APPENDIX 4: A GUIDE TO UNDERSTANDING STATE CHILD CARE SUBSIDY PROGRAMS THROUGH ANALYSIS OF PUBLIC AND NON-PUBLIC USE DATASETS

Wladimir Zanoni
Robert M. Goerge
Chapin Hall Center for Children at the University of Chicago

J. Lee Kreader
Ayana Douglas-Hall
National Center for Children in Poverty, Columbia University

Child Care & Early Education Research Connections

August 2009
ACKNOWLEDGEMENTS

Study Team for Employment and TANF Outcomes for Families Receiving Subsidies in Illinois, Maryland, and Texas

Chapin Hall Center for Children at the University of Chicago
   Lucy Mackey Bilaver
   Robert Goerge
   Allison Harris
   Wladimir Zanoni

National Center for Children in Poverty, Columbia University
   Ayana Douglas-Hall
   J. Lee Kreader

Ray Marshall Center for the Study of Human Resources, University of Texas
   Deanna Schexnayder
   Daniel Schroeder

The Jacob France Institute, University of Baltimore
   Jane Staveley
Contents  page

Section I: Introduction  4
Purpose of the guidebook  4
Policy questions  4
Evolution and structure of the guidebook  4
Accessing public and non-public use datasets  7

Section II: Selecting data  8
Study population  8
Data sources  9
Data validity  9

Section III: Analyzing public use data and presenting findings  12
1. What are the number and characteristics of families **eligible** for child care subsidy?  12
   Using the PUMS American Community Survey data  12
2. What are the number and characteristics of families **receiving** child care subsidy?  24
   Using the public Child Care and Development Fund administrative data (ACF-801)  25

Section IV: Analyzing non-public use data and presenting findings  31
Child care subsidy administrative data  31
Unemployment insurance administrative data  32
Temporary Assistance for Needy Families administrative data  33
Using data from linked non-public use administrative databases to understand  34
   TANF families participating in the child care subsidy program
      1. How many mothers in the TANF population are eligible to receive  35
         child care subsidy? How many actually do?
      2. What kind of child care are TANF mothers who receive child care  36
         subsidies using?
      3. What is the probability that eligible TANF recipients will take the  37
         child care subsidy within 3 years (12 quarters)?
      4. What are the characteristics of those most likely to take the child care subsidy?  37
Using data from linked non-public use administrative databases to understand  39
   the effect of child care subsidy program participation on parental employment
      1. What is the median duration of employment for those TANF mothers  39
         who used the subsidy within 2 quarters of eligibility?
      2. Among TANF recipients eligible for child care subsidy, how does subsidy  40
         take-up affect the likelihood of employment ending?

References  42

Appendices: 34
   1 Sample STATA code  43
   2 Sample SAS code  52
   3 Sample SPSS code  78
SECTION I: INTRODUCTION

Purpose of the Guidebook

This guide has been developed to assist researchers in using public and non-public use U.S. Census Bureau data as well as public and non-public use state administrative data—both separately and in combinations—to analyze state-specific child care subsidy take-up and employment of child care subsidy recipients.

Policy Questions

Through analysis of survey data gathered by the Census Bureau and administrative data generated by state child care subsidy and other programs, researchers can help states answer two fundamental questions about their subsidy programs.

1. Who does and does not take up the child care subsidy?
2. What is the effect of child care subsidy program participation on parental employment?

This guidebook outlines example analyses that states can tailor for their use in addressing these questions.

Evolution and structure of the guidebook

This guidebook has been developed by members of the research team for a study of Employment and TANF Outcomes for Families Receiving Subsidies in Illinois, Maryland, and Texas.¹ The guide was originally planned to share methodology and examples of analyses from this pioneering study, the first to merge Non-Public Use American Community Survey (NP ACS)

¹ See the forthcoming report, “Employment and TANF Outcomes for Families Receiving Subsidies in Illinois, Maryland, and Texas” (www.researchconnections.org/location/12407).
data from the Census Bureau with non-public use administrative data for child care subsidy, Unemployment Insurance wage records, and Temporary Assistance for Needy Families. The American Community Survey does not ask respondents about their child care utilization patterns or any publicly subsidized child care assistance they may have received in the past year. Therefore, to obtain the additional attributes needed to answer the research questions of who does and does not take up child care subsidies, and what is the effect of child care subsidy program participation on parental employment, merging the non-public use ACS with administrative data sources was required. The guidebook refers to this as the All Child Care Eligibles study.

Non-public use ACS data contain uniquely identifying information such as names and addresses. The Census Bureau’s Data Integration Division has developed a matching system whereby records in the ACS files can be linked with individual records in state administrative data bases. The system uses probabilistic matching to assign a Protected Identity Key (PIK) to survey and administrative records. The algorithm for the probabilistic match uses names, addresses, and demographic characteristics to output a set of matches, probable matches, possible matches, and non-matches. Through the PIK process and other safeguards, the study team protected the confidentiality of non-public use data from both the Census Bureau and the participating states. The steps involved in requesting and receiving Census Bureau permission to use and link to the NP ACS and in accessing the merged data in the Bureau’s Research Data Centers—while ultimately successful—proved too involved and protracted to describe in a guidebook.

The team therefore decided to use the guidebook to share more accessible methodologies and example analyses using the Public Use Microdata Sample of the American Community Survey (PUMS ACS). With all the same variables as the non-public use ACS, except the identifying information, the PUMS ACS can answer state-specific, point-in-time questions about the number and characteristics of families eligible to receive a child care subsidy. See Section III below.

---

2 The team chose to use the American Community Survey rather than the Census Bureau’s Survey of Income and Program Participation (SIPP) survey—which does gather information on use of public services—because SIPP produces national level estimates for the U.S. population and the project required estimates at the state level.
Section III also explains use of publicly available Child Care and Development Fund state sample data to answer descriptive, point-in-time questions about the number and characteristics of eligible families actually receiving a child care subsidy.

Section IV offers examples of methodologies and analyses that use non-public state administrative data (but not non-public Census data) to explore point-in-time and longitudinal questions about subsidy use and its effects. This section draws on the experience of various members of the research team in an earlier multi-state study, Child Care Subsidy Use and Employment Outcomes of TANF Mothers during the Early Years of Welfare Reform: A Three-State Study (2004).³ This prior study relied exclusively on non-public use, linked, individual-level, administrative data in Illinois, Maryland, and Massachusetts to follow a series of TANF entry cohorts over time. Individuals in the TANF population were defined as eligible for a child care subsidy if they were working, had a child under the age of 13, and had a household income below the child care subsidy state eligibility ceiling. Child care subsidy program data were used to identify those who received the subsidy and those who did not. Unemployment Insurance (UI) wage record data were used to identify those who are eligible for the child care subsidy because they had found employment and had wages below the child care subsidy state eligibility ceiling. UI data were also used to examine individuals’ employment patterns. The guidebook refers to this earlier report as the TANF Child Care Eligibles study.

---
³ “Child Care Subsidy Use and Employment Outcomes of TANF Mothers during the Early Years of Welfare Reform: A Three-State Study (2004)” is available at www.researchconnections.org/location/4434
Accessing Public and Non-Public Use Datasets

A number of datasets are available to explore these general policy questions at the state level. As noted, public use data files, with personal identifiers removed, are sufficient for point-in-time descriptive analyses that explore the basic characteristics of a population.

- Similarly, the Child Care and Development Fund state sample data (ACF-801) is widely available via the Child Care & Early Education Research Connections website (http://www.researchconnections.org/discover/index.jsp). Search “ACF” > “Datasets” > “Any Date” > “Go.”

Non-public use data complete with intact personal identifiers such as Social Security numbers, names and addresses, are ordinarily essential when researchers need to merge data files at the individual level. Understandably, confidentiality issues make this information much more difficult to acquire.

- The Non-Public Use American Community Survey (NP-ACS) data are available only through arrangements with the Census Bureau and its Research Data Centers. For more information on how to access private Census data, visit the Bureau’s Center for Economic Studies website (www.ces.census.gov/index.php/ces/researchprogram).
- Confidential state administrative micro-data are largely available only through agreements with state officials. Formal agreements with state agencies are necessary to ensure data security and controlled data accessibility, understanding variable measurements, as well as the development of a process for sharing of research results prior to public dissemination. The non-summary child care subsidy data, Unemployment Insurance wage record data, and Temporary Assistance for Needy Families (TANF) data cited in this guidebook were all obtained through data-sharing agreements with the respective states.
SECTION II: SELECTING DATA

Study Population

Participation in the child care subsidy program affects the budget of an entire household and therefore influences the labor supply decisions of all its members. Taking this into account, the analyses in this guidebook - like those in the All Child Care Eligibles and TANF Child Care Eligibles studies - select families within a state, not individuals, as the unit of analysis. The TANF Child Care Eligibles study used a narrow base population of TANF recipients. In the All Child Care Eligibles study however, the population of reference is broadened and is composed of all families living within a state’s boundaries.

Those families considered part of the child care subsidy eligible sub-population will differ from state to state, depending on each state’s child care regulations. Based on Illinois policy, the example analyses presented in this guidebook broadly define them as families with at least:

1. one child under the age of 13, in which all parents living in the household are working (unless disabled) and the combined family income falls below 50 percent of the State Median Income (SMI); or
2. one adolescent parent who is still enrolled in school; or
3. one child under 13, in which parents age 21 or older receive Temporary Assistance to Needy Families benefits and either attend school or participate in training or a work-related activity;
4. one child under 13 with at least one parent who attends college and works 10 hours a week or more; or
5. one foster child under 13.

All other families, while still in the study population, are considered ineligible for participation in the child care subsidy program, and can therefore serve as a comparison or control group. For a more comprehensive discussion of how child care subsidy eligible families are defined using the American Community Survey, see Section III.
Data Sources

This guidebook presents examples of analyses based on publicly available data, as well as more in-depth example analyses based on non-public use data. The first set of example analyses presented in Section III utilize public use American Community Survey data (PUMS ACS) and publicly available state sample Child Care and Development Fund administrative data (ACF-801). These are presented for researchers not wishing to undertake the lengthy process of accessing private Census data or who have not entered into data-sharing agreements with their states. The second set of analyses, presented in Section IV, utilize three private state administrative databases for public benefits programs—child care subsidy, Unemployment Insurance wage records, and Temporary Assistance for Needy Families.

Data Validity

Internal Validity

Internal validity is an estimate of how much one can make causal inferences about relationships. An experimental design was not possible in either the TANF Child Care Eligibles or All Child Care Eligibles studies (e.g., eligible families were not randomly assigned to receive, or not receive the child care subsidy). The lack of random assignment can generate selection bias in the estimators of the program effect on employment when comparing the mean outcomes between recipients and non-recipients of state’s child care subsidy programs. Several strategies have been suggested to deal with the selection problem in observational data through induced randomization between the two groups by controlling for program participation (two steps methods) and differencing out observable and unobservable factors that lead to selection decisions (first difference estimators). Quasi-experimental methods such as using individuals in waiting lists as a control group have also been suggested. The methods suggested in the TANF Child Care Eligibles and All Child Care Eligibles studies do not address the subject of selection

bias. Instead, the underlying assumption for identification of the program effects is that the sub-
population of eligible families who did not take the subsidy is statistically the same as the
subpopulation of those who did. The extent to which child care subsidy recipients differ from
eligible non-recipients, and consequently the magnitude of the bias, is an empirical matter that
requires careful exploration in future studies.

The selection of time frame and observation of variables along time is also important to the issue
of internal validity. All of the administrative datasets used in the TANF Child Care Eligibles and
All Child Care Eligibles studies were configured to measure program participation in the
common time frames (quarterly, between 1997 and 1999 for TANF Child Care Eligibles and
quarterly, between 2000 and 2003 for All Child Care Eligibles). The same cannot be said for the
American Community Survey data, which use a series of monthly samples to produce estimates
for the year. In these projects, the rescaling of time intervals to fit duration variables into
quarters (because the UI wage reports are quarterly data) led to the use of “complementary log
log models” which, in duration data models, are suitable to deal with spells defined in terms of
discrete time intervals. At different moments of time some individuals will enter the child care
subsidy program, while some others will leave; individuals’ eligibility statuses will change; ages
of individuals will change; workforce attachment or education level may also change. The
selection of the time frame is guided, among other considerations, by the research question, the
data availability, and the stability of policies that are likely to affect the outcome of interest. Data
on durations (i.e., time remaining eligible without receipt of child care subsidy, time employed
for those who took the child care subsidy) were right censored if spells extend beyond the ending
point of the study, and left censored if spells had already started prior to the start of the study.

*External Validity*

The issue of external validity concerns the question of generalizability. To what extent can the
conclusions derived from a statistical evaluation be generalized to the larger population?
Because of its large sample size (since 2005 the American Community Survey has covered all
counties in the U.S.), the American Community Survey has produced population and housing
profiles for geographic areas with populations of 65,000 or more beginning with 2006 and, in
2008, three-year period estimates became available for areas of populations of 20,000 or more.
In 2010, five-year period estimates will be available for block groups, census tracts, small towns, and rural areas.\textsuperscript{5} However, because the eligibility variable applied to each family in the survey is derived from state-specific child care subsidy programming rules, results are generalizable to the examined state only.

SECTION III: ANALYZING PUBLIC USE DATA AND PRESENTING FINDINGS—individuals cannot be uniquely identified across data sets

1. What are the number and characteristics of families eligible for a child care subsidy? Using the PUMS American Community Survey data

Several descriptive analyses of the child care subsidy-eligible (and non-eligible) populations are possible with the public use files alone. As noted above, the Public Use Microdata Sample of the American Community Survey (PUMS ACS) is available for download from the Census Bureau website.\url{http://factfinder.census.gov/home/en/acs_pums_2001.html} in comma-delimited, PC SAS and UNIX SAS formats. Documentation available on the Census Bureau website includes the American Community Survey Questionnaire, Subject Definitions for the variables derived from survey items, and a Data Dictionary of codes corresponding to the variables.

Survey Questionnaire: \url{http://www.census.gov/acs/www/Downloads/SQuest.pdf}, or \url{http://www.census.gov/acs/www/SBasics/SQuest/SQuest1.htm}

Subject Definitions \url{http://www.census.gov/acs/www/Downloads/2002/usedata/Subject_Definitions.pdf}, or \url{http://www.census.gov/acs/www/UseData/Def.htm}


Using the PUMS American Community Survey data:
The American Community Survey collects socioeconomic and housing information on approximately three million households nationwide, on an annual basis. It allows researchers to examine national, state and local population trends. Of particular interest to child care subsidy researchers, the ACS allows for the enumeration of families and individuals eligible for child care subsidies in a given year, or over time.\footnote{http://factfinder.census.gov/home/en/acs_pums_2006.html}
The example analyses presented here are based on Illinois data for 2001 and 2005. Under Illinois policy in those years, families with children under 13 years old could be eligible for child care subsidies in Illinois based on their fulfillment of any one of the following categories:7 8

Category 1: Low-income, working parents
Category 2: Teen parents
Category 3: TANF parents
Category 4: Non-teen, Non-TANF parents, attending college and working, or in training/work activity
Category 5: Foster children

Category 1: Low-income, working parents

Low-income, working parents with children under age 13 are the primary beneficiaries of child care subsidies. Several elements are needed to identify this group including family size, family income, parental employment status, parental disability and age of children.

Family / Family Size: The Illinois Department of Human Services defines family as all individuals in a household related by blood or marriage. The American Community Survey collects data at the household and individual levels and defines a household as a person or group of people who occupy a housing unit as their usual place of residence. It is important to note that multiple child care subsidy-eligible families may reside in a single household. Therefore, researchers using the ACS must first uniquely identify each family unit themselves, and then count the number of individuals within that unit to determine its size.

All individuals are classified by their relationship to the householder (reference person)9 in the following 12 categories (REL)10:

7 Source: Illinois Department of Human Services Child Care Subsidy application documentation.
8 Researchers in other states should obtain the eligibility guidelines for the years of their study from their state lead Child Care and Development Fund agencies. Contact information for these agencies is available from the National Child Care Information and Technical Assistance Center website: http://www.nccic.org/statedata/dirs/display.cfm?title=ccdf.
<table>
<thead>
<tr>
<th>REL</th>
<th>Relationship</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>Reference person</td>
</tr>
<tr>
<td>01</td>
<td>Husband / wife</td>
</tr>
<tr>
<td>02</td>
<td>Son / daughter</td>
</tr>
<tr>
<td>03</td>
<td>Brother / sister</td>
</tr>
<tr>
<td>04</td>
<td>Father / mother</td>
</tr>
<tr>
<td>05</td>
<td>Grandchild</td>
</tr>
<tr>
<td>06</td>
<td>Inlaw</td>
</tr>
<tr>
<td>07</td>
<td>Other relative</td>
</tr>
<tr>
<td>08</td>
<td>Roomer / boarder</td>
</tr>
<tr>
<td>09</td>
<td>Housemate / roommate</td>
</tr>
<tr>
<td>10</td>
<td>Single partner</td>
</tr>
<tr>
<td>11</td>
<td>Foster child</td>
</tr>
<tr>
<td>12</td>
<td>Other nonrelative</td>
</tr>
<tr>
<td>bb</td>
<td>Not applicable (in group quarters)</td>
</tr>
</tbody>
</table>

Parents in primary families are simply identified as the householder and spouse (REL=00, 01). Their children are the sons or daughters of the household (REL=02).

The sub-families are identified by number, within each household (SFN=01, 02, 03, or 04). Individuals within these subfamilies are further classified by their relationships to one another (SFR):

<table>
<thead>
<tr>
<th>bb</th>
<th>Not applicable (in group quarters)</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Husband / wife no children</td>
</tr>
<tr>
<td>02</td>
<td>Husband / wife with children</td>
</tr>
<tr>
<td>03</td>
<td>Parent in parent / children subfamily</td>
</tr>
<tr>
<td>04</td>
<td>Child in a married-couple subfamily</td>
</tr>
<tr>
<td>05</td>
<td>Child in a mother-child subfamily</td>
</tr>
<tr>
<td>06</td>
<td>Child in a father-child subfamily</td>
</tr>
</tbody>
</table>

Suggested procedure to obtain family size:

1. *Count the number of parents in the family.* For each household’s primary family, the householder (REL=00) and his/her spouse (REL=01) should be counted as the parents in the family. Parents in household subfamilies (SFN=01, 02, 03, or 04) are then designated as the householder. In most cases, this is the person, or one of the people, in whose name the home is owned, being bought, or rented and who is listed on line one of the survey questionnaire. If there is no such person in the household, any adult household member 15 years old and over could be designated as the householder."


11 While the American Community Survey identifies up to four sub-families, the maximum number found in the 2001 PUMS Illinois dataset was two.
counted separately, identified as either a married couple with children (SFR=02) or a single parent with children (SFR=03).

2. **Count the number of children under age 13.** All children in the primary family are simply identified through their relationship as the son or daughter of the householder (REL=02). Children in subfamilies are explicitly identified as children of married couples (SFR=04), children of single mothers (SFR=05), or children of single fathers (SFR=06). This group, regardless of household family level, will be limited to those under age 13 (AGEP<13).

3. **Count the number of children 13 through 20 years old.** Again, all children in the primary family are simply identified through their relationship as the son or daughter of the householder (REL=02) and children in sub-families are explicitly identified as children of married couples (SFR=04), children of single mothers (SFR=05), or children of single fathers (SFR=06). In the primary families, this group will be limited to those ages 13 through 20 years old (AGEP>12 and AGEP<21). However, in subfamilies, this group runs from ages 13 through 17 because the ACS itself defined ‘children’ as under 18 years old.

4. **Count the number of other individuals related to the family head.** Again, other related individuals in the family are identified through their relationship as the sibling, parent, grandchild, in-law, or other, unspecified relative of the householder (REL=03, 04, 05, 06, or 07) respectively. In subfamilies, individuals outside of the nuclear unit (non-parent, non-child) are not identified.

5. Add steps 1 through 4 to obtain the family size.

**Family Income:** The Illinois Department of Human Services includes a number of financial resources when defining income for all individuals in a household and deducts any child support paid out from the income total of each individual in the household:
Gross wages or salary of all adult household members
Non-farm / Farm self employment
Social Security
Supplemental Security Income
Net rental income
Dividends, royalties, & interest
TANF payments
Retirement income
Pension and annuities
Veteran’s pensions
Unemployment compensation
Worker’s Compensation
Alimony
Child support (received)
Adoption assistance
Survivor’s benefits
Other income
Child Support (paid)
Total income

Questions about income in the past 12 months are asked of every household member, age 15 years or older, in the American Community Survey. The 8 income variables below can serve as a proxy for the income sources outlined in the Department of Human Services child care subsidy application.

<table>
<thead>
<tr>
<th>WAGP</th>
<th>Wages or salary</th>
</tr>
</thead>
<tbody>
<tr>
<td>SEMP</td>
<td>Self-employment</td>
</tr>
<tr>
<td>SSIP</td>
<td>Supplementary Security</td>
</tr>
<tr>
<td>SSP</td>
<td>Social Security</td>
</tr>
<tr>
<td>INTP</td>
<td>Interest, dividends, and net rental</td>
</tr>
<tr>
<td>RETP</td>
<td>Retirement</td>
</tr>
<tr>
<td>PAP</td>
<td>Public Assistance</td>
</tr>
<tr>
<td>OIP</td>
<td>All other income</td>
</tr>
</tbody>
</table>

Enter income thresholds for the appropriate year (e.g., if data represent calendar year 2001, enter the thresholds for 2001). In 2001 and 2005, Illinois limited child care eligibility to families with incomes below 50 percent of the state median income (SMI).\(^{12}\)

\(^{12}\) Note: Some states used other indicators (i.e. federal poverty threshold) in determining families’ child care subsidy eligibility. Also, limits as a percentage of these indicators may change over time.
Illinois monthly income limits by family sizes (50% of SMI)\textsuperscript{13}:

<table>
<thead>
<tr>
<th>Family Size</th>
<th>2001</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>$1,472</td>
<td>$1,960</td>
</tr>
<tr>
<td>3</td>
<td>$1,818</td>
<td>$2,421</td>
</tr>
<tr>
<td>4</td>
<td>$2,165</td>
<td>$2,882</td>
</tr>
<tr>
<td>5</td>
<td>$2,511</td>
<td>$3,344</td>
</tr>
<tr>
<td>6</td>
<td>$2,857</td>
<td>$3,805</td>
</tr>
<tr>
<td>7</td>
<td>$2,922</td>
<td>$3,891</td>
</tr>
<tr>
<td>8 or larger</td>
<td>$2,987</td>
<td>$3,978</td>
</tr>
</tbody>
</table>

Note, although the income totals cover the preceding 12 months, the composition of families and other individual-level characteristics refer to the time of the survey. Therefore, the family income excludes amounts received by individuals who were members of the family during all or part of the past 12 months, but no longer reside with the family at the time of the survey. Similarly, income amounts reported by individuals who did not reside with the family during the past 12 months, but who were members of the family at the time of enumeration are included. However, the composition of most families remains the same in the course of 12 months.\textsuperscript{14} Also, in determining child care subsidy eligibility, child support payments paid out by family members are usually subtracted from all income totals. This expense is not measured by the American Community Survey, therefore net income totals derived by the study may be inflated. As mentioned above, the data do not permit researchers to determine the potential eligibility of non-family heads. In that sense our measure of the number of eligible families is underestimated. Finally, the self-employment (SEMP) and the interest, dividends, and net rental (INTP) measures allow for negative values. Following research convention, the distribution of income was truncated at zero, i.e. restricted to positive values.

