Three-Year In-Home Longitudinal Study of Pre-School Aged Children

User's Guide

March 2008

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Introduction

This guide provides the basic information that a data user may need to make use of the data generated from the Three-Year In-Home Longitudinal Study of Pre-school Aged Children. Essentially, the guide includes an overview about the Study; procedure of data collection, description of questionnaire changes, sample counts and response rates; elaboration about data cleaning process, description of data structure and contents; and some usage notes about selected measurements gathered for the survey. Data users are advised to also refer to the codebook for more details about variables included in the data released.

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 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 twenty 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 Study is a collaborative work of researchers from Princeton University and Colombia 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 Study 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 Study 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, administers 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 has been completed in early 2004 for all twenty cities; and (2) second, the Five-Year survey collects data when the children are about five years old. 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: the parent interview and the activity component. The parent interview gathers a wide range of information focusing on the health and well-being and behavior of the child. The activity component obtains measurements from standard cognitive tests, anthropometry, as well as, some observations of the interviewer during the home visit.

1.5. The Three-Year Survey

The In-Home Longitudinal Study of Pre-School Aged Children 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, informal social control and social cohesion and trust, exposure to violence, child's behavior

problems, housing common areas, interior of house, child's appearance, home scale, and child's emotion and cooperation. The caregiver of the child responded to most questions in the parent survey questionnaire. The remaining questions in the survey were designed for the in-home interviewers to fill in their observations about the home environment, child's appearance, and the parent-child interaction. The activity booklet was used to record the anthropometric measurements of both mother/caretaker and child; responses provided for the Peebody Picture Vocabulary Test (PPVT) and/or the Test de Vocabulario en Imagenes Peebody (TVIP) scores, as well as, observations of the interviewer about the child's home environment, child's behavior, hygiene, and parent-child interaction.

It should be noted that for the convenience of data collection, the activity booklet includes a few sections (C, D, and F) to gather data for a separate survey on Child Care and Parental Employment, which covers the parent/caretaker's Employment History; child's Walk-A-Line time; and mother's responses to the Q-Sort questions. Data from the Child Care and Parental Employment study will be released separately in a near future. More information about this study can be found at
http://www.fragilefamilies.princeton.edu/documentation.asp

The survey instruments used for the two pilot cities and for the remaining 18 cities have been similar but not identical. Chapter 2 provides more information about the differences or modifications of the instruments.

More than seventy nine percent of the respondents of the Three-Year Core survey participated in the Three-Year In-Home Longitudinal Study of Pre-School Aged Children module (in short, the Three-Year In-Home module). Of these, about seventy-eight (78) percent of the participants completed both components of the survey. Most of the remaining participants completed only the parent interview over the telephone 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 city where the child was born. A very small fraction of the respondents completed only a part of the activity component.

The survey was conducted mostly in 2001 in the two pilot cities; and in 2002-2003 in the remaining eighteen cities. A handful of respondents, because of some difficulties to locate, completed the survey in 2004.

1.6. The Three-Year In-Home Data Files

The Three-Year In-Home data is suitable for analyses with the scope of inference as cities with large population (about 200,000 or more) 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 Three-Year In-Home public-use data are available for free to researchers and analysts at the Fragile Families Project website. 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
- not share your username and password with anyone
- include specified citations in work based on the Study data
- inform us about publications based on the Study data
- report apparent errors in the data or documentation to:

    Thu Vu
    Statistical Programmer
    Center for Health and Wellbeing, Wallace Hall
    Woodrow Wilson School
    Princeton University
    E-mail: tvu@princeton.edu

Chapter 2.   The Survey Process, Changes in Survey Instruments, and Response Rates

This chapter describes the survey process, presents changes in the survey instrument and some descriptive 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 Three-Year Core survey, however, were invited to participate in the Three-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, the Three-Year survey the Three-Year Core survey and the associated In-Home survey also collected data in two separate time periods, nearly a year apart. The process of administering the Three-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 Three-Year In-Home Longitudinal Survey of Pre-School Aged Children 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 wave survey in the two pilot cities with LSPAC completed in-home.

- Version 1.2.b was used for second wave survey, LSPAC conducted in-home.

- Version 1.2.c was used for second wave survey, LSPAC completed on telephone

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

Figure 1.2.a. Conducting Three-Year In-Home Survey in Pilot Cities

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

Figure 1.2.b. Conducting the Three-Year In-Home Survey in 18 Cities.
          Version Core completed on telephone or contact made in field,
           LSPAC conducted In-home

