

# Data Sources and Methodology

June 2024

## Overview

This technical brief contains information about data sources and methodology for the Illinois Child Care Assistance Program (CCAP) three-part brief series focused on the employment and earnings of parents participating in the CCAP program. Those briefs, all released in June 2024, are:

- Illinois Child Care Assistance Program Brief: Where parents work
- Illinois Child Care Assistance Program Brief: Parental need for child care assistance
- Illinois Child Care Assistance Program Brief: Earnings and child care assistance after one year

## Data

The briefs use Child Care Assistance Program (CCAP) data from the Illinois Department of Human Services (IDHS) Child Care Management System (CCMS) joined to wage records reported by employers to the state unemployment insurance program at the Illinois Department of Employment Security (IDES).

### Wage data

Quarterly wage records are reported by unemployment insurance (UI)-covered employers to the Illinois Department of Employment Security (IDES). About 90 percent of Illinois jobs are included in the UI wage data. Exceptions include federal government and military, small farms, railroads, and some self-employment and solely commission-based employment.<sup>1,2</sup>

At the employer level, the data contains employer names, employer ID, total wages paid for each quarter, industry code, and number of employees. At the individual worker level, the data include social security number (SSN) and total wages earned per employer, for each quarter in which the person was working. These records allow us to track individuals, employers, and the relationships between them over time.

There are some limitations to what analyses can be done with the UI wage data. The data show total earnings by an individual for each quarter, but not hours worked (for example, part-time or full-time), weeks worked, or pay rate. We also do not have information on the occupation or the title of individuals. Finally, as referenced above, the data do not capture earnings of individuals who work outside of Illinois (for example in border states like Indiana, Missouri, or Wisconsin) with certain types of employment such as federal workers or specific classes of independent contractors.

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<sup>1</sup> Abowd, J. M., Stephens, B. E., Vilhuber, L., Andersson, F., McKinney, K. L., Roemer, M., & Woodcock, S. D. (2009). "The LEHD infrastructure files and the creation of the Quarterly Workforce Indicators." In T. Dunne, J. B. Jensen, & M. J. Roberts (Eds.), *Producer dynamics: New evidence from micro data*. University of Chicago Press.

<sup>2</sup> U.S. Department of Labor Employment & Training Administration. (2022). "Comparison of State Unemployment Laws 2022: Coverage." <https://oui.doleta.gov/unemploy/comparison/2020-2029/comparison2022.asp>. Accessed 18 April 2023.

## Child Care Assistance Program data

The CCAP data includes payment records and eligibility determinations made through the Child Care Assistance Program administered by the Illinois Department of Human Services. These data connect payments to children, providers, heads of household, and case eligibility periods and may be used to generate eligibility and service spells for these entities. It includes service details such as type of care (for example, center-based or home-based) and voucher amount; eligibility determination information including household income sources and family size; and personal identifiers for children, parents, and providers like name, birthdate, social security number (SSN), and address.

There are some limitations imposed by the CCAP data. First, it documents payments to providers through the CCAP program only. Therefore, a family that stops participating in the CCAP program may continue to use the same child care provider via private pay but that is not observed. Second, the household size and income information are gathered only at the point in time when program eligibility is determined or when changes to the CCAP case are made.

## Sample

For these analyses we examine CCAP cases that opened in the first quarter of 2019 for households that had not participated in CCAP for the prior 2 years. We limit our sample to cases where the head of household has an SSN and thus can be matched to the wage data. This restriction results in excluding approximately 12 percent of the CCAP cases in the study cohort.

## Definitions

### CCAP Participation

CCAP participation is determined based on whether a case has any payments made for CCAP services occurring in the quarter as reported in the CCMS data.

### Family Size

Family size is the sum of the number of children who have ever received CCAP payments on the case and the number of adults ever identified on the case at CCAP eligibility in the CCMS data. This measure does not capture children in the household who have never participated in CCAP and adults who are not the parents or primary caregiver.

### Federal Poverty Line (FPL) Threshold

The federal poverty line threshold is calculated as the household income as a percent of the Health and Human Services (HHS) Poverty Guidelines 2023 given the family size of a CCAP case. We use two data sources to determine family income depending on the specific analysis, described below.

### Household Income

*Illinois Child Care Assistance Program Brief: Parental need for child care assistance, June 2024*

Total income at eligibility: Household income is reported in the CCMS data at time of CCAP application as part of the determination for program eligibility.

*Illinois Child Care Assistance Program Brief: Earnings and child care assistance after one year, June 2024*

Parent income by quarter: Parent income is determined by total wages of both head of household and other parent (if applicable) found in the IDES wage data in each quarter. Cases where neither parent was found in the wage data are categorized as zero income.

## **Industry**

Industry information is identified in the IDES data. Sector and industry information are based on the North American Industry Classification System (NAICS) code of the highest paying job held by the CCAP case head of household in 2019 Q1 wage data. NAICS uses a hierarchical structure where the most detailed level is the 6-digit industry, and the broadest level is the 2-digit sector. For example, the Child Day Care Services industry with NAICS code of 624410 is within the Individual and Family Services industry group with NAICS code 6241, which belongs inside the Health Care and Social Assistance sector with NAICS code 62. There are 20 two-digit sector codes and 1012 six-digit industry codes.

## **School status**

School status is determined using CCMS data. A case is determined to be in school if any parent was participating in qualifying educational or training activities at the time of CCAP application as part of the determination for program eligibility.

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