Panel Study of Income Dynamics, Child Development Supplement 2014: User Guide
December 2017 (Revised)
This user guide was prepared by Narayan Sastry and Paula Fomby

#### Abstract

The 2014 Child Development Supplement (CDS) to the Panel Study of Income Dynamics (PSID) collected data on children's health, development, and well-being within the children's family and neighborhood context for a nationally-representative sample of children in the U.S. CDS-2014 builds on the strengths of PSID, a genealogical study of U.S. families that began in 1968. The original CDS cohort, begun in 1997 on a cohort of children aged 0–12 years was recently completed. In 2014, CDS was relaunched with an entirely new sample covering all children in PSID households aged 0–17 years. Detailed information was collected on the same topics as in the original CDS, and the study collected time diaries, assessments of reading and math skills, and interviews with children's primary caregivers as well as with older children themselves. All of the data are publicly available free of charge through the PSID Online Data Center. Restricted data from CDS are also available to researchers through a contract. This User Guide provides essential information to researchers planning or undertaking research using the CDS-2014 data.

## Suggested citation of the CDS-2014 User Guide:

"Panel Study of Income Dynamics, Child Development Supplement 2014: User Guide," Institute for Social Research, University of Michigan, 2017.

## Suggested citation of the CDS-2014 data:

Child Development Supplement to the Panel Study of Income Dynamics, public use dataset [restricted use data, if appropriate]. Produced and distributed by the Survey Research Center, Institute for Social Research, University of Michigan, Ann Arbor, MI (year data were downloaded).

## Suggested acknowledgement of the CDS-2014 data:

The collection of data used in this study was supported by the *Eunice Kennedy Shriver* National Institute of Child Health and Human Development under grant number R01 HD052646.

## **Preface**

The 2014 Child Development Supplement (CDS) to the Panel Study of Income Dynamics (PSID) was funded by Grant R01 HD052646 from the *Eunice Kennedy Shriver* National Institute of Child Health and Human Development (NICHD). Additional funding was provided through two NICHD administrative supplements (Grants R01 HD052646-06S1 and R01 HD052646-08S1), the U.S. Department of Agriculture's Food and Nutrition Service, the Russell Sage Foundation, and the Indiana University—Purdue University Indianapolis' Lilly Family School of Philanthropy. PSID is very grateful to these sponsors for their support of CDS-2014.

# **Contents**

Abstract	ii
Preface	iv
Contents	v
Acknowledgements	vi
1. INTRODUCTION	1
2. THE CDS-2014 QUESTIONNAIRE, MEASURES, AND VARIABLES	4
General Principles for the CDS-2014 Questionnaire	4
Questionnaire Modules, Sections, and Measures Questionnaire Description Conventions Primary Caregiver Household Interview Primary Caregiver Child Interview Child Interview Other Study Components	6 6 11
Final Data Release File Updates	20
3. THE CDS-2014 SAMPLE	
4. THE CDS-2014 DATA FILE STRUCTURE	24
5. THE CDS-2014 WEIGHTS	27
Overview of Method to Construct CDS-2014 Child Weights	28
Method to Construct CDS-2014 Child Weights	29
Method to Construct CDS-2014 PCG Weights	35
Summary of CDS-2014 Weights	35
Recommendations for Using the CDS-2014 Weights	
APPENDIX A. MEASUREMENT RESOURCE TABLE: COMPARISON OF CDS-2014 WI	TH CDS I-III . 37

### **Acknowledgements**

The 2014 wave of the Child Development Supplement (CDS) to the Panel Study of Income Dynamics (PSID) was based at the Survey Research Center in the Institute for Social Research at the University of Michigan.

CDS-2014 was directed by Narayan Sastry. Paula Fomby served as the CDS-2014 project director and provided significant leadership, management, and contributions across all aspects of the project. Katherine McGonagle was a key member of the team in the early stages of the project, and continued to provide important guidance and advice throughout the remainder of the project. Other PSID investigators who provide input at key stages of the project include Charlie Brown, Jacquelynne Eccles, and Robert Schoeni. Valuable input and support at several stages was also provided by Dalton Conley and Colter Mitchell.

Development of the questionnaires for CDS-2014, which were based on those used in the first three waves of CDS, was led by Narayan Sastry, Paula Fomby, and Yi-Miau Tsai. The questionnaire development process was ably managed and implemented by Andrea Scott and Mary Dascola, members of the PSID project team. Questionnaire input and advice was obtained from Robert Bradley, Pamela Davis-Kean, Jacquelynne Eccles, Eszter Hargittai, Sandy Hofferth, Susan Jekielek, Megan Patrick, and Kate Smith.

The design and implementation of CDS-2014 sampling procedures was undertaken by Steve Heeringa, Frost Hubbard, Brady West, and James Wagner.

Within the Survey Research Operations (SRO) unit, which undertook the fieldwork for CDS-2014, Jennifer Arrieta served as the SRO Project Manager under the direction of Shonda Kruger-Ndiaye (PSID Survey Director), Stephanie Chardoul (SRO Senior Project Advisor), Gregg Peterson (SRO Associate Director), and Patty Maher (SRO Director). Among the many other key SRO staff members on CDS-2014 were Maryam Buagelila, Dianne Casey, Wen Chang, Sara Freeland, Stanley Hasper, Lloyd Hemingway, Jay Lin, Youhong Liu, Esther Ullman, Ryan Yoder, and Dan Zahs.

Kimberly Schlegel was responsible for data processing activities. Christine Peterson provided assistance with several important data processing tasks.

Special thanks go to other members of PSID project who contributed to CDS-2014, including April Beaule, Noura Insolera, Dennis Kloska, Allison Mageli, Rhonda Moats, Mohammad Mushtaq, and Kathryn Snider.

Finally, we are very grateful to Regina Bures at the *Eunice Kennedy Shriver* National Institute of Child Health and Human Development for her guidance, advice, and support of the CDS-2014 project.

#### 1. INTRODUCTION

The Panel Study of Income Dynamics (PSID) is a longitudinal survey of a nationally-representative sample of U.S. families that began in 1968. The original 1968 PSID sample came from two sources: a nationally representative sample of approximately 3,000 families designed by the Survey Research Center at the University of Michigan (the "SRC sample") and an over-sample of approximately 2,000 low-income families from the Survey of Economic Opportunity (the "SEO sample"). PSID interviewed individuals from families in these two samples every year from 1968 to 1996 and biennially thereafter—whether or not they were living together in the same dwelling. In 1997, because of the escalation in costs driven by the doubling of the sample size during its 30-year history, PSID was forced to drop some families from the study. The cuts were made from the SEO sample. Between 1997 and 1999, an immigrant refresher added to PSID a representative sample of families that had moved to the U.S. between 1968 and 1997.

Little information on children in PSID families was obtained until 1997, when extensive data collection began on the original PSID Child Development Supplement (CDS). CDS was launched with the goal of improving the understanding of social, psychological, and economic aspects of childhood within an ongoing nationally-representative, longitudinal study of U.S. families. Information was collected on psychological and social wellbeing, health status and behavior, family environment, education, child care, time use, sibling relationships, caregiver social and psychological resources, absent parents, future work and schooling expectations, and religiosity.

The original CDS began in 1997 with a cohort of 3,563 children from 2,394 families (88% of those selected). Up to two children aged 0–12 years were randomly selected in each family and interviews were conducted with the children's primary caregivers (PCGs; usually the children's mother). Eligible CDS participants were descended by blood or adoption from the original 1968 PSID lineage or the 1997 PSID immigrant refresher sample. In most cases, this means that the child's father or mother is the child or grandchild of an original 1968 PSID respondent.

In 2002/2003, CDS families who participated in the 2001 Core PSID were contacted for a second round of data collection. CDS-II successfully re-interviewed 2,019 families (91%) who provided data on 2,907 children and adolescents aged 5–18 years. During 2007/2008, 1,506 children aged 10–19 years were successfully re-interviewed (90%). For CDS-III, a completed interview as reported by either the child or the PCG constituted a successful re-interview, reflecting older children's ability to provide self-reported information, as compared with CDS-I and CDS-II when the children were younger requiring a completed interview from the PCG for a case to be considered a completed interview.

By 2014, all of the children in the original 1997 CDS cohort had reached adulthood, and a new generation of children had replaced them in PSID families. The goal for CDS-2014 was to collect information on all PSID children aged 0–17 years in this new generation, and to shift the orientation of CDS from a study of a single cohort—as was done in the original CDS—to a study obtaining information on the childhood experiences of all children in PSID families in 2014 and at planned five-year intervals that will support research based on multiple cohorts of PSID children. These new data will allow studies of health, development, and well-being in childhood;

<sup>-</sup>

<sup>&</sup>lt;sup>1</sup> McGonagle, K., Schoeni, R., Sastry, N., and Freedman, V. (2012). The Panel Study of Income Dynamics: Overview, Recent Innovations, and Potential for Life Course Research. *Longitudinal and Life Course Studies*, 3, 268–284.

the relationship between children's characteristics and contemporaneous family decisionmaking and behavior; and the effects of childhood factors on subsequent social, demographic, economic, and health outcomes over the entire life course for these individuals as they are followed into the future as part of the ongoing Core PSID.

The CDS-2014 sample included all PSID families that completed a Core PSID interview in 2013 and had one or more resident children. CDS-2014 participants form a nationally-representative sample of children descended from the original 1968 families and the 1997 new immigrant refresher sample. (The CDS-2014 sample does not cover children from families in which both parents are post-1997 immigrants to the U.S.) All eligible PSID children in each family were selected for CDS-2014, in contrast to the limit of two children per family in the original CDS. Fieldwork began in the fall of 2014 and continued through to the spring of 2015.

CDS-2014 was primarily a telephone interview; however, a random 50 percent of households were selected to receive an in-home visit to collect information that could not be obtained reliably by telephone. The in-home component included reading and math assessments for children (and reading assessments for PCGs), time diaries for a random weekday and a random weekend day, and interviews with children aged 8–11 years. The in-home visits facilitated the collection of other study components that were otherwise collected using a mail-out/mail-back protocol, including saliva samples for subsequent genotyping and anthropometric measurements.

The content of the new, ongoing CDS is similar to that in the original CDS. Interviews were completed with PCGs and with older children themselves.

CDS-2014 provides rich, comprehensive, and up-to-date information on a large, nationally-representative sample of children that includes an over-sample of African American children and a representative sample of immigrant children. Public use data are available free of charge through the PSID Online Data Center (www.psidonline.org), which provides customized extracts and codebooks using a detailed index of variables. Sensitive information from CDS-2014 are designated as restricted data, but are available to researchers through a data contract.

There are several unique features of CDS-2014 that will provide many important research opportunities to analysts. First, because the CDS children's parents are also participants in PSID, there is an enormous amount of data available from previous waves of Core PSID on many aspects of their lives—as well as the lives of parents' parents (the CDS-2014 children's grandparents). These data can be combined to intergenerational transmission of human and social capital as well as health status. Information is available in CDS-2014 on siblings and cousins, providing unique research opportunities. Second, many of the CDS-2014 children were born to members of the original CDS cohort, providing unique opportunities to examine intergenerational connections in child development and behavior. Third, the original CDS and the new CDS-2014 will allow researchers to study cohort differences in development between children born from 1985 to 1996 and those born from 1997 to 2013, as well as differences between younger and older members of these cohorts. Fourth, as CDS-2014 children move into adulthood, they will be interviewed in the PSID Transition into Adulthood Supplement in 2017 and beyond, and will also become primary PSID respondents. The information collected in the new CDS will provide invaluable insights into the effects of childhood experiences and circumstances on later adult development and on adult social, demographic, economic, and health outcomes. Finally, the genetic markers from CDS-2014 will allow researchers to address a number of important scientific questions that span the interests of population geneticists and social scientists.

The purpose of this User Guide to CDS-2014 is to provide information about the study design, questionnaire instrument and measures, fieldwork outcomes, data structure and relationship with Core PSID and other components of PSID, and the data structure. In Chapter 2, we describe the CDS-2014 questionnaire instrument content. In Chapter 3, we provide an outline of the CDS-2014 sample. In Chapter 4 we describe the CDS-2014 data file structure and the procedures for merging files. And in Chapter 5 we describe the construction and use of the CDS-2014 weights.

Video tutorials to familiarize users with the design and content of CDS-2014 are available on the PSID web site (http://psidonline.isr.umich.edu/VideoTutorial.aspx).

A description of updates to the CDS-2014 data files that occurred between the initial public release of the data in February 2017 and the final public release in December 2017 is provided in a section at the of Chapter 2.

#### 2. THE CDS-2014 QUESTIONNAIRE, MEASURES, AND VARIABLES

In this chapter, we provide an overview of CDS-2014 questionnaire, measures, and variables. We begin by describing the general principles that guided the design and content of the CDS-2014 questionnaires. Next, we describe the CDS-2014 questionnaire modules and major sections. Finally, we describe variable updates that occurred between the initial final release of CDS-2014 in February 2017 and the final release of the CDS-2014 data in December 2017.

### **General Principles for the CDS-2014 Questionnaire**

- The 2014 Child Development Supplement (CDS-2014) is designed to support research on children's cognitive, health, and social development within family, neighborhood, and school context.
- Continuity with CDS I–III (1997–2007). As much as possible, CDS-2014 questionnaires preserved the content of the questionnaires used with the original CDS cohort. The description of individual questionnaire modules below includes information about items or content areas that were omitted, revised, or added during CDS-2014 questionnaire development. Appendix A compares measures in CDS-2014 with CDS I-III.
- <u>Updated and new content</u>. As needed, CDS-2014 questionnaires were revised and updated to include content that reflects the current circumstances of children's family, neighborhood, and school contexts. Three key changes include:
  - New content on children's access to and use of computers and other electronic devices for learning, socializing, and entertainment. This new content appears in the questionnaires administered to primary caregivers (PCGs) and children as well as in time diaries.
  - Updated questions in the adolescent interview to reflect changes in patterns of substance use since 2007.
  - New questionnaire content measuring children's prosocial behavior.
- <u>Collecting age-relevant content</u>. CDS-2014 collected information on all eligible children in PSID households who were born between 1997 and 2013. To produce an economical instrument with content relevant to both analysts and respondents, the universe for many items in the PCG's interview about each child (PCG-Child) is governed by child age and/or grade in school.
- Minimizing respondent burden. PCGs responded to two questionnaires during the telephone interview: the household interview (PCG-HH) and the child interview (PCG-Child). On average, PCGs completed the PCG-HH questionnaire in 30 minutes and the PCG-Child questionnaire in 45 minutes. The average PCG reported on 1.75 children during the PCG-Child interview. That is, for any individual child, the PCG-Child questionnaire took approximately 25.7 minutes to complete (45/1.75), with content varying depending on child age.