**Suggested procedure to determine family income:**

6. Simply add all income sources for each family member age 15 and older, as they are identified above. It can be assumed that the ‘other’ income (OIP) measure in the American Community Survey captures the same, or nearly the same information as the

\textsuperscript{13} Source: Illinois Department of Human Services, Family Income Ceilings

remaining income sources that are specified by the Illinois Department of Human Services when determining eligibility.\textsuperscript{15}

7. Divide the annual family income by 12 to compute monthly family income. 
8. Compare family size (Step 5) and monthly family income (Step 7) with the standard income limits.

Parental Employment and Disability: In Illinois, all parents present in the family must be employed for applicants to receive a child care subsidy. Exceptions are made when parents are disabled. In the PUMS American Community Survey, questions about employment are asked of all household members, age 15 years or older. The ACS has developed an employment status recode (ESR) variable to clearly evaluate each respondents’ current employment status. The ESR codes are:

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Civilian employed, at work</td>
</tr>
<tr>
<td>2</td>
<td>Civilian employed, with a job but not at work</td>
</tr>
<tr>
<td>3</td>
<td>Unemployed</td>
</tr>
<tr>
<td>4</td>
<td>Armed forces, at work</td>
</tr>
<tr>
<td>5</td>
<td>Armed forces, with a job but not at work</td>
</tr>
<tr>
<td>6</td>
<td>Not in labor force</td>
</tr>
</tbody>
</table>

The PUMS American Community Survey also asks questions about functional disability of all household members, age 5 years or older. Individuals are classified as disabled (DS=1) if they reported at least one of the following conditions, depending on their age group.

\textsuperscript{15} Other income sources included in the Illinois eligibility determination, but not specified by the American Community Survey are (1) Pension, Annuities, (2) Veteran’s pensions, (3) Unemployment Compensation, (4) Alimony, (5) Child Support, (6) Adoption assistance, (7) Survivor’s benefits
### Table

<table>
<thead>
<tr>
<th>5 though 15 years</th>
<th>16 though 64 years</th>
<th>65 years or older</th>
</tr>
</thead>
<tbody>
<tr>
<td>sensory limitations</td>
<td>sensory limitations</td>
<td>sensory limitations</td>
</tr>
<tr>
<td>physical limitations</td>
<td>physical limitations</td>
<td>physical limitations</td>
</tr>
<tr>
<td>limitation in cognitive functioning (i.e. mental disability)</td>
<td>limitation in cognitive functioning (i.e. mental disability)</td>
<td>limitation in cognitive functioning (i.e. mental disability)</td>
</tr>
<tr>
<td>self-care limitation</td>
<td>self-care limitation</td>
<td>self-care limitation</td>
</tr>
<tr>
<td></td>
<td>going-outside-home limitation</td>
<td>going-outside-home limitation</td>
</tr>
<tr>
<td></td>
<td>employment limitation</td>
<td></td>
</tr>
</tbody>
</table>

### Suggested procedure to determine employment eligibility with disabilities considered (WK_ELIG=1):

1. Determine if each parent present is employed (ESR=1, 2, 4, or 5).
2. If a parent is not employed (ESR=3 or 6), determine if s/he is disabled (DS=1)

### Suggested procedure to determine income and employment with disabilities eligibility (EMP_ELIG=1):

1. If (INCOME_ELIG=1) and (WK_ELIG=1), families are put in Category 1

---

**Category 2: Teen parents**

The Illinois Department of Human Services stipulates that parents who themselves are under the age of 21, not working, but enrolled in either high school or a GED program, are also potentially eligible for child care subsidies. The PUMS American Community Survey asked about current school enrollment of all individuals age 3 and older (SCH).
Unfortunately, the American Community Survey data do not permit researchers to identify individual enrollment in GED programs or the potential eligibility of non-family heads. Therefore, figures on the number of potentially eligible teen parents may be underestimated.

**Suggested procedure to determine teen parent eligibility (T_PARENTS=1):**

1. *Determine age of parents in the family.* For each household’s primary family, the householder (REL=0) and his/her spouse (REL=1) should be counted as the parents in the family. Parents in household subfamilies (SFN=1, 2, 3, or 4) are then counted separately, identified as either a married couple with children (SFR=2) or a single parent with children (SFR=3). Regardless of household family level, teen parents are partially identified by their age (AGEP<21).

2. *Determine parents’ employment status.* Regardless of household family level, eligible teen parents are partially identified by their lack of employment (ESR =3 or 6)

3. *Determine parents’ school enrollment status.* Regardless of household family level, eligible teen parents are partially identified by their school enrollment (SCH=2 or 3)

4. If (AGEP<21) and (ESR =3 or 6) and (SCH=2 or 3), families are put in Category 2.

**Category 3: Parents receiving Temporary Assistance for Needy Families (TANF)**

In Illinois, parents age 21 or older, who receive Temporary Assistance for Needy Families (TANF) benefits, and either attend school or participate in a training or work-related activity, are also eligible for the child care subsidy. Unfortunately, TANF recipients are not identified in the American Community Survey. Without significant assumptions, researchers are unable to determine the proportion of people who receive TANF using this data survey alone. Therefore, the child care subsidy eligible population may be slightly underestimated. As described in
Section IV, however, data from the non-public use ACS can be merged with TANF administrative files to best identify this category of potential subsidy recipients.

Category 4: Non-teen, Non-TANF parents, attending college and working, or in training/work activity
The Illinois Department of Human Services stipulates that parents age 21 or older who either attend college and work at least 10 hours a week; or participate in a training program / work-related activity are also potentially eligible for child care subsidies. The PUMS American Community Survey asks about current grade level of all individuals age 3 or older (SCHG).

<table>
<thead>
<tr>
<th>b</th>
<th>Not applicable (not attending school)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Nursery school / preschool</td>
</tr>
<tr>
<td>2</td>
<td>Kindergarten</td>
</tr>
<tr>
<td>3</td>
<td>Grade 1 to Grade 4</td>
</tr>
<tr>
<td>4</td>
<td>Grade 5 to Grade 8</td>
</tr>
<tr>
<td>5</td>
<td>Grade 9 to Grade 12</td>
</tr>
<tr>
<td>6</td>
<td>College undergraduate</td>
</tr>
<tr>
<td>7</td>
<td>Graduate or professional school</td>
</tr>
</tbody>
</table>

The American Community Survey also asks all individuals age 16 or older, about the number of hours they usually worked per week during the past 12 months (WKHP=1, 2, 3, etc.).

Unfortunately, the PUMS American Community Survey data do not permit researchers to identify individual enrollment in training programs or work-related activities. Nor, do they identify TANF recipients (and conversely, non-recipients) or determine the potential eligibility of non-family heads. Therefore, figures on the number of potentially eligible non-teen/non-TANF parents may be underestimated.

Suggested procedure to determine non-teen, non-TANF parent eligibility (NO_TETA=1):
1. Determine age of parents in the family. For each household’s primary family, the householder (REL=0) and his/her spouse (REL=1) should be counted as the parents in the family. Parents in household subfamilies (SFN=1, 2, 3, or 4) are then counted separately, identified as either a married couple with children (SFR=2) or a single parent with children (SFR=3). Regardless of household family level, non-teen, non-TANF parents are partially identified by their age (AGEP>=21).
2. *Determine parents’ current grade level.* Regardless of household family level, non-teen, non-TANF parents are partially identified by their enrollment in college (SCHG=6).

3. *Determine parents’ current level of employment.* Regardless of household family level, non-teen, non-TANF parents are partially identified by their level of employment (i.e. at least 10 hours per week (WKHP>=10)).

Suggested procedure to determine employment non-teen, non-TANF parent eligibility (NO_TETA=1):
4. If (AGEP>=21) and (SCHG=6) and (WKHP>=10), families are put in Category 4.

*Category 5: Foster children*

Finally, foster children are generally eligible to have their care paid for with a child care subsidy. As defined in the PUMS American Community Survey, foster children are nonrelatives of the householder, under age 18, who are placed by the local government in a household to receive parental care.\(^{16}\) If a child is placed by authorities with relatives for temporary or permanent guardianship, the child is classified in the ACS as that specific relative (See REL classification table above). Without ACS identification of relative foster children as foster children, their eligibility for a child care subsidy is contingent on qualification in one of the aforementioned four categories.

---

\(^{16}\) Source: American Community Survey / Puerto Rico Community Survey 2006 Subject Definitions (http://www.census.gov/acs/www/Downloads/2006/usedata/Subject_Definitions.pdf)
Suggested procedure to determine foster child eligibility (FOSTER=1):

1. *Determine relationship to family head (parents).* Foster children in households are always identified as part of the primary family and simply identified through their relationship to the householder (REL=11).

2. This group, regardless of household family level, will be limited to those foster children under age 13 (AGEP<13).

**Summary**

To recap, in Illinois, families with children under 13 years old may be eligible for child care subsidies in Illinois based on their fulfillment of any one of the outlined categories. Following all the procedures outlined above with PUMS American Community Survey data for 2001 and 2005, we estimate the number of child care subsidy eligible families in Illinois, as shown in Table 1, for each of the two years. Over 250,000 Illinois families were eligible for child care subsidies in 2001, and about 320,000 in 2005. Table 2 displays the characteristics of families eligible for a child care subsidy in 2001. Among them, 62 percent were headed by single parents; 50 percent were families with mothers with some college education or more; and 87 percent were families with mothers employed full- or part-time.

Table 1. Number of eligible families in Illinois using the PUMS American Community Survey (2001 and 2005)

<table>
<thead>
<tr>
<th>Number of eligible families</th>
<th>2001</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary family</td>
<td>207,321</td>
<td>253,049</td>
</tr>
<tr>
<td>Sub-family 1</td>
<td>43,536</td>
<td>45,513</td>
</tr>
<tr>
<td>Sub-family 2</td>
<td>1,743</td>
<td>1,422</td>
</tr>
<tr>
<td>Total</td>
<td>252,600</td>
<td>299,984</td>
</tr>
</tbody>
</table>
Table 2. Number and characteristics of families eligible for child care subsidy in Illinois (2001)

<table>
<thead>
<tr>
<th>Number of eligible families</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary family</td>
<td>207,321</td>
</tr>
<tr>
<td>Sub-family 1</td>
<td>43,536</td>
</tr>
<tr>
<td>Sub-family 2</td>
<td>1,743</td>
</tr>
<tr>
<td>Total</td>
<td>252,600</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Parents marital status</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Married</td>
<td>38%</td>
</tr>
<tr>
<td>Single</td>
<td>62%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Maternal education</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than high school</td>
<td>20%</td>
</tr>
<tr>
<td>High school</td>
<td>30%</td>
</tr>
<tr>
<td>Some college or more</td>
<td>50%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Maternal employment</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time, year-round</td>
<td>33%</td>
</tr>
<tr>
<td>Part-time or Part-year</td>
<td>54%</td>
</tr>
<tr>
<td>Not employed</td>
<td>13%</td>
</tr>
</tbody>
</table>

Sample Code

Appendices 1, 2, and 3 present sample STATA, SAS, and SPSS syntax, respectively, that follow the steps suggested above. While specific to the Illinois child care subsidy criteria, these programs are intended to be easily adapted to the criteria of other states.

2. What are the number and characteristics of families receiving a child care subsidy? Using the public Child Care and Development Fund administrative data (ACF-801)

Each state’s child care subsidy system records information on monthly benefit payments, some basic family characteristics, and the type of child care arrangements used by subsidized families. The information in these datasets relates specifically to the information that is needed to determine a family’s eligibility for child care assistance, and the appropriate payment to child care providers.
As indicated above, the Child Care and Development Fund state sample data (ACF-801) are widely available via the Research Connections website (http://www.researchconnections.org/discover/index.jsp). Search “ACF” > “Datasets” > “Any Date” > “Go.” State sample data can be downloaded for analysis or analyzed online. Documentation available through Research Connections includes a Codebook for each year’s data, with the ACF-801 form as an appendix. The ACF-801 form and instructions are also available on the website of the Administration for Children and Families: http://www.acf.dhhs.gov/programs/ccb/report/formhelp/acf801/overview.htm

Using the public Child Care and Development Fund administrative data (ACF-801)

There are five files per year in the ACF-801 sample dataset available on the Research Connections website: (1) summary, (2) family, (3) child, (4) setting, and (5) pooling factor. A statistically representative estimate of the number of families subsidized through the Child Care and Development Fund (CCDF) is obtained by simply applying the state-specific percentage of child care funds from CCDF used to subsidize families in the sample (found in the pooling factor file) to the aggregated sample number of families subsidized each month (found in the summary file). The example analyses in Table 3 are based on Illinois data for 2001. The pooling factor of 0.58 indicates that 58 percent of the child care subsidy funding for families included in ACF-801 reports that year came from CCDF funds, while 42 percent came from other funding sources.

---

17 ACF-801 state sample data are currently available on the Research Connections website for Federal Fiscal Years 2001 through 2005.

18 As explained in the codebook Child Care and Development Fund Administrative Data, Federal Fiscal Year, 2001(pages 11-12), ACF-801 reports may or may not include data on families and children whose care is funded through funding streams in addition to CCDF.
Table 3. Number of families receiving CCDF child care subsidies in Illinois, 2001

<table>
<thead>
<tr>
<th>Date</th>
<th>Total reported number of families served</th>
<th>State-specific pooling factor</th>
<th>Number of CCDF families served</th>
</tr>
</thead>
<tbody>
<tr>
<td>01-OCT-2000</td>
<td>91,117</td>
<td>0.58</td>
<td>52,848</td>
</tr>
<tr>
<td>01-NOV-2000</td>
<td>91,342</td>
<td>0.58</td>
<td>52,978</td>
</tr>
<tr>
<td>01-DEC-2000</td>
<td>89,741</td>
<td>0.58</td>
<td>52,050</td>
</tr>
<tr>
<td>01-JAN-2001</td>
<td>89,356</td>
<td>0.58</td>
<td>51,827</td>
</tr>
<tr>
<td>01-FEB-2001</td>
<td>89,935</td>
<td>0.58</td>
<td>52,162</td>
</tr>
<tr>
<td>01-MAR-2001</td>
<td>89,811</td>
<td>0.58</td>
<td>52,090</td>
</tr>
<tr>
<td>01-APR-2001</td>
<td>90,148</td>
<td>0.58</td>
<td>52,286</td>
</tr>
<tr>
<td>01-MAY-2001</td>
<td>90,915</td>
<td>0.58</td>
<td>52,731</td>
</tr>
<tr>
<td>01-JUN-2001</td>
<td>87,702</td>
<td>0.58</td>
<td>50,867</td>
</tr>
<tr>
<td>01-JUL-2001</td>
<td>85,928</td>
<td>0.58</td>
<td>49,838</td>
</tr>
<tr>
<td>01-AUG-2001</td>
<td>86,759</td>
<td>0.58</td>
<td>50,320</td>
</tr>
<tr>
<td>01-SEP-2001</td>
<td>86,839</td>
<td>0.58</td>
<td>50,367</td>
</tr>
</tbody>
</table>

AVERAGE MONTHLY CCDF SERVED 10-2000/9-2001 51,697

The family file provides data on family-level characteristics such as those that receive TANF as a source of income. The proportion of families receiving TANF assistance can then be multiplied by the number of families receiving child care subsidies in the state to obtain the number of families receiving both the subsidy and TANF benefits. So for example, as noted in Table 3, a monthly average of 51,697 families received a CCDF child care subsidy in Illinois in 2001. The family file data for the same year showed that 17.1 percent of families receiving a child care subsidy, also received TANF (8,849). This same procedure can be applied to estimate the magnitude of other basic characteristics of the child care utilizing population, such as the number and percent of families also receiving food stamps, housing assistance, or in single-parent households.

---

19 Note that percentages calculated directly from the family level data file are a reasonably accurate reflection of the state. Weights need not be applied. (Codebook page 17).
Table 4. Characteristics of families receiving CCDF child care subsidies in Illinois, 2001

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Percent of 51,697</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>TANF receipt (X1_TANF)</td>
<td>17.1%</td>
<td>8,849</td>
</tr>
<tr>
<td>food stamps receipt (X4_FOODS)</td>
<td>16.2%</td>
<td>8,370</td>
</tr>
<tr>
<td>housing assistance receipt (X3_HOUSI)</td>
<td>0.3%</td>
<td>146</td>
</tr>
<tr>
<td>headed by single-parent (X5_SINGL)</td>
<td>97.9%</td>
<td>50,219</td>
</tr>
<tr>
<td>headed by employed parent (X0_EMPLO)</td>
<td>93.0%</td>
<td>48,074</td>
</tr>
</tbody>
</table>

These data are also readily available through the *Research Connections* on-line Survey Documentation and Analysis (SDA).

http://www.researchconnections.org/Discover?displayPage=analyze.jsp

Simply run through the wizard:
Step 1: Select the dataset to be analyzed

Analyze Data Online

Many datasets available for download through Research Connections are also available for analysis online. This online analysis system allows you to run both simple and complex analyses, recode and compute new variables, and subset variables or cases for downloading. The software powering this system, named Survey Documentation and Analysis (SDA), was developed by the Computer-assisted Survey Methods Program (CSMP) at the University of California, Berkeley.

The following studies are available for online analysis:

- **Federal Fiscal Year 2001 (ICPSR 4273)**
- **Federal Fiscal Year 2002 (ICPSR 4302)**
- **Federal Fiscal Year 2003 (ICPSR 4542)**
- **Federal Fiscal Year 2004 (ICPSR 4929)**
- **Federal Fiscal Year 2005 (ICPSR 5180)**
- **National Health Interview Survey**
  - 1997 (ICPSR 2954)
  - 1998 (ICPSR 3107)
  - 1999 (ICPSR 3197)
  - 2000 (ICPSR 3301)
  - 2001 (ICPSR 3605)
  - 2002 (ICPSR 4176)
  - 2003 (ICPSR 4222)
  - 2004 (ICPSR 4349)
  - 2005 (ICPSR 4606)
- **Partnership Impact Research Project, 2001-2004: [United States] (ICPSR 4298)**

If you would like more information on SDA, please consult the SDA User’s Guide.
Step 2: Select the file to be analyzed

**Analyze & Subset--Study No. 4379**

ICPSR Study No.: 4379

Title: Child Care and Development Fund Administrative Data, Federal Fiscal Year 2001

Principal Investigator(s): United States Department of Health and Human Services, Administration for Children and Families; Administration on Children, Youth and Families, Child Care Bureau

Online Analysis Using SDA

The online analysis system allows you to run both simple and complex analyses, recode and compute new variables, and subset variables or cases for downloading. The software powering the system, named Survey Documentation and Analysis (SDA), was developed by the Computer-assisted Survey Methods Program (CSM) at the University of California, Berkeley.

Click on the link(s) below to begin using SDA:

- DS8: Child Care and Development Fund Administrative Data, Federal Fiscal Year 2001: Adjusted Child Data
- DS9: Child Care and Development Fund Administrative Data, Federal Fiscal Year 2001: Unadjusted Child Data
- DS10: Child Care and Development Fund Administrative Data, Federal Fiscal Year 2001: Adjusted Family Data
- DS11: Child Care and Development Fund Administrative Data, Federal Fiscal Year 2001: Unadjusted Family Data

If you’re having trouble with SDA utilities, you may wish to consult the online help files for SDA users provided by the Computer-assisted Survey Methods Program (CSM) at the University of California, Berkeley.
Step 3: Select the variables to be analyzed and run a table

SDA [Live classic interface]  Selected Study: Child Care and Development Fund Administrative Data, Federal Fiscal Year 2001, Adjusted Family Data

Variable Selection: Help
Selected: [ ] View
Copy to: Row ☐ Col ☐ Cell ☐ Filter ☐
Mode: ☐ Append ☐ Replace

SDA Frequencies/Crosstabulation Program
Help: General/Recoding Variables

REQUIRED Variable names to specify
Row: INSTANF

OPTIONAL Variable names to specify
Column: STATE
Control: [ ]
Selection Filter(s): [ ] Example: age(18-60)
Weight: [ ] A_FHWT - Annual Adjusted Weight for Families/Children Served

TABLE OPTIONS
Percentaging:
☐ Column ☐ Row ☐ Total with [ ] decimal(s)
☐ Confidence intervals Level [ ]% percent
☐ Standard error of each percent
☐ Statistics with [ ] decimal(s)
☐ Question text ☐ Suppress table
☐ Color coding ☐ Show Z-statistic
☐ Include missing-data values

CHART OPTIONS
Type of chart: Stacked Bar Chart [ ]
Bar chart options:
Orientation: ☐ Vertical ☐ Horizontal
Visual Effects: ☐ 2-D ☐ 3-D
Show Percentals: ☐ Yes
Palette: ☐ Color ☐ Grayscale
Size: width [ ] height [ ]

Run the Table Clear Fields
SECTION IV: ANALYZING NON-PUBLIC USE DATA AND PRESENTING FINDINGS—individuals can be uniquely identified across data sets

Non-public use administrative databases allow researchers to examine actual beneficiaries of child care subsidies, TANF, Unemployment Insurance, and other programs. Administrative data can be very detailed in the enumeration of a very narrow universe of individuals (i.e., TANF recipients in a particular area or state), and can be used to track behavior over time (i.e. families’ movement in and out of the TANF system). Unlike survey data, however, they often lack key information on individual attributes that fall outside of the interests of a specific program. For instance, a database of recipients administered by a state’s TANF agency will likely collect some basic information on each individual such as family income, race, gender, and employment level, but not on concurrent participation in the Food Stamp program, or insurance coverage.

