

## STUDYING CHILD CARE SUBSIDIES WITH SECONDARY DATA SOURCES



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## Studying Child Care Subsidies with Secondary Data Sources CCPRC Subsidy Workgroup Methodology Research Brief Series

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## Introduction

Multiple datasets from national or multi-state studies with variables to allow the study of a range of issues related to child care subsidies are publicly available. These survey-based datasets offer a wealth of information that is not captured in administrative data, including contextual data about the family or community (e.g., family income, income levels or racial distribution of the population in the neighborhoods), nuanced information about the characteristics of children's child care and early education settings, and assessments of children's developmental outcomes. In selecting among available datasets, survey designs and relative advantages and disadvantages of available variables for answering different research questions should be considered.

This brief describes four national surveys with data relevant to subsidy-related research and provides a useful set of considerations for subsidy researchers considering use of secondary data. Specifically, this brief describes each of the four datasets reviewed, highlighting unique features of each dataset and providing information on the survey design; provides a synopsis of available variables related to the study of child care subsidies from each dataset; discusses advantages and disadvantages of the surveys; and provides recommendations for future research using these datasets. It is our hope that this methodology brief will offer researchers general guidance in selecting datasets suitable for various research questions related to child care subsidies and building accurate measures of child care subsidy receipt using available data.

## Description of Selected Datasets

The four survey datasets reviewed in this brief are:

- *Fragile Families and Child Wellbeing Study (FFCWS) Child Care Supplement (CSS)*,
- *Early Childhood Longitudinal Study – Birth Cohort (ECLS-B)*,
- *Survey of Income and Program Participation (SIPP) and Child Care Topical Module, focusing on the 1996 and the following panels,<sup>1</sup> and*
- *National Household Education Survey (NHES)'s Early Childhood Programs Participation (ECP) and Before- and After-School Program Activities (ASPA) of 2001 and 2005.<sup>2</sup>*

These datasets were selected due to detailed information on child care arrangements and child care assistance, as well as rich data on children and families that can be used as covariates or outcome variables. This brief focuses in particular on child care subsidies funded by the Child Care Development Fund (CCDF). CCDF subsidies are work-required benefits available to low-income families with at least one child under age 13, separate from other child care and early childhood education assistance programs, such as Head Start and the Social Service Block Grant (SSBG, Title XX). Head Start is an early childhood education program available to low-income children aged 3 to 5 and has no work-requirements for parents. A portion of the SSBG can also be used for child care services, particularly to prevent child neglect, and is not a work-required benefit. Short descriptions on each dataset, highlighting their unique features and survey design, follow.

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<sup>1</sup> SIPP includes a continuous series of national panel, starting from 1985 (except 1994 and 1995); a new sample, called a panel, was introduced each year, and each panel was designed to be interviewed once every 4 months over a 32-month period. However, a redesign of the survey was introduced in the 1996 panel with an increased sample size and an extended length of the survey period (4 years). This brief focuses on the 1996 and the following panels, because most research on child care subsidies focuses on the post-welfare reform era and because due to the dramatic structural changes in the survey, questions regarding child care in the panels before and after 1996 are not comparable.

<sup>2</sup> This brief focuses on the NHES of 2001 and 2005, because the survey conducted before 2001 did not collect information on child care assistance.

### ***The Fragile Families and Child Wellbeing Study (FFCWS) Child Care Supplement (CSS)***

The FFCWS and its associated CCS is unique because it is the only large survey dataset that collected information specifically on child care subsidy receipt from *both* parents *and* child care providers, permitting a comparison between the two measures. The larger FFCWS is a longitudinal birth cohort study of children born between 1998 and 2000, designed to examine associations between non-marital childbearing and child and family outcomes in 20 U.S. cities (see Reichman, Teitler, Garfinkel, & McLanahan, 2001 for a detailed description of the larger FFCWS design).

Data for the FFCWS CCS were collected in 2002 and 2003, in 14 of the 20 FFCWS cities. As part of the FFCWS, participants in all 20 cities were visited in their homes when focal children were approximately 3-years old. During this visit, families in 14 of the 20 cities were asked if they used child care for 10 hours or more per week; of those families visited at home in the 14 cities ( $N = 2,650$ ), 1,150 families were eligible for the CCS because they typically used some form of non-parental care for 10 or more hours per week. The CCS, conducted for both home- and center-based care providers, included an interview with the child's care provider or center director. For children who received their care in a center-based setting, whenever possible the center director was interviewed; however, when the center director was not available, the child's teacher was interviewed instead. For children who received their care in a home-based setting, the family child care provider or informal care provider was interviewed. During the interview, the provider (or director) responded to questions about program characteristics, as well as to whether the focal child's care was subsidized and the source of subsidy. The CCS also included an observational assessment of child care quality (using the Environmental Rating Scales – the Early Childhood Environmental Rating Scale (ECERS) for center-based care settings and the Family Day Care Rating Scale (FDCRS) for home-based care settings).

In the end, interviews and child care observations were conducted in the child care settings of approximately 800 children, as eligible families could refuse to allow their child's care provider to participate, the provider could refuse to participate, or the child care arrangement could have changed and information on the new arrangement could not be found.