Several strategies were developed to minimize interview length for respondents in larger families. First, some items that were previously asked about each child in the family individually were consolidated as family-level questions in the PCG-HH interview during

CDS-2014. These items are noted in the description of the questionnaire modules below. Second, content on children's contact with nonresident parents and time in child care was collected using a grid in which relevant information was automatically filled in by the computerized instrument for subsequent children when respondents indicated that the information provided about one child also pertained to any other child in the family (e.g., two children in the family shared the same nonresident biological parent or stayed with the same child care provider). Third, questionnaire content was streamlined to remove redundancy, ambiguity, and inefficiency.

## **Questionnaire Modules, Sections, and Measures**

Table 2.1 summarizes the content domains included in the CDS-2014 questionnaires. A more detailed description of each questionnaire module follows.

Table 2.1. Content domain in CDS-2014

Content domain	Description of content
Health status & behaviors	Health-related limitations and chronic conditions; obesity; health care utilization & expenditures; nutrition; exercise; sleep; smoking; health insurance
Psychological & social well-being	Positive psychological development, social integration, social identity, social anxiety, behavior problems, depression, self-esteem, worry, social well-being; risky behaviors, thrill seeking, anti-social behaviors; drug and alcohol abuse /dependence
Family environment	HOME scale for cognitive & emotional stimulation; parental warmth; household tasks; involvement, closeness, time spent and conflict with father, mother, and parent figures; household composition
Sibling relationships	Type and frequency of cooperation with, kindness towards, and helping behaviors towards siblings
Peer influence	Closeness to friends; friends' activities
Parental monitoring	Caregivers' knowledge of the child's whereabouts, activities, and associations; child disclosure of activities
Nonresident parents	Frequency/types of activities with nonresident parents; conflict between resident and noresident parent
Child care	Type, frequency of use, and costs of arrangements for CDS children up to sixth grade.
Caregiver social & psychological resources	Self-esteem (Rosenberg 1986); 30-day psychological distress (Kessler et al. 2002); social support; parenting attitudes; aggravation in parenting; gender role beliefs; family conflict; economic strain; work schedules
Spending & savings	Variety of expenditures for child; savings mechanisms
Work & wages	Employment experiences for older children; job aspirations
Education	Parental expectations; enrollment; type of school; tuition; attendance; government lunch & breakfast programs; attended special class/school for gifted students; special education; repeated grade; dropped out
Work & education expectations	Economic expectations; occupational identity; job values, career orientation and expectations for future work and schooling
Computer & media use	Access to television, computers, smartphones, and other digital devices; frequency of television, computer, and social media use
Intellectual achievement and skills & abilities	Woodcock-Johnson Tests of Achievement; course grades (for in-home sample only); ability self-concepts in reading and math
Time use	Activities with parents; extracurricular; part-time jobs; Time Diary measures of type, number, duration, and location of activities for weekday and weekend day

#### **Questionnaire Description Conventions**

Here we refer to individual items by their location in the questionnaire, typically a one-letter prefix followed by one or more digits. For example, item J1 in the PCG's household questionnaire refers to the first item appearing in Section J of that interview.

The response data associated with these questionnaire items appear as variables in the PSID data center. Variables associated with specific questionnaire items are named using the following structure:

1. The leading character(s) refers to the study component from which the questionnaire item is drawn:

H = PCG Household Interview

P = PCG Child Interview

C = Child Interview (interview completed by CDS child)

A = Child Assessments

X = Demographics

D = Time Diary Questionnaire

R = Roster

WD/WE = Time Diary Aggregated Activity File

COLA – COLJ = Time Diary Activity File (disaggregated)

- 2. The following two characters in the variable refer to the calendar year that data collection began. For variable names associated with CDS-2014, these characters are always "14." Previous waves of CDS did not adopt this naming convention across all items.
- 3. The remaining characters in the variable name refer to the location of the item in the questionnaire.
- 4. Generated variables (i.e., constructed scale scores, interview information like calendar dates, and other variables produced by PSID staff) adopt naming conventions (1) and (2). For these variables, the remaining characters typically use a mnemonic device to help users identify the variable's content. For example, the variable name associated with Item J1 from the PCG Household Interview is H14J1. The "Disagreement in Parenting" scale score, a generated variable constructed from responses to several component items in the PCG Household Interview, is named H14DISAGR.

#### Primary Caregiver Household Interview

The PCG Household (PCG-HH) Interview focuses on the characteristics of a child's family, household, and neighborhood. The interview also collects extensive information on the PCG's own psychological resources, social support, parenting stress, parenting style, and childrearing values. Unless otherwise noted, items in the PCG-HH interview were administered to all PCGs.

Topics included in the PCG-HH Interview are described below. The measurement resource table in Appendix A documents the source and original author of questionnaire content where appropriate. Note that PCG-HH Interview content begins with Section J (Neighborhood Measurements). Sections A–H appear in the PCG-Child interview.

Neighborhood Measurements (Section J). Eight items assess the PCG's perception of

neighborhood quality, including residential stability, residential satisfaction, neighborhood anonymity, social cohesion, and neighborhood safety. The series appears in the questionnaire as Items J1 to J8.

Rosenberg Self-Esteem Scale for Primary Caregivers (Section K). The Rosenberg Self-Esteem Scale describes the degree of approval or disapproval toward oneself.<sup>2</sup> The scale is widely used, with substantial documentation on its validity and reliability. PCGs reported on a series of 10 items using a response scale ranging from 1 to 4, where 1 indicates "Strongly Disagree" and 4 indicates "Strongly Agree." The series appears in the PCG-HH Instrument as Items K1 to K10. The scale score is computed as an average of responses to these ten items and is available for respondents who have valid values on at least eight items (H14SLFEST).

<u>Childrearing Values (Section M)</u>. Respondents ranked the qualities or traits they consider most important to prepare a child for life from a set of five choices. Traits include obedience, popularity, autonomy, a strong work ethic, and altruism. The series appears in items M3A to M3D. These items appeared in the Detroit Area Study and the General Social Survey.<sup>3,4</sup>

<u>Aggravation in Parenting (Section M)</u>. The aggravation in parenting scale (M4–M10) measures parenting stress that may result from changes in employment, income, and other factors in the lives of PCGs. Items M4 to M7 address parenting in general. Items M8 to M10 focus on the PCG's feelings about his/her children in CDS collectively. In CDS I-III, items M8 to M10 were asked during the PCG-Child interview about each child separately. To reduce burden on caregivers in large families, these items were moved to the PCG-HH interview and asked only once in CDS-2014. The generated variable H14PARENT is a mean score derived from the seven items in the scale. A mean score was computed for all cases with valid values on at least five items.

<u>Work/Life Adjustments for Children (Section M)</u>. In Items M11 to M13, PCGs reported whether they ever changed neighborhoods or employment conditions to improve circumstances for their children.

Attitudes about Gender Roles (Section M). Items M14 to M25 measure the PCG's level of agreement with nine statements pertaining to gender role attitudes and three statements drawn from the "Being a Father" Scale. Four items measuring gender role attitudes and four items from the "Being a Father" Scale that were included in CDS I-III were excluded from CDS-2014. The choice of items to retain was guided by factor analysis using data from CDS-II and CDS-III. Variables with the highest factor loadings on the constructs of traditional marriage values, traditional mothering values, equity, and father involvement were retained. Each construct is represented by three variables.

<u>Caregiver Psychological Distress (Section N)</u>. The Kessler 6 (K-6) Non-Specific Psychological Distress Scale (N1–N6) was designed to discriminate cases of serious mental illness from non-cases in a general population survey.<sup>5</sup> The K-6 is administered to respondents in the PSID

<sup>3</sup> Alwin, D.F. (1984.) Trends in parental socialization values: Detroit, 1958-1983. *American Journal of Sociology*, 90, 359–382.

<sup>&</sup>lt;sup>2</sup> Rosenberg, M. (1986). Conceiving the Self. New York: Basic Books.

<sup>&</sup>lt;sup>4</sup> Alwin, D F. (1990). Cohort Replacement and Changes in Parental Socialization Values. *Journal of Marriage and Family*, 52, 347–360.

<sup>&</sup>lt;sup>5</sup> Kessler, R.C., Andrews, G., Colpe, L.J., Hiripi, E., Mroczek, D.K., Normand, S.L., Walters, E.E. and Zaslavsky, A.M., 2002. Short Screening Scales to Monitor Population Prevalences and Trends in Non-Specific Psychological Distress. *Psychological Medicine*, 32, 959–976.

Core interview and is also included in the National Health Interview Survey and the National Household Survey on Drug Abuse, as well as in Core PSID.

The K-6 includes six items about how the respondent felt during the prior four weeks. Response items are based on a scale from 1 to 5, where 1 indicates "all of the time" and 5 indicates "none of the time." Individual items may be rescored to range from 0 to 4 and then summed to calculate a total score that is comparable to other studies. A summed score of 13 or higher indicates a potential for nonspecific distress. The generated variable H14k6\_14 is a sum score computed for all cases with valid responses to all six items in the scale.

The scale includes three follow-up items about persistence and impairment associated with symptoms of nonspecific distress (N7–N9). These items are administered to respondents who endorse any of the items in the K-6 series. Responses to these additional items are not required in order to score the K-6.

<u>Family Pets (Section P)</u>. Section P includes seven questions about the number and types of pets in families and the PCG's interaction with and attitudes about his or her pets. These items are new to CDS-2014. The source of the items is the CENSHARE Pet Attachment Scale. See the measurement resource table in Appendix A for details.

<u>Disagreement in Parenting and Joint Goals (Section Q)</u>. The Parental Disagreement Scale measures the extent of agreement on daily activities between a PCG and his or her spouse or partner (Q1–Q5). The items were administered only to PCGs who had a spouse or cohabiting partner in the household. The generated variable H14DISAGR is a mean score derived from the five items in the scale for all cases with valid values on at least four items. Three items measure the extent to which the PCG and his or her spouse or partner have joint goals for the future (Q6–Q8). Five items measure methods of conflict resolution among family members (Q9–Q13).

Food Security (Section R). The PCG-HH interview included an 18-item version of the U.S. Household Food Security Survey Module developed by the Economic Research Service at the U.S. Department of Agriculture (R1–R15). The module includes questions about various levels of food security such as worries about having enough food and enough healthy food, cutting back to conserve food, and running out of money for food. The module collects information about household (R1–R8) and child (R9–R15) food security separately. These data allow the food security status of CDS-2014 families to be defined along a continuum extending from high food security to low food security. Generated variables associated with this series include raw scores summing the number of endorsed items pertaining to the household overall (H14HHFOODR) and separately for adults (H14ADFOODR) and children (H14CHFOODR). A parallel set of items describes the food insecurity status of the household overall (H14HHFOOD) and of adults (H14ADFOOD) and children (H14CHFOOD) in the household. A raw sum score (H14FOOD6R) and a food insecurity status indicator (H14FOOD6) based on a six-item subset of questionnaire items (R2–R6) are also available.

An instrument programming error present at the beginning of data collection caused some eligible respondents to be skipped out of a more detailed set of questions about household and child food insecurity. Both the household and child sections of the food security module include a first stage screener composed of three items. As designed, a respondent who endorses any item at the first stage as "often true" or "sometimes true" should advance to the second stage of the module. However the instrument programming error caused respondents to advance to the second stage only when they endorsed at least two of the three items (R1–R3 for household

food security and R9–R11 for child food security). This error was corrected during the seventh week of fieldwork.

Of 256 PCGs who endorsed exactly 1 item in the R1–R3 series and who should have advanced to R4–R7, 98 did not advance. Those who did advance (i.e., who were interviewed after the programming error was corrected) reported more extreme food insecurity much less often compared to respondents who endorsed two or three items in the R1–R3 series.

Of 315 PCGSs who endorsed exactly 1 item in the R9–R11 series and who should have advanced to R12–R15, 116 did not advance. Those who did advance reported relatively low levels of heightened food insecurity in R12–R15.

<u>Home Environment (Section S)</u>. The Home Environment section collects information about children's access to learning resources and technology in the home, the PCG's involvement in her or his children's school and learning at home, and the PCG's own school enrollment, employment circumstances, and religiosity.

Children's Access to Technology. Content on children's access to and use of technology at home was significantly expanded for CDS-2014 to accommodate the emergence of new technologies and applications since 2007. Topics in the PCG-HH include the types and number of electronic devices in the home, including televisions, computers, tablets, and cellular telephones (S1–S8 and S14A–S14D); shared television viewing habits (S9–S10); and household rules about television viewing (S11–S13) and use of other electronic devices (S14G–S14L). This section also includes an adapted 6-item web-use skills index originally developed by Hargittai and Hsieh to measure the PCG's familiarity with computer and internet-related terminology (S14N1–S14N6).<sup>6</sup>

Home Observation for Measurement of the Environment (HOME Scale). The HOME Scale measures characteristics of a child's home environment that are associated with cognitive development and emotional support. HOME Scale content in the PCG-HH interview includes questions about how often the family engages in specific activities together, including meals (M1), socializing (M2), and television viewing (S9–S10); the number of books in the home (including electronic books, S15–S16); and the number of books the PCG has read in the last year (S17–S18).

Questions about whether the family receives a daily newspaper or carries a subscription to any magazine that were included in previous rounds of CDS were excluded from CDS-2014 because of the rapid and uneven decline in the availability of printed periodicals in regional markets during the last decade.

The complete contents of the HOME Scale and the location of individual items are described in Appendix A.

<sup>&</sup>lt;sup>6</sup> Hargittai, E., and Hsieh, Y. P. (2012). Succinct Survey Measures of Web-Use Skills. *Social Science Computer Review*, 30, 95–107.

<sup>&</sup>lt;sup>7</sup> Bradley, R.H., Corwyn, R.F., McAdoo, H.P., and García Coll, C. (2001). The Home Environments of Children in the United States Part I: Variations by Age, Ethnicity, and Poverty Status. *Child Development*, 72, 1844–1867.

<sup>&</sup>lt;sup>8</sup> Bradley, R.H., Corwyn, R.F., Burchinal, M., McAdoo, H.P., and García Coll, C. (2001). The Home Environments of Children in the United States Part II: Relations with Behavioral Development through Age Thirteen. *Child Development*, 72, 1868–1886.