Child Care Subsidy (CCS administrative data)

Administrative datasets are usually collected according to the source of the funding or by the type of payment arrangement that is made. In the area of child care subsidies, these tendencies introduce two complexities. Along with funding from the Child Care and Development Fund (CCDF), states can use many other sources to provide child care subsidies to low-income families. These may or may not be pooled with their CCDF funds. In addition, although federal law stipulates that states must use funding from the CCDF program to provide vouchers so that families have a choice of all legal child care arrangements in their community, states can also provide subsidies through contracts in which the state enters into an agreement with a child care provider for a specified number of slots. The data collected from contracted programs often are not comparable to those for the voucher programs, and frequently are not automated. For the All Child Care Eligibles study, the data include virtually all of the child care subsidy funding delivered through the voucher programs in the study states of Illinois, Maryland, and Texas. The administrative datasets used do not account for children receiving child care exclusively paid for

20 See discussion of state pooling factor in Section III.2 above.

through a state’s child care contracts system. The share of total subsidy assistance represented by the contracted programs, and thus the proportion of children and families excluded, varies by state. Approximately 20 percent of subsidy assistance in Illinois in 1997-1999 was through contracted programs, while none in Maryland or Texas was through contracts.

Relevant variables from the private child care subsidy administrative dataset are:

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>DESCRIPTION</th>
<th>USEFUL TO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spell Begin Date</td>
<td>Used to determine duration under the CCS program</td>
<td>Generate CCS spell variable</td>
</tr>
<tr>
<td>Spell End Date</td>
<td>Used to determine duration under the CCS program</td>
<td>Generate CCS spell variable</td>
</tr>
<tr>
<td>Provider Type</td>
<td>Identifies type of child care arrangement</td>
<td>Generate data on demand by CCS type</td>
</tr>
<tr>
<td>Recipient of CCS ID</td>
<td>Identifies the parent as the recipient of CCS</td>
<td>Gives primary information on who the beneficiary is. Also allows to link beneficiaries with their demographic characteristics</td>
</tr>
<tr>
<td>Child ID</td>
<td>Identifies which child in a family is related to the subsidy</td>
<td>Gives primary information on which children the beneficiary is related to. Also allows linking of beneficiaries with their demographic characteristics</td>
</tr>
</tbody>
</table>

**Unemployment Insurance (UI administrative data)**

Unemployment Insurance (UI) wage records consist of total quarterly earnings reported by employers for each employee. Any employer paying $1,500 in wages during a calendar quarter to one or more employees is subject to a state UI tax and must report the quarterly amount paid to each employee. The dataset contains information on each individual’s quarterly earnings, the Social Security numbers or employer ID of both employers and their employees, and employer addresses. In each state, there are longitudinal wage report data covering the entire state population.

Although the Unemployment Insurance administrative data have been most often used to track an individual’s employment status (Hotz & Scholz, 1999), the data can also be used to study patterns of employment in a particular industry. By linking the employer ID to the North American Industry Classification System (NAICS) industry code and employment size-class information, the data can be used to trace employee mobility among industries, duration of stay with a particular employer, patterns of average earnings for employees in a particular sector, and paths between industries.
Unlike the child care subsidy systems, the coverage of Unemployment Insurance wage record data differs very little among the states. A potential limitation of the data is that the coverage extends only to a state’s borders, so for instance, Maryland residents who work in Virginia or the District of Columbia appear in the respective UI wage record databases of those jurisdictions, not Maryland. Also, major types of employment that are not covered include federal government civilian and military personnel, U.S. Postal Service employees, railroad employees, employees of certain philanthropic and religious organizations, and independent contractors.

Relevant variables from the UI wage reports data are:

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>DESCRIPTION</th>
<th>USEFUL TO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wages</td>
<td>Quarterly data on wages received by employees. Provides the amount of quarterly earnings but no information on the number of hours worked.</td>
<td>Determine quarterly employment duration: time from the first quarter of wage records to the last quarter. If linked with TANF data (or other social program) they provide information on the number of quarters with UI wage reports during determined years before TANF entry.</td>
</tr>
<tr>
<td>Quarter and year</td>
<td>Data on quarters when the wages were received</td>
<td>Provides time frame information to form employment spell intervals</td>
</tr>
<tr>
<td>Employee ID</td>
<td>Identifies the wage earners</td>
<td>Link individual level records across datasets</td>
</tr>
<tr>
<td>Employer ID</td>
<td>Identification number of the employer</td>
<td>Determine changes in patterns of employment</td>
</tr>
</tbody>
</table>

**Temporary Assistance for Needy Families (TANF administrative data)**

The Temporary Assistance for Needy Families administrative dataset provides information on the demographic, income, and program-related characteristics of TANF program participants. TANF records are career histories for all families that have received TANF in a specified time frame. In some states, additional variables such as baseline income at the time of application from various sources are also reported.
Relevant variables from the TANF data are:

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>DESCRIPTION</th>
<th>USEFUL TO</th>
</tr>
</thead>
<tbody>
<tr>
<td>TANF recipient ID</td>
<td>Identifies the TANF recipient</td>
<td>Link individual level records across datasets</td>
</tr>
<tr>
<td>Mother’s birth date</td>
<td>Demographic characteristic</td>
<td>Discriminate population by age cohorts</td>
</tr>
<tr>
<td>Child’s age</td>
<td>Demographic characteristic</td>
<td>Discriminate population of recipients by age of children</td>
</tr>
<tr>
<td>Mother’s race</td>
<td>Demographic characteristic</td>
<td>Discriminate population by race</td>
</tr>
<tr>
<td>County</td>
<td>Demographic characteristic</td>
<td>Discriminate among rural and urban zones</td>
</tr>
<tr>
<td>Date of TANF entry</td>
<td>Date when received the first benefit</td>
<td>Produce TANF spells</td>
</tr>
<tr>
<td>Date of TANF exit</td>
<td>Date when received the last benefit</td>
<td>Produce TANF spells</td>
</tr>
</tbody>
</table>

Maintaining the confidentiality of these databases is key for any project. To ensure data security, inventory of confidential records should be taken when they are received, data tapes should be in a locked facility, and passwords maintained. Only authorized personnel should have access to the data and servers on which they are stored. Once the record linkage phase is complete, most identifying information (particularly the name and Social Security number) should be removed and placed on a separate file, accessible only to authorized personnel. When the database is ready for public use, access to data should conform to agency guidelines governing confidentiality and the ownership of data.

**Using data from linked non-public use administrative databases to understand TANF families participating in the child care subsidy program**

Clearly, linking data records across different private databases can greatly expand the possibilities for child care research, by drawing on the strengths of each contributing dataset. Doing this accurately is key to the success of any project. Because a single variable is not always available or verifiable to establish the identity of a client from the records of multiple sources, *probabilistic record matching* can be used to increase the likelihood of identifying a correct match. This methodology requires the use of multiple pieces of identifying information to calculate the probability that two or more records belong to the same client (Newcombe 1988; Winkler 1988; Jaro 1985, 1989). Once a match is determined, a unique number is assigned to the newly merged record. The end result is a new linked file, which contains the unique number assigned during matching, the client’s original identifying data and all of the identification
numbers assigned by administrative agencies. The *TANF Child Care Eligibles* study used the Social Security number, date of birth, gender, race-ethnicity, and address of residence as matching variables in this intermediate step.\(^{22}\) Once record matching is accomplished, a variety of descriptive and multivariate analyses can be applied to the data to address the research question.

After probabilistic record matching was applied to the TANF, child care subsidy, and Unemployment Insurance wage report administrative records, the *TANF Child Care Eligibles* study calculated a number of interesting statistics on the demographic patterns of mothers who began receiving TANF in the study states. Tables 5, 6, and 7 provide examples from Illinois between 1997 and 1999, based on a 20 percent random sample of TANF entrants.

### Table 5. Characteristics of mothers who received TANF in Illinois (1997-1999):

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of Mothers</td>
<td>12,631</td>
</tr>
<tr>
<td>Region</td>
<td></td>
</tr>
<tr>
<td>In Cook County</td>
<td>56.63%</td>
</tr>
<tr>
<td>In the rest of state</td>
<td>43.37%</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>34.96%</td>
</tr>
<tr>
<td>African American</td>
<td>54.71%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>10.33%</td>
</tr>
<tr>
<td>Average age of mother at the time of TANF entry</td>
<td>26.6 (SD=7.4)</td>
</tr>
<tr>
<td>Average number of children under age 13 at the time of TANF entry</td>
<td>1.8 (SD=1.1)</td>
</tr>
<tr>
<td>Average age of youngest child at the time of TANF entry</td>
<td>3.1 (SD=3.4)</td>
</tr>
</tbody>
</table>


1. **How many mothers in the TANF population are eligible to receive a child care subsidy? How many actually do?**

In addition, by restricting data on the TANF population in Illinois to those who were eligible through employment, the *TANF Child Care Eligibles* study determined that 55 percent of

\(^{22}\) As described above in the Introduction, the *All Child Care Eligibles* study used probabilistic matching conducted at the Census Bureau to assign a Protected Identity Key (PIK) to linked survey and administrative records.
mothers already receiving TANF were also eligible to receive a child care subsidy between 1997-1999. Perhaps more importantly, 35 percent of those who were eligible actually received a child care subsidy.

Table 6. Child care subsidy eligibility and take up among mothers who received TANF in Illinois (1997-1999):

<table>
<thead>
<tr>
<th></th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>12,631</td>
<td>100.0</td>
</tr>
<tr>
<td>Eligible for child care subsidy benefits (based on employment)</td>
<td>6,931</td>
<td>54.9</td>
</tr>
<tr>
<td>Eligible and receive child care subsidy</td>
<td>2,391</td>
<td>34.5</td>
</tr>
</tbody>
</table>


2. What kind of child care are TANF mothers who utilize child care subsidies using?

Table 7, below, shows the type of care arranged the first time that participants took the child care subsidy, by children’s age groups and race. This information is useful in characterizing the observed demand for different kinds of providers. Extensions of this analysis might include calculating the rate at which children change the types of care arrangement, or odds of selecting one type of arrangement over another as a function of parameters that are thought to affect the choice.

Table 7. First type of child care arrangement used after subsidy take up, among children in TANF families, in Illinois, by age and race/ethnicity (1997-1999)

<table>
<thead>
<tr>
<th>Age</th>
<th>Center %</th>
<th>Family %</th>
<th>Relative %</th>
<th>In-home % (Non-relative)</th>
<th>Total #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 1 year</td>
<td>14.41</td>
<td>24.46</td>
<td>38.56</td>
<td>22.57</td>
<td>1,582</td>
</tr>
<tr>
<td>1 to 2 years</td>
<td>23.87</td>
<td>20.68</td>
<td>34.65</td>
<td>20.80</td>
<td>1,567</td>
</tr>
<tr>
<td>3 years</td>
<td>26.21</td>
<td>13.17</td>
<td>36.42</td>
<td>24.19</td>
<td>744</td>
</tr>
<tr>
<td>4 to 5 years</td>
<td>21.13</td>
<td>16.74</td>
<td>33.67</td>
<td>28.45</td>
<td>1,093</td>
</tr>
<tr>
<td>6 years and older</td>
<td>10.13</td>
<td>11.52</td>
<td>40.80</td>
<td>37.56</td>
<td>1,728</td>
</tr>
<tr>
<td>Race / Ethnicity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>27.12</td>
<td>26.51</td>
<td>26.51</td>
<td>19.87</td>
<td>1,973</td>
</tr>
<tr>
<td>Black</td>
<td>14.35</td>
<td>14.78</td>
<td>40.52</td>
<td>30.35</td>
<td>4,363</td>
</tr>
<tr>
<td>Latino</td>
<td>11.11</td>
<td>6.08</td>
<td>54.50</td>
<td>28.31</td>
<td>378</td>
</tr>
<tr>
<td>All</td>
<td>17.92</td>
<td>17.74</td>
<td>37.19</td>
<td>27.15</td>
<td>6,714</td>
</tr>
</tbody>
</table>

3. What is the probability that eligible TANF recipients will take the child care subsidy within 3 years (12 quarters)?

Using non-parametric duration models to compute cumulative survival probability – the Kaplan Meier estimator, 25 percent of Illinois’ child care subsidy eligible TANF recipients (in the first cohort) received a child care subsidy within one year of eligibility; 31 percent received a subsidy within two years; and 33 percent received a child care subsidy within three years. Further analysis illustrates that 25 percent typically received the child care subsidy within 2 quarters (see Tables 8 and 9).


<table>
<thead>
<tr>
<th>Year became eligible</th>
<th># of Entries</th>
<th>Within 1 year</th>
<th>Within 2 year</th>
<th>Within 3 year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% Eligible</td>
<td>% Eligible Using subsidy</td>
<td>% Eligible Using subsidy</td>
<td>% Eligible Using subsidy</td>
</tr>
<tr>
<td>1997</td>
<td>5,802</td>
<td>39</td>
<td>25</td>
<td>59</td>
</tr>
<tr>
<td>1998</td>
<td>4,420</td>
<td>42</td>
<td>32</td>
<td>56</td>
</tr>
<tr>
<td>1999</td>
<td>2,409</td>
<td>27</td>
<td>38</td>
<td></td>
</tr>
</tbody>
</table>


Table 9. Time (in quarters) for 25 percent of eligible TANF recipients to begin child care subsidy utilization, 1997-1999

<table>
<thead>
<tr>
<th>Year eligible</th>
<th>Illinois</th>
<th>Cook County</th>
<th>Rest of State</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>2</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>1998</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>1999</td>
<td>1</td>
<td>1</td>
<td>1.5</td>
</tr>
<tr>
<td>Average ('97-'99)</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

Source: Child Care Subsidy Use and Employment Outcomes of TANF Mothers During the Early Years of Welfare Reform: A Three-State Study (Lee, et al, 2004). The time of reference of the TANF project was 1997-1999

4. What are the characteristics of those most likely to take the child care subsidy?

The research team was also interested in examining the effect of additional characteristics on the likelihood of taking up the subsidy. In complementary log-log models, the value of these variables can be easily interpreted as predicting child care subsidy utilization. So for instance, in Illinois, eligible mothers in Cook County were 14% less likely to utilize a child care subsidy than
counterparts in the rest of the state; blacks were 102 percent more likely, and Latinos were 24 percent less likely to utilize the child care subsidy than whites; and mothers with at least two children were more likely to utilize the child care subsidy than mothers with only one child (see Table 10).

Table 10. Marginal effect of covariates on the likelihood of beginning child care subsidy utilization, 1997-1999

<table>
<thead>
<tr>
<th>Variables</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year Eligible</td>
<td></td>
</tr>
<tr>
<td>1997</td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td>20**</td>
</tr>
<tr>
<td>1999</td>
<td>53**</td>
</tr>
<tr>
<td>Region</td>
<td></td>
</tr>
<tr>
<td>Rest</td>
<td></td>
</tr>
<tr>
<td>Cook</td>
<td>-14**</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td></td>
</tr>
<tr>
<td>White</td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>102**</td>
</tr>
<tr>
<td>Latino</td>
<td>-24**</td>
</tr>
<tr>
<td>Age</td>
<td></td>
</tr>
<tr>
<td>Under 20</td>
<td></td>
</tr>
<tr>
<td>20-24</td>
<td>11</td>
</tr>
<tr>
<td>25-34</td>
<td>9</td>
</tr>
<tr>
<td>35 and older</td>
<td>-12</td>
</tr>
<tr>
<td>Number of Children</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>17**</td>
</tr>
<tr>
<td>3 or more</td>
<td>21**</td>
</tr>
<tr>
<td>Age of Youngest Child</td>
<td></td>
</tr>
<tr>
<td>0-2</td>
<td></td>
</tr>
<tr>
<td>3-5</td>
<td>140**</td>
</tr>
<tr>
<td>6 and over</td>
<td>101**</td>
</tr>
<tr>
<td>Being on TANF</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>-7</td>
</tr>
<tr>
<td>Number of Quarters of Eligibility</td>
<td>-28**</td>
</tr>
</tbody>
</table>

*<0.05  **<0.001

Using data from linked, non-public use administrative databases to understand the effect of child care subsidy program participation on parental employment

This can also be addressed in the general framework of duration models. The outcome of interest is the duration of employment. Durations are characterized by a time scale, time origin, and time completion. In the UI wage reports, the time origin for the spells is the moment an individual becomes employed (i.e., the first quarter with wages reported); time completion is the moment when there is a change in employment status from employed to unemployed (i.e., whenever the UI wages reports changes for an individual from receiving wages to not receiving wages); and the time scale is in quarters, since three month intervals are the shortest time measures in which all the administrative data included in the TANF Child Care Eligibles study can be rescaled.

1. **What is the median duration of employment for those TANF mothers who used the subsidy within 2 quarters of eligibility?**

As seen in Table 11, again among Illinois TANF recipients who became eligible for child care subsidies in 1997, those who utilized it within six months, remained employed nearly 3 times longer than those that did not (8.5 quarters compared to 3 quarters). Similarly, among those who became eligible in the second cohort, mothers on TANF, assisted by child care subsidies had longer employment spells than those not using child care subsidy (6 quarters compared to 4 quarters). Furthermore, the effect of the child care subsidy on employment duration appears greater in Cook County, compared to the rest of the state, even though eligible mothers in Cook County were 14 percent less likely to take up the child care subsidy than their counterparts in the rest of the state (see Table 9, above).
Table 11. Median employment duration (in quarters) among the child care subsidy eligible, by child care subsidy take-up

<table>
<thead>
<tr>
<th>Year of First CCS Eligible</th>
<th>CCS Take-up within 2 Quarters from Eligibility</th>
<th>Cook County</th>
<th>Rest of State</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997 No</td>
<td></td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>1997 Yes</td>
<td></td>
<td>10</td>
<td>7</td>
<td>8.5</td>
</tr>
<tr>
<td>1997 Total</td>
<td></td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>1998 No</td>
<td></td>
<td>4</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>1998 Yes</td>
<td></td>
<td>7</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>1998 Total</td>
<td></td>
<td>5</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>1999 No</td>
<td></td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>1999 Yes</td>
<td></td>
<td>.</td>
<td>.</td>
<td>.</td>
</tr>
<tr>
<td>1999 Total</td>
<td></td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

Medians are calculated using Kaplan-Meier method

Source: Child Care Subsidy Use and Employment Outcomes of TANF Mothers During the Early Years of Welfare Reform: A Three-State Study (Lee, et al, 2004). The time of reference of the TANF project was 1997-1999

2. Among TANF recipients eligible for the child care subsidy, how does subsidy take-up affect the likelihood of employment ending?

As outlined in Table 12 below, Illinois TANF recipients who used a child care subsidy within 6 months of becoming eligible were 43 percent less likely to become unemployed than those who were eligible but did not take up the subsidy.
Table 12. Estimated percent changes in hazard of employment ending, among child care subsidy eligible (complimentary log-log models)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year Eligible</td>
<td></td>
</tr>
<tr>
<td>1997</td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td>-5</td>
</tr>
<tr>
<td>1999</td>
<td>1</td>
</tr>
<tr>
<td>Child care subsidy take up within 6 months of being eligible</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>-43**</td>
</tr>
<tr>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Region</td>
<td></td>
</tr>
<tr>
<td>Cook County</td>
<td>-7</td>
</tr>
<tr>
<td>Rest of the state</td>
<td></td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>9*</td>
</tr>
<tr>
<td>Black</td>
<td></td>
</tr>
<tr>
<td>Latino</td>
<td>-13*</td>
</tr>
<tr>
<td>Age</td>
<td></td>
</tr>
<tr>
<td>Under 20</td>
<td></td>
</tr>
<tr>
<td>20-24</td>
<td>-29</td>
</tr>
<tr>
<td>25-34</td>
<td>-38</td>
</tr>
<tr>
<td>35 and older</td>
<td>-40</td>
</tr>
<tr>
<td>Number of Children</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>18*</td>
</tr>
<tr>
<td>3 or more</td>
<td>27*</td>
</tr>
<tr>
<td>Age of Youngest Child</td>
<td></td>
</tr>
<tr>
<td>0-2</td>
<td>6</td>
</tr>
<tr>
<td>3-5</td>
<td>14*</td>
</tr>
<tr>
<td>6 and over</td>
<td></td>
</tr>
<tr>
<td>Number of Quarters of Eligibility</td>
<td>-19**</td>
</tr>
</tbody>
</table>

*<0.05  **<0.001

Based on Gompertz models

Source: Child Care Subsidy Use and Employment Outcomes of TANF Mothers During the Early Years of Welfare Reform: A Three-State Study (Lee, et al, 2004). The time of reference of the TANF project was 1997-1999
References


Appendix 1:  

**STATA SYNTAX TO COMPUTE FAMILY CHILD CARE SUBSIDY ELIGIBILITY FROM THE PUMS ACS DATA (2001)**

* In order to run this program you need to place the two files provided by the ACS public use data (population and housing level CVS files) in the same directory and change the location of the directories below.

* You also need to charge the values of the income thresholds to the state/year you are analyzing.

