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Technical Appendix: Calculating the Need for Subsidized Child Care in California

The California Budget & Policy Center's analysis of the number of children and families eligible for subsidized child care and development programs in California was guided by a methodology developed for Child Care & Early Education Research Connections by Wladimir Zandoni and Robert M. Goerge at the University of Chicago and J. Lee Kreader and Ayana Douglas-Hall at Columbia University. Research Connections is a partnership between the National Center for Children in Poverty at Columbia University and the Inter-university Consortium for Political and Social Research at the University of Michigan.

This analysis relies on data from the US Census Bureau's Annual Social and Economic Supplement of the Current Population Survey (CPS ASEC). The CPS is the primary source of federal data on employment and unemployment statistics and is a source for certain demographic data, as well. The survey is administered monthly by the US Census Bureau and provides detailed employment data based on respondents' activities in the week prior to the survey. The Census Bureau often adds certain questions to the monthly survey covering a variety of topics. These additional topical "supplements" include the ASEC, which provides detailed data on income, work experience, and activities when not working (such as school), for the prior year (not the prior week). (The CPS ASEC is referred to as "CPS" throughout this document, unless otherwise noted.)

The Minnesota Population Center uses data from the CPS to create the Integrated Public Use Microdata Series – CPS (IPUMS-CPS).¹ The IPUMS-CPS provides both (1) detailed income variables, which the Budget Center uses to calculate families' eligibility for subsidized child care and (2) specific family relationship variables, which the Budget Center uses to group various household members into families.² However, as explained below, the survey data do not capture certain information that is taken into account in assessing families' eligibility for subsidized child care in California. Taken together, these data limitations likely result in a conservative estimate of the number of children and families in California who are eligible for subsidized child care.

This analysis focuses on subsidized child care programs administered by the California Community Colleges, the California Department of Education, or the Department of Social Services. Families are eligible for subsidized child care if the child who would receive care is under the age of 13; the family establishes an appropriate eligibility status, such as by having an income below the limit set by the state; and the family demonstrates a need for care, such as parental employment.³ The methodology used in this analysis involves several steps: (1) defining families and determining family size, (2) calculating countable income, and

(3) determining family eligibility status and reason(s) for needing subsidized child care. The following sections describe these steps in detail.

Defining the Family and Determining Family Size

This section (1) reviews how California defines “family” in assessing eligibility for subsidized child care and (2) outlines the method by which this analysis constructs unique family units using IPUMS-CPS data.

How California Defines “Family” in Assessing Eligibility for Subsidized Child Care

The California Code of Regulations (CCR) states that:

“Family” means the parents and the children for whom the parents are responsible, who comprise the household in which the child receiving services is living. For purposes of income eligibility and family fee determination, when a child and his or her siblings are living in a family that does not include their biological or adoptive parent, “family” shall be considered the child and related siblings.⁴

In other words, a “family” consists of either:

- Children and the parent or parents who are responsible for their care and welfare, including step-parents, but *excluding* any other adults who may also reside in the household,⁵ or
- Children only, in cases in which a biological or adoptive parent is not present.⁶ In other words, the state would consider these children to constitute a “child-only” family for the purpose of assessing eligibility for subsidized child care.⁷

The methodology used in this analysis fails to capture the small number of children who were not living with a biological or adoptive parent and who thus fall into the “child-only” family category.⁸ The IPUMS-CPS does not contain income data for children under the age of 15. Since it is not possible to determine family income for most children in these child-only family units, these observations were excluded from the analysis. Children from birth through age 12 in child-only families accounted for 1.9 percent of the total number of children from birth through age 12 in California in 2015. Excluding these observations likely results in a conservative estimate of the number of children and families eligible for subsidized child care.

How This Analysis Constructs Unique Family Units

IPUMS-CPS categorizes families within a household as either a primary family or a subfamily (if present), based on family members’ relationship to the head of household.⁹ The way in which IPUMS-CPS categorizes individuals and families is not always aligned with state rules regarding eligibility for subsidized child care. As a result, this analysis constructs unique family units using IPUMS-CPS relationship variables for primary families and subfamilies based on the state’s

definition of “family,” as described above. However, the process for constructing family units was different for each type of family.