School Involvement. Two items in the PCG-HH interview address the PCG's volunteer activities at his or her child(ren)'s school (S19–S20). These items were included in the PCG-Child interview in CDS I-III, but question wording was revised in 2014 to solicit responses about activities at *any* child's school, rather than at each child' school. Six other items addressing the PCG's school involvement are included in the PCG-Child interview.

Response to Poor Grades. Twelve items ask PCGs about actions they would expect to take in response to a child's poor grades (S21–S30B). These items were included in the PCG-Child interview in CDS I-III, but question wording was revised in 2014 to solicit responses about expected actions in response to *any* child's poor grades, rather than about each child's grades.

Own Schooling. PCGs report whether they are currently attending school, and if so, the number of hours they attend school each week and travel time (S31–S31B).

*Employment Characteristics.* PCGs report whether they are currently working, and if so, report on characteristics of their employment such as number of jobs, hours worked weekly, nonstandard work schedules, and commuting time.

Religiosity. PCGs reported how often they attended religious services in the past year (S39–S40) and on the importance of religion and spirituality in their lives (S41–S42).

<u>Woodcock-Johnson Revised Test of Achievement - Passage Comprehension</u>. In families that were randomly selected for the in-person supplemental interview, PCGs completed the Passage Comprehension subtest Form B from the Woodcock-Johnson Revised Tests of Achievement (WJR).<sup>9</sup> The Spanish version of the WJ-R (Batería-R, Form A) was used for PCGs whose first language was Spanish and who elected to complete the assessment in that language.

The Passage Comprehension subtest measures understanding of written text. Respondents read a sentence or brief paragraph and provide the word that is missing from the passage. Indicators of whether a correct response was offered to each item are available. In addition, generated variables associated with the PCG passage comprehension assessment include a total raw score (H14PCRAW), a standardized score (H14PCSS), a percentile score (H14PCPR), and a W score (H14PCW). For more information, see the PSID Technical Report entitled "Achievement Tests in the Panel Study of Income Dynamics Child Development Supplement," available at <a href="http://psidonline.isr.umich.edu/Publications/Papers/tsp/2014-02\_Achievement.pdf">http://psidonline.isr.umich.edu/Publications/Papers/tsp/2014-02\_Achievement.pdf</a>.

<u>Interviewer Observations (Section OB)</u>. Interviewers provided structured and open-ended observations on the interviews they conducted, on the respondents, and on the respondents' household environment.

Post-Woodcock-Johnson Assessment Observations. Interviewers recorded whether others were present during the administration of the WJ-R Passage Comprehension assessment and whether anything out of the ordinary occurred that might have affected the respondent's performance (ASOB1–ASOB5).

Post- Interview Observations (Telephone). Interviewers recorded their assessment of the respondent's verbal fluency, comprehension, and self-expression at the conclusion of the PCG

10

<sup>&</sup>lt;sup>9</sup> Woodcock, R.W., and Johnson, M.B. (1989). *Tests of Achievement, Standard Battery*. Chicago, IL: Riverside Publishing.

telephone interview (PCGOB1-PCGOB5).

Post-Interview Observations (Household). Where families were randomly selected for the inperson supplemental interview, interviewers reported their observations about the physical appearance and quality of the dwelling and the neighborhood (PCGOB6–PCGOB19).

#### Primary Caregiver Child Interview

Throughout the PCG-Child interview, questions are tailored to specific age groups of children to maximize question relevance and minimize recall error. See the questionnaire for age and/or school grade ranges for each item and for rules governing skip patterns throughout the instrument. Child age and school grade are based on child characteristics at the time of the household screening interview to determine eligibility.

<u>Child Health (Section A)</u>. Questions about the physical health of each child (A2–A19) are drawn from the National Health Interview Survey and from the National Longitudinal Survey of Youth. Topics include general health status, birth weight, breastfeeding, medical care, immunization status, diagnosis of chronic conditions, asthma, and disability.

Questionnaire items about birth weight are directed only to PCGs only when the child's birth weight does not appear in the birth history collected as part of the PSID Core interview (A4–A4\_KG). Where birth weight was already available, this information is provided in the CDS-2014 Demographics file (X14BWTP1–X14OS3B1 [biological mother report], X14BWTP2–X14OS3B2 [biological father report], X14BWTP3–X14OS3B3 [adoptive mother report], and X14BWTP4–X14OS3B4 [biological mother report]).

Information on breastfeeding duration is collected only where a CDS child is between ages 0 and 5 years at the time of the CDS household eligibility screening interview. Question wording is identical to CDS I-III.

<u>Psychological Wellbeing, Personality, and Behavior (Section B)</u>. This section collected, for each child, modules covering the Behavioral Problems Index, positive behavior, prosocial behavior, and sibling interaction.

Behavior Problems Index. The 30-item Behavior Problems Index (BPI) was developed by James Peterson and Nicholas Zill from the Achenbach Behavior Problems Checklist to measure in a survey setting the incidence and severity of child behavior problems. <sup>10,11</sup> In CDS-2014, the BPI was administered to PCGs of children who were between ages 3 and 17 years (B1–B30). Caregivers of children aged 6–17 years old responded to two additional items specifically addressing children's behavior at school (B31–B32). PCGs indicated whether the behavior or trait described in each item in the series was often, sometimes, or never true of the child.

Overall scale scores and subscale scores for internalizing and externalizing behavior are included in the public-use data. To construct scale scores, responses from each item were collapsed into a corresponding two-category variable and coded "1" if the behavior described was often or sometimes true for the child and "0" if never true. These dichotomous variables

-

<sup>&</sup>lt;sup>10</sup> Achenbach, T.M., and Edelbrock, C.S. (1981). Behavioral problems and competencies reported by parents of normal and disturbed children aged four through sixteen. *Monographs of the society for research in child development*, 1–82.

<sup>&</sup>lt;sup>11</sup> Peterson, J.L., and Zill, N. (1986). Marital disruption, parent-child relationships, and behavior problems in children. *Journal of Marriage and the Family*, 295–307.

were summed to calculate an overall behavior problems score. For children aged 3 years and older, the overall scale score includes 27 of the items in B1 to B30 (P14BPI\_T) and excludes items B23, B28, and B29, which did not load on to either of the subscale scores. For children aged 6 years and older, a second overall scale score is available (P14BPI\_T29). This 29-item score includes responses to items B31–B32 as well as each of the items included in P14BPI\_T.

Table 2.2. Behavior Problems Index, CDS-2014

For the next set of statements, decide whether they are not true, sometimes true, or often true, of (CHILD)'s behavior. He/She	External	Internal	Total
B1has sudden changes in mood or feeling.	Х		Х
B2feels or complains that no one loves him/her.		Х	Х
B3is rather high strung, tense and nervous.	Χ	Х	Х
B4cheats or tells lies.	Χ		Х
B5is too fearful or anxious.		Х	Х
B6argues too much.	Χ		Х
B7has difficulty concentrating, cannot pay attention for long.	Χ		Х
B8is easily confused, seems to be in a fog.		Х	Х
B9bullies or is cruel or mean to others.	Χ		Х
B10is disobedient.	Χ		Х
B11does not seem to feel sorry after misbehaves.	Χ		Х
B12has trouble getting along with other people (his/her) age.	Χ	Х	Х
B13is impulsive, or acts without thinking.	Χ		Х
B14feels worthless or inferior.		Х	Х
B15is not liked by other people (his/her) age		Х	Х
B16has a lot of difficulty getting (his/her) mind off certain thoughts.		Х	Х
B17is restless or overly active, cannot sit still.	Χ		Х
B18is stubborn, sullen, or irritable.	Χ		Х
B19has a very strong temper and loses it easily.	Χ		Х
B20is unhappy, sad or depressed.		Х	Х
B21is withdrawn, does not get involved with others.		Х	Х
B22breaks things on purpose or deliberately destroys (his/her) own or another's things.	Х		Х
B23clings to adults.			
B24cries too much.		Х	Х
B25demands a lot of attention.	Χ		Х
B26is too dependent on others.		Х	Х
B27feels others are out to get (him/her).		Х	Х
B28hangs around with kids who get into trouble.			
B29is secretive, keeps things to (himself/herself).			
B30worries too much.		Х	Х
B31is disobedient at school.	X <sup>[a]</sup>		X <sup>[a]</sup>
B32has trouble getting along with teachers.	X <sup>[a]</sup>		X <sup>[a]</sup>
Number of Items (age 3–17/age 6–17)	15/17	14	27/29
Cronbach's alpha (age 3–17/age 6–17)	0.86/0.88	0.84	0.90/0.91
	3,467/2,849		3,458/2,84

Subscale scores were constructed for externalizing behavior from a subset of 15 items (P14BPI\_E15) for children aged 3 years and older. For children aged 6 years and older, a second externalizing behavior scale score is available (P14BPI\_E), which includes responses to items B31 to B32 as well as each of the items included in P14BPI\_E15. The internalizing behavior score for all children aged 3 years and older is constructed from a subset of 14 items (P14BPI\_N). Table 2.2 shows the items included in each scale score.

Positive Behavior. The Positive Behavior Scale (PBS) measures positive aspects of children's behavior and disposition, including self-esteem, social competence, self-control, compliance, and persistence (B33–B42). The scale includes 10 items measured on a five-point scale ranging from "Not at all like your child" to "Totally like your child." Items remain identical in wording and sequencing to CDS I-III. Items were administered to PCGs of children aged 6–11 years.

A positive behavior scale score is provided (P14POSBEH). The score is computed as the average value of the constituent items where the PCG provided at least valid responses to at least eight items.

Prosocial Behavior. Five items from the "Strengths and Difficulties Questionnaire" (B43–B47) measure children's prosocial behavior in the preceding six months, including sharing, consideration of the feelings of others, and volunteering to help others. Response options range from 1 ("Not true") to 3 ("Certainly true"). The scale was administered to PCGs of children between ages 3 and 11 years in the PCG-Child questionnaire. These items are new in CDS-2014.

A prosocial behavior scale score is provided (P14PROSOC). Constituent items were rescaled to range from 0 ("Not true") to 2 "(Certainly true") and then summed. The scale score was constructed only for those cases providing a valid response to each of the five items in the scale.

Sibling Interaction. Five items describe the frequency of helping and prosocial behaviors expressed toward siblings among children who are between ages 3 and 11 years and who have a sibling in the household (B48–B52). Items remain identical in wording and sequencing to CDS I-III.

<u>Parenting and Family Interaction (Section C).</u> Section C includes information about family routines, household rules, discipline strategies, parent-child discussion topics, and the PCG's familiarity with children's friendship networks. The universe for the items in this section varies depending on child age and grade. Many of these characterize the aspects of children's home environments that are conducive to cognitive development and emotional support.

Items pertaining to household rules were revised compared to CDS I-III in order to accommodate new response options. In all waves, respondents were asked about whether there were household rules governing a variety of activities, including where and how children spend their time, homework, and television viewing. Previously, the response options were limited to "Yes" (i.e., there are household rules) and "No" (i.e., there are no household rules). In order to better characterize how household rules are implemented, the response categories were expanded as follows: "Yes, there are clear rules and they are enforced (1);" "Yes, there are general rules and they are monitored (2);" "Yes, there are rules, but child makes own choices (3);" and "No (there are no rules) (5)." In response to feedback received when the instrument was pre-tested, two additional categories were added for volunteered responses that

that the child was too young (6) or too old (7) for household rules related to a particular activity or domain.

Nonresident Parent (Section D and Nonresident Parent Block). The nonresident parent modules are administered to PCGs where at least one biological or adoptive parent is not living in the child's household at the time of interview. Content in Section D includes whether the child has another adoptive parent, stepparent, or parent figure; whether the parent is still living, and if not, when the parent died; when the child and nonresident parent last lived together, if ever; and how often the parent and child communicate and visit. Questions are asked separately for nonresident mothers and fathers.

The Nonresident Parent Block collects information from the PCG about the nonresident parent of each CDS child in the household. That is, when two children have different nonresident biological parents, the Nonresident Parent Block collects information on each parent separately. Content includes the parent's residential proximity, whether she or he has other children and/or is married; and the PCG's frequency of contact and conflict with the parent.

Question wording is identical to CDS-II and CDS-III. However, the Nonresident Parent Block is new to CDS-2014 and was developed in order to ask only once about each nonresident biological parent whom CDS children in the household had in common.

<u>Home Environment (Section E)</u>. Section E includes information about children's access to learning resources and technology at home and about children's learning and social activities in the community. PCGs also report who paid for children's fee-based activities such as arts instruction, athletics, and tutoring.

The Home Environment section also includes new content on children's use of technology at home, including whether the child has their own electronic device or devices such as a computer, tablet, or cellular telephone or smartphone (E47–E50); frequency of activities such as homework and social interaction using electronic devices (E51–E56); and recent help-seeking and help-giving associated with computer use at home (E57–E58).

The universe for the items in this section varies depending on child age and grade. Many of these items are used in constructing the HOME Scale to characterize the aspects of children's home environments that are conducive to cognitive development and emotional support. Four new items (E43–E46) measuring the amount of choice children are permitted in decisions about their activities and home environment were developed for inclusion in the HOME Scale in consultation with Robert Bradley (Arizona State University) and Pamela Davis-Kean (University of Michigan). With the exception of these items and the new content on children's computer and related technology use, content in this section is identical in question wording and response options to content included in CDS I-III.

<u>Child Education (Section F and Schools Block)</u>. Section F collected information on the PCG's educational aspirations and expectations for the CDS child (F2–F3) and the CDS child's educational history and current status. Content includes whether the child attended an early intervention preschool program such as Head Start (F4–F8); age at kindergarten entry (F9–F12); recent school changes (F13); attendance at public and private schools (F14–F19); attendance in classes for gifted students (F20); classification as requiring special education (F21–F22); suspensions and expulsions (F23); grade retention (F24–F24A); school dropout (F26); home schooling (F33); participation in subsidized meal programs at school F27–F32); PCG involvement at the child's school (F34–F38); and PCG involvement with the child's

education at home (F39-F41).

The universe for the items in this section varies depending on child age and grade. Question wording is identical to CDS I-III. Response options to some items differ compared to CDS I-III due to backcoding on some open-ended responses and to keep response categories consistent with those used with similar items elsewhere in the instrument (e.g., item F15C, "Who paid [CHILD's] private school expenses?").

In the Schools block, PCGs provide the name and location of the school where each child is currently enrolled. This information is matched to the Common Core of Data and Private Schools Survey databases maintained by the National Center for Education Statistics of the U.S. Department of Education. Numeric school identifiers are available to qualified researchers under a restricted-use data agreement. Visit the PSID web site for more information on restricted-use agreements (http://simba.isr.umich.edu/restricted/RestrictedUse.aspx).