*NOTE: After explaining Q-sort to parent/caretaker and working through several examples, interviewer may work with child on Walk-a-line and/or PPVT/TVIP. This cut down on time and interference in kid's activities by parent/caretaker.
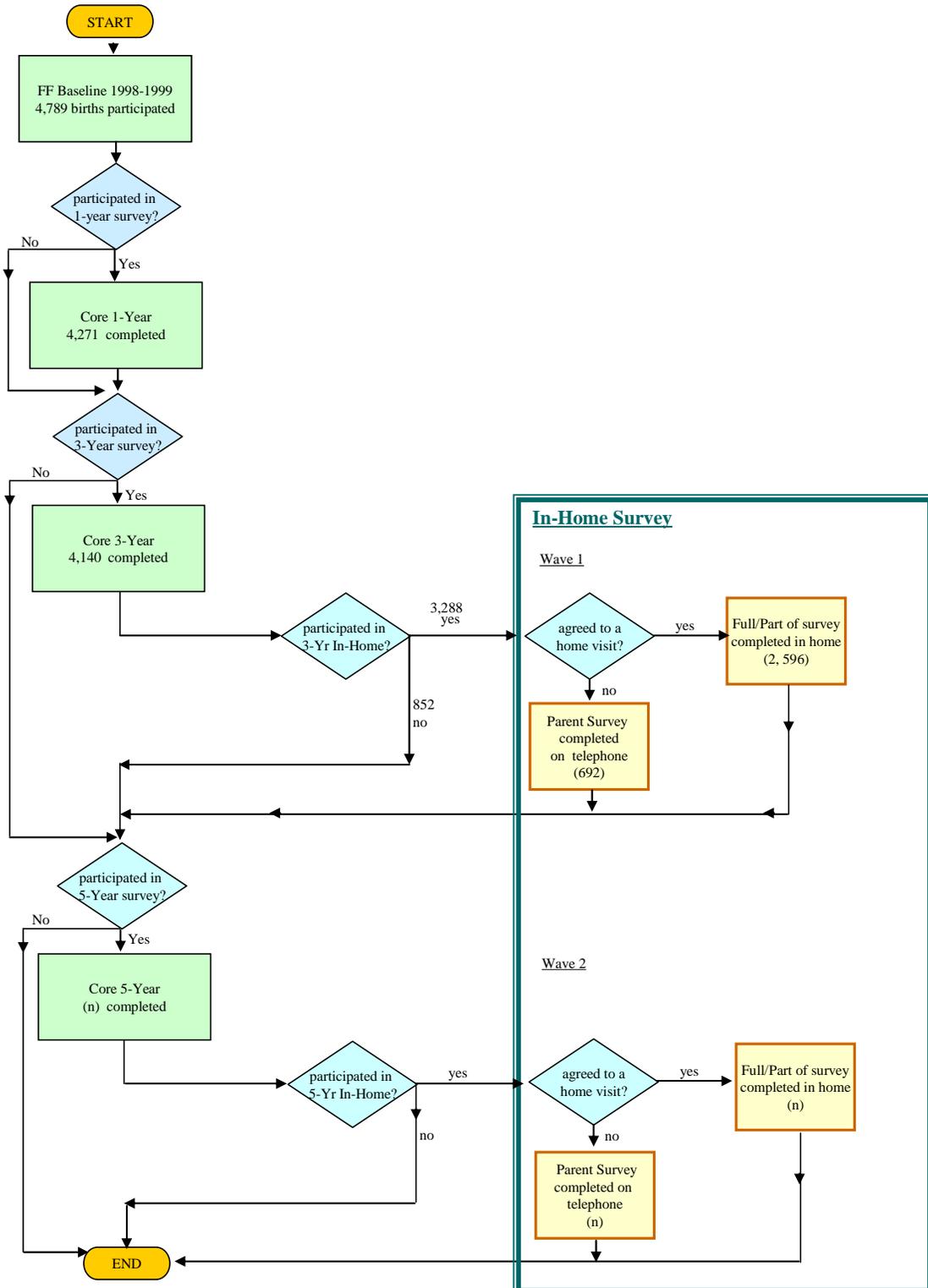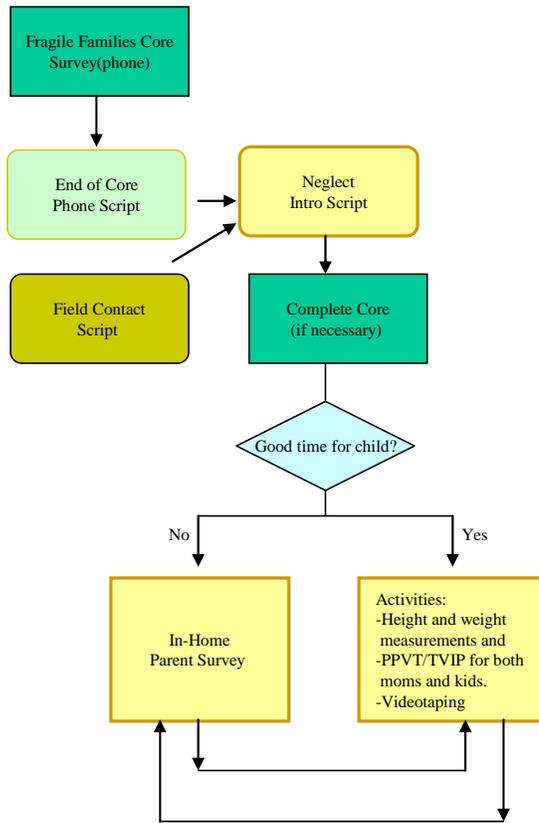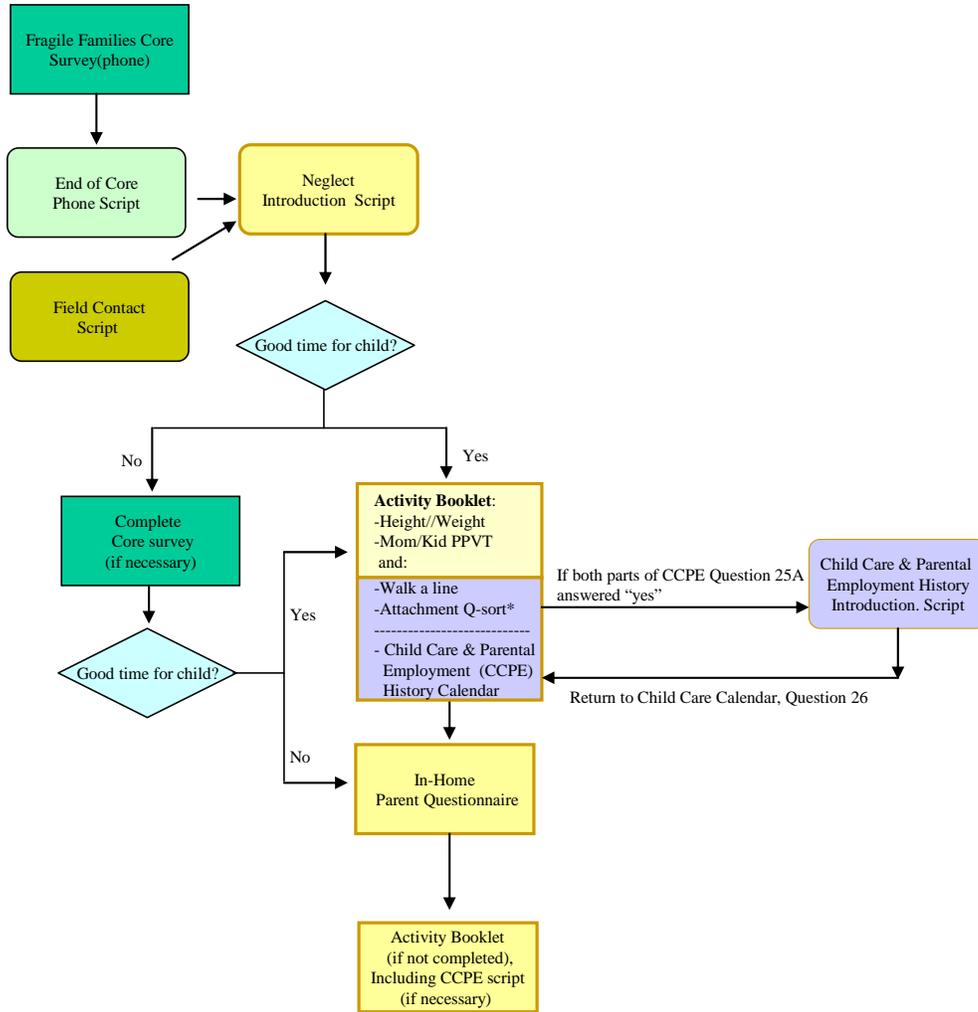
Figure 1.2.c. Conducting the Three-Year In-Home Survey in 18 Cities
              Version Core completed on telephone or contact made in field;
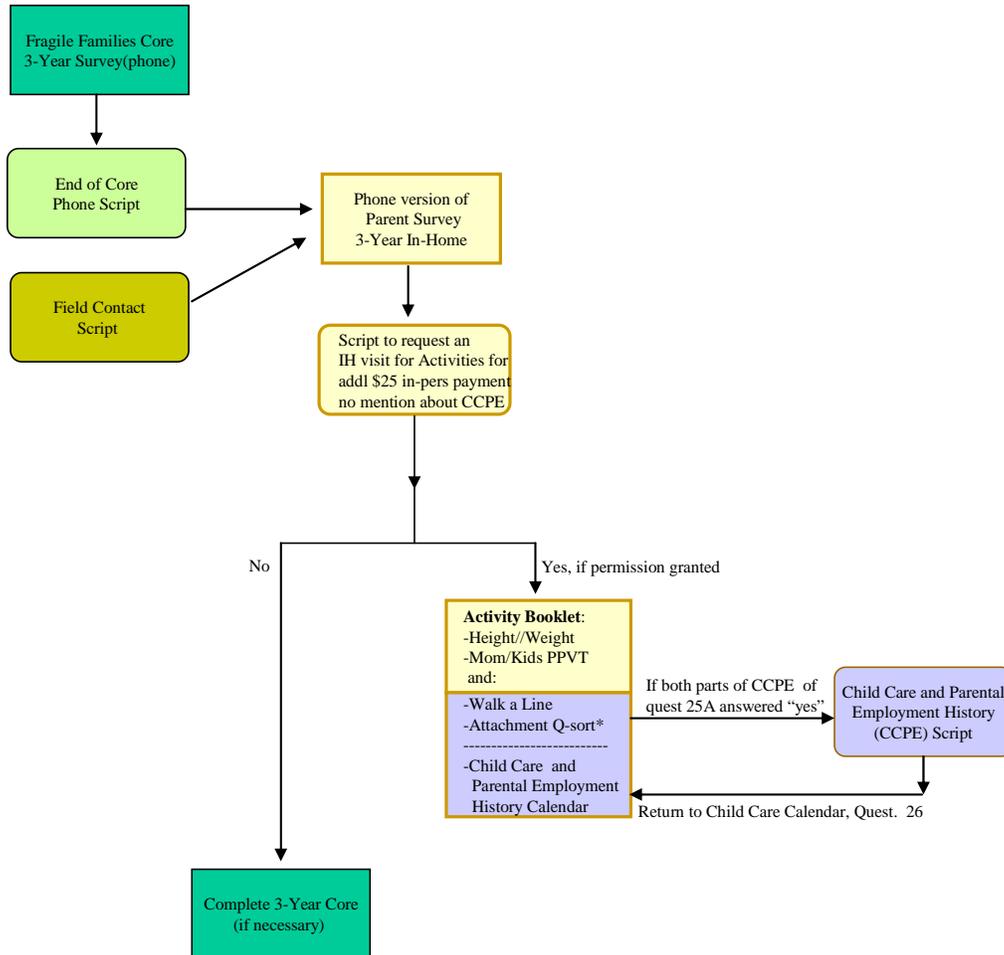   LSPAC conducted On-Phone

```
┌─────────────────────┐
│ Fragile Families Core│
│ 3-Year Survey(phone) │
└─────────────────────┘
          │
          ▼
┌─────────────────┐              ┌──────────────────┐
│  End of Core    │──────────▶   │ Phone version of │
│  Phone Script   │              │  Parent Survey   │
└─────────────────┘              │  3-Year In-Home  │
                                 └──────────────────┘
┌─────────────────┐                      │
│ Field Contact   │──────────▶           ▼
│    Script       │              ┌──────────────────────┐
└─────────────────┘              │ Script to request an │
                                 │ IH visit for Activities for│
                                 │ addl $25 in-pers payment│
                                 │ no mention about CCPE │
                                 └──────────────────────┘
                                          │
              No                          │ Yes, if permission granted
```

Activity Booklet:
-Height//Weight
-Mom/Kids PPVT
and:
-Walk a Line
-Attachment Q-sort*

-Child Care and
 Parental Employment
 History Calendar

If both parts of CCPE of quest 25A answered "yes"

Child Care and Parental Employment History (CCPE) Script

Return to Child Care Calendar, Quest. 26

Complete 3-Year Core (if necessary)

Legends:

Core Survey	In-Home Survey	Child Care & Parental Employment Survey

*NOTE: After explaining Q-sort to parent/caretaker and working through several examples, interviewer may work with child on Walk-a-line and/or kid's PPVT; this cut down on time and interference in kid's activities by parent/care taker.

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

The first data collection (in 2001) of the Three-Year In-home survey was conducted for two pilot cities only. Data collection in this period was closely monitored and the data gathered were analyzed, evaluated in order to design strategies to improve data collection in the remaining cities, as well as, to identify necessary modifications to the contents and structure of the questions to improve the usefulness and quality of data collected.