* This example has been prepared for Illinois 2001

* Includes the primary family as well as subfamilies as defined in the ACS manuals


* SURVEY:  http://www.census.gov/acs/www/Downloads/SQuest.pdf, or


* DATA DICTIONARY:  http://www.census.gov/acs/www/Downloads/DataDict.pdf, or

```
set memory 300m
set matsize 500
insheet using /develop/datadevlp/general_datatesting/Wladimir/ss01pil.csv
save /develop/datadevlp/general_datatesting/Wladimir/2001_p, replace

clear
insheet using /develop/datadevlp/general_datatesting/sample/ss01hil.csv
sort serialno
save /develop/datadevlp/general_datatesting/sample/2001_h, replace

clear
use /develop/datadevlp/general_datatesting/sample/2001_p.dta

********************************************************************************
* FAMILY SIZE
********************************************************************************

destring sfn sfr esr ds sch schg wkhp, replace

egen idnum= concat (serialno sporder)

* Create dummy variables for children under 13
gen oc_13=0
replace oc_13=1 if rel==2 & agep<13

* Create dummy variables for children under 21
gen oc_21=0
replace oc_21=1 if rel==2 & agep<21

* Create dummy variables for householder and spouse
gen h_holder=0
replace h_holder=1 if rel==0

gen spo_part=0
```
replace spo_part=1 if rel==1

* Create dummy variables for ‘children’ of householder who are 21 or older, who are not parents, who are not members of subfamilies
gen okids=0
replace okids=1 if rel==2 & agep>=21 & sfn==.

* Create dummy variables for other relatives in the household
gen other_rel=0
replace other_rel =1 if (rel==3|rel==4|rel==5|rel==6|rel==7)

* Generate variable counting the number of children under 13
* These values are repeated for each member of the same family
* (required as intermediate step)
egen n_13child=sum(oc_13), by (serialno)

* Generate variable counting the number of children under 21
* These values are repeated for each member of the same family
* (required as intermediate step)
egen n_21child=sum(oc_21), by (serialno)

* Generate variable counting the number of householders other children 21 and older, who are not parents and not in subfamilies.
* These values are repeated for each member of the same family (required as intermediate step)
egen n_okids=sum(okids), by (serialno)

* Generate variable counting the number of other relatives
* These values are repeated for each member of the same family
* (required as intermediate step)
egen n_other_rel=sum(other_rel), by (serialno)

* Generate variable counting the number of householders
* These values are repeated for each member of the same family
* (required as intermediate step)
egen n_h_holder=sum(h_holder), by (serialno)

* Generate variable counting the number of spouses
* These values are repeated for each member of the same family
* (required as intermediate step)
egen n_spo_part=sum(spo_part), by (serialno)

* Generate variable counting the number of parents.
* These values are repeated for each member of the same family
gen n_parents=n_h_holder+n_spo_part;

* Generate variable counting the number of family members.
* These values are repeated for each member of the same family
gen famsize= n_parents+n_21child+n_okids+n_other_rel

*******************************************************************************
* INCOME ELIGIBILITY                                                         *

*******************************************************************************
* Load thresholds for family size (2001)
gen fsize2=1472
gen fsize3=1818
gen fsize4=2165
gen fsize5=2511
gen fsize6=2857
gen fsize7=2922
gen fsize8=2987

* Restrict int (interest earned) and semp (self employment income)
* to positive values
  gen intp_pos=0
  replace intp_pos=intp if intp>=0
  gen semp_pos=0
  replace semp_pos=semp if semp>=0

* Determine family income
  gen income_h=intp_pos+semp_pos+oip+pap+retp+ssip+ssp+wagp if h_holder==1
  gen income_s=intp_pos+semp_pos+oip+pap+retp+ssip+ssp+wagp if spo_part==1
  gen income_ok=intp_pos+semp_pos+oip+pap+retp+ssip+ssp+wagp if okids==1
  gen income_o=intp_pos+semp_pos+oip+pap+retp+ssip+ssp+wagp if other_rel==1 & agep>=18

egen n_income_h=sum(income_h), by (serialno)
egen n_income_s=sum(income_s), by (serialno)
egen n_income_ok=sum(income_ok), by (serialno)
egen n_income_o=sum(income_o), by (serialno)

gen month_income=(n_income_h+n_income_s+ n_income_ok+n_income_o)/12

* Determine income family income eligibility
  gen income_elig=0
  replace income_elig=1 if (n_parents>0 & n_13child>0 ) & ((famsize==2 & month_income<=fsize2) & (famsize==3 & month_income<=fsize3) & (famsize==4 & month_income<=fsize4) & (famsize==5 & month_income<=fsize5) & (famsize==6 & month_income<=fsize6) & (famsize==7 & month_income<=fsize7) & (famsize==8 & month_income<=fsize8))

******************************************************************************
* EMPLOYMENT ELIGIBILITY  *
******************************************************************************
* Create a dummy variable (emp_elig) indicating whether only the householder *
* and/or spouse are/or employed
  gen h_h_emp=0
  replace h_h_emp=1 if (h_holder==1 & (esr==1|esr==2 |esr==4|esr==5))

gen h_s_emp=0
  replace h_s_emp=1 if (spo_part==1 & (esr==1|esr==2 |esr==4|esr==5))

gen emp_count = h_h_emp+h_s_emp

egen n_h_h_emp=sum(h_h_emp), by(serialno)
egen n_h_s_emp=sum(h_s_emp), by(serialno)
gen n_emp_count = n_h_h_emp + n_h_s_emp

* Account for disabled parents: disability definition has changed in the ACS.
* They discourage the use of the disability variable in analysis of data prior
* to 2003. However, we still make use of the DS variable here for illustrative
* purposes.

gen h_disab = 0
replace h_disa = 1 if (ds == 1 & h_holder == 1)
gen s_disab = 0
replace s_disab = 1 if (ds == 1 & spo_part == 1)
egen n_h_disab = sum(h_disab), by (serialno)
egen n_s_disab = sum(s_disab), by (serialno)
egen n_disab = n_h_disab + n_s_disab

* ELIBILITY, ACCOUNTING FOR DISABLED PARENTS.
gen emp_elig = 0
replace emp_elig = 1 if ((n_13child > 0 & (n_parents == 1 & n_disab == 1)) | (n_13child > 0 & (n_parents == 1 & n_emp_count == 1)) | (n_13child > 0 & (n_parents == 2 & n_emp_count == 2)) | (n_13child > 0 & (n_parents == 1 & n_h_disab == 1)) | (n_13child > 0 & (n_parents == 2 & n_s_disab == 1)))

****************************************************************
* ILLINOIS-DHS-CCS INCOME/FAMILY SIZE/EMPLOYMENT ELIGIBILITY
* NOTE: elig_prev must equal to 2
****************************************************************
gen elig_prev = income_elig + emp_elig

****************************************************************
* ILLINOIS-DHS-CCS TEEN PARENT ELIGIBILITY:
* with children under 13, less than 21 y/old + goes to school
****************************************************************
gen t_parent = 0
replace t_parent = 1 if (h_holder == 1 & n_13child > 0 & agep < 21 & (sch == 2 | sch == 3)) | (spo_part == 1 & n_13child > 0 & agep < 21 & (sch == 2 | sch == 3))
egen n_t_parent = sum(t_parent), by (serialno)

****************************************************************
* ILLINOIS-DHS-CCS NON-TEEN/NON-TANF RECIPIENT ELIGIBILITY:
* No teen/No TANF, go to college and work at least 10 hrs/wk
****************************************************************
gen no_teta = 0
replace no_teta=1 if (h_holder==1 & n_13child>0 & agep>=21 & schg==6 & wkhp>=10)(spo_part==1 & n_13child>0 & agep>=21 & schg==6 & wkhp>=10)
egen n_no_teta=sum(no_teta), by (serialno)

****************************************************************
* FOSTERCARE CHILDREN:
* identified in primary families only
****************************************************************
gen foster=0
replace foster=1 if rel==11 & agep<13
egen n_foster=sum(foster), by (serialno)

*************************************************************************
* ELIGIBILITY VARIABLE IN THE HOUSEHOLDER'S FAMILY
* (AT THE HOUSEHOLD LEVEL):
*************************************************************************
gen eligible=0
replace eligible=1 if elig_prev==2|n_t_parent>0|n_no_teta>0|n_foster>0

*************************************************************************
* SUBFAMILY 1
* creates a variable identifying subfamily 1 as eligible to receive
* the subsidy or not the methodology is the same as for the
* householder's subfamily
*************************************************************************
gen oc1_13=0
replace oc1_13=1 if (sfr==4|sfr==5|sfr==6) & sfn==1 & agep<13

gen oc1_18=0
replace oc1_18=1 if (sfr==4|sfr==5|sfr==6) & sfn==1 & agep<18
egen n_13child1=sum(oc1_13), by (serialno)
egen n18_child1=sum(oc1_18), by (serialno)

gen hus_wife1=0
replace hus_wife1=1 if sfn==1 & sfr==2
gen par_alone1=0
replace par_alone1=1 if sfn==1 & sfr==3
egen n_hus_wife1=sum(hus_wife1), by (serialno)
egen n_par_alone1=sum(par_alone1), by (serialno)
egen nParents1=n_hus_wife1+n_par_alone1
gen famsize1=nParents1+n18_child1
**
gen income_hw1=intp_pos+semp_pos+oip+pap+retp+ssip+ssp+wagp if hus_wife1==1

gen income_pa1=intp_pos+semp_pos+oip+pap+retp+ssip+ssp+wagp if par_alone1==1

gen month_income1=(n_income_hw1+n_income_pa1)/12

gen income_elig1=0
replace income_elig1=1 if (n_parents>0 & n_13child>0) & ((famsize==2 & month_income1<=fsize2)(famsize==3 & month_income1<=fsize3)(famsize==4 & month_income1<=fsize4)(famsize==5 & month_income1<=fsize5)(famsize==6 & month_income1<=fsize6)(famsize==7 & month_income1<=fsize7)(famsize==8 & month_income1<=fsize8))

gen hw_emp1=0
replace hw_emp1=1 if (hus_wife1==1 & (esr==1|esr==2 |esr==4|esr==5))

gen pa_emp1=0
replace pa_emp1=1 if (par_alone1==1 & (esr==1|esr==2 |esr==4|esr==5))

egen n_hw_emp1=sum(hw_emp1), by(serialno)
egen n_pa_emp1=sum(pa_emp1), by(serialno)

gen emp_count1 =hw_emp1+pa_emp1

gen n_emp_count1 =n_hw_emp1+n_pa_emp1

gen hw_disab1=0
replace hw_disab1=1 if (ds==1 & hus_wife1==1)

gen pa_disab1=0
replace pa_disab1=1 if (ds==1 & par_alone1==1)

egen n_hw_disab1=sum(hw_disab1), by(serialno)
egen n_pa_disab1=sum(pa_disab1), by(serialno)

gen n_disab1=n_hw_disab1+n_pa_disab1;

* ELIBILITY, ACCOUNTING FOR DISABLED PARENTS.
gen emp_elig1=0
replace emp_elig1=1 if ((n_13child1>0 & n_parents1==1 & n_emp_count1==1)(n_13child1>0 & n_parents1==1 & n_disab1==1)(n_13child1>0 & n_parents1==2 & n_emp_count1==2)(n_13child1>0 & n_parents1==2 & n_emp_count1==2|n_disab1==1))

gen elig_prev1=income_elig1+emp_elig1;

gen t_parent1=0
replace t_parent1=1 if (hus_wife1==2 & n_13child1>0 & age<21 & (sch==2|sch==3))(par_alone1==1 & n_13child1>0 & age<21 & (sch==2|sch==3))
egen n_t_parent1=sum(t_parent1), by (serialno)

gen no_teta1=0
replace no_teta1=1 if (hus_wife1==2 & n_13child1>0 & agep>=21 & schg==6 & wkhp>=10) | (par_alone1==1 & n_13child1>0 & agep>=21 & schg==6 & wkhp>=10)
egen n_no_teta1=sum(no_teta1), by (serialno)

*************************************************************************
* ELIGIBILITY VARIABLE IN THE SUB FAMILY 1
* (AT THE HOUSEHOLD LEVEL):
*************************************************************************
gen elig1=0
replace elig1=1 if elig_prev1==2|n_no_teta1>0|n_t_parent1>0

****************************************************************************
* SUBFAMILY 2
* CREATES A VARIABLE IDENTIFYING SUB FAMILY 2 AS ELIGIBLE TO RECEIVE
* THE SUBSIDY OR NOT THE METHODOLOGY IS THE SAME AS FOR THE
* HOUSEHOLDER'S SUBFAMILY
****************************************************************************
gen oc2_13=0
replace oc2_13=1 if (sfr==4 |sfr==5 |sfr==6) & sfn==2 & agep<13

gen oc2_18=0
replace oc2_18=1 if (sfr==4 |sfr==5 |sfr==6) & sfn==2 & agep<18
egen n_13child2=sum(oc2_13), by (serialno)
egen n18_child2=sum(oc2_18), by (serialno)

gen hus_wife2=0
replace hus_wife2=1 if sfn==2 & sfr==2

gen par_alone2=0
replace par_alone2=1 if sfn==2 & sfr==3
egen n_hus_wife2 =sum(hus_wife2), by (serialno)
egen n_par_alone2 =sum(par_alone2), by (serialno)
egen n_parents2=n_hus_wife2+n_par_alone2
gen famsize2= n_parents2+ n18_child2

geniecome_hw2= intend_pos+ semp_pos+ oip+pap+ retp+ ssip+ ssp+wagp if hus_wife2==1
gen income_pa2= intp_pos+ semp_pos+ oip+pap+ retp+ ssip+ ssp+wagp if par_alone2==1

egen n_income_hw2=sum(income_hw2), by (serialno)
egen n_income_pa2=sum(income_pa2), by (serialno)

gen month_income2=(n_income_hw2+n_income_pa2)/12

gen income_elig2=0
replace income_elig2=1 if (n_parents>0 & n_13child>0) & ((famsize==2 & month_income2<=fsize2)(famsize==3 & month_income2<=fsize3)(famsize==4 & month_income2<=fsize4)(famsize==5 & month_income2<=fsize5)(famsize==6 & month_income2<=fsize6)(famsize==7 & month_income2<=fsize7)

gen hw_emp2=0
replace hw_emp2=1 if (hus_wife2==1 & (esr==1|esr==2 |esr==4|esr==5))
gen pa_emp2=0
replace pa_emp2=1 if (par_alone2==1 & (esr==1|esr==2 |esr==4|esr==5))

egen n_hw_emp2=sum(hw_emp1), by(serialno)
egen n_pa_emp2=sum(pa_emp1), by(serialno)
gen emp_count2 =hw_emp2+pa_emp2
gen n_emp_count2 =n_hw_emp2+n_pa_emp2

gen hw_disab2=0
replace hw_disab2=1 if (ds==1 & hus_wife2==1)
gen pa_disab2=0
replace pa_disab2=1 if (ds==1 & par_alone2==1)

egen n_hw_disab2=sum(hw_disab2), by (serialno)
egen n_pa_disab2=sum(pa_disab2), by (serialno)
egen n_disab2=n_hw_disab2+n_pa_disab2;

* ELIBILITY, ACCOUNTING FOR DISABLED PARENTS.
gen emp_elig2=0
replace emp_elig2=1 if ((n_13child2>0 & n_parents2==1 & n_emp_count2==1)|( n_13child2>0 & n_parents2==1 & n_disab2==1)| (n_13child2>0 & n_parents2==2 & n_emp_count2==2)| (n_13child2>0 & n_parents2==2 & n_emp_count2==2 & n_disab2==1))

gen elig_prev2=income_elig2+emp_elig2

**
gen t_parent2=0
replace t_parent2=1 if (hus_wife2==2 & n_13child2>0 & age<21 & (sch==2 | sch==3)) & (par_alone2==1 & n_13child2>0 & age<21 & (sch==2 | sch==3))

egen n_t_parent2=sum(t_parent2), by (serialno)

**

gen no_teta2=0
replace no_teta2=1 if (hus_wife2==1 & n_13child2>0 & agep>=21 & schg==6 & wkhp>=10) | (par_alone2==1 & n_13child2>0 & agep>=21 & schg==6 & wkhp>=10)

egen n_no_teta2=sum(no_teta2), by (serialno)

*************************************************************************
* ELIGIBILITY VARIABLE IN THE SUB FAMILY 2
* (AT THE HOUSEHOLD LEVEL):
*************************************************************************
gen elig2=0
replace elig2=1 if elig_prev2==2 | n_no_teta2>0 | n_t_parent2>0

*************************************************************************
* FINAL STEP
*************************************************************************
* Counting the number of eligible families in the primary family+sub-family1+ sub-family2
* we need to collapse the data from the population level to the family level in order to assign
* housing level weights provided by the ACS.
collapse eligible eligible1 eligible2 if rel==0, by (serialno)
sort serialno
merge serialno using /develop/datadevlp/general_datatesting/Wladimir/2001_h.dta

*************************************************************************
* Number of eligible families in Illinois 2001
*************************************************************************

label variable elig "Child care subsidy eligible: primary family"
label variable elig1 "Child care subsidy eligible: sub-family 1"
label variable elig2 "Child care subsidy eligible: sub-family 2"

tab elig if elig==1 [weight=wgtp]
tab elig1 if elig1==1 [weight=wgtp]
tab elig2 if elig2==1 [weight=wgtp]

tab elig if elig==1
   tab elig1 if elig1==1
   tab elig2 if elig2==1

gen total=elig+elig1+elig2
Appendix 2: SAS SYNTAX TO COMPUTE FAMILY CHILD CARE SUBSIDY ELIGIBILITY FROM THE PUMS ACS DATA (2001)

* SURVEY:  http://www.census.gov/acs/www/Downloads/SQuest.pdf, or
* http://www.census.gov/acs/www/UseData/Def.htm;
* DATA DICTIONARY: http://www.census.gov/acs/www/Downloads/DataDict.pdf, or

libname ILCC 'd:\working documents\IL CC';
proc sort data='d:\working documents\IL CC\ACS 2001\h01IL' out=acs_hh; by serialno; run;
proc sort data='d:\working documents\IL CC\ACS 2001\p01IL' out=acs_prsn; by serialno; run;
data all01;
merge acs_prsn acs_hh;
by serialno;
*CREATE INDIVIDUAL IDENTIFICATION NUMBERS (BUILT FROM CONCATINATED STRING VARIABLES);
idnum=serialno||sporder;

*CODE THRESHOLDS FOR FAMILY SIZE (2001);
fsize2=1472;
fsize3=1818;
fsize4=2165;
fsize5=2511;
fsize6=2857;
fsize7=2922;
fsize8=2987;

* DETERMINE INCOME OF THE HOUSEHOLDER AND SPOUSE. RESTRICT 'INTP' (INTEREST EARNED) AND 'SEMP' (SELF EMPLOYED INCOME TO POSITIVE VALUES);
intp_pos=0;
if intp ge 0 then intp_pos=intp;
semp_pos=0;
if semp ge 0 then semp_pos=semp;
run;
proc sort data=all01;
by serialno;
run;
data temp1;
set all01;
if (sporder ge 1);
* CREATE DUMMY VARIABLES FOR CHILDREN UNDER 13;
oc_13=0;
if oc_13=0 and rel=2 and (agep lt 13 and agep ne .) and (sfr=" ") then oc_13=1;* own child;
* CREATE DUMMY VARIABLES FOR CHILDREN UNDER 21;
  oc_21=0;
  if oc_21=0 and rel=2 and (agep lt 21 and agep ne .) and (sfr=" ") then oc_21=1;
  *there are children of householders (under 21) who are parents in a parent/child subfamily.;
  *they are excluded here;

* CREATE DUMMY VARIABLES FOR OTHER RELATIVES;
  orel=0;
  if orel=0 and (rel in (3 4 5 6 7)) and (sfr=" ") then orel=1;
  okids=0;
  if okids=0 and rel=2 and (agep ge 21) and (sfr=" ") then okids=1;

* COUNT THE TOTAL NUMBER OF OBSERVATIONS OF KIDS UNDER 13 WITHIN EACH
  HOUSEHOLD ('SERIALNO'), AND ADD THAT TOTAL TO EACH OBSERVATION;
  proc summary data=temp1 nway;
    var oc_13;
    class serialno ;
    output out=x1a (drop=_type_ _freq_) sum=n13_child;
  run;
  proc sort data=x1a nodup;
    by serialno;
  run;
  proc sort data=temp1 nodup;
    by serialno;
  data new_1a;
    set x1a;
    by serialno;
  run;

* COUNT THE TOTAL NUMBER OF OBSERVATIONS OF KIDS UNDER 21 WITHIN
  EACH HOUSEHOLD ('SERIALNO'), AND ADD THAT TOTAL TO EACH OBSERVATION;
  proc summary data=temp1 nway;
    var oc_21;
    class serialno;
    output out=x1b (drop=_type_ _freq_) sum=n21_child;
  run;
  proc sort data=x1b nodup;
    by serialno;
  run;
  proc sort data=temp1 nodup;
    by serialno;
  data new_1b;
    set x1b;
    by serialno;
  run;

* COUNT THE TOTAL NUMBER OF OBSERVATIONS OF OTHER RELATIVES (OLDER CHILDREN
  OF HOUSEHOLDER, WHO ARE NOT PARENTS AND NOT IN SUBFAMILIES). ADD THAT TOTAL TO
  EACH OBSERVATION;
  proc summary data=temp1 nway;
    var okids;
    class serialno;
    output out=x1d (drop=_type_ _freq_) sum=n_okids;
  run;
* COUNT THE TOTAL NUMBER OF OBSERVATIONS OF OTHER RELATIVES WITHIN EACH HOUSEHOLD ('SERIALNO'), AND ADD THAT TOTAL TO EACH OBSERVATION;
  proc summary data=temp1 nway;
    var orel;
    class serialno;
    output out=x1c (drop=_type_ _freq_) sum=n_orel;
  run;
  proc sort data=x1c nodup;
    by serialno;
  run;
  proc sort data=temp1 nodup;
    by serialno;
  run;
  data new_1c;
    set x1c;
    by serialno;
  run;

data temp2;
merge temp1 new_1a new_1b new_1c new_1d;
by serialno;

* CREATE DUMMY VARIABLES FOR HOUSEHOLDER AND SPOUSE;
  h_holder=0;
  if rel=0 then h_holder=1;

  spo_part=0;
  if rel=1 then spo_part=1;