<u>Expenditures and Savings</u>. Seven items measure frequency, amount, and conditions of children's receipt of an allowance (G1–G6). Eleven items measure family members' savings and investments on behalf of children, including savings for college (G7–G13, G20–G20A). Six items describe expectations about college expenses.

<u>Child Care (Child Care Block)</u>. For children in sixth grade and younger, PCGs describe arrangements in the past four weeks for all child care regularly provided by someone other than the PCG and his/her spouse or partner. This includes information on the type of arrangement (e.g., relative-based in-home care or child care center), the number of days and hours a child is in care each week, and the cost of care.

#### Child Interview

<u>Race and Ethnicity (Section A)</u>. Youth aged 12–17 years self-reported their Hispanic ethnicity (A1), racial or ethnic group (A2), and, where relevant, Asian ancestry (A2a). Response categories are the same as those used in the Core PSID interview in 2013. Respondents chose a single response category for each item. An open-ended "other-specify" field allowed respondents to mention multiple racial or ethnic identities.

See the Demographic File for parent-reported information on children's race and ethnicity for all children in CDS-2014.

<u>Ability Self-Concepts in Math and Reading (Section B)</u>. The Ability Self-Concepts items (B2–B9) reflect two scales to self-assess ability in the domains of math and reading. The number of items in the series was reduced from 20 (used in CDS I-III) to nine in consultation with Jacqueline Eccles, the scale's developer.

<u>Academic performance (Section B)</u>. Adolescents reported grades earned in the most recent completed semester in mathematics and English (B10–B11), current cumulative grade point average (B12), and grades earned in eighth grade (B14).

<u>Future plans (Section B)</u>. Adolescents (11<sup>th</sup> grade and up, including high school leavers or graduates) described their aspirations and plans for college attendance and information about college provided by their high school; and plans to serve in the armed forces (B15–B32A).

<u>Health (Section C)</u>. This section covers questions on general health status, depression, and

physical development.

General health. Youth aged 10–17 years reported on their general health status (C1); perceived weight status (C2); recent efforts to change or maintain weight through diet or exercise (C3–C5); and general emotional health.

*Depression.* Adolescents (age 12–17 years) completed the Children's Depression Inventory (CDI) Short Form (C8–C17). The CDI is an assessment that rates the severity of symptoms related to depression or dysthymic disorder in children and adolescents.

To protect respondent privacy, interviewers directed adolescents to read the response options for each item to themselves in their response booklets and to provide the numeric code corresponding to the statement that best describes their feelings during the last two weeks. The interviewer presented the response options aloud only where the respondent did not have his or her response booklet available.

*Physical development.* Youth age 10 years and older reported on the onset of puberty, including physical appearance relative to age peers; breast development and age at menarche for girls; and facial hair growth and voice changing for boys.

To present questions about physical development to youth aged 10-11 years who were interviewed in person, field interviewers handed the child an envelope containing show cards on which the questions and response options appeared. The child read each question and response options silently and then responded with the letter corresponding to the category best matching their answer.

Adolescents (age 12–17 years) responded to the same questions using their telephone keypad during a computerized interview administered using interactive voice response technology (IVR, see Section J below).

Questionnaire items appear in Section C for younger children and in Section J for adolescents. The corresponding variables in the public-use data file are C18–C25 and JC18–JC25. In addition, the variable series C18x to C25x pools responses to individual items across the two age groups. For example, item C18x includes responses to item C18 from children aged 10–11 years and to item JC18 from youth aged 12–17 years.

<u>Social Relationships (Section D)</u>. Children describe how close they feel to parents, stepparents, friends, siblings, teachers, and other adults (D1A–D2, ages 8–17 years); friends' positive and negative behaviors (D3A–D3M, ages 10–17 years); and characteristics of and interactions with family pets (D4–D12, ages 8–17 years). Content about closeness to others and friend characteristics was administered in CDS-II and CDS-III. Content about family pets is new in CDS-2014. The source of the items is the CENSHARE Pet Attachment Scale.

<u>Personality and Behavior (Section E)</u>. This section includes modules on children's self-esteem, perseverance, and peer problems.

Self-Esteem. Children aged 10–17 years responded to a five-item version of the Rosenberg Self-Esteem scale that excluded negatively worded items (E1–E5). Four of the items appeared in the original Rosenberg scale. A fifth item, "I feel good about myself," is a positively-worded version of the statement "At times I think I am no good at all."

This revised version of the Rosenberg self-esteem scale was used in the 2012 sweep of the Millennium Cohort Study in Great Britain, when focal children were age 11 years. It was adopted for inclusion in CDS-2014 in place of the Global Self-Concept subscale that was included in CDS I-III.

Perseverance. Children aged 10–17 years responded to a five-item scale measuring perseverance (E6–E10). Scale content and ordering is identical to CDS-III and CDS-III.

Peer Problems. Five items from the "Strengths and Difficulties Questionnaire" measure children's peer problems in the preceding six months, including usually being alone, whether the child has at least one friend, whether others generally like the child, whether other children pick on the child, and whether the child relates better to adults than to other children (E11–E15). Response options range from 1 ("Not true") to 3 ("Certainly true"). These items are new in CDS-2014.

<u>Employment (Section F)</u>. Children aged 12–17 years described current and past summer employment, including occupation, industry, tenure, work hours, wages, and job satisfaction (F1–F20) and job aspirations (F21\_1–F25). Content and question wording are identical to CDS-II and CDS-III.

<u>Computers and Electronic Media Use (Section G)</u>. Content on children's access to and use of technology at home was significantly expanded for CDS-2014. For children aged 8–17 years, the Child Interview collected information on the electronic devices owned by children (G1–G5), internet access (G6–G7), computer/electronic device use for schoolwork, information-seeking, social interaction, and entertainment (G8–G21).

A 6-item web-use skills index adapted from Hargittai and Hsieh measures the child's familiarity with computer and internet-related terminology (G23A–G23F).

Two items measure the exchange of assistance with computers or other electronic devices between the child and their PCG in the past 30 days (G24–G25).

<u>Financial Behavior (Section H)</u>. Three items collect information about the frequency, amount, and conditions of a child's allowance (H1–H3, ages 8–17 years). Six items address the amount and intended purpose of a child's own financial savings (H4–H9, ages 8–17 years). Children aged 12–17 years report on their own and their PCG's past-year charitable donations (H10–H11). Question H11 is new in CDS-2014.

<u>Sensitive Topics (Section J)</u>. Questions on sensitive topics were administered using interactive voice response (IVR) technology in order to ensure respondent privacy and minimize response bias during the telephone interview.

Some content from Section J of the Child Interview is available only through a restricted-use agreement with the Panel Study of Income Dynamics. This content is denoted below. Information about how to establish a restricted-use agreement is available at <a href="https://simba.isr.umich.edu/restricted/RestrictedUse.aspx">https://simba.isr.umich.edu/restricted/RestrictedUse.aspx</a>.

Introductory items record respondent self-reported age and gender (J0a–J0b).

Peer Victimization and Bullying. Four items (J1a–J1d) address peer victimization and bullying. These items were drawn from work by Kochenderfer and Ladd and were also included in CDS-II

and CDS-III.<sup>12</sup> The introduction to these items was modified in CDS-2014 to include the internet as a context where respondents might have experienced victimization.

Dating. Four items pertain to respondents' experience with dating (J2–J4). These items were drawn from the National Longitudinal Study of Adolescent to Adult Health and were included in CDS-II and CDS-III.

*Physical development.* Youth aged 10 years and older reported on the onset of puberty, including physical appearance relative to age peers; breast development and age at menarche for girls; and facial hair growth and voice changing for boys. Adolescents responded to these items as part of the IVR interview.

Note that questionnaire items on physical development appear in Section J for adolescents and in Section C for younger children. The corresponding variables in the public-use data file are JC18–JC25 and C18–C25. In addition, the variable series C18x to C25x pools responses to individual items across the two age groups. For example, item C18x includes responses to item C18 from children aged 10-11 years old and to item JC18 from youth aged 12–17 years.

Sexual Health and Activity (Restricted-Use Only). Adolescents reported on age at first sexual intercourse (J5–J7b), recent frequency (J8–J9), and lifetime number of partners (J10). All sexually active respondents report on frequency of condom use (J11); female respondents also report on use of birth control pills (J12–J13c). All respondents report on whether they have ever been tested for or diagnosed with a sexually transmitted infection (J14–J16a). Male and female adolescents responded to items about pregnancy experience (becoming pregnant or impregnating someone else), frequency, and outcomes (J16–J21).

Risky Behavior (Restricted-Use Only). Adolescents reported on the frequency of behaviors including staying out past curfew, physically harming others, damaging property, bringing a weapon or drugs or alcohol to school, and truancy (J22–J31, J34–J35). The series also included questions about contact with law enforcement, including being stopped and questioned or arrested (J32–J33).

Tobacco, Drug, and Alcohol Use (Restricted-Use Only). Adolescents reported on lifetime and past thirty day use of tobacco products, electronic cigarettes, alcohol, marijuana, inhalants, hallucinogens, prescription drugs taken without a prescription from a doctor, amphetamines, and tranquilizers. In addition, respondents reported on frequency of heavy drinking, type of alcohol most often consumed, and frequency of driving while intoxicated or riding with an intoxicated driver. Items were originally drawn from the National Longitudinal Study of Adolescent to Adult Health and most were included in CDS-III. Content was updated in CDS-2014 in consultation with investigators from Monitoring the Future, an annual study of middle and high school students designed to track trends in adolescent substance use.

*IVR Interview Experience.* Adolescents responded to three items about the accuracy of their responses and the ease or difficulty of completing the IVR interview (J65–J67).

### Other Study Components

*Time Diary Activity File*. Time diaries were completed for children who resided in families that

<sup>&</sup>lt;sup>12</sup> Kochenderfer, B.J., and Ladd, G.W. (1996). Peer Victimization: Cause or Consequence of School Maladjustment? *Child Development*, 67, 1305–1317.

were selected for a supplemental in-person interview. The Time Diary Activity File contains one record for each activity reported by children on two randomly-assigned days. Each record contains information about the type of activity children were engaged in (primary and secondary), start time and end time, duration, who else was present, and where the activity occurred. (Information about the names of television shows, books, web sites, and apps used during activities are not included with this release.)

<u>Time Diary Aggregated Activity File</u>. The Aggregated Time Diary File includes one record for each child for whom a time diary was completed. For each coded activity, the total time a child spent in that activity over the course of a day is provided for the weekday and weekend report separately.

<u>Time Diary Questionnaire File</u>. The Time Diary Questionnaire File includes one record for each child for whom a time diary was completed. Contents describe the time diary administration, including the day of the week each diary was completed, who filled out the diary, and whether the diary described a typical day in the child's life.

<u>Household Roster File</u>. A household roster collected during the initial screening interview gathered information on all individuals living in a CDS child's household. The CDS-2014 Household Roster File includes one record for each household member residing with a CDS child (N=10,453). Contents include the CDS household identifier (R14CDSHID) and individuals' PSID 1968 ID and person number (R14ID68 and R14PN), position in the CDS roster, age in years, and sex. A person type indicator describes whether each individual is a CDS child, a CDS primary caregiver, or other household member (R14TYPE). In 24 households, two primary caregivers are present, each caring for a different child or children. The variable R14CDSHPIN may be used to distinguish caregivers who coreside and have a common CDS household identifier.

NOTE: Seventy-nine individuals observed in a CDS-2014 household have never appeared in a PSID household at the time of the Core PSID interview and have never been reported in a PSID participant's marriage or birth history. These individuals have not been assigned a PSID person number (i.e., no value on ER30002) and information about them cannot be merged on to any other individual-level information in the PSID Data Center. These individuals have been assigned a value of 999 for R14PN.

<u>Demographic File</u>. The Demographic File includes one record for each child who appears in the CDS-2014 public release (N=4,333). This file contains study information including the interview components completed for the child and date of interview; information about the child including his/her race ethnicity and birth weight (pulled in from the PSID birth history file); interviewer observations about the child (in-home supplement sample only); and child and primary caregiver sampling weights.

The Demographic File also contains information on the age, sex, and relationship to CDS child of all household members present at the time of the CDS-2014 screening interview (variables listed from X14R01SEX to X14R15UNC2). Individual household members are indexed by their position in the household roster (see above for information on the Roster File). For example, X14R01SEX reports the sex of Person 1 on the Household Roster, X14R02SEX reports the sex of Person 2, etc. The order in which the screener respondent listed household members determines an individual's position on the roster. A CDS child's position in the roster is reported in X14WHICH. The primary caregiver's relationship to a CDS child is described in X14PCGRLSP.

## **Final Data Release File Updates**

This section summarizes updates to the CDS-2014 data files that occurred between the initial final release in February 2017 and the final release in December 2017.

### Primary Caregiver Child (PCG-Child) Interview

Child's age at the time of the PCG-Child interview has been added (P14AGEX).

Z-scores for children's height, weight, and body mass index (P14HGTZ, P14WGTZ, P14BMIZ) have been updated using child's age at the time of the PCG-Child interview (P14AGEX). In the initial final public release, z-scores were computed based on the child's age at the time of the screening interview.

### Primary Caregiver Household (PCG-HH) Interview

The Primary Caregiver-Household (PCG-HH) file includes 2,517 records in the updated final data release. Eight duplicate records included in the initial final public release have been removed.

A caregiver-level probability weight has been constructed to support research questions where the primary caregiver is the unit of analysis (H14PCGWGT).

The primary caregiver's calculated age in months (H14IWAGE) and years (H14AGEX) have been added.

The CDS household identifier (CDSHID) no longer uniquely identifies primary caregivers. CDSHID was created to allow users to merge information between the PCG-HH file and any child-level file. In the initial final public release file, CDSHID took a unique value for each record on the PCG-HH file. With the introduction of the Household Roster file, the functionality of the CDS household identifier has changed. A small set of households includes two primary caregivers. That is, multiple CDS child participants reside in the same physical household but do not share the same primary caregiver. In the updated final release, all children and primary caregivers in the same physical household share the same CDS household identifier (2,517 primary caregivers and 2,506 unique values of CDSHID). To distinguish primary caregivers residing in the same household, the primary caregiver's sequence number in the CDS-2014 household roster (H14INST) and position among the total number of caregivers in the household (H14CDSHPIN) have been added.

