Mapping Supply and Demand of Child Care and Early Education Programs: Researcher Insights and Evidence-Based Policy Tools

Reflections and Discussion

Roberta Weber
College of Public Health and Human Sciences
Oregon State University

Overview

- Policy relevance of access: supply/demand fit
- Contributions of each paper:
  - New access measures
  - Use of mapping and geospatial analyses
- Opportunities related to mapping and geospatial analyses
- Challenges related to mapping and geospatial analyses

Access to High Quality Child Care and Education

- Policy relevance:
  - 2014 Reauthorization Act put emphasis on access to quality
  - Lack meaningful measures
  - Interest in use of contracting to assist in ensuring quality for targeted populations

- Shared approaches to measuring access:
  - All spatially locate low-income families & available care
  - Each incorporates measures of quality into measures of access
  - Each addresses a geographical aspect of unmet need

Contributions to Measuring Access

- Davis and colleagues created new access measures that:
  - Incorporate distance, price, and quality
  - Demonstrate difference between access and availability for key populations
  - Calculate the added cost of accessing quality—the quality premium
- Claessens and colleagues create measures of "mismatch"
  - Focus on challenges of low-income families who need infant/toddler care or care during nontraditional hours—show challenges to finding quality
  - Map the mismatch between needs of subsidy eligible families and available supply
- Massachusetts research team explores match between need and subsidized care:
  - Combine ACS & subsidy data to create measure of unmet need
  - Compare percentage of unmet need by community
  - Examine if community with greater percentage of contracted slots serve higher percentage of parent need

Use of Mapping and Geospatial Analyses

- Davis and colleagues:
  - Map supply and demand
  - Create and geocode “synthetic” families
  - Use “Hotspot” analysis to identify spatial clusters with high or low values of variables such as affordable high quality care
- Claessens and colleagues:
  - Map supply and demand and degree of unmet needs (“child care deserts”)
  - Map demand for nontraditional hour care
  - Use Census PUMA statistical geographic areas
- Massachusetts research team:
  - Geocode children and providers to town-level
  - Use Census Tigerline files

Opportunities of Geospatial Analysis

- Ideally suited to identifying needs such as amount of access
  - Can analyze multiple subject characteristics at the same time (map layers)
  - Visualization is more than a picture—engages intuition
  - Not tied to administrative organization boundaries (e.g., county) (area)
- Geospatial analysis is more than mapping
  - Starts with research question and appropriate data
  - Findings appear on map
- Value depends on importance of question, and appropriateness of data

Challenges

- GIS knowledge and skills
- Appropriate data:
  - Data collected for same areas or is designed to aggregate to larger areas
  - New set of data quality issues
- Demand data
  - Privacy and data collection concerns for geocoding actual families
    - When using participants clearly distinguish use from need
    - Explore availability of TRIM data for measuring subsidy eligibility
  - Alternative methods for getting addressed-based families
  - Use counts of children or families with specific characteristics instead of addresses