### ***The Early Childhood Longitudinal Study – Birth Cohort (ECLS-B)***

The ECLS-B is the country's first nationally representative study to follow children from birth (in 2001) to kindergarten entry, and was designed to capture detailed information on children's early home and educational environments as well as their cognitive and social development (Jacobson Chernoff, Flanagan, McPhee, & Park, 2007). Approximately 14,000 birth certificates were sampled from 96 geographic areas that included counties or clusters of counties. From the sample of birth certificates, approximately 10,700 children participated in the first wave of ECLS-B data collection, in 2001, when study children were approximately 9 months old. Three subsequent waves of data collection followed: wave 2, in 2003, when children were approximately 2 years old; wave 3, in 2005-2006, when children were in preschool, and wave 4 and 5, in 2006-2007, when children were in kindergarten.<sup>3</sup>

At each wave, the child's primary caregiver (more than 90% biological mother) was interviewed and child cognitive, social, and physical growth was assessed. During the parent interview, questions about whether the family received any assistance in paying for the child's care (if the child received non-parental care), and the source of that assistance, were also asked. At the two year and preschool waves, child care providers completed phone interviews in which they responded to questions about their program type and auspice,

<sup>3</sup> Because most children born in 2001 entered kindergarten in 2006 but some did not until 2007, the kindergarten wave was conducted in two separate waves. Wave 4 was for children who entered kindergarten in 2006 and wave 5 was for children who entered in 2007. Both waves are referred to as the kindergarten wave.

number of children they serve, licensing or regulation status, and policies on accepting subsidized children. Also, direct observational assessments of children’s care settings were conducted with a subsample (by design, for cost reasons) of children ( $N \approx 1500$  at the 2-year wave;  $N \approx 1800$  at the preschool wave). These observational assessments, intended to measure the quality of care arrangements, were conducted in both center- (using the ECERS) and home-based (using the FDCERS) settings. The Arnett Caregiver Interaction Scale (CIS), used to measure process quality, was administered in both settings. For center-based arrangements, center directors completed questionnaires about program characteristics, including funding source and program auspice, enrollment of subsidized children, and program location type. The provider and director interview and observation were all conducted with the child’s primary care provider, defined as the care arrangement in which the child spent the greatest amount of time per week.

### ***Survey of Income and Program Participation (SIPP) and Child Care Topical Module***

The SIPP is a longitudinal survey of a nationally representative panel of individuals (age 15 or older) and households in the U.S. The low-income population is oversampled. The survey is sponsored by the U.S. Census Bureau and collects information on topics such as income, employment, participation and eligibility in government transfer programs, and general information on characteristics of individuals and households in the U.S. The SIPP is a continuous series of national panels. A new panel is introduced every 4 years, and each panel is split into four groups, each of which is interviewed in a different month over a 4-month period. Each round of interviews that covers the entire panel in the 4-month period is called a wave. In each wave, parents or a household proxy (i.e., a person who has best knowledge about household members) are asked to provide information about the four months since the previous interview. The sample size and the number of waves of each panel are below:

| <b>Panel</b> | <b>Date of First Interview</b> | <b>Date of Last Interview</b> | <b>Number of Wave 1 Eligible Households</b> | <b>Number of Waves</b> |
|--------------|--------------------------------|-------------------------------|---|------------------------|
| 1996         | April 1996                     | March 2000                    | 40,188                                      | 12                     |
| 2001         | February 2001                  | January 2004                  | 50,500                                      | 9                      |
| 2004         | February 2004                  | January 2008                  | 51,379                                      | 12 <sup>a</sup>        |
| 2008         | September 2008                 | December 2012                 | 52,031                                      | 13                     |

Source: SIPP User’s Guide, Chapter 2. Sample Design and Interview Procedures

<sup>a</sup> The 2004 Panel originally was meant to have 12 waves with a full set of topical modules, however due to budget constraints, topical modules were not collected for waves 9-12. Additionally, the sample was cut by half for this time period.

Each wave of the panels includes the core content and topical modules. The core questionnaire collects income, labor force, and program participation, and is repeated at each interview. Topical modules gather information on certain subjects, such as child care, in greater depth than the core questionnaire. The subjects of these topical modules change in each wave.<sup>4</sup> The child care topical module can be found at waves 4 and 10 of the 1996 panel, wave 4 of the 2001 panel, waves 4 and 8 of the 2004 panel, and waves 5 and 8 of the 2008 panel. The module includes data on all regular child care arrangements (i.e., arrangement used at least once a week during the past month) used for all children under age 15 in the households, regardless of parental employment status.

<sup>4</sup> See [http://www.census.gov/sipp/top\\_mod/top\\_mods\\_chart.html](http://www.census.gov/sipp/top_mod/top_mods_chart.html) for detailed information on the subjects of the topical modules.

## ***National Household Education Survey (NHES)'s Early Childhood Programs Participation (ECPP) and Before- and After-School Program Activities (ASPA)***

The NHES is a cross-sectional survey of a nationally representative sample of the U.S. population. The survey is developed by the National Center for Education Statistics (NCES) and collects data on the educational activities of the U.S. population, including early childhood care and education, children's school readiness, before- and after-school activities, participation in adult and continuing education, and parent and family involvement in education. Two or three topical areas are selected on a recurring basis (every two to four years) for the survey. For the topical surveys on child care, one child from each required age range (i.e., children from birth to age 6 not yet in school and children under age 16 who were enrolled in school) was randomly selected among eligible children in the households. Thus, up to two children were selected from each household, and the most knowledgeable respondent about the child (mostly parents) was interviewed. The NHES began collecting data on child care assistance since 2001. Child care information is available in 2001 and 2005 data of the ECPP (for children under age 6) and the ASPA (for children enrolled in school but under age 15). Both topical modules collect information on all regular (at least once each week or once each month) non-parental child care arrangements for one child who was randomly selected from the household. The sample sizes for the 2001 data are 6,749 for the ECPP and 9,583 for ASPA. The 2005 data includes information on 7,209 children for the ECPP and 11,684 children for the ASPA.

### **Review of Variables Relevant to the Study of Child Care Subsidies**

Detailed data on child care subsidies and related information in each dataset are summarized in Table 1. Across all four surveys, information on whether a parent or a child received child care subsidies can be drawn from a sequence of questions asking if the parent received any help to pay for child care, and if they did, whether a "government agency" helped to pay for care. In the FFCWS CCS and the ECLS-B, child care providers were also asked a series of questions relevant for constructing a measure of subsidy receipt, such as whether the child's care was funded by a government agency, the source of those funds (in the FFCWS CCS only), and whether the provider is a formal or informal care provider and accepts subsidies (in the ECLS-B only). The SIPP core questionnaire also asks whether respondents receive any child care services or assistance to go to work, school, or training for all individuals who have at least one child under age 15, though this question does not specify the sources of the assistance (please see Data on Child Care Subsidies in Table 1 for more information).

