

Child Care Accessibility Index: Leveraging SC Child Care Administrative Data to Inform State CCDBG Subsidy Policies

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Project Description.

The goal of this project is to inform our understanding of state subsidy policies, practices, and procedures that are associated with the accessibility and availability of high quality child care for subsidy eligible children at the local and national levels. This project will lead to a deeper understanding of high quality child care accessibility in the context of availability, parental choices and subsidy use. It applies innovative analyses more commonly used in geographic information science (GIS) to develop a Child Care Accessibility Index (CCAI)—an identification tool composed of two sub-indices. The CCAI will serve as a reliable tool for assessing accessibility in geographic regions using key variables available in de-identified state administrative databases. The study is grounded in previous research from the field of early childhood education and is being developed in close collaboration with the Division of Early Care and Education (DECE) in the South Carolina Department of Social Services (SCDSS) and other stakeholders with a focus on functionality of the CCAI and its application in the field.

Research Questions.

- What is the availability of quality child care for families receiving child care subsidies for children of different ages (including infants) using descriptive, GIS tools?
- How does quality of care selection by parents vary as a function of provider location (i.e., GIS), child age, availability of publicly funded early care, family characteristics, and by funding sources or streams in South Carolina?
- Does the length of voucher utilization differ by demographic characteristics such as population, poverty, quality of child care, and sub-populations of voucher children?

Sample. Data used in this project are drawn from population-level administrative databases containing

information regarding state child care licensing, state QRIS and state child care subsidy systems.

Additional sources of data include the US Census Bureau and additional geospatial information on available child care providers.

Methods. Accessibility is a complex interaction of demand, supply and selection. Based on administrative data, we formulated two sub-indices related to child care accessibility, the interaction of which, can be used by state or local government to pinpoint geographic areas that may require policy intervention. Estimates of demand for child care have been computed using US Census and ACS population estimates accounting for age and poverty level of children and families. Supply of quality child care was calculated using state licensing and state QRIS data to identify providers eligible to serve child care subsidy recipients. Using straightforward arithmetic and GIS technology our team has developed a strategy for describing the spatiotemporal differences in the supply and demand of child care among child care subsidy recipients.

Progress Update.

Early on the research team learned that despite the fact that each of the data sources used in our analyses were obtained from the same source, they did not include a primary key to allow easy linkages across program data sources. After exploring and testing multiple approaches to linking individual child records with child care providers, the research team created a protocol for creating data sets, coalescing information from the child- and provider-level files at the zip code level. Each of these zip code level data sets represents the cross-sectional state of child care for a particular date. Using June 16, 2015 as a starting point, the team developed a data delimitation protocol to isolate payments received on any particular day, delineated by type of care received.

Families' selection of a high quality child care arrangement is thought to be influenced by the following: (1) the type of care preferred (Home-Based Care or Center-Based Care); (2) the presence of quality rated providers for the type of care preferred; (3) the cost that families must pay for care; (4) the location of the child care provider in relation to either home or work; (5) the availability of openings in those care settings. Based on the administrative data made available by the South Carolina Department of Social Services, we identified four variables that represent features of a community-based child care market that relate to accessibility. These features directly and indirectly capture the aforementioned influences on parents' access to high quality child care. The first two influences are directly obtained from administrative data. Both the type of care chosen by parents and the capacity of the chosen facility are available in the administrative files. The third influence, cost to families, will be addressed by using data from the Market Rate Survey minus current subsidy reimbursement rates at each quality level as an estimate of child care affordability. The fourth influence, will be addressed by identifying typical distance traveled to access selected child care, once child home address information is provided by our partnering agency. The fifth influence, availability of openings (i.e., vacancy), has presented more of a challenge. Currently in South Carolina, there is no uniform practice for obtaining child care vacancy information. Considering this, our research team constructed two proxy variables (*selection* and *unused capacity*), representing two sub-indices. Both the selection and unused capacity sub-indices incorporate four observed measures at the zip code level: (1) the type of care facility; (2) the number of children using vouchers in those types of facilities; (3) the total capacity of the settings; (4) the quality levels of the facilities. The first sub-index—selection—captures the selections made by parents within the context of other possible selections. The selection index is a proxy variable used to understand how well parents are making decisions to enroll their children in the highest possible quality of care available in their respective zip codes. The second sub-index—unused capacity—captures the unused capacity in a given zip code. The unused capacity index is a proxy variable used to understand both the infrastructure and the

potential for subsidy use in a zip code. Unused capacity measures the magnitude of child care spaces that are not occupied by subsidy recipients. While the team recognizes that this still doesn't fully account for non-subsidy enrollment or exact vacancy, it is our intention to address this through the use of additional indices that account for the likely demand for child care based on national child care enrollment trends and US census estimates.

Implications for policy/practice.

Administrative data are powerful because they reflect local policies, procedures and practices, the relevance of which cannot be overstated as a tool for guiding the decisions of state child care administrators. Findings from this project will fill gaps in local and state knowledge. The product of this project will be a systematic approach for any state or local government using administrative child care data to replicate the CCAI with local, administrative data. The CCAI will then serve as a systematic tool for any local or state government to guide their policies and practice.

Implications for research.

Child care utilization is a local phenomenon where local contexts are more likely to differ by demographics and geography. The CCAI sub-indices will serve as variables that can be analyzed in conjunction with demographic, economic, and transportation data to inform policy decisions that will ultimately increase the use of high quality care among subsidy recipients.

For more information.

http://www.sc.edu/study/colleges_schools/education/research/cdrc/index.php

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