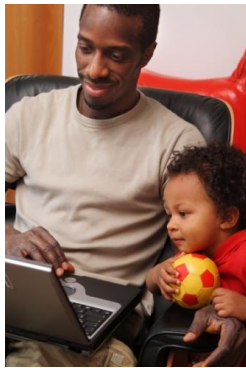


# Early Care and Education Choices, Quality and Continuity for Low- Income Families: A Maryland-Minnesota Research Partnership



**Project Overview**

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

### **Project Overview**

Maryland and Minnesota are two states that have been leading innovations across early care and education policy and simultaneously investing in research and data infrastructure to ensure that their strategies are informed by evaluation and new evidence in the field. The Maryland-Minnesota Child Care Research Partnership brings together two states committed to examining critical issues in early care and education and using research findings to inform policy with an interdisciplinary team of researchers experienced in conducting studies on subsidy policy, quality improvement strategies, family experiences and child outcomes. The Partnership plans were developed in collaboration with the State partners and reflect the issues that are of highest priority for administration of the Child Care and Development Fund (CCDF) and other early care and education policy and program efforts.

The Partnership will focus on understanding the follow issues: (1) how families seek and process information about early care and education, (2) how families value and weigh different features of the quality of arrangements, (3) the dynamics of how families/children transition between arrangements, and (4) the effects of these processes/decisions on family and child outcomes. Choices, quality and continuity of early care and education were selected as focal constructs for in-depth study by the Partnership because of their centrality in the lives of families with young children and because of their linkages to outcomes such as children's school readiness and parents' employment that are targets of the policies and programs administered by the State partners. A figure depicting the conceptual framework for the Partnership is included at the end of this document. Each of the three sub-studies is described in detail below.

#### ***Study 1: Early Care and Education Decision-Making and Choices***

This sub-study capitalizes on in-depth qualitative information gathered from families in focus groups as well as longitudinal survey data collected from families over a two- to three-year period to examine the factors shaping early care and education decisions and outcomes. Descriptive research questions address the decision-making process families use (based on focus group results and survey questions will be developed based upon results from focus groups and cognitive testing), the type and quality of arrangements families select, and how choices of arrangements differ based on characteristics of the family and community. More complex research questions will address how access to information about the quality of arrangements and the availability of financial resources, such as child care subsidies, serve as predictors of early care and education arrangements; and how choices of arrangements are related to family and child outcomes. This sub-study also will focus on measures development in the area of decision-making through focus groups with parents and cognitive testing of newly developed survey items on the process of child care decision-making. Our State partners are particularly interested in learning about how factors in the decision-making process for families receiving child care subsidies may be influenced by policy and program features such as the timeframe in which decisions need to be made and the information that is available about arrangements. Table 1 below outlines the key components of Study 1.

**Table 1. Study 1 Overview**

Research Questions	Analytical Approach (and Data Source)
<b><i>1.1 Early Care and Education Decision-Making Process</i></b>	
How do families describe the process of making decisions about early care and education? What are the milestones in this process?	Focus groups and descriptive results from surveys.
What components of the decision-making process vary systematically by the characteristics of the child, family and community? How is the decision making process different if a family applies for child care subsidies?	Descriptive analyses and bivariate comparisons using data from the longitudinal parent survey. Some multivariate modeling may be used.
<b><i>1.2 Type and Quality of Arrangements</i></b>	
What are the characteristics of the arrangements low-income families choose?	Descriptive analysis based on longitudinal parent survey.
<b><i>1.3 Factors Predicting Variations in Early Care and Education Choices and Outcomes</i></b>	
What family and community characteristics predict subsidy use and the type and quality of early care and education arrangements chosen?	Longitudinal parent survey data will be used to estimate a multivariate choice model
How does receipt of a child care subsidy influence outcomes related to employment?	Panel data methods (e.g., probit model with fixed effects) will be used to explore the relationship between child care subsidy use and employment stability, based on the longitudinal parent survey data.
<b>Key Variables and Outcome Measures from each Data Source:</b>	
<p><b>Focus Groups:</b> Interview protocols will ask families to describe their process of child care decision-making (components of the process and temporal process will be emphasized)</p> <p><b>Parent Survey:</b> Subsidy status, type of care setting selected for primary arrangement, number of care settings used, number of hours in non-parental care, change in employment since last survey wave, key components of the child care decision-making process, child care subsidy status, child and family characteristics (e.g., age of child, special needs of child, maternal age, employment status &amp; education, marital status, family income, number and ages of household members, non-maternal income),</p> <p><b>Administrative/Contextual Data:</b> county QRIS participation (MN only) , QRIS rating (where available- MN only), unemployment rate, welfare benefit characteristics, families' child care subsidy status, characteristics of the community (e.g., availability of ECE options, cost of living, urban/rural designation), Census-based information</p>	