Though each of the datasets reviewed in this brief collect information appropriate to constructing a measure of child care subsidy receipt, caution should be taken when constructing this measure. Families reporting child care assistance from a government agency could have received it from various sources of other government funding, including TANF, Head Start, SSBG, and other state-specific funds. None of the four reviewed surveys asked precisely what *types* of assistance a child received from the government.<sup>5</sup> Depending on research questions, this inability to distinguish among sources of subsidies for early care and education arrangements can have significant implications for research. For example, some subsidies (e.g., CCDF and TANF) have work requirements while others (e.g., Head Start or SSBG) do not. And while all these programs have income requirements, the income eligibility thresholds vary among the programs. For example, the Head Start income eligibility limit (100% of the poverty line) is lower than the income eligibility limits for the CCDF subsidies (ranging from 115% to 257% of the poverty line in 2009 across states). Further, Head Start was designed explicitly to support child development and therefore may be higher in quality than the child care settings used by CCDF subsidy recipients.

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<sup>5</sup> A recent study on cognitive interviewing with parents shows that parents are likely to be unreliable in distinguishing among different types of subsidized child care and education arrangements (Bowman, Datta, & Tan, 2010).

These different program characteristics can affect model specifications and resulting estimates. For instance, research that focuses on the work incentive effects of child care subsidies is confounded by the circular relationship between effects of subsidy and subsidy work requirements. Researchers must consider these endogeneity issues and should be encouraged to construct their measure of subsidies and choose their analytic methods accordingly. Researchers must also be cautious when they are estimating the effects of CCDF subsidies about the possibility that Head Start recipients (or recipients of other child care assistance programs) may be counted as recipients of CCDF subsidies. Additionally, some mothers who are eligible for both Head Start and CCDF may choose Head Start not only due to the lower income eligibility but also due to its perceived higher quality programming and other unobserved characteristics. Thus, research that focuses on parental choice on child care arrangements or child outcomes, for example, would need to consider these possible sources of selection bias.

Despite limitations in the variables designed to measure child care subsidy receipt, each of the four reviewed datasets contain other relevant information that can be used to more accurately construct a measure of subsidy receipt. For example, all four surveys distinguish Head Start from other types of arrangements and include rich, detailed information on mothers' work status and family income. This information can be used to distinguish among levels of poverty or employment status of low-income families. Finally, data from multiple respondents can be used to validate information. For example, in the SIPP, questions related to child care assistance in the child care topical module can be used to check the accuracy of subsidy receipt reported in the core questionnaire. Likewise, the ECLS-B provides information on whether child care providers accept subsidies, which can be used to cross-check parental report of subsidy receipt. Finally, in the FFCWS CCS, provider questions regarding specific sources of assistance can be used to validate parent responses about the focal child.

## Relative Advantages and Disadvantages of the Surveys

Different survey designs and unique features of each dataset engender relative advantages and disadvantages for various subsidy-relevant research questions. Major advantages and disadvantages of the four datasets are discussed in detail below, including Ease of Use and Data management, Representativeness and Sample Size, Information on Child Care Arrangements, Parental Outcomes and Child Outcomes, and Accuracy of the Measures of Child Care Subsidy Receipt.

***Ease of Use and Data Management.*** While all four datasets are free, some datasets are easier to access than others. The SIPP and NHES are publicly available and accessible via immediate download. However, the NHES contains sensitive information (e.g., geocoded information), and users must obtain a license to access to its restricted-use data.<sup>6</sup> The FFCWS CCS<sup>7</sup> and the ECLS-B<sup>8</sup> require signed data-use agreements before the data can be retrieved. Particularly, a public-use version of the ECLS-B is limited and does not allow meaningful multivariate analysis, and thus obtaining access to a restricted version of the data is recommended. Users of the ECLS-B must meet a series of rigorous security standards in order to obtain and use the data. Potential ECLS-B data users must fill out an electronic data use application and submit signed affidavits of nondisclosure, as well as present a security plan that details how the data will be kept secure (in a locked project office accessible only to approved data users; on a password-protected computer; etc.).<sup>9</sup>

<sup>6</sup> See <http://nces.ed.gov/pubsearch/licenses.asp> for more information about accessing NHES data.

<sup>7</sup> See <http://www.fragilefamilies.princeton.edu/restricted.asp> for more information on accessing FFCWS CCS data.

<sup>8</sup> See <http://nces.ed.gov/statprog/instruct.asp> for more information on accessing ECLS-B data.

<sup>9</sup> Interested individuals should visit [http://nces.ed.gov/statprog/instruct\\_gettingstarted.asp](http://nces.ed.gov/statprog/instruct_gettingstarted.asp) for more information on data security requirements of NCES data.

Longitudinal data, including the SIPP, the FFCWS, and the ECLS-B, provide researchers with increased ability to model individual-level changes or growth, estimate causal effects considering confounding errors, and examine the long-term outcomes associated with child care subsidies. However, they require more time understanding the structure of data, attrition, and appropriate use of weight variables, and linking across multiple waves, than cross-sectional data, such as the NHES. The SIPP is particularly complicated to manage because it includes multiple panels with multiple waves within a single panel. Codebooks are available to assist in data management. The ECLS-B and NHES provide electronic codebooks that are user-friendly, which can be obtained from the sponsoring institution. Detailed documentation for the FFCWS is available online.<sup>10</sup> The SIPP and the FFCWS do not have electronic codebooks.

