

NATIONAL STUDY OF CAREGIVING (NSOC) I-III
USER GUIDE

April 2024
Version 6.0

Acknowledgement: NSOC I (2011) and II (2015) were conducted with funding from the Assistant Secretary of Planning and Evaluation, DHHS. NSOC III (2017) was funded by the National Institute on Aging R01AG054004. NHATS is funded by the National Institute on Aging (U01AG032947).

Suggested Citation: Freedman, Vicki A., Skehan, Maureen E., Hu, Mengyao, Wolff, Jennifer, Kasper, Judith D. 2019. National Study of Caregiving I-III User Guide. Baltimore: Johns Hopkins Bloomberg School of Public Health. Available at www.nhats.org.

Contents

Overview	3
Goals of NSOC	3
Design	4
Terminology.....	4
Eligibility	5
NSOC I-III Cross-Sectional Files	5
NSOC III Longitudinal Files.....	6
Sample Sizes	7
Response Rates	8
Content & Questionnaire Sections.....	9
Reference Period Conventions.....	9
Overview of Availability by Round and Sample Type.....	10
Questionnaire Sections.....	11
Skip Patterns	14
Data Files	16
Overview.....	16
Cross-sectional Files: Linking and Derived Variables.....	16
Longitudinal Files: Linking and Derived Variables.....	17
Variable Names and Missing Data Conventions.....	18
Overview of Weights	19
Obtaining NSOC Data.....	19
Data Notices and Corrections	21
Overview of Changes in Current Releases.....	21
Known Issues and Flags in Current Releases	22
Summary of Changes in Prior Releases.....	23
References.....	24
Appendix A. NHATS CC Section Determining NSOC Eligibility.....	26
Appendix B. NSOC Derived Variables.....	29

Overview

The National Study of Caregiving (NSOC) is a nationally representative study of family and other unpaid caregivers to older persons living with limitations in daily activities. NSOC been conducted three times in conjunction with the National Health and Aging Trends Study (NHATS) at periodic intervals (2011, 2015, 2017). NHATS samples Medicare enrollees ages 65 and older (see Kasper & Freedman 2020 for a guide to NHATS).

In NSOC, interviews were conducted by telephone with family and unpaid caregivers to NHATS participants who were receiving assistance with self-care, mobility, or household activities (the latter, for health or functioning related reasons). The 30-minute interview included questions about activities for which help was provided, duration and intensity of help, effects on helpers of providing assistance, support services used, and basic demographic information.

This user guide accompanies the NSOC I, II and III cross-sectional files and NSOC III longitudinal files. Enhanced versions of these files were released in 2020 to include additional derived variables that bring in information collected in NHATS for cases that were designated to skip items in NSOC and to include income imputations (described in Hu et al. 2020). Several minor corrections were also made (see section on Data Notices and Corrections for details). A separate user guide is available for NSOC time diary files (Freedman & Cornman 2019).

Goals of NSOC

Together NHATS and NSOC are the only national study providing both care recipient and caregiver perspectives on late-life care. Rather than identify a single primary caregiver for interview, interviews were attempted with all eligible helpers for whom contact information was obtained. This design yields a caregiver sample that is representative of all eligible caregivers and allows insights into how caregiving responsibilities are distributed.

NSOC can be used to address a variety of salient questions about family care in the US including:

- What help is provided to older adults and by whom?
- How are caregiving activities distributed within families?
- How does caregiving intersect with work, child care, and other valued activities?
- What out-of-pocket costs do caregivers contribute as part of their care provision?
- What support services do informal caregivers know about, seek, and use?
- What are the consequences of providing care for health and wellbeing?
- How are care demands and provision changing over time?
- How does care provision and its consequences differ at the end of life?
- What are the reasons caregiving stops and how do roles change over time?
- How do caregivers spend their time over the day and what are consequences for wellbeing?

A technical paper with frequently asked questions about how to use NSOC data is available for users at www.nhats.org (see Freedman et al. 2020).

Design

In each round, NSOC has been conducted by telephone with persons identified as helpers in the corresponding round of NHATS. For example,

- NSOC I followed caregivers to the NHATS Sample Person (SP) identified in NHATS Round 1 in 2011;
- NSOC II followed caregivers identified in NHATS Round 5 in 2015; and
- NSOC III followed caregivers identified in NHATS Round 7 in 2017.

We refer to these as “cross-sectional” samples because they consist of caregivers active in the last month or year.

NSOC III incorporated two additional sample-related features:

- Interviews were conducted with last month of life caregivers identified in NHATS Round 7 (who were included in the NSOC III cross-sectional sample); and
- A longitudinal component was added in which NSOC II caregivers were re-interviewed.

Several new sections were also added in NSOC III about care provided in the last month of life, reasons the caregiver stopped providing help, and interactions with the health care system. In NSOC III caregivers who assisted in the last month were also eligible for a 24-hour time diary interview, which was scheduled at the end of the NSOC III interview.

Terminology

NHATS identifies all individuals who helped the Sample Person with activities, whether or not that assistance is related to the older adult’s health and functioning or not. We use the term “helper” to refer to all individuals who assist the NHATS participant.

Because we limit NSOC to family and unpaid individuals who assist the subset of older adults receiving help related to their health or functioning (a proxy for “needing help”), we refer to NSOC participants as “caregivers” or “family and unpaid caregivers.”

Eligibility

NSOC I-III Cross-Sectional Files

Caregivers to Living Sample Persons. Eligibility for each round of NSOC was determined separately for NHATS Sample Persons and for helpers of those individuals.

NHATS Sample Persons with a completed Sample Person interview who were receiving help with certain activities were eligible for NSOC. A Sample Person was potentially eligible if, in the last month, he or she was receiving help with any activity in Table 1 or was living in a residential care facility.

Mobility activities	Self-care activities	Household activities <u>for health or functioning reasons</u> ¹
Getting around outside	Eating	Laundry
Getting around inside	Bathing, showering or washing up	Shopping for personal items
Getting out of bed	Getting to or using the toilet	Preparing hot meals
	Dressing	Paying bills and banking
		Keeping track of medications

Once a Sample Person was deemed potentially eligible for NSOC, all helpers identified by the participant (with any activity for any reason) were reviewed for NSOC eligibility. Helpers were eligible for NSOC if they helped a potentially eligible Sample Person with any activity listed below and were either 1) related to the Sample Person (relationship codes = 2-29 or 91) whether paid or not or 2) unrelated to the Sample Person and not paid to help.

Mobility activities	Self-care activities	Household activities <u>for any reason</u>	Other activities
Getting around outside	Eating	Laundry	Money matters other than bills or banking
Getting around inside	Bathing, showering or washing up	Shopping for personal items	Medical activities (physician visits; insurance decisions)
Getting out of bed	Getting to or using the toilet	Preparing hot meals	Transportation
	Dressing	Paying bills and banking	
		Keeping track of medications	

If at least one helper was deemed eligible, then the Sample Person was considered NSOC-eligible. If the number of NSOC-eligible helpers for a Sample Person exceeded 5, 5 helpers were selected at random and the remaining helpers were considered ineligible for NSOC. Because of this restriction, N=61, N=108 and N=87 caregivers were not sampled in NSOC I, II

¹ Individuals who lived in residential care facilities and received assistance from a person at the place they lived were assumed to receive that assistance for health or functioning reasons.

and III, respectively.

See Appendix A for items in the CC Section (Caregiver Eligibility and Contact Information) administered at the end of the Sample Person Interview to determine eligibility.

Caregivers in the Last Month of Life. NSOC III introduced a Last Month of Life caregiver sample. Eligibility for the Last Month of Life caregiver sample was determined separately for NHATS participants and for helpers of these individuals. The NHATS Sample Person was eligible if a Last Month of Life interview was completed in NHATS Round 7. The caregiver was eligible if they assisted in the last month of life with any of the mobility or self-care activities listed above.