- **Primary families.** The IPUMS-CPS contains detailed relationship variables for primary families within each household. These variables allow for greater specificity when constructing families from the IPUMS-designated primary family units than is possible with IPUMS-designated subfamilies. For the purpose of this analysis, the constructed family units include children under the age of 18, 18-year-olds who were in high school, and the biological or adoptive parent or parents. In cases where the head of household was living with an unmarried partner, the family unit was determined based on whether or not the head of household and the partner had a child in common. If so, state rules would require these individuals to apply for subsidized child care as a single family unit, including both the child in common and any other children in the family. However, if the head of household and an unmarried partner each had their own children *but did not have any children in common*, they could apply as separate family units.¹⁰ This analysis assumes that both parents in such “Brady Bunch” families would opt to apply separately.
- **Subfamilies.** The Census Bureau defines a subfamily as “a married couple with or without children, or a single parent with one or more own never-married children under 18 years old living in a household.”¹¹ This analysis uses a certain family relationship variable to construct family units that include the “reference person,” spouse, and children under the age of 18 in these subfamilies. For 18-year-olds attending high school, “pointer variables” that indicate the location of parents in the household are used to link these children to the constructed family unit. However, the Census Bureau’s coding of subfamilies does not group unmarried partners into the same subfamily, regardless of whether they have a child in common, because the definition of subfamily is limited to *married* partners. The Census Bureau codes unmarried partners and their children (if any) as separate individuals or separate subfamilies within the household. Following the Census Bureau, the Budget Center’s analysis groups the unmarried partners and their children (if any) as separate subfamilies regardless of whether the unmarried partners have a child in common.

Calculating Countable Income

This analysis calculates income eligibility using the IPUMS-CPS income variables. Each individual age 15 and older has a “total personal income.” This is the sum of 20 different income variables, such as wages, Social Security, interest, and dividends.¹² In California, several types of personal income are excluded for the purpose of determining a family’s eligibility for subsidized child care:

- Loans;
- Student aid;
- Food assistance;
- Tax refunds;

- GI Bill entitlements or forms of hardship or hazardous duty pay;
- Adoption assistance payments;
- Non-cash assistance or gifts;
- Supplemental Security Income/State Supplementary Payment (SSI/SSP) cash assistance;
- Insurance or court settlements, including for pain and suffering;
- Work reimbursements;
- Business expenses for the self-employed;
- Disaster relief grants; and
- Wages earned by a child under age 18.¹³

In addition, child support paid by the parent of the child receiving subsidized child care is subtracted from the parent's income when calculating income for eligibility purposes.

Of these items, children's wages (for those age 15 and over), SSI/SSP cash assistance, and student aid are accounted for individually in the IPUMS-CPS data. All other types of personal income that California disregards for the purpose of determining eligibility are not accounted for individually in the data and therefore cannot be excluded from the analysis. Likewise, child support paid by the parent also is not accounted for in the IPUMS-CPS data and cannot be excluded from the analysis.

To calculate each family's countable income, the Budget Center's analysis subtracts SSI/SSP cash assistance and student aid from total personal income for (1) the head of household, (2) the spouse/partner (if applicable), and (3) 18-year-olds enrolled in high school. For children age 15 to 17, this analysis subtracts wages from total personal income along with SSI/SSP cash assistance and student aid (if any). These calculations result in new estimates of total personal income for the purpose of determining families' eligibility for subsidized child care. However, due to data limitations (described above), these estimates likely overstate family income because many types of income that California excludes when calculating families' income eligibility could not be subtracted from total personal income. This likely results in a conservative estimate of the number of children and families eligible for subsidized child care.

Income eligibility for subsidized child care is determined based on the current eligibility limits, which state policymakers put in place during the 2007-08 fiscal year (based on data from 2005).¹⁴

Determining Family Eligibility Status

State law requires that parents first establish family eligibility status based upon (1) income eligibility (outlined above), (2) whether or not the family receives cash assistance through the California Work Opportunity and Responsibility to Kids (CalWORKs) welfare-to-work program,

(3) family homelessness, and/or (4) whether or not the children are in contact with child protective services.¹⁵ Of these four criteria, this analysis captures families whose eligibility status is based on family income or on receipt of CalWORKs cash assistance.

The methodology used to determine family income is described above. However, families receiving cash assistance from CalWORKs do not have to meet these income eligibility requirements.¹⁶ To determine family status based on CalWORKs participation, income variables were used to identify parents who reported “welfare income” and the source of the “welfare income” as Temporary Assistance for Needy Families (CalWORKs in California). However, research shows that individuals typically underreport welfare receipt.¹⁷ Therefore, this methodology likely results in a conservative estimate of children and families whose eligibility status for subsidized child care is based on receipt of CalWORKs cash assistance.

This analysis is unable to determine family eligibility status based upon family homelessness and/or whether or not the children are in contact with protective services.¹⁸ Due to these limitations, the final estimates likely result in a conservative estimate of the number of children and families eligible for subsidized child care.