* COUNT THE TOTAL NUMBER OF OBSERVATIONS OF HOUSEHOLDERS WITHIN EACH HOUSEHOLD ('SERIALNO'), AND ADD THAT TOTAL TO EACH OBSERVATION;
  proc summary data=temp2 nway;
    var h_holder;
    class serialno;
    output out=x2a (drop=_type_ _freq_) sum=n_h_holder;
  run;
  proc sort data=x2a nodup;
    by serialno;
  run;
  proc sort data=temp2 nodup;
    by serialno;
  run;
  proc sort data=new_2a nodup;
    by serialno;
  data new_2a;
    set x2a;
    by serialno;
  run;
* COUNT THE TOTAL NUMBER OF OBSERVATIONS OF SPOUSES WITHIN EACH HOUSEHOLD ('SERIALNO'), AND ADD THAT TOTAL TO EACH OBSERVATION;

\[
\text{proc summary data=\text{temp2} nway;}
\text{var spo_part;}
\text{class serialno;}
\text{output out=x2b(drop=_type_ _freq_) sum=n_spo_part;}
\text{run;}
\]

\[
\text{proc sort data=x2b nodup;}
\text{by serialno;}
\text{run;}
\]

\[
\text{proc sort data=\text{temp2} nodup;}
\text{by serialno;}
\text{data new_2b;}
\text{set x2b;}
\text{by serialno;}
\text{run;}
\]

\[
\text{data temp3;}
\text{merge temp2 new_2a new_2b;}
\text{by serialno;}
\]

* GENERATE A VARIABLE EQUALS 1 IF THERE IS JUST A HOUSEHOLDER, AND TWO IF THERE IS A HOUSEHOLDER + SPOUSE. THESE VALUES ARE REPEATED FOR EACH MEMBER OF THE SAME FAMILY (REQUIRED AS AN INTERMEDIATE STEP);

\[
\text{n_parents=n_h_holder+n_spo_part;}
\]

***************;
* STEP 1: FAMILY SIZE ;
***************;
* GENERATE VARIABLE REPEATING THE NUMBER OF FAMILY MEMBERS FOR EACH OF THE FAMILY MEMBERS BASED ON OWN CHILDREN VARIABLE;
* REMINDER: THIS 'FAMSIZE' VARIABLE INCLUDES ALL HOUSEHOLDERS OWN CHILDREN WHO ARE NOT THEMSELVES PARENTS;

\[
\text{famsize= n_parents+n21_child+n_okids+n_orel;}
\]

***************;
* STEP 2: INCOME ELIGIBILITY ’;
***************;
income_h=0;
if h_holder=1 then income_h=intp_pos+s Kemp_pos+oip+pap+retp+ssip+ssp+wagp;

income_s=0;
if spo_part=1 then income_s=intp_pos+s Kemp_pos+oip+pap+retp+ssip+ssp+wagp;

income_ok=0;
if okids=1 and agep ge 21 then income_ok=intp_pos+s Kemp_pos+oip+pap+retp+ssip+ssp+wagp;

income_o=0;
if orel=1 and agep ge 18 then income_o=intp_pos+s Kemp_pos+oip+pap+retp+ssip+ssp+wagp;

* COUNT THE TOTAL INCOME FOR HOUSEHOLDER AND ADD THAT TOTAL TO EACH OBSERVATION IN EACH HOUSEHOLD;

\[
\text{proc summary data=\text{temp3} nway;}
\text{var income_h;}
\]
class serialno;
output out=x3a (drop=_type_ _freq_) sum=n_income_h;
run;
proc sort data=x3a nodup;
   by serialno;
run;
proc sort data=temp3 nodup;
   by serialno;
data new_3a;
   set x3a;
   by serialno;
run;

* COUNT THE TOTAL INCOME FOR SPOUSE AND ADD THAT TOTAL TO EACH OBSERVATION IN EACH HOUSEHOLD;
proc summary data=temp3 nway;
   var income_s;
   class serialno;
   output out=x3b (drop=_type_ _freq_) sum=n_income_s;
run;
proc sort data=x3b nodup;
   by serialno;
run;
proc sort data=temp3 nodup;
   by serialno;
data new_3b;
   set x3b;
   by serialno;
run;

* COUNT THE TOTAL INCOME FOR OLDER CHILDREN OF THE HOUSEHOLDER WHO ARE NOT PARENTS AND NOT MEMBERS OF SUBFAMILIES. ADD THAT TOTAL TO EACH OBSERVATION IN EACH HOUSEHOLD;
proc summary data=temp3 nway;
   var income_ok;
   class serialno;
   output out=x3d (drop=_type_ _freq_) sum=n_income_ok;
run;
proc sort data=x3d nodup;
   by serialno;
run;
proc sort data=temp3 nodup;
   by serialno;
data new_3d;
   set x3d;
   by serialno;
run;

* COUNT THE TOTAL INCOME FOR OTHER RELATIVES IN HH AND ADD THAT TOTAL TO EACH OBSERVATION IN EACH HOUSEHOLD;
proc summary data=temp3 nway;
   var income_o;
   class serialno;
   output out=x3c (drop=_type_ _freq_) sum=n_income_o;
run;
proc sort data=x3c nodup;
by serialno;
run;
proc sort data=temp3 nodup;
by serialno;
data new_3c;
set x3c;
by serialno;
run;
data temp4;
merge temp3 new_3a new_3b new_3c new_3d;
by serialno;

month_income=(n_income_h+n_income_s+n_income_ok+n_income_o)/12;

income_elig=0;
if (((n_parents gt 0) and (n13_child gt 0)) and
  ((famsize=2 and (month_income le fsize2)) or
   (famsize=3 and (month_income le fsize3)) or
   (famsize=4 and (month_income le fsize4)) or
   (famsize=5 and (month_income le fsize5)) or
   (famsize=6 and (month_income le fsize6)) or
   (famsize=7 and (month_income le fsize7)) or
   (famsize ge 8 and (month_income le fsize8)))
then income_elig=1;

******************************************************************************;
*STEP 3: EMPLOYMENT ELIGIBILITY     *
******************************************************************************;

* CREATE A DUMMY VARIABLE (EMP_ELIG) INDICATING WHETHER THE HOUSEHOLDER
  AND/OR SPOUSE ARE EMPLOYED;

h_h_emp=0;
if h_holder=1 and (esr in (1 2 4 5)) then h_h_emp=1;

h_s_emp=0;
if spo_part=1 and (esr in (1 2 4 5)) then h_s_emp=1;

* COUNT/IDENTIFY EMPLOYED HOUSEHOLDERS AND ADD THAT TOTAL TO EACH OBSERVATION
  IN EACH HOUSEHOLD:

proc summary data=temp4 nway;
  var h_h_emp;
  class serialno;
  output out=x4a (drop=_type__freq_) sum=n_h_h_emp;
run;
proc sort data=x4a nodup;
by serialno;
run;
proc sort data=temp4 nodup;
by serialno;
data new_4a;
set x4a;
by serialno;
run;
* COUNT/IDENTIFY EMPLOYED SPOUSE AND ADD THAT TOTAL TO EACH OBSERVATION IN EACH HOUSEHOLD;
  proc summary data=temp4 nway;
  var h_s_emp;
  class serialno;
  output out=x4b (drop=_type_ _freq_) sum=n_h_s_emp;
  run;
  proc sort data=x4b nodup;
  by serialno;
  run;
  proc sort data=temp4 nodup;
  by serialno;
  data new_4b;
  set x4b;
  by serialno;
  run;

data temp5;
merge temp4 new_4a new_4b;
by serialno;

emp_count=h_h_emp+h_s_emp;
 n_emp_count=n_h_h_emp+n_h_s_emp;

* ACCOUNT FOR DISABLED PARENTS;
* DISABILITY DEFINITION HAS CHANGED IN THE ACS. THEY RECOMMEND NOT USING THE DISABILITY VARIABLE IN ANALYSIS PRIOR TO 2003. HOWEVER, WE STILL MAKE USE OF THE 'DS' VARIABLE HERE FOR ILLUSTRATIVE PURPOSES;
  h_disab=0;
  if ds=1 and h_holder=1 then h_disab=1;

  s_disab=0;
  if ds=1 and spo_part=1 then s_disab=1;

* COUNT/IDENTIFY DISABLED HOUSEHOLDERS AND ADD THAT TOTAL TO EACH OBSERVATION IN EACH HOUSEHOLD;
  proc summary data=temp5 nway;
  var h_disab;
  class serialno;
  output out=x5a (drop=_type_ _freq_) sum=n_h_disab;
  run;
  proc sort data=x5a nodup;
  by serialno;
  run;
  proc sort data=temp5 nodup;
  by serialno;
  data new_5a;
  set x5a;
  by serialno;
  run;

* COUNT/IDENTIFY DISABLED SPOUSE AND ADD THAT TOTAL TO EACH OBSERVATION IN EACH HOUSEHOLD;
proc summary data=temp5 nway;
  var s_disab;
  class serialno;
  output out=x5b (drop=_type_ _freq_) sum=n_s_disab;
run;
proc sort data=x5b nodup;
  by serialno;
run;
proc sort data=temp5 nodup;
  by serialno;
data new_5b;
  set x5b;
  by serialno;
runtime;

data temp6;
merge temp5 new_5a new_5b;
by serialno;
n_disab=n_h_disab+n_s_disab;

* ELIGIBILITY, ACCOUNTING FOR DISABLED PARENTS;
emp_elig=0;
if (n13_child gt 0 and (n_parents=1 and n_disab=1)) then emp_elig=1;
if (n13_child gt 0 and (n_parents=1 and n_emp_count=1)) then emp_elig=1;
if (n13_child gt 0 and (n_parents=2 and n_emp_count=2)) then emp_elig=1;
if (n13_child gt 0 and (n_parents=2 and ((n_emp_count=1) and (n_h_disab=1))) then emp_elig=1;
if (n13_child gt 0 and (n_parents=2 and ((n_emp_count=1) and (n_s_disab=1))) then emp_elig=1;

**********************************************************************
* ILLINOIS DHS CCS INCOME / FAMILY SIZE / EMPLOYMENT ELIGIBILITY       
* NOTE: 'ELIG_PREV' MUST EQUAL 2                                     
**********************************************************************
elig_prev=income_elig+emp_elig;

**********************************************************************
* ILLINOIS DHS CCS TEEN PARENT ELIGIBILITY                             
* WITH CHILDREN UNDER 13, LESS THAN 21 Y/OLD + GOES TO SCHOOL          
**********************************************************************
t_parent=0;
if (h_holder=1 and (n13_child gt 0) and (agep lt 21 and agep ne .) and sch in (2 3)) or
  (spo_part=1 and (n13_child gt 0) and (agep lt 21 and agep ne .) and sch in (2 3))
then t_parent=1;

* COUNT THE TOTAL NUMBER OF CC SUBSIDY ELIGIBLE TEEN PARENTS, AND ADD THAT TOTAL TO EACH OBSERVATION IN THE HOUSEHOLD;
proc summary data=temp6 nway;
  var t_parent;
  class serialno;
  output out=x6a (drop=_type_ _freq_) sum=n_t_parent;
runtime;
proc sort data=x6a nodup;
  by serialno;
run;
proc sort data=temp6 nodup;
  by serialno;
data new_6a;
set x6a;
  by serialno;
run;
data temp7;
merge temp6 new_6a;
by serialno;

**********************************************************************
* ILLINOIS DHS CCS NON-TEEN / NON-TANF RECIPIENT ELIGIBILITY          
* NO TEEN / NO TANF, GO TO COLLEGE AND WORK AT LEAST 10 HRS/WK   
**********************************************************************;
no_teta=0;
if (h_holder=1 and (n13_child gt 0) and (agep ge 21) and (schg=6) and wkhp ge 10) or
  (spo_part=1 and (n13_child gt 0) and (agep ge 21) and (schg=6) and wkhp ge 10)
then no_teta=1;

* COUNT THE TOTAL NUMBER OF NON-TEEN/NON-TANF, CC SUBSIDY ELIGIBLE PARENTS, AND
ADD THAT TOTAL TO EACH OBSERVATION IN THE HOUSEHOLD;
proc summary data=temp7 nway;
  var no_teta;
  class serialno;
  output out=x7a (drop=_type_ _freq_) sum=n_no_teta;
run;
proc sort data=x7a nodup;
  by serialno;
run;
proc sort data=temp7 nodup;
  by serialno;
data new_7a;
set x7a;
  by serialno;
run;
data temp8;
merge temp7 new_7a;
by serialno;

********************************************************************
* FOSTER CARE CHILDREN - ONLY IDENTIFIED IN PRIMARY FAMILIES    
********************************************************************;
foster=0;
if foster=0 and rel=11 and (agep lt 13) and (sfr=" ") then foster=1;*foster child;
* COUNT THE TOTAL NUMBER OF OBSERVATIONS OF FOSTER CHILDREN WITHIN EACH HOUSEHOLD ('SERIALNO'), AND ADD THAT TOTAL TO EACH OBSERVATION;
  proc summary data=temp8 nway;
    var foster;
    class serialno;
    output out=x8a (drop=_type_ _freq_) sum=n_fost;
  run;
  proc sort data=x8a nodup;
    by serialno;
  run;
  proc sort data=temp8 nodup;
    by serialno;
  data new_8a;
    set x8a;
    by serialno;
  run;

data temp9;
merge temp8 new_8a;
by serialno;
******************************************************************************;
******************************************************************************;
* ELIGIBILITY VARIABLE IN THE HOUSEHOLDER'S FAMILY (AT HOUSEHOLD LEVEL)  ;
*    * ILLINOIS DHS CCS INCOME / FAMILY SIZE / EMPLOYMENT ELIGIBILITY ;
*    * CC SUBSIDY ELIGIBLE, TEEN PARENTS ;
*    * NON-TEEN/NON-TANF, CC SUBSIDY ELIGIBLE PARENTS 
*    * FOSTER CARE CHILDREN
******************************************************************************;
******************************************************************************;
elig=0;
if (elig_prev=2) or (n_t_parent gt 0) or (n_no_teta gt 0) or (n_fost gt 0) then elig=1;
run;

data temp81;
set temp9;
by serialno;
if first.serialno then output; *output only the first obs for each household;
run;
proc sort data=temp81;
by idnum;
run;

data temp21;
set all01;
if sfn=1; *subfamily 1;
*******************;
* FAMILY SIZE  ;

59
### SUBFAMILY 1

* CREATES A VARIABLE IDENTIFYING SUBFAMILY 1 AS ELIGIBLE TO RECEIVE THE SUBSIDY OR NOT. THE METHODOLOGY IS THE SAME AS FOR THE HOUSEHOLDER'S FAMILY (PRIMARY FAMILY) ;

```sas
oc1_13=0;
if oc1_13=0 and sfr in (4 5 6) and (agep lt 13 and agep ne .) then oc1_13=1;

oc1_18=0;
if oc1_18=0 and sfr in (4 5 6) and (agep lt 18 and agep ne .) then oc1_18=1;
```

* COUNT THE TOTAL NUMBER OF OBSERVATIONS OF KIDS UNDER 13 WITHIN SUBFAMILY 1 IN EACH HOUSEHOLD ('SERIALNO'), AND ADD THAT TOTAL TO EACH OBSERVATION;

```sas
proc summary data=temp21 nway;
var oc1_13;
class serialno;
output out=x21a (drop=_type_ _freq_) sum=n13_child1;
run;
proc sort data=x21a nodup;
by serialno;
run;
proc sort data=temp21 nodup;
by serialno;
data new_21a;
set x21a;
by serialno;
run;
```

* COUNT THE TOTAL NUMBER OF OBSERVATIONS OF KIDS UNDER 18 WITHIN SUBFAMILY 1 IN EACH HOUSEHOLD ('SERIALNO'), AND ADD THAT TOTAL TO EACH OBSERVATION;

```sas
proc summary data=temp21 nway;
var oc1_18;
class serialno;
output out=x21b (drop=_type_ _freq_) sum=n18_child1;
run;
proc sort data=x21b nodup;
by serialno;
run;
proc sort data=temp21 nodup;
by serialno;
data new_21b;
set x21b;
by serialno;
run;
```

```sas
data temp22;
merge temp21 new_21a new_21b;
by serialno;
```

* CREATE DUMMY VARIABLES FOR TWO-PARENT, SUBFAMILIES[1] AND SINGLE PARENT SUBFAMILIES[1];

```sas
hus_wife1=0;
```
if sfr=2 and sfn=1 then hus_wife1=1;* HUSBAND/WIFE WITH CHILDREN SUBFAMILY 1;
par_alone1=0;
if sfr=3 and sfn=1 then par_alone1=1;* SINGLE PARENT WITH CHILDREN SUBFAMILY 1;
* INCLUDES SMALL NUMBER OF MARRIED, WITH SPOUSE ABSENT;

* COUNT THE TOTAL NUMBER OF TWO PARENT, NON-HOUSEHOLDERS WITHIN SUBFAMILY 1 IN EACH HOUSEHOLD, AND ADD THAT TOTAL TO EACH OBSERVATION;
proc summary data=temp22 nway;
var hus_wife1;
class serialno;
output out=x22a (drop=_type_ _freq_) sum=n_hus_wife1;
run;
proc sort data=x22a nodup;
by serialno;
run;
proc sort data=temp22 nodup;
by serialno;
data new_22a;
set x22a;
by serialno;
run;

* COUNT THE TOTAL NUMBER OF SINGLE PARENT, NON-HOUSEHOLDERS WITHIN SUBFAMILY 1 IN EACH HOUSEHOLD, AND ADD THAT TOTAL TO EACH OBSERVATION;
proc summary data=temp22 nway;
var par_alone1;
class serialno;
output out=x22b (drop=_type_ _freq_) sum=n_par_alone1;
run;
proc sort data=x22b nodup;
by serialno;
run;
proc sort data=temp22 nodup;
by serialno;
data new_22b;
set x22b;
by serialno;
run;

data temp23b;
merge temp22 new_22a new_22b;
by serialno;
if n_hus_wife1=. then n_hus_wife1=0;
if n_par_alone1=. then n_par_alone1=0;
if n13_child1=. then n13_child1=0;
if n18_child1=. then n18_child1=0;
run;

data temp23;
merge temp23b;
by serialno;
* GENERATE A VARIABLE EQUALS 2 IF THERE IS A TWO PARENT, NON-HOUSEHOLDER, AND 1 IF THERE IS A SINGLE PARENT, NON-HOUSEHOLDER. THESE VALUES ARE REPEATED FOR EACH MEMBER OF THE SAME FAMILY (REQUIRED AS AN INTERMEDIATE STEP);
\[ n_{parents1}=n_{hus_wife1}+n_{par_alone1}; \]

******************************;
* STEP1: FAMILY SIZE ;
******************************;
* GENERATE VARIABLE REPEATING THE NUMBER OF FAMILY MEMBERS (PARENTS AND CHILDREN UNDER AGE 18) FOR EACH SUBFAMILY;
\[ famsize1=n_{parents1}+n_{18_child1}; \]

******************************;
* STEP 2: INCOME ELIGIBILITY ;
******************************;
income_{hw1}=0;
if hus_{wife1}=1 then income_{hw1}=intp_pos+s semp_pos+oip+pap+retp+ssip+ssp+wagp;

income_{pa1}=0;
if par_{alone1}=1 then income_{pa1}=intp_pos+s semp_pos+oip+pap+retp+ssip+ssp+wagp;

* COUNT THE TOTAL INCOME FOR TWO PARENT, NON-HOUSEHOLDERS SUBFAMILY 1 AND ADD THAT TOTAL TO EACH OBSERVATION IN EACH HOUSEHOLD;
proc summary data=temp23 nway;
  var income_{hw1};
  class serialno;
  output out=x23a (drop=_type_ _freq_) sum=n_{income_{hw1}};
run;
proc sort data=x23a nodup;
  by serialno;
run;
proc sort data=temp23 nodup;
  by serialno;
data new_23a;
set x23a;
  by serialno;
run;

* COUNT THE TOTAL INCOME FOR SINGLE PARENT, NON-HOUSEHOLDERS SUBFAMILY 1 AND ADD THAT TOTAL TO EACH OBSERVATION IN EACH HOUSEHOLD;
proc summary data=temp23 nway;
  var income_{pa1};
  class serialno;
  output out=x23b (drop=_type_ _freq_) sum=n_{income_{pa1}};
run;
proc sort data=x23b nodup;
  by serialno;
run;
proc sort data=temp23 nodup;
  by serialno;
data new_23b;
set x23b;
by serialno;
run;

data temp24;
merge temp23 new_23a new_23b;
by serialno;

month_income1=(n_income_hw1+n_income_pa1)/12;
income_elig1=0;
if (((n_parents1 gt 0) and (n13_child1 gt 0)) and
    ((famsize1=2 and (month_income1 le fsize2)) or
     (famsize1=3 and (month_income1 le fsize3)) or
     (famsize1=4 and (month_income1 le fsize4)) or
     (famsize1=5 and (month_income1 le fsize5)) or
     (famsize1=6 and (month_income1 le fsize6)) or
     (famsize1=7 and (month_income1 le fsize7)) or
     (famsize1 ge 8 and (month_income1 le fsize8)))
then income_elig1=1;

******************************************************************************;
*STEP 3: EMPLOYMENT ELIGIBILITY ;
*******************************************************************************;
* CREATE A DUMMY VARIABLE (EMP_ELIG1) INDICATING WHETHER ONE OF THE NON-
HOUSEHOLDER PARENTS WORKS OR SINGLE PARENT WORKS;
hw_emp1=0;
if hus_wife1=1 and (esr in (1 2 4 5)) then hw_emp1=1;

pa_emp1=0;
if par_alone1=1 and (esr in (1 2 4 5)) then pa_emp1=1;

* COUNT/IDENTIFY EMPLOYED TWO-PARENT, NONHOUSEHOLDERS AND ADD THAT TOTAL TO
EACH OBSERVATION IN EACH HOUSEHOLD;
   proc summary data=temp24 nway;
   var hw_emp1;
   class serialno;
   output out=x24a (drop=_type_ _freq_) sum=n_hw_emp1;
   run;
   proc sort data=x24a nodup;
   by serialno;
   run;
   proc sort data=temp24 nodup;
   by serialno;
   data new_24a;
   set x24a;
   by serialno;
   run;