Several major structural changes were made, based on the pilot results and experiences, for the second data collection (2002-2003) in the remaining eighteen cities. These changes are:

1. A videotape section was eliminated

2. The survey on Child Care and Parental Employment was incorporated for the convenience of data collection during the home visit to conduct the In-home survey. Consequently, the following components of this new survey were added to the activity booklet: Walk-a-line; Attachment Q-sort; Child care and Employment History calendars.

   - When both parts of Child Care and Parental Employment question 25A are answered "yes," the respondent is read a script introducing the Child Care and Parental Employment Project and asking for permission to contact the child care provider.

3. Activity booklet timing – when LSPAC is conducted in-home (refer to flowchart version 1.2.b) for the second data collection of the survey, the interviewer can conduct the 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 just to do the activity booklet (this process has been followed in the pilot cities).

4. Amount of incentive payments offered to the respondents for participation in the project also changed following the pilot survey.

Item-specific questionnaire changes are noted in the relevant sections noted below (this section was compiled by Lawrence Berger, formerly a Post-Doctoral Research Associate with the Center for Health and Wellbeing, Princeton University.)

Health and Accidents (Section A)

Changes made following pilot:
A15 – number corresponding with "no visits for an accident or injury" changed from 02 to 00
A16C – added response option, "swallowed an object" (08)

Family Routines (Section B)

Changes made following pilot:
B6 – added response option, "both parents" (07)
B7 – added response options, "brush teeth" (13) and "watch TV or video" (14)

Home Toy and Activity Items (Sections C)

Changes made following pilot:
C4 – moved to Activity Booklet; the item was placed after weighing and measurement to insure that the child is present and also to make praise more natural.

Nutrition (Section D)

No change in instrument was made. The household food security scale can be constructed based on data gathered in this section. Refer to Chapter 4 for useful information about the household food security scales.

Food Expenditures (Section E)

Data gathered from the pilot cities on food expenditures was compiled using questions on cost of food used at home, cost of food delivered, and cost of eating out in section E, as well as, food stamp data (question E1A1 in the 18 cities following the pilot; for the pilot, we used food stamp information from questions in the core Survey of New Parents). Our composite food expenditure measure was found comparable to the similar measure generated from data of the 1999 Panel Study of Income Dynamics (PSID).

Changes made following pilot:
E1 – changed from "last 12 months..." to "last month" when asking about food stamp receipt
E1A1 – added question asking about amount received in food stamps during last month
E1A2 – was E1A in pilot
E2 – changed from "in an average week" to "last month" when asking about food used at home

E2_per – eliminated "per year" from response options
E4 – changed from "in an average week" to "last month" when asking about food delivered
E4_per – eliminated "per year" from response options
E5 – changed from "in an average week" to "last month" when asking about eating out
E5_per – eliminated "per year" from response options
E9-E13 were added after the pilot – these questions ask about participation in the WIC program

Housing/Building Characteristics (Section F)

Changes made following pilot:
F5 – question added: "How many people (adults and children) live here now?"

Parental Stress (Section G)

Many of the items in this section were borrowed and/or adapted from the Early Head Start Study's items regarding parenting stress, while other items were original questions of this survey. Since this is not a complete or formalized scale, we offer no standardized method for coding or analyzing these items.

No change in instrument was made.

Parental Mastery (Section H)

Items in this section have been borrowed from the Early Head Start version of the HOME Inventory (See documentation for the HOME Inventory) and the Parental Mastery Scale (Pearlin and Schooler, 1978). Only five items H3:A-E in our survey come from the Parental Mastery scale among several items used for the scale, we do not recommend a coding or analysis scheme for this section.

Changes made following pilot:
H1 – response options added: "take away dessert" (code 18) and "try to get (him/her) to eat again later" (code 15). Some other response options were recoded to accommodate the two additional options.

Discipline (Section J)

Section J about "Discipline," uses 14 of the 22 items on the Parent-Child Conflict Tactics Scales (CTSPC). The original Conflict Tactics Scale (1979) was designed for use with partners in a marital, cohabiting, or dating relationship. The CTSPC was created in 1995 in response to limitations of the original scale as a measure of child maltreatment (Straus, et al. 1998). Refer to page 44-48 for useful research notes about the Conflict Tactics Scales.

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
		Year	Ever	Chronicity**
	Nonviolent Discipline	**97.7**	**99.9**	**46.0**
J1.	Explained why something was wrong	94.3	94.5	18.3
J5.	Gave him/her something else to do instead of what he/she was doing	77.0	83.1	12.2
J12.	Took away privileges from him/her	76.0	78.5	10.8
J2.	Put in "time out" (or sent to room)	75.5	81.3	13.0
	Psychological Aggression	**85.6**	**89.9**	**21.7**
J6.	Shouted, yelled, or screamed at	84.7	86.7	12.8
J10.	Threatened to spank or hit but didn't actually do it	53.6	61.8	10.6
J8.	Swore or cursed at	24.3	26.0	6.5
J14.	Called him/her dumb or lazy or some other name like that	16.3	17.5	5.7
J9.	Said you would send him/her away or would kick him/her out of the house	6.0	7.0	3.9
	Physical Assault	**n/a**	**n/a**	**n/a**
J7.	Spanked him/her on the bottom with your bare hand	46.9	63.6	7.5
J4.	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
J11.	Slapped him/her on the hand, arm, or leg	36.9	51.2	7.3
J13.	Pinched him/her	4.3	5.9	6.4
J3.	Shook him/her	9.0	15.0	2.8
	Neglect	**27.0**	**30.6**	**6.9**
J15.	Had to leave your child home alone, even when you thought some adult should be with him/her	19.5	21.3	6.0
J16.	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
J17.	Were not able to make sure your child got the food he/she needed	11.0	13.7	5.5
J18.	Were not able to make sure your child got to a doctor or hospital when he/she needed it	.4	1.2	2.0
J19.	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, g) not in the past year, but it happened before, or h) this has never happened.

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.[1]
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[2], 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.[3]

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

Changes made following pilot:
-J20-J22 were added to ascertain whether another adult besides [respondent] lives in the household and spends time caring for the child, and if so, who is the other adult.
- J23A-J23N re-administer series of questions J1-J14 with reference to the secondary caregiver identified in questions J20-J22, where applicable.

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[1] 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
[2] Also see Straus, http://pubpages.unh.edu/~mas2/CTS28.pdf section on "Cutting Points For … Scales"
[3] 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.

Informal Social Control and Social Cohesion and Trust (Section K)

Items K1:A-E of this Section were reconstructed from the Informal Social Control Scale (see Sampson, 1997; Sampson, et al., 1997), items K2:A-E from the Social Cohesion and Trust Scale (see Sampson, 1997; Sampson, et al., 1997), and items K3:A-H from the Neighborhood Environment for Children Rating Scales (Coulton, 1995, See Coulton, Korbin, and Su, 1999). We are unable to offer a standardized method for scoring/analyzing these items, as the measures have been altered from the original instruments.

No change in instrument was made.

Exposure to Violence (Section L)

The items in this section L1-L7 were adapted from the 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.

Changes made following pilot:
Paragraph introducing the section changed from:
"*We do not want to know about things done by members of your family or people you know well, but only about violent things done by others. Some of these may be painful to discuss, and we appreciate your willingness to answer them.*"

to:

"*For these questions, we do not want to know about violence carried out by your circle of family or loved ones. Rather, we are interested in learning only about violence carried out by people outside of your circle of family or loved ones, no matter who the victim might have been. We also do not want to know about violence you saw on TV or in movies.*"

Child's Behavior Problems (Section M)

This section was compiled by Michelle De Klyen, a research associate of the Center for Research on Child Wellbeing (CRCW) of Princeton University (version: 7/15/03). A few notes were added to De Klyen's compilation to clarify items included in our survey.

1) Name of instrument: *Child's Behavior Problems*

This measure includes some of the items and scales from the *Child Behavior Checklist* 2-3 (*CBC/2-3;* Achenbach, 1988; 1992), the 2000 *CBC* 1.5-5 (also known as the *Achenbach System of Empirically Based Assessment*, or *ASEBA*; Achenbach & Rescorla, 2000), and the *Adaptive Social Behavior Inventory* (*ASBI*; Hogan, Scott, & Bauer, 1992).

2) Assessment (time and method)

   When children were approximately 36 months of age, mothers were asked these questions as part of the in-home supplement, during a telephone or home interview following the core study interview.

3) Items

   M1-M50 (65 items)

4) Description of Instrument:

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

   In the 18 city survey 65 questions were asked (only 50 were included in the pilot surveys: see below for details). These comprised 56 of the original 100 behavior problem items from the CBC and 9 of the positive behavior items from the ASBI and include: 1) the Aggressive Behavior, Withdrawn and Anxious/Depressed subscales for the 2000 version of the *CBC*/1.5-5, 2) the Aggressive Behavior, Withdrawn and Anxious/Depressed subscales for the 1992 version of the *CBC*/2-3, 3) the 1988 *CBC*/2-3 Aggressive Behavior subscale, 4) an abbreviated 9-item version of the *ASBI* Express subscale, and 5) additional *CBC* items recommended by Zill (see below). See attached chart to determine which items are included in which subscale.

