

# Five-Year In-home Longitudinal Study of Pre-School Aged Children

User's Guide

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## Introduction

This guide provides basic information that a data user may need to make use of the data generated from the Five-year In-Home Longitudinal Study of Pre-school Aged Children. Essentially, the guide includes an overview about the Study; procedure of data collection; a presentation of question items included in both Three-year and Five-year In-home surveys; summary of sample counts and response rates; elaboration about data cleaning process; description of data structure and contents; and selected compilations of data usage notes based on information gathered for the survey. Data users are advised to also refer to the codebook for more details about variables included in the data.

## Chapter 1. Overview

This chapter presents an overview about the Study.

### 1.1. About the Study

The In-Home Longitudinal Study of Pre-School Aged Children (LSPAC) is a collaborative research of [\*The Fragile Families and Child Well-being Study\*](#), an on-going panel study that follows a 1998-1999 birth cohort of about 3,600 children born to unwed parents, and 1,100 children born to married parents from 20 large US cities in fifteen states. The study places particular emphasis on how parental resources in the form of parental presence or absence, time, and money influence children under the age of five. Results from the study will provide insight into the ways in which public policies that have an impact on parental resources, such as, welfare programs, child support enforcement, and child care subsidies affect neglect.

### 1.2. Research Team

The LSPAC is a collaborative work of researchers from Princeton University and Columbia University:

- Christina Paxson, Professor of Economics and Public Affairs and Director of the Center for Health and Wellbeing, Woodrow Wilson School, Princeton University (Principal Investigator).
- Jane Waldfogel, Associate Professor of Social Work and Public Affairs at Columbia University School of Social Work.
- Neal B. Guterman, Associate Professor of Social Work at Columbia University School of Social Work.
- Jeanne Brooks-Gunn, Virginia and Leonard Marx Professor of Child Development and Education at Teachers College, Columbia University

### 1.3. Data Collected

The LSPAC collects information on a variety of domains of the child’s environment, including:

- Physical Environment through quality of housing, nutrition and food security, health care, adequacy of clothing and supervision
- Parenting through parental discipline, parental attachment, and cognitive stimulation

In addition, the LSPAC also collects information on several important child outcomes, including anthropometrics, child behaviors, and cognitive ability. This information has been collected through: interviews with the child’s primary caregiver, administration of standard tests; direct observation of the child’s home environment and the child’s interactions with the caregiver.

Two waves of survey were initially planned: (1) first, the Three-year survey collects data when the children are about three years old, this survey was completed in early 2004; and (2) second, the Five-Year survey collects data when the children are about five years old, this survey was completed in 2006. In 2007, the Fragile Families project and most collaborative studies have been awarded federal grants to expand the scope of research to collect more comprehensive data for a Nine-Year follow-up survey.

### 1.4. Components of the Survey

The survey consists of two components: a parent interview and an activity assessment. The parent interview gathers a wide range of information focusing on the health and well-being and behavior of the child. The activity assessment includes measurements from standard cognitive tests, anthropometry, as well as, observations of the interviewer during the home visit.

### 1.5. The Five-year Survey

The LSPAC was funded by a grant from the National Institute of Health. The research is a collaborative work of the researchers at the Center for Health and Wellbeing of Princeton University, Columbia University, and Teachers College. Data collection was administered by Mathematica Policy Research, Inc. (MPR) in Princeton.

The survey instrument composes of two components: a parent survey questionnaire and an activity booklet. The parent survey questionnaire covers a broad range of topics such as: child’s health status and some details about the most-recent accidents occurred to the child, family routines, home toys and activity items, nutrition, family’s expenditure on foods, housing characteristics, parental stress, parental mastery, child discipline, nutrition and food expenditure, exposure to violence, Child Protection Services (CPS) contact, child’s behavior problems, housing common areas, interior of house, child’s appearance, family’s food expenditures, home scales, and child’s emotion and cooperation. The primary caregiver of the child responded to most questions in the parent survey

questionnaire. The remaining questions were designed for the interviewers to fill in their observations about the home environment, child’s appearance, and parent-child interaction. The activity booklet was designed to record the height and weight measurements of both child and mother or caretaker; responses to the Peebody Picture Vocabulary Test (PPVT) and the Woodcock-Johnson Letter-Word Recognition test.

It should be noted that for the convenience of data collection, the activity booklet includes a few sections (D, E, and F) to gather data from 18 cities for a separate survey on Child Care and Parental Employment (CCPE). This study includes the parent/caretaker’s Employment History; Child Care information, Leiter-R Attention Sustained Task, Five-Minute Speech sample. Data collected for the CCPE survey will be released separately. More information about the CCPE study can be found at <http://www.fragilefamilies.princeton.edu/documentation.asp>. In addition, the booklet also includes an introduction script to request for permission to obtain the contact information of the teacher of the children, who had been enrolling in kindergarten, for a teacher interview, a separate component of the CCPE.

The survey instruments used for the first two pilot cities and for the remaining eighteen cities are nearly identical. The only difference is in the modification of the code assigned to the negative response for a few items under section Q and R of the parent questionnaire when the survey was conducted at the second data collection in the 18 cities.

Slightly over 91 percent of the respondents of the Five-Year Core mother survey were contacted and invited to participate in the In-home survey. Among people contacted, about eighty one (81) percent completed the Five-year In-Home study. About seventy eight (78) percent of the Five-Year In-Home respondents completed both components of the survey. Most of the remaining participants completed only the parent interview over the telephone either because the parent or the care giver refused a home visit or such visit could not be conducted because the family had moved away from the last located residence without leaving any new contact information. A very small fraction of the respondents completed only a part of the activity assessment.

The survey was conducted mostly in 2004 in the two pilot cities; and in 2005-2006 in the remaining eighteen cities.

#### 1.6. The Five-year In-Home Data Files

The Five-year In-Home data is suitable for analyses with the scope of inference as cities with large population (about 200,000 or more in 1998-2000) in the U.S.

Two versions of the survey data are available to researchers: The contract data file and the public-use data file. Currently, the contract data file may only be used under the conditions specified by the Fragile Families Study Restricted Use Data Agreement. This agreement details the ownership of the data, when the data may be used and by whom, how the data may be used and reported, the data security procedures that must be followed, and the sanctions that will be imposed in the case of data improper usage. The

contract data file provided to researchers for use on only a specific research project and for a limited time, after which all copies of the data must be destroyed.

The public-use file does not contain any information which may be used directly or indirectly to identify the respondents of the survey. As such, the public-use and the contract data versions differ in the amount of geographic detail provided and the confidentiality masking applied to some respondents.

### 1.7. Obtaining the Data

The Five-year In-Home public-use data are available for free to researchers and analysts at the data archive of the Office of Population Research at Princeton University (website: <http://www.opr.princeton.edu/archive/>) . Interested researcher will be asked to complete a registration process in order to obtain a username and a password which are required for accessing the files released by the survey.

### 1.8. Conditions of Use

By registering for data usage, you agree to the Conditions of Use governing access to the Fragile Families Project data. Essentially, you must:

- not attempt to identify the respondents in the survey
- not transfer data to a third party, except as specified in the contract
- not share your username and password to access data with anyone
- include specified citations in work based on data of our Study
- inform us about publications based on data of our Study
- report apparent errors in the data or documentation to:

Thu Vu  
Center for Health and Wellbeing, Wallace Hall  
Woodrow Wilson School  
Princeton University  
E-mail: [tvu@princeton.edu](mailto:tvu@princeton.edu)

## **Chapter 2. The Survey Process, Common Information Gathered in both Waves of the Survey, and Response Rates**

This chapter describes the survey process, presents information gathered in both Three-Year and Five-Year surveys of the study and selected summary statistics about survey participation.

### 2.1. Conducting the In-Home Survey

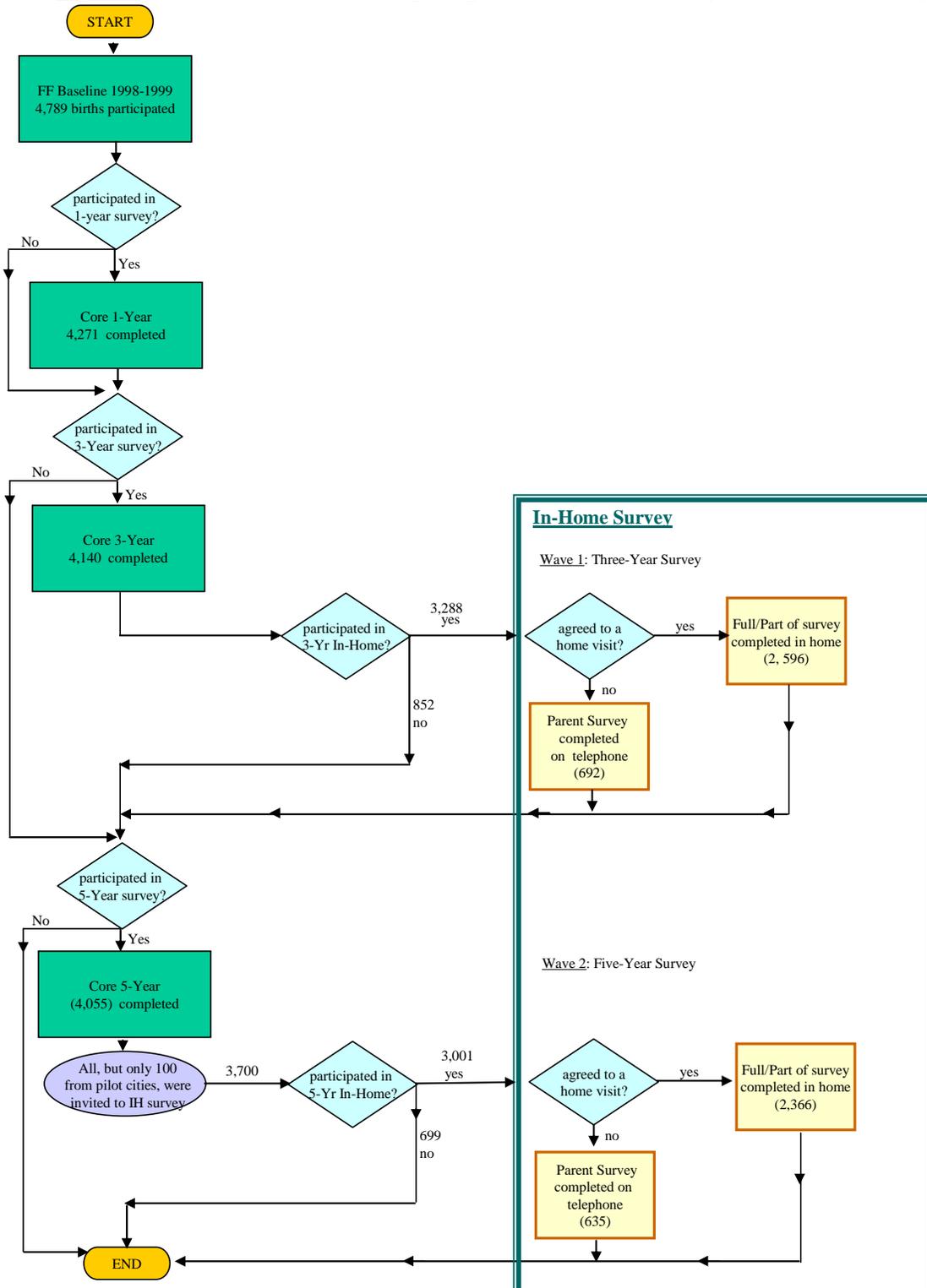
Respondents of the Fragile Families Baseline survey were located and screened for eligibility for inclusion in the succeeding waves of the core survey and collaborative studies of the core survey. The survey administration process, as illustrated in the flowchart in Figure 1.1, allows all *still eligible* respondents of the Baseline survey to participate in any follow-up surveys of the Fragile Families Study. As such, eligible respondents who could not participate in a prior wave of the follow-up survey, because of reasons other than permanent refusal, may still participate in the current or future wave of the follow-up survey. Only respondents of the Five-year Core survey, however, were invited to participate in the Five-year In-Home survey.

During the exploratory phase of the Fragile Families Project, its baseline survey was conducted in two scattered time periods, and as such, in order to have all sample children approximately about the same age at the time of a follow-up survey, Three-year and Five-year Core surveys and the associated In-Home survey also collected data in two separate time periods, at least a year apart, and the order of conducting interview for a city was followed as previously done during baseline. In addition, due to a large number of cities covered, data collection for the second period often lasted for more than two years.

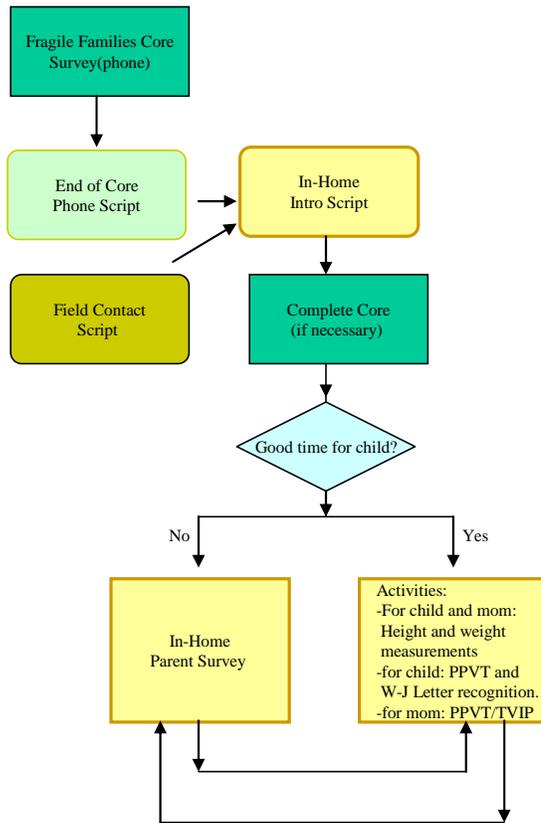
The process of administering the Five-year In-Home survey in each of the two time periods is presented in the flowchart in Figure 1.2.a., 1.2.b, and 1.2.c. These charts show the initial process of administering the Five-year In-Home Longitudinal Survey of Pre-School Aged Children (LSPAC) in the two pilot cities and the revised process implemented in the remaining eighteen cities as follows:

- Version 1.2.a was used for the first period of data collection in the two pilot cities with the Parent survey completed in-home.
- Version 1.2.b was used for second period of data collection in 18 cities, the LSPAC survey conducted in-home.
- Version 1.2.c was used for second period of data collection in 18 cities, the LSPAC survey completed on telephone

▪ **Figure 1.1. Process of Administering Fragile Families Core survey and In-Home Survey**

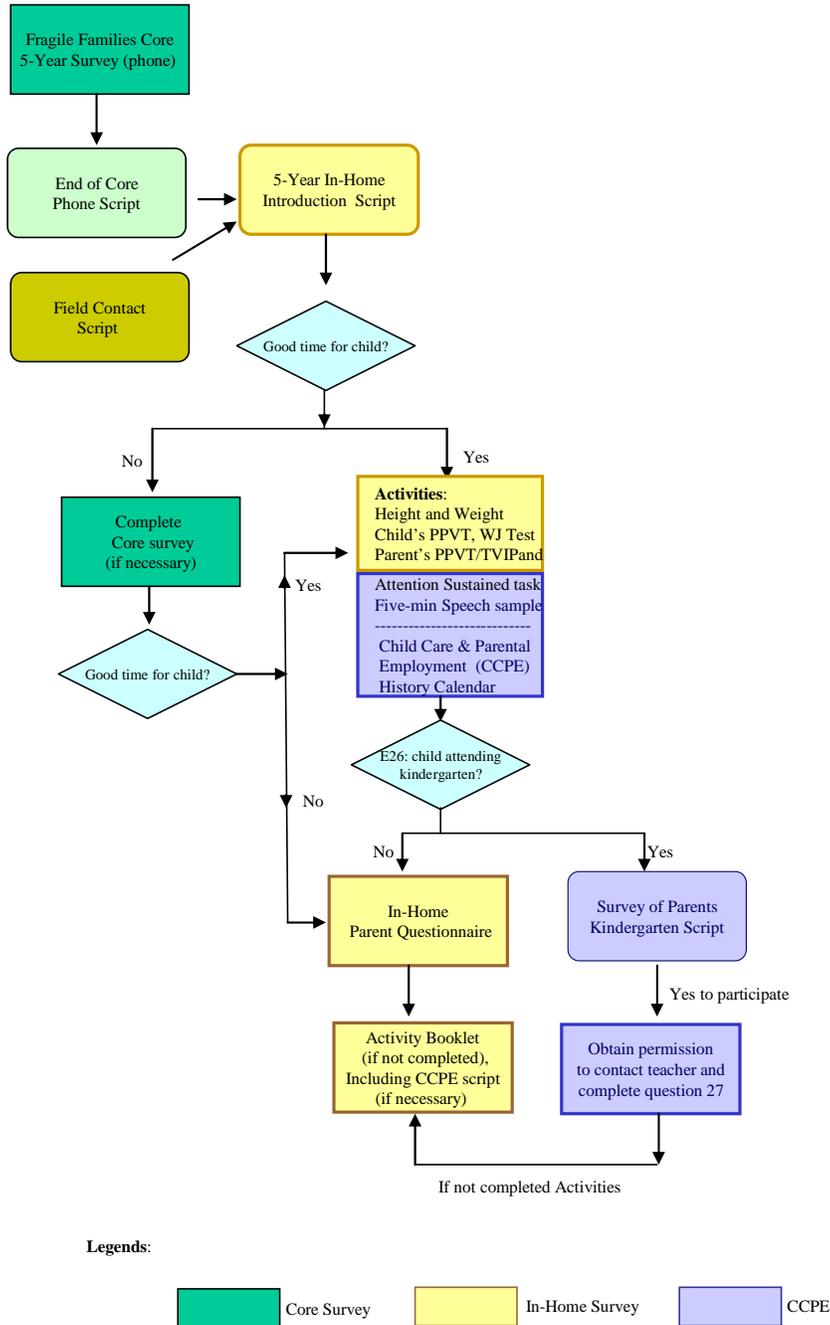


**Figure 1.2.a. Conducting Five-year In-Home Survey in Two Pilot Cities**



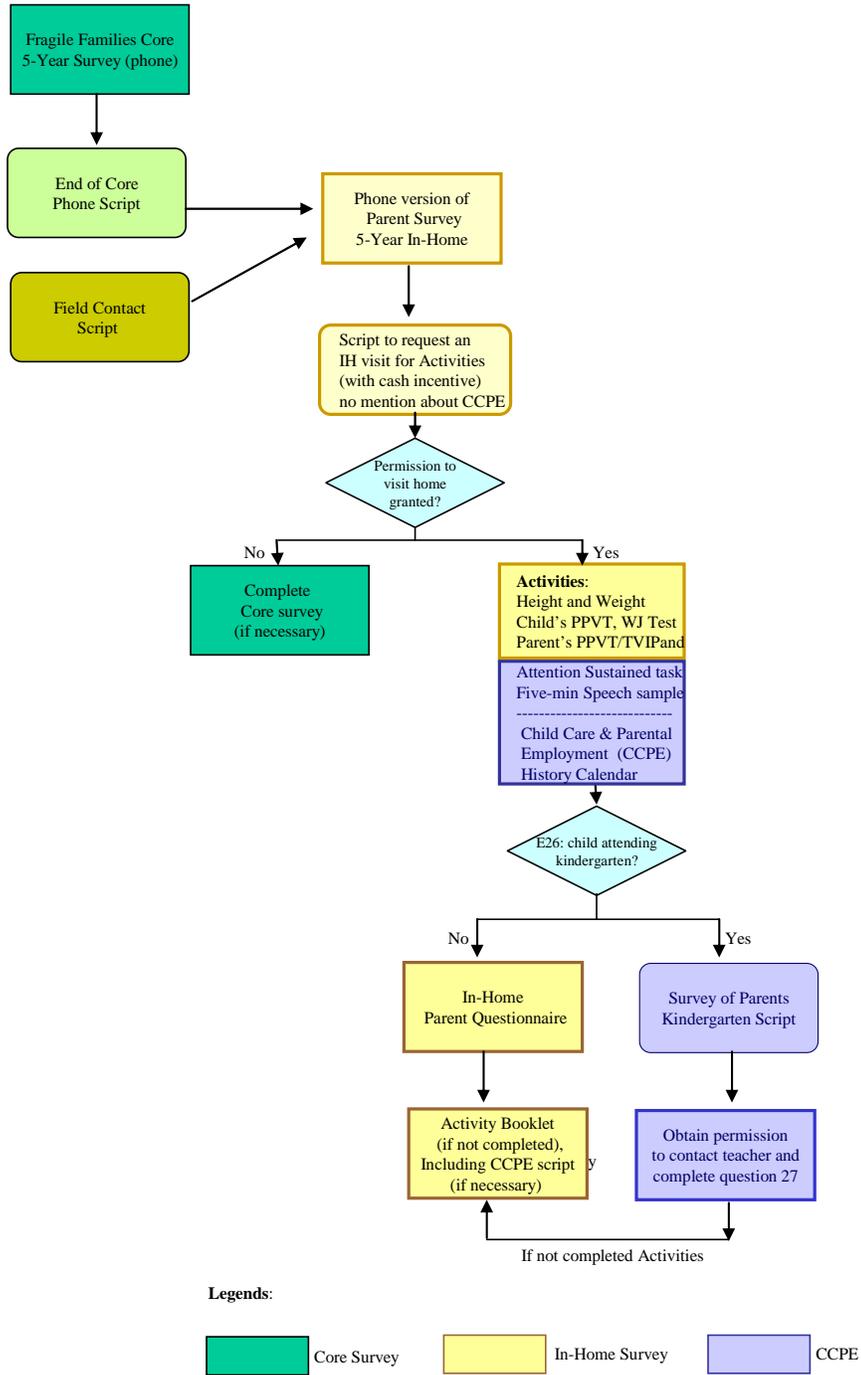
Version “pilot”: Core completed on telephone or contact made in field. LSPAC conducted In-Home

Figure 1.2.b. Conducting the Five-year In-Home Survey in 18 Cities



Version core survey completed on telephone or contact made in the field and the LSPAC conducted in home

Figure 1.2.c. Conducting the Five-year In-Home Survey in 18 Cities



Version Core Survey completed on telephone or contact made in the field and the LSPAC conducted on telephone

## 2.2. Questionnaire Changes between the Pilot Survey and the Revised Survey

In 2004<sup>1</sup> the first wave of data collection of the Five-year In-home survey was conducted for two pilot cities. Data collection in this period was closely monitored and the data gathered was analyzed, evaluated in order to design strategies to improve data collection in the remaining cities and also to identify necessary modifications to the contents and structure of the questions to improve the usefulness and quality of data collected.

