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

G 41 T		page
Section I:	Introduction Description:	4
	Purpose of the guidebook	4
	Policy questions	4
	Evolution and structure of the guidebook	4 7
	Accessing public and non-public use datasets	/
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 <u>eligible</u> for child care subsidy?	12
	Using the PUMS American Community Survey data	12
	2. What are the number and characteristics of families <u>receiving</u> 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	
	TANF families participating in the child care subsidy program	34
	1. How many mothers in the TANF population are eligible to receive	
	child care subsidy? How many actually do?	35
	2. What kind of child care are TANF mothers who receive child care	
	subsidies using?	36
	3. What is the probability that eligible TANF recipients will take the	
	child care subsidy within 3 years (12 quarters)?	37
	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	
	the effect of child care subsidy program participation on parental employment	39
	1. What is the median duration of employment for those TANF mothers	
	who used the subsidy within 2 quarters of eligibility?	39
	2. Among TANF recipients eligible for child care subsidy, how does subsidy	
	take-up affect the likelihood of employment ending?	40
References		42
Appendices:	34	
Appendices.	Sample STATA code	43
2	Sample SAS code	52
3	Sample SPSS code	78
5	bumple of objection	70

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.² 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.

- The Public Use Microdata Sample of the American Community Survey (PUMS ACS) is available for download from the Census Bureau website (http://factfinder.census.gov/home/en/acs_pums_2001.html) in comma-delimited, PC SAS and UNIX SAS formats.
- 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)⁴. 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

_

⁴ Heckman, J.J., R.J. LaLonde and J.A. Smith (1999), The Economics and Econometrics of Active Labor Market Programs, in O. Ashenfelter and D. Card, (eds), Handbook of Labor Economics, North Holland, Vol. 3, 1865-2086.

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.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.

⁵ U.S. Census Bureau (2006), *Design and Methodology* American Community Survey, U.S. Government Printing Office, Washington, DC. http://www.census.gov/acs/www/Downloads/tp67.pdf

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 <u>eligible</u> 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. 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: http://www.census.gov/acs/www/Downloads/SQuest.pdf, or

http://www.census.gov/acs/www/SBasics/SQuest/SQuest1.htm

Subject Definitions http://www.census.gov/acs/www/Downloads/2002/usedata/Subject_Definitions.pdf, or

http://www.census.gov/acs/www/UseData/Def.htm

Data Dictionary: http://www.census.gov/acs/www/Downloads/DataDict.pdf, or

http://factfinder.census.gov/home/en/acs_pums_2001.html

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.⁶

_

⁶ 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.

<u>Family / Family Size</u>: 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.

⁹ Source: American Community Survey / Puerto Rico Community Survey 2002 Subject Definitions. (http://www.census.gov/acs/www/Downloads/2002/usedata/Subject_Definitions.pdf, or http://www.census.gov/acs/www/UseData/Def.htm). Census definition of householder – "One person in each household is

bb	Not applicable (in group quarters)
00	Reference person
01	Husband / wife
02	Son / daughter
03	Brother / sister
04	Father / mother
05	Grandchild
06	Inlaw
07	Other relative
08	Roomer / boarder
09	Housemate / roommate
10	Single partner
11	Foster child
12	Other nonrelative

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):

bb	Not applicable (in group quarters)
01	Husband / wife no children
02	Husband / wife with children
03	Parent in parent / children subfamily
04	Child in a married-couple subfamily
05	Child in a mother-child subfamily
06	Child in a father-child subfamily

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."

¹⁰ Source: American Community Survey / Puerto Rico Community Survey 2006 Subject Definitions. Definition of 'Relationship to Householder'. (www.census.gov/acs/www/Downloads/2006/usedata/Subject_Definitions.pdf)

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.

<u>Family Income:</u> 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.