5) Modifications

   In the Three-Year In-Home pilot survey, a set of 50 items were administered, including all items from the 1992 *CBC* Aggressive Behavior and Withdrawn subscales, all but one item from the 1992 *CBC* Anxious/Depressed scale ("nervous movements or twitching" was inadvertently substituted for "nervous, high strung, tense"), and 10 positive behavior items whose provenance is unknown.

   Before the survey was also administered in the remaining 18 cities, the measure was expanded to include all of the scales listed in the Description section, with "nervous, high strung, tense" added, "nervous movements or twitching" deleted, and 9 *ASBI* positive items substituted for the 10 positive behavior items previously used.

6) Rationale

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

Relatively few well-standardized behavioral measures are available for young children. Achenbach's *Child Behavior Checklists* (CBC) 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 1988 and 2000. However, the items chosen will allow us to score the Achenbach-like subscales for each of three versions. 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.

Four CBC items ("cruel to animals," "speech problems," "has trouble getting to sleep," and "disturbed by changes in routine") were added because Zill has reported that they indicate a high probability of a need for mental health services. Zill's list also includes "doesn't get along with other children," "easily jealous," "nervous, high strung, tense," "punishment doesn't change behavior," "temper tantrums," and "uncooperative," already included in the above subscales, as well as "talks/cries out at night," and "wakes often at night," which are not included in our measure.

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 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. In order to keep the length of the questionnaire acceptable, the Express subscale of the *ASBI* was abbreviated, eliminating four items with the lowest factor loadings: "just watches," "gets attention," "says 'please/thanks'," and "wants to play" (Hogan, Scott, & Bauer, 1992).

The selected items should allow comparisons with three other major studies:

Early Head Start (EHS). The 1988 *CBC* Aggressive Behavior subscale was used by EHS at 24 months and (with the addition of several other items from a variety of subscales) at 36 months. (The 1988 subscale items include the shorter 1992 *CBC* Aggressive Behavior subscale.) Our measure contains all of the items in the 24 month Early Head Start assessment and all items in the 36 month Early Head Start study except two: "talks, cries out in sleep" and "wakes up often at night."

Study of Early Child Care (SECC). This study used the entire 1992 *CBC*/2-3. Three subscales, as noted above, are included in our measure.

NHIS Child Core: For girls, the NHIS asked the *CBC* questions "nervous, highstrung, tense" and "temper tantrums", for boys, it asked "uncooperative" and "trouble getting to sleep," and for both it asked about "speech problems" and "unhappy, sad, depressed."

7) References:

Achenbach, T.M. (1992). Manual for the Child Behavior Checklist / 2-3 and 1992 Profile. Burlington, VT: University of Vermont Department of Psychiatry.

Achenbach, T.M., & Rescorla, L.A. (2000). Manual for the ASEBA Preschool Forms and Profiles. Burlington, VT: University of Vermont, Research Center for Children, Youth & Families.

Greenfield, D.B., Wasserstein, S.B., Gold, S., & Jorden, B. (1997). The Adaptive Social Behavior Inventory (ASBI): Evaluation with high-risk preschoolers. Journal of Psychoeducational Assessment, 15, 322-333.

Hogan, A.E., Scott, K.G., & Bauer, C.R. (1992). The Adaptive Social Behvaior Inventory (ASBI): A new assessment of social competence in high-risk three-year-olds. Journal of Psychoeducational Assessment, 10, 230-239.

Scott, K.G., Hogan, A.E., & Bauer, C.R. (1997). Social competence: The Adaptive Social Behavior Inventory (ASBI). In R.T. Gross, D. Spiker, & C.W. Haynes (Eds.), Helping Low Birth Weight, Premature Babies (pp. 335-340), Stanford, CA: Stanford University Press.

Changes made following pilot:
Contents of the following items were changed: M4, M8, M12, M15, M20, M24, M25, M27, M34, M38, M43. Refer to questionnaires for details. In the data InHome3Yr: items specific for the pilot survey were marked with the word <pilot> in the variable labels and these variables have their name ended with an underscore.

Observation Items (Sections P – U)

Changes made following pilot:
R10A – question added asking interviewer to check all hazardous conditions observed that were mentioned in question R10 (is inside environment unsafe for kids), if R10 answered "yes"
T0 – refers interviewer to activity booklet question A8 (in pilot, it was question C4)
U3, U4 – deleted (videotape discontinued)

Activity Booklet – Height/Weight

Several changes were made to the Height/Weight measurement protocol between the pilot survey of the Three-Year LSPAC and the survey of the eighteen cities. Many of

these changes were made based on the advice of Robert Whitaker, a visiting research scholar at the Center for Health and wellbeing, Princeton University during 2001-2003 and the recommended procedures on the CDC Growth Charts Training website: http://128.232.56/cdcgrowthcharts/module1/text/mainmodules.htm

The following new procedures are results of changes following the pilot:

1) The respondent self-reports his/her height only if he/she refuses to be measured by the interviewer using the stadiometer. In the pilot round the only measurement of a respondent's height was through a question (A2) asking him/her to self-report.

2) The interviewer attempts to weigh the child without the mother first, then (if it is not possible) reweighs the mother alone and then with the child. This is a switch from the pilot round, where an attempt was made to weigh the child alone only when it was not possible to weigh the caregiver and child together.

3) Both child and caregiver receive explicit instructions before each section (if they're still wearing shoes) to remove their shoes before height or weight is measured (there was only one such prompt on the pilot).

4) A set of explicit instructions about how to stand on the stadiometer have been added to both the caregiver's and child's instructions preceding height measurement. These instructions are based on material found on the above-referenced CDC website.

5) The "Praise Child" item, previously included in Section C (Home Toy and Activity Items) has been moved to the end of the height/weight section (it is now item A8).

The same type of measurement devices were used in both the pilot survey and the second wave survey of eighteen cities. The devices are: SECA 840 Bella Digital Scales and SECA 214 "Road Rod" Stadiometers.

2.3. Sample Counts and Attrition Overtime

Similar to most other longitudinal surveys, attrition is an issue that researchers will have to deal with when analyzing the Fragile Families survey data across the survey periods. Table 1 presents the number of respondents participated in the first three waves of the core Fragile Families Mother survey and the Three-Year In-Home study. About eighty-six percent of the baseline respondents completed the Three-Year Core survey. Then, due to interview fatigue or other reasons, not all these respondents agreed to participate in the Three-Year In-Home survey. Overall, about sixty-six (66) percent of the respondents of the baseline survey participated in all the three succeeding surveys: One-Year Core (mother survey), Three-Year Core (mother survey), and Three-Year In-home.

Table 1. Number and Proportion of Individuals Participated in the Fragile Families
Core Mother Survey and the Three-Year In-Home Module

	Survey Completed							
	Baseline		12-M core		36-M Core		36-M In-Home	
	n	%	n	%	n	%	n	%
All	4,789	100.0	4,271	100.0	4,140	100.0	3,288	100.0
city of interview								
1 Oakland	330	6.9	286	6.7	283	6.8	218	6.6
2 Austin	326	6.8	291	6.8	284	6.9	222	6.8
3 Baltimore	338	7.1	305	7.1	299	7.2	253	7.7
4 Detroit	327	6.8	288	6.7	282	6.8	226	6.9
5 Newark	342	7.1	289	6.8	280	6.8	235	7.1
6 Philadelphia	337	7.0	296	6.9	292	7.1	223	6.8
7 Richmond	327	6.8	296	6.9	280	6.8	226	6.9
8 Corpus Christi	331	6.9	309	7.2	297	7.2	236	7.2
9 Indianapolis	325	6.8	300	7.0	285	6.9	233	7.1
10 Milwaukee	348	7.3	325	7.6	322	7.8	271	8.2
11 New York	297	6.2	246	5.8	234	5.7	177	5.4
12 San Jose	326	6.8	275	6.4	253	6.1	196	6.0
13 Boston	99	2.1	92	2.2	86	2.1	68	2.1
14 Nashville	102	2.1	97	2.3	93	2.2	71	2.2
15 Chicago	134	2.8	117	2.7	113	2.7	90	2.7
16 Jacksonville	100	2.1	95	2.2	92	2.2	62	1.9
17 Toledo	101	2.1	92	2.2	94	2.3	74	2.3
18 San Antonio	100	2.1	88	2.1	90	2.2	70	2.1
19 Pittsburgh	100	2.1	95	2.2	93	2.2	72	2.2
20 Norfolk	99	2.1	89	2.1	88	2.1	65	2.0

2.4. Number of Respondents by Status of Survey Completion

As mentioned in Chapter 1, not all respondents completed both the parent interview and the activity component (in-home assessment) of the survey. Specifically, about seventy-eight percent of the respondents completed the interview and agreed to be measured in other activities administered at their residence; Twenty percent completed the interview over the telephone; and less than two percent only completed a part of the activity component, which is either the PPVT/TVIP test or the height and weight measurements. Table 2 presents respondents by the survey component completed.