### **Child Interview**

Child age in years at the time of the Child Interview (C14AGEX) and duration of the interactive voice response interview (C14IVRDX) have been added.

#### Household Roster File

The CDS-2014 Household Roster File was released for the first time as part of the final data release in December 2017. The roster includes information on all individuals living in a CDS child's household at the time of the CDS-2014 initial screening interview. A description of this file appears in the previous subsection.

# Demographic File

Information on the age, sex, and relationship to CDS child of all household members present at the time of the CDS-2014 screening interview has been added to the Demographic File (variables listed from X14R01SEX to X14R15UNC2). A CDS child's position in the roster is reported in X14WHICH. The primary caregiver's relationship to a CDS child is described in X14PCGRLSP.

# **Time Diary**

All time diary data files (activity, aggregated activity, and questionnaire) are unchanged from the initial final public release.

#### 3. THE CDS-2014 SAMPLE

The CDS-2014 sample—and the PSID sample more generally—is designed to be representative of the corresponding U.S. population of children and families. By design, PSID and CDS-2014 have certain gaps in coverage. In particular, PSID and CDS-2014 do not cover families in which both partners migrated to the U.S. after 1997 (when PSID last added a new immigrant refresher sample) and do not cover children in these post-1997 immigrant families. Note, however, that PSID is currently undertaking a new immigrant screening and recruitment operation in order to add a sample of post-1997 immigrant families and children to the sample in 2017. Children in these post-1997 new immigrant families will be eligible for participation in future waves of CDS.

The CDS-2014 sample eligibility criteria were defined as follows:

- Family participated in the 2013 Core PSID survey.
- Child's reported birth year was 1997–2013.
- Child was classified as belonging to the PSID sample (i.e., has the "PSID gene").
- Child was not classified as a household head or the spouse/partner of a household head.
- Child was not deemed to be eligible for the original CDS study (ER33418 ≠ 1).

A total of 5,816 children were deemed to have been eligible for a CDS-2014 interview based on these criteria. An additional 71 cases were released to the field but were later determined to have not been eligible for CDS-2014 and have been coded as ineligible.

The CDS-2014 fieldwork proceeded in several stages. Interviewers began by attempting to contact families with eligible children and completing a "Coverscreen" that collected information about the household composition and the identity of the CDS-2014 sample children's primary caregiver (PCG; typically the mother). As shown in Table 3.1, below, for a number of cases (interviewers were unable to locate the family (68 children), exhausted allowed number of contact attempts to reach the family (244 children), or reached the end of the field period without contacting the family (567 children). After families were successfully contacted, respondents could refuse to participate (390 children) or, for one child, had a language barrier that prevented any interview from being conducted. Towards the end of the fieldwork period, a random subsample of eligible families were deselected for interviews (180 children), and these cases are classified as non-sample. Finally, there were 15 children not released to the field due to an office error and a final set of 16 children have not received a final classification yet.

Table 3.1. CDS-2014 Fieldwork Outcomes

CDS-2014 Outcome	Count
Child data collected	4,333
Refusal by FU or PCG	390
Lost – family not located	68
Language barrier	1
Resided outside the U.S. or in a remote area and uncontactable	2
Multiple contact attempts but not reached	244
Field period ended – respondent not reached	567
Office error – incorrectly coded as ineligible and not released to field	15
Non-sample – eligible but not selected through double-sample stage	180
Other	16
Total	5,816

In CDS-2014, information was collected on a total of 4,333 children from an eligible sample of (5,816-180=) 5,636 children. The overall, unconditional response rate at the child level for CDS-2014 was 4,333/5,636=77 percent. Note that this response rate is not directly comparable to the CDS-I response rate because in CDS-I interviews were conducted immediately following the 1997 Core PSID interview and hence there was no initial screening non-response as occurred in CDS-2014. In a future revision of this User Guide, we will recalculate the CDS-2014 response rate to be comparable to the rate for CDS-I.

Children in CDS-2014 ranged in age from 0 to 17 years, as shown in Table 3.2 based on their year of birth and the dates of the CDS-2014 fieldwork. Note that children born in 2013 comprise a smaller share of the sample than births in other years. This occurred because eligibility for CDS-2014 was established based on each family's completion of the Core PSID interview in 2013. Because the average date for the Core PSID interviews in 2013 was about half-way through the calendar year, only about half the births that occurred in 2013 were identified for CDS-2014. The remaining births in 2013 will be eligible for the next wave of CDS. Table 3.2 also shows that the CDS-2014 sample was divided approximately evenly between males and females.

Table 3.2. Age and Sex of Children in CDS-2014

Birth Year	Males	Females	Total	Percent
1997	91	82	173	3.99
1998	97	86	183	4.22
1999	127	96	223	5.15
2000	116	118	234	5.40
2001	108	132	240	5.54
2002	121	121	242	5.59
2003	134	125	259	5.98
2004	138	155	293	6.76
2005	140	156	296	6.83
2006	142	151	293	6.76
2007	153	156	309	7.13
2008	137	145	282	6.51
2009	142	157	299	6.90
2010	164	156	320	7.39
2011	132	129	261	6.02
2012	137	164	301	6.95
2013	57	68	125	2.88
Total	2,136	2,197	4,333	100.00

23

#### 4. THE CDS-2014 DATA FILE STRUCTURE

CDS-2014 data are organized into five individual study components and two supporting files:

- 1. Primary Caregiver Household Interview (one record per primary caregiver)
- 2. Primary Caregiver Child Interview (one record per CDS-2014 child)
- 3. Child Interview (one record per age-eligible CDS-2014 child)
- 4. Child Assessments (one record per age-eligible CDS-2014 child in families selected for the in-home component)
- 5. Time Diary (one record per CDS-2014 child in families selected for the in-home component), organized into three files:
  - a. Time Diary Activity File (one record per activity)
  - b. Time Diary Aggregated Activity File (one record per child)
  - c. Time Diary Questionnaire Administration File (one record per child)
- 6. Demographic File
- 7. ID Map File

CDS-2014 data are contained in nine files—one file for each individual study component or supporting file except for the time diary data which are organized into three files. Table 2.1 summarizes the five study components and two supporting files according to the CDS-2014 individual for whom the data are available and also lists the number of records in each component/file.

Table 4.1. CDS-2014 Data Files by Individual Sample Member Type

	CDS-2014 Data File						
				Child	Time	Demographic	ID Map
Individual	PCG-HH	PCG-Child	Child	Assessments	Diary <sup>‡</sup>	File	File
Child							
Age 0–2 years		X			$X^{\dagger}$	Χ	Χ
Age 3-7 years		X		Χ <sup>†</sup>	$X^{\dagger}$	X	Χ
Age 8–11 years		X	$X^{\dagger}$	Χ <sup>†</sup>	$X^{\dagger}$	X	Χ
Age 12-17 years		X	Χ	Χ <sup>†</sup>	$X^{\dagger}$	X	Χ
PCG	Χ						
Num. of records	2,517	4,314	1,508	1,498	1,566	4,333	4,353

Notes: † In-home only; ‡ Time diary data are organized into three files: (1) an activity level file, (2) a child-level aggregated activity file, and (3) a child-level questionnaire administration file.

## Primary Caregiver and Child-Level Data Files

The PCG-Household file is released at the caregiver level. This means that each caregiver is represented by one record on the PCG-Household file. There are 2,517 records in this file, with one record corresponding to each PCG in the CDS-2014 sample. A PCG may be a caregiver to more than one CDS-2014 child, so information from one record on the PCG-Household file can be connected to multiple child records on a child-level file.

All other files are released at the child level. This means that each CDS-2014 child who participated in a given study component is represented by one record on the corresponding data file. (The time diary activity file is an exception.) Because of this design, a data extract from the PSID Online Data Center that includes variables from both the PCG-Household Interview and variables from any child-level file will include two content data files: one PCG-Household data file and one child-level file.

## Unique Person Identifiers in the PCG-Household and Child-Level Files

The unique identifiers on the PCG-Household File identify the primary caregiver and the unique identifiers that appear on the child-level file refer to the child. Specifically, the 1968 ID (ER30001), person number (ER30002), 2013 family interview identifier (ER34201), 2013 family interview sequence number (ER34202), and 2013 relationship to head (ER34203) all refer to the primary caregiver on the PCG-Household file and to the child on the child-level file.

A mapping file is provided with all CDS-2014 data extracts in order to link data from the PCG-Household file to data from any child file. The ID Map File enables a one-to-many merge between the PCG-Household file and any child-level file. It contains 4,353 records, one for each child for whom information is available in CDS-2014. The following variables are included in the ID Map File:

ER30001 – Child 1968 interview number

ER30002 - Child's person number

PCGID68 – 1968 interview number for the child's 2014 primary caregiver

PCGPN – Person number for the child's 2014 primary caregiver

CDSHID - CDS-2014 household interview number

CHLDINST14 – Child's sequence number (roster position) in CDS-2014

PCGINST14 – Primary caregiver's sequence number in CDS-2014

## Identifiers to Use for Merging PCG Data with Child Data

In the ID Map File, the variables ER30001 and ER30002 together provide unique values for every child on the mapping file. The variables PCGID68 and PCGPN provide a value for each PCG who has been observed previously in PSID and has an assigned value 1968 ID and person number (see below for an important note).

To allow users to merge information between the PCG-HH file and any child-level file, the ID Map File includes a CDS household interview number (CDSHID). This variable is similar to the family interview ID number assigned to a family unit in a given wave of the Core PSID interview. It uniquely distinguishes individual PCG-Household interviews in CDS-2014, but it does not correspond to any information outside of CDS-2014.

## Merging PCG data with Child Data

To merge data between the PCG-Household File and any child-level file using the unique CDS household interview number, users may take the following steps:

- 1. Conduct a one-to-one merge between the child-level file and the ID Map File using ER30001 and ER30002 as the unique identifiers. This merge will add the household interview ID and PCG identifiers to the child-level file.
- 2. In the PCG-Household File, rename ER30001 and ER30002 to PCGID68 and PCGPN respectively. Users may also wish to drop or rename the variables ER34201, ER34202,

and ER34203, which uniquely identify the caregiver in the 2013 Core PSID data. This will prevent values on these variables from being overwritten (or overwriting the values of these unique identifiers for children) when the file is merged to the child-level file in the next step. In addition, rename H14CDSHID to CDSHID and rename H14INST to PCGINST14. These will be the merging variables in the next step, so the variable names will need to be the same in this file and the ID Map File.

- 3. Conduct a one-to-many merge between the PCG-Household File and the ID Map File using CDSHID and PCGINST14 as the unique identifiers. This will put the PCG-Household data, PCG identifiers, and household interview identifier at the child level.
- 4. Conduct a one-to-one merge between (a) the new child-level file that contains PCG-Household data created in Step 3 and (b) the child-level file containing child data. Use ER30001 and ER30002 as the unique identifiers. Be aware that in some cases child data were collected but no PCG-Household interview was completed. For these cases, ER30001 and ER30002 will not take a value on the new child-level PCG-Household file created in Step 3. Users may wish to resolve this by deleting these records from the child-level PCG-Household file or by conducting a many-to-one merge at this step.

The preceding steps will produce a child-level data set that includes PCG-Household information for all cases where those data are available. In addition, as noted above, it may include records from households where only a PCG-Household interview was completed and no child data were collected or where child data were collected but no PCG-Household data were collected.

**IMPORTANT NOTE.** In 65 cases in CDS-2014, the primary caregiver was not observed in the child's household at the time of the 2013 Core PSID interview (and had never been observed in PSID previously). As a result, the primary caregiver has no assigned 1968 ID or person number. Users should be aware that no other data from the PSID Online Data Center may be attached to the 65 cases where a primary caregivers lacks a unique identifier.

#### 5. THE CDS-2014 WEIGHTS

CDS-2014 weights allow researchers to generalize their statistical results using these data to the national population of children corresponding to CDS-2014 selection criteria, while accounting for uneven selection probabilities and differential non-response. The CDS-2014 PCG weights similarly allow researchers to generalize their results to the national population of children's caregivers. We recommend that researchers use the provided CDS-2014 weights with all analyses.

The main CDS-2014 child weight includes a base component derived from the 2013 Core PSID weight that accounts for differential sample selection probabilities and attrition in Core PSID. The CDS-2014 child weight also incorporates differential probabilities of selection for sample children as well as differential patterns of non-response. CDS-2014 child weights are provided to account for the PSID sampling design, the CDS-2014 selection process, and patterns of non-response. The CDS-2014 PCG weights were derived directly from the child weights. This chapter describes the construction of the CDS-2014 weights.

For CDS-2014, a main child weight was constructed for each child in the survey who completed one or both of the following two modules: (1) the Primary Caregiver (PCG) Child Interview and (2) the Child Interview. All children in CDS-2014 were eligible for a PCG-Child Interview. A Child Interview was only administered to children aged 8–17 years. All children aged 12–17 years were asked to complete a Child interview. However, among children aged 8–11 years, only those in families selected at random for the in-home supplement were eligible for the Child Interview. (Approximately half of all families and children were selected for the in-home supplement.)

The main child weight for CDS-2014 is the variable **X14CHWGT**, which has one value for each of the 4,333 children in the sample. A second child weight is also available for CDS-2014, **X14IHWGT**, which is to be used when analyzing the in-home subsample of CDS-2014 cases. Both weights are to be used with child-level data in CDS-2014 and both weights are designed to be used for analyses with the child as the unit of observation. The PCG weight for CDS-2014 is the variable H14PCGWGT, which has one value for each of the 2,517 PCGs in the sample—which includes PCGs who completed the PCG Household Interview but for whom no corresponding child-level data are available.

The CDS-2014 Main Child Weight is to be used for all analyses based on the PCG-Child Interview because this interview component includes one observation for each child in the sample. This weight should <u>not</u> be used for analysis based on data from the in-home modules, which have observations only for a subset of the CDS-2014 sample.

The CDS-2014 Child In-Home Weight should be used for analysis based on the survey components that were only conducted during the face-to-face visits, including the time diaries and the Woodcock-Johnson assessments of reading and math.

For analysts using the Child Interview data, special care must be taken to choose the correct weight, because Child Interviews for one segment of the sample (children aged 8–11 years) were only conducted as part of the in-home component. Table 5.1 describes the appropriate weight to use based on the ages of children with Child Interview data being analyzed. Note that for analyses based on all children aged 8–17 who completed the Child Interview, the analyst must create a new variable with values equal to **X14IHWGT** for children aged 8–11 years and **X14CHWGT** for children aged 12–17 years.