* COUNT/IDENTIFY EMPLOYED SINGLE PARENT, NONHOUSEHOLDERS AND ADD THAT TOTAL TO
EACH OBSERVATION IN EACH HOUSEHOLD;
   proc summary data=temp24 nway;
   var pa_emp1;
class serialno;
   output out=x24b (drop=_type_ _freq_) sum=n_pa_emp1;
run;
proc sort data=x24b nodup;
   by serialno;
run;
proc sort data=temp24 nodup;
   by serialno;
data new_24b;
   set x24b;
   by serialno;
run;
data temp25;
merge temp24 new_24a new_24b;
by serialno;
emp_count1=hw_emp1+pa_emp1;
n_emp_count1=n_hw_emp1+n_pa_emp1;

* ACCOUNT FOR DISABLED PARENTS;
* DISABILITY DEFINITION HAS CHANGED IN THE ACS. THEY RECOMMEND NOT USING THE
DISABILITY VARIABLE IN ANALYSIS PRIOR TO 2003. HOWEVER, WE STILL MAKE USE OF THE
'DS' VARIABLE HERE FOR ILLUSTRATIVE PURPOSES;
hw_disab1=0;
if ds=1 and hus_wife1=1 then hw_disab1=1;

pa_disab1=0;
if ds=1 and par_alone1=1 then pa_disab1=1;

* COUNT/IDENTIFY DISABLED TWO-PARENT, NON-HOUSEHOLDERS AND ADD THAT TOTAL TO
EACH OBSERVATION IN EACH HOUSEHOLD;
   proc summary data=temp25 nway;
      var hw_disab1;
      class serialno;
      output out=x25a (drop=_type_ _freq_) sum=n_hw_disab1;
      run;
   proc sort data=x25a nodup;
      by serialno;
      run;
   proc sort data=temp25 nodup;
      by serialno;
data new_25a;
      set x25a;
      by serialno;
      run;

* COUNT/IDENTIFY DISABLED SINGLE PARENT, NON-HOUSEHOLDERS AND ADD THAT TOTAL TO
EACH OBSERVATION IN EACH HOUSEHOLD;
   proc summary data=temp25 nway;
      var pa_disab1;
      class serialno;
      output out=x25b (drop=_type_ _freq_) sum=n_pa_disab1;
run;
proc sort data=x25b nodup;
  by serialno;
run;
proc sort data=temp25 nodup;
  by serialno;
data new_25b;
set x25b;
  by serialno;
run;
data temp26;
merge temp25 new_25a new_25b;
  by serialno;
  n_disab1=n_hw_disab1+n_pa_disab1;

* ELIGIBILITY, ACCOUNTING FOR DISABLED PARENTS;
emp_elig1=0;
  if (n13_child1 gt 0) and (n_parents1=1 and n_emp_count1=1) then emp_elig1=1;
  if (n13_child1 gt 0) and (n_parents1=1 and n_disab1=1) then emp_elig1=1;
  if (n13_child1 gt 0) and (n_parents1=2 and n_emp_count1=2) then emp_elig1=1;
  if (n13_child1 gt 0) and (n_parents1=2 and ((n_emp_count1 ge 1) or (n_disab1 ge 1))) then emp_elig1=1;

***********************************************************************;
* ILLINOIS DHS CCS INCOME / FAMILY SIZE / EMPLOYMENT ELIGIBILITY    *
* SUBFAMILY 1                                               ;
* NOTE: 'ELIG_PREV1' SHOULD BE EQUAL TO 2                    ;
***********************************************************************;
elig_prev1=income_elig1+emp_elig1;

***********************************************************************;
* ILLINOIS DHS CCS TEEN PARENT (SUBFAMILY 1) ELIGIBILITY        *
* WITH CHILDREN UNDER 13, LESS THAN 21 Y/OLD + GOES TO SCHOOL  *
***********************************************************************;
t_parent1=0;
  if (hus_wife1=1 and (n13_child1 gt 0) and (agep lt 21 and agep ne .) and sch in (2 3)) or
    (par_alone1=1 and (n13_child1 gt 0) and (agep lt 21 and agep ne .) and sch in (2 3))
then t_parent1=1;

* COUNT THE TOTAL NUMBER OF CC SUBSIDY ELIGIBLE TEEN PARENTS IN SUBFAMILY1, AND
ADD THAT TOTAL TO EACH OBSERVATION IN THE HOUSEHOLD;
proc summary data=temp26 nway;
  var t_parent1;
  class serialno;
  output out=x26a (drop=_type_ _freq_) sum=n_t_parent1;
run;
proc sort data=x26a nodup;
  by serialno;
run;
proc sort data=temp26 nodup;
by serialno;
data new_26a;
set x26a;
by serialno;
run;
data temp27;
merge temp26 new_26a;
by serialno;

*************************************************************************************;
* ILLINOIS DHS CCS NON-TEEN / NON-TANF RECIPIENT ELIGIBILITY ;
* NO TEEN / NO TANF (SUBFAMILY 1), GO TO COLLEGE AND WORK AT LEAST 10 HRS/WK ;
*************************************************************************************;
n_o_teta1=0;
if (hus_wife1=1 and (n13_child1 gt 0) and (agep ge 21) and schg=6 and wkhp ge 10) or
(par_alone1=1 and (n13_child1 gt 0) and (agep ge 21) and schg=6 and wkhp ge 10)
then no_teta1=1;

* COUNT THE TOTAL NUMBER OF NON-TEEN/NON-TANF, CC SUBSIDY ELIGIBLE PARENTS
(SUBFAMILY 1) AND ADD THAT TOTAL TO EACH OBSERVATION IN THE HOUSEHOLD;
proc summary data=temp27 nway;
  var no_teta1;
  class serialno;
  output out=x27a (drop=_type_ _freq_) sum=n_no_teta1;
run;
proc sort data=x27a nodup;
  by serialno;
run;
proc sort data=temp27 nodup;
  by serialno;
data new_27a;
set x27a;
by serialno;
run;
data temp28;
merge temp27 new_27a;
by serialno;

*************************************************************************************;
*************************************************************************************;
* ELIGIBILITY VARIABLE IN SUBFAMILY 1 (AT THE HOUSEHOLD LEVEL) ;
* ILLINOIS DHS CCS INCOME / FAMILY SIZE / EMPLOYMENT ELIGIBILITY ;
* CC SUBSIDY ELIGIBLE, TEEN PARENTS ;
* NON-TEEN/NON-TANF, CC SUBSIDY ELIGIBLE PARENTS
*************************************************************************************;
*************************************************************************************;
eligible = 0;
if (eligible_prev = 2) or (n_t_parent gt 0) or (n_no_teta gt 0) then eligible = 1;
run;

data temp281;
set temp28;
by serialno;
if first.serialno then output; *output only the first obs for each household;
run;
proc sort data=temp281;
by idnum;
run;

data temp31;
set all01;
if sfn=2; * subfamily 2;

******************************
* FAMILY SIZE
******************************

******************************************************************************
* SUBFAMILY 2
* CREATES A VARIABLE IDENTIFYING SUBFAMILY 2 AS ELIGIBLE TO RECEIVE THE SUBSIDY;
* OR NOT. THE METHODOLOGY IS THE SAME AS FOR THE HOUSEHOLDER'S FAMILY (PRIMARY FAMILY);
******************************************************************************

oc2_13 = 0;
if oc2_13 = 0 and sfr in (4 5 6) and (agep lt 13 and agep ne .) then oc2_13 = 1;

oc2_18 = 0;
if oc2_18 = 0 and sfr in (4 5 6) and (agep lt 18 and agep ne .) then oc2_18 = 1;
* there are children of householders (under 18) who are parents in a parent/child subfamily;
* they are excluded here;

* COUNT THE TOTAL NUMBER OF OBSERVATIONS OF KIDS UNDER 13 WITHIN SUBFAMILY 2 IN EACH HOUSEHOLD ('SERIALNO'), AND ADD THAT TOTAL TO EACH OBSERVATION;
proc summary data=temp31 nway;
var oc2_13;
class serialno;
output out=x31a (drop=_type_ _freq_) sum=n13_child2;
run;
proc sort data=x31a nodup;
by serialno;
run;
proc sort data=temp31 nodup;
by serialno;
data new_31a;
set x31a;
by serialno;
* COUNT THE TOTAL NUMBER OF OBSERVATIONS OF KIDS UNDER 18 WITHIN SUBFAMILY 2 IN EACH HOUSEHOLD ('SERIALNO'), AND ADD THAT TOTAL TO EACH OBSERVATION;
    proc summary data=temp31 nway;
    var oc2_18;
    class serialno;
    output out=x31b (drop=_type_ _freq_) sum=n18_child2;
run;
    proc sort data=x31b nodup;
    by serialno;
r un;
    proc sort data=temp31 nodup;
    by serialno;
data new_31b;
    set x31b;
    by serialno;
run;

    data temp32;
    merge temp31 new_31a new_31b;
    by serialno;

    * CREATE DUMMY VARIABLES FOR TWO-PARENT, SUBFAMILIES [2] AND SINGLE PARENT SUBFAMILIES[2];
    hus_wife2=0;
    if sfr=2 and sfn=2 then hus_wife2=1;
    par_alone2=0;
    if sfr=3 and sfn=2 then par_alone2=1;

    * COUNT THE TOTAL NUMBER OF TWO-PARENT, NON-HOUSEHOLDERS AND ADD THAT TOTAL TO EACH OBSERVATION IN EACH HOUSEHOLD (SUBFAMILY 2);
    proc summary data=temp32 nway;
    var hus_wife2;
    class serialno;
    output out=x32a (drop=_type_ _freq_) sum=n_hus_wife2;
run;
    proc sort data=x32a nodup;
    by serialno;
r un;
    proc sort data=temp32 nodup;
    by serialno;
data new_32a;
    set x32a;
    by serialno;
run;

    * COUNT THE TOTAL NUMBER OF SINGLE PARENT, NON-HOUSEHOLDERS AND ADD THAT TOTAL TO EACH OBSERVATION IN EACH HOUSEHOLD (SUBFAMILY 2);
    proc summary data=temp32 nway;
    var par_alone2;
    class serialno;
    output out=x32b (drop=_type_ _freq_) sum=n_par_alone2;
run;
proc sort data=x32b nodup;
  by serialno;
run;
proc sort data=temp32 nodup;
  by serialno;
data new_32b;
  set x32b;
  by serialno;
run;

data temp33b;
merge temp32 new_32a new_32b;
by serialno;
if n_hus_wife2=. then n_hus_wife2=0;
if n_par_alone2=. then n_par_alone2=0;
if n13_child2=. then n13_child2=0;
if n18_child2=. then n18_child2=0;
run;

data temp33;
merge temp33b;
by serialno;
* GENERATE A VARIABLE EQUALS 2 IF THERE IS A TWO PARENT, NON-HOUSEHOLDER, AND 1 IF THERE IS A SINGLE PARENT, NON-HOUSEHOLDER. THESE VALUES ARE REPEATED FOR EACH MEMBER OF THE SAME FAMILY (REQUIRED AS AN INTERMEDIATE STEP);
n_parents2=n_hus_wife2+n_par_alone2;

*****************************;
* STEP 1: FAMILY SIZE;
*****************************;

* GENERATE VARIABLE REPEATING THE NUMBER OF FAMILY MEMBERS FOR EACH OF THE SUBFAMILY 2 MEMBERS BASED ON CHILDREN VARIABLE;
famsize2=n_parents2+n18_child2;

*******************************;
* STEP 2: INCOME ELIGIBILITY ;
*******************************;
income_hw2=0;
if hus_wife2=1 then income_hw2=intp_pos+semp_pos+oip+pap+retp+ssip+ssp+wagp;

income_pa2=0;
if par_alone2=1 then income_pa2=intp_pos+semp_pos+oip+pap+retp+ssip+ssp+wagp;

proc summary data=temp33 nway;
  var income_hw2;
  class serialno;

output out=x33a (drop=type _freq_) sum=n_income_hw2;
run;
proc sort data=x33a nodup;
   by serialno;
run;
proc sort data=temp33 nodup;
   by serialno;
data new_33a;
   set x33a;
   by serialno;
run;

* COUNT THE TOTAL INCOME FOR SINGLE PARENT, NON-HOUSEHOLDERS SUBFAMILY 2 AND
ADD THAT TOTAL TO EACH OBSERVATION IN EACH HOUSEHOLD;
proc summary data=temp33 nway;
   var income_pa2;
   class serialno;
   output out=x33b (drop=type _freq_) sum=n_income_pa2;
run;
proc sort data=x33b nodup;
   by serialno;
run;
proc sort data=temp33 nodup;
   by serialno;
data new_33b;
   set x33b;
   by serialno;
run;
data temp34;
merge temp33 new_33a new_33b;
   by serialno;
month_income2=(n_income_hw2+n_income_pa2)/12;
income_elig2=0;
if ((n_parents2 gt 0) and (n13_child2 gt 0)) and
   ((famsize2=2 and (month_income2 le fsize2)) or
    (famsize2=3 and (month_income2 le fsize3)) or
    (famsize2=4 and (month_income2 le fsize4)) or
    (famsize2=5 and (month_income2 le fsize5)) or
    (famsize2=6 and (month_income2 le fsize6)) or
    (famsize2=7 and (month_income2 le fsize7)) or
    (famsize2 ge 8 and (month_income2 le fsize8)))
then income_elig2=1;

************************************;
* STEP 3: EMPLOYMENT ELIGIBILITY   ;
************************************;

* CREATE A DUMMY VARIABLE (EMP_ELIG2) INDICATING WHETHER ONE OF THE NON-
HOUSEHOLDER PARENTS WORKS OR SINGLE PARENT WORKS;
hw_emp2=0;
if n_hus_wife2=1 and (esr in (1 2 4 5)) then hw_emp2=1;
pa_emp2=0;
if n_par_alone2=1 and (esr in (1 2 4 5)) then pa_emp2=1;

* COUNT/IDENTIFY EMPLOYED TWO-PARENT, NON-HOUSEHOLDERS AND ADD THAT TOTAL TO EACH OBSERVATION IN EACH HOUSEHOLD;
proc summary data=temp34 nway;
var hw_emp2;
class serialno;
output out=x34a (drop=_type_ _freq_) sum=n_hw_emp2;
run;
proc sort data=x34a nodup;
by serialno;
run;
proc sort data=temp34 nodup;
by serialno;
data new_34a;
set x34a;
by serialno;
run;

* COUNT/IDENTIFY EMPLOYED SINGLE PARENT, NON-HOUSEHOLDERS AND ADD THAT TOTAL TO EACH OBSERVATION IN EACH HOUSEHOLD;
proc summary data=temp34 nway;
var pa_emp2;
class serialno;
output out=x34b (drop=_type_ _freq_) sum=n_pa_emp2;
run;
proc sort data=x34b nodup;
by serialno;
run;
proc sort data=temp34 nodup;
by serialno;
data new_34b;
set x34b;
by serialno;
run;

data temp35;
merge temp34 new_34a new_34b;
by serialno;

emp_count2=hw_emp2+pa_emp2;
n_emp_count2=n_hw_emp2+n_pa_emp2;

* ACCOUNT FOR DISABLED PARENTS;
* DISABILITY DEFINITION HAS CHANGED IN THE ACS. THEY RECOMMEND NOT USING THE DISABILITY VARIABLE IN ANALYSIS PRIOR TO 2003. HOWEVER, WE STILL MAKE USE OF THE 'DS' VARIABLE HERE FOR ILLUSTRATIVE PURPOSES;
hw_disab2=0;
if ds=1 and hus_wife2=1 then hw_disab2=1;
pa_disab2=0;
if ds=1 and par_alone2=1 then pa_disab2=1;

* COUNT/IDENTIFY DISABLED TWO-PARENT, NON-HOUSEHOLDERS AND ADD THAT TOTAL TO EACH OBSERVATION IN EACH HOUSEHOLD (SUBFAMILY 2);
    proc summary data=temp35 nway;
        var hw_disab2;
        class serialno;
        output out=x35a (drop=_type_ _freq_) sum=n_hw_disab2;
        run;
    proc sort data=x35a nodup;
        by serialno;
        run;
    proc sort data=temp35 nodup;
        by serialno;
    data new_35a;
        set x35a;
        by serialno;
        run;

* COUNT/IDENTIFY DISABLED SINGLE PARENT, NON-HOUSEHOLDERS AND ADD THAT TOTAL TO EACH OBSERVATION IN EACH HOUSEHOLD (SUBFAMILY 2);
    proc summary data=temp35 nway;
        var pa_disab2;
        class serialno;
        output out=x35b (drop=_type_ _freq_) sum=n_pa_disab2;
        run;
    proc sort data=x35b nodup;
        by serialno;
        run;
    proc sort data=temp35 nodup;
        by serialno;
    data new_35b;
        set x35b;
        by serialno;
        run;

data temp36;
merge temp35 new_35a new_35b;
by serialno;
n_disab2=n_hw_disab2+n_pa_disab2;

* ELIGIBILITY, ACCOUNTING FOR DISABLED PARENTS;
    emp_elig2=0;
    if (n13_child2 gt 0) and (n_parents2=1 and n_emp_count2=1) then emp_elig2=1;
    if (n13_child2 gt 0) and (n_parents2=1 and n_disab2=1) then emp_elig2=1;
    if (n13_child2 gt 0) and (n_parents2=2 and n_emp_count2=2) then emp_elig2=1;
    if (n13_child2 gt 0) and (n_parents2=2 and (n_emp_count2 ge 1 or (n_disab2 ge 1))) then emp_elig2=1;

*****************************************************************************;
* ILLINOIS DHS CCS INCOME / FAMILY SIZE / EMPLOYMENT ELIGIBILITY  ;
* SUBFAMILY 2
  * NOTE: 'ELIG_PREV2' MUST BE EQUAL TO 2
  ***********************************************************************
  elig_prev2=income_elig2+emp_elig2;

  ************************************************************************
  * ILLINOIS DHS CCS TEEN PARENT (SUBFAMILY 2) ELIGIBILITY
  * WITH CHILDREN UNDER 13, LESS THAN 21 Y/OLD + GOES TO SCHOOL
  ************************************************************************
  t_parent2=0;
  if (hus_wife2=1 and (n13_child2 gt 0) and (agep lt 21 and agep ne .) and sch in (2 3)) or
    (par_alone2=1 and (n13_child2 gt 0) and (agep lt 21 and agep ne .) and sch in (2 3))
  then t_parent2=1;

  * COUNT THE TOTAL NUMBER OF CC SUBSIDY ELIGIBLE TEEN PARENTS IN SUBFAMILY2, AND
  ADD THAT TOTAL TO EACH OBSERVATION IN THE HOUSEHOLD;
  proc summary data=temp36 nway;
    var t_parent2;
    class serialno;
    output out=x36a (drop=_type_ _freq_) sum=n_t_parent2;
  run;
  proc sort data=x36a nodup;
    by serialno;
  run;
  proc sort data=temp36 nodup;
    by serialno;
  data new_36a;
    set x36a;
    by serialno;
  run;
  data temp37;
    merge temp36 new_36a;
    by serialno;

  **********************************************************************************************
  * ILLINOIS DHS CCS NON-TEEN / NON-TANF RECIPIENT ELIGIBILITY
  * NO TEEN / NO TANF (SUBFAMILY 2), GO TO COLLEGE AND WORK AT LEAST 10 HRS/WK
  **********************************************************************************************
  no_teta2=0;
  if (hus_wife2=1 and (n13_child2 gt 0) and (agep ge 21 and agep ne .) and schg=6 and wkhp ge 10) or
    (par_alone2=1 and (n13_child2 gt 0) and (agep ge 21 and agep ne .) and schg=6 and wkhp ge 10)
  then no_teta2=1;

  * COUNT THE TOTAL NUMBER OF NON-TEEN/NON-TANF, CC SUBSIDY ELIGIBLE PARENTS IN SUBFAMILY2, AND
  ADD THAT TOTAL TO EACH OBSERVATION IN THE HOUSEHOLD;
  proc summary data=temp37 nway;
    var no_teta2;
    class serialno;
    output out=x37a (drop=_type_ _freq_) sum=n_no_teta2;
  run;
proc sort data=x37a nodup;
   by serialno;
run;
proc sort data=temp37 nodup;
   by serialno;
data new_37a;
   set x37a;
   by serialno;
run;
data temp38;
merge temp37 new_37a;
by serialno;

***************************************************************************************;
***************************************************************************************;
* ELIGIBILITY VARIABLE IN SUBFAMILY 2 (AT THE HOUSEHOLD LEVEL)                         
  * ILLINOIS DHS CCS INCOME / FAMILY SIZE / EMPLOYMENT ELIGIBILITY                     
  * CC SUBSIDY ELIGIBLE, TEEN PARENTS                                               
  * NON-TEEN/NON-TANF, CC SUBSIDY ELIGIBLE PARENTS                                  
***************************************************************************************;
***************************************************************************************;
elig2=0;
if (elig_prev2=2) or (n_t_parent2 gt 0) or (n_no_teta2 gt 0) then elig2=1;
run;
data temp381;
  set temp38;
  by serialno;
  if first.serialno then output; *output only the first obs for each household;
run;
proc sort data=temp381;
  by idnum;
run;
data ILCC.all01;
merge temp81 temp281 temp381;
by idnum;
total=0;
if elig=1 or elig1=1 or elig2=1 then total=1;
run;
proc sort data=ILCC.all01;
by idnum;
run;
proc freq data=ILCC.all01;
tables elig elig1 elig2 total;
title1 '2001: # of eligible families - wtd';
weight wgtp;
run;
proc freq data=ILCC.all01;
tables elig elig1 elig2 total;
title1 '2001: # of eligible families - unwtd';
run;
Appendix 3:  SPSS SYNTAX TO COMPUTE FAMILY CHILD CARE SUBSIDY ELIGIBILITY FROM THE PUMS ACS DATA (2001)

* SURVEY:  http://www.census.gov/acs/www/Downloads/SQuest.pdf, or

GET FILE="h01IL.sav".
SORT CASES BY serialno.
SAVE OUTFILE="acs_hh2.sav".

GET FILE="p01IL.sav".
SORT CASES BY serialno.
SAVE OUTFILE="acs_prsn2.sav".

MATCH FILES FILE="acs_prsn2.sav" /TABLE="acs_hh2.sav" /BY serialno.