Table 2. Status of Survey Completion (based on variable: inttype_mod2)

Status of Interview	Frequency	Percent
1: In-Home survey, with interviewer's observation	2119	64.45
2: In-Home survey, no observation	447	13.59
3: Telephone survey, no observation	670	20.38
4: Telephone survey, with interviewer's observation	7	0.21
5: PPVT/TVIP, Height/Weight measurement, no survey	15	0.46
7: Telephone survey and PPVT/TVIP tests	15	0.46
8: Only PPVT; No Height/Weight measurement, no Survey	15	0.46
Total	3288	100.00

2.5. Response Rate

Due to some shortcomings in the administration of data collection, about seventy (70) cases not supposed to be included for the In-Home survey, were interviewed. These cases[1] were not selected for the Fragile Families survey, but included together with the Fragile Families sample at baseline for convenience of data collection. As such, they were dropped from the public-use data of the In-home survey.

Overall, a total of 4,248 parents or caretakers were contacted for the Three-Year In-Home survey. Only cases *eligible* for the In-home survey are presented in Table 3a and 3b. All 4,140 *eligible* respondents of the Three-Year Core survey were invited to participate in the In-home survey. Of these, 3,288 cases completed either the full In-home survey or a component of the survey. As such, the overall crude response rate is about 79 percent. Response rate based on the mother's race and the relationship of mother and father at time of conducting the Three-Year Core survey are presented in Table 3a and 3b.

----

[1] belonged to separate group of 109 cases included in the Baseline Fragile Families survey. These cases were either selected for the TLC3 study or for other related research purposes.

Table 3a. Crude Response Rate by Race of Mother

```
                      Three-Year Survey
                  In-Home   Total cases      Crude
Mom's Race        Respondent  contacted   Response Rate (%)
-------------------------------------------------------------------
  Missing race         19         24          79.17
  White, Non-Hispanic  712        900         79.11
  Black, Non-Hispanic  1599       1986        80.51
  Hispanic             842        1072        78.54
  Other                116        158         73.42

  Total                3288       4140        79.42
```

Table 3b. Crude Response Rate by Relationship of Mom and Dad
          at time of Three-Year Core Survey

```
                      Three-Year Survey
                  In-Home    FF Core        Crude
Relationship      Respondent  Respondent  Response Rate (%)

Missing relationship*  12         17          70.59
Married              1032       1313        78.60
Romantic             822        1026        80.12
Separate             215        261         82.38
Friends              595        737         80.73
No Relationship      612        786         77.86

Total                3288       4140        79.42
```

Note: data users interested in using the largest possible sample for the analysis may request for data of 67 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 whether or not there are 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 identified as "not usual" or not logical were marked for further investigation. In the process, some data editions were done 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 followed 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 correction(s).

Second, frequency distributions of categorical variables were examined to verify whether or not 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 eighteen cities. To combine data, items not exactly the same in two versions of the questionnaires were identified and processed as follows: First, if the question asked is the same in two versions but the codes used for the responses are not identical: values used for the pilot cities were recoded to match the codes used for the eighteen cities. Second, when the same question item appeared in both versions but the contents of the question are not the same (for examples, item *m14* and *m38*), variable associated with the question asked in the pilot survey was renamed, usually with an underscore suffix attached to the original name. In addition, variables based on question item(s) unique to a specific version were also retained in the combined file (for example, question item *u4* of the pilot version.) Variables uniquely gathered during the pilot survey also have the string <pilot> or <pilot survey> attached to the end of the variable label.

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 or not any data value was edited, and if edited, how the edition was actually done.

When a data value of a variable appeared as problematic or inconsistent, an initial temporary code was assigned to the flag to mark the value in question. The value was then further reviewed for validation. In this process, a thorough examination of the value was conducted to determine whether or not it could be considered valid, and if valid, the value was retained and the initial code of the edition flag was reset to missing (to represent no data problem). Otherwise, in the case that the value was assessed as not valid or having problems, the initial code of the flag was replaced with a new temporary code to identify that more checking would be needed. Once marked, the next step was to explore whether or not the value in question could either be edited reasonably or verified by the survey firm; and if 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 identifies either 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 not able to resolve). Edition flags are not included in the public-use data.

3.3. Data Description

The data set *InHome3Yr* contains 3,288 observations and 609 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.

Comparing to the data released in 2005, three additional variables have been included in the updated data:

- *c_c4*: a derived variable which combines the response given to item C4 in the pilot survey and item A/E8 in the activity booklet used for 18 cities. Both items C4 and A/E8 asked about the same information, which is whether or not the parent or the caretaker responded positively when the interviewer praised the child.
- *int5*: a variable generated from an item in the Introduction section of the survey (O3 of the instrument used for pilot cities or O5 of the instrument used for 18 cities) which asked about the relationship of the respondent to the child.
- *int5_oth*: this variable contains other relationship of the respondent to the child which was not coded in item O3 of the instrument used for the pilot survey or the corresponding item O5 of the instrument used for 18 cities.

All remaining 606 variables are exactly the same as in the data released in 2005.

3.3.1. File structure: data set *InHome3Yr* is a rectangular flat file. The public-use version is distributed in three formats: STATA 10.0, SAS for Windows version 9, and SPSS for Windows version (refer to section 3.3.3 on Formats of Data Released on page 36 for more details). In the data set, each data line contains data values based on the responses gathered from a mother or a custodial parent/caretaker of a sample 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.

3.3.2. <u>Variables</u>: Aside from the edition flags described in section on data cleaning and edition (section 3.2.), data set *InHome3Yr* 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 supplies additional information for a few selected variables.

- <u>Identification variables</u>: are used primarily for file linkage purposes. Three identifiers are provided in the file:

  a. Mother's identifier (*mothid3*) is used to link the data to the Three-Year core mother survey data.

  b. Father's identifier (*fathid3*) is used to link the data to the Three-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.

- <u>Survey variables</u> contain responses to the questions asked during the survey. Survey variables were often named as the questionnaire item in the instrument. 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 such codes consistent in contents with those used for many other items. For example, many items in the parent survey instrument had the responses pre-coded as 1 for "yes" and 0 for "no", but a few items, such as item *r4 (does the housing unit contain holes in floor)* or *r5* (*does the housing unit contain broken plaster or peeling paint over 1 square foot or more?*) had the response pre-coded as "1" for "yes" or "affirmative situation" and "2" for "No" or "negative situation". Value "2" recorded for variables such as *r4* and *r5* was recoded to "0".

  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, such response(s) was recoded accordingly. For example, "*oversized shirt*" recorded in "*Others*" for item *s1* was coded as "1" in the variable *s1_8* (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 section A/E and A/S 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 all children were not measured at exactly 36 months and because normal growth differs by gender.

Universe: Focal child and mother or care taker who had given permission to a home visit   (2,581 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/dnpa/growthcharts/sas.htm or using the *NutStat* module of *EpiInfo* software.

The following anthropometric variables were created by Dr. Robert Whitaker, a Senior Fellow at Mathematica Policy Research, Inc. A detailed documentation of Dr. Whitaker about these anthropometric measures is presented in Chapter 4.

- *agemo1_c*   age of child at time of height and weight measurements in months, calculated by the Epi Info software of CDC, using the child's date of birth and the measurement date.

- *agemo2_c*   age of child at time of measurements in months, calculated based on the following SPSS statement:

  ```
  Compute cagemesd = CTIME.DAYS(mesdate-child_dob)
  Compute agemo2_c = (cagemesd/365.25) * 12
  ```

- *mhtcm*   height of the mother in centimeters. Value is either the actual height measured during interview as recorded in the Activity Booklet (item ae2a) or the self-reported height during interview (recorded for item *ae2a_ft* and *ae2a_in*).

- *mwtlb*   weight of the mother in pounds, created based on the variables: ae3, ae4, ae5, ae5_exc, ae5a, ae6a, ae6b (based on the revised questionnaire used for 18 cities). For non-pregnant mothers: *mwtlb* is the weight measured during interview; for pregnant mother or for mother who refused to be measured: *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 *ae7_a*, which is the height of the child measured in centimeters.

- *cwtlb*   Weight of the child in pounds, created based on the variables: ae3, ae4, ae5, ae5_exc, ae5a, ae6a, and ae6b (from the revised questionnaire used for 18 cities). *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 equaled to 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 Three-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

- *waz*   Z-score for weight-for-age of child

- *whz*   Z-score for weight-for-height of child

- *bmiz*   Z-score for body mass index.

 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 scores were computed based on the information recorded for Section B of the Activity Booklet. Mother's scores were computed based on information recorded for section E of the Activity Booklet. Child's and mother's date of birth and date of measurement were also used for scoring.

   Universe: Focal child and mother/caretaker who had given permission to a home visit (roughly 2,600 cases). About ten percent of these did not have the PPVT/TVIP scores because the child or the mother or both refused to participate in the tests or the tests could not be administered completely due to some irregularities.

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

The following variables were created:

Mother's PPVT scores

- *ppvtage_m*   Age of mother in months, calculated based on date at time of PPVT administration and the date of birth.

- *ppvtraw_m*   Raw PPVT score of the mother

- *ppvtstd_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 irregular PPVT administrations:

- *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 irregular TVIP administration:

- *tvmis_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.

The other irregular TVIP administrations 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

- *ppvtage* Age of child in months calculated based on the date at time of PPVT administration and the date of birth.

- *ppvtraw* Raw PPVT score.

- *ppvtstd* Standardized PPVT score.

The following variables were created to mark irregular administrations:

- *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.

Child's TVIP scores

- tvipraw   Raw TVIP score of the child.

- tvipstd   Standardized TVIP score of the child.