NSOC III Longitudinal Files

All caregivers who participated in NSOC II were eligible for the longitudinal component of NSOC III. Caregivers of living Sample Persons who completed a Round 7 interview or with a completed Round 6 or 7 Last Month of Life Interview were eligible. If the NHATS SAMPLE PERSON that they cared for was non-response in Rounds 6 or 7, no attempt was made to contact the caregiver.

NSOC III Time Diaries

All caregivers to living SPs who participated in NSOC III were eligible to complete a “yesterday” time diary documenting activities over a 24-hour period during a follow-up interview conducted on a randomly selected day of the week.

Sample Sizes

Table 3 shows sample sizes by round and sample type. In NSOC I-III, interviews were conducted with 2,007, 2,204 and 2,361 caregivers to living NHATS SPs, respectively. In addition, in NSOC III 291 caregivers of deceased older adults were interviewed as part of the cross-sectional sample. In the NSOC III longitudinal sample, 1,453 caregivers were interviewed from 2,204 NSOC II participants.

Table 3. Sample Sizes NSOC I, II and III			
	Cross-sectional Samples		Longitudinal Sample
	Living SPs	Last Month of Life	
NSOC I			
Eligible NHATS Round 1 participants	2,423	--	--
Eligible Caregivers	4,935	--	--
Interviewed Caregivers	2,007	--	--
NSOC II			
Eligible NHATS Round 5 participants	2,417	--	--
Eligible Caregivers	5,212	--	--
Interviewed Caregivers	2,204	--	--
NSOC III			
Eligible NHATS Round 7 participants	1,947	267*	--
Eligible Caregivers	4,131	545**	2,204
Interviewed Caregivers	2,361	291	1,453
Eligible for Time Diary Interview	2,324	--	1,074
Time Diaries Completed	1,901	--	928

*6 eligible NHATS Round 7 participants who died prior to NSOC are included in the Last Month of Life sample.

**8 eligible caregivers to NHATS Round 7 participants who died prior to NSOC are included in the Last Month of Life sample.

Response Rates

For each cross-sectional sample, NSOC response rates were calculated in two stages: the Sample Person level and the caregiver level (see Table 4).

In NSOC I, the NHATS Sample Person refused to give caregiver contact information for 1,573 out of the 4,935 eligible caregivers, yielding a 68.1% unweighted first stage response rate. Among eligible caregivers for whom the Sample Person did not refuse to provide information (N=3,362), 1,355 were not interviewed, yielding a 59.7% unweighted second stage response rate.

In NSOC II, the NHATS Sample Person refused to give caregiver contact information for 1,711 out of the 5,212 eligible caregivers, yielding a 67.2% unweighted first stage response rate. Among eligible caregivers for whom the Sample Person did not refuse to provide information (N=3,501), 1,297 were not interviewed, yielding a 63.0% unweighted second stage response rate.

In NSOC III's *cross-sectional* sample of caregivers to living SPs, caregiver contact information was unavailable for 315 out of 4,131 eligible cross-sectional caregivers of living SPs, yielding a 92.4% unweighted first stage response rate. Among eligible caregivers with contact information (N=3,816), 1,455 were not interviewed, yielding a 61.9% unweighted second stage response rate. Among eligible cross-sectional caregivers to living SPs, 90.2% completed a *time diary interview*. For the sample of last month of life caregivers, contact information was unavailable for 44 out of 545 eligible cross-sectional caregivers, yielding a 91.9% unweighted first stage response rate. Among eligible last month of life caregivers with contact information (N=501), 210 were not interviewed, yielding a 58.1% unweighted second stage response rate. The *longitudinal* sample had two sources of non-response: nonresponse to the NHATS Round 6 or 7 interviews (12.0% of eligible SPs yielding a first stage response rate of 88%) and caregiver nonresponse among those with completed NHATS interviews (25.1%, yielding a second stage response rate of 74.9%).

		Cross-sectional Samples		Longitudinal Sample
		Living SPs	Last Month of Life	
NSOC I	Stage 1: Contact info provided	68.1	--	--
	Stage 2: Response	59.7	--	--
NSOC II	Stage 1: Contact info provided	67.2	--	--
	Stage 2: Response	63.0	--	--
NSOC III	Stage 1: Contact info available	92.4	91.9	--
	Stage 2: Response	61.9	58.1	--
NSOC III	Stage 1: NHATS SP did not refuse	--	--	88.0
	Stage 2: Response	--	--	74.9
NSOC III	Time Diary Response	81.8	--	86.4

Sampling weights are adjusted to account for non-response (see Freedman et al. 2019).

Content & Questionnaire Sections

Here we provide a brief overview of the content of NSOC. We first provide reference period conventions. We then provide an overview of the questionnaire sections by round and sample type and then review the scope of content in each section. The instruments were purposefully similar across rounds to facilitate trend analyses, but we note cases when items were moved or added. Finally, we provide a summary of skip patterns around and within the cross-sectional and longitudinal samples.

Reference Period Conventions

The NSOC instrument fills the question with a different reference period depending on the type of respondent (see Table 5). In all three rounds, caregivers of living SPs who helped in the last month are asked about the time frame “in the last month.” Caregivers of decedents who helped in the last month of their life are typically asked “in the last month of {his/her/SP’s} life.” Caregivers who did not help in the last month (or the last month of SP’s life), but helped in the last year (or last year of SP’s life) are typically given the fill “in the last month that you helped {him/her/SP}.” In addition, some sections, like Health Care Interactions (HC) use a reference period of the last year.

Sample Person Status	Caregiver Status	Reference Period Fill
Sample Person Living	Helped Last Month	In the last month
Sample Person Living	Helped Last Year (not Last Month)	In the last month that you helped {SP}
Sample Person Deceased	Helped Last Month of Life	In the last month of {SP’s} life
Sample Person Deceased	Helped Last Year (not Last Month) of Life	In the last month that you helped {SP}

Overview of Availability by Round and Sample Type

Sections of the questionnaire administered in NSOC I and NSOC II were repeated in NSOC III (Table 6). To accommodate caregivers in the last month of life and caregivers in NSOC II who were no longer helping NHATS Round 7 participants in NSOC III, new sections (ST and LL) were added and skip patterns were implemented. New content, such as interactions with the health care system (HC) and a time diary appointment and interview (AP, TD), were also added, and measures related to transportation and distance between caregiver and recipient were moved to their own section (DI). (For more detail on skips within sections, see Table 7.)

	NSOC I, II		NSOC III	
	Cross-sectional Sample (Sample Person Alive)	Cross-sectional Sample		Longitudinal Sample
		Sample Person Alive	Last Month of Life ¹	
Care Activities (CA)	X	X	X	X
Duration of Care (DC)	X	X	X	X
Reasons Stopped (ST)	-	X	X	X
Last Month of Life (LL)	-	-	X	X
Health Care Interactions (HC)	-	X	X	X
Aspects of Caregiving (AC)	X	X	X	X
Support Environment (SE)	X	X	X	X
Distance to Sample Person (DI) ³	-	X	X	X
Participation (PP)	X	X	-	X
Health (HE)	X	X	-	X
Household and Demographics (HD)	X	X	X	X
Race Ethnicity (RL)	X ²	X	X	X
Employment and caregiving (EC)	X	X	-	X
Health Insurance (HI)	X	X	X	X
Appointment for Time Diary (AP)	-	X	-	X
Time Diary (TD)	-	X	-	X

¹Caregivers identified in NHATS Round 7 LML interviews.
²Added in NSOC II.
³DI items were included in CA in Rounds 1 and 5.

