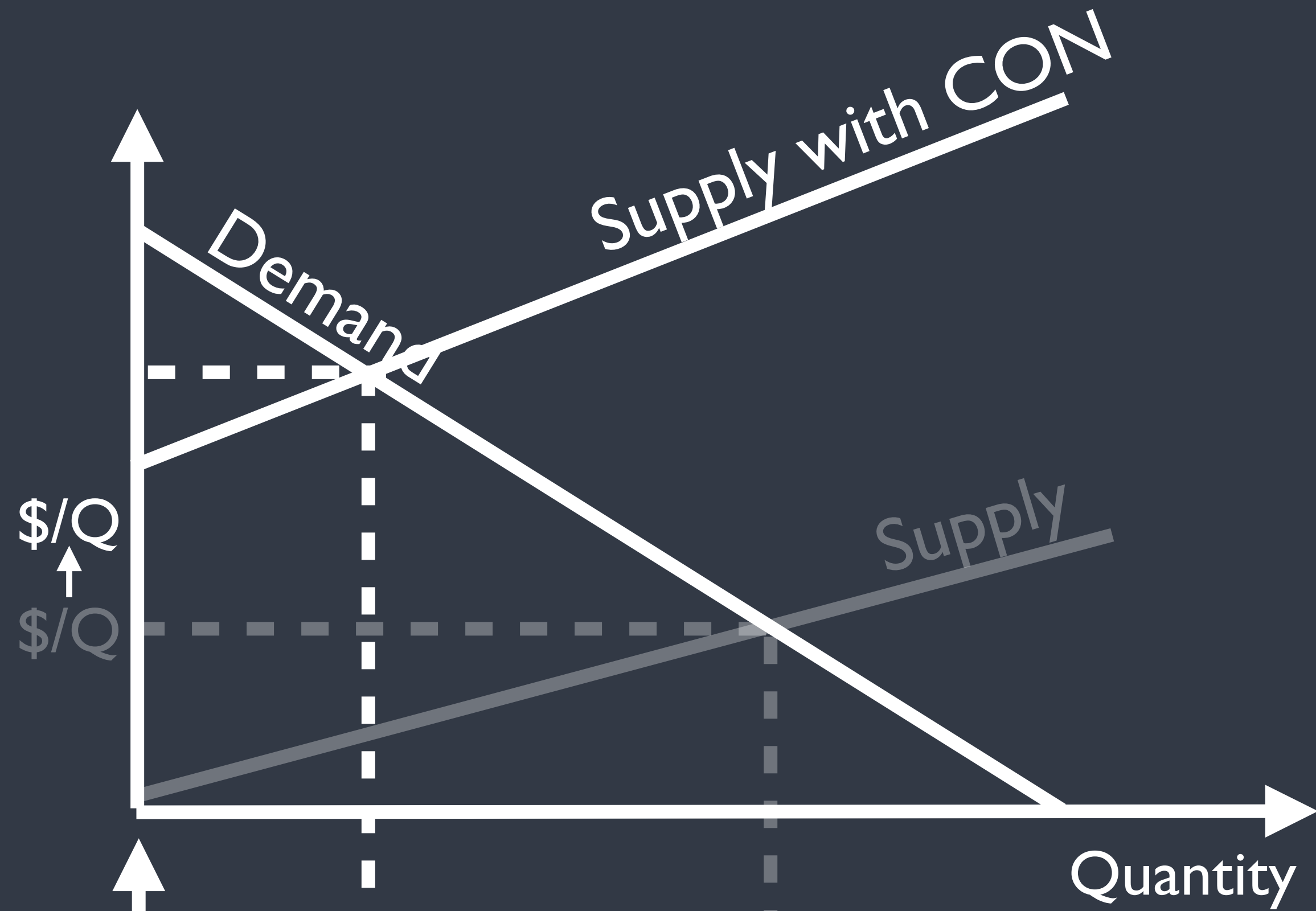
Cost Per Unit



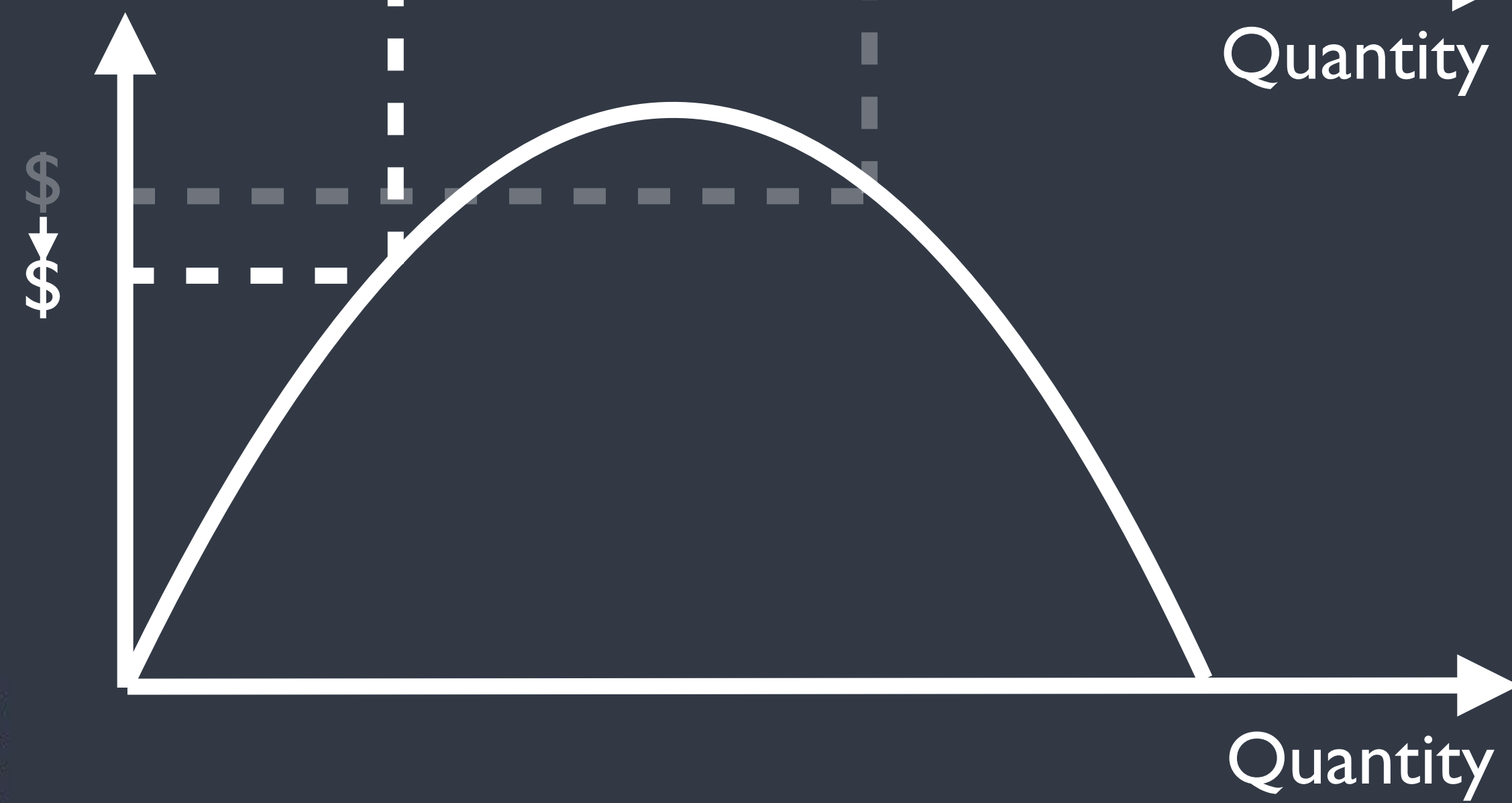
Total Expenditures



Cost Per Unit



Total Expenditures



THE REALITY OF CON LAWS

Restrain the cost of care?

4 decades of research

20 studies

ALL peer reviewed

THE REALITY OF CON LAWS

Per unit cost



3 studies: CON associated with higher cost

1 study: No detected effect on Medicaid costs

THE REALITY OF CON LAWS

Per patient expenditure



- 7 studies: CON increases expenditures
- 2 studies: No statistically significant effect
- 2 studies: Increases some expenditures and reduces others
- 1 study: Reduces the number of beds

THE REALITY OF CON LAWS

Hospital Efficiency

Market Structure and Technical Efficiency in the Hospital Services Industry: A DEA Approach

Laurie J. Bates
Bryant College
Kathleen M. Matherly
Worcester Polytechnic Institute
Rayford E. Santore
University of Connecticut

This article uses data envelopment analysis and multiple regression analysis to examine empirically the impact of various market structure elements on the technical efficiency of the hospital services industry in various metropolitan areas of the United States. Market structure elements include the degree of industry concentration, extent of HMO activity, and health insurer concentration. The DEA results show that typical hospital services industry experienced 1 percent inefficiency in 1998. Moreover, multiple regression analysis indicates the level of technical efficiency varied directly across metropolitan hospital services locations in response to greater HMO activity and primary health insurer concentration in the state. The analysis suggests the degree of industry concentration had no marginal effect on technical efficiency at the industry level. Evidence also implies that the presence of a state Certificate of Need law was not associated with a greater level of efficiency in the typical metropolitan hospital services industry.