WAGP	Wages or salary
SEMP	Self-employment
SSIP	Supplementary Security
SSP	Social Security
INTP	Interest, dividends, and net rental
RETP	Retirement
PAP	Public Assistance
OIP	All other income

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

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)¹³:

Family Size	2001	2005
2	\$ 1,472	\$ 1,960
3	\$ 1,818	\$ 2,421
4	\$ 2,165	\$ 2,882
5	\$ 2,511	\$ 3,344
6	\$ 2,857	\$ 3,805
7	\$ 2,922	\$ 3,891
8 or larger	\$ 2,987	\$ 3,978

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. 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

¹³ Source: Illinois Department of Human Services, Family Income Ceilings

¹⁴ Source: American Community Survey / Puerto Rico Community Survey 2006 Subject Definitions. Definition of 'Income of Families'. (www.census.gov/acs/www/Downloads/2006/usedata/Subject_Definitions.pdf)

remaining income sources that are specified by the Illinois Department of Human Services when determining eligibility. 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.

<u>Parental Employment and Disability</u>: 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:

1	Civilian employed, at work
2	Civilian employed, with a job but not at work
3	Unemployed
4	Armed forces, at work
5	Armed forces, with a job but not at work
6	Not in labor force

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.

14

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

5 though 15 years	16 though 64 years	65 years or older
sensory limitations	sensory limitations	sensory limitations
physical limitations	physical limitations	physical limitations
limitation in cognitive	limitation in cognitive	limitation in cognitive
functioning (i.e. mental	functioning (i.e. mental	functioning (i.e. mental
disability)	disability)	disability)
self-care limitation	self-care limitation	self-care limitation
	going-outside-home limitation	going-outside-home limitation
	employment limitation	

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)

<u>Suggested procedure to determine income and employment with disabilities eligibility</u> (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).

b	Not applicable (less than 3 years old)
1	No, has not attended in the last 3 months
2	Yes, public school or public college
3	Yes, private school or private college

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.

<u>Suggested procedure to determine teen parent eligibility (T_PARENTS=1):</u>

- 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).
- 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).

b	Not applicable (not attending school)
1	Nursery school / preschool
2	Kindergarten
3	Grade 1 to Grade 4
4	Grade 5 to Grade 8
5	Grade 9 to Grade 12
6	College undergraduate
7	Graduate or professional school

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)).

<u>Suggested procedure to determine employment non-teen, non-TANF parent eligibility</u> (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. 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.

20

Source: American Community Survey / Puerto Rico Community Survey 2006 Subject Definitions (http://www.census.gov/acs/www/Downloads/2006/usedata/Subject_Definitions.pdf)

<u>Suggested procedure to determine foster child eligibility (FOSTER=1):</u>

- 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)

Number of eligible families	2001	2005
Primary family	207,321	253,049
Sub-family 1	43,536	45,513
Sub-family 2	1,743	1,422
Total	252,600	299,984

Table 2. Number and characteristics of families eligible for child care subsidy in Illinois (2001)

Number of eligible families	
Primary family	207,321
Sub-family 1	43,536
Sub-family 2	1,743
Total	252,600
Parents marital status	
Married	38%
Single	62%
Maternal education	
Less than high school	20%
High school	30%
Some college or more	50%
Maternal employment	
Full-time, year-round	33%
Part-time or Part-year	54%
Not employed	13%

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 <u>receiving</u> 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, ¹⁷ 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

	Total reported number of families served	State-specific pooling factor	Number of CCDF families served
01-OCT-2000	91,117	0.58	52,848
01-NOV-2000	91,342	0.58	52,978
01-DEC-2000	89,741	0.58	52,050
01-JAN-2001	89,356	0.58	51,827
01-FEB-2001	89,935	0.58	52,162
01-MAR-2001	89,811	0.58	52,090
01-APR-2001	90,148	0.58	52,286
01-MAY-2001	90,915	0.58	52,731
01-JUN-2001	87,702	0.58	50,867
01-JUL-2001	85,928	0.58	49,838
01-AUG-2001	86,759	0.58	50,320
01-SEP-2001	86,839	0.58	50,367
AVERAGE M 10-2000/9-20	MONTHLY CCDF S	SERVED	51,697

The <u>family file</u> provides data on family-level characteristics such as those that receive TANF as a source of income.¹⁹ 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

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

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:

Child Care & Early Education

RESEARCH CONNECTIONS

Home | Contact Us | Search | AAA - MvData options... ▼

ABOUT US UNDERSTANDING RESEARCH COLLECTION

RESEARCH OUR COLLECTION PUBLICATIONS

WHAT'S NEW DATASETS

POLICY RESOURCE COLLABORATIVE PROJECTS

HELP

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 the system, named Survey Documentation and Analysis (SDA), was developed by the Computer-assisted Survey Methods Program (CSM) at the University of California, Berkeley.