Questionnaire Sections

Care Activities (CA): This section asks about ways in which the caregiver helped the Sample Person in the last month. Questions cover household chores, personal care, mobility, physical assistance, and transportation assistance. Caregivers are asked about the frequency of help in the last month and, for some activities, how help was provided (e.g. by going on line to do money management). Questions also ask about helping with a range of health- and medical-related activities and distance to the care recipient.² Differences in placement of CA items across the rounds are summarized in Table 8.

	NSOC I	NSOC II	NSOC III
Household, personal care, mobility, physical assistance, transportation	CA1-CA10	CA1-CA10	CA1-CA10
Health-related activities	CA11a-h	CA11a-h	CA11a-d, CA11A2a-b, CA6Ba-b
Medical care activities	CA12a-d	CA12a-d, CA12E	HC1,5,6a,6b, HC3
Distance	CA13-CA14b	CA13-CA14b	DI1-DI2b
Helped in last year, not last month	Box CA15-CA17	Box CA15-CA17	Box CA15-CA17

For the small number of cases in which the Sample Person died after their NHATS interview but prior to NSOC, month and year of death are recorded in cca7mthdied and cca7yrdied.³

Duration of Care (DC): Questions elicit days and hours spent helping the Sample Person in the last month. Caregivers who helped with personal care or mobility also were asked hours spent helping with these activities only. All cross-sectional helpers were asked when they began providing care in months and years. In NSOC III, those who were NSOC II participants were asked instead whether they have continuously provided care since NSOC II and if not how many months they went without helping SP.

Last Month of Life (LL): In NSOC III, caregivers who assisted in the last month of the older adult's life were asked a series of questions about how they assisted. These items were modeled closely after the LML section in NHATS. Items focus on managing pain, breathing, and sadness/anxiety, whether the caregiver was provided training, medical decision making at the end of life, and communication with providers.

Health Care (HC): In NSOC III, a new series about family caregivers' interactions with health care providers was added. Questions inquire about the frequency and nature of family and unpaid caregivers' interactions with the Sample Person's medical providers, including extent to which usual care provider: listened to what family caregivers had to say, asked about family

² The health-related items asked at CA11 in NSOC I and II remained in CA in Round III, but some were moved (e.g. to CA11A2 and CA6B), so items have a different label in NSOC III (but similar name). Medical activities were moved to HC in NSOC III. Distance items were moved from CA to DI in NSOC III. Starting in NSOC II caregivers are asked how much communicating with the Sample Person's doctor helped them with caring for the Sample Person (CA12E in NSOC II and HC3 in NSOC III).

³Month and year of death for these and all other deceased SPs are recorded in flags at the beginning of this section (fl7spdied, fl7spmthdec, fl7spsyrddec).

caregiver's understanding of the Sample Person treatments, or asked whether the family caregiver needed help managing Sample Person's treatments. Family caregivers are asked whether they helped Sample Persons after an overnight stay in the hospital, whether they were discharged directly home or to another facility, and whether they were provided training they needed to manage the Sample Person's post-hospital care. As in prior rounds, caregivers are also asked about health care tasks, including making appointments, logging into an online account to view information about study participant health, coordinating care across more than one provider, and helping change or add health insurance or prescription drug plans and handling other health insurance matters.

Aspects of Caregiving (AC): Questions focus on positive and negative views of the caregiver's relationship with the Sample Person and the experience of being a caregiver. Caregivers were asked whether helping is financially, emotionally, or physically difficult and to rate the level of difficulty (from 1 a little difficulty to 5 very difficult). Questions about family disagreements concerning the Sample Person's care and about personal consequences (exhaustion, no time for self) were also included. In NSOC II, a question was added about how well the family shares responsibility for the Sample Person's care. In NSOC III, a new series about difficulty with providing care with activities mentioned in CA and LL was added.

Distance (DI): Previously items CA13-CA14b, the Distance section was made a separate section in NSOC III. These items capture usual mode of transportation to visit Sample Person and how long it takes to get to SP's home. Caregivers who live with the Sample Person skip these items.

Support Environment (SE): This section includes questions on availability of friends and family to help with care and other resources of support. Caregivers were asked whether they used services such as support groups, training, and financial help, including Medicaid and, if so, how they found out about services. For services not used, they are asked if they ever looked for services and from what sources. Caregivers also were asked about their role in obtaining devices, environmental supports, and paid help for the Sample Person.

Participation (PP): These questions mirror the participation items in the NHATS Sample Person interview. Caregivers were asked about taking part in activities (e.g. visiting family and friends, attending religious services, doing volunteer work, working for pay). Follow-up questions for each activity were about the importance of the activity and whether helping Sample Person kept the person from participating in the activity.

Health and Wellbeing (HE): In a set of questions that mirror the Sample Person interview, helpers were asked whether they had ever been diagnosed with a list of common chronic conditions and height and weight (from which body mass index can be calculated). Helpers were also asked whether in the last month they had experienced particular impairments and symptoms (e.g. pain, breathing problems, low energy, upper and lower body impairments, sleep quality). If impairments were reported, the severity (degree to which the impairment interfered with daily activities in the last month) was assessed. Subjective wellbeing items included brief depression and anxiety screening instruments (PHQ2 and GAD2), positive and negative affect (feeling cheerful, bored, upset, etc.), self-actualization (life purpose and growth),

and self-efficacy. For sensitivity, specificity, and recommended cut-points for the PHQ-2, the GAD-2 and a 4-item combined measure, see Kroenke et al. (2003, 2007, 2009) and Lowe et al. (2009).

Race Ethnicity (RL): Questions on race, and primary race if more than one, as well as Hispanic ethnicity are included. In NSOC II derived race/ethnicity variables drawn from multiple sources were included in the v2 file (released December 2018).

Household Composition and Demographics (HD): This section includes marital status of the caregiver, numbers of children and number under age 18, household size, education, spouse/partner education and age.

Employment and Caregiving (EC): Labor force participation questions were patterned after those in the NHATS Sample Person interview and include hours of work in the last week and work schedule and current occupation. Persons who were absent from work in the last month, were asked reasons for absence, which include vacation, sick leave, time off to help the Sample Person, sick leave for other family members, and personal time. Persons who reported taking time off to help the Sample Person were asked hours and days of work missed. Caregivers who were working were asked whether helping affects work and how much (on a scale from 1: helping makes work a little harder to 10: helping makes work a lot harder). This information can be used to create a work productivity loss indicator (see Wolff 2016).

Health Insurance and Income (HI): This section elicits economic information, including whether the helper has health insurance coverage, checking/savings accounts, retirement accounts, and other stocks or mutual funds; home ownership; and total income for individuals (or couples). The remaining questions in this section ask about payments the caregiver made for care needs of the Sample Person (e.g. medications, mobility devices, in-home help) and financial gifts to or from the Sample Person.

Appointment for Time Diary (AP): In NSOC III, caregivers who had provided assistance to an older adult in the last month were asked to schedule an appointment to complete a 24-hour time diary over the phone. This section captures information about the appointment. Days of the week were randomly assigned so that the time diaries represent all weekdays and weekend days.

Time Diary (TD): In NSOC III, a 24-hour time diary was administered by telephone to caregivers who provided assistance to an older adult in the last month. The diary captures all activities, beginning at 4am the previous day, and continuing through 4 am the day of the interview. Respondents are asked what they were doing, where they were, who did the activity with them, who else was there, for care and household activities who the activity was for. For three randomly selected activities, respondents were asked how they felt during the activity (experienced wellbeing). The diary was modeled after the Panel Study of Income Dynamic's Disability and Use of Time Supplement (see Freedman and Cornman 2015).

