

**Mapping Supply and Demand of Child Care and Early Education Programs:
 Researcher Insights and Evidence-Based Policy Tools to Make Government More Effective**
Breakout Session A1

1. Descriptive Information

<p>A1: Mapping Supply and Demand of Child Care and Early Education Programs: Researcher Insights and Evidence-Based Policy Tools to Make Government More Effective</p> <p>Description: This session shares results from four efforts to map the geospatial distribution of childcare and early education providers with various characteristics, identifying key factors that shape differential access for low-income families. Panelists will each describe a study of child care supply and demand in distinct geographic area(s) in the Midwest (Minnesota and Illinois), Northeast (New York and Massachusetts), and Northwest (Oregon) with the goal of elucidating their value for policy decisions and to make government more effective at serving the child care needs of low-income families. The presentations consider the supply of care of various characteristics (price, quality, distance, schedules) against potential demand and describe policy tools that can give decision makers useful information about the local childcare markets available to meet community needs.</p>	<p>Facilitator Julia Henly</p> <p>Presenters Elizabeth Davis, University of MN Amy Claessens, University of Chicago Erin Hardy, Brandeis University</p> <p>Discussant Roberta Weber, Oregon State University</p> <p>Scribe Tori Perkins, Child Trends</p>
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2. Brief Summary of Presentations

Summary of Presentation #1: Elizabeth Davis, University of MN

Inequalities in Access to High-Quality Early Care and Education Using Family-Centered Measures of Access

We have limited information about options and tradeoffs for parents. Most studies of child care supply use area-based measures (which assume that parents' options are located within administrative boundaries such as counties or ZIP code areas).

Growing availability of geo-coded provider location data provides new opportunities for mapping and spatial analysis. Distance based measures of access account for proximity and affordability.

Most important: Where is the provider located and how much does it cost? Other things parents may consider are: hours, language preferences, 1. How much is the "quality premium?" That is, how much more does the average family have to pay to access high quality care? 2. How does access to high quality care vary by income, location, race/ethnicity? 3. What socio-demographic characteristics are associated with higher or lower levels of access to high-quality care?

Two sets of distance based measures: 1. Based on providers closest to the family, and 2. Based on all providers in 10 mile radius.

Measures of cost:

Travel cost: Based on driving time between household and provider, Cost of travel: Travel time * 5 days * 2 trips * \$10/hr

Cost (or price) of care: Weekly price for full-time care (by age group)

Total implicit cost for full-time care = travel cost + weekly price

Quality premium: The ratio of total implicit cost at the closest highly rated provider to the closest unrated provider.

Findings: Travel time is longer to higher rated programs. Cost is much higher for a highly rated provider. Median cost is \$150 a week to access unrated and low rated providers. Access to highly rated programs costs \$200 a week on average. Almost no families access care for less than \$100 a week. Quality premium average is 1.4 (a family may pay 40% more to access highly rated versus low unrated care). Findings show that black and American Indian families may pay a higher quality premium and American Indian families pay more in travel costs.

Study uses hot spot analysis, a data visualization technique, to look at the spatial distribution of capacity, affordability, and capacity/affordability adjusted for demand. This shows that a lot of capacity is concentrated in the cities of Minneapolis and St. Paul. When adjusted for affordability capacity reduces, showing there is a lack of affordability in Minneapolis/St. Paul. When adjusted for demand: the map “flips”, showing much less access to affordable high quality care for families adjusted for the number of families in Minneapolis/St. Paul as compared to outer suburbs. Access for black and American Indian families is about one-third of that for white families. When looked at through a regression framework the story does not change when we account for other characteristics of the area.

Conclusions: Distance-based measures of access provides information about trade-offs families face in terms of quality, price and distance. Multiple measures show similar patterns: Access is highest in central urban areas measured by capacity, but falls dramatically when affordability and demand are factored in.

Summary of Presentation #2: Amy Claessens, University of Chicago

Child Care Market Conditions and Low-Income Families' Needs: Identifying Mismatches in Four Select Communities. This study is focusing on subsidy eligible families. Study Components: Key stakeholder interviews, including subsidy administrators and staff, CCR&Rs staff, and quality improvement program leaders. Local supply & demand analysis; mapping changes in quality, supply, and characteristics of subsidized care. Linking Phase 1 survey data to Phase 2 provider data. Qualitative study of subsidized providers of different care types

Research questions: How are child care programs with key characteristics distributed across each of the four sites of the larger study? How does the supply of child care with these characteristics match the heterogeneous needs of subsidy-eligible families? Do geographical child care data deepen the analysis of the parent survey in Study Phase 1? Determine whether relevant child care demand and supply factors match up geographically. Are there patterns that suggest need for policy intervention? Are we capturing the right variables?