**Representativeness and Sample Size.** The SIPP, ECLS-B, and NHES are all nationally representative samples of their target populations, with data from residents of each of the 50 states plus the District of Columbia. However, these data sets are not representative of each state as sampling was not conducted on the state level. The FFCWS CCS is representative of births to unwed parents in 14 large cities,<sup>11</sup> and thus is not nationally representative. Additionally, the FFCWS CCS included a sample of families from the larger FFCWS at the 3-year wave (e.g., those who had participated since baseline and had 3-year old children) who used some type of non-parental care.

Compared to administrative data that generally include all subsidy users in a state, one potential disadvantage of survey data is small sample size. The potential of small sample size is particularly relevant when analyzing subpopulations. Specifically, a concern has been expressed that a single panel from the SIPP may not provide an adequate sample size for child care subsidy research (Besharov, Morrow, & Shi, 2006). Thus, it is generally recommended that SIPP data users consider combining multiple panels of the data to obtain an appropriate sample size for their research.

**Information on Child Care Arrangements.** The reviewed datasets vary in the types of care arrangements included, the level of details collected on child care arrangements, and information included regarding quality of care, parental perception of care, etc. The SIPP includes child care arrangements used at least once a week during the past month and contains information on all regular *parental* and *non-parental* child care arrangements used for all children under age 15 in the household, for both working and non-working mothers. The FFCWS and ECLS-B define regular care arrangements as arrangements used at least 10 hours per week last month and includes all regular non-parental care arrangements used for the focal child. Finally, the NHES collects data on all non-parental child care arrangements used at least once each week or once a month, excluding occasional babysitting. Due to this broad definition of regular care, the NHES contains virtually all child care arrangement that a child utilized.

While all four datasets provide detailed data on each care arrangement included (e.g., the type, usage, and the cost of care), the datasets vary in unique information on the characteristics and quality of care arrangements. The FFCWS CCS and ECLS-B collected data on quality of care and data from child care provider interviews, including (but not limited to) their licensing/regulation status, the number of children served, and policies on accepting subsidies. The SIPP include information that can be used to construct parental perception of care quality or parental satisfaction with care arrangements. Additionally, the NHES and the ECLS-B gathered data on reasons for parental choice of care arrangement, difficulties in finding care, and children's health and disability status. Finally, the NHES provides relatively detailed data on child care arrangements of the focal child (e.g., the number of hours per week, the number of days per week, and the number of weeks per month) of virtually *all* child care arrangements that the child utilized.

<sup>10</sup> See <http://www.fragilefamilies.princeton.edu/documentation.asp> for FFCWS data documentation.

<sup>11</sup> The 14 FFCW CCS cities include: Baltimore, MD; Detroit, MI; Newark, NJ; Philadelphia, PA; Richmond, VA; Corpus Christi, TX; Indianapolis, IN; Milwaukee, WI; New York, NY; San Jose, CA; Boston, MA; Nashville, TN; Chicago, IL; and Jacksonville, FL.

**Parental Outcomes vs. Child Outcomes.** The measure of subsidies and other relevant variables need to be constructed accurately depending on whether the researcher seeks family-level or child-level outcomes. Research focusing on parental or family outcomes requires parent- or family-level data that combine information from all children in a family. Thus, data that do not have information on all children in the household has a limited capacity to examine parent- or family-level outcomes. The SIPP is the only reviewed dataset to provide information for *all* children (under age 15) in the household. Thus, the SIPP can be well-suited for research focusing on parental or family outcomes. The SIPP also contains rich, detailed longitudinal monthly data on employment, income, and participation in other government programs, as well as demographic information on families and children, which can be used to examine a range of questions related to subsidy receipt and related parental economic outcomes.

Both the FFCWS CCS and the ECLS-B collect data only on the focal child from each household. However, both datasets include rich and unique longitudinal survey information on children's early care and educational environments and child developmental outcomes. As such, these datasets are well-suited for child-level analyses with questions on child, family and child care characteristics associated with subsidy use, associations between subsidy use and selection of different care arrangements, and child outcomes. Both datasets also contain data on parental outcomes, including maternal sensitivity and depression, maternal employment factors, and family economic wellbeing. While these are important parental outcomes to examine, researchers should be cautious about implications of the findings because the data are not representative of *all* children of the parent or the family.

The NHES contains relatively detailed data on usage of virtually all care arrangements (the number of weeks/days/hours in each care arrangement) that the focal child used, as well as qualitative information on parental perceptions of care quality, reasons for parental choice of arrangements, child's health and disability status, and parents' work schedules and flexibility in work. Thus, this dataset can be well-suited for questions around how parents' work schedule, difficulties in finding care, and children's health and disability affect parental choice on care arrangements, and how child care subsidies moderate those relationships. However, findings may not be generalized to other children in the family. Additionally, the NHES is particularly useful for research that focuses on care arrangements for school-age children due to the relatively large sample size.

**Accuracy of the Measures of Child Care Subsidy Receipt.** A central disadvantage across all datasets is the inability to check the accuracy of any measure of subsidy receipt by linking the survey data with administrative data. Without administrative data, it is impossible to know whether the information being captured from parents *and* child care providers is about subsidy receipt *per se*. For instance, parents may report receiving assistance from the government in paying for care when they actually receive assistance from an employer, or they may not know their care is subsidized and thus respond that they don't receive any assistance when they in fact do. This could occur if a child receives care that is subsidized through contracts paid directly to the child care provider and the parent reports that they do not receive any government assistance paying for care. Child care providers who receive blended funding might incorrectly report a subsidy (in the FFCWS, for example) when in fact the majority of the child's care is funded through another, non-subsidy source, or they may identify themselves as a Head Start program (in the ECLS-B, for example) when they also receive funding from the local school district and the CCDF. These misspecifications could lead to misleading conclusions in studies of subsidy use and its effects.