Modification of the survey instruments was assessed as not necessary for the second wave of data collection in the remaining 18 cities in 2005-2006. The only minor change was made to a “No” response, pre-coded as “2”, for a few questions with “Yes” or “No” response in the pilot instrument to “0” for similar response in the remained 18 cities. This change made the negative response code of the affected items consistent with the code used in other question items. Recodes of data values of the affected items were done for data of the pilot cities when we cleaned data for release.

It should also be noted that to facilitate data collection of the second wave of a collaborative study, Child Care and Parental Employment (CCPE), questionnaire of this survey was integrated to the In-home Activity booklet (version used for 18 cities).

1. Components of the survey on Child Care and Parental Employment included in the Activity booklet of the Five-Year In-Home survey are: Attention-Sustained Tasks; Five-Minute Speech Sample; Child care and Employment History Calendars, and a request to obtain contact information of the kindergarten teacher of the child.
2. Activity booklet timing – when LSPAC survey is conducted in-home (refer to flowchart version 1.2.b) in the remaining 18 cities: the interviewer can conduct activities with respondent and child in one of the following three possibilities:
  - a. *immediately* after the "Neglect Introduction Script" (first thing),
  - b. following completion of the core, or
  - c. at the end of the interview (after core and in-home survey).In the pilot version, only the possibilities presented in (b) and (c) were employed. For the LSPAC conducted on the phone (flowchart version 1.2.c), a script is used to request permission to visit the home for administering the activity component of the study (this process has been followed in the pilot cities).

## 2.3. Questions included in both Three-Year and Five-Year In-Home Surveys

Many questions have been included in both Three-Year and Five-Year In-Home surveys and these questions are listed for cross-reference in this section. The last two columns in the tables below contain corresponding question items asked in the Three-Year In-Home Parent Questionnaire. Specifically, column (a) contains identical question item as asked in the Five-Year survey while column (b) contains similar question, but not exactly in contents, asked in the Five-Year survey.

<sup>1</sup> a few parents were interviewed a few months earlier when the survey instruments were finalized

## 2.3.1. Section A: Health and Accidents

5-Year Item	Description or Contents	3-Year Item	
		(a)	(b)
a1	In general, how would you describe (CHILD’s) health	a1	a17
a2.a	Has a doctor ever told you that child has Attention Deficit Disorder (ADD)/ADHD?		
a2.b	Has a doctor ever told you that child has Mental retardation/developmental delay?		
a2.c	Has a doctor ever told you that child has Down’s Syndrome?	a3.6	
a2.d	Has a doctor ever told you that child has Cerebral Palsy?	a3.1	
a2.e	Has a doctor ever told you that child has Sickle Cell Anemia?		
a2.f	Has a doctor ever told you that child has Autism?		
a2.g	Has a doctor ever told you that child has Congenital Heart Disease/Other Heart Condition?		
a2.h	Has a doctor ever told you that child has Asthma?		
a2.i	Has a doctor ever told you that child has Total blindness?	a3.2	
a2.j	Has a doctor ever told you that child has Partial blindness?	a3.3	
a2.k	Has a doctor ever told you that child has Total deafness?	a3.4	
a2.l	Has a doctor ever told you that child has Partial deafness?	a3.5	
a2.m	Has a doctor ever told you that child has Speech or language problem?		
a2.n	Has a doctor ever told you that child has Problems with limbs (specify)?	a3.7	
a3	Has a doctor ever told you that child has other health problem (specify)?	a3.0	
a3.a	In the past 12 months, has child had Hay fever or respiratory allergy?		
a3.b	In the past 12 months, has child had Food or digestive allergy?		
a3.c	In the past 12 months, has child had Eczema or skin allergy?		
a3.d	In the past 12 months, has child had Frequent diarrhea or colitis?		
a3.e	In the past 12 months, has child had Anemia?		
a3.f	In the past 12 months, has child had Frequent headaches or migraines?		
a3.g	In the past 12 months, has child had 3 or more ear infections?		
a3.h	In the past 12 months, has child had Seizures?		
a3.i	In the past 12 months, has child had Stuttering or stammering?		
a4	Has child ever been tested for lead poisoning?	a20	
a5	What were the results (of the test of lead poisoning)?	a20a	
a6	In last 12M, how many times has child been seen by a doctor/health professional for regular check-up or well-child visit? Would you say:	a4	
a7	Does CHILD have a usual place for routine health care (regular check-ups)?	a5	
a8	Where does child usually go for health care?	a5a	
a9	Is there a place that you usually go for routine health care, physical ex/check-up?	a6	
a10	Where do you usually go for health care?	a6a	
a11	How long since your last routine check-up by doctor/health care professional?	a6b	
a12	In the last 12 months: how many times has CHILD been seen by a Doctor/Health care professional for illness/accident/injury?	a7	
a13	Was this visit/How many of those (NUMBER IN A12 were), because of an accident or injury?	a8	
a14	In the last 12 months: how many times has child been taken to the emergency room?	a9	

5-Year Item	Description or Contents	3-Year Item	
		(a)	(b)
a15	(Was this visit/How many of these (number in A14 visits were) to the ER because of accident/injury?	a10	
a16	In the last 12 months: Has CHILD stayed overnight in a hospital?	a11	
a17	In the last 12 months, how many times has child stayed overnight in a hospital?	a12	
a18	(Was this hospitalization/How many of these hospitalizations were) because of accident/injury?	a13	
a19	How long did child stay in the hospital during (his/her) (longest) stay?	a14	
a20	INTERVIEWER: CHECK A13,A15,A18: ANY DOCTOR/ER VISITS B/C OF ACCIDENT/INJURY?	a15	
a21	Children often have accidents or get hurt. We'd like to ask you a few questions about (the time/the most recent times) when (s/he) had an accident or was injured.	a16	
a22	Do you or does anyone else in your household smoke?	a22	
a23	Counting yourself, how many people in your household smoke?	a23	
a24	On average: how many hours/day does child spend in same room w someone who is smoking?	a21	
a25	how frequently does child ride in a car, van, or other vehicle?	a25	
a26	How often child sit in a car seat/booster/wear seat belt when riding in a car?	a26	
a27	When was the last time child saw a dentist for a regular check-up?		
a28	How many dental fillings has child ever had?		
a29	Have you ever taken child to a dentist for emergency (toothache/broken tooth)?		
a30	How often are child's teeth brushed?		

## 2.3.2. Section B. Family Routines

5-Year Item	Description or Contents	3-Year Item	
		(a)	(b)
b1	On a typical weekday -How much time child spends watching TV/videos at home/elsewhere?	b1	
b2	On weekend day: How much time child spends watching TV/videos at home/elsewhere?	b1a	
b3	On a typical weekday: How much time child spends playing computer games at home/elsewhere?		
b4	On weekend day: How much time child spends playing computer games at home/elsewh?		
b5	On a typical weekday: How much time child spends playing outdoors at home/elsewhere?	b14	
b6	On weekend day: How much time child spends playing outdoors at home/elsewhere?	b15	
b7	Do you have a television?	b2	
b8	About how many hours is a television on in your home during a typical day?	b2a	
b9	Do you have a computer in your home?		
b10	Do you use the computer yourself?		
b11	Does child have a regular bedtime during the week?	b3	
b12	When is (his/her) regular bedtime?	b4	
b13	How many times (last week), Monday-Friday, was (s/he) put to bed at that time?	b5	
b14	Who usually puts child to sleep at night?		b6
b15	Do you/person puts CHILD to bed have regular routine to do with (him/her)	b6a	
b16	How many times last week, M-F, were you/person able to follow this routine?	b8	
b17	Does child usually sleep in this home or at someone else’s home?		
b18	Does child have one regular place where (s/he) is usually put to bed at night?	b11	
b19	How many times last week, Monday-Friday, did child go to sleep in this place?	b13	
b20	Where does child usually sleep, in a bedroom or another room (eg, living room)?		b12
b21	Who else sleeps in the room with child?		b12
b22	Does child sleep alone in his own bed or share a bed with another child/adult?		
b23	How many hours of sleep a night does child usually get?		
b24	How many hours of sleep a night do you usually get?		

## 2.3.3. Section C. Home Toys and Activities

5-Year Item	Description or Contents	3-Year Item	
		(a)	(b)
c1a	How many books/games child have that are helping him/her to learn about Colors?		
c1b	How many books/games child have that are helping him/her to learn about Sizes?		
c1c	How many books/games child have that are helping him/her to learn about Shapes?		
c1d	How many books/games child have that are helping him/her to learn about Animal names/behaviors?		
c1e	How many books/games child have that are helping him/her to learn about Numbers?		
c1f	How many books/games child have that are helping him/her to learn about Spatial Relationships?		
c1g	How many books/games child have that are helping him/her to learn about Nursery rhymes/songs?		
c1h	How many books/games child have that are helping him/her to learn about the alphabets?		
c2	Are there any real/toy musical instruments (piano/drum/guitar) child can use?		
c3	Does child have any puzzles?		
c4	About how many puzzles does child have?		
c5	Does child have anything that (s/he) uses to make or draw things?		
c6	Does child have access to toys or games requiring refined hand movements?		
c7	In the past month, how often have you/someone else in family read to/with child?		
c8	About how many books are there in the house?		c8
c9	Are there any books for (CHILD’S) age?		
c10	About how many are books for child’s age?		
c11	Are there any of these child’s own books?		
c12	About how many are child’s own books?		c1f
c13	Does anyone in the household get a chance to read newspaper at home everyday?		
c14	Does anyone in the household buy or subscribe to any magazines?		
c15	Now, thinking about past month, how often have you encouraged child to read?		
c16a	In the past month: how often have you/family member done some outdoor activities with child?		
c16b	In the past month: how often have you/family member taken child to places?		c6b- c6c
c16c	In the past month: how often have you/family member included Child in hobbies or activities?		
c17a	In the past year, how often have you/someone in family taken or arranged for (CHILD) to go to the zoo?		c6d
c17b	In the past year, how often have you/someone in family taken/arranged for (CHILD) to take trip on plane/bus/train?		
c17c	In the past year, how often have you/someone in family taken/arranged for (CHILD) to take a trip more than 50 miles from home?		

## 2.3.4. Section D. Nutrition

5-Year Item	Description or Contents	3-Year Item	
		(a)	(b)
d1a	(I/We) worried whether our food would run out before (I/we) got money to buy more	d1a	
d1b	The food that (I/we) bought didn't last, and (I/we) didn't have money to get more	d1b	
d1c	(I/We) couldn't afford to eat balanced meals	d1c	
d1d	(I/We) relied on few kinds of low cost food to feed child(ren) because of no money	d1d	
d1e	(I/We) couldn't feed child(ren) a balanced meal, because I/we couldn't afford that	d1e	
d2	CHECK (D-1A TO D-1E): ANY OF THESE CODED OFTEN TRUE (1)/SOMETIMES TRUE (2)?	d2	
d3	child(ren) not eating enough because (I/we) just couldn't afford enough food	d3	
d4	In the last 12 months: you/household adult ever cut size/skip meals because of not enough money for food?	d4	
d4a	How often did ("Yes" response to item d4) happen?	d4a	
d5	In the last 12 months: you/household adult ever eaten less than you should because of not enough money for food?	d5	
d6	In the last 12 months, were you ever hungry, but didn't eat because you couldn't afford enough food?	d6	
d7	In the last 12 months, did you lose weight because there wasn't enough food?	d7	
d8	CHECK D3 TO D7. WERE ANY OF THESE CODED OFTEN TRUE" OR SOMETIMES TRUE" OR YES"?	d8	
d9	In the last 12 months, did (you/other adults in household) ever not eat for a whole day because there wasn't enough money for food	d9	
d9a	How often did this happen? Was it almost every month, some months, or in only 1 or 2 months?	d9a	
d10	In the last 12 months, did you ever cut size of ([CHILD's]/any children's) meals because there wasn't enough money for food?	d10	
d11	In the last 12 months, did ([CHILD]/any of these children) ever skip a meal because there wasn't enough money for food?	d11	
d11a	How often did this happen? Was it almost every month, some months but not every month, or in only 1 or 2 months?	d11a	
d12	In the last 12 months, (was [CHILD]/were the children) ever hungry, but you just couldn't afford more food?	d12	
d13	In the last 12 months, did ([CHILD]/any of the children) ever not eat for a whole day because there wasn't enough money for food?	d13	
d14	What best describes (CHILD). Is (he/she) a very picky eater, a somewhat picky eater, or not a picky eater?		
d15a	On a typical day, about how many servings of the following foods does (CHILD) eat? (MILK)		
d15b	On a typical day, about how many servings of the following foods does (CHILD) eat? (other DAIRY products)		
d15c	On a typical day, about how many servings of the following foods does (CHILD) eat? (FRUIT JUICE)		
d15d	On a typical day, about how many servings of the following foods does (CHILD) eat? (SODA)		
d15e	On a typical day, about how many servings of the following foods does (CHILD) eat? (FRESH FRUITS)		
d15f	On a typical day, about how many servings of the following foods does (CHILD) eat? (CANDY or SWEETS"		
d15g	On a typical day, about how many servings of the following foods does (CHILD) eat? (Frozen/canned vegetables)		
d15h	On a typical day, about how many servings of the following foods does (CHILD) eat? (Snack foods or chips)		
d15i	On a typical day, about how many servings of the following foods does (CHILD) eat? (Spaghetti)		
d16	About how many times a week does (CHILD) eat a meal from a "fast food" restaurant (e.g., McDonald's, KFC, etc.)?		
d17	How often does (CHILD) take a vitamin?		

## 2.3.5. Section E. Housing and Building Characteristics

5-Year Item	Description or Contents	3-Year Item	
		(a)	(b)
e1	What floor is the apartment on?	f1	
e1a	Is this an apartment on the third floor or lower?	f1a	
e1b	Is there an elevator	f1b	
e1c	Is it operational	f1c	
e2	How often does the elevator in your building break down?	f2	
e2a	How quickly is it fixed	f2a	
e3	How many rooms, not counting bathrooms, are in this apartment/house?	f3	
e4	How many bedrooms are in this apartment/house?	f4	
e5	How many people (adults and children) live here now?	f5	

## 2.3.6. Section F. Parental Stress and Mastery

5-Year Item	Description or Contents	3-Year Item	
		(a)	(b)
f1a	You often have the feeling that you cannot handle things very well	g1a	
f1b	You find yourself giving up more of your life to meet your child(ren)'s needs than you ever expected	g1b	
f1c	You feel trapped by your responsibilities as a parent	g1c	
f1d	Since having (CHILD) you have been unable to do new and different things	g1d	
f1e	Since having (CHILD) you feel that you are almost never able to do things that you like to do	g1e	
f1f	There are quite a few things that bother you about your life	g1f	
f1g	Having (CHILD) has caused more problems than you expected in your relationship with men	g1g	
f1h	You feel alone and without friends	g1h	
f1i	When you go to a party, you usually expect to have a bad time	g1i	
f1j	You are less interested in people than you used to be	g1j	
f1k	You enjoy things less than you used to	g1k	
f1l	You are unhappy with the last purchase of clothing you made for yourself	g1l	
f2a1	If (CHILD) has a tantrum in a public place (supermarket or bus stop) and words do not work, what do you do?	h2a	
f2b1	If (CHILD) has a tantrum in a public place (supermarket or bus stop) and words do not work, what do you do?	h2b	
f3a	I have little control over the things that happen to me	h3a	
f3b	There is really no way I can solve some of the problems I have	h3b	
f3c	There is little I can do to change many of the important things in my life	h3c	
f3d	I often feel helpless in dealing with problems	h3d	
f3e	Sometimes I feel that I'm being pushed around	h3e	

## 2.3.7. Section G. Discipline

5-Year Item	Description or Contents	3-Year Item	
		(a)	(b)
g1	Explain to (CHILD) why something (he/she) did was wrong	j1	
g2	Put (CHILD) in "time out" (or sent (CHILD) to (his/her) room	j2	
g3	Shook child	j3	
g4	Hit (him/her) on the bottom with something like a belt, hairbrush, a stick or some other hard object	j4	
g5	Gave (him/her) something else to do instead of what (he/she) was doing	j5	
g6	Shouted, yelled, or screamed at (CHILD)	j6	
g7	Spanked (him/her) on the bottom with your bare hand	j7	
g8	Swore or cursed at (him/her)	j8	
g9	Said you would send (him/her) away or would kick (him/her) out of the house	j9	
g10	Threatened to spank or hit (him/her) but did not actually do it	j10	
g11	Slapped (him/her) on the hand, arm, or leg	j11	
g12	Took away privileges from CHILD	j12	
g13	Pinched (him/her)	j13	
g14	Called (him/her) dumb or lazy or some other name like that	j14	
g15	Had to leave your child home alone, even when you thought some adult should be with (him/her)	j15	
g16	Were so caught up with your own problems that you were not able to show or tell your child that you loved (him/her)	j16	
g17	Were not able to make sure (CHILD) got the food (he/she) needed	j17	
g18	Were not able to make sure your child got to a doctor or hospital when (he/she) needed it	j18	
g19	Were so drunk or high that you had a problem taking care of your child	j19	
g20	Does (CHILD)'s father live in the household?	j20	
g21	IF "NO" (G20): Is there another adult, besides you, who lives in household and spends time caring for (CHILD)?	j21	
g22	IF "YES" (G21): Who is that?	j22	
g23a	Explain to (CHILD) why something (he/she) did was wrong	j23a	
g23b	Put (CHILD) in "time out" (or sent (CHILD) to (his/her) room	j23b	
g23c	Shook child	j23c	
g23d	Hit (him/her) on the bottom with something like a belt, hairbrush, a stick or some other hard object	j23d	
g23e	Gave (him/her) something else to do instead of what (he/she) was doing	j23e	
g23f	Shouted, yelled, or screamed at (CHILD)	j23f	
g23g	Spanked (him/her) on the bottom with you're his/her hand	j23j	
g23h	Swore or cursed at (him/her)	j23h	
g23i	Said s/he would send (him/her) away or would kick (him/her) out of the house	j23i	
g23j	Threatened to spank or hit (him/her) but did not actually do it	j23j	
g23k	Slapped (him/her) on the hand, arm, or leg	j23k	
g23l	Took away privileges from CHILD	j23l	
g23m	Pinched (him/her)	j23m	
g23n	Called (him/her) dumb or lazy or some other name like that	j23n	
g24a	Had to leave your child home alone, even when s/he thought some adult should be with (him/her)		
g24b	Was so caught up with own problems that s/he not able to show or tell your child that s/he loved (him/her)		
g24c	Was not able to make sure (CHILD) got the food (he/she) needed		
g24d	Was not able to make sure your child got to a doctor or hospital when (he/she) needed it		
g24e	Was so drunk or hogh that (s/he) had a problem taking care of child		