Identifying Reason(s) for Needing Subsidized Child Care

In addition to establishing an appropriate family eligibility status, parents must have a “reason for needing service.” The reasons outlined in state law and regulations are: (1) child involvement with child protective services, (2) special need of the child, (3) employment or seeking employment, (4) vocational training, (5) parental incapacitation, (6) family homelessness and/or (7) seeking permanent housing for family stability.¹⁹ Further, CalWORKs families receiving cash assistance must be employed or participating in welfare-to-work activities, which include (but are not limited to) vocational training, high school or general education development (GED) courses, college programs, and job search.²⁰

The IPUMS-CPS data cannot be used to identify families that are involved with child protective services, homeless, and/or seeking permanent housing. In addition, the IPUMS-CPS data do not include information on children under the age of 15 who have special needs.²¹ However, the IPUMS-CPS data do include information related to employment, vocational training, and parental incapacitation. Moreover, although the IPUMS-CPS also provides information related to individuals who are seeking employment, this “need” for subsidized child care is excluded from this analysis because family eligibility based on a job search is limited to just 60 consecutive working days for non-CalWORKs families and up to four consecutive weeks for CalWORKs families.²² This time limitation means that it is difficult to estimate when or if a family would be eligible during a period of unemployment. As a result, the Budget Center’s analysis focuses on three reasons for needing subsidized child care: employment, vocational training, and parental incapacitation.

Employment

This analysis uses a specific variable that provides information on whether respondents worked any time in the *prior year*. Individuals who worked at any time in the prior year were counted as employed. Parents in the armed forces were also counted as employed. Finally, as mentioned previously, families receiving CalWORKs cash assistance must meet certain

requirements – such as being employed – in order to receive subsidized child care. The methodology described in this paragraph was used to determine if CalWORKs parents were employed.

Vocational Training

State law and regulations allow parents to establish and maintain eligibility for subsidized child care based on participation in vocational training. Vocational training is defined as “training leading directly to a recognized trade, paraprofession, or profession.”²³ The regulations regarding vocational training are broad and encompass typical job training programs in addition to coursework leading to a bachelor’s degree and, potentially, a master’s degree. Specifically, parents who are engaged in vocational training are eligible for subsidized childcare for six years or for 24 semester units after earning a bachelor’s degree, whichever expires first.²⁴ In addition, minor teen parents may also count high school attendance, or its equivalent, “until after the teen parent’s 18th birthday, or high school graduation, whichever is later.”²⁵

In light of this broad definition, the Budget Center’s analysis uses three IPUMS-CPS variables to estimate the number of parents engaged in vocational training. Two variables indicate individuals’ primary activity during the *prior year* when they were not working – including enrollment in school. The third variable provides data on individuals between the ages of 16 and 54 who were enrolled in school or college during the *prior week*.²⁶ “School” is broadly defined by the Census Bureau to encompass trade or vocational schools. Individuals enrolled in “school” are assumed to be participating in vocational training, as defined in state regulations.

Moreover, as noted earlier, vocational training, high school or GED courses, and college programs count as welfare-to-work activities. This analysis assumes that CalWORKs recipients who are recorded as being enrolled in “school” are participating in welfare-to-work activities. However, data on participation in other types of welfare-to-work activities, such as mental health services or substance use disorder treatment, are not available in the IPUMS-CPS data. Due to this data limitation, the Budget Center’s analysis likely underestimates the number of children and families eligible for subsidized child care based on receipt of CalWORKs cash assistance.

Parental Incapacitation

California defines “incapacitation” as “the temporary or permanent inability of the child’s parent(s) to provide care and supervision of the child(ren) for part of the day due to a physical or mental health condition.”²⁷ When determining a family’s need for subsidized child care, parental incapacitation is assessed on a case-by-case basis and requires a doctor’s note stating that the individual needs assistance with the care of a child.²⁸ The IPUMS-CPS provides a number of different types of “difficulties” that can be considered incapacitating. These include difficulties related to hearing, vision, memory, walking or climbing stairs, performing basic activities outside the home, and caring for oneself. The Budget Center’s analysis assumes that any parent who has difficulty remembering, walking or climbing stairs, performing basic activities, or caring for themselves could also use assistance in caring for a child and would be eligible for subsidized care due to parental incapacitation. In contrast, this analysis assumes

that any parent who has difficulty seeing or hearing would *not* need assistance in caring for a child.

¹ Sarah Flood, Miriam King, Steven Ruggles, and J. Robert Warren, *Integrated Public Use Microdata Series, Current Population Survey: Version 4.0* [machine-readable database] (Minnesota Population Center, University of Minnesota: 2016).