**Study 2: Perspectives on the Quality of Early Care and Education**

This sub-study explores aspects of early care and education settings that are most critical for supporting positive outcomes for families and children. Because Maryland and Minnesota are both exploring statewide implementation of an expanded or updated QRIS, the information learned about quality dimensions as perceived by parents and providers will provide valuable insights into design and refinements of the quality measures used in a QRIS and can provide information to the field about measurement strategies for these constructs. The components of quality that will be featured include family-sensitive caregiving practices, strategies to implement developmentally appropriate instructional practices (including use of curriculum and child assessment strategies), and strategies to support children’s social and emotional development. The approach will examine practices from the perspective of parents and early care and education providers and will analyze the linkages between practices and outcomes for children and families. Table 2 below outlines the key components of Study 2.

**Table 2. Study 2 Overview**

Research Questions	Analytical Approach (and Data Source)
<b>2.1 Parent Perceptions of Quality</b>	
What are parents’ perceptions of family-sensitive caregiving, developmentally appropriate instructional practice, and practices that support children’s social and emotional development? To what extent are aspects of quality important to parents?	Descriptive analysis using longitudinal parent survey data and provider data (frequencies and bivariate analyses of mean differences); Qualitative analyses of parent focus groups using grounded theory techniques in NVIVO; Examine correspondence between parental perceptions and choices of care using linked parent and provider surveys
Which parent/family demographic characteristics distinguish those who might prefer or value family-sensitive caregiving, developmentally appropriate instructional practices, practices that support children’s social and emotional development?	Descriptive/bivariate analysis of longitudinal parent survey items by demographic characteristic (frequencies and bivariate analyses of mean differences); bivariate and multivariate analyses (logistic regression, OLS regression) to explore relations between demographic characteristics and perceptions.
<b>2.2 Provider Perceptions of Quality</b>	
What are providers’ perceptions of family-sensitive caregiving, developmentally appropriate instructional practice, practices that support children’s social and emotional development? To what extent are these aspects of quality important to providers?	Descriptive analysis of responses to provider survey items (frequencies and bivariate analyses of mean differences)
Which provider demographic characteristics distinguish those with a greater orientation towards family-sensitive caregiving, developmentally appropriate instructional practices, and practices that support children’s social and emotional development?	Descriptive analysis of responses to provider survey items by demographic characteristic (frequencies and bivariate analyses of mean differences); bivariate and multivariate analyses (logistic regression, OLS regression) to explore relations between characteristics and perceptions