## 2.3.8. Section H. Exposure to Violence

5-Year Item	Description or Contents	3-Year Item	
		(a)	(b)
h1	In the past year, about how many times did you see someone else get hit, slapped, punched, or beaten up by someone?	l1	
h2	In the past year, about how many times were you hit, slapped, punched, or beaten up by someone?	l2	
h3	In the past year, about how many times did you see someone else get attacked by someone with a weapon, like a knife or bat?	l3	
h4	In the past year, about how many times) were you attacked by someone with a weapon?	l4	
h5	In the past year, about how many times) did you see someone else get shot at by someone?	l5	
h6	In the past year, about how many times) were you shot at by someone?	l6	
h7	In the past year, about how many times) did you see someone get killed because of violence by someone?	l7	

## 2.3.9.. Section J. CPS Contact

All questions under this section are only asked in the Five-Year Survey

## 2.3.10. Section K. Food Expenditure

5-Year Item	Description or Contents	3-Year Item	
		(a)	(b)
k0	Does (CHILD) get free meals while at child care or school?		e0
k0a	CHECK CONTACT SHEET. DOES RESPONDENT HAVE OTHER CHILDREN?	e0a	
k0b	Do any of your other children get free meals while at child care or in school?	e0b	
k1	Did (you/you or anyone else in your family living with you) use government food stamps, in the last month?	e1	
k1a1	About how much did (you/anyone else in your family living with you) receive in food stamps last month?	e1a1	
k1a2	In addition to what you buy with food stamps, do (you/anyone else in your family living with you) spend any money on food that you use at home?	e1a2	
k2	How much did your family spend on food that you used at home during last month? (or how much you spent per week if that's easiest.)	e2	
k2_per	Expense on food used at home last month (period)	e2_per	
k2a	Can you give me a range? Is it . . .	e2a	
k3	Do you have any food delivered to the door which isn't included in that amount?	e3	
k4	How much did you spend on take out food or food that was delivered during the last month?	e4	
k4_per	Expense on food taken out/delivered last month (period)	e2_per	
k4a	Can you give me a range? Is it . . .	e4a	
k5	About how much did (you and everyone in your family) spend eating out in last month?	e5	
k5_per	Expense on food when eating out last month (period)	e5_per	
k5a	Can you give me a range? Is it . . .	e5a	
k6	How do you usually get to the grocery store where you do most of your shopping? Do you . .	e6	
k7	How long does it take you to get there?	e7	
k8	Do you do most of your shopping at a big supermarket, or at a smaller store, like a corner market or convenience store	e8	
k9	We would like to know about help you may have received from the Women, Infants, and Children (W.I.C.) program during your pregnancy with (CHILD) or since (CHILD) was born. Have you received any help from WIC during this period?		
k10	Did you receive any help from WIC during your pregnancy with (CHILD)?	e9	
k10a	What kind of help did you receive during this period? Was it . . .		
k11	Did you receive any help from WIC when (CHILD) was less than a year old?		e10
k11a	What kind of help did you receive during this period? Was it . . .		e11
k12	Did you receive any help from WIC when (CHILD) was between one and two years old?		e12
k12a	What kind of help did you receive during this period? Was it		e13
k13	Did you receive any help from WIC when (CHILD) was between two and three years old?		
k13a	What kind of help did you receive during this period? Was it . . .		
k14	Did you receive any help from WIC since (CHILD) turned three years old?		
k14a	What kind of help did you receive during this period? Was it . . .		

## 2.3.11. Section L. Child’s Behavior

5-Year Item	Description or Contents	3-Year Item	
		(a)	(b)
I1	(he/she) argues a lot		
I2	(he/she) brags or boasts		
I3	(he/she) understands others' feelings, like when they are happy, sad or mad	m4	
I4	(he/she) overeats		
I5	(he/she) complains of loneliness		
I6	(he/she) is confused or seems to be in a fog		
I7	(he/she) is cruel, bullies and shows meanness to others		
I8	(he/she) day-dreams or gets lost in thoughts		
I9	(he/she) destroys (his/her) own things	m6a	
I10	(he/she) destroys things belonging to family or others	m6b	
I11	(he/she) is sympathetic toward other children's distress, tries to comfort others when they ar	m8	
I12	(he/she) is disobedient at home		m7
I13	(he/she) is disobedient at school or in childcare		m7
I14	(he/she) gets hurt a lot or is accident-prone	m17a	
I15	(he/she) is open and direct about what (he/she) wants	m12	
I16	(he/she) is easily jealous	m17	
I17	(he/she) fears that (he/she) might think or do something bad		
I18	(he/she) feels (he/she) has to be perfect		
I19	(he/she) feels or complains that no one loves (him/her)		
I20	(he/she) feels others are out to get (him/her)		
I21	(he/she) gets in many fights	m18	
I22	(he/she) gets teased a lot		
I23	(he/she) hangs around with others who get in trouble		
I24	(he/she) is impulsive or acts without thinking		
I25	(he/she) would rather be alone than with others		
I26	(he/she) lies or cheats		
I27	(he/she) has nervous movements or twitches		m25
I28	(he/she) is not liked by other kids		
I29	(he/she) feels too guilty		
I30	(he/she) will join a group of children playing	m15	
I31	(he/she) is overweight		
I32	In social activities, (he/she) tends to just watch others		
I33	(he/she) physically attacks people	m26a	
I34	(he/she) does poor school work		
I35	(he/she) is poorly coordinated or clumsy		
I36	(he/she) prefers being with older kids		
I37	(he/she) prefers being with younger kids		
I38	(he/she) refuses to talk		m9(?)
I39	(he/she) runs away from home		
I40	(he/she) screams a lot	m30	
I41	(he/she) can easily get other children to pay attention to (him/her)		

5-Year Item	Description or Contents	3-Year Item	
		(a)	(b)
I42	(he/she) is secretive, keeps things to self	m32	m37
I43	(he/she) is self-conscious or easily embarrassed		
I44	(he/she) sets fires		
I45	(he/she) shows off or clowns around		
I46	(he/she) is shy or timid		
I47	(he/she) stares blankly		
I48	(he/she) says “please” and “thank you” when reminded		
I49	(he/she) steals at home		
I50	(he/she) steals outside the home		
I51	(he/she) asks or wants to go play with other children		
I52	(he/she) sulks a lot		
I53	(he/she) is suspicious	m20	
I54	(he/she) swears or uses obscene language		
I55	(he/she) plays games and talks with other children		
I56	(he/she) talks too much	m24	
I57	(he/she) teases a lot		
I58	(he/she) is confident with other people	m27	
I59	(he/she) threatens people		
I60	(he/she) tends to be proud of things (he/she) does	m45	
I61	(he/she) is underactive, slow moving, or lacks energy		
I62	(he/she) is unusually loud	m47	
I63	(he/she) is interested in many and different things	m34	
I64	(he/she) vandalizes	m43	
I65	(he/she) worries		
I66	(he/she) enjoys talking to you		

### 2.3.12. Section N. Checklist for Interviewer

5-Year Item	Description or Contents	3-Year Item	
		(a)	(b)
n1	Have you done activities yet with mother and child?	n1	
n1a	Is this a good time for child?	n1a	
n1d	Did you code activity booklet question a8 (mother responded positively to praise of child)?	n1d	
n1e	Is this person a parent of the child?		
n1f	Does the child live with either parent?		
n2	Verify the information about the contact person(s) of the respondent with the respondent	n2	
n3	Thank you so much for your help. We would like to give you \$50 for participating in this part of the study and give CHILD a book	n3	

## 2.3.13. Section P. Observation Checklist

5-Year Item	Description or Contents	3-Year Item	
		(a)	(b)
p1	Is there garbage, litter, or broken glass in the street or road, on the sidewalks, or in yards?	p1	
p2	How would you rate the general condition of most of the buildings on the block or within 100 yards of home	p2	
p3	Is there graffiti on the buildings or walls of the buildings on block or within 100 yards of Respondent's home	p3	
p4	Are there vacant, abandoned, or boarded-up buildings on block or within 100 yards of Respondent's home	p4	
p5	Are there abandoned vehicles on the block or within 100 yards of Respondent's home	p5	
p6	Does the environment immediately outside home (yard, patio, entryway/porc/stairs) have any of:	p6	
p6a	Unlit entrance or stairway	p6a	
p6b	Broken steps	p6b	
p6c	Broken glass or broken toys	p6c	
p6d	Large ditches	p6d	
p6e	Alcohol or drug paraphernalia	p6e	
p6f	Strewn garbage/litter	p6f	
p7	Does the exterior of building have any of the following? (condition of walls, paint, windows, lights, extent..)	p7	
p7a	Peeling paint, needs paint job	p7a	
p7b	Crumbling or damaged walls	p7b	
p7c	Broken or cracked windows	p7c	
p8	How would you best describe the home or building?	p8	
p9	How would you rate the condition of the street in front of respondent?	p9	
p10	Interviewer: check p8: Is code 02,03,04,05, or 06 circled in p8?	p10	

## 2.3.14. Section Q. Common Areas

5-Year Item	Description or Contents	3-Year Item	
		(a)	(b)
q1	Do interior common areas of building ( entrance, foyer, hallways) contain open cracks or holes in walls or ceiling?	q1	
q2	Do interior common areas of building ( entrance, foyer, hallways) contain holes in floor?	q2	
q3	Do interior common areas of building ( entrance, foyer, hallways) contain broken plaster/peeling paint over 1 square foot?	q3	
q4	Do interior common areas of building ( entrance, foyer, hallways) contain exposed wires?	q4	

## 2.3.15. Section R. Interior of House or Apartment

5-Year Item	Description or Contents	3-Year Item	
		(a)	(b)
r1	Are there any broken windows or cracked windowpanes?	r1	
r2	Is the wiring in the house concealed?	r2	
r3	Does the housing unit contain open cracks or holes in walls or ceiling?	r3	
r4	Does the housing unit contain holes in floor?	r4	
r5	Does the housing unit contain broken plaster or peeling paint over 1 square foot or more?	r5	
r6	Is inside of home dark? (examples: closed drapes in daytime; poor lighting)	r6	
r7	Is inside of home crowded? (many people living in a very small house or apartment, difficult to find a private place to interview respondent ...)	r7	
r8	Are all visible rooms of house/apartment noticeably cluttered? ( visible rooms are messy or are cluttered with clothes, vacuum cleaner, children’s school	r8	
r9	Are all visible rooms of the house/apartment dirty or not reasonably cleaned? ( trash strewn around, dirty dishes in kitchen, floor and furniture have no	r9	
r10	Is environment inside home unsafe for young children? answer “yes” if one or more potentially dangerous health or structural hazards	r10	
r10a	Please check all hazardous conditions you observed:	r10a	
r11	Did you observe any child’s artwork or photographs of household children on display in the home (examples: artwork or photos on refrigerator or on walls)	r11	
r12	Is house or apartment overly noisy from noise in the house (examples: television, shouts of children, radio)?	r12	
r13	Is house or apartment overly noisy from noise outside the house (examples: train, cars, people, music)?	r13	

## 2.3.16. Section S. Child’s Appearance

5-Year Item	Description or Contents	3-Year Item	
		(a)	(b)
s1	How would you best describe the child’s clothing?	s1	
s1_1	Dirty / unkempt	s1_1	
s1_2	Dirty due to playing/eating	s1_2	
s1_3	Clothing is worn, but mended or not ripped or torn	s1_5	
s1_4	Clothing is worn, but not mended, obvious rips or tears	s1_6	
s1_5	Clothing is too tight for comfortable fit	s1_7	
s1_6	Clothing is too large	s1_8	
s1_7	Clothing is too light weight for indoor temperature (underdressed)	s1_9	
s1_8	Clothing is too warm for indoor temperature (overdressed)	s1_10	
s1_9	Other negative conditions not covered (specify)	s1_11	
s1_10	Code here if none of the above apply 1	s1_12	
s2	Washed/bathed:	s2	
s2_1	Washed or recently bathed	s2_1	
s2_2	Recently bathed but outwardly dirty	s2_2	
s2_3	Dirty and not bathed for several days	s2_3	
s2_4	Appears not to have been bathed for at least a week	s2_4	
s3	Hair:	s3	
s3_1	Combed and clean	s3_1	
s3_2	Uncombed but clean	s3_2	
s3_3	Visibly dirty	s3_3	
s3_4	Child not observed d	s3_4	
s4	Odor:	s4	
s4_1	Emits no body and/or mouth odor	s4_1	
s4_2	Emits some body and/or mouth odor	s4_2	
s4_3	Emits strong body and/or mouth odor	s4_3	
s4_4	Child not observed d	s4_4	
s5	Is there anything else about the child’s clothing or hygiene that is problematic?	s5	

## 2.3.17. Section T. Home Scale

5-Year Item	Description or Contents	3-Year Item	
		(a)	(b)
t1	Parent talks twice to (child) during visit (beyond correction and introduction)		t1
t2	Parent verbally answers (child’s) questions or requests		t2
t3	Parent encourages (child) to contribute to conversation during visit		
t4	Parent helps (child) demonstrate some achievement or mentions a particular skill, strength, or achievement during visit		
t5	Parent spontaneously praises (child)’s behavior or qualities twice during visit	t7	
t6	Parent uses some term of endearment or some diminutive for (child)’s name when talking about or to him/her at least twice during visit		t8
t7	Parent’s voice conveys positive feelings when speaking of or to (child)		
t8	Parent caresses, kisses, or cuddles (child) once during visit	t9	t10
t9	Parent shouts at (child) during visit		t11
t11	Parent expresses overt annoyance with or hostility toward (child) [complains, describes him/her as bad”, says he won’t mind, etc		t12
t12	Parent slaps or spansks (child) during visit		t13
t13	Parent scolds, derogates or criticizes (child) more than once during visit		
t14	Parent’s speech is distinct, clear, and audible to interviewer	t4	
t15	Parent initiates verbal exchanges with visitor, asks questions, makes spontaneous comments	t5	
t16	Parent expresses ideas freely and easily and uses statements of appropriate length		t16?
t17	Parent appears to readily understand the interviewer’s questions		
t18	At least 10 books were present and visible in the household		

## 2.3.18. Section U. Child Emotion and Cooperation

5-Year Item	Description or Contents	3-Year Item	
		(a)	(b)
u1	Did the child display positive emotions during the visit? (positive emotion is when the child seems happy, smiles or laughs	u1	
u2	Did the child display negative emotions during the visit? (negative emotion is when the child seems unhappy, cries, or has a tantrum	u2	
u3	How persistent was the child when completing the w-j letter-word test? (persistence means that the child paid attention to the task,	u3	
u4	How cooperative was the child during the w-j letter-word test?	u4	
u5	How persistent was the child when completing the ppvt? (persistence means that the child paid attention to the task, and did not lose	u5	
u6	How cooperative was the child during the ppvt?	u6	
u7	How cooperative was the child while being weighed and measured?	u7	

## 2.3.19. Section V. Ending

5-Year Item	Description or Contents	3-Year Item	
		(a)	(b)
v1	Interview was conducted in (English, Spanish)	v1	
v2	Respondent's attention to interviewer was:	v2	
v3	Respondent's understanding of the questions was:	v3	
v4	Respondent's ability to articulate answers was:	v4	
v5	Respondent's cooperation throughout most of the interview was:	v5	
v6	Did respondent appear:	v6	
v6a	Suspicious?	v6a	
v6b	Uncommunicative?	v6b	
v6c	Anxious/nervous?	v6c	
v6d	Hostile?	v6d	
v6e	To be on drugs?	v6e	
v7	Was anyone else present during the interview?	v7	
v8	Who was present?	v8	
v8_1	Father	v8_1	
v8_2	Other family members	v8_2	
v8_3	Friends	v8_3	
v9	Additional Comments	v9	

2.3.20. Activities included in both Three- and Five-Year SurveysAnthropometry:

Height and weight measurements of child and mother or caretaker were included in both waves of the survey.

Cognitive Tests

Child’s Peabody Picture Vocabulary Test (PPVT) was included in both waves of the survey. In addition, for the Three-Year survey, the TVIP was given to a small group of children, who appeared to have difficulties understanding English. It should also be noted that a few bilingual children were administered both PPVT/TVIP in the Three-Year survey because of shortcomings in survey administration.

Woodcock-Johnson Letter-Word Identification Test was added to the Five-Year survey to measure cognitive development of the child.

Mother’s PPVT or TVIP was included in the Three-Year survey and the test was administered in the Five-Year survey only to those who did not take it in the earlier wave.

#### 2.4. Sample Counts and Attrition Overtime

Similar to most other longitudinal surveys, attrition is an issue that researchers will have to face when analyzing the Fragile Families survey data across survey periods. Table 1 presents the number of respondents participated in each of four waves of the core Fragile Families Mother survey and two waves of the In-Home study.

For the five-year wave, about eighty-five (84.7) percent of the baseline respondents completed the Core Mother survey. Due to budget constraints at the beginning of the In-Home survey, we selected only one-third of the respondents in each of two pilot cities for inclusion in the In-home survey. In addition, interview fatigue appeared to be another drawback in survey participation. As such, roughly seventy-four (74) percent of the Five-Year core mother respondents completed the corresponding In-Home survey. Overall, about fifty (50) percent of the respondents of the baseline survey participated in all five succeeding surveys: One-Year Core (mother survey), Three-year Core (mother survey), Three-Year In-home, Five-Year Core (mother survey), and Five-year In-home survey.

**Table 1. Number and Proportion of Individuals Participated in the Follow-up Fragile Families Core Mother Survey and the In-Home surveys**

	Survey Completed											
	Baseline		1-Yr M Core		3-Yr M Core		3-Yr In-Home		5-Yr M Core		5-Yr In-Home	
	n	%	n	%	n	%	n	%	n	%	n	%
All	4,789	100.0	4,271	100.0	4,140	100.0	3,288	100.0	4,055	100.0	3,001	100.0
city of interview												
1 Oakland	330	6.9	286	6.7	283	6.8	218	6.6	264	6.5	75	2.5
2 Austin	326	6.8	291	6.8	284	6.9	222	6.8	280	6.9	78	2.6
3 Baltimore	338	7.1	305	7.1	299	7.2	253	7.7	306	7.5	255	8.5
4 Detroit	327	6.8	288	6.7	282	6.8	226	6.9	283	7.0	240	8.0
5 Newark	342	7.1	289	6.8	280	6.8	235	7.1	280	6.9	221	7.4
6 Philadelphia	337	7.0	296	6.9	292	7.1	223	6.8	306	7.5	226	7.5
7 Richmond	327	6.8	296	6.9	280	6.8	226	6.9	277	6.8	231	7.7
8 Corpus Christi	331	6.9	309	7.2	297	7.2	236	7.2	290	7.2	235	7.8
9 Indianapolis	325	6.8	300	7.0	285	6.9	233	7.1	283	7.0	254	8.5
10 Milwaukee	348	7.3	325	7.6	322	7.8	271	8.2	301	7.4	259	8.6
11 New York	297	6.2	246	5.8	234	5.7	177	5.4	228	5.6	175	5.8
12 San Jose	326	6.8	275	6.4	253	6.1	196	6.0	239	5.9	182	6.1
13 Boston	99	2.1	92	2.2	86	2.1	68	2.1	78	1.9	59	2.0
14 Nashville	102	2.1	97	2.3	93	2.2	71	2.2	88	2.2	67	2.2
15 Chicago	134	2.8	117	2.7	113	2.7	90	2.7	116	2.9	93	3.1
16 Jacksonville	100	2.1	95	2.2	92	2.2	62	1.9	88	2.2	59	2.0
17 Toledo	101	2.1	92	2.2	94	2.3	74	2.3	90	2.2	76	2.5
18 San Antonio	100	2.1	88	2.1	90	2.2	70	2.1	84	2.1	68	2.3
19 Pittsburgh	100	2.1	95	2.2	93	2.2	72	2.2	90	2.2	74	2.5
20 Norfolk	99	2.1	89	2.1	88	2.1	65	2.0	84	2.1	74	2.5

### 2.5. Number of Respondents by Status of Survey Completion

As mentioned in Chapter 1, not all respondents completed both parent interview and in-home activity assessment. Specifically, about seventy-five (75) percent of the respondents completed the interview and agreed to be assessed in other activities administered at their residence; Twenty four (24) percent completed only the interview over the telephone; and less than one percent only completed a part of the activity component, which is either the PPVT, Woodcock-Johnson Letter Word Recognition test,

height and weight measurements, or any combination of these activities. Table 2 presents respondents by the survey component completed.