Skip Patterns

Table 7 presents an overview of skips in NSOC I-III (“x” means the section was asked; “-” means the section was skipped). There are several groups that may be eligible to skip sections or items within sections.

	Sample Person Living (NSOC I-III)		Sample Person Deceased (NSOC III)	
	Helped Last Month (NSOC I-III) & Helped Last Year (not Last Month) (NSOC I, II) ⁷	Helped Last Year (not Last Month) (NSOC III) ⁸ & Did not Help Last Year or Last Month (NSOC III only) ⁹	Helped Last Month of Life ¹⁰	Helped Last Year (not Last Month) of Life ⁸ & Did not Help Last Year or Last Month of Life ⁹
Care Activities (CA)	x	x	x	x
Duration of Care (DC) ^{1,5}	x	x	x	x
Reasons Stopped (ST) ²	-	x	-	x
Last Month of Life (LL) ²	-	-	x	-
Health Care Interactions (HC) ²	x	-	x (skip HC7-9)	-
Aspects of Caregiving (AC)	x	-	x (skip AC1-4,9)	-
Support Environment (SE)	x	-	x (skip SE1-3)	-
Distance to Sample Person (DI) ^{2,5}	x	-	x	-
Participation (PP)	x	-	-	-
Health (HE)	x	-	-	-
Household and Demographics (HD)	x ³	-	x	-
Race Ethnicity (RL) ⁶	x	x	x	x
Employment and caregiving (EC)	x	-	-	-
Health Insurance (HI) ⁴	x	-	x (skip HI18-25)	-
Appointment for Time Diary (AP) ²	x	-	-	-
Time Diary (TD) ²	x	-	-	-

¹In NSOC III, items DC13-DC14 (which focus on whether care was continuous since NSOC II) were skipped for the cross-sectional sample and items DC9-DC12 (which ask about care started within the interval since NSOC II) were skipped for the longitudinal sample.

²Added in NSOC III.

³In NSOC I-III, HD was skipped for caregivers who were spouses/partners of NHATS living Sample Persons because that information is available from NHATS. HD6 (number of people live in household) was also skipped in NSOC I and II for caregivers to (living) Sample Persons who were living with the Sample Person according to NHATS. Derived variables fill in this information for users from NHATS (see Appendix B).

⁴Items HI8-HI13 (asset/income items) were skipped for caregivers who were spouses/partners of NHATS living Sample Persons because that information is available from NHATS. Derived variables fill in this information for users from NHATS (see Appendix B). Items HI14-HI25 were skipped for caregivers who were spouses/partners of NHATS Sample Persons (both living and deceased) because these questions do not apply to them. In addition, for caregivers to deceased SPs in NSOC III, items HI18-HI25 were skipped because the reference period is the last year.

⁵Items about distance from the Sample Person and transportation used to get there (in CA in NSOC I and II and in DI in NSOC III) were skipped for coresident caregivers because they do not apply to them.

⁶Added in NSOC II.

⁷In NSOC III, ST and LL were skipped for the cases providing help in the last month and set to -2.

⁸In NSOC III, sections and items that were skipped for these cases are set to -4.

⁹In NSOC I and II and the cross-sectional NSOC III sample, those who did not help last year or last month were ineligible. In the NSOC III longitudinal sample, these cases were asked CA, DC, ST, and RL; other variables are set to -4 for these cases.

¹⁰In NSOC III, section and items that were skipped for caregivers to deceased sample persons are set to -3.

Spouses or partners of living NHATS Sample Persons. In all three rounds, caregivers who were spouses or partners of a (living) NHATS Sample Person skipped information that can be obtained from NHATS. In all three rounds, HD (household and demographics) and HI8-HI13 (assets/income) were skipped. These items were asked in NSOC III for spouses/partners of deceased NHATS Sample Persons. Derived variables for HD and HI provided in Appendix B include information brought over from NHATS for spouse/partner caregivers of living NHATS Sample Persons.

In all three rounds, caregivers who were spouses or partners of a (living) NHATS Sample Person also skipped items about expenditures for the Sample Person and income transfers (HI14-HI25) because these questions do not apply to spouses or partners. Items that are logically skipped for spouses have a value of -1.

Co-resident caregivers. In NSOC I and II, in addition to spouses, caregivers who lived with the NHATS Sample Person skipped the question on the number of other people living in the household with the caregiver (HD6). Derived variables for HD6 for NSOC I and II provided in Appendix B include information brought over from NHATS for co-resident caregivers. In all three rounds, items on types of transportation used and how long it typically takes to get to the Sample Person's home (CA13-CA14b in NSOC I and II and DI in NSOC III) were skipped (because they were not relevant). Items that are logically skipped for coresident caregivers have a value of -1.

Caregivers helping in the last month of life. In NSOC III, caregivers who helped in the last month of life were asked the Last Month of Life (LL) section but skipped some of the Health Care Interactions (HC), Aspects of Care (AC), Support Environment (SE), and Health Insurance (HI) items along with the entire sections on Reasons Stopped (ST), Participation (PP), Health (HE), and Employment and Caregiving (EC). They were also not eligible for the Appointment for Time Diary (AP) section and Time Diary (TD) interview. The fl7spdied flag may be used to identify caregivers who helped deceased SPs.⁴ Sections and items that were skipped for these cases have a value of -3.

Caregivers helping in the last year (but not last month) or helped last year (but not last month) of life. In NSOC III only, these individuals (n=40) skipped *all* sections *except* Care Activities (CA), Duration of Care (DC), reasons they stopped providing care (ST), and Race Ethnicity (RL) sections. For skipped sections responses for these cases are set to -4. These individuals did not skip sections in NSOC I or II.

Caregivers not helping in the last year (or last year of life). In both NSOC I and II, caregivers identified in NHATS as currently helping, who then reported in the Care Activities (CA) Section of NSOC that they provided **no** assistance in the last year, were considered ineligible. In NSOC III, these caregivers were also ineligible for the cross-sectional sample, but were included in the longitudinal sample.⁵ These cases were asked CA, DC, ST, and RL; other variables in the NSOC III longitudinal file are set to -4 for these cases.

⁴ This variable flags caregivers to SPs who completed an LML interview in 2017 and caregivers to SPs who died between the 2017 NHATS interview and NSOC.

⁵ In NSOC III, caregivers who had previously helped in NSOC II were interviewed even if they had not helped in

Additional skips in the NSOC III Longitudinal Sample. The longitudinal sample in NSOC generally followed the skips for the cross-sectional sample with two exceptions. As noted above caregivers who did not help in the last month or last year were interviewed for the longitudinal sample, following the routing for those who stopped helping altogether. In addition, caregivers of living and deceased SPs in the longitudinal sample skip DC9-DC12 (which ask about care started within the interval) and are instead asked DC13-DC14 (which focuses on whether care was continuous since NSOC II). Items that are logically skipped have a value of -1.

Data Files

Overview

The NSOC cross-sectional data release consists of 3 files in Rounds I and II and 5 files in Round III. The NSOC III longitudinal data release consists of 3 files and the NSOC III time diary release consists of 2 files. Sample sizes are shown in Table 9 for each file by round.

Sample	File	NSOC I	NSOC II	NSOC III
Cross-sectional	NSOC File	2,007	2,204	2,652
Cross-sectional	Sample Person Tracker File	8,245	8,334	6,312
Cross-sectional	Other Person Tracker File	38,097	52,285	49,065
Longitudinal	NSOC File	-	-	1,453
Longitudinal	Sample Person Tracker File	-	-	7,576
Longitudinal	Other Person Tracker File	-	-	49,688
Cross-sectional and Longitudinal	Time Diary Summary File	-	-	3,210
Cross-sectional and Longitudinal	Time Diary Activity File	-	-	56,361

Cross-sectional Files: Linking and Derived Variables

The NSOC file provides one record for each caregiver who participated in NSOC (who cared for an older adult in the last year). This file may be linked to NHATS files with spid (Sample Person Identifier) and other NSOC files with opid (Other Person Identifier).