Research Questions	Analytical Approach (and Data Source)
<b>2.3 Linkages Between Quality and Provider, Family and Child Outcomes</b>	
To what extent do quality practices affect provider, family, and child outcomes? How is the relationship between parents and providers affected by families' experience of family-sensitive care? How is parental employment affected by family sensitive caregiving?	Linkages will be explored using multiple analytic techniques with the linked parent and provider survey data. Multivariate logistic regression and OLS regression will be used; path models will be explored to examine the associations between parental and provider attitudes, knowledge and behavior on each domain of quality and various provider, child and family outcomes
<b>Key Variables and Outcome Measures from each Data Source:</b>	
<b>Focus Groups:</b> Parental values in selecting care (including how quality is considered)	
<b>Parent Survey:</b> Parental values in selecting care, parental perceptions of quality (focusing on family-sensitive caregiving, developmentally appropriate instructional practice, and supports for social-emotional development), ECE choices (with provider information so a link to the provider survey is possible), stability of parental employment, stability in ECE arrangement, learning activities at home, family demographics (racial/ethnic background, English language learner status, receipt of subsidy, maternal education, family structure, number and ages of children needing care), parent-provider relationship (closeness, communication), parental assessment of child outcomes (social/emotional, behavioral, academic)	
<b>Provider Survey:</b> Values, perceptions, and practices (specific to family-sensitive caregiving, developmentally appropriate instruction, and supports for social-emotional development), provider characteristics (education, professional development, experience, professional motivation/orientation, race/ethnicity), characteristics of the care setting (type of care, ages of children served, number of children in setting), parent-provider relationship (closeness, communication), provider assessment of child outcomes (social/emotional, behavioral, academic)	
<b>Administrative:</b> Portfolio-based assessments of children's skills across seven domains (personal and social development, language and literacy, mathematical thinking, scientific thinking, social studies, the arts, and physical development) upon kindergarten entry (MD only), QRIS rating (where available- MN only)	

*Study 3: Stability and Continuity of Early Care and Education*

Policy makers in Maryland and Minnesota and other states are concerned about the number of changes young children experience in their caregiving arrangements and the degree to which subsidy policies support or inhibit stability in early care and education settings. This sub-study will explore patterns of early care and education use, dynamics of child care subsidy use, and the ways in which subsidy receipt influences continuity in early care and education settings. The research questions are divided into three areas related to 1) arrangement stability, both subsidized and not; 2) patterns of subsidy use over time; and 3) stability of subsidized arrangements. Table 3 below outlines the key components of Study 3.