**Table 2.** Status of Survey Completion (based on variable: inttype\_mod)

Status of Interview	Frequency	Percent
1: In-Home survey, interviewer’s observation, activity assessment	2112	70.38
2: In-Home survey, no observation, with activity assessment	235	7.83
3: Telephone survey, no observation, no activity assessment	625	20.83
4: Telephone survey, with interviewer’s observation	9	0.30
5: Only some activity/observation, no survey	20	0.67
Total	3001	100.00

## 2.6. Response Rate

Due to shortcomings in the administration of data collection, 23 cases (not belonged to the sample selected for the Fragile Families study) were mistakenly interviewed. These cases<sup>1</sup> had been included for a separate study or other purposes in all waves of the core survey for the convenience of data collection. As such, they were excluded in the public-use data of the In-home survey.

Overall, a total of 3,784 parents or caretakers were contacted for the Five-year In-Home survey. Only cases *eligible* for the In-home survey with their status of survey participation are presented in Table 3a and 3b. It should be noted that not all *eligible* respondents of the Five-year Core mother survey were invited to participate in the In-home survey because of the following reasons:

- (1) financial constraints at the start of the Five-Year In-home survey. To offset the cost, we sampled 100 families participated in the Five-Year core survey (nearly one-third of the eligible respondents) from each of two pilot cities. These sampled families were invited to participate in the In-home study;
- (2) other shortcomings encountered during the time of data collection.

Among the 3,700 attempted eligibles from the core survey respondents: 3,001 completed either a full Five-Year In-home survey or a component of the survey. As such, the overall crude response rate is about 81 percent. Response rate based on race and relationship of mother and father at the time of conducting the Five-year Core survey are presented in Table 3a and 3b.

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<sup>1/</sup> belonged to separate group of 109 cases included in the Baseline Fragile Families survey. These cases were selected for the TLC3 study or for other related research purposes.

**Table 3a. Crude Response Rate by Race of Mother**

Mom’s Race	Five-year Survey		Crude Response Rate (%)
	In-Home Respondent	Total cases contacted	
Missing race	6	7	85.71
White, Non-Hispanic	637	798	79.82
Black, Non-Hispanic	1530	1850	82.70
Hispanic	743	915	81.20
Other	45	85	52.94
Total	3001	3700	81.11

**Table 3b. Crude Response Rate by Relationship of Mom and Dad  
at data collection time of the Five-year Core Survey**

Relationship	Five-year Survey		Crude Response Rate (%)
	In-Home Respondent	Total Contacted Respondents	
Missing relationship*	4	6	66.67
Married	895	1123	79.70
Romantic	486	608	79.93
Separate	329	397	82.87
Friends	571	693	82.40
No Relationship	708	862	82.13
Unknown	8	11	72.72
Total	3001	3700	81.11

Note: data users interested in using the largest possible sample for the analysis may request for data of 23 ineligible cases, inadvertently completed the survey, but were not included in the public data set.

### **Chapter 3. The In-Home Survey Public Use Data**

This chapter presents data items excluded or altered for public release; description of data cleaning and editions; structure of the data set; and construction of derived variables included in the data.

#### **3.1. Data Exclusion**

To protect the confidentiality of the respondents while maximizing the scope of data released to the users, we excluded a few confidential information in the public-use data. Direct identifiers such as names, addresses, and city where the interview took place have been removed from the file.

#### **3.2. Data Cleaning and Editions**

The raw data released from the survey firm (MPR) were checked thoroughly for consistencies. Consistency or logic checks examine the relationship between two or more variables to assess or identify any potential conflicts across the responses. An extensive set of edit checks was developed to test for unusual response pattern to related question items. Data values initially assessed as “not usual” or not logical were marked for further investigation. In the process, some data editions or recodes were carefully performed to (1) attain reasonable consistencies among related responses, (2) correct for improper recording, and (3) make survey variables easier to use in the analyses

In general, we employed the following steps to clean the data:

First, the identifiers were checked for uniqueness. Records having duplicate identifiers were marked for verification against records in the database of the survey firm. To verify linkage status, records with unique identifiers were matched to records in most related data sets such as the Fragile Families core data, the activity booklet data (which was provided in batches of separate data sets), and the disposition data. Unmatched records were separated for further verification, and eventually were either dropped, if invalid, or retained, after necessary correction(s).

Second, frequency distributions of categorical variables were examined to verify whether the codes appeared in the data were consistent with the corresponding codes listed in the instruments. In the process, any irregular responses or responses not within the permissible data value ranges were marked for checking. Series of multi-level cross-tabulations of related items were generated to verify response consistencies. Obviously inconsistent data values, if could be reasonably edited, were either edited logically or replaced by value imputed from a “more reliable” response provided to one or some other related items.

Third, inconsistent or irregular data values that could not be edited logically were marked and sent to the survey firm for cross-verifying against responses recorded in the original data collection forms or raw files in the computer assisted telephone interview (CATI) system. Resolved data value, if different from the value in the earlier release(s) from the survey firm and also assessed as more reliable, was corrected accordingly.

Fourth, data collected from the pilot cities were combined with data collected from the other eighteen cities. As mentioned, a negative response code “2” assigned to a few question items collected for the pilot cities was recoded to “0” to make it consistent with the code used for the same questions collected for the rest of the cities.

Fifth, coding and/or recoding a few verbatim responses recorded in an open-ended fashion or responses provided for category “others” (since the existing categories in the questionnaire did not seem to apply.) The verbatim responses were reviewed, edited, and coded, if possible, into an existing category; otherwise into a new category. Except for a few variables, we have not been able to recode the responses to many open-ended questions in the current version of the data.

### Edition Flags

Many edition flags were constructed in the data cleaning process. In general, edition flags are used to mark (1) potential problem(s) in one or more data value(s) of a variable, and (2) whether any data value was edited, and if edited, how the edition was actually done.

When a data value of a variable appeared as implausible or inconsistent, an initial temporary code was assigned to the flag to mark the value in question. The value was then further reviewed to assess its validity. In the process, a thorough examination of the value was conducted to determine whether it could be considered as valid. And if considered valid, the value was retained and the initial code of the edition flag was reset to missing (which means the value is acceptable or valid). Otherwise, in the case that the value was assessed as invalid or with any potential problems, the initial code of the flag was replaced with a new temporary code to identify the type of additional checking might be needed. The next step was to explore whether the value in question could be either reasonably edited or subjected to verification by the survey firm. And when satisfactorily resolved by either means, the value was corrected accordingly and a final status code was assigned to the flag. All edition flags have variable name starting with the prefix, *flg\_*, followed by the name of the variable whose data value(s) were either edited or appeared to have problems. For example, if a problem or any inconsistencies were identified in one or more values of variable *a4*, the edition flag for *a4* was created as *flg\_a4*, and a code from 0 – 9 was assigned to this flag for each value in question. The assigned code could either identify the nature of problem (invalid or inconsistent) or the edition status of the corresponding value (edited logically, or corrected by the survey firm, or set to missing because of unable to resolve). Edition flags are not included in the public-use data.

### 3.3. Data Description

The data set *InHome5Yr2011* contains 3,001 observations and 636 variables. This is a person-level data set.

The data contains most variables generated based on the responses to the Parent interview collected in all twenty cities, as well as, variables derived or constructed based on the measurements taken during the home visit. Some examples of constructed variables are

the body mass index (BMI) of the mother and the child, the PPVT/TVIP scores, total monthly value of food expenses incurred by the family.

All variables included in the data have variable labels and most categorical variables also have value labels.

Missing data codes: the following codes have been designated, aside from the dot (.), in many numeric variables to represent special missing value.

<u>Code</u>	<u>Description</u>
.c	Can’t tell
.d	Don’t Know
.m	Missing
.n	Not Applicable
.o	Not Observed (for Section P, Q, R, S, T, U)
.r	Refused
.s	Skipped

These codes are treated by STATA 9/10 as missing data. To exclude observations with these missing codes you can specify to retain observations whose value is smaller than the missing dot (.) in your STATA code. For example, to retain observations with no missing data in *cla* (frequency table shown below), that is to exclude cases with value as .m, .n, .d, or ., the shortest STATA specification is: *keep if cla < .*

Variable **cla** : About how many toys, books or games does (child) have that are helping him/her know about colors?

Value	Frequency	Percent
.	20	0.67
.m: Missing	4	0.13
.n: Not Applicable	1	0.03
.d: Don't Know	6	0.20
01: none	52	1.73
02: 1-2	362	12.06
03: 3-4	709	23.63
04: 5 or more	1,847	61.55

3.3.1. File structure: data set *InHome5Yr2011* is a rectangular flat file. The public-use version is distributed in three formats: STATA 11.0, SAS for Windows version 9, and SPSS for Windows version (refer to section 3.3.3 on Formats of Data Released on page 44-45 for more details). In the data set, each data line contains data values representing the responses gathered from a mother or a custodial parent/caretaker of the focal child, any in-home observations of the interviewer, as well as, other measurements of the child. Each variable contains values corresponded to responses, from all the respondents,

provided or recorded for an item in the survey instrument. Variable may also contain a specific information about respondents constructed based on the response(s) gathered.

3.3.2. Variables: Aside from the edition flags described in section on data cleaning and edition (section 3.2.), data set *InHome5Yr2011* contains three other types of variables, these are: case identifiers, survey variables, and constructed variables. This section provides a general description of these variables; presents derivations of the constructed variables: and presents additional information for a few selected variables.

- Identification variables: are used primarily for file linkage purposes. Three identifiers are provided in the file:
  - a. Mother’s identifier (*mothid4*) is used to link the data to the Five-year core mother survey data.
  - b. Father’s identifier (*fathid4*) is used to link the data to the Five-year core father survey data. Cases whose the father of the child did not participate in the core survey do not have value for this variable.
  - c. Family’s identifier (*idnum*) can be used to link data to either the mother or the father survey data of any survey wave, as well as, other supplemental data generated from the Fragile Families survey.

These identifiers have been masked such that they do not contain any meaningful information which may possibly be used to identify the respondents. It should be noted that mother and father identifiers are the same as the corresponding identifiers used in the earlier waves (in similar variables whose name ended with the wave number 1, 2, or 3), hence, they can also be used to link respondents across waves.

- Survey variables contain responses to the questions asked during the survey. Survey variables were often named as the questionnaire item in the instrument, but in lowercase letter(s) or word. For example, variable *a1* in the data set contains responses provided to item *A1* (*In general, would you say child’s health is ...*) in the parent survey questionnaire. Survey variables were processed as follows:
  - a. Most categorical variables, which were created from items with pre-coded response categories, have their values as the codes presented in the instrument. Occasionally, we recoded one or two pre-coded values of a few categorical variables to make those codes consistent in contents with those used for many other items. For example, a few items in the pilot survey questionnaire had the negative response pre-coded as “2”, this code has been changed to zero to make it consistent with the negative code used for the same item in the questionnaire used for data collection in other 18 cities.

- b. A few items allowed multiple pre-coded responses. Each possible response was coded into an indicator variable whose value was assigned as 1 for affirmative situation and zero, otherwise. For example, all possible responses provided for item *S1* (*how would you best describe the child’s clothing?*) of the parent survey questionnaire were coded into a series of 11 indicator variables: *s1\_1* to *s1\_11*, with variable *s1\_1* represents if “*dirty, unkempt*” clothing condition, variable *s1\_2* represents if “*dirty due to playing/eating*” and so on ... In addition, the responses provided for category “Others” for the same item were examined; and if any could be reasonably coded into an existing category, the response(s) was recoded accordingly. For example, “*oversized shirt*” recorded in “Others” for item *S1* was recoded as “1” in the variable *s1\_6* (for *clothing is too large*).
- c. Other variables generated from survey items with no pre-coded response or items with open-ended responses retained most values as recorded during the interview. We edited a few responses provided for some open-ended items in the public-use file to exclude any part of information which could potentially suggest the identification of the respondent.
- Constructed variables were created based on the survey variables for analytical purposes. Some were formed by simply recoding or collapsing original values. Others were derived by combining values from the original survey variables; or by computing, based on established procedures, using values from the original survey variables. Most constructed variables have name, often more than three characters long, and not similar to any question item code used in the survey instrument. All constructed variables have variable label starting with the prefix “CV:”. These variables are useful for data presentation or analyses. The following variables have been constructed:

### 1. Anthropometric Measures

Data Source: height and weight measurements recorded for items included in section A of the Activity booklet. The measurements were used, in combination with, child’s gender, birth date, and date of measurement to determine the standardized score for height and weight of the child. Such scores were based on the growth indices derived from the CDC 2000 growth curve, which standardized children’s measures to account for differences in sex and age because not all children were measured at exactly 60 months and because normal growth differs by gender.

Universe: Focal child and mother or care taker who had given permission to have an in-home visit for assessment (2,364 cases).

Programs: Center for Disease Control’s Z-score computation programs: *gc-setup.sas* and *gc-calculate.sas*. The code can be downloaded from

the CDC’s website:

<http://www.cdc.gov/nccdphp/dnpao/growthcharts/resources/sas.htm>

The following anthropometric variables were created. A technical report about the anthropometric measures is presented in Chapter 4.

- *agem* age of child at time of height and weight measurements in months, calculated using the child’s date of birth and the date of measurement.
- *mhtcm* height of the mother in centimeters. Value is either the actual height measured during interview as recorded in the Activity Booklet (item *a2*) or the self-reported height during interview (recorded for item *a2a\_ft* and *a2a\_in*).
- *mwtlb* weight of the mother in pounds, created based on the variables: *a3*, *a4*, *a5*, *a5a*. For non-pregnant mothers: *mwtlb* is the weight measured during interview; for pregnant mother or for mother who refused to be measured or the weight exceeded scale limit: *mwtlb* is the self-reported weight during interview.
- *mwtkg* weight of the mother in kilograms, created by multiplying the value of *mwtlb* (mom’s weight in pounds) with .45.
- *mombmi* Body mass index (BMI) of the mother, created by dividing the weight of the mother in kilograms (*mwtkg*) to the squared value of the height of the mother in meters (which is, *mhtcm/100*).
- *chtcm* Height of child in centimeter, this is the value provided for item *a7*, which is the height of the child measured in centimeters.
- *cwtlb* Weight of the child in pounds, created based on the variables *a6*, *a6a*; *cwtlb* is the actual weight of the child as measured during interview or the difference between the weight of the mother and child measured together and the weight of the mother.
- *cwtkg* Weight of the child in kilograms, created by multiplying *cwtlb* (child’s weight in pounds) by .45.
- *cbmi* Body mass index of the child, created by dividing the weight of the child in kilograms (*cwtkg*) to the squared value of child’s height in meters (which is, *chtcm/100*).
- *cflag* indicator variable to identify the problem associated with the anthropometric measurements of the child. See Chapter 4 for the frequency distribution of *cflag*. Values used for cflags are:
  - 0 = "No indices flagged, measures plausible"
  - 1 = "Missing weight or height"
  - 2 = "Missing measure date"

- 3 = "Missing birth date"
- 4 = "Missing gender"
- 5 = "Height implausible (haz < -5 or > 3)"
- 6 = "Weight implausible (waz < -5 or > 5)"
- 7 = "Weight for height implausible (whz < -4 or > 5)"

- *mflag* Indicator variable to identify the problem associated with the anthropometric measurements of the mother. See Chapter 4 for the frequency distribution of *mflag*. Values used for *mflag* are:

- 0 = "No indices flagged, measures plausible"
- 1 = "Missing weight or height"
- 2 = "Height implausible (too tall or too short)"
- 3 = "Weight implausible (too heavy or too light)";

The following indicators have value assigned as 1 for affirmative situation, and zero (0) otherwise:

- *mmis\_wt* indicator to identify if the weight of the mother was missing (value 1 means “yes”).
- *mmis\_ht* indicator to identify if the height of the mother was missing (value 1 means “yes”).
- *mompreg* indicator to identify if the mother was pregnant at the time of height and weight measurement (value 1 means “yes”).
- *ovscale* indicator to identify if the mother had the body weight exceeding the scale limit of 308 pounds (value 1 means “yes”).
- *seftwt* indicator to identify if the mother gave her weight as self-report instead of being measured (value 1 means “yes”).
- *seftht* indicator to identify if the mother gave her height as self-report instead of being measured (value 1 means “yes”).
- *cwtalone* indicator to identify if the child was weighed alone (value 1 means “yes”).

The Z-score variables contain the standardized measurements which were generated based on CDC’ SAS programs: *gc-setup.sas* and *gc-calculate.sas*. These programs generate a dataset to contain indices of the anthropometric status of children from birth to 20 years of age based on the 2000 CDC growth charts (<http://www.cdc.gov/growthcharts/>).

Variables used for the Z-score computations in the Five-year In-Home survey are: age of child in months, child’s gender (coded as: 1:boy, 2: girl); height of child (standing height in centimeters); recumbent indicator about child’s height measurement (coded as 0 since the standing height was used); child’s weight in kilograms; and child’s head circumference in centimeters was set to missing, based on instructions in the CDC’s programs, since this was not collected for the survey.

- *haz* Z-score for height-for-age of child, derived based on CDC’s growth charts
- *waz* Z-score for weight-for-age of child, derived based on CDC’s growth charts
- *whz* Z--score for weight-for-height of child, derived based on CDC’s growth charts
- *bmiz* Z-score for body mass index or BMI index of child, derived based on CDC’s growth chart

Other related variables created based on the z scores:

- *hap*: height for age percentile.
- *wap*: weight for age percentile.
- *whp*: weight for height percentile.
- *bmip*: Body mass index percentile

## 2. PPVT/TVIP Scores

Data Source: PPVT and TVIP administered at the respondent’s residence. Child’s test scores were computed based on the information recorded for Section B of the Activity Booklet. Mother’s test scores were computed based on information recorded for section G of the Activity Booklet. Child’s and mother’s age in months were used in scoring.

Universe: Focal child whose mother/caretaker had given permission to a home visit. Only mother or surrogate parent, who did not complete or had an invalid test in the Three-year survey, was asked to take the test in this wave.

Programs: Not available since researcher at the survey firm developed these scores. Interested users can contact Welmoet van Kammen at Mathematica Policy Research for inquiries.

The following variables were constructed:

### Mother’s PPVT scores

- *ppvtagem* Age of mother in months, calculated based on date at time of administration of the PPVT and the date of birth. Values in data released were truncated for confidentiality protection.
- *ppvtraw\_m* Raw PPVT score of the mother
- *ppvstd\_m* Standardized PPVT score of the mother.
- *pvbasal\_m* mother’s PPVT basal value
- *pvceil\_m* mother’s PPVT ceiling value

The following variables were created to mark irregularities in the PPVT administration:

- *pvnbasal\_m* indicator variable whose value is 1 if no basal was reached
- *pvtwceil\_m* indicator variable whose value is 1 if two ceilings were reached.
- *pvnceil\_m* indicator variable whose value is 1 if no ceiling was reached
- *pvceilr\_m* indicator variable whose value is 1 if the last block was administered because no ceiling was reached. Such block was used for calculating the raw PPVT score in *ppvtraw\_m*.
- *pvpercom\_m* percent of items used for total score missing. If a high percent of the items is missing, PPVT raw score and standard score should not be used.

### Mother’s TVIP scores

- *tvipraw\_m* Raw TVIP score of the mother.
- *tvipstd\_m* Standardized TVIP score of the mother.
- *tvbasal\_m* Mother’s TVIP basal value.
- *tvceil\_m* Mother’s TVIP ceiling value.