In all three rounds, the NSOC files include: gender (derived variable based on op1gender from NHATS OP file and NSOC HD 11 & 12); relationship to the Sample Person (from the NHATS OP file); month of NSOC interview; and days between NHATS Sample Person interview and NSOC interview.

Because spouses skip some items that available through NHATS, derived variables are included that combine information from both NSOC and NHATS. Variables include marital status, any living children, number of children, number of children under 18, the caregiver's education

the last month or year as part of the longitudinal sample.

and their spouse or partner's education, the caregiver's month and year of birth and age⁶, their spouse/partner's month and year of birth and age⁷, home ownership and other assets. In addition, for caregivers who skipped *other people living in the household with the caregiver* question (HD6), information on number of people living in their household is provided in a derived variable. In NSOC III, the NSOC File also includes a variable indicating whether the caregiver cared for a living or deceased SP. Details on derived variables are provided in Appendix B. Income imputations are also provided (see Hu et al. (2020) technical paper for details).

The ***Auxiliary Income Imputation Files*** include all persons with an NSOC record. For NHATS and NSOC through Round 11, we initially released 5 sets of imputed values. For NSOC these values were based on interval regression models and were released in a set of enhanced files. To ensure more reliable standard error estimation and consistency with NHATS, we now provide 20 imputed values for all rounds of NSOC. The 20 imputations are provided in a set of auxiliary files and were prepared using an interval regression methodology. For further details, see "National Study of Caregiving I-III Twenty Interval Regression Income Imputations: Rounds 1, 5 and 7. NHATS Technical Paper #44".

The ***Sample Person Tracker File*** includes all persons with a Sample Person interview in the relevant round and identifies each NHATS respondent (spid) who had a caregiver eligible for NSOC. The file includes a variable (fl#dnsoc) that distinguishes Sample Persons who were eligible for NSOC from all other Sample Persons as well as counts of the number eligible. NSOC III also includes a flag that indicates the vital status (alive/deceased) of the NHATS Sample Person (fl7dtrackspstat).

The ***Other Person Tracker File*** identifies caregivers who are eligible for NSOC (spid and opid). This file contains one observation for each person in the NHATS OP file, which includes all household members, children, helpers, and social network members associated with each Sample Person. This file may be linked to NHATS files and other NSOC files using spid and opid. The file contains a single derived variable that characterizes NSOC eligibility and result status.

The ***Time Diary Files***. In NSOC III, two additional files are provided that include information on activities and wellbeing on the previous day. The Time Diary Summary File identifies each caregiver eligible for the time diary interview and also includes summary information about the diary day. The Time Diary Activity File provides one record for each activity mentioned in the diary. These files may be linked to other NSOC file(s) with spid and opid variables. Cross-sectional and longitudinal cases are distinguished with flag variables included on these files. A separate user guide documenting the time diary files and their use is available (Freedman and Cornman 2019).

Longitudinal Files: Linking and Derived Variables

⁶ Caregiver age is generated based on NHATS OP file for spouses/partners of SP, and age calculated from HD9.

⁷ Spouse of caregiver age is generated based on NHATS SP file for spouses/partners of SP and age calculated from HD10.

In NSOC III, three longitudinal files are provided. The *Longitudinal NSOC III file* includes one record for each caregiver who participated in NSOC II and completed an NSOC III interview. This file may be linked to NHATS files with the spid variable and to other NSOC files with spid and opid variables. A set of derived variables paralleling those available in the NSOC III cross-sectional file is provided. Details are provided in Appendix B.

The *Longitudinal NSOC III Sample Person Tracker File* includes all persons with a Sample Person interview in 2015 and identifies each NHATS respondent who had a caregiver eligible for the longitudinal component of NSOC III (spid).

The *Longitudinal NSOC III Other Person Tracker File* identifies each caregiver in NSOC II who is eligible for NSOC III (spid and opid).

Variable Names and Missing Data Conventions

Variable names. Variable names in the NSOC cross-sectional files follow a standard convention. Variables start with “c” (for caregiving), followed by section letters (e.g. CA or DC), followed by NHATS round number (e.g. 1, 5 or 7). This “stem” is followed by a name that reflects the question asked. Whenever possible we used the same name across rounds of NSOC, allowing only the round number (or if section changed, the section letters) to vary. Variables in the NSOC longitudinal files are nearly identical to those in the cross-sectional files but are preceded by an “l” (for longitudinal).

Derived variable names. Variables that are created for users (“derived” variables), use the same naming convention as other variable names, but a “d” is included after the round number.

Flags. Flags are special variables some are set earlier in the interview; others are derived from information in the interview. Typically, flags do not originate from a single item in a section. Flags start with “fl”, then the round number, and then “d” if they are derived, followed by a description of the flag.

Routing flags indicate a skip pattern, or in some cases a skip error (see data notices and corrections, below). In NSOC III, fl7routing is provided, which indicates whether the caregiver helped in the last month and the Sample Person was alive (2), helped in the last month and the Sample Person was deceased (3) or did not help in the last month or last month of life (4). In NSOC II and III, routing flags that indicate skip errors use the convention “fl” before “c” then the item number with the routing issue, the NHATS round number, and the word “routing” (e.g. flcac5routing).

Missing Data. NSOC I and II use the NHATS conventions of assigning -1 to variables with purposeful skips, -7 to refused and -8 to don’t know and -9 to missing.

In the NSOC III cross-sectional and longitudinal files we expanded the purposeful skip indicator to reflect *why* an individual skipped an item as follows:
-9 missing (skipped incorrectly)

- 8 don't know
- 7 refused
- 4 did not help in the last month or last month of life
- 3 helped in last month of life and SP deceased
- 2 helped in last month and SP alive
- 1 legitimate skip [includes items purposefully skipped for spouses/partners or coresident caregivers and items logically skipped due to a prior response given]

If a case breaks off before the end of the interview (as indicated by c7breakoffst, with the last item indicated by c7breakoffqt), remaining variables are either filled with -8 (don't know) or -1 (inapplicable).

Overview of Weights

The NSOC files also contain weights that account for differential probabilities of selection and nonresponse along with variables for variance estimation (see Table 10). In NSOC III separate cross-sectional weights are available for caregivers to living and deceased SPs and two longitudinal weights (a tracker weight and analytic weight) are provided. Separate technical papers describe the creation of NSOC Weights (Freedman et al. 2019), Time Diary Weights (Freedman & Cornman 2019), and how to incorporate the NSOC sample design into analyses (Freedman et al. 2020).

Sample	File: weight	NSOC I	NSOC II	NSOC III
Cross-sectional	NSOC File: caregivers to living SPs	w1cgfinwgt0-56	w5cgfinwgt0-56	w7cgfinwgt0-56
Cross-sectional	NSOC File: caregivers to deceased SPs	-	-	w7cglmlfinwgt0-56
Longitudinal	NSOC File: tracker weight	-	-	lw7cgtrwgt0-56
Longitudinal	NSOC File: analytic weight	-	-	lw7cgfinwgt0-56
Cross-sectional	Time Diary Summary File: diary weight	-	-	t7diarywgt0-56
Cross-sectional	Time Diary Activity File: detailed wellbeing weight	-	-	t7dwbwgt0-56
Longitudinal	Time Diary Summary File: diary weight	-	-	lt7diarywgt0-56
Longitudinal	Time Diary Activity File: detailed wellbeing weight	-	-	lt7dwbwgt0-56

Obtaining NSOC Data

NSOC files are designated as Sensitive for purposes of data release. The Instruments and Crosswalk are publicly available at www.nhats.org. To obtain the data files and codebook, go to Sensitive and Restricted Data on the NHATS website and then select Sensitive Data. Download the document titled *Obtaining NHATS Sensitive Data* and follow the instructions.