Table 5.1. Use of CDS-2014 Weights for Analyzing Interview Data

Analysis sample	Recommended weight
Child interview data for children aged 12–17 years	X14CHWGT
Child interview data for children aged 8–11 years	X14IHWGT
	X14CHWGT for children
Child interview data for children and 0, 47 years	aged 12-17 years
Child interview data for children aged 8–17 years	X14IHWGT for children
	aged 8–11 years
Primary caregiver interview data	H14PCGWGT

We provide further guidance on how researchers can conduct weighted analyses of other CDS-2014 components at the end of this chapter.

## **Overview of Method to Construct CDS-2014 Child Weights**

We first constructed the CDS-2014 Main Child Weight, which was then modified to produce the CDS-2014 Child In-Home Weight. The basic steps to producing these weights were as follows:

- 1. Account for all probabilities of selection for eligible families and children through to the initial determination of eligibility for CDS-2014.
- 2. Adjust for CDS-2014 non-response.
- 3. Set aside the small number of CDS-2014 cases residing outside the U.S., for which their CDS-2014 Main Child Weight is now final.
- 4. Post-stratify the attrition-adjusted CDS-2014 sample selection weights to 2014 American Community Survey (ACS) adjusted population totals based on year of birth, gender, race, and Census region.
- 5. Trim very large and very small values of the post-stratified weights.
- 6. Post-stratify the trimmed weights to produce the final CDS-2014 Main Child Weight for the cases currently residing in the U.S.
- 7. Pool the U.S cases and non-U.S. cases for CDS-2014, which both now have their final Main Child Weight.
- 8. Adjust the final CDS-2014 Main Child Weight to produce the CDS-2014 Child In-Home Weight.

Table 5.2 summarizes the CDS-2014 sample based on key features that shape the construction of the weights.

Table 5.2. Summary of CDS-2014 Child Cases for Weights

Description	Count
Initial total eligible cases for CDS-2014	5,816
Deselected cases from the double-sample stage	180
Total final eligible cases for CDS-2014	5,636
Completed PCG-Child or Child Interview cases	4,333
Non-U.S. cases	17
U.S. cases	4,316
In-home sample cases	2.152
Non-U.S. cases	4
U.S. cases	2,148

## Method to Construct CDS-2014 Child Weights

We next describe the steps of the process for constructing the CDS-2014 weights.

#### Step 1. Selection Probabilities for CDS-2014

For all eligible CDS-2014 child cases (n=5,816), a base probability of selection weight was established using the household weight from the 2013 Core PSID.

## Step 2. Non-Response Adjustment

A non-response adjustment factor for the weight was obtained from a logistic regression model of the response outcome. All eligible CDS-2014 child cases were included in the model. Data from the 2013 Core PSID were used as covariates in the model predicting an indicator of non-response, y, with y=0 if the case was non-response and y=1 if the case was coded as complete. The estimated coefficients and standard errors for the logistic regression model are reported in Table 5.3.

The results indicate that the probability of response in CDS-2014 was higher among African Americans and whites, in households headed by women, and in households with fewer children; the probability of response was lower in households with missing information about the head's education and in households outside the U.S. Although a number of variables in the response propensity model that are not statistically significant predictors of CDS-2014 response (e.g., household income, metro status, and Census region), these non-significant variables were retained in the model used to derive estimates of the propensity of response. Overall, the Hosmer-Lemeshow test of goodness of fit test (X²=11.47, 8 df, p=0.18) suggests that the response model provides an acceptable fit.

Based on the estimated logistic regression model, predicted probabilities of response were computed for each CDS sample case and grouped into deciles. These decile groups served as the classes within which a uniform non-response weighting adjustment was applied. <sup>13</sup> Each respondent case was assigned a non-response adjustment factor equal to the inverse of the median predicted probability of successful CDS 2014-interview within its decile weighting class. The median response propensity and adjustment factor for each decile of the predicted probability response in CDS-2014 are shown in Table 5.4.

The probability of selection weight for each CDS-2014 observation was then multiplied by the non-response adjustment factor to produce an interim weight that adjusts for probability of selection and CDS-2014 nonresponse.

#### Step 3. Non-U.S. Cases

There were 30 eligible cases in CDS-2014 that resided outside the U.S. during the fieldwork period. Although interviews were attempted for all of these cases and completed among some of them, these cases are not included in the post-stratification because the control total for the post-stratification process are based on the U.S. resident population. At this step, for the non-U.S. CDS-2014 cases, the Main Child Weight is designated to be complete.

<sup>&</sup>lt;sup>13</sup> See Little, R.J.A. and Rubin, D.B. (2002). *Statistical Analysis with Missing Data*, 2nd Edition. New York: John Wiley & Sons.

Table 5.3. Logistic Regression Model Results for CDS-2014 Response

Variable	Estimate	Std. error	Pr
PSID sample component			
SRC sample			
Immigrant sample	-0.2469	0.1377	0.0730
SEO sample	-0.0558	0.1222	0.6481
Child is male (0/1)	-0.0554	0.0641	0.3872
Child age at 2013 Core PSID (years)	-0.0192	0.0081	0.0172
Child race			
Other			
White	0.2749*	0.1333	0.0391
Black	0.6799***	0.1416	< 0.0001
Hispanic	0.0509	0.1552	0.7429
Age of household head			
≤ 30 years	0.0395	0.1192	0.7403
30–45 years	0.0116	0.0958	0.9038
> 45 years			
Household head is male (0/1)	-0.2069*	0.0884	0.0193
Education of household head	0.2000	0.000	0.0.00
Not high school graduate	-0.1982	0.1152	0.0854
High school diploma	0.0360	0.1024	0.7251
Some college	-0.1784	0.0966	0.0649
College degree	0.1701	0.0000	0.0010
Education unknown	-0.6185*	0.2627	0.0186
Household head is employed (0/1)	-0.1585	0.1184	0.1808
Family income quartile	0.1000	0.1104	0.1000
First quartile	-0.1496	0.1276	0.2410
Second quartile	-0.1625	0.1066	0.1273
Third quartile	0.0824	0.0986	0.4034
Fourth quartile	0.0024	0.0900	0.4054
Region			
Northeast	0.0351	0.3324	0.9159
Midwest	0.0568	0.3324	0.7463
South	0.0308	0.307	
West	0.1403	0.307	0.6477
Outside U.S.	-0.7884*	0.2050	0.0464
		0.3959	0.0464 0.8422
Metro area (0/1)	-0.0263	0.1319	
Northeast region x metro area (0/1)	-0.1330	0.3482	0.7025
North Central region x metro area (0/1)	0.0737	0.1959	0.7068
South region x metro are (0/1)	0.3293	0.3206	0.3044
Number of children in household (count)	-0.0795**	0.0261	0.0023
In-home sample (0/1)	-0.1498*	0.0655	0.0223
Intercept	1.6727	0.2592	<0.0001
N	5,636		
Response	4,333		
Non-response	1,303		
Hosmer & Lemeshow chi-squared (df)	11.4665 (8)		0.1766

Note: \* P≤0.05, \*\* P≤0.01, \*\*\* P≤0.001.

# Step 4. Post-Stratification to Population Control Totals

We next post-stratified the CDS-2014 interim weights from Step 2 to population control totals

calculated using data from the 2013 American Community Survey. Strata were formed based on the following respondent characteristics:

- Child sex (male/female)
- Birth year of child (1997–2013)
- Child race/ethnicity (Hispanic, non-Hispanic black, non-Hispanic white or other)
- Census region (Northeast, Midwest, South, West)

Strata defined by the full four-way cross-classification of these categorical variables were collapsed as needed to ensure a minimum count of approximately 15–20 individuals in each cell. Table 5.5 shows the CDS sample count and CDS weighted estimates, the ACS population estimates, and the post-stratification adjustment factors for each of the 105 cells defined by birth year, sex, race/ethnicity, and region. Note that CDS-2014 excluded some children born in early 1997 (who were selected to participate in the original CDS) and some children born in late 2013 (after the 2013 Core PSID interview was completed). The ACS control totals shown in Table 4.5 and used in the post-stratification weighting have been constructed to exclude children born outside the CDS-2014 eligibility window in 1997 and 2013.

Table 5.4. CDS-2014 Median Response Propensity and Weighting Adjustment Factor

Response	Median	_		
propensity	response	Adjustment		
decile	propensity	factor		
1	0.646	1.548		
2	0.706	1.417		
3	0.735	1.361		
4	0.755	1.325		
5	0.771	1.297		
6	0.785	1.274		
7	0.800	1.251		
8	0.814	1.229		
9	0.831	1.204		
10	0.854	1.170		

The initial post-stratification adjustment factors were computed as the ratio of the ACS control totals to the CDS-2014 weighted population estimate count (using the interim weight from Step 2). The initial post-stratification adjustment factors were then applied to the interim weight to produce an initial post-stratified weight.

#### Step 5. Trimming of Weights

The distribution of the interim, post-stratified weights was examined and a decision was made to trim extreme values at each end of the distribution. The reason for trimming the weights is to reduce the influence of extreme weight values on the variances of sample estimates of population statistics. Trimming the weight distribution also provides some protection against arbitrary combinations of extreme weights and large or unique values of substantive variables that could exert high leverage on multivariate analyses such as regression modeling. The trimming rule applied to the CDS-2014 Main Child Weight assigned the cases with the weight values in the top two percent and in the bottom two percent of the weight distribution to the 98th and 2nd percentile values of the weight distribution, respectively.

Table 5.5. Post-Stratification Cells for CDS-2014 Main Child Weight

					CDS	CDS	ACS	
Cell	Birth	Sex	Race/ethnicity	Region	sample	weighted	population	Adjustment
	Year	COM	1.000,000		size	estimate	totals	factor
1	1997-1999	m	Black, non-Hispanic	South	94	611,277	449,460	0.73528
2	1997-1999	m	Black, non-Hispanic	Not in South	48	382,924	317,370	0.82881
3	1997-1999	m	White and Other, non-Hispanic	Northeast	27	841,481	682,544	0.81112
4	1997-1999	m	White and Other, non-Hispanic	Midwest	38	905,398	974,590	1.07642
5	1997-1999	m	White and Other, non-Hispanic	South	54	1,176,883	1,256,203	1.0674
6	1997-1999	m	White and Other, non-Hispanic	West	31	686,874	735,387	1.07063
7	1997-1999	f	Black, non-Hispanic	South	84	362,316	430,413	1.18795
8	1997-1999	f	Black, non-Hispanic	Not in South	28	195,374	323,036	1.65343
9	1997-1999	f	White and Other, non-Hispanic	Northeast	26	737,668	631,041	0.85545
10	1997-1999	f	White and Other, non-Hispanic	Midwest	40	901,578	925,067	1.02605
11	1997-1999	f	White and Other, non-Hispanic	South	39	920,810	1,168,595	1.26909
12	1997-1999	f	Hispanic	West	26	715,196	819,864	1.14635
13	1997-1999	f	White and Other, non-Hispanic	West	58	1,105,441	1,224,616	1.10781
14	1997-1999	m	Hispanic	West	46	1,072,099	1,538,174	1.43473
15	1997-1999	m	Hispanic	Not in West	50	1,193,995	2,035,893	1.70511
16	1997-1999	f	Hispanic	Not in West	36	973,919	1,919,444	1.97085
17	2000-2001	m	Black, non-Hispanic	South	73	302,769	330,713	1.09229
18	2000-2001	m	Black, non-Hispanic	Not in South	27	245,561	228,243	0.92947
19	2000-2001	m	White and Other, non-Hispanic	Northeast	22	586,255	466,371	0.79551
20	2000-2001	m	White and Other, non-Hispanic	Midwest	27	661,786	697,706	1.05428
21	2000-2001	m	White and Other, non-Hispanic	South	38	768,383	907,576	1.18115
22	2000-2001	m	White and Other, non-Hispanic	West	26	521,848	547,631	1.04941
23	2000-2001	f	Black, non-Hispanic	South	69	528,759	322,273	0.60949
24	2000-2001	f	Black, non-Hispanic	Not in South	36	341,658	218,130	0.63845
25	2000-2001	f	White and Other, non-Hispanic	Northeast	18	513,800	454,258	0.88411
26	2000-2001	f	White and Other, non-Hispanic	Midwest	40	816,620	667,826	0.81779
27	2000-2001	f	White and Other, non-Hispanic	South	34	635,648	850,168	1.33748
28	2000-2001	m	Black, non-Hispanic	South	88	380,064	325,781	0.85717
29	2002-2003	m	Black, non-Hispanic	Not in South	32	381,176	216,805	0.56878
30	2002-2003	m	White and Other, non-Hispanic	Northeast	21	426,778	448,697	1.05136
31	2002-2003	m	White and Other, non-Hispanic	Midwest	40	813,558	674,241	0.82876
32	2002-2003	m	White and Other, non-Hispanic	South	34	841,047	854,199	1.01564
33	2002-2003	m	White and Other, non-Hispanic	West	22	470,723	527,198	1.11998
34	2002-2003	f	Black, non-Hispanic	South	72	470,723	311,313	0.6586
35	2002-2003	f	Black, non-Hispanic	Not in South	32	246,284	201,738	0.81913
36	2002-2003	f	White and Other, non-Hispanic	Midwest	36	675,147	653,646	0.96815
37	2002-2003	f	White and Other, non-Hispanic	South	37	687,021	824,392	1.19995
38	2002-2003	f		West	41	769,126	510,578	0.66384
39	2002-2005	f	Hispanic	West	27	629,146	657,793	1.04553
40	2002-2005	f	White and Other, non-Hispanic	Northeast	33	738,512	869,137	1.17688
41	2002-2005	m	Black, non-Hispanic	South	74	376,597	315,708	0.83832
42	2004-2005	m	Black, non-Hispanic	Not in South	25	178,958	209,960	1.17324
43	2004-2005	m	White and Other, non-Hispanic	Northeast	31	735,877	441,098	0.59942
44	2004-2005	m	White and Other, non-Hispanic	Midwest	39	743,666	649,297	0.59942
45	2004-2005	m	White and Other, non-Hispanic	South	34	743,000	860,987	1.18291
46	2004-2005	m	White and Other, non-Hispanic	West	30	552,732	518,662	0.93836
47	2004-2005	f	Black, non-Hispanic	South	80	381,217	300,222	0.78754
48	2004-2005	f	Black, non-Hispanic	Not in South	32	197,836	195,667	0.98903
49	2004-2005	f	White and Other, non-Hispanic	Midwest	53	1,032,943	647,100	0.96903
50	2004-2005	f	White and Other, non-Hispanic	South	59	1,032,943	822,359	0.02040
51	2004-2005	f	White and Other, non-Hispanic	West	32	549,496	495,695	0.71849
52	2004-2005		Black, non-Hispanic					
53		m		South Not in South	67	208,933	321,961	1.54098
54	2006-2007	m	Black, non-Hispanic		29	158,708	212,133	1.33663
54	2006-2007	m	White and Other, non-Hispanic	Midwest	46	775,931	677,442	0.87307