- tvipage   Age of child at time of administering TVIP.

The following variables were created to mark irregular TVIP administration:

- *tvmis*   Number of missing items between the basal and the ceiling.

- *tvbasal*   Child's basal TVIP value.

- tvceil   Child's ceiling TVIP value.

- tvnceil   Indicator to identify that no TVIP ceiling was reached and test not administered to end.

3. Other constructed variables

   Food Expenditure

- *e2_expen*   Monthly value (in dollars) spent by the family for food used at home. Variable *e2_expen* was created based on variables *e2, e2_per* and *e2a*. Specifically, the monthly value was generated by adjusting the amount provided (*e2*) in the time period given (*e2_per)* to obtain the expense for the whole month. In case if only a data range was available (*e2a)*, 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 *e2_per* were imputed logically for cases having only data for *e2*. Missing value of *e2_per* was often replaced by a common time period given for both *e4* and *e5*; or the period available only for either *e4* or *e5* provided that such period appeared reasonable for the amount (*e2*) taking into consideration the number of persons living in the household. All values of *e2_expen* computed based on imputed value of *e2_per* were flagged. The imputation flag of *e2_per* was not included in the data but authorized users can request for this variable.

- *e4_expen*   Monthly value (in dollars) spent by the family for food taken out or food delivered to the door. Variable *e4_expen* was created based on variables *e4, e4_per* and *e4a*. Specifically, the monthly value was generated by adjusting the amount provided (*e4*) in the time period given for (*e4_per)* to obtain the expense for the whole month. In case if only a data range was available (*e4a)*, 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 *e4_per*

were imputed logically for cases having only data for *e4*. Missing value of *e4_per* was often replaced by a common time period given for both *e5* and *e2*; or the only period available for either *e5* or *e2* provided that such period appeared as reasonable for the amount (*e4)* taking into consideration the number of persons living in the household. All values of *e4_expen* computed based on imputed value of *e4_per* were flagged. The imputation flag of *e4_per* was not included in the data but authorized users can request for this variable.

- *e5_expen*   Monthly value in (dollars) spent by the family for eating out. Variable *e5_expen* was created based on variables *e5, e5_per* and *e5a*. Specifically, the monthly value was generated by adjusting the amount provided (*e5*) in the time period given for (*e5_per)* to obtain the expense for the whole month. In case if only a data range was available (*e5a)*, 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 *e5_per* were imputed logically for cases having only data for *e5*. Missing value of *e5_per* was often replaced by a common time period given for both *e4* and *e2*; or the period available only for either *e4* or *e2* provided that such period appeared as reasonable for the amount (*e5*) taking into consideration the number of persons living in the household. All values of *e5_expen* computed based on imputed value of *e5_per* were flagged. The imputation flag of *e5_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 *e2_expen, e4_expen*, and *e5_expen.* Data user may consider to create a composite variable to include also the value of the food stamps received (variable *e1a1)* for 18 cities, and for the pilot cities, the food stamp data from questions in the corresponding core survey.

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 *a16* in 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/TVIP 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 the observations
    of the interviewer were recorded
2: Interview was conducted in home but no observation of the
    interviewer was recorded
3: Interview was conducted on telephone, no observation of the
    interviewer was recorded
4: Interview was conducted on telephone but a few observations
    of the interviewer were recorded
5: Only height and weight measurements were available, no
    PPVT/TVIP test scores and no parent interview
8: Only PPVT/TVIP scores. No interview, no height/weight measurement

- *inttype_mod2*: Final status of survey completion. Values of this variable are nearly identical to values of the variable *inttype_mod,* except for a minor reclassification of about 15 cases from category "3" to a new category "7" to clarify that these cases completed the telephone interview and the PPVT component. The frequency distribution of inttype_mod2 has been presented in Table 2 on page 22.

3.3.3. <u>Formats of Data</u>

Data set *InHome3Yr* is released in three different formats:

1. STATA version 10 (InHome3Yr.dta).

2. SPSS for Windows file (InHome3Yr.sav).

3. SAS version 9.1 for Windows (InHome3Yr.sas7bdat). Two supplemental files are provided with the SAS data set:

    - *InHome3Yr_SASformats.sas* contains all the defined formats of the categorical variables and the association of each format to a variable.
    .
    - *Read_InHome3Yr.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 three files to a folder in the hard drive of the computer. The next page shows what to edit in program Read_Inhome3Yr.sas before running it to attach the defined formats to the variables in the data.