Data Notices and Corrections

Overview of Changes in Current Releases

NSOC I Version 3

- Provides users with an enhanced set of derived variables that bring together information from NHATS and NSOC [for spouse/partners who skipped items: chd1dmartstat chd1dchldlvng chd1dnumchild chd1dnumchu18 chd1deduc chd1deducsprt chd1dcgbrthmt chd1dcgbrthyr chd1dage chd1dspbrthmt chd1dspbrthyr chd1dspouage childdownhome childchckacct childsvgsacct childcertpst childretrplan childmutlfnds; for spouse/partners and other co-resident caregivers who skipped an item: chd1dnuminh].
- Includes multiple imputations for caregiver (and spouse/partner) income [chilincimf chilincim1 chilincim2 chilincim3 chilincim4 chilincim5]. See Hu et al. (2020) technical paper for details.
- Four variables had missing values (.) replaced with the appropriate value indicating inapplicable (-1) [chd1cgbrthmt chd1cgbrthyr chd1spbrthmt chd1spbrthyr].
- The value labels for income brackets have been edited for clarity [chilinc200pv chilinc100pv chilinc400pv].
- The variable label for chd1numinh has been updated to indicate the caregiver is excluded.

NSOC II Version 4

- Expands the set of derived variables that bring together information from NHATS and NSOC to include items in HI skipped by spouse/partner caregivers [chi5downhome chi5dchckacct chi5dsvgsacct chi5dcertpst chi5dretrplan chi5dmutfnds].
- Includes multiple imputations for caregiver (and spouse/partner) income [chi5incimf chi5incim1 chi5incim2 chi5incim3 chi5incim4 chi5incim5].
- The derived variable indicating caregiver's age is renamed to indicate that the variable is derived [from chd5age to chd5dage].
- Updates two derived variables included in the prior version to include 0s instead of -1:
 - number of children [chd5numchild]: caregivers with no children are now coded as 0 instead of -1 inapplicable; and
 - number of children less than 18 [chd5dnumchu18]: caregivers with no living children (based on HD4) or caregivers with no children under 18 (with information brought over from opfile) are now coded as 0 instead of -1 inapplicable (34 of the remaining 53 cases with -1 who are flagged as missing chd5chldlvng are suspected to be, but could not be confirmed to be, 0).
- Corrects number of people in the household [chd5dnuminh] to include the caregiver in the count for all cases and updates the variable label accordingly. (This variable previously was brought together in an inconsistent manner, with the caregiver for those who lived with the NHATS Sample Person counted, but the caregiver for those who did not live with the NHATS Sample Person excluded). The variable label for the updated chd5dnuminh has also been updated to indicate the caregiver is included.
- The variable label for chd5numinh has been updated to indicate the caregiver is excluded.

Cross-sectional and Longitudinal NSOC III Files, Version 2

- Expands the set of derived variables that bring together information from NHATS and NSOC to include items in HI skipped by spouse/partner caregivers [chi7downhome chi7dchckacct chi7dsvgsacct chi7dcertdpst chi7dretrplan chi7dmutfnds (cross-sectional file) and lchi7downhome lchi7dchckacct lchi7dsvgsacct lchi7dcertdpst lchi7dretrplan lchi7dmutfnds (longitudinal file)].
- Includes multiple imputations for caregiver (and spouse/partner) income [chi7incimf chi7incim1 chi7incim2 chi7incim3 chi7incim4 chi7incim5 (cross-sectional file) and lchi7incimf lchi7incim1 lchi7incim2 lchi7incim3 lchi7incim4 lchi7incim5 (longitudinal file)].
- Updates two derived variables included in the prior version to include 0s instead of -1:
 - number of children [chd7numchild (cross-sectional file) and lchd7numchild (longitudinal file)]: caregivers with no children are now coded as 0 instead of -1 inapplicable; and
 - number of children under 18 [chd7dnumchu18 (cross-sectional file) and lchd7dnumchu18 (longitudinal file)]: caregivers with no living children are now coded as 0 instead of -1 inapplicable.
- Corrects number of people living in the household [chd7dnuminhh (cross-sectional file) and lchd7dnuminhh (longitudinal file)] to include the caregiver in the count for all cases and the updates variable labels accordingly. (This variable previously was brought together in an inconsistent manner, with the caregiver for those who lived with the NHATS Sample Person counted but the caregiver for those who did not live with the NHATS Sample Person excluded). When two sources are available, preference is given to NSOC over NHATS. The variable labels for chd7dnuminhh and lchd7dnuminhh have been updated to indicate the caregiver is included.
- The variable labels for chd7numinhh and lchd7numinhh have been updated to indicate the caregiver is excluded.
- Updated the missing codes for the questions skipped by those who helped in last the month of life and SP deceased in HC, AC, SE and HI sections [chc7hosphlp, chc7hospset, chc7hosptrain, cac7joylevel, cac7arguely, cac7spapprlv, cac7nerveslv, cac7exhaustd, cac7toomuch, cac7notime, cac7uroutchg, cse7frfamtlk, cse7frfamact, cse7frfamhlp, chi7giftosp, chi7gift500, chi7gift1000, chi7gift100, chi7fromsp, chi7frsp500, chi7frsp1000, chi7frsp100 (cross-sectional file) and lhc7hosphlp, lhc7hospset, lhc7hosptrain, lcac7joylevel, lcac7arguely, lcac7spapprlv, lcac7nerveslv, lcac7exhaustd, lcac7toomuch, lcac7notime, lcac7uroutchg, lchd7frfamtlk, lchd7frfamact, lchd7frfamhlp, lchi7giftosp, lchi7gift500, lchi7gift1000, lchi7gift100, lchi7fromsp, lchi7frsp500, lchi7frsp1000, lchi7frsp100 (longitudinal file)]: those who helped in last the month of life and SP deceased are now coded as -3 instead of -1.
- Updates the formatting of spid on the Stata versions of the NSOC, SP tracker, OP tracker, and restricted geographic files so that is no longer displayed using scientific notation.

Known Issues and Flags in Current Releases

NSOC I

- In NSOC I, two respondents who are not spouses/partners of SP mistakenly skipped HD and HI8-HI25 (spid = 10008047 & opid = "005", and spid = 10011173 & opid = "003").

Responses are set to -1.

NSOC II

In NSOC II a few variables were affected by routing errors.

- One respondent who is not spouse/partner of SP mistakenly skipped HI8-HI25 (spid = 20000303 & opid = "002"). Responses are set to -1.

Flags are included to indicate the following issues:

- flcac5routing: 136 persons incorrectly skipped items about disagreement over care (AC8) and doing fair share (AC8A) based on relationship to Sample Person (BOX AC8).
- flche5routing: 9 persons incorrectly skipped whether helping interrupted sleep (HE15)
- flcca5routing: 392 persons who were not in SP's household incorrectly skipped how they usually get to SP's to visit (CA13) and how long it takes (CA14).
- flchd5routing: 392 persons who were not in SP's household incorrectly skipped whether the caregiver (and spouse/partner) had living children (HD3) and how many people lived in their household (HD6). For the subset of adult child caregivers who were incorrectly skipped HD3, (and for spouses who were purposefully skipped HD), this missing information is filled in using information from NSOC and NHATS in the derived variable chd5dchldlvng. For persons incorrectly skipped around HD6, the NHATS Sample Person household size was used to calculate poverty guidelines (at BOX HI11), which are used to compute the percentage of poverty amounts used as fills in HH11-HH13.