The following studies are available for online analysis:

- Child Care and Development Fund Administrative Data
 - » (ederal Fiscal Year 2001 (ICPSR 4379)
 - » Federal Fiscal Tear 2002 (ICPSP 4597)
 - » Federal Fiscal Year 2003 (ICPSR 4643)
 - » Federal Fiscal Year 2004 (ICPSR 4529)
 - » Federal Fiscal Year 2005 (ICPSR 21401)
- » Early Head Start Research and Evaluation (EHSRE) Study, 1996-2001: [United States] (ICPSR 3804)
- » National Health Interview Survey
 - » 1997 (ICPSR 2954)
 - » 1998 (ICPSR 3107)
 - » 1999 (ICPSR 3397)
 - » 2000 (ICPSR 3381)
 - » 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.













Child Care & Early Education

RESEARCH CONNECTIONS

Home | Contact Us | Search - MvData options... ▼

ABOUT US UNDERSTANDING OUR RESEARCH WHAT'S DATASETS POLICY COLLABORATIVE HELP PUBLICATIONS COLLECTION NEW RESOURCES PROJECTS

Description Browse Download Analyze Related & Citation Documentation Data & Subset Resources

Analyze & Subset--Study No. 4379

ICPSR Study No.: 4379

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

Principal United States Department of Health and Human Services, Administration for Children and Families, **Investigator(s):** 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

Codebook

Download

SDA [Use classic interface]

Create Variables

Analysis

Selected Study: Child Care and Development Fund Administrative Data, Federal Fiscal Year 2001, Adjusted Family Data

Getting Started Variable Selection: Help SDA Frequencies/Crosstabulation Program Help: General / Recoding Variables Selected: View Copy to: Row Col Ctrl Filter REQUIRED Variable names to specify Mode: O Append O Replace INCTANE OPTIONAL Variable names to specify Column: STATE 🌎 Child Care and Development Fund Administrative Data, Federal Fiscal Year 2001, Adjuste Control: ADMINISTRATIVE VARIABLES

STATE IDENTIFICATION Selection Filter(s): STATE(IL) Example: age(18-50) VARIABLES FROM FAMILY FILE Weight: A_FCHWT - Annual Adjusted Weight for Families/Children Served WEIGHT VARIABLE TABLE OPTIONS CHART OPTIONS Percentaging: Type of chart: Stacked Bar Chart ☑ Column □ Row □ Total Bar chart options: with 1 v decimal(s) Orientation:

Vertical O Horizontal Visual Effects: ⊙ 2-D ○ 3-D Confidence intervals Level: 95 percent Show Percents: Yes ☐ Standard error of each percent Palette:
O Color O Grayscale ■ Statistics with 2 v decimal(s) Size - width: 600 🕶 height: 400 💌 □ Question text □ Suppress table ✓ Color coding
☐ Show Z-statistic ■ Include missing-data values 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. ²⁰ 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. ²¹ 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.

²¹ Mayora M.K. et al. The Dynamics of Child Come Subsidy Heav A. Collaborative

Meyers, M.K. et al. The Dynamics of Child Care Subsidy Use: A Collaborative Study of Five States. (2002). National Center for Children in Poverty. Columbia University, Mailman School of Public Health. New York, NY.

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:

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

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:

VARIABLE	DESCRIPTION	USEFUL TO
Wages	Quarterly data on wages received by employees. Provides the amount of quarterly earnings but no information on the number of hours worked.	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
Quarter and year	Data on quarters when the wages were received	Provides time frame information to form employment spell intervals
Employee ID	Identifies the wage earners	Link individual level records across datasets
Employer ID	Identification number of the employer	Determine changes in patterns of employment

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:

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

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):

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

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).

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):

	Number	Percent
Total	12,631	100.0
Eligible for child care subsidy benefits (based on employment)	6,931	54.9
Eligible and receive child care subsidy	2,391	34.5

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).