The following variables were created to mark irregularities in TVIP administration:

- *tvnmis\_m*: Number of missing items between the basal and the ceiling.
- *tvnbasal\_m* All records with no basal before adjustment. If no basal could be calculated, records were flagged and the basal was adjusted to 91.

Other irregularities in TVIP administration were flagged as follows:

- *tvinback\_m* = interviewer back tested before item 91 but did not reach basal.
- *tvnback\_m* = interviewer started at item 91, did not reach a basal and did not back test.
- *tvback91\_m* = interviewer started at item 91, did not reach basal on first 8 items but reached basal after 91.
- *tvnceil\_m* = if no ceiling was reached and test not administered to end.

Child’s PPVT scores

- *ppvtag* Age of child in months calculated based on the date at time of and the date of birth. Values in data released were truncated for confidentiality protection.
- *ppvtraw* Raw PPVT score.
- *ppvstd* Standardized PPVT score.

The following variables were created to mark irregularities in PPVT administration:

- *pvbasal* child’s ppvt basal value
- *pvnbasal* indicator to identify if no basal was reached
- *misppvt* indicator to identify that ppvt was not administered to the child.
- *pvtwceil* indicator to identify if two ceilings were reached.
- *pvnceil* no ceiling was reached.
- *pvceilr* last block administered if no ceiling was reached. This block is used for calculating *ppvtraw*.
- *pvpercom* percent of items for total score missing. If a high percent of the items is missing, total raw and standard score should not be used.

### 3. Letter-Word Identification Woodcock-Johnson Test (W-J)

Data Source: W-J Test 22 was administered to the focal child during the in-home assessment. Scores were derived based on the raw score recorded for each item c1 - c57 included for Activity C in the booklet.

Universe: Focal child whose mother/caretaker had given permission to an in-home assessment

### W-J scores

- *wjraw22* Total items correctly answered (item c1 to c57 under Activity C in the Activity book).
- *wjsc22* W total score which is a conversion from the total raw score (*wjraw22*) in order to derive other scores or measures.
- *wjrmi22* Relative mastery index or the proportion that the child can do (based on the W-J test) relative to 90% of children of his/her age can.
- *wjss22* W-J standard score which is an important and most useful number. It is a statistically derived number that describes an individual's performance relative to age peers.
- *wjpr22* W-J percentile rank. Value of this variable provides the same information as standard score expressed in a percentage. This is used to rank an individual relative to his/her age peers.

Programs: The software Woodcock Compuscore and Profile Programs version 1 was used to generate the W score, Relative Mastery Index, Percentile Rank, Standard Score. The software was distributed by 1998 Riverside Publishing.

### Other constructed variables

#### Food Expenditure

- *k2\_expen* Monthly value (in dollars) spent by the family for food used at home. Variable *k2\_expen* was created based on variables *k2*, *k2\_per* and *k2a*. Specifically, the monthly value was generated by adjusting the amount provided (*k2*) in the time period given (*k2\_per*) to obtain the expense for the whole month. In case if only a data range was available (*k2a*), the midpoint value of that range was used in combination with the corresponding time period in the adjustment. For the computation, a few missing values of *k2\_per* were imputed logically for cases having only data for *k2*. Missing value of *k2\_per* was often replaced by a common time period given for both *k4* and *k5*; or the period available only for either *k4* or *k5* provided that such period appeared reasonable for the amount (*k2*) taking into consideration the number

of persons living in the household. All values of *k2\_expen* computed based on imputed value of *k2\_per* were flagged. The imputation flag of *k2\_per* was not included in the data but authorized users can request for this variable.

- *k4\_expen* Monthly value (in dollars) spent by the family for food taken out or food delivered to the door. Variable *k4\_expen* was created based on variables *k4*, *k4\_per* and *k4a*. Specifically, the monthly value was generated by adjusting the amount provided (*k4*) in the time period given for (*k4\_per*) to obtain the expense for the whole month. In case if only a data range was available (*k4a*), the midpoint value of that range was used in combination with the corresponding time period in the adjustment. For the computation, a few missing values of *k4\_per* were imputed logically for cases having only data for *k4*. Missing value of *k4\_per* was often replaced by a common time period given for both *k5* and *k2*; or the only period available for either *k5* or *k2* provided that such period appeared as reasonable for the amount (*k4*) taking into consideration the number of persons living in the household. All values of *k4\_expen* computed based on imputed value of *k4\_per* were flagged. The imputation flag of *k4\_per* was not included in the data but authorized users can request for this variable.
- *k5\_expen* Monthly value in (dollars) spent by the family for eating out. Variable *k5\_expen* was created based on variables *k5*, *k5\_per* and *k5a*. Specifically, the monthly value was generated by adjusting the amount provided (*k5*) in the time period given for (*k5\_per*) to obtain the expense for the whole month. In case if only a data range was available (*k5a*), the midpoint value of that range was used in combination with the corresponding time period in the adjustment. For the computation, a few missing values of *k5\_per* were imputed logically for cases having only data for *k5*. Missing value of *k5\_per* was often replaced by a common time period given for both *k4* and *k2*; or the period available only for either *k4* or *k2* provided that such period appeared as reasonable for the amount (*k5*) taking into consideration the number of persons living in the household. All values of *k5\_expen* computed based on imputed value of *k5\_per* were flagged. The imputation flag of *k5\_per* was not included in the data but authorized users can request for this variable.
- *food\_exp* Total monthly food expense of the family in US dollars. Value of *food\_exp* is the sum of *k2\_expen*, *k4\_expen*, and *k5\_expen*. Data user may consider creating a composite variable to include also the value of the food stamps received (variable *k1a1*).

#### Accidents occurred to the child

- *accdt* Number of accidents occurred to the child based on the recollection of the mother or the custodial parent when being asked about the three most-recent accidents happened to the child. This was created by totaling the affirmative responses provided for a series of questions about the accidents listed under item *a21* of the instrument used for the parent survey.

### Status of survey completion

- *inttype\_mod*: Status of survey completion, created based on the final disposition status recorded in the disposition file and: (a) availability of information provided to questions in the parent survey, (b) observations of the interviewer, and (c) availability of anthropometric measurements and the PPVT and Woodcock-Johnson test scores in the Activity booklet. Values of the variable can be used to identify the component(s) of the survey that a respondent was able to complete.

Values of *inttype\_mod* are as follows:

- 1: Interview was conducted in home survey and observations of interviewer were recorded; respondent and/or child participated in one or more activities.
- 2: Interview was conducted in home but no observation of interviewer was recorded, respondent and/or child participated in one or more activities
- 3: Interview was conducted on telephone, no observation of interviewer was recorded, neither respondent nor child participated in any activities.
- 4: Interview was conducted on telephone but a few observations of the interviewer were recorded, neither respondent nor child participated in any activities
- 5: Respondent or child participated in some activities, no observation, no parent interview
- 8: Only PPVT or Woodcock-Johnson scores. No interview, no height/weight measurement

Frequency distribution of *inttype\_mod* has been presented in Table 2 on page 29.

### 3.3.3 Data Irregularities

A few irregular values described below remain in the data because we were unable to resolve them satisfactorily even after verification in the data collection forms:

Variable *a28*, associated with item A28 (how many dental fillings has <child> ever had?), contains a value 27 (dental fillings) which may seem too high for a five-year old kid.

Variables *b1*, *b2*, associated with item B1, B2, which asked about number of hours watching TV by child per day, contain a handful records with value as 24.

Variable *j5a\_ot*, associated with item J5A (what were the concerns that Child Protection Services told you (other type of abuse) – can you tell me what this concern was (specify)?), contain mostly 1 and 0. These values are clearly the result of data collection or entry mistake because the anticipated responses (to the follow-up question of J5A) are description about other type of abuse. The issue could not be resolved by the survey firm.

### 3.3.4. Formats of Data

Data set *InHome5Yr2011* has been released in three different formats:

1. STATA version 11 (*InHome5yr2011.dta*).
2. SPSS for Windows file (*inhome5yr2011.sav*).
3. SAS version 9.2 for Windows (*inhome5yr2011.sas7bdat*). Two supplemental files are provided with the SAS data set:
  - *InHome5Yr\_SASformats.sas* contains all the defined formats of the categorical variables and the association of each format to a variable.
  - *Read\_InHome5Yr2011.SAS*: a sample program to read the SAS data and attach the defined formats to variables in the data.

Data user will need to unzip all the above three files to a folder in the hard drive of the computer. The section below shows what you need to edit in the program *Read\_InHome5Yr2011.sas* before running it to attach the defined formats to the variables in the data.

A sample SAS program (*Read\_InHome5Yr2011.SAS*) to read *InHome5Yr2011.sas7bdat* and attach the defined formats to the values of the categorical variables in the data:

```
/*-----
Program:  Read_InHome5Yr2011.sas
Task   :  Read data InHome5Yr2011.sas7bdat and attach all formats defined
          for categorical variables in program InHome5Yr_SASformats.sas

Note   :  You need to CHANGE the directory path name (highlighted) to
          direct SAS to the directory/folder where you place the data
          InHome5Yr2011.sas7bdat and program InHome5Yr_SASformats.sas.
          In the example below, both data and the program mentioned
          have been placed in the folder C:\IH5.
-----*/
option nocenter ps = 50 ls = 135;

*specify the directory path where you place the permanent SAS data:
InHome5Yr2011.sas7bdat;
libname IH "C:\IH5"; /*NOTE: CHANGE PATH NAME to the directory where
                    you place InHome5Yr2011.sas7bdat */
```

```

*Read InHome5Yr2011.sas7bdat into a temporary file InHome;
data InHome;
  set IH.InHome5Yr2011;

*Next line calls in the formats defined for the variables in InHome5Yr2011.sas7bdat;
%include "C:\IH5\InHome5Yr2011_SASformats.sas";
/*NOTE: The formats were defined in the file
InHome5Yr2011_SASformats.sas which was zipped together
with the data. You need to the CHANGE
the PATH name to where you place this file */

*Display the data contents;
proc contents;

*Add more data processing statements .... before statement Endsas.
For examples, the next two lines ask for freq. distribution of the
variables whose name started with intt ;
proc freq;
table intt:/missing;

Endsas;

```

Alternatively, experienced SAS users can also create a format catalog using the PROC FORMAT statements provided in the program `InHome5Yr2011_SASformats.sas`, by:

1. edit the line containing “ proc format ;” near the beginning of `InHome5Yr2011_SASformats.sas` to add the highlighted portion shown below:

```
proc format cntlout=library.IH5YRFMT ;
```

2. add the line below after the line `libname IH "C:\IH5"` in `Read_InHome5Yr2011.sas` before running it:

```
libname library "C:\IH5"; (change to correct path name, as needed)
```

Once the format catalog `IH5YRFMT` is created, to use it in subsequent program: specify the path to the library containing the format catalog and include the following line in the same program:

```
proc format cntlin = library.IH5YRFMT;
```

### 3.3.5. Merging two waves of the In-home data

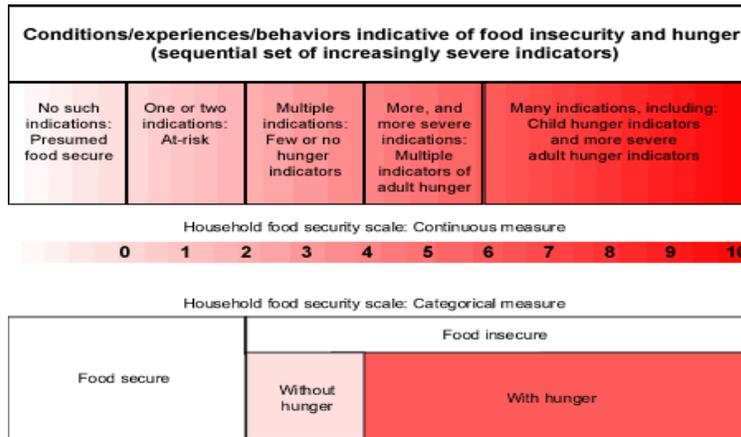
Some data users have expressed desire to merge Three- and Five-Year In-home data by the family ID (idnum) or joining selected or all variables from the Three-Year survey to variables in the Five-Year survey to form a combined data set. This task cannot be performed directly because a number of variables in these two waves, although with different contents, have similar variable name. In order to assist data users with these data merges, we provide codes to rename all variables in the data of a wave of the survey, for example the Three-year survey, with a prefix `IH3_` added to the original name. These codes have been written in SAS, SPSS, Stata and are included in Appendix A on page 79-81. One needs to modify these programs to rename variables in the Five-Year data.

### Chapter 4. Usage Notes

This chapter provides technical notes for selected information available in the Five-year In-Home Data.

#### 4.1. How the Household Food Security Scale is used

The household food security scale can be constructed based on the data on nutrition gathered in Section D of the parent questionnaire. This scale may be interpreted using a continuous measure or a categorical measure, as seen below.



Source: <http://www.ers.usda.gov/briefing/foodsecurity/measurment/index.htm>

On occasion “food insecure with hunger” is further divided into: a) food insecure with hunger – moderate (hunger among adults but not children), and b) food insecure with hunger – severe (hunger among children and more severe hunger among adults).

Some researchers have established a separate set of three categories to measure children’s hunger using the eight items on the scale dealing specifically with children. The categories used by these researchers are: a) child hunger, b) reduced-quality diet for children, and c) no child hunger or reduced-quality diet. Specific response rates corresponding with these three categories are not readily available.

#### *Sample Response Rates to Food Security Questions*

Two extremes for expected affirmative response rates to the nutrition questions in the neglect supplement can be seen below. The study that produced the numbers in the first column offers *nationwide* estimates, while the third column shows data representing poor families with children in four large urban counties. The middle column shows our unweighted data based on all twenty cities at the time of data collection for the Five-Year survey.

<u>Questions</u>		<u>1998 ERS/USDA Andrews et al. 2000)</u>	<u>Five-Year In-home</u>	<u>PDUC Polit &amp; Martinez 2000</u>
D1 A.	Worried food would run out	12.8	23.06	65.3
D1 B.	Food bought didn’t last	10.8	15.90	56.2
D1 C.	Couldn’t afford to eat balanced meals	9.1	9.41	34.8
D1 D.	Relied on few kinds of low-cost food to feed children	13.6	15.46	47.9
D1 E.	Couldn’t feed child(ren) balanced meals	8.4	7.43	29.7
D3	Child(ren) were not eating enough	4.4	3.70	17.5
D4	Adult(s) cut size of meals or skipped meals	6	7.50	21.4
D4A	Adult(s) cut size or skipped meals, 3+ months	4.2	4.27	16.7
D5	Adult(s) ate less than felt he/she should	5.7	8.10	25.2
D6	Adult(s) hungry but didn’t eat because couldn’t afford	2.6	4.34	14.1
D7	Respondent lost weight	1.6	2.05	8.5
D9	Adult did not eat for whole day	1.3	1.82	8.7
D9 A.	Adult did not eat for whole day, 3+ months	0.9	1.18	6.6
D10	Cut size of child(ren)’s meals	1.6	1.75	8.2
D11	Child(ren) skipped meal	0.8	0.74	5
D11 A	Child(ren) skipped meal, 3+ months	0.5	0.30	4
D12	Child(ren) hungry, but couldn’t afford more food	1.1	1.21	5.6
D13	Child(ren) did not eat for whole day	0.2	0.07	1.6

#### 4.2. Child Behavior Problems

This measure includes some of the items and scales from the Child Behavior Checklist CBCL/4-18 (See Child Behavior Checklist/4-18, Achenbach) and the *Adaptive Social Behavior Inventory (ASBI; Hogan, Scott, & Bauer, 1992)*.

The original CBCL/4-18 consists of 113 behavior problem items on which a parent, or parent surrogate, is asked to rate their child’s behavior. Our Five-Year parent survey (section L) and the corresponding core mother survey (section B) include 72 of the original items. Specifically, we exclude most items associated with somatic problems and those not applicable for very young children in our study such as items with contents related to drugs/alcohol use, school skipping, and sexual behaviors. Items selected for our survey are sufficient to derive the following syndrome scales: Anxious/Depressed, Withdrawn, Attention, Social Problems, Aggressive Behavior, and Delinquent Behavior. All 72 items can be included to generate the total behavior score.

Some parts of the presentation below were drawn or patterned from a compilation about CBCL scales (version: 7/15/03) of Michelle De Klyen, a research associate of the Center for Research on Child Wellbeing (CRCW) of Princeton University.

The purpose of this assessment was to obtain maternal ratings of children’s behavioral problems and prosocial behavior. Items were read to each mother or the caretaker, who

was asked to indicate whether the statement was not true (0), sometimes or somewhat true (1), or very true or often true of her child (2). Scores for subscales can be calculated either by adding scores for each item (allowing comparison to T-scores and percentiles for the normalization sample for each subscale – see below) or by averaging item scores.

Relatively few well-standardized behavioral measures are available for young children. Achenbach’s *Child Behavior Checklists* are the most widely used scales for assessing problematic behavior, with versions available for preschoolers as well as older children, and for teacher- as well as parent-report. They provide subscales for different subtypes of problems and are supported with extensive normative data. Because of time constraints, the entire CBC could not be administered, and choice of items was complicated by changes in the content of subscales between 1991 and 2000. However, the items chosen will allow us to score some Achenbach-like subscales. Note, however that since the full instrument was not administered, the psychometric property of the Achenbach-like subscales may differ from the original Achenbach’s CBC.

The CBCL items were selected from two established child behavior measures to cover constructs of interest (aggressive, delinquent behavior, anxious/depressed behavior, social withdrawal, social problems, need for mental health services, and social competence) while providing comparability with several other studies.

In addition, section L also includes 13 of the positive behavior items from the Adaptive Social Behavior Inventory (ASBI) scale. The *ASBI* assesses multiple dimensions of social competence and includes subscales for two aspects of positive behavior, Express and Comply. Psychometric data are available for both parent-report and teacher-report use of the *ASBI* (Greenfield, Wasserstein, Gold, & Jorden, 1997; Hogan, Scott, & Bauer, 1992). The three sub-scales of the inventory are Express, Comply and Disrupt. Special attention is given to social behaviors, which may be influenced by educational/day care experiences. Comply subscale items overlapped with constructs covered in the *CBC*; the Express subscale included unique, prosocial items and was chosen for use in this study. The Disrupt subscale includes only a few items which were not used in our survey.

The included items should allow adequate comparisons with some other major studies such as the Fast Track survey and the Longitudinal Studies of Child Abuse and Neglect (LONSCAN) Assessments.

### Child Behavior Psychometrics based on Five-Year In-Home Survey<sup>1</sup>

Data about child’s behavior were collected using many questions taken from the Behavior Problems portion of the CBCL/4-18 (See Child Behavior Checklist/4-18, Achenbach, 1991). The revised Behavior Problems scale consists of 118 items on which a parent, or surrogate parent, is asked to rate their child’s behavior in the last two months.