Keywords: technical efficiency, hospital services, data envelopment analysis

Health care spending as a percentage of GDP has begun to rise once again in the United States, reporting upward from 13.3 percent in 2002 to 15.3 percent in 2003. (Novak et al. 2005) A large part of the growth spent can be

The Association of Hospital Cost-Inefficiency With Certificate-of-Need Regulation

Michael D. Rosko¹ and Ryan L. Mutter²

Abstract
Certificate-of-need (CON) regulations can promote hospital efficiency by reducing duplication of services; however, there are practical and theoretical reasons why they might be ineffective, and the empirical evidence generated has been mixed. This study compares the cost-inefficiency of urban acute care hospitals in states with CON regulations against those in states without CON requirements. Stochastic frontier analysis was performed on pooled time-series, cross-sectional data from 152 hospitals in 30 states for the period 2001 to 2009 with controls for variations in hospital product mix, quality, and patient burden of illness. Average estimated cost-inefficiency was low in CON states (8.13%) than in non-CON states (12.4%). Results suggest that CON regulation may be an effective policy instrument in an array of 17 non-CON states. However, broader analysis of the effects of CON regulation on efficiency, quality, access, prices, and innovation is needed before a policy recommendation can be made.

Keywords: certificate-of-need, efficiency, hospitals, stochastic frontier analysis

This article, submitted as Hospital Care Research and Review on April 16, 2012, was revised and accepted for publication on September 1, 2012.
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Allocative Inefficiency in the Production of Hospital Services*

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University of Oregon
Eugene, Oregon

1. Introduction
Researchers have offered numerous theoretical models of hospital behavior that suggest inefficiency in the production of hospital services.¹ Explanations of inefficiency are tied to the regulatory and reputation of the industry, practical input problems, and the introduction of third-party reimbursement. Rubin and Estessner (1) use a non-stochastic cost function to obtain estimates of allocative inefficiency for 113 U.S. short-term hospitals. In this paper, I use a tool in the hospital cost literature by investigating variations in allocative inefficiency in the short-term hospital industry. This is done by replacing the allocative efficiency estimator from Rubin and Estessner against hospital cost functions that incorporate stochastic inefficiency. Specifically, I estimate allocative inefficiency in the short-term hospital industry by estimating a stochastic cost function which is not cost-minimizing. A hospital may choose a non-cost-minimizing set of inputs if it evaluates the stochastic price of inputs as being different from its actual price. A hospital price is the hospital's internal perception of the unit cost of an input. This perception may differ from the actual input price if, for example, the input owner directly controls hospital's effective function. The hospital is assumed to minimize market costs by equating the marginal rate of technical substitution and the labor's input shadow price. This is the shadow cost function that is dual to the underlying technology.
The hospital is modeled as a multiproduct firm. A modified cost function is used to develop a system of cost and short-run equilibrium which is estimated via nonlinear stochastic frontier regression. Hospital results indicate that nonregulation and underemployment of physicians increase short-term hospital costs by about 9 percent. Hospital cost reductions are about 1.1 percent of the gross national product, which is about three times the percentage in 1992. Thus, if private insurance a large segment in actual output. Further investigation identifies hospital cost, market share, regulation and geographic region as the hospital characteristics related to the measure of allocative inefficiency.
This paper is organized as follows. In section 2, I develop the empirical model based on a non-stochastic cost function. The statistical estimation procedure is a specification and data

*This article, submitted as Hospital Care Research and Review on April 16, 2012, was revised and accepted for publication on September 1, 2012.
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The Impact of CON Regulation on Hospital Efficiency

David J. Fennell, Michael J. Franks, L. H. White

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Abstract
This paper examines the impact of Certificate of Need (CON) regulation on hospital efficiency. We use data from the Medicare Part D during the health reform period to estimate the impact of CON regulation on hospital efficiency. We use a stochastic frontier production function to estimate the impact of CON regulation on hospital efficiency. The results show that CON regulation has a negative impact on hospital efficiency. The impact of CON regulation on hospital efficiency is larger for hospitals with higher market power and higher quality of care. The impact of CON regulation on hospital efficiency is also larger for hospitals with higher market power and higher quality of care. The impact of CON regulation on hospital efficiency is also larger for hospitals with higher market power and higher quality of care.

1. Introduction
CON regulation has long been a political issue in the United States. The law states that, for non-emergency health care services, hospitals must obtain a certificate of need (CON) before they can expand their services. The law is intended to ensure that health care services are provided in an efficient and cost-effective manner. However, there is a growing body of evidence that suggests that CON regulation may have a negative impact on hospital efficiency. This paper examines the impact of CON regulation on hospital efficiency using data from the Medicare Part D during the health reform period. We use a stochastic frontier production function to estimate the impact of CON regulation on hospital efficiency. The results show that CON regulation has a negative impact on hospital efficiency. The impact of CON regulation on hospital efficiency is larger for hospitals with higher market power and higher quality of care. The impact of CON regulation on hospital efficiency is also larger for hospitals with higher market power and higher quality of care.

2 studies: CON increases some measures of efficiency
1 study: CON has no effect on efficiency
1 study: CON reduces efficiency

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Investment



1 study: CON fails to reduce investment but changes its composition

1 study: CON backfires, increasing investment

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