**Table 3. Sub-Study 3 Overview**

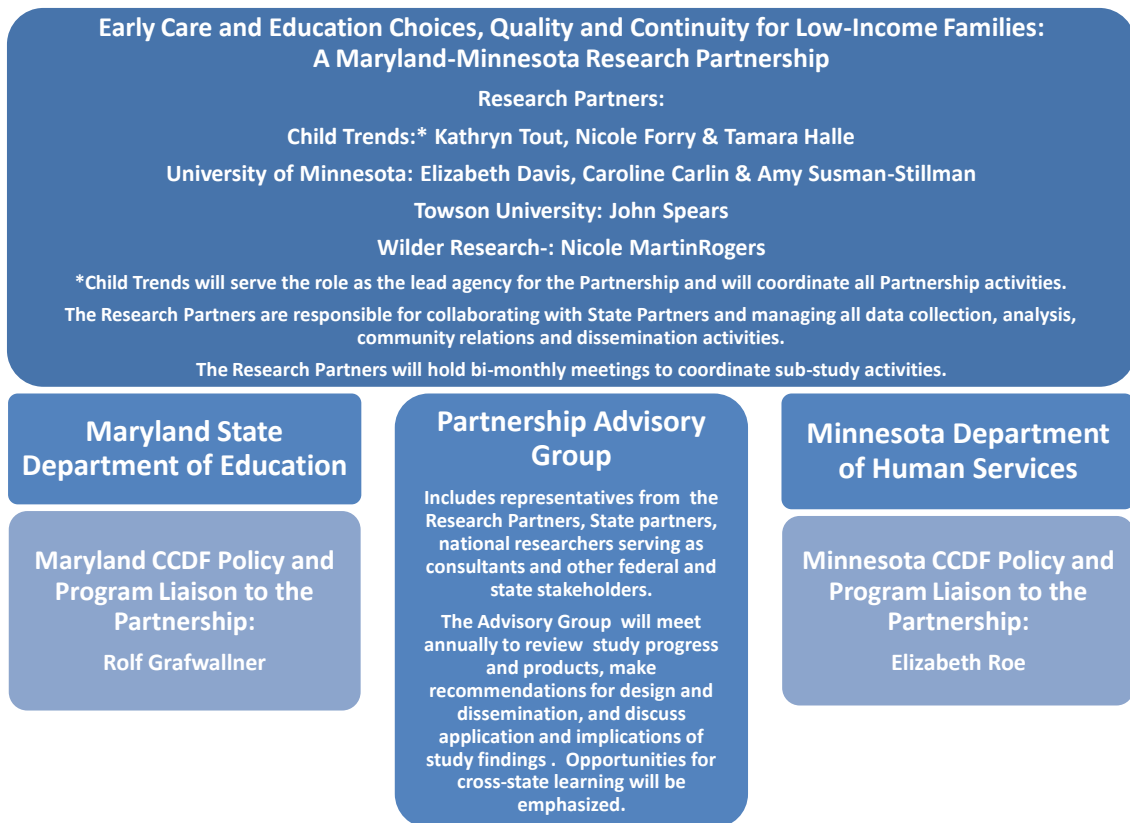
Research Questions	Analytical Approach (and Data Source)
<b>3.1 Continuity and stability of early care and education participation</b>	
How does families' use of early care and education arrangements change over one-year? Over two-years? Over three-years?	Descriptive analysis of parent reports of arrangement type and changes in arrangements across the survey waves; number of changes and common changes across types; by subgroup (Longitudinal survey & administrative data )
What reasons do parents report for changes in early care and education arrangements?	Descriptive analysis of parent reports across the survey waves; by subgroup; frequency tables with chi-square tests (Longitudinal survey)
What child, family and community factors are associated with frequent changes in arrangements? What factors are associated with stability or infrequent changes?	Exploratory statistical analysis of factors associated with changes in arrangements and pattern of stability/instability (Longitudinal survey)
<b>3.2 Dynamics of child care subsidy participation</b>	
For how long do families receive child care subsidies? Is subsidy receipt continuous or broken up with periods of non-participation in between spells of participation? After families leave the child care subsidy program, how often and how quickly do they return?	Survival analysis methods including Kaplan-Meier and accelerated failure time models to estimate “survival function” (the probability of remaining on the subsidy at each time interval) and probability of return to subsidy; by subgroup (Linked administrative data and survey data; study population is children who received subsidized care at any point of the study period-excluding those whose spell began prior to the study period)
What family, child and care characteristics are associated with longer spells of subsidy use? What factors are associated with leaving the subsidy program, particularly if the family is still eligible?	Event history analysis methods such as Cox regression models to estimate length of subsidy spell (e.g., probability of exit models) controlling for covariates including child, family and community characteristics.
In what ways do the dynamics of subsidy participation differ between Maryland and Minnesota, and findings from previous studies? Are there policy or community factors that are related to differences in the continuity of subsidy use in the two states?	Descriptive comparison of results across the two states and with other studies.  Descriptive analysis of policy and program differences across the two states.

Research Questions	Analytical Approach (and Data Source)
<b>3.3 Continuity of subsidized child care arrangements</b>	
While participating in the subsidy program, how long do subsidized arrangements last? How many subsidized arrangements do children have while on subsidy?	Survival analysis methods including Kaplan-Meier and accelerated failure time models to estimate “survival function” (the probability of remaining in an arrangement at each time interval); by subgroup . (Linked administrative data).
What family, child and care characteristics are associated with the number or continuity of subsidized arrangements?	Appropriate statistical models for number of arrangements would be count models, such as Poisson or negative binomial regression models.
How does the continuity of subsidized arrangements differ across states, and do the factors associated with continuity vary?	Descriptive comparison of results across the two states and with other studies.  Descriptive analysis of policy and program differences across the two states.
<p><b>Key Variables and Outcome Measures:</b></p> <p><b>Parent Survey:</b> Pre-coded and open-ended responses about reasons for changes in arrangements, number and type of arrangements at each interview, changes in provider between interviews, patterns of stable and unstable arrangements, subsidy use, patterns of stable and unstable use of subsidy, child and family characteristics (see characteristics listed in Study 1), care characteristics (type of care, ages of children served)</p> <p><b>Administrative:</b> Length of arrangement spell, number of arrangements, number of changes to arrangements, frequency of return to same provider after a break in subsidy use, patterns of stable and unstable arrangements, length of subsidy spell, number of subsidy spells, return rate to subsidy, cumulative months of subsidy participation, patterns of stable and unstable use of subsidy, child and family characteristics (family income, marital status child age, child disability), care characteristics (type of care, whether care is licensed), QRIS rating (where available- MN only)</p>	

## Partnership Communications and Structure

The Partnership will conduct the three sub-studies in a coordinated way and will develop communication structures such as a project website that will help keep all Partners informed of progress and ensure multiple opportunities for Partners to shape the research studies and products. The figure and table below outline the collaborative organizational structure and the key contacts for each of the Partners.