Sample SAS program (*Read_InHome3Yr.SAS*) to read *InHome3Yr.sas7bdat* and attach the defined formats to the values of the categorical variables in the data.

```
/*-----------------------------------------------------------------------------------------------
 Program:   Read_InHome3Yr.sas
 Task  :   Read data Inhome3Yr.sas7bdat and attach all formats defined
           for categorical variables in program InHome3Yr_SASformats.sas

 Note  :   You need to CHANGE the directory path name (highlighted) to
           direct SAS to the directory/folder where you place the data
           InHome3Yr.sas7bdat and program InHome3yr_SASformats.sas.
           In the example below, both data and the program mentioned
           have been placed in the folder C:\IH3.
 -----------------------------------------------------------------------------------------------*/
option nocenter ps = 50 ls = 135;


*specify the directory path where you place the permanent SAS data:
 InHome3Yr.sas7bdat;
libname IH "C:\IH3\";  /*NOTE: CHANGE PATH NAME to the directory where
                             you place InHome3Yr.sas7bdat */


*Next line calls in the formats defined for the variables in InHome3Yr.sas7bdat;
%include "C:\IH3\InHome3Yr_SASformats.sas";
                          /*NOTE: The formats were defined in the file
                          InHome3Yr_SASformats.sas which was zipped together
                           with the data. You need to the CHANGE
                          the PATH name to where you place this file */


*Read InHome3Yr.sas7bdat into a temporary file InHome;
data InHome;
  set IH.InHome3Yr;


*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 InHome3Yr_SASformats.sas, by:
1. edit the line containing " proc format ; " near the beginning of the program to:
        proc format cntlout=library.IH3YRFMT ;
2. add the line below after the line libname IH "C:\IH3\" in the above program, before running it:
        libname library "C:\IH3\"; (change to correct path name, as needed)

Once the format catalog IH3YRFMT is created, to use it in subsequent program: specify the path to library containing the format catalog and include the following line in the program:
   proc format cntlin = library.IH3YRFMT;

Chapter 4. Usage Notes

This chapter provides helpful usage notes for selected information available in the Three-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
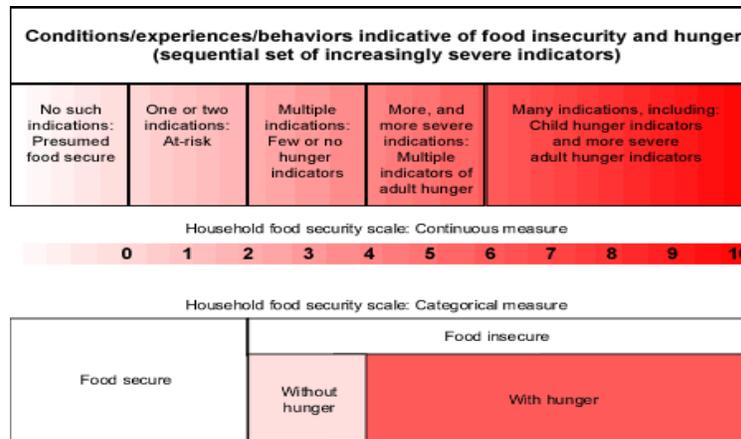
On occasion "food insecure with hunger" is further divided into: a) food insecure with hunger – moderate (hunger among adults but not children), and b) food insecure with hunger – severe (hunger among children and more severe hunger among adults).

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 second column shows data representing poor families with children in four large urban counties.

	Questions	1998 ERS/USDA (Andrews et al. 2000)	PDUC (Polit & Martinez 2000)
D1 A.	Worried food would run out	12.8	65.3
D1 B.	Food bought didn't last	10.8	56.2
D1 C.	Couldn't afford to eat balanced meals	9.1	34.8
D1 D.	Relied on few kinds of low-cost food to feed children	13.6	47.9
D1 E.	Couldn't feed child(ren) balanced meals	8.4	29.7
D3	Child(ren) were not eating enough	4.4	17.5
D4	Adult(s) cut size of meals or skipped meals	6.0	21.4
D5	Adult(s) cut size or skipped meals, 3+ months	4.2	16.7
D6	Adult(s) ate less than felt he/she should	5.7	25.2
D7	Adult(s) hungry but didn't eat because couldn't afford	2.6	14.1
D8	Respondent lost weight	1.6	8.5
D10	Adult did not eat for whole day	1.3	8.7
D10 A.	Adult did not eat for whole day, 3+ months	0.9	6.6
D11	Cut size of child(ren)'s meals	1.6	8.2
D12	Child(ren) skipped meal	0.8	5.0
D12 A.	Child(ren) skipped meal, 3+ months	0.5	4.0
D13	Child(ren) hungry, but couldn't afford more food	1.1	5.6
D14	Child(ren) did not eat for whole day	0.2	1.6

4.2. Child Behavior Psychometrics

4.2.1. The Achenbach and Rescorla 2000 scales and diagnostics, generated based on the Three-Year In-home data (in Table 4, below) were compiled by Cynthia Osborne, a Post-Doctoral Research Associate with the Center for Health and Child Wellbeing (2004-2005) and Lawrence Berger, an Assistant Professor at the School of Social Work, University of Wisconsin-Madison.

Table 4. Achenbach and Rescorla 2000 Scales and Diagnostics

Question	N	Item #
Anxious/Depressed (8 items)		
Clings to adults	3248	M3
Feelings hurt easily	3245	M16
Too upset by separation	3240	M19
Look unhappy	3246	M22
Nervous/high strung	2803	M25*
Self-conscious/ easily embarrassed	3244	M32
Too fearful	3245	M42
Looks sad	3242	M46
Alpha on full sample = .62		
* In 2 cities, asked about nervous twitching instead		
Withdrawn (8 items)		
Acts too young for age	3248	M1
Avoids eye contact	3249	M2
Doesn't answer when spoken to	3244	M9
Refuses to participate in games/activities	3241	M29
Unresponsive to affection	3245	M31
Shows little affection	3234	M35
Shows little interest in things	3246	M36
Withdrawn/doesn't get involved	3241	M50
Alpha on full sample = .66		
ADHD (from diagnostics, not from CBCL) (6 items)		
Can't concentrate	2814	M2a
Can't sit still	2814	M2b
Quickly shifts activities	2803	M28a
Can't wait turn	2814	M2c
Demanding	3243	M6
Gets into everything	2809	M18a
Alpha on full sample = .72		
Most asked in 18 cities only		

	N	Item #
Aggressive (19 items)		
Can't wait turn	2814	M2c
Defiant	3227	M5
Demanding	3243	M6
Destroys others' things	2809	M6b
Disobedient	3248	M7
Does not feel guilty after misbehaving	3245	M13
Easily frustrated	3248	M14
Gets in fights	3244	M18
Hits others	3243	M21
Hurts animals/people without meaning to	2803	M21a
Angry moods	3245	M23
Attacks people	2802	M26a
Punishment doesn't change behavior	3237	M28
Screams a lot	3245	M30
Selfish/won't share	3247	M33
Stubborn/sullen/irritable	3242	M39
Temper tantrums	3246	M41
Uncooperative	3240	M44
Wants a lot of attention	3244	M48
Alpha on full sample = .88		
Oppositional Defiant Disorder (6 item subset of aggressive from the 2000 Diagnostics, not the CBCL)		
Defiant	3227	M5
Disobedient	3248	M7
Angry moods	3245	M23
Stubborn/sullen/irritable	3242	M39
Temper tantrums	3246	M41
Uncooperative	3240	M44
Alpha on full sample = .77		

4.2.2. The 1992 CBCL Subscales. Sumary of psychometrics for the behavior items in our 18 and 20 cities samples are presented in Table 5 and 6, respectively. These subscales were computed by Rebecca Ryan, a Research Associate at Columbia University. The computations were done separately for the two samples because the items included were different.

Table 5. Items Included for the 1992 CBCL Subscales in the 18 Cities In Home Parent Interview

CBCL 1992 Subscale	Items	Alpha[a]	N[b]	Mean (SD)	Range	Skew	Kurtosis
Anxious/Depressed[c]	m3 m16 m19 m22 m25 m26 m32 m37 m42 m46 m48	.69	2809	RAW: 5.34 (3.21)	0-19	.74	.32
				AVEGD: .49 (.29)	0-1.73		
Withdrawn[d]	m1, m2, m9, m10, m11, m13, m29, m31, m35, m36, m39, m44, m45, m50	.74	2810	RAW: 4.20 (3.50)	0-22	1.22	1.93
				AVEGD: .30 (.25)	0-1.57		
Total Internalizing[e]	*All Anxious/ Depressed and Withdrawn items*	.82	2810	RAW: 9.54 (5.96)	0-38	1.02	1.29
				.38 (.24)	0-1.52		
Aggressive[f]	m5, m6, m7, m14, m17, m18, m21, m23, m28, m30, m33, m40, m41, m47, m49	.86	2809	RAW: 9.48 (5.88)	0-30	.58	-.04
				AVEGD: .63 (.39)	0-2.00		
Destructive[g]	m2a, m3b, m6a, m6b, m18a, m21a, m28a	.64	2809	RAW: 3.81 (2.40)	0-13	.85	.74
				AVEGD: .54 (.34)	0-1.86		

=Total Externalizing[h]	*All Aggressive and Destructive items*	.88	2809	RAW: 13.29(7.68)	0-42	.68	.20
				AVEGD: .60 (.35)	0-1.91		

CBCL 1992 Subscale	**Items**	**Alpha[a]**	**N[b]**	**Mean (SD)**	**Range**	**Skew**	**Kurtosis**
TOTAL CBCL	All Anx/Dep, Withd, Agg, Destr items, plus 1 Sleep Problems item and 8 Other problems items	.93	2808	RAW: 26.99 (15.06)	0-88	.77	.46
				AVEGD: .48 (.27)	0-1.57		
ASBI Express[i] Subscale	m4, m8, m12, m15, m20, m24, m27, m34, m43	.72	2809	RAW: 15.40 (2.63)	0-18	-1.31	1.76
				AVEGD: 1.71 (.29)	0-2.00		

Note.
[a]Scale alphas are computed using only cases with valid responses on all items in the scale; for Anxious/Depressed, $n = 2760$; for Withdrawn, $n = 2741$; for Total Internalizing, $n = 2699$; for Aggressive, $n = 2741$; for Destructive, $n = 2778$; for Total Externalizing, $n = 2713$; for Total CBCL, $n = 2592$; for the ASBI, $n = 2765$.
[b]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).
[c]The Anxious/Depressed subscale for the 18 cities sample includes all of the 11 items from the CBCL 1992.
[d]The Withdrawn subscale for the 20 cities includes the entire CBCL 1992 Withdrawn scale.
[e]The Total Internalizing scale includes all of the Internalizing items from the CBCL 1992.
[f]The Aggressive subscale includes the entire CBCL 1992 Aggressive scale.
[g]The Destructive subscale includes 7 of the 11 CBCL 1992 Destructive scale items.
[h]The Total Externalizing scale includes all but 4 of the CBCL 1992 Externalizing scale items.
[i]The Adaptive Social Behavior Inventory items represent an abbreviated version of the ASBI Express subscale.

Table 6. **Items Included for 1992 CBCL Subscales in all 20 Cities In Home Parent Interview**

CBCL 1992 Subscale	Items	Alpha[a]	N[b]	Mean (SD)	Range	Skew	Kurtosis
Anxious/Depressed[c]	m3, m16, m19, m22, m26, m32, m37, m42, m46, m48	.66	3246	RAW: 5.27 (3.03)	0-17	.60	.01
				AVEGD: .53 (.30)	0-1.70		
Withdrawn[d]	m1, m2, m9, m10, m11, m13, m29, m31, m35, m36, m39, m44, m45, m50	.74	3247	RAW: 4.30 (3.47)	0-22	1.15	1.71
				AVEGD: .31 (.25))	0-1.57		
Total Internalizing[e]	*All Anxious/ Depressed and Withdrawn items*	.81	3247	RAW: 9.58 (5.76)	0-36	.91	0.96
				.40 (.24)	0-1.50		
Aggressive[f]	m5, m6, m7, m14, m17, m18, m21, m23, m28, m30, m33, m40, m41, m47, m49	.86	3246	RAW: 9.70 (5.87)	0-30	.53	-.13
				AVEGD: .65 (.39)	0-2.00		
TOTAL CBCL	All Anx/Dep, Withdrawn, Aggressive items	.90	3245	RAW: 19.28 (10.72)	0-63	.65	.23
				AVEGD: .49 (.27)	0-1.62		

Note.
[a]Scale alphas are computed using only cases with valid responses on all items in the scale; for Anxious/Depressed, *n* = 3200; for Withdrawn, *n* = 3170; for Total Internalizing, *n* = 3131; for Aggressive, *n* = 3159; for Total CBCL, *n* = 3057.
[b]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).

[c]The Anxious/Depressed subscale for the 20 cities sample includes all but one ("nervous, high strung, or tense") of the 11 items from the CBCL 1992.
[d]The Withdrawn subscale for the 20 cities includes the entire CBCL 1992 Withdrawn scale.
[e]The Total Internalizing scale includes all but one of the Internalizing items from the CBCL 1992.
[f]The Aggressive subscale includes the entire CBCL 1992 Aggressive scale.

4.3. <u>Conflict Tactics Scales Coding</u> This note was 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.

*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 category7: 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.
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.

Original CTSPC	FF In-Home Survey (Section J: Discipline)
A. Explained why something was wrong	A. Explained why something was wrong
B. But him/her in "time out" (or sent to his/her room)	B. But 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	G. ~~Hit him/her with a fist or kicked him/her hard~~
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	I. ~~Grabbed him/her around the neck and choked him/her~~