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)

Trivi luminos, in inmois, by age and face, elimiety (1997-1999)					
Age	Center %	Family %	Relative %	In-home %	Total #
				(Non-relative)	
Under 1 year	14.41	24.46	38.56	22.57	1,582
1 to 2 years	23.87	20.68	34.65	20.80	1,567
3 years	26.21	13.17	36.42	24.19	744
4 to 5 years	21.13	16.74	33.67	28.45	1,093
6 years and older	10.13	11.52	40.80	37.56	1,728
Race / Ethnicity					
White	27.12	26.51	26.51	19.87	1,973
Black	14.35	14.78	40.52	30.35	4,363
Latino	11.11	6.08	54.50	28.31	378
All	17.92	17.74	37.19	27.15	6,714

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).

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 8. Utilization of child care subsidy among eligible individuals in Illinois, by cohort (1997-1999)

Year became eligible	# of Entries	Withi	n 1 year	Within 2 year		Within 3 year	
		% Eligible	% Eligible Using subsidy	% Eligible	% Eligible Using subsidy	% Eligible	% Eligible Using subsidy
1997	5,802	39	25	59	31	66	33
1998	4,420	42	32	56	36		
1999	2,409	27	38				

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).

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

Year eligible	Illinois	Cook County	Rest of State
1997	2	3	2
1998	2	2	2
1999	1	1	1.5
Average ('97-'99)	2	2	2

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

utilization, 1997-19	リフフ
Variables	Percent
Year Eligible	
1997	
1998	20**
1999	53**
Region	
Rest	
Cook	-14**
Race/Ethnicity	
White	
Black	102**
Latino	-24**
Age	
Under 20	
20-24	11
25-34	9
35 and older	-12
Number of Children	
1	
2	17**
3 or more	21**
Age of Youngest Child	
0-2	140**
3-5	101**
6 and over	
Being on TANF	
Yes	
No	-7
Number of Quarters of Eligibility	-28**

^{*&}lt;0.05 **<0.001

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).

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

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 en	ding,
among child care subsidy eligible (complimentary log-log models	s)
Variables	Percent
Year Eligible	
1997	~
1998	-5 1
1999	1
Child care subsidy take up within 6 months of	
being eligible	
Yes	-43**
No	
Desire.	
Region Cook County	-7
Rest of the state	-/
Rest of the state	
Race/Ethnicity	
White	
Black	9*
Latino	-13*
Age	
Under 20	
20-24	-29
25-34	-38
35 and older	-40
N and an of Children	
Number of Children 1	
2	18*
3 or more	27*
	_,
Age of Youngest Child	
0-2	6
3-5	14*
6 and over	
Number of Quarters of Eligibility	-19**
*<0.05 **<0.001	
*<0.05 **<0.001 Based on Gompertz models	
Dasca on Compete 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

Hotz, V. J. and Scholz, J. (2002). Measuring employment and income for low-income populations with administrative and survey data. In M. Ver Ploeg, R. Moffit, and C. Citro (Eds.) *Studies of Welfare Populations Data Collection and Research Issues* (275-315). National Academy Press, Washington, DC.

Lee, B.J., Goerge, R., Reidy, M., Kreader, J.L., Georges, A., Wagmiller, R.L., Staveley, J., Stevens, D., Dryden Witte, A. (2004). *Child care subsidy use and employment outcomes of TANF mothers during the early years of welfare reform: A three-state study*. Chicago, IL. Chapin Hall Center for Children, University of Chicago.

Jaro, M.A. (1985). Current record linkage research. *Proceedings of Statistical Computing*. Washington, DC: American Statistical Association.

Jaro, M.A. (1989). Advances in record-linkage methodology as applied to matching the 1985 census of Tampa, Florida. *Journal of the American Statistical Association* 84(406), 414-420.

Newcombe, H.B. (1988). *Handbook of record linkage: Methods for health and statistical studies, administration, and business*. Oxford: Oxford University Press.

Winkler, W.E. (1988). Using the EM algorithm for weight computation in the Fellegi-Sunter model of record linkage. In *Proceedings of the Section Survey Research Methods*, 1-5. Washington, DC: American Statistical Association.

