Abstract

In this paper, we explore the effects of state regulations in the center-based and home-based childcare sectors. We take advantage of newly available proprietary data from the National Survey of Early Child Education (NSECE). We address the potential for policy endogeneity in state level regulations by exploiting within-state variation that exists across child age groups and staff position. This approach allows for the inclusion of state fixed effects to control for permanent state-level heterogeneity to address the non-randomness of the policy placement. We supplement this approach with across-state comparisons for the same age groups, while controlling for a rich set of local area characteristics, as well as local market fixed effects. We investigate the direct impacts of regulations within the child care sector (home-based versus formal center care) on prices, wages and quality within that sector and also the role of relative stringency of regulations in the center-based (CC) and home-based care (HBC) markets on the availability of different types of care in the market and the types of care used. Given the dramatic shifts in this market in recent decades paired with a lack of recent evidence on regulation, we view this dual focus on home based and center care as filling an important gap in the research.

Motivation

• Importance of high quality child care is well-documented
  • Kubota, K., 2017. Arguments a substantial part of trends in costs may be driven by changes in home-based care market, yet few studies focus on the relationship between regulations in CC and HBC.

Prior Research

• Tighter regulation has small or negligible effect on prices

• Tighter regulation decreases staff wages (Blau 2007)

• Tighter regulation leads to increased supply, less usage of formal childcare, increased use of home-based care

• Results vary by local area income levels (Hotz and Xiao 2011)

Potential Unintended Consequences of Regulations

• Increased Prices → Due to realized quality increases increasing willingness to pay on the part of consumers or due to increased costs of provision due to meeting the new requirements

• Decreased Wages → As a way of passing off some of the costs if consumers are more price sensitive. This could lead to decreased quality of workers and decreased quality of care.

• Less Supply → Some centers may close or not enter due to the increased costs. Some centers may remain open, but offer fewer slots for age groups that are higher regulated.

• Switch between substitute markets → Consumers may switch toward formal center care if \( P_{\text{CC}} > Q_{\text{HBC}} \) & availability remains. Or, consumers may switch away from CC if \( P_{\text{CC}} > Q_{\text{HBC}} \) or availability decreases

Research Questions

Question 1: What is the effect of regulations in the CC and HBC markets on prices, wages, care employee characteristics, and quality certification of care facilities within their respective markets? Do these impacts vary by local characteristics of the community? Do regulations in the CC market impact the relative use of the HBC market (and vice versa)?

Question 2: What is the role of relative stringency of regulations in the CC and HBC markets on (a) the availability of different types of child care in the market (supply-side) and (b) the types of child care used?

Question 3: How do these regulations impact maternal labor market outcomes?

• Studies on regulation effects are dated; all major studies rely on data from 1997 or earlier.

• More recent market changes motivate re-examining the effects of regulation in the child care market:
  • Childcare costs have risen dramatically since 1997.
  • There have been major changes in the types of child care used, notably, a switch away from home-based care (HBC) to center care (CC) and options outside of the regulated market, such as family and informal settings (IFC).

• Kubota 2017 argues a substantial part of trends in costs may be driven by changes in the home-based care market, yet few studies focus on the relationship between regulations in CC and HBC.

Contributions

• Main data: National Survey of Early Care and Education (NSECE)
  • Proprietary data based on nationally representative surveys of child care centers, childcare workforce and home-based providers in 2012
  • Includes variables such as prices, child and staff demographics, hours, religious affiliations, enrollment and group size as well as staff demographic information, certifications, education, position title and assigned room, wages, hours worked, and experience.

• Regulation data:
  • 2013 Child Care Aware of America report titled, “We Can Do Better—Child Care Aware of America’s Ranking of State Child Care Center Regulations and Oversight.”
  • Child Care Licensing Study. This data is made publicly available from ICPSR at the University of Michigan.

Empirical Specifications

[1] Price and Quality: We regress outcomes of interest (price, wages, staff characteristics) for establishment \( i \) in state \( j \) and classroom \( c \) on a vector of state regulations (center-based and/or home-based care-age group ratios, group size, and education requirements):

\[
Y_{ij} = \beta_0 + \beta_1 X_{ij} + \beta_2 R_{ij} + \beta_3 H_{ij} + \alpha_j + \delta_c + \epsilon_{ij}
\]

• Main specifications include age-group fixed effect and identify effects from within-state variation in regulations across age groups.

• Estimate second specification using center-level average outcomes on regulations, controlling for state-level characteristics and local area fixed effects.

[2] Availability: We regress the number of childcare establishments and the proportion of CC versus overall in local area care market (l), within state (j) on regulations:

\[
Y_{ij} = \beta_0 + \beta_1 R_{ij} + \beta_2 X_{ij} + \beta_3 H_{ij} + \phi + \epsilon_{ij}
\]

Where \( Y_{ij} = CC_{ij} \) or \( Y_{ij} = CC_{ij}/HBC_{ij} \)

Preliminary Findings

• Due to highly restrictive nature of the NSECE data, we are unable to disclose specific estimates at this time. We are currently still performing estimation within the NORC server. Preliminary results are subject to change and should not be cited.

• In general, early results suggest tighter CB regulations lead to higher prices of care in models without classroom fixed effects. However, FE estimates suggest regulations have essentially no impact on price but that tighter regulations lead to lower staff wages.

• Next steps: estimate the effects on availability of care and examine effects of HBC regulations.

Contact

Jennifer Graves
Universidad Autónoma de Madrid
jenniferagraves@gmail.com

Kathryn Rouse
Elon University
krouse@elon.edu

References


[10] Kubota, K., 2017. Arguments a substantial part of trends in costs may be driven by changes in home-based care market, yet few studies focus on the relationship between regulations in CC and HBC.