This presentation focused on Nassau County. The study found that there are more non-accredited centers and very few accredited centers in the county. Additionally, where we see a high concentration of low income children, we also see a lot of legally exempt providers. So, overall, about half of centers accept subsidies, there is little accreditation, about 40% of centers that accept subsidies are licensed for infant care, and very few offer care during non-standard hours. Child care programs are distributed unevenly around each of the study sites, with distinct “child care deserts” and widespread lack of access to care that is subsidized, high-quality, and available to families working nonstandard hours. The supply of child care does not appear to be well-matched to the heterogeneous needs of subsidy-eligible families. Home-based settings are more likely to serve families with infants and to be open during nonstandard hours, but less likely to have a quality rating. Center-based providers are far less likely to open during non-standard hours (early morning, late evening, or overnight). By the measures available, relatively few full-time providers have demonstrated participation in quality initiatives.

Summary of Presentation #3: Erin Hardy, Brandeis University

Lessons from Massachusetts’ “dual-mechanism” subsidy delivery system. Dual-mechanism means the state uses both vouchers to parents and contracts with providers. Voucher holders can use their vouchers with any subsidy-accepting provider.

Contracts have been in place for 20 years in Massachusetts. Studying dual-mechanisms can help us: Understand imbalance at the local level (contract and voucher) and what that imbalance means, understand how voucher holders are making decisions, and identify downstream effects of using contracts to bolster supply. This has broader relevance to other choice based systems.

Research questions: Capacity: How does the licensed capacity of contracted providers vs. voucher-only providers vary locally? Usage: How does the share of subsidized children that use contracted vs. voucher-only providers vary locally? With an in-depth look at the share of voucher holders using contracted providers. What’s the connection between capacity and usage? Are voucher holders more likely to use contracted providers in local markets with

greater contracted provider presence? What's the connection between capacity, usage, and local need? Do local markets with greater contracted provider presence have lower unmet need?

Contracted providers are clustered, and voucher providers are more dispersed. Not a lot of even balance at the local level, though at the state level there is a fairly even balance. which we saw at the state level an even balance). Additionally, 40% of vouchers are being served by contracted providers. Contracted slots are less stable, but voucher children in contracted slots are not necessarily themselves less stable.

Statewide, the infrastructure exists for more children to be served by voucher-only providers (i.e. potential for more balance); but most local markets are not balanced. Statewide, the potential for balance is unrealized with a large majority of subsidy children being served by contracted providers, especially in large markets. Additionally, local markets with more contracted provider presence have higher shares of children served by contracted providers. This indicates choices are shaped by markets. Cities/towns where more of the local need is met do not necessarily have higher contracted provider presence.

3. Reflections and Discussion: Roberta Weber, Oregon State University

- All three papers have policy relevance.
 - The 2014 Reauthorization Act put emphasis on access to quality and we have had a lack of meaningful measures
 - There is also growing interest in the use of contracting to assist in ensuring quality for targeted populations.
- All the studies presented in this session spatially locate low-income families and available care. Additionally, each incorporates measures of quality into measures of access.
- Each study adds to the methodology for measuring access. Each study also addresses geographical aspects of unmet need.
- Geospatial analyses create opportunities that go beyond mapping.
- The field faces challenges in order to take advantage of geospatial analyses to address critical questions that have a geographic component such as access or supply and demand. CCEEPRC can play a pivotal role by bringing researchers together to address these challenges.

4. General Discussion

There was much discussion of how contracts are awarded in MA. Distribution of contracted providers in MA depends on state priorities (e.g. more FCC providers serving subsidized children). Another participant asked how it is determined whether a family receives a voucher or a contract slot. Answer: there is no difference in terms of time limit. What you get is based on what's available in your area when you get to the top of the waitlist.

5. Summary of Key issues raised (facilitators are encouraged to spend the last 3-5 minutes of workshops summarizing the key issues raised during the session; bullets below are prompts for capturing the kinds of issues we're looking for)

Contributions to measuring access:

- Incorporate distance, price, and quality
- Demonstrate difference between access and availability for key populations
- Calculate the added cost of accessing quality—the quality premium
- 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
- 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

Opportunities for 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