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

* DATA: http://factfinder.census.gov/home/en/acs_pums_2001.html, or

* http://factfinder.census.gov/home/en/acs_pums_2001.html

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

* http://www.census.gov/acs/www/SBasics/SQuest/SQuest1.htm

* SUBJECT DEF.: http://www.census.gov/acs/www/Downloads/2002/usedata/Subject_Definitions.pdf, or

http://www.census.gov/acs/www/UseData/Def.htm

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

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 ELIGIBITITY

```
**********************
* 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==2 &
(n emp count==1 & n h disab==1)))|( n 13child>0 & (n parents==2 & (n emp count==1 & 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
*************************************
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)
ge n_parents1=n_hus_wife1+n_par_alone1
gen famsize1=n_parents1+ 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
egen n income hw1=sum(income hw1), by (serialno)
egen n_income_pa1=sum(income_pa1), by (serialno)
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)
egen 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>=1|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)
ge n_parents2=n_hus_wife2+n_par_alone2
```

```
gen famsize2= n_parents2+ n18_child2
gen income_hw2=intp_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)|(famsize==8 & month_income2<=fsize8))
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>=1|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 eligible eligible 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)

* DATA: http://factfinder.census.gov/home/en/acs_pums_2001.html, or http://factfinder.census.gov/home/en/acs_pums_2001.html * SURVEY: http://www.census.gov/acs/www/Downloads/SQuest.pdf, or http://www.census.gov/acs/www/SBasics/SQuest/SQuest1.htm * SUBJECT DEF.: http://www.census.gov/acs/www/Downloads/2002/usedata/Subject Definitions.pdf, or http://www.census.gov/acs/www/UseData/Def.htm; * DATA DICTIONARY: http://www.census.gov/acs/www/Downloads/DataDict.pdf, or http://factfinder.census.gov/home/en/acs_pums_2001.htm; 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; 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:
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;
                      proc sort data=x1a nodup;
                        by serialno;
                      run;
                      proc sort data=temp1 nodup;
                        by serialno;
                      data new 1a;
                        set x1a:
                        by serialno;
* 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;
                      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;
```

```
proc sort data=x1d nodup;
                        by serialno;
                       run;
                       proc sort data=temp1 nodup;
                        by serialno;
                       data new 1d;
                        set x1d;
                        by serialno;
                       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;
                       proc sort data=x1c nodup;
                        by serialno;
                       run;
                       proc sort data=temp1 nodup;
                        by serialno;
                       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;
                       proc sort data=x2a nodup;
                        by serialno;
                       proc sort data=temp2 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:
                    proc summary data=temp2 nway;
                      var spo_part;
                      class serialno:
                      output out=x2b(drop=_type_ _freq_) sum=n_spo_part;
                    proc sort data=x2b nodup;
                      by serialno;
                    proc sort data=temp2 nodup;
                      by serialno;
                    data new 2b;
                      set x2b:
                      by serialno;
                    run;
data temp3;
merge temp2 new_2a new_2b;
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);
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;
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+semp_pos+oip+pap+retp+ssip+ssp+wagp;
income_s=0;
if spo_part=1 then income_s=intp_pos+semp_pos+oip+pap+retp+ssip+ssp+wagp;
if okids=1 and agep ge 21 then income_ok=intp_pos+semp_pos+oip+pap+retp+ssip+ssp+wagp;
income o=0;
if orel=1 and agep ge 18 then income_o=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;
                    proc summary data=temp3 nway;
```

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;
                      proc sort data=x4a nodup;
                        by serialno;
                      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;
                      proc sort data=x4b nodup;
                       by serialno;
                      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;
                      proc sort data=x5a nodup;
                       by serialno;
                      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;
                     proc sort data=x5b nodup;
                      by serialno;
                     run;
                     proc sort data=temp5 nodup;
                      by serialno;
                     data new_5b;
                      set x5b;
                      by serialno;
                     run;
data temp6;
merge temp5 new_5a new_5b;
by serialno;
n_disab=n_h_disab+n_s_disab;
* ELIGIBILITY, ACCOUNTING FOR DISABLED PARENTS;
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 EOUAL 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
****************************
if (h holder=1 and (n13 child gt 0) and (agep lt 21 and agep ne.) and sch in (23)) or
 (spo part=1 and (n13 child gt 0) and (agep lt 21 and agep ne.) and sch in (23))
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;
                     run;
```