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	K. ~~Beat him/her up, that is you hit him/her over and over as hard as you could~~
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	M. ~~Burned or scalded him/her on purpose~~
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	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~~
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	S. ~~Threatened him/her with a knife or gun~~
T. Threw or knocked him/her down	T. ~~Threw or knocked him/her down~~
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	V. ~~Slapped him/her on the face or head or ears~~

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 lf 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 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

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4.4. <u>Anthropometric Measures</u>.

This section was prepared by Dr. Robert Whitaker, a former visiting professor of the Senior Fellow at Mathematica Pocily Research, Inc.

Overview

This section provides documentation for the anthropometric measures included in the public-use data file for the Three-Year In-Home Survey in the Fragile Families and Child Wellbeing Study. Assessments occurred in the home on 2,581 cases, giving this number of mothers and their children the "opportunity" to have their height and weight measured. Thus, the number 2,581 is considered the "denominator" in reference to the discussion that follows.

Children

The growth indices were derived from the CDC 2000 growth curves[1] using the *NutStat* module of the CDC's *Epi Info* Software[2]. These indices standardize children's measures to account for differences in sex and age because all children were not measured at exactly 36 months and because normal growth differs by sex. Five variables (child sex, child birth date, date of measurement, child height [computed in cm.], and child weight [computed in kg.]) were used to compute standardized indices for growth.

Computation of anthropometric indices using the CDC's SAS code[3] or using the *NutStat* module of the *EpiInfo* Program produced essentially the same results. There are very minor (and clinically insignificant) differences between these two methods in the +calculated indices. These differences arise from differences between the two methods in how the ages are calculated. If *EpiInfo* calculates the age from the birth date and measurement date, it produces minor differences from the very same calculation performed by either SAS or SPSS.

Data Flags/Cleaning

Based on Word Health Organization recommendations, biologically implausible values (BIVs) were flagged.[4] Weight-for-age z scores (WAZ) below -5 or above 5, height-for-age z scores (HAZ) below -5 or above 3, and weight-for-height z scores (WHZ) below -4 and above 5 were all considered BIVs and were set to missing. Data flags (CFLAG) were coded as in Table A. If children met more than one flagging criteria, they were given the code with the lowest value. This allowed cases to be flagged anytime one of the 5 required fields was missing (weight, height, date of birth, date of measurement, and sex). The flagging codes are mutually exclusive.

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[1] see http://www.cdc.gov/growthcharts/

[2] see http://www.cdc.giv/epiinfo/

[3] see http://www/cdc/gov./nccdphp/dnpa/growthchart/sas.htm

[4] WHO Expert Committee. *Physical status: the use and interpretation of anthropometry.* Geneva: World Health Organization; 1995. page 218.

TABLE A
CHILD ANTHROPOMETRIC FLAG VALUES (CFLAG)

Child flag values		N	%
0	NO indices flagged, measures plausible'	2,401	93.0
1	missing weight or height	99	3.8
2	missing measure date	0	0
3	missing birth date	0	0
4	missing sex	0	0
5	height implausible (HAZ<-5 or >3)	48	1.9
6	weight implausible (WAZ <-5 or >5)	16	.6
7	weight for height implausible (WHZ <-4 or >5)	17	.7
		2,581	100

There were 180 (7.0%) flagged cases. Of those cases in which both height and weight were measured (n=2,482) there were 81 cases (3.3%) with BIV's. Of the 99 children missing height or weight, 23 were missing both height and weight, despite having had an in-home assessment. An additional 45 children had weight but no height, and another 31 had height but no weight.

Mothers
The protocols for mothers' measurements differed slightly between the two "pilot" cities (Oakland an Austin) and the other 18 cities. In Oakland and Austin, the mothers' heights were self-reported and not measured. In the other 18 cities, mothers' heights were measured unless the mother was unwilling to be measured. She then was given the opportunity to report her height. In all cities the mother was weighed unless she 1) was pregnant 2) refused to be weighed, or 3) exceeded the scale limit of 140 kg (308 pounds). In all three of these situations, the mother was asked to self-report her current weight (or her pre-pregnant weight if she was pregnant). The body mass index was calculated (kg/m^2) in all cases where both height and weight (by measure or self-report) were available and biologically plausible. The file contains indicator variables regarding whether the mother was pregnant (MOMPREG), was over the scale limit (OVSCALE), self-reported her height (SELFHT), or self-reported her weight (SELFWT).

Data Flags/Cleaning
Maternal weights were considered implausible if over 500 pounds (227.2 kg) or under 50 pounds (22.7 kg). Heights were considered implausible if at or below 4 feet 6 inches (138 cm tall) or above 7 feet (213 cm tall). Shown in the Table B are the 4 maternal flag values (MFLAG):

TABLE B
MATERNAL ANTHROPOMETRIC FLAG VALUES (MFLAG)

Maternal flag values		N	%
0	NO indices flagged, measures plausible	2,408	93.3
1	missing weight or height	156	6.0
2	height implausible (too tall or too short)	17	0.7
3	weight implausible (too heavy or too light)	0	0
		2,581	100

There were 173 (6.7%) flagged cases. Of those cases in which both height and weight were measured (n=2,425) there were 17 cases (0.7%) with BIV's (all were mothers that had implausibly low heights). Of the 156 mothers missing height or weight, 43 were missing both height and weight despite having had an in-home assessment. There were 68 cases when mother had a height but no weight and another 45 cases when there was a weight but no height. In two cases with missing height, the mothers reported their height as five feet but no inches were recorded. Thus, the height could not be calculated, and the value was set to missing.

Variable Documentation

Table C shows the anthropometric variables created for both mothers and children. The following factors should be considered in using these variables:

Children:

- The height and weight protocols differed between the first two "pilot" cities (Oakland and Austin) and the subsequent 18 cities. In Oakland and Austin, the child's weight was not always measured directly but was derived by subtracting maternal weight from mother's weight while holding her child (see indicator variable CWTALONE).

- In some cases, the child's height was, judging from the values, almost certainly recorded in inches even though the data were entered in a field that should have contained height in centimeters. In these cases the value in inches was converted to centimeters.

Mothers:

- In Oakland and Austin, all maternal heights were self-reported and not measured.

- All mothers who were pregnant reported their pre-pregnant weight. Thus, the maternal weight used for these mothers (MWTLB, MWTKG) is the self-reported pre-pregnant weight.

- Some non-pregnant mothers reported their weight because their weight exceeded the maximum scale weight (140 kg) or the mothers refused to be weighed.

- Some mothers in the 18 cities refused to have their height measured but were willing to report their height.

Flagging of Anthropometric Variables

In any case where the maternal flag value was greater than zero, maternal body mass index (MOMBMI) was set to missing. In any case where the child flag was greater than zero, the following child variables were set to missing: CBMI, BMIP, BMIZ, HAP, HAZ, WAP, WAZ, WHP, AND WHZ. Note that that the derived height and weight values for

both mothers and children were NOT set to missing if they were biologically implausible. However, any cases where the child flag value is >0, the child height and weight values <u>should not be used in analyses</u>. Likewise, in any case where the maternal flag is >0, the maternal height and weight values <u>should not be used in analyses</u>.

TABLE C
MATERNAL AND CHILD ANTHROPOMETRIC VARIABLES

VARIABLE NAME	VARIABLE LABEL
CHILD_SEX	chidsex: Gender of focal child
AGEMO1_C	child age mos at measurement calculated by EpiInfo
AGEMO2_C[5]	child age mos at measurement calculated by SPSS
CWTALONE	child weighed alone
CWTLB	child weight in pounds-derived
CWTKG	child weight in kilograms-derived
CHTCM	child height in centimeters-derived
CBMI	child body mass index-derived
BMIP	body mass index percentile
BMIZ	body mass index z score
HAP	Height for age percentile
HAZ	Height for age Z score
WAP	weight for age percentile
WAZ	weight for age Z score
WHP	weight for height percentile
WHZ	weight for height Z score
CFLAG	flag for problem measure in child
MOMPREG	mother pregnancy status
OVSCALE	weight over 308 lb scale limit
SELFWT	mother gave her weight as self-report instead of being measured
SELFHT	mother gave her height as self-report instead of being measured
MMIS_WT	maternal weight missing
MMIS_HT	maternal height missing
MWTLB	mother weight in pounds-derived
MWTKG	mother weight in kilograms-derived
MHTCM	mother ht in centimeters-derived
MOMBMI	mother body mass index-derived
MFLAG	flag for problem measure in mother

[5] Calculated by SPSS according to the following commands: (1) COMPUTE cagemesd = CTIME.DAYS(mesdate - bdate); (2) COMPUTE agemo2_c = (cagemesd/365.25)*12.

4.5. <u>PPVT and TVIP Scores</u>

Scoring the PPVT

This explanation focuses on <u>scoring</u> 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).

It will be helpful to refer to the "Practice Exercises Worksheet" on page 27 of the Examiner's Manual (copy attached).

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 Three-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 <u>not</u> 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 <u>highest</u> 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 <u>every</u> 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. 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 Three-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 =l 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 = noceiling 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.

CHILD TVIP

The following decisions were made to optimize the number of records that could be score. When the child tested on all items but did not reach a ceiling, the ceiling was changed to 49.

The following variables were created to mark irregular administration:

- TVNCEIL = no ceiling was reached and ceiling was set to highest score =49.

- TVMIS: calculates the number of missing items between the basal and the ceiling.

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