	Birth	_			CDS	CDS	ACS	Adjustment
Cell	Year	Sex	Race/ethnicity	Region	sample	weighted	population	factor
FF	2222 2227		)	0 11	size	estimate	totals	4 4050
55	2006-2007	m	White and Other, non-Hispanic	South	43	752,390	854,110	1.1352
56	2006-2007	m	White and Other, non-Hispanic	West	43	733,333	523,408	0.71374
57	2006-2007	f	Black, non-Hispanic	South	83	328,622	308,767	0.93958
58	2006-2007	f	Black, non-Hispanic	Not in South	38	222,142	203,157	0.91454
59	2006-2007	f	White and Other, non-Hispanic	Northeast	17	300,702	404,267	1.34441
60	2006-2007	f	White and Other, non-Hispanic	Midwest	55	882,761	626,412	0.70961
61	2006-2007	f	White and Other, non-Hispanic	South	43	669,624	836,461	1.24915
62	2006-2007	f	White and Other, non-Hispanic	West	39	639,433	493,885	0.77238
63	2006-2009	m	Hispanic	West	36	656,633	727,083	1.10729
64	2006-2009	m	White and Other, non-Hispanic	Northeast	39	868,716	852,386	0.9812
65	2006-2009	f	Hispanic	West	36	585,219	698,952	1.19434
66	2006-2009	f	Hispanic	Not in West	23	465,555	932,357	2.00268
67	2006-2013	m	Hispanic	Not in West	68	1,242,823	1,723,268	1.38658
68	2008-2009	m	Black, non-Hispanic	South	59	234,789	325,701	1.38721
69	2008-2009	m	Black, non-Hispanic	Not in South	32	216,978	213,013	0.98173
70	2008-2009	m	White and Other, non-Hispanic	Midwest	55	845,045	674,305	0.79795
71	2008-2009	m	White and Other, non-Hispanic	South	51	786,585	841,219	1.06946
72	2008-2009	m	White and Other, non-Hispanic	West	30	482,000	523,135	1.08534
73	2008-2009	f	Black, non-Hispanic	South	81	366,921	325,575	0.88732
74	2008-2009	f	Black, non-Hispanic	Not in South	41	168,587	205,884	1.22123
75	2008-2009	f	White and Other, non-Hispanic	Northeast	23	510,356	386,877	0.75805
76	2008-2009	f	White and Other, non-Hispanic	Midwest	56	790,384	625,879	0.79187
77	2008-2009	f	White and Other, non-Hispanic	South	38	634,408	794,458	1.25228
78	2008-2009	f	White and Other, non-Hispanic	West	31	457,477	491,177	1.07366
79	2010-2011	m	Black, non-Hispanic	South	81	377,612	315,100	0.83446
80	2010-2011	m	Black, non-Hispanic	Not in South	25	108,440	205,815	1.89796
81	2010-2011	m	White and Other, non-Hispanic	Midwest	51	828,047	616,244	0.74421
82	2010-2011	m	White and Other, non-Hispanic	South	45	658,090	815,080	1.23855
83	2010-2011	m	White and Other, non-Hispanic	West	29	436,766	485,709	1.11206
84	2010-2011	f	Black, non-Hispanic	South	63	164,683	309,436	1.87898
85	2010-2011	f	Black, non-Hispanic	Not in South	45	232,250	197,393	0.84992
86	2010-2011	f	White and Other, non-Hispanic	Northeast	18	285,169	383,058	1.34327
87	2010-2011	f	White and Other, non-Hispanic	Midwest	34	494,128	600,801	1.21588
88	2010-2011	f	White and Other, non-Hispanic	South	46	669,869	758,062	1.13166
89	2010-2011	f	White and Other, non-Hispanic	West	31	449,283	462,849	1.0302
90	2010-2011	m	Hispanic	West	46	740,926	575,182	0.7763
91	2010-2013	m	White and Other, non-Hispanic	Northeast	21	390,328	388,691	0.7763
92	2010-2013	f			30	442,787	556,203	1.25614
93		f	Hispanic	West Not in West				
94	2010-2013		Hispanic	Not in West	36	611,303	751,183	1.22882
	2012-2013	m	Black, non-Hispanic	South Not in South	43	161,621	201,347	1.2458
95	2012-2013	m	Black, non-Hispanic	Not in South	26	123,888	121,898	0.98394
96	2012-2013	m	White and Other, non-Hispanic	Northeast	11	245,998	266,128	1.08183
97	2012-2013	m	White and Other, non-Hispanic	Midwest	32	507,845	424,196	0.83529
98	2012-2013	m	White and Other, non-Hispanic	South	27	391,768	552,141	1.40936
99	2012-2013	m	White and Other, non-Hispanic	West	24	360,152	349,093	0.96929
100	2012-2013	f	Black, non-Hispanic	South	56	192,474	191,800	0.9965
101	2012-2013	f	Black, non-Hispanic	Not in South	28	206,949	133,858	0.64682
102	2012-2013	f	White and Other, non-Hispanic	Northeast	17	280,887	256,573	0.91344
103	2012-2013	f	White and Other, non-Hispanic	Midwest	42	655,082	392,036	0.59845
104	2012-2013	f	White and Other, non-Hispanic	South	45	709,991	538,655	0.75868
105	2012-2013	f	White and Other, non-Hispanic	West	23	315,720	322,772	1.02234

Step 6. Post-Stratification after Trimming of Weights

After trimming the weights, the post-stratification procedure (Step 4) was repeated so that the final trimmed weights again matched the desired ACS population control totals.

## Step 7. Combining the U.S. and Non-U.S. Cases

The final step in creating the Main Child Weight is to combine the weights from Step 6 for cases in the U.S with the weights from Step 3 for the non-U.S. cases.

Table 5.6. Post-Stratification Cells for CDS-2014 Child In-Home Weight

Cell	Birth year	Sex	Race/ethnicity	CDS sample size	CDS weighted estimate	ACS population totals	Adjustment factor
1	1997-1999	m	Black, non-Hispanic	81	586,135	766,830	1.32046
2	1997-1999	m	White and Other, non-Hispanic	71	4,651,894	3,648,724	0.79165
3	1997-1999	f	Black, non-Hispanic	67	1,201,544	753,449	0.6329
4	1997-2001	f	White and Other, non-Hispanic	105	5,788,115	5,921,571	1.03258
5	1997-2005	m	Hispanic	49	3,218,717	3,574,067	1.12073
6	1997-2005	f	Hispanic	46	2,941,938	3,397,101	1.16546
7	2000-2001	m	Black, non-Hispanic	65	771,983	558,956	0.73079
8	2000-2001	m	White and Other, non-Hispanic	54	3,289,062	2,619,284	0.80377
9	2000-2001	f	Black, non-Hispanic	54	426,209	540,403	1.27973
10	2002-2003	m	Black, non-Hispanic	58	385,865	542,586	1.41924
11	2002-2003	m	White and Other, non-Hispanic	58	2,926,756	2,504,335	0.86363
12	2002-2003	f	Black, non-Hispanic	64	409,194	513,051	1.26548
13	2002-2005	f	White and Other, non-Hispanic	115	4,959,489	4,822,907	0.98151
14	2004-2005	m	Black, non-Hispanic	55	433,712	525,668	1.2233
15	2004-2005	m	White and Other, non-Hispanic	48	2,244,003	2,470,044	1.11098
16	2004-2005	f	Black, non-Hispanic	69	573,987	495,889	0.87198
17	2006-2007	m	Black, non-Hispanic	64	625,088	534,094	0.86238
18	2006-2007	f	Black, non-Hispanic	73	414,616	511,924	1.24619
19	2006-2007	f	White and Other, non-Hispanic	66	2,608,726	2,361,025	0.91347
20	2006-2009	m	White and Other, non-Hispanic	124	4,922,103	4,946,005	1.01421
21	2006-2009	f	Hispanic	30	1,332,868	1,631,309	1.2353
22	2006-2013	m	Hispanic	69	2,467,052	3,025,533	1.23779
23	2008-2009	m	Black, non-Hispanic	62	377,524	538,714	1.44025
24	2008-2009	f	Black, non-Hispanic	75	356,651	531,459	1.50401
25	2008-2009	f	White and Other, non-Hispanic	59	2,359,162	2,298,391	0.98331
26	2010-2011	m	Black, non-Hispanic	66	507,918	520,915	1.03513
27	2010-2011	f	Black, non-Hispanic	65	442,818	506,829	1.15521
28	2010-2011	f	White and Other, non-Hispanic	52	2,409,959	2,204,770	0.92337
29	2010-2013	m	White and Other, non-Hispanic	58	2,420,798	2,305,724	0.96133
30	2010-2013	f	Hispanic	34	1,457,106	1,307,386	0.9056
31	2012-2013	m	Black, non-Hispanic	45	337,921	323,245	0.96547
32	2012-2013	m	White and Other, non-Hispanic	40	1,514,523	1,591,558	1.06064
33	2012-2013	f	Black, non-Hispanic	53	213,404	325,658	1.54022
34	2012-2013	f	White and Other, non-Hispanic	54	1,616,839	1,510,036	0.94264

## Step 8. Produce the CDS-2014 In-Home Child Weight

Half of the CDS-2014 families were randomly selected to receive an in-home visit. The selection process was probability-based, but all cases did not have an equal chance of selection for the in-home survey administration. To account for the subsampling of CDS families for in-home interview administration, the CDS-2014 Child In-Home Weight includes an additional sample selection adjustment to the Main Child Weight. These adjusted weights were then post-stratified to the ACS population control totals using a process identical to that described in Steps 4–6 above, except that due the smaller sample size for the in-home interviews a further collapsing of strata was necessary. Census region was dropped entirely from the post-stratification scheme and wider birth-year cells were used. The revised post-stratification

scheme is shown in Table 5.6.

#### **Method to Construct CDS-2014 PCG Weights**

The CDS-2014 PCG weight was derived entirely from the CDS-2014 Main Child Weight. In particular, PCGs in CDS-2014 were assigned the average weight over all children for whom they were the responsible primary caregiver. For PCGs for whom there were no corresponding children in the sample (because no child interview components were completed and hence no child weight was constructed), a PCG weight was calculated based on imputed values for the missing child weights. Missing child weights were imputed based on predicted values from a regression model that included covariates from the child-level non-response model described above and the 2013 Core PSID weight.

### **Summary of CDS-2014 Weights**

In Table 5.7 we list the CDS-2014 child weights and the PCG weight and present case counts and summary statistics. that the case count for the Main Child Weight (4,333) is approximately twice the count for the Child In-Home Weight, reflecting the fact that approximately half of the CDS-2014 sample was selected for the in-home component. The mean weight for the Child In-Home Weight (28,241.22) is correspondingly about twice as large as the mean weight for the Main Child Weight (14,061.74), reflecting the fact that these two samples both weight to the same national population of children. Note also that the weighted total population from both CDS-2014 samples is approximately 61 million children, which is about 83 percent of the estimated U.S. population of children aged 0–17 years of 73 million in 2013. The PSID count is lower primarily because it excludes children in post-1997 immigrant families and includes only about half of children in the youngest and oldest single-year age groups.

Table 5.7. Summary of CDS-2014 Weights

Weight Variable				Percentile			
description	name	Count	1st	50th	99th	Mean	Std. dev.
Main Child Weight	X14CHWGT	4,333	467.77	11,630.53	52,932.32	14,061.74	12,598.15
Child In-Home Weight	X14IHWGT	2,152	774.08	15,239.32	163,847.80	28,241.22	36,175.60
PCG Weight	H14PCGWGT	2,517	465.20	11,772.56	51,226.46	14,018.62	12,358.21

The case count for the PCG weight is 2,517 and the mean weight is 14,018.62, which (by construction) is very similar to the mean for Main Child Weight (14,061.74). The weighted total population of PCGs in CDS-2014 is 35 million.

#### **Recommendations for Using the CDS-2014 Weights**

In this section, we summarize our recommendations for using the CDS-2014 weights. Our basic recommendation is for data users to always use the provided weights in all of their analyses. In addition, we recommend that, when calculating standard errors, data users should wherever possible account for the clustering of the CDS-2014 data by family. Standard errors should reflect the fact that siblings are more likely to have similar outcomes and characteristics than children selected at random. Controlling for family-level clustering of siblings also provides an appropriate correction due to clustering of families by household or neighborhood and recognizes the fact that generally it is only possible to control for a single level of clustering. Furthermore, when analyses focus on a subset of children (from either the full sample or the inhome component), data users should use an appropriate "sub-population" adjustment.

Clustering-corrected standard errors and sub-population commands are available in most standard statistical software (including SAS and Stata).

Main Child Weight (X14CHWGT). This weight should be used for all analyses in which the full sample of children in CDS-2014 are the focus of the analysis. This is the weight to use with data from the PCG Child Instrument or for data on children aged 12–17 years from the Child Instrument.

<u>Child In-Home Weight (X14IHWGT)</u>. This weight should be used for all analyses in which the analysis focuses on measures available only in the in-home component of CDS-2014, which includes the following components: Child Interviews for children aged 8–11 years, the Woodcock-Johnson Tests of Achievement in reading and math, and the CDS Time Diaries.

<u>PCG Weight (H14PCGWGT)</u>. This weight should be used for all analyses in which the sample of PCGs in CDS-2014 are the focus of the analysis. This is the weight to use with data from the PCG Household Instrument or for other data on PCGs.

Finally, if users have questions about whether their analyses should be weighted or unweighted or about how to reflect the sampling design in their calculation of parameter estimates and standard errors, they should consult with a survey statistician.