```
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;
                    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; proc sort data=x8a nodup; by serialno; 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; proc sort data=temp81; by idnum; run; data temp21; set all01; if sfn=1; *subfamily 1; ********* * 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)
**********************************
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;
                    proc summary data=temp21 nway;
                     var oc1 13;
                     class serialno;
                     output out=x21a (drop=_type_ _freq_) sum=n13_child1;
                    proc sort data=x21a nodup;
                     by serialno;
                    run;
                    proc sort data=temp21 nodup;
                     by serialno;
                    data new 21a;
                     set x21a:
                     by serialno;
* COUNT THE TOTAL NUMBER OF OBSERVATIONS OF KIDS UNDER 18 WITHIN SUBFAMILY 1 IN
 EACH HOUSEHOLD ('SERIALNO'), AND ADD THAT TOTAL TO EACH OBSERVATION;
                    proc summary data=temp21 nway;
                     var oc1 18;
                     class serialno:
                     output out=x21b (drop= type freq ) sum=n18 child1;
                    proc sort data=x21b nodup;
                     by serialno:
                    run;
                    proc sort data=temp21 nodup;
                     by serialno;
                    data new_21b;
                     set x21b:
                     by serialno;
                    run;
data temp22;
merge temp21 new_21a new_21b;
by serialno;
* CREATE DUMMY VARIABLES FOR TWO-PARENT, SUBFAMILIES[1] AND SINGLE PARENT
SUBFAMILIES[1];
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;
                      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;
                      proc sort data=x22b nodup;
                        by serialno;
                      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+n18 child1; *********** * STEP 2: INCOME ELIGIBILITY; ************ income_hw1=0; if hus_wife1=1 then income_hw1=intp_pos+semp_pos+oip+pap+retp+ssip+ssp+wagp; income_pa1=0; if par alone1=1 then income pa1=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: proc summary data=temp23 nway; var income hw1; class serialno: output out=x23a (drop=_type_ _freq_) sum=n_income_hw1; proc sort data=x23a nodup; by serialno; proc sort data=temp23 nodup; by serialno; data new 23a: set x23a; by serialno; run: * COUNT THE TOTAL INCOME FOR SINGLE PARENT, NON-HOUSEHOLDERS SUBFAMILY1 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; 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;
                      proc sort data=x24a nodup;
                       by serialno;
                      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;
                      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;
                      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 (23)) or
 (par alone1=1 and (n13 child1 gt 0) and (agep lt 21 and agep ne.) and sch in (23))
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;
                    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 ;
****************************
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;
                 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
**********************************
**********************************
```

```
elig1=0;
if (elig prev1=2) or (n t parent1 gt 0) or (n no teta1 gt 0) then elig1=1;
run:
data temp281;
set temp28;
by serialno;
if first.serialno then output; *output only the first obs for each household;
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
********************************
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;
                     proc sort data=x31a nodup;
                      by serialno;
                     run:
                     proc sort data=temp31 nodup;
                      by serialno;
                     data new_31a;
                      set x31a;
                      by serialno;
```

```
run;
* 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;
                      proc sort data=x31b nodup;
                       by serialno;
                      run:
                      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;
                      proc sort data=x32a nodup;
                       by serialno;
                      run;
                      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;
* COUNT THE TOTAL INCOME FOR TWO PARENT, NON-HOUSEHOLDERS SUBFAMILY 2 AND ADD
 THAT TOTAL TO EACH OBSERVATION IN EACH HOUSEHOLD;
                     proc summary data=temp33 nway;
                      var income_hw2;
                      class serialno;
```

