# Child Care Subsidies and the Stability and Quality of Child Care Arrangements

## Elizabeth E. Davis
### University of Minnesota
### Coauthors: Caroline Krafft, Kathryn Tout

Presented at the CCPRC Annual Meeting
December 2-3, 2015  Washington, D.C.

# Maryland-Minnesota Research Partnership: Early Care and Education Choices, Quality and Continuity for Low-Income Families

Child Trends and University of Minnesota
Maryland State Department of Education and
Minnesota Department of Human Services
RESI (Towson University), Wilder Research

# Acknowledgements

Principal Investigators:
- Kathryn Tout, Nicole Forry & Tamara Halle, Child Trends
- Liz Davis, Amy Susman-Stillman & Caroline Carlin, University of Minnesota

Research Partners:
- RESI of Towson University
- Wilder Research

State Partners:
- Rolf Grafwallner and Liz Kelley, Department of Early Childhood Development, Maryland State Department of Education
- Deb Swenson-Klatt and Elizabeth Roe, Minnesota Department of Human Services

Funder:
- OPRE: Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services

# Research Questions

- MD-MN Research Partnership overall objective:

  Increase understanding of parent child care decision-making and the quality and stability of care arrangements, particularly for low-income families.

- Specific research question: How is subsidy receipt related to:
  - Stability of child care arrangements
  - Number of providers used concurrently
  - Quality of care

# Data and Sample

- Longitudinal survey of parents in Minnesota
  - Low-income families, some of whom received child care subsidies
  - Focal child under age 6
  - 5 waves over 2-3 years (about six months apart)
- Matched program administrative data on subsidy receipt (98% match rate)
- 323 families in Wave 1

# Analysis Methods

- Longitudinal data: we observe child care arrangement(s) and subsidy receipt in each survey wave

- Child fixed effects model:
  - Controls for observed and unobserved characteristics of families that don't change over time
  - Reduces selection bias
  - Control for family and child characteristics that change over time.

|  | Percentage receiving subsidy | N (obs) |
|---|---|---|
| **Wave 1** | 37.5 | 323 |
| **Wave 2** | 39.6 | 250 |
| **Wave 3** | 42.2 | 218 |
| **Wave 4** | 38.8 | 196 |
| **Wave 5** | 33.6 | 146 |
| **Pooled** | 38.6 | 1133 |

# Changes in Subsidy Receipt between Survey Waves (Percentage of children)

There was substantial movement in and out of subsidy receipt between survey waves.

Survey receipt is based on administrative data.

|  | Percent who exit subsidy | Percent who enter subsidy |
|---|---|---|
| Wave 1 to 2 | 31.6 | 21.1 |
| Wave 2 to 3 | 24.7 | 19.8 |
| Wave 3 to 4 | 21.8 | 12.7 |
| Wave 4 to 5 | 24.6 | 5.9 |
| Pooled | 26.1 | 16.0 |

# Measures

- ## Stability of care:
  - Change in child care arrangement between survey waves
    - Primary provider (used most often)
    - Any provider

- ## Number of providers
  - Include both subsidized and not subsidized

- ## Parents' perceptions of quality of care
  - Based on a factor analysis of parent responses to questions about the characteristics of care

# Results I: Changes in Primary Provider between Survey Waves

– Many children changed primary providers between waves.

– However, in the Fixed Effects OLS model, subsidy receipt was **not** statistically significant, controlling for family and child characteristics.

| Percentage who changed primary provider between the survey waves | | |
|---|---|---|
| Subsidy status in first wave of pair | Not receiving subsidy | Subsidy recipients |
| Wave 1 to 2 | 62.5 | 46.9 |
| Wave 2 to 3 | 60.3 | 40.9 |
| Wave 3 to 4 | 52.3 | 38.5 |
| Wave 4 to 5 | 58.8 | 36.8 |
| Pooled | 58.9 | 41.4 |

# Results II: Number of Subsidized and Total Providers Per Child By Survey Wave

- Many children had more than one provider concurrently.
- However, in the Fixed Effects OLS model, subsidy receipt was **not** statistically significant, controlling for family and child characteristics.

| | Subsidy Recipients | | Not receiving subsidy |
| --- | --- | --- | --- |
| | **Number of subsidized providers** | **Total number of providers** | **Total number of providers** |
| **Wave 1** | 1.08 | 1.73 | 1.84 |
| **Wave 2** | 1.07 | 1.72 | 1.70 |
| **Wave 3** | 1.11 | 1.93 | 1.72 |
| **Wave 4** | 1.07 | 1.66 | 1.89 |
| **Wave 5** | 1.06 | 1.71 | 1.90 |

# Quality Factor Analysis: Survey Questions about the Child's Primary Care Setting

1.  Please think about when [child] is at [primary provider] and choose the answer that best represents **the experience you believe [CHILD] is having there**:

    – The caregiver provides activities that are right for my child and fit my child's needs

    – My child gets a lot of positive, individual attention

2.  **How often would you say [primary provider] does each of these things**:

    – Has teachers and caregivers with formal education and training to work with young children?