² The Census Bureau's American Community Survey (ACS) is another potential data source. However, a number of key income and relationship variables that are available from the IPUMS-CPS are not available from the IPUMS-ACS, which limits its utility.

³ California Education Code, Sections 8263(a)(1) and 8208(i), and California Code of Regulations, Title 5, Sections 18083(e) and (g).

⁴ California Code of Regulations, Title 5, Section 18078(f).

⁵ State regulations broadly define a "parent" as an "...adult living with a child who has responsibility for the care and welfare of the child." See California Code of Regulations, Title 5, Section 18078(m). Step-parents are included in the family unit because family relationships are defined by blood, marriage, or adoption. See California Code of Regulations, Title 5, Section 18083(d). In addition, based on conversations with state officials and eligibility workers, "children" means people under age 18 and 18-year-olds attending high school.

⁶ Based on conversations with state officials and eligibility workers, "children" means people under age 18 and 18-year-olds attending high school.

⁷ This means, for example, that a foster parent, a caretaker relative, or a legal guardian would not be counted as part of the family for the purpose of assessing income eligibility for subsidized child care.

⁸ Examples include foster children as well as children with an IPUMS-CPS "other relative" designation who do not have a biological or adopted mother or father in the household. In cases where the children's relationship to the head of household is unknown, as indicated by IPUMS-CPS, this analysis assumes that the head of household is *not* the biological or adoptive parent and categorizes the children as a child-only family.

⁹ A subfamily can be related or unrelated to the primary family depending on the subfamily's relationship to the person or couple who maintains the household.

¹⁰ This is based on conversations with eligibility workers and California Code of Regulations, Title 5, Section 18400(e)(1).

¹¹ Children who are age 18 and over are not coded as part of the subfamily by the Census Bureau.

¹² The total personal income variable reflects pre-tax income.

¹³ California Code of Regulations, Title 5, Section 18078(a).

¹⁴ California Education Code, Section 8263.1. See also California Department of Education, Management Bulletin 11-06 (April 2011).

¹⁵ California Education Code, Section 8263(a)(1)(A).

¹⁶ California Code of Regulations, Title 5, Section 18408(b).

¹⁷ Bruce D. Meyer, Wallace K. C. Mok, and James X. Sullivan. *The Under-Reporting of Transfers in Household Surveys: Its Nature and Consequences* (National Bureau of Economic Research: 2009).

¹⁸ The CPS-ASEC does not fully capture families that are homeless. This is because the CPS samples the non-institutionalized population, which excludes anyone who is homeless unless they are living in a shelter. Moreover, individuals sampled in homeless shelters are only counted if the shelter is considered their usual residence where they sleep most of the time.

¹⁹ California Education Code, Section 8263(a)(1)(B) and California Code of Regulations, Title 5, Section 18083(e).

²⁰ California Code of Regulations, Title 5, Section 18406(b).

²¹ "Special needs" (also referred to as "exceptional needs") includes developmental disabilities and physical disabilities. See California Education Code 8208(l). Individuals from birth to 21 years of age with "special needs" may receive services through the Severely Handicapped Program. However, this program is only located in the San Francisco Bay Area. Because this analysis calculates estimates

for the entire state, individuals with special needs who are between the ages of 15 and 21 – for whom information *is* available in the IPUMS-CPS – are excluded from the estimate of the number of individuals eligible for subsidized child care.

²² In contrast, the other criteria are not time-limited or, in the case of vocational training, the time limit is for a significantly longer period of time (as long as family status or need does not change). For example, a family remains eligible for subsidized child care as long as a parent is employed and family income remains below the income eligibility limit.

²³ California Code of Regulations, Title 5, Section 18087(a).

²⁴ California Code of Regulations, Title 5, Sections 18087(a).

²⁵ California Department of Education, Management Bulletin 11-28 (August 2011). High school or GED courses are not an acceptable form of vocational training for adults unless they are CalWORKs recipients.

²⁶ In measuring participation in vocational training, this analysis uses two variables for the prior year *and* one variable for the prior week because of data limitations related to the prior-year variables. These limitations resulted in an estimate of “school” enrollment that was considerably lower than the estimate provided by the American Community Survey (ACS), another reputable source. Combining these three IPUMS-CPS variables results in an estimate of “school” enrollment for Californians age 18 and older in 2015 that more closely resembles the estimate provided by the ACS.

²⁷ California Code of Regulations, Title 5, 18078(n).

²⁸ California Code of Regulations, Title 5, 18088(c)(1).