```
output out=x33a (drop=_type_ _freq_) sum=n_income_hw2;
                      proc sort data=x33a nodup;
                        by serialno;
                      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;
                      proc sort data=x33b nodup;
                        by serialno;
                      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;
                      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;
                      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;
                      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;
                      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 (23)) or
 (par alone2=1 and (n13 child2 gt 0) and (agep lt 21 and agep ne.) and sch in (23))
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;
                   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;
data temp381;
set temp38;
by serialno;
if first.serialno then output; *output only the first obs for each household;
proc sort data=temp381;
by idnum;
run;
data ILCC.all01;
merge temp81 temp281 temp381;
by idnum;
if elig=1 or elig1=1 or elig2=1 then total=1;
run;
proc sort data=ILCC.all01;
by idnum;
run;
```

Appendix 3: SPSS SYNTAX TO COMPUTE FAMILY CHILD CARE SUBSIDY ELIGIBILITY FROM THE PUMS ACS DATA (2001)

* DATA: http://factfinder.census.gov/home/en/acs_pums_2001.html, or http://factfinder.census.gov/home/en/acs_pums_2001.html * SURVEY: http://www.census.gov/acs/www/Downloads/SQuest.pdf, or http://www.census.gov/acs/www/SBasics/SQuest/SQuest1.htm * SUBJECT DEF.: http://www.census.gov/acs/www/Downloads/2002/usedata/Subject Definitions.pdf, or http://www.census.gov/acs/www/UseData/Def.htm. * DATA DICTIONARY: http://www.census.gov/acs/www/Downloads/DataDict.pdf, or http://factfinder.census.gov/home/en/acs_pums_2001.html 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=*

MODE=ADDVARIABLES

/PRESORTED

/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=*

MODE=ADDVARIABLES

/PRESORTED

/BREAK=SERIALNO

/n21_child=nu(oc_21).

* COUNT THE TOTAL NUMBER OF OBSERVATIONS OF OTHER CHILDREN OF THE HOUSHOLDER (21 AND OVER) WHO ARE NOT PARENTS AND MEMBERS OF SUBFAMILIES. ADD THAT TOTAL TO EACH OBSERVATION.

SORT CASES BY SERIALNO.

AGGREGATE

/OUTFILE=*

MODE=ADDVARIABLES

/PRESORTED

/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=*

MODE=ADDVARIABLES

/PRESORTED

/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 (spo_part=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=*
               MODE=ADDVARIABLES
               /PRESORTED
               /BREAK=SERIALNO
               /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=*
               MODE=ADDVARIABLES
               /PRESORTED
               /BREAK=SERIALNO
               /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=*
               MODE=ADDVARIABLES
               /PRESORTED
               /BREAK=SERIALNO
               /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.

* 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 $(h_{bolder}=1 \text{ and } (esr2R=1 \text{ or } esr2R=2 \text{ or } esr2R=4 \text{ or } esr2R=5)) h_{b_{bolder}}=1$.

*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

 $/n_h_emp=nu(h_emp).$

* 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=*

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=2 and (n_emp_count=1 and n h disab=1)) emp elig=1.
if (n13 child gt 0) and (n parents=2 and (n emp count=1 and n s disab=1)) emp elig=1.
***********************
* ILLINOIS DHS CCS INCOME / FAMILY SIZE / EMPLOYMENT ELIGIBILITY .
* NOTE: 'ELIG PREV' MUST EOUAL 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
************************
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.

```
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 $.
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
************************
*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
```

SORT CASES BY SERIALNO.

/OUTFILE=*
MODE=ADDVARIABLES
/PRESORTED
/BREAK=SERIALNO
/n18_child1=nu(oc1_18).

* 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.

 $compute\ famsize 1 = n_parents 1 + n 18_child 1.$

```
* 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=*
             MODE=ADDVARIABLES
             /PRESORTED
             /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 ...
****************************
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=*

MODE=ADDVARIABLES

/PRESORTED

/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=*

MODE=ADDVARIABLES

/PRESORTED

/BREAK=SERIALNO

/n18_child2=nu(oc2_18).

* CREATE DUMMY VARIABLES FOR TWO-PARENT, SUBFAMILIES [2] AND SINGLE PARENT SUBFAMILIES [2].

*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=*

MODE=ADDVARIABLES

/PRESORTED

/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

/OUTFILE=*
MODE=ADDVARIABLES
/PRESORTED
/BREAK=SERIALNO
/n_par_alone2=nu(par_alone2).

* 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). compute n parents2=n hus wife2+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.

compute famsize2=n_parents2+n18_child2.

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

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.

SORT CASES BY SERIALNO.

AGGREGATE
/OUTFILE=*
MODE=ADDVARIABLES
/PRESORTED
/BREAK=SERIALNO
/n_income_pa2=sum(income_pa2).

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).
```

* ACCOUNT FOR DISABLED PARENTS.

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

* 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'.
```