Another shared limitation for both the FFCWS and the ECLS-B is that parents were only asked whether they receive assistance paying for care with respect to their child’s primary arrangement. And, child care provider interviews were conducted only with the child’s primary care provider. However, it is possible, and indeed *likely* that parents use more than one care arrangement for their child. For example, a child may attend Head Start during the day and then an informal arrangement funded by a subsidy in the evening. If families who use subsidies for a secondary arrangement are classified as non-recipients because their primary arrangement is not subsidized, estimates of predictors or consequences of subsidy receipt may be biased. Similarly, because the SIPP allows the respondents to check all sources of help received for all child care arrangements used, for those who had multiple arrangements and received help from multiple sources, it is difficult to distinguish which arrangement was helped by subsidies, providing limited data on research on the relationship between child care subsidies and child care arrangements.

## Potential Research Questions for Future Work

All four datasets reviewed in this brief include rich data on child care subsidies, child care arrangements, and family and child characteristics, but each dataset also has unique features and survey design that provide different capacity in examining various research questions. Below are example questions that can be addressed with the four reviewed datasets in this brief.

| Potential Research Questions   | FFCWS_CSS | ECLS_B | SIPP | NHES’s ECPP & ASPA |
|--|-----------|--------|------|--------------------|
| How similar are children who use other forms of subsidized care (e.g., Head Start) to children who use subsidies on family characteristics and child care characteristics?   | X         | X      | X    | X                  |
| Do prior child care experiences predict later subsidy receipt? Does subsidy receipt predict later child care choices?  | X         | X      | X    |                    |
| <ul style="list-style-type: none"> <li>What are the characteristics of child care providers who serve subsidized children? Do they differ for providers who serve toddlers and providers who serve preschool-age children?</li> </ul>  | X         | X      |      |                    |
| <ul style="list-style-type: none"> <li>How are child care subsidies associated with child outcomes (e.g., cognitive, behavioral, and physical developments)?</li> </ul>  | X         | X      |      |                    |
| <ul style="list-style-type: none"> <li>What is the association between subsidy receipt at an earlier in childhood and later maternal employment and child care characteristics (e.g., maternal work schedule, maternal work hours, hours spent in child care, type of care used)?</li> </ul> | X         | X      | X    |                    |
| <ul style="list-style-type: none"> <li>Does subsidy use moderate the association, if there is one, between child care preferences and child care choices?</li> </ul>   | X         | X      |      | X                  |
| What is the role of child care subsidies in balancing maternal work and child care? Are there significant difference in experiencing conflict between mothers who use subsidies and mothers who do not?  |           |        | X    |                    |
| What are the patterns of child care subsidy use among low-income families, and what factors are associated with the continuity of child care subsidy use?  |           |        | X    |                    |
| What are the interactions between child care subsidy use and participation in other public assistance programs?  |           |        | X    |                    |
| How do child care subsidies affect parents’ employment and earnings?   |           |        | X    |                    |
| How do child care subsidies affect child care arrangements among school-age children?  |           |        | X    | X                  |
| <ul style="list-style-type: none"> <li>How do child care subsidies affect the multiple, concurrent arrangements of child care?</li> </ul>  |           |        |      | X                  |
| How do child care subsidies affect the child care arrangement of children with special needs?  |           |        |      | X                  |

## Implications and Next Steps for Researchers

This brief reviews four survey datasets providing information on survey design and unique features of each dataset, relative advantages and disadvantages, and potential research questions that can be answered using the reviewed datasets. Before choosing a dataset, researchers need to think clearly about the research question, for example, is the research question interested in parent-level or child-level outcomes? Does the research question require longitudinal or cross-sectional data, or what is the must-have information to answer the research question? Then, researchers should weigh relative advantages and disadvantages of each dataset considering time and resources available to them. Additionally, researchers should be cautious when constructing the measures of child care subsidies, and should be aware of possible issues that arise when alternative sources of subsidization (e.g. Head Start) are included with subsidies. For example, depending on children's age, family income, and types of child care used, there might be different funding sources available to them that need to be considered when constructing the measure of subsidies. Therefore, researchers need to be knowledgeable about different types of subsidies (or other sources of child care assistance) available to the target population and inform readers how they measured child care subsidies accordingly.

Though this brief reviews only four existing datasets, other datasets are available for child care subsidy research (e.g., the Early Childhood Longitudinal Program, Kindergarten Class of 1998-99 [ECLS-K] or National Survey of America's Families [NSAF]). This brief provides useful guidelines regarding what to consider when researchers explore other potential datasets to conduct child care subsidy-relevant research.