Quarterly meetings or phone conferences will be held with the Partners, and a monthly update will be sent to Partners via email to provide further details about project activities. An annual meeting will be held with the Partnership Advisory group which includes cross-state representatives as well as national researchers and stakeholders.





## Contact List for the Maryland Minnesota Research Partnership

### Child Trends

Kathryn Tout, Ph.D. Child Trends 615 First Ave N.E., Suite 500 Minneapolis, MN 55447 612-331-2223 ext 21 612-331-2226 (fax) <a href="mailto:ktout@childtrends.org">ktout@childtrends.org</a>	Nicole Forry, Ph.D. Child Trends 4301 Connecticut Ave, NW Suite 350 Washington DC, 20008 202-572-6035 202-362-8420 (fax) <a href="mailto:nforry@childtrends.org">nforry@childtrends.org</a>	Tamara Halle, Ph.D. Child Trends 4301 Connecticut Ave, NW Suite 350 Washington DC, 20008 202-572-6035 202-362-8420 (fax) <a href="mailto:thalle@childtrends.org">thalle@childtrends.org</a>
--	--	--

### University of Minnesota

Elizabeth Davis, Ph.D. Dept. of Applied Economics 231J Ruttan Hall 1994 Buford Avenue St Paul, MN 55108 612-625-7028 612-625-6245 (fax) <a href="mailto:edavis@umn.edu">edavis@umn.edu</a>	Caroline Carlin, Ph.D. Dept. of Applied Economics 294c Ruttan Hall 1994 Buford Avenue St Paul, MN 55108 612-625-0162 612-625-6245 (fax) <a href="mailto:ccarlin@umn.edu">ccarlin@umn.edu</a>	Amy Susman-Stillman, Ph.D. Center for Early Education and Development (CEED) University of Minnesota 425 Vo Tech Building 1954 Buford Avenue St. Paul, MN 55108 612-624-3367 612-625-2093 (fax) <a href="mailto:asusman@umn.edu">asusman@umn.edu</a>
---	---	---

### RESI Towson University

John Spears, Ph.D.  
RESI of Towson University  
200 West Baltimore Street,  
Baltimore, MD 21201  
410-767-9654  
[jspears@resiusa.org](mailto:jspears@resiusa.org)

### Wilder Research

Nicole MartinRogers, M.P.P.  
Wilder Research  
451 Lexington Parkway North  
Saint Paul, MN 55104  
651- 280-2682  
651-280-382 (fax)  
[nam1@wilder.org](mailto:nam1@wilder.org)

### Maryland State Department of Education

Rolf Grafwallner  
Assistant State Superintendent  
Division of Early Childhood Development  
Maryland State Department of Education  
200 West Baltimore Street,  
Baltimore, MD 21201  
410-767-0335  
[rgrafwal@msde.state.md.us](mailto:rgrafwal@msde.state.md.us)

### Minnesota Department of Human Services

Elizabeth Roe  
Children and Family Services  
Minnesota Department of Human Services  
P.O. Box 64951  
St. Paul, MN 55164-0951  
651-431-4033  
651-431-7526 (fax)  
[elizabeth.roe@state.mn.us](mailto:elizabeth.roe@state.mn.us)

## Dissemination

The products that are developed in the Partnership will include cross-state and state-specific Issue Briefs and peer-reviewed journal articles. Initial plans for topics and timing of the products are described in the table below, though we anticipate that a more refined plan for dissemination will need to be developed after the first year of the project.