-----  
<sup>1</sup> Prepared by Thu Vu, Center for Health and Wellbeing, Princeton University, December 2007. Last update: March 2011

Selected items in the CBCL comprise the following eight constructs or syndromes: Social Withdrawal, Somatic Complaints, Anxiety/Depression, Social Problems, Thought Problems, Attention Problems, Delinquent Behavior, and Aggressive Behavior. In addition, CBCL also allows examination of two broad groupings of syndromes: Internalizing Problems and Externalizing problems. Table 4 presents items included in our survey based on selected subscales. Highlighted items are drawn from the Five-Year Core Mother survey

Table 4. Child Behavior Subscales

Aggressive (Full scale: 20 items)	N	Item
Child argues a lot	2978	L1
Child brags or boasts	2960	L2
Child is cruel, bullying, or mean to others	2975	L7
Child demands a lot of attention	2832	M4B4B16 /M4B29A16
Child destroys his/her own things	2976	L9
Child destroys things belong to his/her family or others	2976	L10
He/She is disobedient at home	2968	L12
He/She is disobedient in school	2945	L13
Child is easily jealous	2976	L16
He/She gets in many fights	2977	L21
Child physically attacks people	2975	L33
Child screams a lot	2976	L40
Child is showing off or clowning	2971	L45
Child is stubborn, sullen, or irritable	2826	M4B4B11 /M4B29A11
Child has sudden changes in mood or feelings	2831	M4B4B12 /M4B29A12
Child talks too much	2973	L56
Child teases a lot	2976	L57
Child has temper tantrums or hot temper	2831	M4B4B13 /M4B29A13
Child threatens people	2975	L59
Child is unusually loud	2970	L62
Alpha based on full sample: .85		

Items included for this scale are as presented in the LONGSCAN User’s Guide, released in April 2004 (page 231)

Table 4. Child Behavior Subscales (cont)

Withdrawn (Full scale:9 Items)	N	Item
Child would rather be alone than with others	2974	L25
Child refuses to talk	2976	L38
Child is secretive, keeps things to self	2971	L42
Child is shy or timid	2978	L46
Child stares blankly	2972	L47
Child sulks a lot	2956	L52
Child is underactive, slow moving, lacks energy	2969	L61
Child is unhappy, sad, or depressed	2831	M4B4B15/ M4B29A15
Child is withdrawn, doesn't get involve w others	2826	M4B4B17 /M4B29A17
Alpha based on full sample: .60 (n=3,001)		

Anxious/Depressed (Full scale: 14 Items)	N	Item
Child complains of loneliness	2977	L5
Child cries a lot	2832	M4B4B4/M4B29A4
Child fears s/he might think/do something wrong	2971	L17
Child feels s/he has to be perfect	2972	L18
Child feels or complains no one loves him/her	2975	L19
Child feels others out to get him/her	2974	L20
Child feels worthless/inferior	2822	M4B4B18/M4B29A 18
Child is nervous, high strung, or tense	2827	M4B4B9/M4B29A9
Child is too fearful or anxious	2830	M4B4B14/M4B29A 14
Child feels too guilty	2971	L29
Child is self conscious or easily embarrassed	2977	L43
Child is suspicious	2972	L53
Child is unhappy, sad, or depressed	2831	M4B4B15/M4B29A 15
Child worries	2973	L65
Alpha based on full sample: .68 (n=3,001)		

Table 4. Child Behavior Subscales (Cont)

Attention Problems (Full scale: 11 Items)	N	Item
Child acts too young for age	2830	M4b4b19 /M4b29a19
Child can't concentrate	2830	M4b4b1/ M4b29a1
Child can't sit still	2830	M4b4b2/ M4b29a2
Child is confused or seems to be in a fog	2976	L6
Child daydreams or gets lost in his/her thoughts	2974	L8
Child is impulsive or acts without thinking	2975	L24
Child is nervous high strung, or tense	2827	M4b4b9/ M4b29a9
Child is nervous moment or twitching	2972	L27
Child has poor school work	2949	L34
Child is poorly coordinated or clumsy	2977	L35
Child stares blankly	2972	L47
Alpha based on full sample: .73 (n=3,001)		

Social Problems (Full scale: 8 Items)	N	Item
Child acts too young for age	2830	m4b4b19/m4b29a19
Child clings to adults or too dependent	2821	m4b4b3/ m4b29a3
Child does not get along with other kids	2829	m4b4b6/ m4b29a6
Child gets teased a lot	2975	I22
Child not liked by other kids	2971	I28
Child is overweight	2972	I31
Child is poorly coordinated or clumsy	2977	I35
Child prefers being with younger kids	2966	I37
Alpha based on full sample: .40 (n=3,001)		

Table 4. Child Behavior Subscales (Cont)

Delinquent Behavior (only 10 of 13 items are available)	N	Item
Not seems to feel guilty after misbehaving	2826	m4b4b7/ m4b29a7
hangs around with others who get in trouble	2976	123
lying or cheating	2976	126
prefers being with older kids	2969	136
runs away from home	2976	139
sets fire	2974	144
steals at home	2978	149
steals outside home	2973	150
swears or uses obscene language	2976	154
vandalizes	2969	164
Alpha based on full sample: .49 (n=3,001)		

Positive Behavior (13 items are available)	N	Item
Child understands others' feelings	2976	13
Child is sympathetic to other children's distress	2972	111
Child is open and direct about what Child wants	2977	115
Child will join a group of children playing	2976	130
Child plays games and talks with other children	2975	155
Child is confident with other people	2976	158
Child tends to be proud of things Child does	2971	160
Child is interested in many and different things	2972	163
Child enjoys talking with you	2975	166
Child can easily get other children to pay attention to him/her	2967	141
Child asks or wants to go play with other children	2977	151
Child says "please" and "thank you" when reminded	2975	148
In social activity, Child tends to just watch others	2969	132
Alpha based on full sample: .80 (n=3,001)		

The CBCL Subscales. Summary of psychometrics for the behavior items included for our second wave survey are presented in Table 5.

**Table 5. Items Included for the CBCL 4/18 (1991) Subscales in the Five-Year Core and In Home Parent Interview**

CBCL 4/18 Subscale	Items	Alpha <sup>a</sup>	N <sup>b</sup>	Mean (SD)	Range	Skew	Kurtosis <sup>*</sup>
Anxious/Depressed <sup>c</sup>	15 m4b4b4 117 118 119 120 m4b4b18 m4b4b9 m4b4b14 129 143 153 mb4b15 165	.67	2808	RAW: 3.39 (2.99)	0-20	1.28	2.00
				AVEGD: .24 (.21)	0-1.43		
Withdrawn <sup>d</sup>	125 138 142 146 147 152 161 m4b4b15 m4b4b17	.60	2974	RAW: 2.12 (2.05)	0- 14.14	1.45	2.87
				AVEGD: .24 (.23)	0-1.57		
Total Internalizing <sup>e</sup>	<i>All Anxious/Depress and Withdrawn item, m4b4b15 included once</i>	.75	2809	RAW: 5.37 (4.26)	0-26	1.24	1.88
				.24 (.19)	0-1.18		
Aggressive <sup>f</sup>	11 12 17 m4b4b16 19 110 112 113 116 121 133 140 145 m4b4b11 m4b4b12 156 157 m4b4b13 159 162	.85	2808	RAW: 10.71 (6.34)	0-36	.79	0.48
				AVEGD: .535 (.317)	0-1.8		
Delinquent <sup>g</sup>	b4b7 123 126 136 139 144 149 150 154 164	.49	2978	RAW: 1.87 (1.71)	0-12	1.48	3.45
				AVEGD: .19 (.17)	0-1.20		
Total Externalizing <sup>h</sup>	<i>All Aggressive and Delinquent Behavior items</i>	.86	2809	RAW: 12.59 (7.5)	0-45	.92	0.897
				AVEGD: .42 (.25)	0-1.50		

CBCL 4/18 Subscale	Items	Alpha <sup>a</sup>	N <sup>b</sup>	Mean (SD)	Range	Skew	Kurtosis
TOTAL CBCL	All Anx./Dep, Withd, Aggress., Delinquent items, plus all Other problem items as listed in the LONGSCAN report 108 (page 230)	.90	2808	RAW: 23.37 (13.46)	0-78.35	.99	1.03
				AVEGD: .325 (.19)	0-1.12		
Attention Problems Subscale	m4b4b19 m4b4b1 m4b4b2 16 18 124 m4b4b9 127 134 135 147	.72	2808	RAW: 2.82 (2.77) ----- AVERGD: .26(.25)	0-17.6 ----- 0-1.6	1.46	2.79
ASBI Express <sup>i</sup> Subscale	13 111 115 130 155 158 160 163 166 141 151 148 132 <sup>j</sup>	.80	2976	RAW: 20.76 (3.48)	0-26	-1.28	1.82
				AVEGD: 1.69 (.28)	.15-2.0		

Note.

<sup>a</sup>Scale alphas are computed using only cases with valid responses on all items in the scale; for Anxious/Depressed,  $n = 2769$ ; for Withdrawn,  $n = 2761$ ; for Total Internalizing,  $n = 2725$ ; for Aggressive,  $n = 2727$ ; for Delinquent,  $n = 2775$ ; for Total Externalizing,  $n = 2711$ ; for Total CBCL,  $n = 2580$ ; for the ASBI,  $n = 2932$ .

<sup>b</sup>Ns for each scale apply to the scale means, standard deviations, ranges, and skew and kurtosis statistics; they reflect the number of cases that have valid responses on at least 80% of the scale items; for cases with fewer than the total number of items, the raw score was multiplied by (total # scale items/case total # of items).

<sup>c</sup>The Anxious/Depressed subscale includes all 14 items from the CBCL 4/18.

<sup>d</sup>The Withdrawn subscale includes the entire CBCL 4/18 Withdrawn scale (9 items).

<sup>e</sup>The Total Internalizing scale does not include somatic complaints which are included in the Internalizing items from the CBCL 4/18.

<sup>f</sup>The Aggressive subscale includes the entire CBCL 4/18 Aggressive scale (20 items).

<sup>g</sup>The Delinquent subscale includes 10 of 13 CBCL 4/18 Delinquent scale items. The excluded items are not applicable for young children in our study.

<sup>h</sup>The Total Externalizing scale includes all but 3 of the CBCL 4/18 Externalizing scale items.

<sup>i</sup>The Adaptive Social Behavior Inventory items represent an abbreviated version of the ASBI Express subscale.

<sup>j</sup>Item L32 in ASBI scale has the codes reversed which has also been done based on the paper "The Effects of the Peers Early Educational Partnership (PEEP) on Children’s Developmental Progress" by Maria Evangelou and Kathy Sylva, Department of Educational Studies, University of Oxford, 2003. The Adaptive Social Behavior Inventory items represent an abbreviated version of the ASBI Express.

<sup>h</sup>Note that the computation also excluded 169 cases whose values for m4b4b11/m4b29a11, m4b4b12/m4b29a12, m4b4b13/m4b29a13, m4b4b16/m4b29a16 were completely missing.

\*Kurtosis was evaluated as below. For STATA users: value in table + 3 = Stata’s kurtosis value

$$kurtosis = \frac{n(n+1)}{(n-1)(n-2)(n-3)} \left[ \frac{s4}{V(x)^2} \right] - 3 \frac{(n-1)^2}{(n-2)(n-3)}$$

4.3. Conflict Tactics Scales Coding Some parts of the note below were compiled by Yookyong Lee (2004), a Doctoral candidate at the Columbia University School of Social Work.

### Conflict Tactic Scales Coding

---

Straus, M.A. (1990)

1. The simplest method is to add the response category code values for the items making up each CT Scale.
2. The items can be weighted in accordance with the frequencies indicated by the response categories presented to the respondent. To do this, substitute for the 0 to 6 scale, 0, 1, 2, 4, 8, 15, and 25.
3. Each of the scales can be standardized on a 0 to 100 scale indicating the percentage of the possible total score. This is done by simply dividing the score for each respondent by the maximum possible score, multiplying by 100, and rounding to an integer. Thus, for the Reasoning scale, a respondent with a raw score (by method 1) of 9 would have a percentage score of 50, and a respondent with a raw score of 12 would have a percentage score of 67. The advantage of the percentage standardization is that it expresses all scales in the same units and uses units that have meaning to the general public: i.e., percentage of the maximum possible score. However, there is no statistical advantage.
4. Because this instrument has been administered to a nationally representative sample of couples, a final method of expressing CTS scores is available for Forms N and R: percentiles of the norming population. The raw scores used to determine the percentile scores are those described as method 1 above.

\*\*The scores for Verbal Aggression and violence are obtained in a similar way. For Verbal Aggression add items d, e, f, h, i, and j. Note that item g is omitted. This was included in the list of actions because pre-test interviewing showed it to be a frequent response and because respondents became uneasy if there was no place to record this. The Violence score consists of the sum of items k through s.

\*\*The violence indexes produce extremely skewed distributions. The most satisfactory procedure is to dichotomize the Violence indexes into violent and nonviolent categories, scored 0 and 1. This produces violence rates, which can be analyzed using nonparametric statistics. Logistic regression may be particularly useful.

\*\*CTS Violence *scales* are continuous variables and CTS Violence *rates* are binary variables, usually coded 0 versus 1.

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- \*Straus, M.A., Hamby, S.L., Finkelhor, D., Moore, D.W., & Runyan, D. (1998)
1. Scoring: The CTS is scored by adding the midpoints for the response categories chosen by the participant. The midpoints are the same as the response category numbers for categories 0, 1, and 2. For category 3 (3 – 5 times) the midpoint is 4, for category 4 (6 – 10 times) it is 8, for category 5 (11 – 20 times) it is 15, and for category 6 (More than 20 times in the past year) using 25 is suggested as the midpoint.
  2. Treatment of response category 7: Response category 7 (“Not in the past year, but it did happen before that”) is used in two ways. (1) When scores for the previous year are desired (the usual use of the CTS), category 7 is scored as zero. (2) Category 7 can also be used to obtain a “relationship prevalence” measure of physical assault, i.e., did an assault ever occur? Respondents who answer 1 through 7 are scored as 1 (yes).
  3. Prevalence and chronicity: It is recommended to create two variables for each Physical Assault scale and subscale: prevalence variable and a chronicity variable. The prevalence variable is a 0 – 1 dichotomy, with a score of 1 assigned if one or more of the acts in the scale occurred. The chronicity variable is the number of times the acts in the scale occurred, among those who engaged in at least one of the acts in the scale.
  4. Alternative response categories: Users of the CTS1 have sometimes replaced the 0 to 20+ response categories with categories such as never, sometimes, often, and frequently. The 0 to 20+ categories are preferable because of person-to-person and situation-to-situation differences in the numerical referent of words such as sometimes, often, and frequently, and because numerical categories permit estimates of the mean, median, or total number of physical assaults and injuries.

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Straus, M.A. (2001)

Preferred scores: For research use, Prevalence (the percent who engaged in one more of the acts in the scale or subscale) is the most frequently used score. For some research purposes, a Chronicity score is also important.

The need for separate prevalence and assault scores on the Physical Assault scale occurs because in a non-clinical population, there will be usually 70% to 90% with a score of zero. Such an extremely skewed distribution makes the mean, and even the median inappropriate, violates the assumptions of many statistical procedures, and also creates problems with outliers. Moreover, the distribution is so skewed that no transformation is sufficient to normalized it. Separate prevalence and chronicity scores are one way to create meaningful measures of central tendency and to deal with the outlier problem.

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The CTSPC was released recently, as such, not many studies have reported using the scales.

Original CTSPC	FF In-Home Survey (Section G: Discipline)
A. Explained why something was wrong	A. Explained why something was wrong
B. Put him/her in “time out” (or sent to his/her room)	B. Put him/her in “time out” (or sent to his/her room)
C. Shook him/her	C. Shook him/her
D. Hit him/her on the bottom with something like a belt, hairbrush, a stick or some other hard object	D. Hit him/her on the bottom with something like a belt, hairbrush, a stick or some other hard object
E. Gave him/her something else to do instead of what he/she was doing wrong	E. Gave him/her something else to do instead of what he/she was doing wrong
F. Shouted, yelled, or screamed at him/her	F. Shouted, yelled, or screamed at him/her
G. Hit him/her with a fist or kicked him/her hard	<del>G. Hit him/her with a fist or kicked him/her hard</del>
H. Spanked him/her on the bottom with your bare hand	H. Spanked him/her on the bottom with your bare hand
I. Grabbed him/her around the neck and choked him/her	<del>I. Grabbed him/her around the neck and choked him/her</del>
J. Swore or cursed at him/her	J. Swore or cursed at him/her
K. Beat him/her up, that is you hit him/her over and over as hard as you could	<del>K. Beat him/her up, that is you hit him/her over and over as hard as you could</del>
L. Said you would send him/her away or kick him/her out of the house	L. Said you would send him/her away or kick him/her out of the house
M. Burned or scalded him/her on purpose	<del>M. Burned or scalded him/her on purpose</del>
N. Threatened to spank or hit him/her but did not actually do it	N. Threatened to spank or hit him/her but did not actually do it
O. Hit him/her on some other part of the body besides the bottom with something like a belt, hairbrush, a stick or some other hard object	<del>O. Hit him/her on some other part of the body besides the bottom with something like a belt, hairbrush, a stick or some other hard object</del>
P. Slapped him/her on the hand, arm or leg	P. Slapped him/her on the hand, arm or leg
Q. Took away privileges or grounded him/her	Q. Took away privileges or grounded him/her
R. Pinched him/her	R. Pinched him/her
S. Threatened him/her with a knife or gun	<del>S. Threatened him/her with a knife or gun</del>
T. Threw or knocked him/her down	<del>T. Threw or knocked him/her down</del>
U. Called him/her dumb or lazy or some other name like that	U. Called him/her dumb or lazy or some other name like that
V. Slapped him/her on the face or head or ears	<del>V. Slapped him/her on the face or head or ears</del>

### Neglect

- A. Had to leave your child home alone, even when you thought some adult should be with him/her
- B. Were so caught up with your own problems that you were not able to show or tell your child that you loved him/her
- C. Were not able to make sure your child got the food he/she needed
- D. Were not able to make sure your child got to a doctor or hospital when he/she needed it
- E. Were so drunk or high that you had a problem taking care of your child

**Yearly Frequency (Y):** This score may be extremely skewed for community samples; however, may be appropriate for the Non-Violent Discipline Scale and Psychological Aggression scale of the CTSPC. First create recoded versions of all violence items by recoding 7 to be 0, and values of 3 through 6 to be the midpoints as follows: 3 = 4, 4 = 8, 5 = 15, 6 = 25. Then sum the items in the scale.

**Yearly Chronicity (C):** The chronicity score is the SUM of the number of times each act in a scale was used by those who used at least one of the acts in a scale. This measures how often each act was done in the previous 12 months, among those parents who did it at least once in the previous 12 months. Categories 7 (not this year but happen before) and 8 (never happened) were recoded to -999 and flagged as missing.

**Yearly Prevalence (P):** The most frequently used type of score for the Physical Assault scale and subscales. The prevalence score indicate whether one or more of the acts in the scale were used during the referent period. Create dichotomous versions of the items. A score of 1 indicates one or more acts of violence in the past year: Score 1 if there is a response of 1, 2, 3, 4, 5, or 6 to an item. Category 7 (not in the past year, but happened before), and category 8 (never happened) recoded to be Zero. Do NOT sum the dichotomous items. This method assigns a score of 1 (or 100 if you want the mean to be expressed as a percentage) for any subject who reported one or more instances of any of the acts in the scale.

**Ever Prevalence (E):** 1 = Once or more of the acts occurred in either the past year OR previously: Scored 1 if any violence item is answered 1 through 7; 0 = None of the items answered 1 through 7.

## **Missing Data**

### Assumptions

1. If the respondent had answered, they would have indicated that they did not engage in the behavior → replace it with the mean or median (probably Zero)
2. According to McCarroll et al (2000), respondents who omit questions on the Physical Assault
3. scale (and Psychological Aggression scale) are likely to be people who did engage in the behavior but chose not to report it.

Suggestion:

Replace missing values with a score of 1 for each missing item, for up to 2 missing items on the Psychological Aggression scale, and for up to 3 missing items on the Physical Assault scale.

Thus, if there are 3 or more missing items in the Psychological Aggression scale or four or more are missing on the Physical Assault scale, the score on the scale is missing.

If the above method is used, there can be cases with missing data that have had that data replaced for the prevalence score, but did not meet the criteria for the annual frequency score.

### Investigate the effect of replacement

Investigate the effect of replacing missing values as compared to dropping the case. Which results are more meaningful? With the adjustment for missing data?

Pay attention to the “effect size” as well as significance level

**Reference**

Straus, M.A. (1990). Measuring intrafamily conflict and violence: The conflict Tactics (CT) Scales. In M.A. Straus & R.J. Gelles (Eds.), *Physical violence in American families*, New Brunswick, NJ: Transaction.

Straus, M.A., Hamby, S.L., Finkelhor, D., Moore, D.W., & Runyan, D. (1998). Identification of child maltreatment with the Parent-Child conflict Tactics Scales: Development and psychometric data for a national sample of American parents. *Child Abuse & Neglect*, 22(4), 249 – 270.

Straus, M.A. (2001). Scoring and norms for the CTS2 and CTSPC Family Research Laboratory, University of New Hampshire. <http://pubpages.unh.edu/~mas2>

### Additional Notes about Physical Maltreatment

Section G about “Discipline” uses 14 of the 22 items on the Parent Child Conflict Tactics Scales (CTSPC). The original Conflict Tactic Scales (1979) was designed for use with partner in a marital, cohabiting, or dating relationship. The CTSPC was created in 1996 in response to limitations of the original scale as a measure of child maltreatment (Straus, et al., 1998).

Our survey eliminates eight questions from the CTSPC that ask about severe physical maltreatment. However, we include the CTSPC’s supplemental scale on Neglect (5 questions). The 19 resulting questions from our survey are listed below under relevant subsections with prevalence and chronicity statistics from the pioneer Gallup survey conducted in 1995\*.