**Table 1. Summary of Four National Survey Data on Child Care Subsidies**

|   | The Fragile Families and Child Wellbeing Study (FFCSW) Child Care Supplement (CCS)  | The Early Childhood Longitudinal Study – Birth Cohort (ECLS-B)                               | Survey of Income and Program Participation (SIPP) and Topical Module on Child Care | National Household Education Survey (NHES)'s Early Childhood Program Participation (ECPP) & Before- and After-School Programs and Activities (ASPA) |
|---|---|--|--|---|
| INFORMATION ON THE SURVEY                 |   |  |  |   |
| Survey institution                        | Princeton University and Columbia University  | National Center for Education Statistics   | U.S. Census Bureau   | National Center for Education Statistics  |
| Survey design                             | Representative of non-marital births in large cities (pop. Of 200,000 or more); longitudinal, following children from birth to age 2 (CCS at age 3) | Nationally representative; longitudinal, following children from birth to kindergarten entry | Nationally representative; longitudinal, following households for 4 years          | Nationally representative; cross-sectional  |
| Years of survey                           | 1998-2000 (baseline), 1999-2001 (1 year), 2001-2003 (3 year), 2003-2005 (5 year), 2008-2010 (9 year)  | 2001, 2003, 2005-2006, 2006-2007   | 1996, 2001, 2004, 2008 (prior panels available since 1985)                         | 2001, 2005  |
| Sample size                               | 5,000 children  | 10,700 children  | From 40,000 to 52,000 households by panel  | ECPP: 6,749 & 7,209 children; ASPA: 9,583 & 11,684 children in each year  |
| Interview method                          | In-person and telephone interviews interview  | Computer-Assisted in-person interview  | Computer-Assisted in-person interview. Phone interviews can be follow as needed    | Computer-Assisted telephone interview   |
| Age of children included                  | Children enrolled at birth in larger FFCWS; CCS sampled children at age 3   | Birth cohort   | Birth to age 14  | ECPP: Birth to age 6, who were not enrolled in K or school<br>ASPE: Children enrolled in grades K-8 and younger than age 15                         |
| Number of children included in households | Focal child only  | Focal child only   | All children   | Up to two children (one child for ECPP and ASPA, if available)  |
| Respondent for questions on child care    | Parent (most often biological mother); child care provider or child care center director  | Parent (most often biological mother); child care provider or child care center director     | Parents or household proxy   | Most knowledgeable respondent (97% parents, 2.5% grandparents)  |

|  | The Fragile Families and Child Wellbeing Study (FFCSW) Child Care Supplement (CCS)   | The Early Childhood Longitudinal Study – Birth Cohort (ECLS-B)   | Survey of Income and Program Participation (SIPP) and Topical Module on Child Care   | National Household Education Survey (NHES)'s Early Childhood Program Participation (ECPP) & Before- and After-School Programs and Activities (ASPA)  |
|--|--|--|--|--|
| <b>DATA ON CHILD CARE ARRANGEMENT</b>    |  |  |  |  |
| Types of care arrangements included      | All regular arrangements (once a week during past month); CCS conducted for primary arrangement (used 10+ hours per week) only   | All regular arrangements; child care provider/director interview conducted for primary arrangement (used 10+ hours per week) only  | All types of arrangements used on regular basis (once a week during the past month), including parental and non-parental care  | Regular non-parental care (at least once a week or once a month), excluding occasional babysitting   |
| Arrangements for children birth to age 5 | Non-resident father, sibling, mother's partner, father's partner, maternal relative, paternal relative, non-relative/family child care home, child care center, Head Start or Early Head Start | Relative in the child's home or the provider's home, non-relative in the child's home or the provider's home, center-based program (preschool/nursery, pre-kindergarten, Head Start, or other center). | Other parents, sibling at age 15 or over, sibling under age 15, grandparents, other relative, family day care, child care (or day care) center, nursery/preschool, Head Start, non-relative care (friend, neighbor, sitter, nanny, aupair).  | ECPP: Relative care, nonrelative care (home child care providers or neighbors), center-based programs (daycare center, preschool, pre-k, Head Start); separate questions for Head Start and early Head Start |
| Arrangements for children over age 5     | n/a  | After-school or wrap-around care for children in their kindergarten year; otherwise no data collected beyond the kindergarten year   | Other parents, sibling at age 15 or over, sibling under age 15, grandparents, other relative, family day care, child care (or day care) center, organized sports, Lessons, Club, Before or After school programs, non-relative care (friend, neighbor, sitter, nanny, aupair), school, care for self | ASPA: After-school programs, including relative care, nonrelative care, and center-based programs  |

|   | The Fragile Families and Child Wellbeing Study (FFCSW) Child Care Supplement (CCS)   | The Early Childhood Longitudinal Study – Birth Cohort (ECLS-B)   | Survey of Income and Program Participation (SIPP) and Topical Module on Child Care   | National Household Education Survey (NHES)'s Early Childhood Program Participation (ECP) & Before- and After-School Programs and Activities (ASPA)  |
|---|--|--|--|---|
| Characteristics of care                             | Location; hours/week; program type (e.g. Head Start); number of arrangements since birth; number of children in care; number of providers; structural characteristics of care (e.g. child:staff ratios, caregiver education and training); program type/auspice (e.g. Head Start, public pre-kindergarten) ; program location (e.g. church, public school, its own building); caregiver language; caregiver beliefs; license/regulation status; fee charged; is child's care subsidized; source of subsidy | Location; hours/week; earliest age entered care; number of arrangements since birth, number of children in care; number of providers; structural characteristics of care (e.g. child:staff ratios, caregiver education and training); program type/auspice (e.g. Head Start, public pre-kindergarten) ; program location (e.g. church, public school, its own building); caregiver language; caregiver beliefs; license/regulation status; fee charged; subsidies accepted | Location (child's home, care provider's home, or someplace else); Hours/week   | Location; number of regular arrangements (once a week or once a month); number of weeks/days/hours in care; number of children cared for with the provider; number of providers available in care; caregiver's race and age; availability of providers when a child is sick |
| Changes in arrangement                              | n/a  | n/a  | For the arrangements used <i>last month</i> , were any changes made in the child care arrangements used, even less than a day, because usual child care provider was not available (closing or temporary illness of the provider)? | Asks only for center-based care, "how many times has a child's <i>main care provider or teacher</i> at that program changed?"   |
| DATA ON CHILD CARE PAYMENTS                         |  |  |  |   |
| Payments included                                   | All payments made to care arrangements used on a regular basis   | All payments made to care arrangements used on a regular basis   | All payments made to care arrangements used on a regular basis   | Payments made to each care arrangements, NOT counting any money received from others to pay for care  |
| Child-level and arrangement-level payments obtained | Payments for primary care arrangement (if the payment covers more than one child, the amount was split)  | Payments for primary care arrangement (if the payment covers more than one child, the amount was split)  | Payments for each type of arrangement for each child (if the payment covers more than one child, the amount was split)   | Payments for each type of arrangement for each child (if the payment covers more than one child, the amount was split)  |
| Family-level payments obtained                      | No   | No   | Yes, amounts can be summed for family-level expenses   | No  |