# APPENDIX A. MEASUREMENT RESOURCE TABLE: COMPARISON OF CDS-2014 WITH CDS I-III

Domain 2014		Measures	CDS-2014	CDS-III	CDS-II	CDS-I	Origin
Child health status & behavior	PCG	Child's health care use	 A6, A7M-A8Y A9	A3-A3b A5-A8a A10	A3-A3b A5-A8b A10	A12 A20 A22-A25 A27	NLSY; Hofferth/Eccles
		Child's health care expenditures		Ja33-Ja34 (PCG HH)	A28-A33	A17-A24	NLSY; Hofferth/Eccles
		Child's chronic conditions	A10A-Q A10R A10S-A10S_M3	A4a-p A4p2 A4q-q1	A4a-p	A21a-s	NLSY
		Child's limitations	A17-A19	A9a-c	A9a-c	A26	NLSY
		Child's general health rating	A2	A11	A11	A34	NHIS
	Child	General health rating	C1	K8	K8		ADD Health
		nutrition		K13-K13m	K13-K14	i	ADD Health
		exercise		K15-K17	K15-K17		ADD Health
		sleep		K20-K21	K20-K22		ADD Health
		smoking	J35-J39	L12a-e	L12a-e		ADD Health
		sexual behavior	J5-J21	L29-L36	L29-L36		ADD Health
		height & weight for BMI & weight status (underweight, normal, risk for overweight & overweight).	C2-C4	K9-K10			Eccles & Simpkins
Child psychological & social wellbeing	PCG	Child's internalizing & externalizing behavior problems index (BPI)	B1-B32	B29a-ff	B29a-ff	G23a-dd G32a-b	NLSY version of the scale developed by Peterson & Zill (1986). See Peterson, J. L., & Zill, N. (1986).  Marital disruption, parent-child relationships, and behavioral problems in children. <i>Journal of Marriage and the Family, 48</i> , 295-307.
		Child's social wellbeing		(CHILD) L22a-e	(CHILD) L22a-e	G33a-h	
		Child's positive behaviors scale	B33-B42	B30a-j	B30a-j	G24a-j	Child Trends, JOBS study version of the measure developed for the New Chance Evaluation Study. See Polit, D. (1998). <i>The Positive Behavior Scale</i> . Saratoga Springs, NY: Humanalysis.
		nonresident parent & siblings	D10-D13, ABP2- ABP5A D17-D21, ABP19- ABP22A	D2c-D8y D18c-D24y	D2c-D8y D18c-D24y	J28a-k, J29	NSFH; JOBS Child Outcomes Study
		Child's closeness with parents	D1a-d_2	(CHILD) H5a- d	(CHILD) H5a-d	B6a-g	
		Prosocial behavior	B43-B47				Goodman, R. (1997). The Strengths and Difficulties Questionnaire: A Research note. <i>The Journal of Child Psychology and Psychiatry</i> , 38, 581-586.
	Child	Relationship with parents, siblings, friends, peers & romantic partners	 D1a-j D2	H4b-l H5a-h H6	H4a-i H5a-h H6		Eccles & Simpkins
		dating behaviors	J2-J4	L7-L8a	L7-L8		ADD Health

Domain 2014		Measures	CDS-2014	CDS-III	CDS-II	CDS-I	Origin
		risky behaviors, thrill seeking, anti- social behaviors	J22-J29	L11a-j	L11a-j		Eccles & Simpkins
		drug & alcohol abuse/ dependence	J43 J44-J55 J56-J59 J60-J64a		L13 L13a-j L14a-d L15a-k		
		depression, self-esteem, worry, social wellbeing	C8-C17	L16a-j	L16a-j		Kovacs, Maria. Children's Depression Inventory (CDI). http://www.pearsonassessments.com/tests/cdi.html Also see: Sitarenios, Gill & Kovacs, Maria (1999). <i>Use of the Children's Depression Inventory.</i> In Mark Maruish (Ed.), The use of psychological testing for treatment planning and outcomes assessment, 267-298. Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
		parental psychological control		i, j	L17a, b, d, g, i, j L18a, b, d, g, i, j		Barber, B.K. & Olsen, J.A. (1997). Socialization in context: Connection, regulation, and autonomy in the family, school, and neighborhood, and with peers. Journal of Adolescent Research: Special Issue: Adolescent Socialization in Context Connection, regulation, and autonomy in multiple contexts, Part II, 12(2), 287-315. See also: Schaefer (1965); Schludermann & Schludermann (1988)
		initiative		L22a-e	L22a-e		Barber, B.K. (1996). Parental psychological control: Revisiting a neglected construct. <i>Child Development</i> , <i>67</i> , 3296-3319.
		languishing & flourishing		L37a-n	L37a-n		MIDUS (http://midmac.med.harvard.edu/)
		Peer problems	E11-E15				Goodman, R. (1997). The Strengths and Difficulties Questionnaire: A Research note. <i>The Journal of Child Psychology and Psychiatry</i> , 38, 581-586.
Family environment	PCG	conflict between PCG vs OCG	ABP8-ABP15 ABP25-ABP32	D14a-h D30a-h	D14a-h D30a-h		
		parental aggravation (specific to children)	M8-M10 (PCG-HH)	E8a-c	E8a-c	B11a-e	Child Trends, Inc. for the JOBS Child Outcomes Study
		parental aggravation (parenting in general)	M4-M7	J15a-d	J15a-d	A29a-d	Child Trends, Inc. for the JOBS Child Outcomes Study
		parental warmth	C25-27	E13a-g	E13a-g	G37a-f	Child Trends, Inc. for the JOBS Child Outcomes Study
		parental involvement in daily activities & school	 S19-S20, F34-F38 F39-F41		B23a-d B24a-h B26a-c	G27a-d G28a-k G31a-c	
		whether child has an allowance & savings whether child has own bank account	G1-G6   (CHILD) H4-H9	H24j H25j (CHILD) L3	(PCG) G21a1- G21b3 H29-H32a (CHILD) L3 L3a-e		Eccles & Simpkins
		household tasks		J11a-n	J11a-n	A21a-p	NSFH
		disagreement in parenting	Q1-Q5	J20a-e	J20a-e	A40a-i	NLSY NSFH

PCGHH: M1-M2, PCGOB7- PCGOB10, S10  PCGCHId: B3- B5, B5, B7, B14-B16, C1-C5, L2-L14, HHA27, HHA27, Environments of chile	H., Corwyn, R. F., McAdoo, H. P., & García Coll, e environments of children in the United States
	age, ethnicity, and poverty status. Child , 1844–1867; Bradley, R. H., Corwyn, R. F., doo, H. P., & García Coll, C. (2001). The home Idren in the United States Part II: Relations with ment through age thirteen. Child development, some items developed for CDS-2014.

Domain 2014		Measures	CDS-2014	CDS-III	CDS-II	CDS-I	Origin
				PCG-OBS: K1-K4, K7- K14, K16- K23, K28-K40	K40		
Family Environment, Continued	PCG	Presence of and PCG's interaction with pets in the home.	P1-P7				Holcomb, R., Williams, R.C., Scott, P. (1985) The elements of attachment: Relationship maintenance and intimacy. <i>Journal of the Delta Society</i> , 2:28-34.
		Food security	R1-R15				US Household Food Security Survey Module, Economic Research Service, US Department of Agriculture (September 2012)
		Available of technology and rules about children's technology use	S1-S14L; E47-E58				Developed for CDS-2014.
	Child	Child's interaction with pets in the home.	D4-D12				Holcomb, R., Williams, R.C., Scott, P. (1985) The elements of attachment: Relationship maintenance and intimacy. <i>Journal of the Delta Society</i> , 2:28-34.
Parental monitoring	PCG	Caregivers' knowledge of the child's whereabouts, activities & associations.	C2-C3	B33-B34	B33-B34	G33-G34	NLSY
Child education	PCG	parental expectations for future schooling	F2-F3	B1-B3	B1-B3	G21	NLSY; National Education Longitudinal Survey of 1988 (NELS:88)
		Child's enrollment	CHGRADE	B4 B6	B4-B6 B28	G2-G3	National Health Examination Survey (NHES95); PSID95; NLSY
		Child's attendance		B7a-B7b	B7a-B7b	G4-G5	NLSY
		Child's participation in federal lunch & breakfast programs	F28-F29	B8 B8a-b B9	B8 B8a-b B9	G6-G8	Food and Nutrition Survey (USDA)
			F14 F16-F19 F23	B11-B12 B13-B15 B22	B11-B22	G10-G17	National Health Examination Survey (NHES95); PSID95; NLSY
		Child's tuition	 F15a-F15b	B11a1-a3 B12a1-a3	B11a1-a3 B12a1-a3	G11c	National Health Examination Survey (NHES95); PSID95; NLSY
		Child's participation in special class/school for gifted students	F20	B16	B15	G12	
		Child's classified as needing special education	F21 F22	B17 B17a-b	B16 B16a	G13-G13b	
		Child's repeated grade	F24	B27	B28	G20-G20a	
		dropped out	F25-F26	B36-B36a	B36-B36a		
	Child	ability self-concepts for reading & math	B2-B9	E1-E20	E1-E20	C1-C20	Eccles, J., Wigfield, A., Harold, R. D., & Blumenfeld, P. (1993). Age and gender difference in children's self-and task perceptions during elementary school. <i>Child Development</i> ,

Domain 2014		Measures	CDS-2014	CDS-III	CDS-II	CDS-I	Origin
							64, 830-847.
		attitudes towards & connectedness with school		E22a-d	E22a-d		Eccles
		peer bullying	J1a-d	H1a-g	H1a-d		Kochenderfer, B.J. & Ladd, G.W. (1996). Peer victimization: Cause or consequence of school maladjustment? <i>Child Development</i> , <i>67</i> , 1305-1317.
		Goals & expectations for own future schooling & academic success	B31-B32a	L9-L10b	L9-L10b		
		Internet skills	G23a-G23f				Hargittai, E., & Hsieh, Y. P. (2012). Succinct survey measures of webuse skills. Social Science Computer Review, 30(1), 95–107.
School environment	PCG	School type student racial/ethnic composition other enrollment characteristics pupil-teacher ratio	Zip,	School_Name, School_Distri ct, School_Addr1 - Zip, Principal_Title -Suffix  (CHILD, asked of PCG)			
Achievement	Child	Courses & grades	B10-B14	J37B-J39F3	J37-J39		Eccles
assessment		WISC-III Digit Span Short-Term Memory, forward & backward scores		WISC series	ASM C1-C15c	ASM B1-B15c	Wechsler, D. (1974). Wechsler Intelligence Scales for children- Revised. New York: The Psychological Corporation.
Child care	PCG	Child's type of care, frequency of use & costs of arrangements		C10-C39c C1-C39 (CDS-II for younger kids)	C1-C39	H1-H40	National Child Care Survey 1990; NLSY Mott, F. L., & Baker, P. (1989). Evaluation of the 1989 Child Care Supplement in the National Longitudinal Survey of Youth. Columbus, Ohio: Center for Human Resource Research, The Ohio State University
Child time use	PCG	structured & unstructured extra- curricular activities costs & frequency of participation	E9-E10, E13-E16, E18-E21, E25- E26, E28-E34	H5-H9e	G5-10c H5-H9e		Eccles & Simpkins
			C1	B31a-n	B31a-n		National Survey of Families and Households (NSFH); NLSY
	Child	Stylized time use on sport, extra- curricular, community, religious & part-time work activities		K1-K7a	K1-K7		Eccles
		Children's technology and media use	G1-G21, G24-G25				Developed for CDS-2014.
		Child's type, number, duration, location of activities for one weekday & one weekend day social context of activities describing who participated with child	TD	TD	TD		
Religiosity	Child	Comfort, importance of religious affiliation or spirituality.		J2-J4b	J2-J5a		MSALT

Domain 2014		Measures	CDS-2014	CDS-III	CDS-II	CDS-I	Origin
Future work, family &	Child	job values, career orientation & expectations for future	F3-F25, B18-B30	J6-J33	J6-J33		Eccles
schooling		Negative economic expectations		E21a-c	E21a-c		ADD Health
expectations		ideal age at marriage & birth of a children		J34a-J34a1 J34g-J36	J34a-J34a1 J34g-J36		
Sib relationships	Child	Type & frequency of cooperation with sibs, kindness & helping behaviors towards sibs.	D1f	H5f	H5f		
		Type & frequency of cooperation with sibs, kindness & helping behaviors towards sibs.	D1g-h	K24e-f	K24e-f		Eccles
PCG socio-	PCG	community involvement		J6a-j	J6a-j	A8a-i	Human Development in Chicago Neighborhoods (McArthur Study)
psychological characteristics		Rosenberg self-esteem	K1-K10	J9a-j	J9a-j	A14a-j	Rosenberg, M. (1986). Conceiving the Self. New York: Basic Books.
Characteristics		Pearlin self-efficacy		J10a-d	J10a-d	A20a-g	Pearlin, L. I., Lieberman, M. A., Menaghan, E. G., & Mullan, J. T. (1981). The stress process. <i>Journal of Health and Social Behavior</i> , 22, 337-356.
		parenting attitudes & styles	M11-M13	J16a-d	J16a-d	A33-A36	Hofferth & Davis-Kean
		psychological distress & wellbeing	N1-N9	J18a-h	J18a-h	A38a-j	Kessler, R.C., Andrews, G., Colpe, L.J., Hiripi, E., Mroczek, D.K., Normand, SL.T., Walters, E.E., & Zaslavsky, A. (2002). Short screening scales to monitor population prevalences and trends in nonspecific psychological distress.  Psychological Medicine, 32(6), 959- 976.
		family conflict	Q9-Q13	J22a-e	J22a-e	A42a-f	Sweet, J., Bumpass, L., & Call, V. (1988). The Design and Content of the National Survey of Families and Households. NSFH Working Paper No. 1. Madison, WI: Center for Demography and Ecology, University of Wisconsin
		economic strain		J25a-o	J25a-o	A53	Conger, R., & Elder, G. H., Jr. (1994). Families in Troubled Times: Adapting to Changes in Rural America. New York: Aldine de Gruyter.
		work schedules	S32-S38	J42-J48	J42-J48		Current Population Survey (CPS) Supplement
		social support	N10-N15	J49a-f	J49a-f		Eccles & Simpkins
		Internet skills	S14N1-S14N6				Hargittai, E., & Hsieh, Y. P. (2012). Succinct survey measures of webuse skills. Social Science Computer Review, 30(1), 95–107.
Child expenses	PCG	Child's expenses		H23a-H28h	H26-H28h		Eccles & Simpkins
& savings		savings mechanisms for child, including savings for future post- secondary education	G12-G20a	H32-H32h	H29-H32a		Eccles & Simpkins
Nonresident Parents	PCG	Frequency/types of activities nonresident parents are involved with their children		D15a-d D31a-d	D15a-d D31a-d	J29	NSFH; JOBS Child Outcomes Study
		conflict between resident & nonresident parent	ABP8-ABP15 ABP25-ABP32	D14a-h D30a-h	D14a-h D30a-h	J28a-k	NSFH