NSOC III (Cross-Sectional and Longitudinal Files)

A small number of caregivers had an incorrect value for relationship to NHATS Sample Person and/or whether lived in the NHATS SP's household. Consequently, the following cases have been flagged with routing errors.

- flcdc7routing (lflcdc7routing): 4 (3) persons routed incorrectly through DC
- flcac7routing (lflcac7routing): 31 (16) persons incorrectly skipped items about disagreement over care (AC8) and doing fair share (AC8A)
- flcdi7routing (lflcdi7routing): 9 (31) persons incorrectly skipped the DI section
- flchd7routing (lflhd7routing): 27 (9) persons incorrectly skipped the HD section
- flchi7routing: 1 person routed incorrectly through HI (skipped HI8-HI25)

Summary of Changes in Prior Releases

NSOC I: Version 2 (2014) corrected how many days passed between the NHATS sample person interview and the NSOC interview [c1dintdays] and the month of the NSOC interview [c1intmonth].

NSOC II: Version 2 (2017) recalculated weights (see Memorandum available on www.nhats.org under NSOC Sample Design and Weighting Technical papers). Version 3 (2018) recoded and replaced the race and ethnicity derived variable [cr15dcgracehisp] and added detailed race/ethnicity variables [cr15dsourc cr15dyourrace1 cr15dyourrace2 cr15dyourrace3 cr15dyourrace4 cr15dyourrace5 cr15dprimarace cr15dhisplatno]; revised the derived variable indicating number of living children of NSOC respondents [chd5dnumchild] and added derived variables indicating any living children [chd5dchldlvng] and number of living children under age

18 [chd5dnumchu18]); and revised weights [w5cgfinwgt0-w5cgfinwgt56] to remove a small number of ineligible cases from control totals.

References

- DeMatteis J, Freedman VA, & Kasper JD. 2016. *National Health and Aging Trends Study Development of Round 5 Survey Weights. NHATS Technical Paper #14*. Baltimore: Johns Hopkins University School of Public Health. Available at www.NHATS.org.
- Freedman VA & Cornman JC. 2015. *The Panel Study of Income Dynamic: Second Supplement on Disability and Use of Time (DUST 2013) User Guide: Release 2015.3*. Institute for Social Research, University of Michigan.
- Freedman VA & Cornman JC. 2019. *National Study of Caregiving III Time Diary User Guide*. Baltimore: Johns Hopkins Bloomberg School of Public Health. Available at www.nhats.org.
- Freedman VA, DeMatteis J & Kasper JD. 2019. *National Study of Caregiving (NSOC) I-III Weighting Guide*. NHATS Technical Paper #24. Baltimore: Johns Hopkins University Bloomberg School of Public Health. Available at www.nhats.org.
- Freedman VA, Hu M, DeMatteis J, Kasper JD. 2020. *Accounting for Sample Design in NHATS and NSOC Analyses: Frequently Asked Questions*. NHATS Technical Paper #23. Johns Hopkins University School of Public Health. Available at www.NHATS.org.
- Hu M, Freedman VA, & Kasper JD. 2020. *Income Imputations in the National Study of Caregiving. NHATS Technical Paper #25*. Baltimore: Johns Hopkins Bloomberg School of Public Health. Available at www.nhats.org.
- Judkins DR. 1990. Fay's method for variance estimation. *Journal of Official Statistics*, 6(3), 223-239.
- Kalton G & Flores Cervantes I. 2003. Weighting methods. *Journal of Official Statistics*, 19(2), 81-97.
- Kasper JD & Freedman VA. 2020. *National Health and Aging Trends Study User Guide*. Baltimore: Johns Hopkins Bloomberg School of Public Health. Available at www.nhats.org.
- Kroenke K, Spitzer RL & Williams JBW. 2003. The Patient Health Questionnaire-2: Validity of a Two-Item Depression Screener. *Medical Care*, 41:1284-1292.
- Kroenke K, Spitzer RL, Williams JB, et al. 2007. A Brief Measure for Assessing Generalized Anxiety Disorder: the GAD-7. *Archives of Internal Medicine*, 146:317-325.
- Kroenke K, Spitzer RL, Williams JBW & Lowe B. 2009. An Ultra-Brief Screening Scale for Anxiety and Depression: The PHQ-4. *Psychosomatics*, 50:613-621
- Lowe B, Wahl I, Rose M, et al. 2009. A 4-Item Measure of Depression and Anxiety: Validation

and Standardization of the Patient Health Questionnaire-4 (PHQ-4) in the General Population. *Journal of Affective Disorders*, 122(1-2):86-95.

Montaquila J, Freedman VA, Edwards, B, & Kasper JD. 2012. *National Health and Aging Trends Study Round 1 Sample Design and Selection. NHATS Technical Paper #1*. Baltimore: Johns Hopkins University School of Public Health. Available at www.NHATS.org.

Wolff JL. 2016. *Calculating work productivity loss in the National Study of Caregiving. NHATS Technical Paper #13*. Johns Hopkins University School of Public Health, Baltimore, MD. Available at www.NHATS.org

Appendix A. NHATS CC Section Determining NSOC Eligibility

Rounds 1 and 5

Section	CC
BOX CC1A	BOXCC1A
	<p>NOT ON FILE</p> <p>If MO6 = 1 (GETS HELP TO GO OUTSIDE) or if MO18 = 1 (GETS HELP GETTING AROUND INSIDE) or if MO25 = 1 (GETS HELP GETTING OUT OF BED) or if SC3 = 1 (GETS HELP EATING) or if SC11 = 1 (GETS HELP WITH BATHING) or if SC17 = 1 (GETS HELP USING TOILET) or if SC23 = 1 (GETS HELP GETTING DRESSED) or if HEALTHREASONHELPWITHLAUNDRY flag=1 (YES) or if HEALTHREASONHELPWITHSHOPPING flag=1 (YES) or if HEATHLREASONHELPWITHMEALS flag=1 (YES) or if HEATHLREASONHELPWITHBANKING flag=1 (YES) or if HEALTHREASONHELPWITHHELPTRACKMEDS flag=1 (YES) or if FACILITY flag=1 (YES), SP is eligible for NSOC</p>
BOX CC1C	BOXCC1C
	<p>NOT ON FILE</p> <p>Loop through BOX CC1C for each PERSON ROSTER member with a HELPER flag = 1 (YES).</p> <p>If PERSON ROSTER member HELPER flag = 1 (YES) and RELATIONSHIP to SP = 2-29 or 91, set CAREGIVER ELIGCG=1 (YES).</p> <p>Else if PERSON ROSTER member HELPER flag = 1 (YES) and HL5 (PAID HELP) = 2 (NO, NOT PAID), set CAREGIVER ELIGCG=1 (YES).</p> <p>Otherwise, if PERSON ROSTER member HELPER flag = 1 (YES), set CAREGIVER ELIGCG flag=2(NO).</p> <p>Write CAREGIVER ELIGCG flag value to PERSON ROSTER for each member with a HELPER flag=1 (YES).</p> <p>If there are 5 or less PERSON ROSTER members with CAREGIVER ELIGCG flag=1 (YES), set NSOC flag =1 (YES) and write CAREGIVER SMPCG flag=1 (YES) to PERSON ROSTER for each member.</p> <p>Else if there are more than 5 PERSON ROSTER members with CAREGIVER ELIGCG flag=1 (YES), set NSOC flag=1 (YES) and go to Box CC1d.</p> <p>If no PERSON ROSTER member CAREGIVER ELIGCG flag=1 (YES), set NSOC flag=2 (NO).</p>
BOX CC1D	BOXCC1D
	<p>NOT ON FILE</p> <p>When there are more than 5 PERSON ROSTER members with CAREGIVER ELIGCG flag=1 (YES), generate and assign a CAREGIVER RANDOM NUMBER with an interval of 0-1 for each PERSON ROSTER member with CAREGIVER ELIGCG flag=1 (YES).</p> <p>Sort the PERSON ROSTER members in ascending order of their random numbers. Assign CAREGIVER SMPCG flag=1 (YES) for the first 5 caregivers. Assign CAREGIVER SMPCG flag = 2(NO) for the remaining caregivers.</p> <p>Write CAREGIVER RANDOM NUMBER and CAREGIVER SAMPCG flag to PERSON ROSTER for each member with a CAREGIVER ELIGCG flag=1 (YES). </p>