FF #	Scale and Items	Prevalence Rates, %		Year Chronicity**
		Year	Ever	
	<b><i>Nonviolent Discipline</i></b>	<b>97.7</b>	<b>99.9</b>	<b>46.0</b>
G1.	Explained why something was wrong	94.3	94.5	18.3
G5.	Gave him/her something else to do instead of what he/she was doing	77.0	83.1	12.2
G12.	Took away privileges from him/her	76.0	78.5	10.8
G2.	Put in “time out” (or sent to room)	75.5	81.3	13.0
	<b><i>Psychological Aggression</i></b>	<b>85.6</b>	<b>89.9</b>	<b>21.7</b>
G6.	Shouted, yelled, or screamed at	84.7	86.7	12.8
G10.	Threatened to spank or hit but didn’t actually do it	53.6	61.8	10.6
G8.	Swore or cursed at	24.3	26.0	6.5
G14.	Called him/her dumb or lazy or some other name like that	16.3	17.5	5.7
G9.	Said you would send him/her away or would kick him/her out of the house	6.0	7.0	3.9
	<b><i>Physical Assault</i></b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
G7.	Spanked him/her on the bottom with your bare hand	46.9	63.6	7.5
G4.	Hit him/her on the bottom with something like a belt, hairbrush, a stick or some other hard object	20.7	29.4	5.5
G11.	Slapped him/her on the hand, arm, or leg	36.9	51.2	7.3
G13.	Pinched him/her	4.3	5.9	6.4
G3.	Shook him/her	9.0	15.0	2.8
	<b><i>Neglect</i></b>	<b>27.0</b>	<b>30.6</b>	<b>6.9</b>
G15.	Had to leave your child home alone, even when you thought some adult should be with him/her	19.5	21.3	6.0
G16.	Were so caught up with your own problems that you were not able to show or tell your child that you loved him/her	.2	1.1	4.6
G17.	Were not able to make sure your child got the food he/she needed	11.0	13.7	5.5
G18.	Were not able to make sure your child got to a doctor or hospital when he/she needed it	.4	1.2	2.0
G19.	Were so drunk or high that you had a problem taking care of your child	2.3	3.3	5.9

\* rates and means weighted to correct for sampling deviation from the census distribution.

\*\* mean number of times each act was reported among subset of parents reporting at least one occurrence

*How the Scale is Scored and Utilized*

For each question, subjects were asked to choose one of eight responses to the question “How many times have you done this in the past year?” The possible responses were:

a) once, b) twice, c) 3-5 times, d) 6-10 times, e) 11-20 times, f) more than 20 times,

As seen above, the CTSPC can be used to estimate both *prevalence* and *chronicity*. *Prevalence* is often expressed using a dichotomous variable indicating whether an event: a) has happened one or more times, or b) has never happened (alternately, “has happened one or more times in the past year” or “has not happened in the past year”). *Chronicity* may be measured in several ways:

1. Give responses a value between 0 and 6 and sum the total for each subsection (**we will need to pay attention to “not in the past year,” currently coded as ‘07’, so that it does not receive greater weight than other responses**).
2. Assign weights to values in accordance with the frequencies indicated by the response categories. In our case these would be: 0, 1, 2, 4, 8, 15, and 25.<sup>1</sup>
3. Convert raw scores to percentages using 0-100 standardized scales.
4. Use the Gallup data on the preceding page as a benchmark for new data.

Categorical measures for CTSPC responses are employed chiefly for assault data, and utilize questions not administered in the Fragile Families Study. Straus suggests that it may be useful to set threshold criteria for “low” and “high” rates of incidence for the various subscales<sup>2</sup>, though there are currently no established norms for such categories.

Summing responses for the entire scale or constructing categories would be problematic since for several items high frequencies may represent socially desirable conflict management tactics. Even for undesirable tactics, there is a lack of agreement over how to measure the severity of physical and psychological maltreatment. With applicable standards, however, measures combining severity and chronicity would be possible.<sup>3</sup>

<sup>1</sup> 25 is an assumed mid-point for the “more than 20 times” category. See Murray A. Straus’ “Scoring and Norms for the CTS2 and CTSPC” at <http://pubpages.unh.edu/~mas2/CTS28.pdf>

<sup>2</sup> Also see Straus, <http://pubpages.unh.edu/~mas2/CTS28.pdf> section on “Cutting Points For ... Scales”

<sup>3</sup> Such measures are available for assault data. For one such measure, see the Frequency Times Severity Weighted (FS) Scale in Kantor, G.K. and Jasinski, J.L. Out of the Darkness, pp. 123-124.

4.4. Home Observation for Measurement of the Environment (HOME) scales<sup>1</sup> provide means to examine and assess the caring environment in which the child has been rearing. Our survey covers a good number of 55 items in the Early-Childhood HOME (EC-HOME) Inventory for children aged 3-6 and selected items from older age HOME scales. Two groups of HOME subscales, Observational scale and Parental Report scale, can be constructed using responses to relevant questions in our survey. Table 6a and 6b present question items in the 5-Year In-home survey which can be used to construct nine HOME subscales and the relevant statistics of the items and these subscales. Computations below were patterned after the scales derived for PHDCN survey in paper by Leventhal et al (2004).

Table 6a. Observational Scales

Subscale <sup>*</sup>	Variable	Mean	Standard Deviation	Item-Scale r <sup>a</sup>	Alpha <sup>b</sup>
<b>Parental Warmth</b>					
Parent talks with child twice during visit	t1	0.88	0.32	0.43	0.80
Parent answers child's questions orally	t2	0.90	0.30	0.42	0.80
Parent encourages child to contribute	t3	0.81	0.39	0.59	0.78
Parent mentions skill of child	t4	0.72	0.45	0.59	0.78
Parent praises child twice during visit	t5	0.69	0.46	0.64	0.77
Parent uses diminutive for child's name	t6	0.61	0.49	0.56	0.79
Parent voices positive feelings to child	t7	0.93	0.25	0.45	0.80
Parent caresses, kisses, or hugs child	t8	0.59	0.49	0.48	0.80
Parent responds positively to praise of child	act_a8	0.77	0.42	0.44	0.80
Mean scale score based on all items (n=2,096)		0.77	0.26		0.81 <sup>d</sup>
<b>Parental Lack of Hostility<sup>c</sup></b>					
Parent does not shout at child during visit	t9	0.86	0.35	0.59	0.61
Parent does not express annoyance with child	t11	0.87	0.34	0.65	0.56
Parent does not slap or spank child	t12	0.99	0.10	0.23	0.78
Parent does not scold or criticize child	t13	0.88	0.32	0.63	0.57
Mean scale score based on all items (n=2,098)		3.60	0.87		0.72 <sup>d</sup>
<b>Parental Verbal Skills</b>					
Parent's speech is distinct, clear, audible	t14	0.86	0.35	0.59	0.61
Parent initiates verbal interchanges	t15	0.87	0.34	0.65	0.56
Parent expresses ideas freely and easily	t16	0.99	0.10	0.23	0.78
Parent appears to understand questions	t17	0.88	0.32	0.63	0.57
Mean scale score based on all items (n=2,089)		0.90	0.22		0.72 <sup>d</sup>
<b>Home Interior Environment<sup>c</sup></b>					
No broken windows or cracked window panes?	r1	0.95	0.21	0.32	0.75
Wiring in the house are concealed	r2	0.90	0.30	0.11	0.77
Housing unit does not contain open cracks or holes in walls or ceiling?	r3	0.94	0.24	0.41	0.75
Housing unit does not contain holes in floor?	r4	0.99	0.12	0.24	0.76

<sup>1</sup> Prepared by Thu Vu, March 2011

Housing unit does not contain broken plaster/peeling paint over 1 sq foot?	r5	0.90	0.29	0.48	0.74
Inside of home not dark?	r6	0.76	0.43	0.43	0.74
Is inside of home crowded?	r7	0.79	0.41	0.56	0.72
All visible rooms of house/apartment not noticeably cluttered?	r8	0.78	0.41	0.56	0.72
All visible rooms of the house/apartment not dirty	r9	0.82	0.38	0.54	0.73
Home free of any potential hazards	r10	0.93	0.26	0.40	0.75
House not overly noisy from noise in the house	r12	0.82	0.38	0.43	0.74
House not overly noisy from noise outside the house	r13	0.90	0.29	0.30	0.76
Mean Scale score of all items (n=2,091)		0.87	0.17		0.76 <sup>d</sup>
<b>Condition of Surrounding Block<sup>c</sup></b>					
Garbage, litter, broken glasses on street	p1	3.42	0.82	0.71	0.79
General condition of most buildings on block	p2	3.21	0.81	0.73	0.78
Graffiti on the buildings/walls on block/within 100 yards	p3	3.77	0.54	0.68	0.81
Vacant or abandoned building on block	p4	3.66	0.74	0.68	0.80
Abandoned vehicles on block/within 100 yards	p5	3.81	0.55	0.48	0.85
Mean Scale Score based on all items (n=2,106)		3.58	0.55		0.84 <sup>d</sup>
<b>Home Exterior Environment<sup>c</sup></b>					
Environment immediately outside home does not have unlit entrance or stairway	p6a	0.92	0.28	0.33	0.80
Environment outside home does not have broken steps?	p6b	0.91	0.28	0.52	0.77
Environment outside home does not have broken glass or broken toys	p6c	0.89	0.32	0.60	0.76
Environment outside home does not have large ditches?	p6d	0.95	0.22	0.37	0.79
Environment outside home does not have alcohol/drug paraphernalia?	p6e	0.96	0.19	0.36	0.79
Environment outside home does not have strewn garbage/litter	p6f	0.79	0.41	0.59	0.76
Exterior of building does not have peeling paint/need paint job?	p7a	0.80	0.40	0.60	0.76
Eterior of building does not have crumbling or damaged walls?	p7b	0.92	0.27	0.59	0.76
Exterior of building does not have broken or cracked windows?	p7c	0.95	0.22	0.46	0.78
Mean Scale Score based on all items (n=2,070)		0.90	0.18		0.80 <sup>d</sup>

\* Each subscale was computed based on respondents having valid responses to at least 80% of the scale items; For the included respondents: missing response(s) for any items has been replaced by the mean of valid responses provided for all remaining items before the scale scores were computed.

<sup>a</sup>Corrected item-total correlation shows how the item is correlated with a reduced scale computed without it.

<sup>b</sup>Each alpha value associated with an item in the column shows how the alpha for the scale would change if the corresponding item was excluded from the scale

<sup>c</sup>All item scores were reversed such that higher score represents better situation. Except Conditions of Surrounding Block subscale which based on the 4-point (1-4) items, all other subscales use 2-point (0,1) items.

<sup>d</sup>Cronbach’s alpha or scale reliability coefficient is the correlation between the current scale and all other possible same-number-of-item scales measuring the same thing.

Table 6b. Parental Report Scales

Subscale*	Variable	Mean	Standard Deviation	Item-Scale r	Alpha
<b>Developmental Stimulation<sup>a</sup></b>					
Access to toy or real musical instrument	c2	0.70	0.46	0.25	0.68
Access to toys to learn colors	c1a	0.98	0.13	0.35	0.65
Access to toys to learn sizes	c1b	0.94	0.24	0.42	0.63
Access to toys to learn shapes	c1c	0.96	0.21	0.45	0.63
Access to toys to learn numbers	c1e	0.91	0.29	0.41	0.63
Access to toys to learn animal names/behaviors	c1d	0.97	0.17	0.39	0.64
Access to toys to learn spatial relations	c1f	0.85	0.35	0.47	0.61
Access to at least 3 puzzles	c3 & c4	0.91	0.29	0.40	0.63
Access to toys to learn patterned speech (assuming this is "nursery rhymes or songs")	c1g	0.63	0.48	0.33	0.66
Access to toys permitting free expression (assuming this is "anything to make/draw things")	c5	0.98	0.15	0.19	0.66
Access to toys for refined hand movements	c6	0.98	0.14	0.17	0.67
Scale mean score of all items (n=2,970)		0.89	0.14		0.67 <sup>c</sup>
<b>Access to Reading<sup>a b</sup></b>					
Parent/family member reads to child 3 times/wk	c7	0.85	0.36	0.24	0.54
Child has access to toys to learn alphabet	c1h	0.97	0.17	0.16	0.55
Child has access to 10 books	c9 & c10	0.75	0.43	0.46	0.38
Child has 3 or more books of own	c11& c12	0.96	0.19	0.29	0.51
At least 10 books are present and visible	c8	0.91	0.28	0.46	0.40
Scale mean score of all items (n=2,953)		0.89	0.18		0.5 <sup>c</sup>
<b>Outings/Activities<sup>a</sup></b>					
Parent engages in outdoor recreational activities with child every other week	c16a	0.86	0.35	0.24	0.42
Child goes on outings every other week	c16b	0.94	0.23	0.26	0.43
Child has gone to museum past year	c17a	0.88	0.32	0.22	0.43
Child has taken trip >50 miles from home in the past year	c17c	0.73	0.44	0.32	0.37
Child was included in family's hobby	c16c	0.95	0.21	0.23	0.44
Child has taken trip on plane, train, bus in the past year	c17b	0.38	0.48	0.22	0.45
Scale mean score of all items (n=2,970)		0.79	0.19		0.47 <sup>c</sup>

\* Each subscale was computed based on respondents having valid responses to at least 80% of the scale items; For the included respondents: missing response(s) for any items has been replaced by the mean of valid responses provided for all remaining items before the scale scores were computed.

<sup>a</sup>Responses to question items included in the subscales were either recoded or constructed based on responses to related items to form dichotomous variable with values assigned as 0, 1. Higher score means better situation.

<sup>b</sup>Other items which may also be included for Access to Reading scale are: c13, c14, c15.

<sup>c</sup>Cronbach's alpha is the correlation of the current scale and all other possible similar-number-of-item scales.

**Reference**

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#### 4.5. Exposure to Violence (Section H)

The items in this section H1-H7 were adapted from “My Exposure To Violence” (Buka, Selner-Ohagan, Kindlon, & Earls, 1996, see Selner-Ohagan, et al., 1998). Because we utilize only a small subset of (7) items from this instrument, and because these items have been adapted from the originals, we offer no standardized methods for coding or analysis.

#### 4.6. Woodcock-Johnson Letter-Word Recognition Test

The first 5 items of this subtest include symbolic learning, or the ability to match a pictorial representation of a word with an actual picture of the object. The remaining 52 items (total = 57) assess the child's reading skills in identifying isolated letters and words that are presented in large type on the subject's side of the test book. The items are arranged in order of difficulty, with the easiest items presented first and the most difficult items last.

#### Scoring

The Woodcock-Johnson Letter-Word Identification Test or Test 22 has standardized scoring protocols. Test 22 was designed to provide a normative score that shows the child’s ability to recognize letters and word, as well as, the match skills in comparison to the national average performance of children with similar age. The normed scores are constructed based on the focal child’s raw score on the test (the number of correct items completed) and the child’s age, to the nearest month, at time of assessment. Raw scores are charted on normative tables based on the child’s age and what percentile the child falls into.

The first step in creating standardized test scores for the Woodcock-Johnson Letter Word Recognition test was to compute the total raw score, based on the number of items answered correctly. The second step was to calculate the subjects’ age at the time of testing. This was accomplished by subtracting their birth date from the assessment date and then converting the difference in days to age in months. Total raw score and age were then entered into the Woodcock Compuscore and Profile software to generate the normative score and related statistics. In the process, the raw score of the test was matched to an intermediate number known as the W Score. The intermediate step allowed standardization across the different forms, if used, for the WJ battery of tests. The W Score was then compared against the Reference W Score, which is the average W Score for a child in the age group.

## 4.7. Anthropometric Measures<sup>1</sup>

### Overview

This note provides documentation about cleaning of the height and weight measurements, as well as, the derivation of the growth indices included in the beta data file of the second wave of the In-Home Longitudinal survey of Pre-school Aged Children.

### Cleaning of Height and Weight Data

#### 1. Child’s measurements

Height and weight measurements in the raw data were examined to assess plausibility and to identify potential irregularities. About thirty implausible values of height (< 55 cm or >145 cm) and weight (<8 kg or > 50 kg) were cross-verified with the survey firm. More than half of these height values were results of data entry mistakes and were replaced by the correct value. Records with value changed are: the height of seven children (initial value = 40 – 43 cm) were actually measured and recorded in inches; the height of one child (value = 11 cm) was entered without the last digit, which is a zero; and the weight of three children ( 400 pounds or more, initially) were entered without a decimal point to separate the last digit from the first two. Unresolved irregular measurements are associated with thirteen children with height ranges from 158 to 175.5 centimeters and a handful of children with weight recorded as slightly below 30 pounds or greater than 115 pounds. These irregular values remained in the data file. In addition, weight values recorded in pounds were converted to kilograms.

#### 2. Mother’s measurements

Initial weight and height of the mother or caretaker were combined from responses and/or measurements to the following items in the Activity booklet:

- a3: *Interviewer: Is the mother (respondent) currently pregnant?*  
If not pregnant, skip a4 and ask question a5.
- a4: *Please tell me how much you weighed before you became pregnant (this time).*
- a5: *I’d like to weigh you first, and then weigh (child). (If shoes are not off yet). Could you please take off your shoes. Please step on this scale.*  
If refused or weight exceeded scale limit then ask question a5a.
- a5a. *Please tell me your weight (your best estimate is fine)*

-----  
<sup>1</sup> Prepared by Thu Vu, Center for Health and Wellbeing, Princeton University, November 2006.  
Revised: March 2011.

The initial weight was assigned either as (a) the actual measurement obtained for the non-pregnant mothers/caretakers during the survey; or (b) the self-reported weight of the non-pregnant mothers/caretakers who refused to be measured or the weight exceeded scale limit; or (c) the reported weight before pregnancy for pregnant women. Weight values in pounds were converted to kilograms. A handful of non-pregnant women had both measured and reported weights. For this situation, if the two numbers were not identical, the measured weight was retained. The height of the mother/caretaker was the actual measurement obtained during the survey or, if not measured, the self reported height. Height values reported in feet and inches were converted into centimeters. Obvious implausible height (very short < 100 centimeters or very tall > 200 centimeters) and/or weight values (very large > 180 kilograms or very light < 25 kilograms) were verified with the survey firm. A few of these values were results of data entry mistakes and were replaced with the correct values. In addition, a few implausible height measurements (extremely tall or short) were replaced by the more reasonable height obtained for the first wave of the survey. It should be noted that a handful of respondents with anthropometric measurements are not biological mothers of the child.

## **Construction of Children’s Growth Indices**

### **1. Background**

Popular growth indices such as weight for age, height for age, and weight for height were constructed based on the Center for Disease Control (CDC) 2000 growth curve using the distributed SAS programs. Data users will notice that a similar set of indices constructed for the first wave of the survey was developed for this wave. More details about the growth indices as well as the SAS programs used can be obtained from the presentation about the growth chart at: <http://www.cdc.gov/growthcharts/>

Data included in the CDC Growth charts came from the following surveys: National Health Examination Survey (NHES), Cycles II and III, National Health and Nutrition Examination Survey (NHANES) I, II, and III, U.S. Vital Statistics, Wisconsin Vital Statistics, Missouri Vital Statistics, Fels Longitudinal Study, Pediatric Nutrition Surveillance System.

### **2. Assessment of Height and Weight Measurements**

The three growth indices: height for age, weight for age and weight for height were used to identify records with biological implausible measurements. The same criteria used for marking implausible measurements in the first wave of the survey (based on the World

Health Organization recommendations<sup>\*)</sup>, were implemented in this wave to mark the implausible measurements. Table 1 presents the number and proportion of children with plausible measurements, as well as, children with implausible measurements and the possible cause of implausibility.

Table 1. Anthropometric Measurements of Children

Status of Measurements (variable: <i>cflag</i> )	Frequency	Percent
Height and weight not measured	25	1.06
Measures plausible	2,163	91.50
Missing weight or height	37	1.57
Missing date of measurement	10	0.42
Height implausible ( $haz < -5$ or $> 3$ )	37	1.57
Weight for height implausible ( $whz < -4$ or $> 5$ )	7	0.30
Weight for height = . based on CDC's program	85	3.60
Total	2,364	100.00

Among the children participated in the In-home Activity assessment in this wave: more than 91% had biological plausible measurements based on the recommendations of the World Health Organization; About 3% did not have either weight or height taken, or both; and less than 6% seemed to have biological implausible measurements.