*CONVERSION OF CERTAIN NUMERIC VARIABLES TO STRING.
  string sp2order (a2).
  compute sp2order=string(sporder, f2.0).
* string agep2R (a2).
  compute agep2R=string(agep, f2.0).
string oip2R (a2).
  compute oip2R=string(oip, f5.0).
string pap2R (a2).
  compute pap2R=string(pap, f4.0).
string retp2R (a2).
  compute retp2R=string(retp, f5.0).
string semp2R (a2).
  compute semp2R=string(semp, f7.0).
string ssip2R (a2).
  compute ssip2R=string(ssip, f5.0).
string ssp2R (a2).
  compute ssp2R=string(ssp, f5.0).
string wagp2R (a2).
  compute wagp2R=string(wagp, f6.0).
string wkw2R (a2).
  compute wkw2R=string(wkw, f2.0).

*CONVERSION OF CERTAIN STRING VARIABLES TO NUMERIC.
  compute rel2R=number(rel, f2.0).
  compute sfr2R=number(sfr, f1.0).
  compute sfn2R=number(sfn, f1.0).
  compute esr2R=number(esr, f1.0).
  compute ds2R=number(ds, f1.0).
compute sch2R=number(sch, f1.0).
compute schg2R=number(schg, f1.0).

*CREATE INDIVIDUAL IDENTIFICATION NUMBERS (BUILT FROM CONCATINATED STRING VARIABLES).
  string idnum (A10).
  compute idnum=concat(serialno, sp2order).

*CODE THRESHOLDS FOR FAMILY SIZE (50% IL SMI 2001).
  compute fsize2=1472.
  compute fsize3=1818.
  compute fsize4=2165.
  compute fsize5=2511.
  compute fsize6=2857.
  compute fsize7=2922.
  compute fsize8=2987.

* DETERMINE INCOME OF THE HOUSEHOLDER AND SPOUSE. RESTRICT 'INTP' (INTREST EARNED) AND 'SEMP' (SELF EMPLOYED INCOME TO POSITIVE VALUES).
  compute intp_pos=0.
  if (intp ge 0) intp_pos=intp.

  compute semp_pos=0.
  if (semp ge 0) semp_pos=semp.

SORT CASES BY SERIALNO.

USE ALL.
COMPUTE filter_$(=sporder ge 1).
VARIABLE LABEL filter_$( sporder ge 1. (FILTER)).
VALUE LABELS filter_$( 0 'Not Selected' 1 'Selected').
FORMAT filter_$( f1.0).
FILTER BY filter_$(.
EXECUTE .

* CREATE DUMMY VARIABLES FOR CHILDREN UNDER 13.
*compute oc_13=0.
if (rel2R=2 and (agep lt 13) and sfr2R=" ") oc_13=1.

* CREATE DUMMY VARIABLES FOR CHILDREN UNDER 21.
*compute oc_21=0.
if (rel2R=2 and (agep lt 21) and sfr2R=" ") oc_21=1.
*primary families exclude children under 21, who are themselves parents.
*instead they are counted later in the program as members of household subfamilies.

* CREATE DUMMY VARIABLES FOR 'CHILDREN' OF THE HOUSEHOLDER WHO ARE 21 OR OLDER, ARE NOT PARENTS AND NOT MEMBERS OF SUBFAMILIES.
*compute okids=0.
if (rel2R=2 and (agep ge 21) and sfr2R=" ") okids=1.

* CREATE DUMMY VARIABLES FOR OTHER RELATIVES.
*compute orel=0.
if (((rel2R ge 3) and (rel2R le 7)) and (sfr2R=" ")) orel=1.

* COUNT THE TOTAL NUMBER OF OBSERVATIONS OF KIDS UNDER 13 WITHIN EACH HOUSEHOLD ('SERIALNO'), AND ADD THAT TOTAL TO EACH OBSERVATION.
  SORT CASES BY SERIALNO .
  AGGREGATE
  /OUTFILE=* 
  /BREAK=SERIALNO 
  /n13_child=nu(oc_13).

* COUNT THE TOTAL NUMBER OF OBSERVATIONS OF KIDS UNDER 21 WITHIN EACH HOUSEHOLD ('SERIALNO'), AND ADD THAT TOTAL TO EACH OBSERVATION.
  SORT CASES BY SERIALNO .
  AGGREGATE
  /OUTFILE=* 
  /BREAK=SERIALNO 
  /n21_child=nu(oc_21).

* COUNT THE TOTAL NUMBER OF OBSERVATIONS OF OTHER CHILDREN OF THE HOUSEHOLDER (21 AND OVER) WHO ARE NOT PARENTS AND MEMBERS OF SUBFAMILIES. ADD THAT TOTAL TO EACH OBSERVATION.
  SORT CASES BY SERIALNO .
  AGGREGATE
  /OUTFILE=* 
  /BREAK=SERIALNO 
  /n_okids=nu(okids).

* COUNT THE TOTAL NUMBER OF OBSERVATIONS OF OTHER RELATIVES WITHIN EACH HOUSEHOLD ('SERIALNO'), AND ADD THAT TOTAL TO EACH OBSERVATION.
  SORT CASES BY SERIALNO .
  AGGREGATE
  /OUTFILE=* 
  /BREAK=SERIALNO 
  /n_orel=nu(orel).

* CREATE DUMMY VARIABLES FOR HOUSEHOLDER AND SPOUSE.
*compute h_holder=0.
if (rel2R=0) h_holder=1.

*compute spo_part=0.
if (rel2R=1) spo_part=1.

* COUNT THE TOTAL NUMBER OF OBSERVATIONS OF HOUSEHOLDERS WITHIN EACH HOUSEHOLD ('SERIALNO'), AND ADD THAT TOTAL TO EACH OBSERVATION.
SORT CASES BY SERIALNO.
AGGREGATE
/OUTFILE=* 
/MODE=ADDVARIABLES
/PRESORTED
/BREAK=SERIALNO 
/n_h_holder=nu(h_holder).

* COUNT THE TOTAL NUMBER OF OBSERVATIONS OF SPOUSES WITHIN EACH HOUSEHOLD ('SERIALNO'), AND ADD THAT TOTAL TO EACH OBSERVATION.
SORT CASES BY SERIALNO .
AGGREGATE
/OUTFILE=* 
/MODE=ADDVARIABLES
/PRESORTED
/BREAK=SERIALNO 
/n_spo_part=nu(spo_part).

* GENERATE A VARIABLE EQUALS 1 IF THERE IS JUST A HOUSEHOLDER, AND TWO IF THERE IS A HOUSEHOLDER + SPOUSE. THESE VALUES ARE REPEATED FOR EACH MEMBER OF THE SAME FAMILY (REQUIRED AS AN INTERMEDIATE STEP).
compute n_parents=n_h_holder+n_spo_part.

*****************************.
* STEP 1: FAMILY SIZE .
*****************************.
* GENERATE VARIABLE REPEATING THE NUMBER OF FAMILY MEMBERS FOR EACH OF THE FAMILY MEMBERS (PARENTS, CHILDREN UNDER AGE 21, AND OTHER RELATIVES) IN THE PRIMARY FAMILY.
compute famsize= n_parents+n21_child+n_okids+n_orel.

*****************************.
* STEP 2: INCOME ELIGIBILITY .
*****************************.
compute income_h=0.
if (h_holder=1) income_h=intp_pos+semp_pos+oip+pap+retp+ssip+ssp+wagp.

* COUNT THE TOTAL INCOME FOR HOUSEHOLDER AND ADD THAT TOTAL TO EACH OBSERVATION IN EACH HOUSEHOLD.
SORT CASES BY SERIALNO .
AGGREGATE
/OUTFILE=* 
/MODE=ADDVARIABLES
/PRESORTED
/BREAK=SERIALNO 
/n_income_h=sum(income_h).
compute income_s=0.
if (s checkboxes) = 1) income_s = intp_pos + semp_pos + oip + pap + retp + ssip + ssp + wagp.

* COUNT THE TOTAL INCOME FOR SPOUSE AND ADD THAT TOTAL TO EACH OBSERVATION IN EACH HOUSEHOLD.
  SORT CASES BY SERIALNO .
  AGGREGATE
  /OUTFILE=* 
  /BREAK=SERIALNO 
  /MODE=ADDVARIABLES 
  /PRESORTED 
  /n_income_s = sum(income_s).

compute income_ok=0.
if (okids=1 and agep ge 21) income_ok = intp_pos + semp_pos + oip + pap + retp + ssip + ssp + wagp.

* COUNT THE TOTAL INCOME FOR OTHER RELATIVES IN HH AND ADD THAT TOTAL TO EACH OBSERVATION IN EACH HOUSEHOLD.
  SORT CASES BY SERIALNO .
  AGGREGATE
  /OUTFILE=* 
  /BREAK=SERIALNO 
  /MODE=ADDVARIABLES 
  /PRESORTED 
  /n_income_o = sum(income_ok).

compute income_o=0.
if (orel=1 and agep ge 18) income_o = intp_pos + semp_pos + oip + pap + retp + ssip + ssp + wagp.

* COUNT THE TOTAL INCOME FOR OTHER RELATIVES IN HH AND ADD THAT TOTAL TO EACH OBSERVATION IN EACH HOUSEHOLD.
  SORT CASES BY SERIALNO .
  AGGREGATE
  /OUTFILE=* 
  /BREAK=SERIALNO 
  /MODE=ADDVARIABLES 
  /PRESORTED 
  /n_income_o = sum(income_o).

compute month_income=(n_income_h+n_income_s+n_income_ok+n_income_o)/12.

compute income_elig=0.
if ((n_parents gt 0) and (n13_child gt 0)) and
  ((famsize=2 and (month_income le fsize2)) or
   (famsize=3 and (month_income le fsize3)) or
   (famsize=4 and (month_income le fsize4)) or
   (famsize=5 and (month_income le fsize5)) or
   (famsize=6 and (month_income le fsize6)) or
   (famsize=7 and (month_income le fsize7)) or
   (famsize ge 8 and (month_income le fsize8)))
  income_elig=1.
*STEP 3: EMPLOYMENT ELIGIBILITY*

*CREATE A DUMMY VARIABLE (EMP_ELIG) INDICATING WHETHER ONLY THE HOUSEHOLDER WORKS OR THE HOUSEHOLDER AND SPOUSE BOTH WORK.*

*compute h_h_emp=0.
if (h_holder=1 and (esr2R=1 or esr2R=2 or esr2R=4 or esr2R=5)) h_h_emp=1.

*compute h_s_emp=0.
if (spo_part=1 and (esr2R=1 or esr2R=2 or esr2R=4 or esr2R=5)) h_s_emp=1.

*COUNT/IDENTIFY EMPLOYED HOUSEHOLDERS AND ADD THAT TOTAL TO EACH OBSERVATION IN EACH HOUSEHOLD.*

SORT CASES BY SERIALNO.
AGGREGATE
/OUTFILE=* MODE=ADDVARIABLES /PRESORTED /BREAK=SERIALNO /n_h_h_emp=nu(h_h_emp).

*COUNT/IDENTIFY EMPLOYED SPOUSE AND ADD THAT TOTAL TO EACH OBSERVATION IN EACH HOUSEHOLD.*

SORT CASES BY SERIALNO.
AGGREGATE
/OUTFILE=* MODE=ADDVARIABLES /PRESORTED /BREAK=SERIALNO /n_h_s_emp=nu(h_s_emp).

compute emp_count=h_h_emp+h_s_emp.
compute n_emp_count=n_h_h_emp+n_h_s_emp.

*ACCOUNT FOR DISABLED PARENTS.*

*DISABILITY DEFINITION HAS CHANGED IN THE ACS. THEY RECOMMEND NOT USING THE DISABILITY VARIABLE IN ANALYSIS PRIOR TO 2003. HOWEVER, WE STILL MAKE USE OF THE 'DS' VARIABLE HERE FOR ILLUSTRATIVE PURPOSES.*

compute h_disab=0.
if (ds2R=1 and h_holder=1) h_disab=1.

compute s_disab=0.
if (ds2R=1 and spo_part=1) s_disab=1.

*COUNT/IDENTIFY DISABLED HOUSEHOLDERS AND ADD THAT TOTAL TO EACH OBSERVATION IN EACH HOUSEHOLD.*

SORT CASES BY SERIALNO.
AGGREGATE
/OUTFILE=*

81
MODE=ADDVARIABLES
/PRESORTED
/BREAK=SERIALNO
/n_h_disab=sum(h_disab).

* COUNT/IDENTIFY DISABLED SPOUSE AND ADD THAT TOTAL TO EACH OBSERVATION IN EACH HOUSEHOLD.
  SORT CASES BY SERIALNO.
  AGGREGATE
  /OUTFILE=* MODE=ADDVARIABLES /PRESORTED /BREAK=SERIALNO
  /n_s_disab=sum(s_disab).

compute n_disab=n_h_disab+n_s_disab.

* ELIGIBILITY, ACCOUNTING FOR DISABLED PARENTS.
*compute emp_elig=0.
if (n13_child gt 0) and (n_parents=1 and n_disab=1) emp_elig=1.
if (n13_child gt 0) and (n_parents=1 and n_emp_count=1) emp_elig=1.
if (n13_child gt 0) and (n_parents=2 and n_emp_count=2) emp_elig=1.
if (n13_child gt 0) and (n_parents=1 and n_h_disab=1) emp_elig=1.
if (n13_child gt 0) and (n_parents=2 and n_h_disab=1) emp_elig=1.

******************************************************************************
* ILLINOIS DHS CCS INCOME / FAMILY SIZE / EMPLOYMENT ELIGIBILITY .
* NOTE: 'ELIG_PREV' MUST EQUAL 2
******************************************************************************
compute elig_prev=income_elig+emp_elig.

******************************************************************************
* ILLINOIS DHS CCS TEEN PARENT ELIGIBILITY
* WITH CHILDREN UNDER 13, LESS THAN 21 Y/OLD + GOES TO SCHOOL
******************************************************************************
*compute t_parent=0.
if ((h_holder=1 and (n13_child gt 0) and (agep lt 21) and (sch2R=2 or sch2R=3)) or
  (spo_part=1 and (n13_child gt 0) and (agep lt 21) and (sch2R=2 or sch2R=3)))
t_parent=1.

* COUNT THE TOTAL NUMBER OF CC SUBSIDY ELIGIBLE TEEN PARENTS, AND ADD THAT TOTAL TO EACH OBSERVATION IN THE HOUSEHOLD.
  SORT CASES BY SERIALNO.
  AGGREGATE
  /OUTFILE=* MODE=ADDVARIABLES /PRESORTED /BREAK=SERIALNO
  /n_t_parent=nu(t_parent).
* ILLINOIS DHS CCS NON-TEEN / NON-TANF RECIPIENT ELIGIBILITY .
* NO TEEN / NO TANF, GO TO COLLEGE AND WORK AT LEAST 10 HRS/WK .
*compute no_teta=0.
if ((h_holder=1 and (n13_child gt 0) and (agep ge 21) and (schg2R=6) and wkhp ge 10) or
(spo_part=1 and (n13_child gt 0) and (agep ge 21) and (schg2R=6) and wkhp ge 10))
no_teta=1.

* COUNT THE TOTAL NUMBER OF NON-TEEN/ NON-TANF, CC SUBSIDY ELIGIBLE PARENTS, AND
ADD THAT TOTAL TO EACH OBSERVATION IN THE HOUSEHOLD.
SORT CASES BY SERIALNO .
AGGREGATE
/OUTFILE=* 
/MODE=ADDVARIABLES 
/PRESORTED 
/BREAK=SERIALNO 
/n_no_teta=nu(no_teta).

**********************************************************************.
* FOSTER CARE CHILDREN - ONLY IDENTIFIED IN PRIMARY FAMILIES .
**********************************************************************.
*compute foster=0.
if (rel2R=11 and (agep lt 13) and (sfr2R="")) foster=1.

* COUNT THE TOTAL NUMBER OF OBSERVATIONS OF FOSTER CHILDREN WITHIN
EACH HOUSEHOLD ('SERIALNO'), AND ADD THAT TOTAL TO EACH OBSERVATION.
SORT CASES BY SERIALNO .
AGGREGATE
/OUTFILE=* 
/MODE=ADDVARIABLES 
/PRESORTED 
/BREAK=SERIALNO 
/n_fost=nu(foster).

**********************************************************************.
**********************************************************************.
* ELIGIBILITY VARIABLE IN THE HOUSEHOLDER'S FAMILY (AT HOUSEHOLD LEVEL) .
* ILLINOIS DHS CCS INCOME / FAMILY SIZE / EMPLOYMENT ELIGIBILITY .
* CC SUBSIDY ELIGIBLE, TEEN PARENTS .
* NON-TEEN/ NON-TANF, CC SUBSIDY ELIGIBLE PARENTS
* FOSTER CARE
**********************************************************************.
*compute elig=0.
if ((elig_prev=2) or (n_t_parent gt 0) or (n_no_teta gt 0) or (n_fost gt 0)) elig=1.
*run.
SORT CASES BY SERIALNO.
AGGREGATE
/OUTFILE="c:\documents and settings\douglasa\desktop\temp81.sav"
/PRESORTED
/BREAK=SERIALNO
/grpone=FIRST(elig)

SORT CASES BY IDNUM.

FILTER OFF.
USE ALL.
EXECUTE.

USE ALL.
COMPUTE filter_$(sfn2R=1).
VARIABLE LABEL filter_$(sfn2R=1) (FILTER).
VALUE LABELS filter_$ 0 'Not Selected' 1 'Selected'.
FORMAT filter_$ (f1.0).
FILTER BY filter_$(f1.0).
EXECUTE.

********************.
* FAMILY SIZE          
********************.

****************************************************************************************.
* SUBFAMILY 1                                                                                      
* CREATES A VARIABLE IDENTIFYING SUBFAMILY 1 AS ELIGIBLE TO RECEIVE THE SUBSIDY .  
* OR NOT. THE METHODOLOGY IS THE SAME AS FOR THE HOUSEHOLDER'S FAMILY (PRIMARY FAMILY) .     
****************************************************************************************.
*compute oc1_13=0.
if ((sfr2R=4 or sfr2R=5 or sfr2R=6) and (agep lt 13)) oc1_13=1.

*compute oc1_18=0.
if ((sfr2R=4 or sfr2R=5 or sfr2R=6) and (agep lt 18)) oc1_18=1.

* COUNT THE TOTAL NUMBER OF OBSERVATIONS OF KIDS UNDER 13 WITHIN SUBFAMILY 1 IN EACH HOUSEHOLD ('SERIALNO'), AND ADD THAT TOTAL TO EACH OBSERVATION.
SORT CASES BY SERIALNO .
AGGREGATE
/OUTFILE=*
/MODE=ADDVARIABLES
/PRESORTED
/BREAK=SERIALNO
/n13_child1=nu(oc1_13).

* COUNT THE TOTAL NUMBER OF OBSERVATIONS OF KIDS UNDER 18 WITHIN SUBFAMILY 1 IN EACH HOUSEHOLD ('SERIALNO'), AND ADD THAT TOTAL TO EACH OBSERVATION.
SORT CASES BY SERIALNO .
AGGREGATE
* CREATE DUMMY VARIABLES FOR TWO-PARENT, SUBFAMILIES[1] AND SINGLE PARENT SUBFAMILIES[1].
* compute hus_wife1=0.
  if (sfr2R=2 and sfn2R=1) hus_wife1=1.
    * HUSBAND/WIFE WITH CHILDREN SUBFAMILY 1.

*compute par_alone1=0.
  if (sfr2R=3 and sfn2R=1) par_alone1=1.
    * SINGLE PARENT WITH CHILDREN SUBFAMILY 1.
    * INCLUDES SMALL NUMBER OF MARRIED, WITH SPOUSE ABSENT.

* COUNT THE TOTAL NUMBER OF TWO PARENT, NON-HOUSEHOLDERS WITHIN SUBFAMILY 1 EACH HOUSEHOLD, AND ADD THAT TOTAL TO EACH OBSERVATION.
  SORT CASES BY SERIALNO.
  AGGREGATE
  /OUTFILE=*
  /MODE=ADDVARIABLES
  /PRESORTED
  /BREAK=SERIALNO
  /n_hus_wife1=nu(hus_wife1).

* COUNT THE TOTAL NUMBER OF SINGLE PARENT, NON-HOUSEHOLDERS WITHIN SUBFAMILY 1 EACH HOUSEHOLD, AND ADD THAT TOTAL TO EACH OBSERVATION.
  SORT CASES BY SERIALNO.
  AGGREGATE
  /OUTFILE=*
  /MODE=ADDVARIABLES
  /PRESORTED
  /BREAK=SERIALNO
  /n_par_alone1=nu(par_alone1).

* GENERATE A VARIABLE EQUALS 2 IF THERE IS A TWO PARENT, NON-HOUSEHOLDER, AND 1 IF THERE IS A SINGLE PARENT, NON-HOUSEHOLDER. THESE VALUES ARE REPEATED FOR EACH MEMBER OF THE SAME FAMILY (REQUIRED AS AN INTERMEDIATE STEP).
compute n_parents1=n_hus_wife1+n_par_alone1.

*****************************.

* STEP1: FAMILY SIZE.
*****************************.

* GENERATE VARIABLE REPEATING THE NUMBER OF FAMILY MEMBERS (PARENTS AND CHILDREN UNDER AGE 18) FOR EACH SUBFAMILY 1.
compute famsize1=n_parents1+n18_child1.

*****************************.
* STEP 2: INCOME ELIGIBILITY .
*****************************

compute income_hw1=0.
if (hus_wife1=1) income_hw1=intp_pos+semp_pos+oip+pap+retp+ssip+ssp+wagp.

* COUNT THE TOTAL INCOME FOR TWO PARENT, NON-HOUSEHOLDERS SUBFAMILY1 AND ADD THAT TOTAL TO EACH OBSERVATION IN EACH HOUSEHOLD.  
SORT CASES BY SERIALNO .  
AGGREGATE  
/OUTFILE=*  
/MODE=ADDVARIABLES  
/PRESORTED  
/BREAK=SERIALNO  
/n_income_hw1=sum(income_hw1)

compute income_pa1=0.
if (par_alone1=1) income_pa1=intp_pos+semp_pos+oip+pap+retp+ssip+ssp+wagp.