|                                     | The Fragile Families and Child Wellbeing Study (FFCSW) Child Care Supplement (CCS)  | The Early Childhood Longitudinal Study – Birth Cohort (ECLS-B)   | Survey of Income and Program Participation (SIPP) and Topical Module on Child Care  | National Household Education Survey (NHES)'s Early Childhood Program Participation (ECPP) & Before- and After-School Programs and Activities (ASPA)  |
|-------------------------------------|---|--|---|--|
| <b>DATA ON CHILD CARE SUBSIDIES</b> |   |  |   |  |
| Level of information                | Focal child only  | Focal child only   | Each child combing all arrangements   | Each arrangement for each child  |
| Questions regarding subsidies       | Did family receive any assistance paying for care; did family receive assistance from government agency; did family receive any assistance from non-family source; is child's care paid for by government agency; is there a fee for care; what government program(s) provide funds; is focal child's care paid for with government subsidy; what government program(s) provide funds | Did family received help paying for care from a social service or government agency; does family pay a fee for care (and how much); does provider charge a fee for care (and how much); does provider accept children with subsidies | In the topical module: Did anyone help you pay for all or part of the cost of any child care arrangement for child? MARK ALL THAT APPLY<br>1) Government, 2) Child's other parent, 3) Employer, 4) Other (specify)<br>In the core questionnaire: How about child care services or assistance so you could go to work or school or training? | Do any of the following help to pay for care? a) A relative outside the household, b) TANF, c) Another social service, welfare, or child care agency, d) An employer, not including a tax-free spending account for child care, e) Someone else? |
| <b>OTHER RELAVANT INFORMATION</b>   | Data on subsidy receipt from both parents and care providers; observational assessments of child care quality (ECERS/FDCRS)   | Characteristics of a child's primary care provider (licensing/ regulation status, number of children serve, policies on accepting subsidized children); a measure on quality of care can be constructed                              | Parent's satisfaction with current arrangements; currently waiting list for a child care arrangement?; conflict with work?  | Reasons for parental choice on arrangements (for nonrelative or center-based care); Difficulties in finding care; Child's health and disability status; Children's home activities; mothers' work schedule and flexibility                       |

## Appendix. Selected Variables in the Survey for Child Care Subsidy Research

| Item # or Variable   | Question  |
|--|---|
| <b>Fragile Families and Child Wellbeing Study</b>  |   |
| M3B7 <sup>1</sup>  | Child receives non-parental care  |
| M3b8a_12 <sup>1</sup>  | Primary arrangement is Head Start or Early Head Start                           |
| M3b14 <sup>1</sup>   | Family received any assistance paying for care                                  |
| M3b15_3 <sup>1</sup>   | Family received assistance from government agency                               |
| M3b20 <sup>1</sup>   | Family received any assistance from non-family source                           |
| A23 <sup>2</sup>   | Is child's care paid for by government agency                                   |
| A23_a <sup>2</sup>   | What government program(s) provide funds  |
| B26 <sup>3</sup>   | Is child's care paid for with government subsidy                                |
| B26_a <sup>3</sup>   | What government program(s) provide funds  |
| <b>Early Childhood Longitudinal Study – Birth Cohort</b>                                 |   |
| Y3PRIMNW <sup>4</sup>  | Child's primary care arrangement  |
| P3SSPAY <sup>4</sup>   | Family received help paying for care from a social service or government agency |
| P3CFEE/P3NFEE/P3RFEE <sup>4</sup>  | Is there a fee for center/non-relative/relative care                            |
| J3TYPPRO <sup>5</sup>  | Type of program (e.g. Head Start, public pre-k)                                 |
| J3LOCCRE <sup>5</sup>  | Program location (e.g. public school)   |
| J3INHOME <sup>5</sup>  | Care provided in a home   |
| J3REGCTY <sup>5</sup>  | Provider is registered with the city or county                                  |
| J3STLICN <sup>5</sup>  | Provider is licensed  |
| J3ORGRE <sup>5</sup>   | Provider belongs to a family child care network                                 |
| J3NUM4YR <sup>5</sup>  | Number of 4-year old children licensed to care for                              |
| J3CHRGFE <sup>5</sup>  | Provider charges a fee  |
| J3CHSUBS <sup>5</sup>  | Provider accepts subsidies  |
| H3MSTCHA <sup>6</sup>  | Number of children provider cares for   |
| K3HSCE <sup>7</sup>  | Center is a Head Start center   |
| <b>Survey of Income and Program Participation, Child Care Topical Module<sup>8</sup></b> |   |
| PAOTHR2 <sup>9</sup>   | Received child care assistance to go to work or school or training              |
| <b>Child care arrangement (up to 5 children from each household)<sup>9</sup></b>         |   |
| CHC3_CKD1 - CHC3_CKD(N)  | Any child care arrangement used on a regular basis                              |
| CHC5_WHEPAR1, CHC6_PARHRSA, CHC7_PARHRS1, CHC8_WHSELF1, CHC9_SELFHR1,                    | Parental care (location and hour)   |
| CHC10_WHSB15A, , CHC11_WHSBHRA, CHC12HRSB15A   | Sibling at age 15 or over (location and hour)                                   |
| CHC13_WHSB14A, CHC14_SB14HR, CHC15_HRSB14A   | Sibling under age 15 (location and hour)  |
| CHC16_WHGRAN1, CHC17_GRANDHRA, CHC18_HRGRAN1, CHC19_PAYGRA1, CHC20_AMTGRA1               | Grandparents (location, hour, and payment)                                      |
| CHC21_WHRELA1, CHC22_RELAHRA, CHC23_RELahr1, CHC24_PAYREL1, CHC25_AMTREL1                | Other relative (location, hour, and payment)                                    |