    – Provide a warm and caring environment with positive relationships between teachers and caregivers and children?

Responses for both sets of questions were (1) Never (2) Rarely (3) Sometimes (4) Usually, or (5) Always

# Full List of 17 Questions about the Child's Care Setting Included in the Factor Analysis

Responses for both sets of questions were (1) Never (2) Rarely (3) Sometimes (4) Usually, or (5) Always

Please think about when [child] is at [primary provider] and choose the answer that best represents the experience you believe [CHILD] is having there:

- My child gets a lot of positive, individual attention
- My child likes the caregiver or provider
- There are lots of creative activities such as art, music, dance, and drama
- The caregiver provides activities that are right for my child and fit my child's needs
- My child is learning new things and new skills
- My child gets a chance to run around and play outside
- My child watches television more than one hour each day"

How often would you say [primary provider] does each of these things:

- Talk with you?
- Use a curriculum or planning tool for teaching?
- Have a lot of books and learning materials?
- Provide a warm and caring environment with positive relationships between teachers and caregivers and children?
- Help your child get along with other children?
- Track your child's learning and development using an assessment tool?
- Have teachers and caregivers with formal education and training to work with young children?
- Have staff that are warm and friendly with your child?
- Enroll children from different backgrounds, for example, race, ethnicity, and religion?
- Have caregivers or teachers who speak your family's native language with your child?"

# Results of the Factor Analysis

- The distribution of parent responses tends to be skewed towards "always" responses, particularly for characteristics like whether the child likes the provider and whether there's a warm environment. However, there was a substantial degree of variation across respondents for the different questions.

- The primary factor identified in the analysis, with an eigenvalue of 3.94, clearly identified elements of quality, with all variables entering positively with the exception of watching more than an hour of television.

- There are varying weights placed on the different indicators of quality, with creative activities, activities that fit the child's needs, learning new skills, a curriculum, books, tracking of development, staff education, and diversity having higher weights.

# Results III: Difference in Quality Factor When Receiving Subsidy and Not

| Wave | Center | | Family child care | | Family, friend, or neighbor care | |
|---|---|---|---|---|---|---|
| | No subsidy | Subsidy | No subsidy | Subsidy | No subsidy | Subsidy |
| 1 | 0.40 | 0.72 | -0.11 | -0.08 | -0.63 | -0.29 |
| 2 | 0.66 | 0.58 | -0.36 | -0.48 | -0.47 | -0.40 |
| 3 | 0.64 | 0.58 | -0.18 | 0.38 | -0.71 | -0.47 |
| 4 | 0.69 | 0.42 | -0.03 | 0.02 | -0.68 | -0.82 |
| 5 | 0.54 | 0.75 | -0.06 | -0.01 | -0.65 | -0.19 |
| Pooled | 0.58 | 0.60 | -0.15 | -0.03 | -0.62 | -0.44 |

Maryland-Minnesota Research Partnership

# Child Fixed Effects OLS Regression Model for Quality Factor (as dependent variable)

- – Subsidy receipt is associated with higher quality factor score.

- – After controlling for type of care, subsidy receipt still has a positive coefficient estimate.

- – OLS model also controls for child age, number of adults and children (of different ages), employment status, and welfare receipt.

|  | Model 1 | Model 2 including type of care |
|---|---|---|
| **Subsidy receipt** | **0.540\*\*\*** | **0.148\*** |
| **Type of care (center omitted)** | | |
| **Family child care** | **---** | **-0.645\*\*\*** |
| **FFN** | **---** | **-1.073\*\*\*** |

# Summary of Results

- Stability of arrangements was not different when children were receiving subsidy or not.

  - Changes in provider were very common between survey waves.

- Children often had multiple providers, regardless of subsidy receipt.

- When children received subsidies, they experienced higher quality care (based on the characteristics of care reported by parents).

# Conclusions

- Studying the relationship between subsidy receipt and outcomes such as quality and stability of care is challenging because of selection issues.

- There is a high level of instability and use of multiple providers regardless of subsidy receipt.

- This study confirms other work that finds that subsidies allow parents to access more formal care, particularly centers, and higher quality care.

- Whether the new CCDBG policies can increase stability or the quality of care will depend on complex interaction of parent preferences and constraints, provider availability and responses, and market forces.

# For more information

Contact: Liz Davis

Professor, Department of Applied Economics

University of Minnesota

Email: edavis@umn.edu

**Maryland-Minnesota Research Partnership**

http://mdmnresearchpartnership.com/