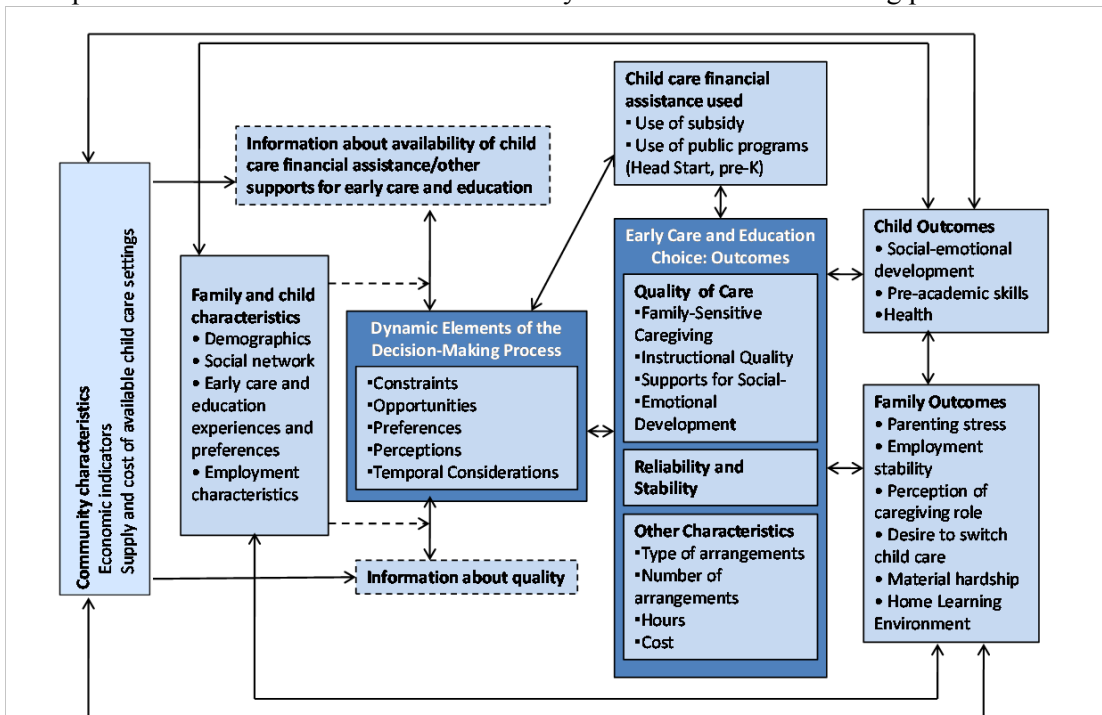
Topic	Description of Content	Year 1	Year 2	Year 3
<b>Sub-Study 1: Early Care and Education Decision-Making and Choices</b>				
Developing New Measures in Child Care Decision-Making	Results of the focus groups and cognitive testing will be presented as well as recommended measures.	Issue Brief		
Describing the Process of Early Care and Education Decision-Making	Results from focus groups and the parent survey will be used to describe the components, process, and milestones in families' decision-making process		Issue Brief	
Choosing Quality: A Cross-State Comparison of Parents' Priorities in Selecting "High Quality Care"	Results from focus groups and the parent survey will be used to describe and compare parents' priorities in selecting early care and education settings.		Issue Brief	
Factors Underlying Early Care and Education Choices	Results from multivariate models examining family and community characteristics as well as child care subsidy receipt as predictors/moderators of child care choices.			Issue Brief; Peer-Reviewed Journal Submission
<b>Sub-Study 2: Perspectives on the Quality of Early Care and Education</b>				
What is Family-Sensitive Caregiving?	Parent and provider perspectives on family-sensitive caregiving, correlates of choosing/providing family-sensitive care, and outcomes associated with such care.		Issue Brief State-Specific Briefs	
Defining High Quality Care: A Comparison of Parent and Provider Perspectives	Parent and provider perspectives on what defines "high quality care" based on parent and provider survey data as well as qualitative data from focus groups.	Issue Brief State-Specific Briefs		
Perceptions of Domain-Specific Quality as a Predictor of Family and Child Outcomes	Associations between parental perceptions of domain-specific quality and provider self-reported practices across these domains will be used to predict to employment, home learning environment, and child outcomes		Issue Brief State-Specific Briefs	Peer-Reviewed Journal Submission