| Item # or Variable  | Question  |
|---|---|
| CHC26_HRSFAMA, CHC27_HRSFAM1, HC28_PAYFAM1, CHC29_AMTFAM1                 | Family day care (hour and payment)                            |
| CHC30_WHDAYC1, CHC31_DYHRA1, CHC32_HRDAYC1, CHC33_PAYDAY1, CHC34_AMTDAY1  | Child care or day care center (location, hour, and payment)   |
| CHC35_WHNURS1, CHC36_NURHRSA, CHC37_HRNURS1, CHC38_PAYNUR1, CHC39_AMTNUR1 | Attending nursery or preschool (location, hour, and payment)  |
| CHC40_HEADHRA, CHC41_HRSTAR1, CHC42_PAYSTA1, CHC43_AMTSTA1                | Attending Head Start (hour and payment)                       |
| CHC44_WHOTHE1, CHC45_OTHRHRA, CHC46_HROTHE1, CHC47_PAYOTH1, CHC48_AMTOTH1 | Non-relative (location, hour, and payment)                    |
| CHC113_DAYCHAN  | Any changes in child care provider                            |
| CHC114_PAYHELP  | Received any help to pay for child care                       |
| CHC115_WHOPAID <sup>10</sup>  | Who or what agency helped pay for care                        |
| CHC117_SATIS  | Satisfied with current arrangement                            |
| CHC118_LIST   | Currently on a waiting list for a child care arrangement      |
| CHC119_WORKMORE   | Problems in obtaining child care prevent from work or school? |

### National Household Education Survey Early Childhood Program Participation

#### Relative care (up to 4 arrangements): All variables repeat 4 times (e.g., RCTYPE1-RCTYPE4)

|  |  |
|--|--|
| RCTYPE, RCAGE, RCPLACE, RCWKMO, RCDAYWK, RCHRWK, RCKIDS, RCADLTS, RCSPEAK, RCSKNFV, RCCANCE, | Relationship, age, location, number of weeks/month, number of days/week, number of hours/week, number of kids in the group, number of adults during the arrangement, language, providing care while sick, number of times provider canceled care |
| RCFEE  | Is provider charge free  |
| RCTANF   | Received help from TANF agency   |
| RCSSAC   | Received help from social service, welfare, or child care agency   |
| RCCOST, RCUNIT   | Amount of care, unit   |

#### Non-Relative care (up to 4 arrangements): All variables repeat 4 times (e.g., NCTYPE1-NCTYPE4)

|  |  |
|--|--|
| NCTYPE, NCAGE, NCPLACE, NCWKMO, NCDAYWK, NCHRWK, NCKIDS, NCADLTS, NCSPEAK, NCSKNFV, RCCANCE, | Relative care up to 4 arrangements (relationship, age, location, number of weeks/month, number of days/week, number of hours/week, number of kids in the group, number of adults during the arrangement, language, providing care while sick, number of times provider canceled care |
| NCFEE  | Is provider charge free  |
| NCTANF   | Received help from TANF agency   |
| NCSSAC   | Received help from social service, welfare, or child care agency   |
| NCCOST, RCUNIT   | Amount of care, unit   |

#### Center-Based Program (up to 4 arrangements): All variables repeat 4 times (e.g., CPTYPE1-CPTYPE4)

|  |  |
|--|--|
| CPTYPE, CPAGE, CPPLACE, CPWKMO, CPDAYWK, CPHRWK, CPKIDS, CPADLTS, CPSPEAK, CPSKNFV, CPCANCE, | Relative care up to 4 arrangements (relationship, age, location, number of weeks/month, number of days/week, number of hours/week, number of kids in the group, number of adults during the arrangement, language, providing care while sick, number of times provider canceled care |
| NCFEE  | Is provider charge free  |
| NCTANF   | Received help from TANF agency   |
| NCSSAC   | Received help from social service, welfare, or child care agency   |
| NCCOST, RCUNIT   | Amount of care, unit   |

| Item # or Variable  | Question  |
|---|---|
| HDDEALY   | The child is developmentally delayed  |
| HDLEARN, HDRETARD, HDSPEECH, HDDISTRB, HDDEAFIM, HDBLNDIM, HDORTHO, HDAUTISM, HDADD, HDPDD, HDOTHER | Child has any of disabilities (learning disability, mental retardation, speech or language delay, emotional disturbance, deafness, blindness, orthopedic impairment, autism, ADD, PDD, others.) |
| <b>Head Start</b>   |   |
| PCHDTYP   | Location,   |
| PCHDCOS   | Reasons for fee, if paid any  |
| <b>Selection of care and difficulty finding care</b>  |   |
| DLOCA, DCOST, DRELY, DLERN, DCHIL, DHROP, DNBGRP  | Reasons for selecting care: Location, cost, reliability, learning activities, spending time with other kids, caregiver availability, number of other children in group                          |
| PPDIFCLT  | Difficulty in finding care  |
| PPCHOIC   | Do you feel there are good choices for child care where you live?   |

<sup>1</sup>Fragile Families 3-year Parent Interview

<sup>2</sup>Fragile Families Child Care Providers Center-Based Care Interview

<sup>3</sup>Fragile Families Child Care Providers Family Child Care\Kith & Kin Interview

<sup>4</sup>ECLS-B Preschool Parent Interview

<sup>5</sup>ECLS-B Early Care and Education Provider Interview

<sup>6</sup>ECLS-B Home-based Care Provider Questionnaire, administered at time of child care observation

<sup>7</sup>ECLS-B Center Director Questionnaire

<sup>8</sup>Variables are from Wave 4 of the 2004 panel

<sup>9</sup>Core questionnaire

<sup>10</sup> Questions were repeated for up to 5 children in the household

Note: Variables for the ECLS-B are listed for wave 3 only; most are also available at wave 2, and the parent interview variables are available at all waves.

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