* COUNT THE TOTAL INCOME FOR SINGLE PARENT, NON-HOUSEHOLDERS SUBFAMILY1 AND ADD THAT TOTAL TO EACH OBSERVATION IN EACH HOUSEHOLD.  
SORT CASES BY SERIALNO .  
AGGREGATE  
/OUTFILE=*  
/MODE=ADDVARIABLES  
/PRESORTED  
/BREAK=SERIALNO  
/n_income_pa1=sum(income_pa1).

compute month_income1=(n_income_hw1+n_income_pa1)/12.

*compute income_elig1=0.
if ((n_parents1 gt 0) and (n13_child1 gt 0)) and  
((famsize1=2 and (month_income1 le fsize2)) or  
(famsize1=3 and (month_income1 le fsize3)) or  
(famsize1=4 and (month_income1 le fsize4)) or  
(famsize1=5 and (month_income1 le fsize5)) or  
(famsize1=6 and (month_income1 le fsize6)) or  
(famsize1=7 and (month_income1 le fsize7)) or  
(famsize1 ge 8 and (month_income1 le fsize8)))  
income_elig1=1.

********************************************************************

*STEP 3: EMPLOYMENT ELIGIBILITY .  
********************************************************************

* CREATE A DUMMY VARIABLE (EMP_ELIG1) INDICATING WHETHER ONE OF THE NON-HOUSEHOLDER PARENTS WORKS OR SINGLE PARENT WORKS.  
*compute hw_emp1=0.
if (hus_wife1=1 and (esr2R=1 or esr2R=2 or esr2R=4 or esr2R=5)) hw_emp1=1.

*compute pa_emp1=0.
if (par_alone1=1 and (esr2R=1 or esr2R=2 or esr2R=4 or esr2R=5)) pa_emp1=1.
* COUNT/IDENTIFY EMPLOYED TWO-PARENT, NONHOUSEHOLDERS AND ADD THAT TOTAL TO EACH OBSERVATION IN EACH HOUSEHOLD.
  SORT CASES BY SERIALNO.
  AGGREGATE
  /OUTFILE=* 
  MODE=ADDVARIABLES 
  /PRESORTED
  /BREAK=SERIALNO
  /n_hw_emp1=nu(hw_emp1).

* COUNT/IDENTIFY EMPLOYED SINGLE PARENT, NONHOUSEHOLDERS AND ADD THAT TOTAL TO EACH OBSERVATION IN EACH HOUSEHOLD.
  SORT CASES BY SERIALNO.
  AGGREGATE
  /OUTFILE=* 
  MODE=ADDVARIABLES 
  /PRESORTED
  /BREAK=SERIALNO
  /n_pa_emp1=nu(pa_emp1).

compute emp_count1=hw_emp1+pa_emp1.
compute n_emp_count1=n_hw_emp1+n_pa_emp1.

* ACCOUNT FOR DISABLED PARENTS.
* DISABILITY DEFINITION HAS CHANGED IN THE ACS. THEY RECOMMEND NOT USING THE DISABILITY VARIABLE IN ANALYSIS PRIOR TO 2003. HOWEVER, WE STILL MAKE USE OF THE 'DS' VARIABLE HERE FOR ILLUSTRATIVE PURPOSES.
compute hw_disab1=0.
if (ds2R=1 and hus_wife1=1) hw_disab1=1.
compute pa_disab1=0.
if (ds2R=1 and par_alone1=1) pa_disab1=1.

* COUNT/IDENTIFY DISABLED TWO-PARENT, NON-HOUSEHOLDERS AND ADD THAT TOTAL TO EACH OBSERVATION IN EACH HOUSEHOLD.
  SORT CASES BY SERIALNO.
  AGGREGATE
  /OUTFILE=* 
  MODE=ADDVARIABLES 
  /PRESORTED
  /BREAK=SERIALNO
  /n_hw_disab1=sum(hw_disab1).

* COUNT/IDENTIFY DISABLED SINGLE PARENT, NON-HOUSEHOLDERS AND ADD THAT TOTAL TO EACH OBSERVATION IN EACH HOUSEHOLD.
  SORT CASES BY SERIALNO.
  AGGREGATE
  /OUTFILE=* 
  MODE=ADDVARIABLES 
  /PRESORTED
  /BREAK=SERIALNO
  /n_pa_disab1=sum(pa_disab1).
compute n_disab1=n_hw_disab1+n_pa_disab1.

* ELIGIBILITY, ACCOUNTING FOR DISABLED PARENTS.
* DOES NOT ACCOUNT FOR DISABLED, SINGLE PARENTS.
*compute emp_elig1=0.
  if (n13_child1 gt 0) and (n_parents1=1 and n_emp_count1=1) emp_elig1=1.
  if (n13_child1 gt 0) and (n_parents1=1 and n_disab1=1) emp_elig1=1.
  if (n13_child1 gt 0) and (n_parents1=2 and n_emp_count1=2) emp_elig1=1.
  if (n13_child1 gt 0) and (n_parents1=2 and (n_emp_count1 ge 1) or (n_disab1 ge 1))) emp_elig1=1.

***********************************************************************.
* ILLINOIS DHS CCS INCOME / FAMILY SIZE / EMPLOYMENT ELIGIBILITY  .
* SUBFAMILY 1                                                               .
* NOTE: 'ELIG_PREV1' SHOULD BE EQUAL TO 2                                     .
***********************************************************************.
compute elig_prev1=income_elig1+emp_elig1.

***********************************************************************.
* ILLINOIS DHS CCS TEEN PARENT (SUBFAMILY 1) ELIGIBILITY                 .
* WITH CHILDREN UNDER 13, LESS THAN 21 Y/OLD + GOES TO SCHOOL        .
***********************************************************************.
*compute t_parent1=0.
  if ((hus_wife1=1 and (n13_child1 gt 0) and (agep lt 21) and (sch2R=2 or sch2R=3)) or
     (par_alone1=1 and (n13_child1 gt 0) and (agep lt 21) and (sch2R=2 or sch2R=3)))
  t_parent1=1.

* COUNT THE TOTAL NUMBER OF CC SUBSIDY ELIGIBLE TEEN PARENTS IN SUBFAMILY1, AND
ADD THAT TOTAL TO EACH OBSERVATION IN THE HOUSEHOLD.
  SORT CASES BY SERIALNO .
  AGGREGATE
     /OUTFILE=*
     /BREAK=SERIALNO
     /n_t_parent1=nu(t_parent1).

***********************************************************************.
* ILLINOIS DHS CCS NON-TEEN / NON-TANF RECIPIENT ELIGIBILITY                                        .
* NO TEEN / NO TANF (SUBFAMILY 1), GO TO COLLEGE AND WORK AT LEAST 10 HRS/WK .
***********************************************************************.
*compute no_teta1=0.
  if ((hus_wife1=1 and (n13_child1 gt 0) and (agep ge 21) and schg2R=6 and wkhp ge 10) or
     (par_alone1=1 and (n13_child1 gt 0) and (agep ge 21) and schg2R=6 and wkhp ge 10))
  no_teta1=1.

* COUNT THE TOTAL NUMBER OF NON-TEEN/NON-TANF, CC SUBSIDY ELIGIBLE PARENTS (SUBFAMILY 1) AND ADD THAT TOTAL TO EACH OBSERVATION IN THE HOUSEHOLD.
  SORT CASES BY SERIALNO .
  AGGREGATE
     /OUTFILE=*
MODE=ADDVARIABLES
/PRESORTED
/BREAK=SERIALNO
/n_no_teta1=nu(no_teta1).

*************************************************************************************.
*************************************************************************************.
* ELIGIBILITY VARIABLE IN SUBFAMILY 1 (AT THE HOUSEHOLD LEVEL)                                  
* ILLINOIS DHS CCS INCOME / FAMILY SIZE / EMPLOYMENT ELIGIBILITY . 
* CC SUBSIDY ELIGIBLE, TEEN PARENTS                              
* NON-TEEN/NON-TANF, CC SUBSIDY ELIGIBLE PARENTS
*************************************************************************************. 
*************************************************************************************.

*compute elig1=0.
if ((elig_prev1=2) or (n_t_parent1 gt 0) or (n_no_teta1 gt 0)) elig1=1.
*run.

SORT CASES BY SERIALNO .
AGGREGATE
/OUTFILE="c:\documents and settings\douglasa\desktop\temp281.sav"
/PRESORTED
/BREAK=SERIALNO
/grptwo= FIRST(elig1)

SORT CASES BY IDNUM .
FILTER OFF.
USE ALL.
EXECUTE .

USE ALL.
COMPUTE filter_$=(sfn2R=2).
VARIABLE LABEL filter_$ sfn2R=2. (FILTER).
VALUE LABELS filter_$  0 'Not Selected' 1 'Selected'.
FORMAT filter_$ (f1.0).
FILTER BY filter_$.
EXECUTE .

***************.
* FAMILY SIZE
***************.

***************.
* SUBFAMILY 2
* CREATES A VARIABLE IDENTIFYING SUBFAMILY 2 AS ELIGIBLE TO RECEIVE THE SUBSIDY .
* OR NOT. THE METHODOLOGY IS THE SAME AS FOR THE HOUSEHOLDER'S FAMILY (PRIMARY FAMILY).

******************************************************************************

*compute oc2_13=0.
if ((sfr2R=4 or sfr2R=5 or sfr2R=6) and (agep lt 13)) oc2_13=1.

*compute oc2_18=0.
if ((sfr2R=4 or sfr2R=5 or sfr2R=6) and (agep lt 18)) oc2_18=1.

*there are children of householders (under 18) who are parents in a parent/child subfamily.
*they are excluded here.

* COUNT THE TOTAL NUMBER OF OBSERVATIONS OF KIDS UNDER 13 WITHIN SUBFAMILY 2 IN EACH HOUSEHOLD ('SERIALNO'), AND ADD THAT TOTAL TO EACH OBSERVATION.
  SORT CASES BY SERIALNO.
  AGGREGATE
  /OUTFILE=*
  /BREAK=SERIALNO
  /n13_child2=nu(oc2_13).

* COUNT THE TOTAL NUMBER OF OBSERVATIONS OF KIDS UNDER 18 WITHIN SUBFAMILY 2 IN EACH HOUSEHOLD ('SERIALNO'), AND ADD THAT TOTAL TO EACH OBSERVATION.
  SORT CASES BY SERIALNO.
  AGGREGATE
  /OUTFILE=*
  /BREAK=SERIALNO
  /n18_child2=nu(oc2_18).

*compute hus_wife2=0.
if (sfr2R=2 and sfn2R=2) hus_wife2=1.

*compute par_alone2=0.
if (sfr2R=3 and sfn2R=2) par_alone2=1.

* COUNT THE TOTAL NUMBER OF TWO-PARENT, NON-HOUSEHOLDERS AND ADD THAT TOTAL TO EACH OBSERVATION IN EACH HOUSEHOLD (SUBFAMILY 2).
  SORT CASES BY SERIALNO.
  AGGREGATE
  /OUTFILE=*
  /BREAK=SERIALNO
  /n_hus_wife2=nu(hus_wife2).

* COUNT THE TOTAL NUMBER OF SINGLE PARENT, NON-HOUSEHOLDERS AND ADD THAT TOTAL TO EACH OBSERVATION IN EACH HOUSEHOLD (SUBFAMILY 2).
  SORT CASES BY SERIALNO.
  AGGREGATE
* GENERATE A VARIABLE EQUALS 1 IF THERE IS A TWO PARENT, NON-HOUSEHOLDER, AND 2 IF THERE IS A SINGLE PARENT, NON-HOUSEHOLDER. THESE VALUES ARE REPEATED FOR EACH MEMBER OF THE SAME FAMILY (REQUIRED AS AN INTERMEDIATE STEP).

```plaintext
compute n_par_alone2=n_par_alone2.
```

*STEP 1: FAMILY SIZE.*

* GENERATE VARIABLE REPEATING THE NUMBER OF FAMILY MEMBERS (PARENTS AND CHILDREN UNDER AGE 18) FOR EACH SUBFAMILY 2.

```plaintext
compute famsize2=n_par_alone2+n18_child2.
```

*STEP 2: INCOME ELIGIBILITY.*

```plaintext
compute income_hw2=0.
if (hus_wife2=1) income_hw2=intp_pos+semp_pos+oip+pap+retp+ssip+ssp+wagp.

compute income_pa2=0.
if (par_alone2=1) income_pa2=intp_pos+semp_pos+oip+pap+retp+ssip+ssp+wagp.
```

* COUNT THE TOTAL INCOME FOR TWO PARENT, NON-HOUSEHOLDERS SUBFAMILY 2 AND ADD THAT TOTAL TO EACH OBSERVATION IN EACH HOUSEHOLD.

```plaintext
SORT CASES BY SERIALNO.
AGGREGATE
/OUTFILE=* 
MODE=ADDVARIABLES 
/PRESORTED
/BREAK=SERIALNO
/n_income_hw2=sum(income_hw2).
```

* COUNT THE TOTAL INCOME FOR SINGLE PARENT, NON-HOUSEHOLDERS SUBFAMILY 2 AND ADD THAT TOTAL TO EACH OBSERVATION IN EACH HOUSEHOLD.

```plaintext
SORT CASES BY SERIALNO.
AGGREGATE
/OUTFILE=* 
MODE=ADDVARIABLES 
/PRESORTED
/BREAK=SERIALNO
/n_income_pa2=sum(income_pa2).
```

```plaintext
compute month_income2=(n_income_hw2+n_income_pa2)/12.
```
*compute income_elig2=0.
if ((n_parents2 gt 0) and (n13_child2 gt 0)) and 
((famsize2=2 and (month_income2 le fsize2)) or 
(famsize2=3 and (month_income2 le fsize3)) or 
(famsize2=4 and (month_income2 le fsize4)) or 
(famsize2=5 and (month_income2 le fsize5)) or 
(famsize2=6 and (month_income2 le fsize6)) or 
(famsize2=7 and (month_income2 le fsize7)) or 
(famsize2 ge 8 and (month_income2 le fsize8)))
income_elig2=1.

**************************************************************************************
* STEP 3: EMPLOYMENT ELIGIBILITY   .
**************************************************************************************

* CREATE A DUMMY VARIABLE (EMP_ELIG2) INDICATING WHETHER ONE OF THE NON-
HOUSEHOLDER PARENTS WORKS OR SINGLE PARENT WORKS.
*compute hw_emp2=0.
if (n_hus_wife2=1 and (esr in (1 2 4 5))) hw_emp2=1.

*compute pa_emp2=0.
if (n_par_alone2=1 and (esr in (1 2 4 5))) pa_emp2=1.

* COUNT/IDENTIFY EMPLOYED TWO-PARENT, NON-HOUSEHOLDERS AND ADD THAT TOTAL TO
EACH OBSERVATION IN EACH HOUSEHOLD.
  SORT CASES BY SERIALNO .
  AGGREGATE
    /OUTFILE=* 
    MODE=ADDVARIABLES 
    /PRESORTED 
    /BREAK=SERIALNO 
    /n_hw_emp2=nu(hw_emp2).

* COUNT/IDENTIFY EMPLOYED SINGLE PARENT, NON-HOUSEHOLDERS AND ADD THAT TOTAL TO
EACH OBSERVATION IN EACH HOUSEHOLD.
  SORT CASES BY SERIALNO .
  AGGREGATE
    /OUTFILE=* 
    MODE=ADDVARIABLES 
    /PRESORTED 
    /BREAK=SERIALNO 
    /n_pa_emp2=nu(pa_emp2).

compute emp_count2=hw_emp2+pa_emp2.
compute n_emp_count2=n_hw_emp2+n_pa_emp2.

* ACCOUNT FOR DISABLED PARENTS.
* DISABILITY DEFINITION HAS CHANGED IN THE ACS. THEY RECOMMEND NOT USING THE
DISABILITY VARIABLE IN ANALYSIS PRIOR TO 2003. HOWEVER, WE STILL MAKE USE OF THE
'DS' VARIABLE HERE FOR ILLUSTRATIVE PURPOSES.
compute hw_disab2=0.
if ds2R=1 and hus_wife2=1 then hw_disab2=1.

compute pa_disab2=0.
if ds2R=1 and par_alone2=1 then pa_disab2=1.

* COUNT/IDENTIFY DISABLED TWO-PARENT, NON-HOUSEHOLDERS AND ADD THAT TOTAL TO EACH OBSERVATION IN EACH HOUSEHOLD (SUBFAMILY 2).
   SORT CASES BY SERIALNO .
   AGGREGATE
   /OUTFILE=* MODE=ADDVARIABLES /PRESORTED
   /BREAK=SERIALNO
   /n_hw_disab2=sum(hw_disab2).

* COUNT/IDENTIFY DISABLED SINGLE PARENT, NON-HOUSEHOLDERS AND ADD THAT TOTAL TO EACH OBSERVATION IN EACH HOUSEHOLD (SUBFAMILY 2).
   SORT CASES BY SERIALNO .
   AGGREGATE
   /OUTFILE=* MODE=ADDVARIABLES /PRESORTED
   /BREAK=SERIALNO
   /n_pa_disab2=sum(pa_disab2).

compute n_disab2=n_hw_disab2+n_pa_disab2.

* ELIGIBILITY, ACCOUNTING FOR DISABLED PARENTS.
* DOES NOT ACCOUNT FOR DISABLED, SINGLE PARENTS.
*compute emp_elig2=0.
if (n13_child2 gt 0) and (n_parents2=1 and n_emp_count2=1) emp_elig2=1.
if (n13_child2 gt 0) and (n_parents2=1 and n_disab2=1) emp_elig2=1.
if (n13_child2 gt 0) and (n_parents2=2 and n_emp_count2=2) emp_elig2=1.
if (n13_child2 gt 0) and (n_parents2=2 and ((n_emp_count2 ge 1) or (n_disab2 ge 1))) emp_elig2=1.

***********************************************************************.
* ILLINOIS DHS CCS INCOME / FAMILY SIZE / EMPLOYMENT ELIGIBILITY   .
* SUBFAMILY 2 .
* NOTE: 'ELIG_PREV2' MUST BE EQUAL TO 2 .
***********************************************************************.
compute elig_prev2=income_elig2+emp_elig2.

***********************************************************************.
* ILLINOIS DHS CCS TEEN PARENT (SUBFAMILY 2) ELIGIBILITY .
* WITH CHILDREN UNDER 13, LESS THAN 21 Y/OLD + GOES TO SCHOOL .
***********************************************************************.
*compute t_parent2=0.
if ((hus_wife2=1 and n13_child2 gt 0) and (agep lt 21) and (sch2R=2 or sch2R=3)) or
   (par_alone2=1 and n13_child2 gt 0) and (agep lt 21) and (sch2R=2 or sch2R=3)))
t_parent2=1.
* COUNT THE TOTAL NUMBER OF CC SUBSIDY ELIGIBLE TEEN PARENTS IN SUBFAMILY2, AND ADD THAT TOTAL TO EACH OBSERVATION IN THE HOUSEHOLD.

SORT CASES BY SERIALNO.
AGGREGATE
/OUTFILE=*.
/MODE=ADDVARIABLES.
/PRESORTED.
/BREAK=SERIALNO.
/n_t_parent2=nu(t_parent2).

********************************************.

* ILLINOIS DHS CCS NON-TEEN / NON-TANF RECIPIENT ELIGIBILITY
* NO TEEN / NO TANF (SUBFAMILY 2), GO TO COLLEGE AND WORK AT LEAST 10 HRS/WK.

********************************************.

*compute no_teta2=0.
if (((hus_wife2=1 and (n13_child2 gt 0) and (agep ge 21) and schg2R=6 and wkhp2R ge 10) or
(par_alone2=1 and (n13_child2 gt 0) and (agep ge 21) and sch2Rg=6 and wkhp2R ge 10))
no_teta2=1.

* COUNT THE TOTAL NUMBER OF NON-TEEN/NON-TANF, CC SUBSIDY ELIGIBLE PARENTS IN SUBFAMILY2, AND ADD THAT TOTAL TO EACH OBSERVATION IN THE HOUSEHOLD.

SORT CASES BY SERIALNO.
AGGREGATE
/OUTFILE=*.
/MODE=ADDVARIABLES.
/PRESORTED.
/BREAK=SERIALNO.
/n_no_teta2=nu(no_teta2).

********************************************.

* ELIGIBILITY VARIABLE IN SUBFAMILY 2 (AT THE HOUSEHOLD LEVEL).
* ILLINOIS DHS CCS INCOME / FAMILY SIZE / EMPLOYMENT ELIGIBILITY.
* CC SUBSIDY ELIGIBLE, TEEN PARENTS.
* NON-TEEN/NON-TANF, CC SUBSIDY ELIGIBLE PARENTS.

********************************************.

*compute elig2=0.
if (((elig_prev2=2) or (n_t_parent2 gt 0) or (n_no_teta2 gt 0))
elig2=1.
*run.

SORT CASES BY SERIALNO.
AGGREGATE
/OUTFILE="c:\documents and settings\douglasa\desktop\temp381.sav"
/PRESORTED.
/BREAK=SERIALNO.
/grpthree= FIRST(elig2)
SORT CASES BY IDNUM.

FILTER OFF.
USE ALL.
EXECUTE.

MATCH FILES FILE="temp381.sav" /TABLE="temp281.sav" /TABLE="temp81.sav" /BY idnum.

compute total=0.
if (elig=1 or elig1=1 or elig2=1) total=1.
*run.

SORT CASES BY IDNUM.

var lab elig='Child care subsidy eligible: primary family.'
var lab elig1='Child care subsidy eligible: sub-family1'.
var lab elig2='Child care subsidy eligible: sub-family2'.
var lab total='Child care subsidy eligible: all families'.

val lab elig 1='yes' 0='no'.
val lab elig1 1='yes' 0='no'.
val lab elig2 1='yes' 0='no'.
val lab total 1='yes' 0='no'.

***************************.
***************************.
fre elig elig1 elig2 total.
weight by wgtp.
title1 '2001: number of eligible families (24A)'.
title2 'using household weights'.

fre elig elig1 elig2 total.
title1 '2001: number of eligible families (24A)'.
title2 'unweighted'.