The body mass index (variable: *cbmi*) was computed as the weight in kilograms divided by the square of the height in meters ( $\text{kg/m}^2$ ). The BMI index (variable *cbmi\_z*) is the BMI index for age, which is gender specific, and was derived based on the CDC’s growth chart. This index can be used to measure thinness or obesity, as well as, to assess nutritional deficiency or chronic energy deficiency.

For children having one or more problems listed in Table 1, all related growth indices such as *cbmi*, *cbmi\_z*, *bmi\_p*, *hap*, *haz*, *wap*, *waz*, *whp*, *whz* were set to missing. It should be noted that the height and weight of the children with one of more measurement problems, however, remained in the data. Data users may consider using the indicator variable *cflag* (*problem in child’s measurements*) to exclude records with implausible height (*chtc*) and/or weight (*cwtkg* or *cwtlb*) in the analyses.

### 3. Nutritional Status and Growth Status

The National Center for Health Statistics (NCHS) criteria, recommended by the World Health Organization, were adopted to classify the nutritional status of children based on their growth indices. Children with a weight for age index (*waz*) below -2.00 were considered as malnourished, between - 2.00 and +2.00 as eutrophic, and over +2.00 as obese as shown in Table 2.

(\*) Biological implausible values are identified as follows:

- Weight-for-age z-score (*waz*):  $waz < -5$  or  $waz > 5$ ; or
- Height-for-age z-core (*haz*):  $haz < -5$  or  $haz > 3$ ; or
- Weight-for-height z-core (*whz*):  $whz < -4$  or  $whz > 4$

**Table 2.** Nutritional Status of Children based on Weight for Age Index (*waz*)

Status	Boy		Girl	
	n	%	n	%
Malnourished	15	1.4	6	0.6
Eutrophic	1,028	92.4	950	90.0
Obese	69	6.2	95	9.4
Total	1,112	100.0	1,051	100.0

In addition, the number and proportion of children with potential growth retardation are presented in Table 3.

**Table 3.** Number and Proportion of Children with Potential Growth Retardation

Status	Boy		Girl	
	n	%	n	%
Stunting ( <i>haz</i> < -2)	30	2.7	9	0.9
Underweight ( <i>waz</i> < -2)	15	1.4	6	0.6
Wasting ( <i>whz</i> < -2)	19	1.7	15	1.4

## Mother’s Anthropometric Measurements

### 1. Assessment of Height and Weight Measurements

As in the first wave, a weight value was marked as implausible if it was over 500 pounds (227.2Kg) or under 50 pounds (22.7 kg) and a height value was marked as implausible if it was at or below 4 feet 6 inches (138 cm) or above 7 feet (213 cm). Less than 1% of the mothers participated in the measurements had at least one implausible measurement. The number and proportion of mothers based on status of their anthropometric measurements are shown in Table 4. As noted earlier, anthropometric measurements obtained from the assessment included a handful of caretakers who are not the mother of the focal child. Table 4 and 5 show data gathered for mothers only.

**Table 4.** Anthropometric Measurements of Mothers

Status of Measurements (variable: <i>mflag</i> )	Frequency	Percent
Measures plausible	2,194	94.86
Missing weight or height	106	4.58
Height implausible (too tall or too short)	12	0.52
Weight implausible (too heavy or too light)	1	0.04
Total	2,313	100.00

## 2. Body Mass Index (BMI) and Nutritional Status of Mother

The BMI or Quetelet index of the mother was computed as the weight in kilograms divided by the square value of the height in meters ( $\text{kg}/\text{m}^2$ ). BMI has been used as a universal measure of obesity. Value of BMI was set to missing if either height or weight was determined as implausible. The implausible height or weight values, however, remained in the data. Data users may consider using the indicator variable *mflag* to exclude records having implausible height or weight in the analyses.

The Food and Agriculture Organization (FAO) criteria were used to assess the nutritional status of the mothers based on the BMI index. Index with value up to 18.69 was considered as malnourished, between 18.70 and 23.89 as eutrophic, between 23.90 and 28.59 as overweight, and above 28.59 as obese. Table 5 presents the nutritional status of the mothers based on the body mass index.

Table 5. Nutritional Status of Mothers based on BMI

Status	Number	Percent
Malnourished	58	2.6
Eutrophic	420	19.1
Overweight	601	27.4
Obese	1,115	50.8
Total	2,194	100.0

## **Anthropometric Variables**

Table 6. Anthropometric Variables included in released data

<u>Variable Name</u>	<u>Description</u>
Sex_child	Gender of focal child (1= boy, 2=girl)
Agemos	Age of child in months
Cwtkg	Weight of child in kilograms
Cwtlb	Weight of child in pounds
Chctm	Height of child in centimeters
Cbmi	Child’s Body Mass Index
Cbmi_z	Z-score of child’s BMI or Child’s BMI index
Cbmi_p	Child’s BMI percentile
Mombmi	Mothers’ BMI
Mombmi_z	Z-score of Mom’s BMI
Mompreg	Indicator to identify whether or not mother was pregnant at time of survey
Waz	Child’s weight for age Z value
Wap	Child’s weight for age percentile
Haz	Child’s height for age Z value

Hap	Child’s height for age percentile
Whp	Child’s weight for height percentile
Whz	Child’s weight for height Z value
Cflag	Indicator to identify any problems in child’s measurements
Mflag	Indicator to identify any problems in mom’s measurements
Selfwt	Indicator to identify whether or not weight of the mother was self reported
Selfht	Indicator to identify whether or not the height of mom was self reported
Mwtkg	Mother’s weight in kilograms
Mwtlb	Mother’s weight in pounds
Mhtcm	Mother’s height in centimeters

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#### 4.8. PPVT and TVIP Scores

This section was compiled by Lawrence Berger, a Post-doctoral fellow with the Center for Health and Wellbeing, Princeton University in 2002-2004.

##### *Scoring the PPVT*

This explanation focuses on scoring and assumes some familiarity with the PPVT test materials and basic administration; technical information (test construction and standardization, norm development, reliability and measurement error, and validity) is covered at length in Part 3 of the Examiner's Manual (Dunn and Dunn, 1997).

##### **Part 1: Calculating a Raw Score**

There are two parts of this process, a) establishing a Basal and b) calculating a Ceiling.

Establishing a Basal - The Basal is the lowest set of items administered containing fewer than two errors. For the Five-year LSPAC survey, respondents fall into two categories: the children, who are in the "age 2.6 - 3" category and therefore start with item one (the first set is always their basal); and the caregivers, who will all be in the "ages 17 - adult" category and will therefore begin with item 145 on set 13. This set does not necessarily set the adult's Basal; if she makes more than one error in the set (items 145-156) the examiner will administer lower sets (set 12, set 11, etc.) until the respondent completes a set with no more than one error – this set is then the respondent's Basal (set 13 is an adult's Basal if she completes the set with no errors or one error).

Calculating the Ceiling – Once a Basal has been established, the examiner will administer higher sets of items until the respondent (child or adult) makes eight or more errors in a set. The examiner should always complete administering a set of items, even if the respondent makes eight errors before all items in the set have been administered. The highest set administered containing eight or more errors is the Ceiling Set; the last item in this set is the "Ceiling Item." N.B. This can be confusing – for example, if an adult begins with set 13, makes eight errors (no Basal) and is therefore given set 12, where he also makes eight errors, then moves to set 11 and completes this set without making any errors (establishing a Basal), his Ceiling Set is 13, not 12, and the Ceiling Item is 156.

Once Basal and Ceiling Sets are established, calculating the raw score is a straightforward process: add up all errors in every set that was administered and then subtract the total from the ceiling item. There are several practice exercises in the examiner's manual that illustrate both simple and more complex scoring scenarios.

##### **Part 2: I have a raw score. Now what?**

A Norms Booklet included with our Test Kit includes a set of tables for easy conversion from raw scores to standard score equivalents by age, percentile ranks, normal curve equivalents, stanines, and age equivalents (refer to Appendix B on page 82 for the

conversion of standard score table). The Examiner's Manual also provides directions for how to obtain reliability confidence bands for most of these measures.

As noted earlier, the Examiner's Manual, Part 2, Section D (pp. 26-35) provides a set of exercises that can help curious minds learn how to determine Basal and Ceiling Sets, calculate raw scores, locate and record normative scores, and estimate reliability confidence bands. We also purchased a copy of the AGS Computer ASSIST program, which may further simplify the process of moving from raw scores to the various normative scoring options.

There are two parallel PPVT-III forms, IIIA and IIIB. For the pilot, we used only IIIA.

### **Part 3: Great. So what about the TVIP?**

Test de Vocabulario en Imagenes Peabody (TVIP) is a measure of hearing vocabulary for Spanish-speaking children and adolescents. It was developed from parallel forms of a past edition of the PPVT using the most appropriate items for the Spanish population. You cannot directly correlate the PPVT and TVIP because they were normed on separate populations in different languages.

In contrast to the PPVT's 408 items (204 on form IIIA and 204 on form IIIB), the TVIP offers a single form with 125 items. It is appropriate for ages 2.5-18, while the PPVT includes national norms for ages 2.5-90+.

Scoring for the TVIP differs from scoring for the PPVT in several important ways. The most important are the following: a) a Basal for the TVIP is the highest eight consecutive correct responses; and b) the Ceiling is the lowest eight consecutive responses containing six errors. To help understand these basic rules, several illustrative examples are included on pp. 15-23 of the TVIP Examiner's Manual – English Edition (Dunn et al. 1986).

There will be several sources of confusion as a result of these differences for those familiar with only the rules for scoring the PPVT. For one, in the TVIP only errors made after the Basal are included in the error count used in determining the raw score (contrast with the PPVT rules that you must use the lowest Basal Set and include errors in every set that has been administered). The rule governing Ceilings is also a bit awkward in that without "sets" per se the examiner must constantly look at the current question as well as the preceding seven items to determine when the respondent has answered six of eight items incorrectly. Also, without pre-established "sets," as soon as a respondent gets one of the first eight items wrong, the interviewer must backtrack question by question until the respondent puts together a string of eight correct responses to establish a Basal. Thankfully, with the Basal and Ceiling established, the raw score is calculated as with the PPVT: Ceiling Item minus errors (remember, the TVIP only uses errors above the Basal) equals raw score.

More technical information for the PPVT-III is available at the following website:

**<http://www.agsnet.com/assessments/technical/ppvt.asp>**

and for the TVIP at:

**<http://www.agsnet.com/assessments/technical/tvip.asp>**

## **Scoring PPVT and TVIP in Five-year Survey**

This section was prepared by Welmoet Van Kammen and Cheryl De Saw, survey researchers of Mathematica Policy Research, Inc.

Below is documentation on how we scored the PPVT and TVIP. This documentation also includes some irregularities we came across and how we dealt with them. Because the scores are age sensitive, and administration took place over an extended time period, we plan to run analyses by city on the birth date and assessment dates in order to look at outliers.

We also have some tests with two ceilings. We scored these tests based on the highest ceiling reached. However, we can re-score them using the first ceiling reached if you prefer.

### **ADULT TVIP**

The following decisions were made to optimize the number of records that could be scored

If several items were scored at the beginning of the test and then most remaining items before item 91 were skipped, we made the items scored at the beginning of the test missing because we assumed that the interviewer had started testing in the wrong place, then stopped and continued with item 91. (n=2)

The following variables were created to mark irregular administration:

- TVMIS: calculates the number of missing items between the basal and the ceiling.
- TVNBASAL = all records with no basal before adjustment. If no basal could be calculated, records were flagged and the basal was adjusted to 91.
- The following other irregular administrations were flagged.
  - TVINBACK = interviewer back tested before item 91 but did not reach basal.
  - TVNBACK = interviewer started at item 91, did not reach a basal and did not back test.
  - TVBACK91 = interviewer started at item 91, did not reach basal on first 8 items but reached basal after 91.
  - TVNCEIL = if no ceiling was reached and test not administered to end.

## ADULT PPVT

If several items were scored at the beginning of the test and then most remaining sets before set 13 were skipped, we made the items scored at the beginning of the test missing because we assumed that the interviewer had started testing in the wrong place, then stopped and continued with set13.

- PPVTAGE = age calculated in months

The following variables were created to mark irregular administrations.

- Pvnbasal = no basal was reached
- Pvtwceil = two ceilings were reached.
- pvnceil = no ceiling was reached
- pvceilr =1 ast block administered if no ceiling was reached. This block is used for calculating ppvtraw.
- pvpercom = percent of items for total score missing. If a high percent of the items is missing, total raw and standard score should not be used.

## CHILD PPVT

It is possible to calculate all records that have neither a PPVT or TVIP administration based on the file provided for scoring.

If no basal was reached, basal = 1.

All records with no PPVT administration were flagged in MISPPVT = 1.

- PPVTAGE = age calculated in months

The following variables were created to mark irregular administrations:

- Pvnbasal= no basal was reached
- Pvtwceil= two ceilings were reached
- pvnceil = no ceiling was reached.
- pvceilr =last block administered if no ceiling was reached. This block is used for calculating ppvtraw.
- pvpercom= percent of items for total score missing. If a high percent of the items is missing, total raw and standard score should not be used.

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## Appendix A. Programs to Rename All Variables in Data of the In-home survey.

Assuming that you need to rename all variables in the data distributed for the Three-year In-home survey and the data (*Inhome3yr.dta*, or *Inhome3yr.sav*, or *Inhome3yr.sas7bdat*) has already been placed in the folder **C:\temp**. To do so, depending on the statistical software you use (STATA, SAS, or SPSS), you can cut and paste one of the following programs into a text editor, save the code, then run it to rename all original variables. For example, choose program 1 if you are using STATA software. Once processed, the new name of each variable will be the original name prefixed with “*IH3\_*” and data will be saved in new dataset, *InHome3yr\_ren*.

### 1. STATA: Program Rename IHvars.do

```

/*-----
Program: Rename_IHvars.do
Task  : rename all variables in 3yr In-home data sets. The new variable
        name will be prefixed with IH3_
Output : Inhome3yr_ren.dta
Required: data set Inhome3yr.dta in folder c:\temp
By      : TV
-----*/

set mem 80m
log using C:\temp\rename_IHVARs.log , replace
use C:\temp\Inhome3yr, clear
foreach x of varlist _all {
    rename `x' ih3_`x'
}

desc

save c:\temp\Inhome3yr_ren.dta, replace
log close

```

### 2. SAS: Program Rename IHvars.sas

```

/*-----
Program: Rename_IHvars.sas
Task  : rename all variables in the In-home data sets. The new variable
        name will be prefixed with IH3_.
Required: Data set Inhome3yr.sas7bdat must be in folder C:\temp
Output:  rename_code3yr.txt (intermediate file to use in program)
        Inhome3yr_ren.sas7bdat (data with new variable names)
By      : TV
-----*/

options nocenter ls = 125 ps = 60 nofmterr;
libname temp "c:\temp";

data oldname;
    set temp.inhome3yr;
proc contents data =oldname noprint out=varnames;

**** Section to write rename code to an external file (rename_code3yr.txt)****;
filename pre 'c:\temp\rename_code3yr.txt';

data _null_;
file pre;
set varnames end=eof;
if _n_=1 then put "rename ";
newvarname='IH3_'||trim(name);

```

```

put name '= ' newvarname;
if eof then put ';';
***** End Section to write rename code to an ext file (rename_code3yr.txt) *****;

*call in file with original names;
data newname;
set oldname;
*call in rename code;
%include 'c:\temp\rename_code3yr.txt' ;

*save file with new variable name;
data temp.inhome3yr_ren;
  set newname;

*check data contents;
proc contents;

endsas;

```

### 3. SPSS: Program: Rename IH3.sps

```

*-----
* Program: Rename_IH3.sps.
* Task   : rename all variables in Inhome3yr.sav by attaching the prefix "ih3_"
          to each original variable name.
* Call in: data set: Inhome3yr.sav
          program : rename_code3.sps (will be generated within this program).
* Output : Rename_code3.sps (intermediate program to use in Step 3)
          Inhome3yr_ren.sav  new version of the 3-year In-home data in which
          all variables have new name.
* Note   : To run the program without any modification: both program and data
          set should be placed in folder C:\temp.
* By     : TV
*-----
*STEP 1/ Call in data set inhome3yr to examine dictionary; generate rename codes.
GET FILE='c:\temp\inhome3yr.sav'.
DISPLAY DICTIONARY.

*STEP 2/ generate rename code to rename all vars with a prefix "ih3_" attached to
          original name; the code will be saved in 'Rename_code3.sps' and will be
          called back for use in Step 3.

N OF CASES 1.
FLIP.
STRING newname(A20).
COMPUTE newname=CONCAT("ih3_",SUBSTR(case_lbl,1)).
WRITE OUTFILE 'c:\temp\Rename_Code3.sps'
  /"RENAME VARIABLE ("case_lbl"="newname").".
EXE.

```

```
*STEP 3/ Call in the original data and the renaming code generated in Step 2, then
      save file with new variable names in new data set: 'inhome3yr_ren.sps'.
GET FILE='c:\temp\inhome3yr.sav'.
INCLUDE "c:\temp\rename_code3.sps".
SAVE OUTFILE ="c:\temp\inhome3yr_ren.sav".

*Check:  Examine dictionary of new data and generate few frequencies to check.
GET FILE='c:\temp\inhome3yr_ren.sav'.
DISPLAY DICTIONARY.
*FREQUENCIES VAR=ih3_int5_oth  ih3_child_sex ih3_a16d1_4s ih3_b7_14oth
              ih3_e13_3oth ih3_inttype_mod2.
EXE.
```

Note that the above codes need to be modified accordingly if you want to rename variables in the data of the Five-year In-home survey.

Appendix B. PPVT Standard Score and Equivalences

Table 2  
Percentile Ranks, Normal Curve Equivalents, and Stanines Corresponding to Standard Scores

Standard Score	Percentile Rank	Normal Curve Equivalent	Stanine	Standard Score
160				160
159				159
158				158
157				157
156				156
155				155
154				154
153				153
152				152
151				151
150				150
149	>99.9			149
148	99.9			148
147	99.9			147
146	99.9			146
145	99.9			145
144	99.8			144
143	99.8		9	143
142	99.7			142
141	99.7			141
140	99.6			140
139	99.5			139
138	99			138
137	99			137
136	99	>99		136
135	99	99		135
134	99	98		134
133	99	96		133
132	98	95		132
131	98	94		131
130	98	92		130
129	97	91		129
128	97	89		128
127	96	88		127
126	96	87		126
125	95	85		125
124	95	84		124
123	94	82	8	123
122	93	81		122
121	92	79		121
120	91	78		120
119	90	77		119
118	88	75		118
117	87	74		117
116	86	72		116
115	84	71	7	115
114	82	70		114
113	81	68		113
112	79	67		112
111	77	65		111
110	75	64		110
109	73	63		109
108	70	61	6	108
107	68	60		107
106	66	58		106
105	63	57		105
104	61	56		104
103	58	54		103
102	55	53		102
101	53	51	5	101
100	50	50		100
99	47	49		99
98	45	47		98
97	42	46		97
96	39	44		96

Standard Score	Percentile Rank	Normal Curve Equivalent	Stanine	Standard Score
95	37	43		95
94	34	42		94
93	32	40		93
92	30	39	4	92
91	27	37		91
90	25	36		90
89	23	35		89
88	21	33		88
87	19	32		87
86	18	30		86
85	16	29	3	85
84	14	28		84
83	13	26		83
82	12	25		82
81	10	23		81
80	9	22		80
79	8	21		79
78	7	19		78
77	6	18	2	77
76	5	16		76
75	5	15		75
74	4	13		74
73	4	12		73
72	3	11		72
71	3	9		71
70	2	8		70
69	2	6		69
68	2	5		68
67	1	4		67
66	1	2		66
65	1	1		65
64	1	<1		64
63	1			63
62	1			62
61	0.5			61
60	0.4			60
59	0.3			59
58	0.3			58
57	0.2		1	57
56	0.2			56
55	0.1			55
54	0.1			54
53	0.1			53
52	0.1			52
51	<0.1			51
50				50
49				49
48				48
47				47
46				46
45				45
44				44
43				43
42				42
41				41
40				40

Source: Norms Booklet for the PPVT-III, Peabody Picture Vocabulary Test, Third Edition-1997, by Lloyd M. Dunn and Leota M. Dunn. Published by American Guidance Service (AGS).