Topic	Description of Content	Year 1	Year 2	Year 3
<b>Sub-Study 3: Stability and Continuity of Early Care and Education</b>				
Exploring Continuity in Early Care and Education Settings among a Low-Income Sample	Results from analyses regarding continuity of care, disaggregated by type of care and subsidy status and supplemented with descriptive data on reasons for instability	Issue Brief State-Specific Briefs		Peer-Reviewed Journal Submission
Exploring Longitudinal Child Care Subsidy Use and Continuity in Subsidized Care	Results from analyses regarding stability of subsidy use and continuity of care among subsidized children.	State-Specific Briefs	Issue Brief	Peer-Reviewed Journal Publication

### Conceptual Framework for the Partnership Studies

In planning the Partnership work, the research partners used the Conceptual Framework included below. The theoretical basis of the model is drawn from Meyers and Jordan’s (2006) description of child care decisions as “contextualized patterns of action” which accommodate “family and employment demands, social and cultural expectations, available information, and financial, social and other resources” (p. 64). The model depicts the role of community factors (such as economic conditions, geographic location, the supply and quality of child care, etc.) at the left side of the model, serving as a backdrop to the decision-making process and ultimately child care decisions. It is expected that community-level characteristics will influence the decision-making process in part through their effect on the availability of quality information and the availability of different financial assistance options. Community factors will also directly affect family and child outcomes.

Family and child characteristics include a range of demographic characteristics, preferences, assumptions and constraints all of which directly affect the decision-making process and the



choice of early care and education arrangements. They also influence the decision-maker's knowledge of and use of information in the decision-making process (represented in the figure by the arrows with dotted lines). The ways in which family characteristics influence the use of quality information (available through a quality rating system or informal mechanisms such as social networks) and the decision to use available financial assistance (subsidies and publicly funded programs such as Head Start and public prekindergarten) in making early care and education choices are of great interest in the proposed study.

The outcomes of early care and education choices shown near the center of the model encompass characteristics such as child care quality, stability, and other characteristics of care including type, hours, and number of arrangements. The availability of financial assistance (child care subsidies, public early education programs) changes the cost of care to parents and thus influences parents' decision-making process and decisions about early care and education arrangements. While knowledge and availability of the financial assistance options influences choice of child care, the choice of care setting in turn may directly affect the financial assistance that is actually used. For example, a parent may have a preference for center-based care and choose a center without knowledge of available financial assistance. Yet, once enrolled at the center, the director might inform the parent about available subsidies and encourage the parent to apply if eligible. The direction of these relationships is extremely difficult to determine (i.e., did the parent select center care because she knew she had access to subsidies or did she have access to subsidies because she selected center care?). By tracking families over time, this project will address this critical question and inform the issue of why families receiving subsidies use center-based care more often than other low-income families, both in Minnesota and Maryland (and nationally).

This schematic is a partial representation of the interrelated nature of these factors. In particular, we have not attempted to capture the influence of time in this static diagram. There are two major ways time influences these relationships. First, we see independent changes over time such as the natural aging of the child, changes in economic characteristics of the neighborhood, or increased number of programs with QRIS ratings. In addition, there is feedback within the model. For example, stable child care may lead to more stable employment and upward mobility, which changes the family's economic constraints in selecting future child care settings. Or the parent's experience in a child care setting may influence the future assessment of the credibility of quality measures. The proposed project will collect data over two to three years from families, thus increasing our ability to describe these complex interactions of decisions over time with other contextual factors.

The overall research approach is based on a longitudinal study design, allowing us both to study parent decisions over time and to account for unobservable characteristics that may affect those decisions. In contrast to our approach, previous studies that do not account for these unobserved factors may produce unreliable findings. The study is also grounded in extensive theoretical and empirical work in child development and related fields that demonstrate that the quality of child care and stability of relationships are critical factors for children's socio-emotional development and school readiness. The study addresses these important dimensions by conducting focus groups and cognitive interviews with families to learn more about how to develop measures that can adequately capture these constructs.