Round 7

Section	CC
BOX CC1	<p>BOX CC1 NOT ON FILE</p> <p>If (MO6 = 1 (GETS HELP TO GO OUTSIDE) or MO18 = 1 (GETS HELP GETTING AROUND INSIDE) or MO25 = 1 (GETS HELP GETTING OUT OF BED) or SC3 = 1 (GETS HELP EATING) or SC11 = 1 (GETS HELP WITH BATHING) or SC17 = 1 (GETS HELP USING TOILET) or SC23 = 1 (GETS HELP GETTING DRESSED) or HEALTHREASONHELPWITHLAUNDRY flag = 1 (YES) or HEALTHREASONHELPWITHSHOPPING flag = 1 (YES) or HEALTHREASONHELPWITHHMEALS flag = 1 (YES) or HEALTHREASONHELPWITHBANKING flag = 1 (YES) or HEALTHREASONHELPWITHHELPTACKMEDS flag = 1 (YES) or FACILITY flag = 1 (YES)) and DECEASED flag <>1 (YES), Set SPHIGHNEED flag = 1 (YES).</p> <p>If (MO6 = 1 (GETS HELP TO GO OUTSIDE) or MO18 = 1 (GETS HELP GETTING AROUND INSIDE) or MO25 = 1 (GETS HELP GETTING OUT OF BED) or SC3 = 1 (GETS HELP EATING) or SC11 = 1 (GETS HELP WITH BATHING) or SC17 = 1 (GETS HELP USING TOILET) or SC23 = 1 (GETS HELP GETTING DRESSED)) and DECEASED flag=1 (YES), Set SPHIGHNEEDEOL flag =1 (YES).</p>
BOX CC2	<p>BOX CC2 NOT ON FILE</p> <p>If SPHIGHNEED flag =1 (YES) or SPHIGHNEEDEOL flag=1(YES), go to BOX CC3. Otherwise, go to BOX CC5 (Determination).</p>
BOX CC3	<p>BOX CC3 NOT ON FILE</p> <p>Loop through BOX CC1C for each PERSON ROSTER member with a HELPER flag = 1 (YES).</p> <p>If INHH flag = 1 (YES), write SP address1, address2, city, state, and zip to PERSON ROSTER for PERSON ROSTER member.</p> <p>If PERSON ROSTER member HELPER flag = 1 (YES) and RELATIONSHIP to SP = 1-29 or 91, set CAREGIVER ELIGCG=1 (YES).</p> <p>Else if PERSON ROSTER member HELPER flag = 1 (YES) and PAIDHELP (from HL5 or HM3) = 2 (NO, NOT PAID), set CAREGIVER ELIGCG=1 (YES).</p> <p>Otherwise, if PERSON ROSTER member HELPER flag = 1 (YES), set CAREGIVER ELIGCG flag=2 (NO). Write CAREGIVER ELIGCG flag value to PERSON ROSTER for each member with a HELPER flag=1 (YES). Loop through the PERSON ROSTER to create NSOC CG ELIGCG COUNT. If CAREGIVER ELIGCG= 1 (YES), increment NSOC ELIGCG COUNT by 1.</p> <p>If there are more than 5 PERSON ROSTER members with CAREGIVER ELIGCG flag=1 (YES), go to BOX CC4 (Sampling).</p> <p>Else if there are 1-5 PERSON ROSTER members with CAREGIVER ELIGCG flag=1 (YES), write CAREGIVER SMPCG flag=1 (YES) to PERSON ROSTER for each member, Loop through the PERSON ROSTER to create NSOC CGSMPCG COUNT. If CAREGIVER SMPCG= 1 (YES), increment NSOC ALL SMPCG COUNT by 1, and go to BOX CC5 (Determination).</p> <p>Otherwise, if there are 0 PERSON ROSTER members with CAREGIVER ELIGCG flag=1 (YES), set NSOC CGSMPCG COUNT=0, and go to BOX CC5 (Determination).</p>

BOX CC4**BOX CC4**

NOT ON FILE

When there are more than 5 PERSON ROSTER members with CAREGIVER ELIGCG flag=1 (YES), generate and assign a CAREGIVER RANDOM NUMBER with an interval of 0-1 for each PERSON ROSTER member with CAREGIVER ELIGCG flag=1 (YES).

Sort the PERSON ROSTER members in ascending order of their random numbers. Assign CAREGIVER SMPCG flag=1 (YES) for the first 5 caregivers. Assign CAREGIVER SMPCG flag = 2(NO) for the remaining caregivers.

Loop through the PERSON ROSTER to create NSOC CGSMPCG COUNT. If CAREGIVER SMPCG= 1 (YES), increment NSOC ALL SMPCG COUNT by 1.

Write CAREGIVER RANDOM NUMBER and CAREGIVER SMPCG flag to PERSON ROSTER for each member with a CAREGIVER ELIGCG flag=1 (YES).

BOX CC5**BOX CC5**

NOT ON FILE

Loop through PERSON ROSTER members with CAREGIVER SMPCG flag=1 (YES) or CG LAST NSOC flag=1 (YES).

If CAREGIVER SMPCG flag=1 (YES) and CG LAST NSOC flag = 1 (YES) set CG TRC flag=1 (CONTINUING).

Else if CAREGIVER SMPCG flag=1 (YES) and CG LAST NSOC flag <> 1(YES) set CG TRC flag=2 (NEW).

Else if CAREGIVER SMPCG flag <>1 (YES) and CG LAST NSOC flag = 1(YES) and CG DECEASED flag <>1 (YES) set CG TRC flag=3 (STOPPED).

Else if CAREGIVER SMPCG flag <>1 (YES) and CG LAST NSOC flag = 1(YES) and CG DECEASED flag =1 (YES) set CG TRC flag=4 (DECEASED).

Loop through PERSON ROSTER members with CAREGIVER SMPCG flag=1 (YES) or CG LAST NSOC flag=1 (YES).

If CAREGIVER SMPCG <> 1 (YES) and CG LAST NSOC flag = 1 (YES), increment NSOC CG OTHER COUNT by 1.

If all ROSTER MEMBERS have a CG TRC flag=4 (DECEASED) go to BOX CC19. (Write out case)

Otherwise go to CC5.

Appendix B. NSOC Derived Variables

NSOC Cross-sectional files

Variable Name VARIABLE LABEL	CODING SPECIFICATIONS	VALUES and VALUE LABELS
c#dgender C# D HD 11 12 CG GENDER	NSOC I, II and III: op#gender from the NHATS OP file was confirmed in the NSOC interview. Caregivers were given the opportunity to correct the gender reported by the SP.	1 = Male 2 = Female
c#relatnshp C# OPRELATNSHP FROM OP FILE	NSOC I, II and III: c#relatnshp = op#relatnshp (the relationship to the Sample Person as reported by the SP)	Relationship codes in op#relatnshp codes
c#intmonth C# MONTH OF NSOC INTERVIEW	NSOC I, II and III: Month of the NSOC interview	1 = May 2 = June 3 = July 4 = August 5 = September 6 = October 7 = November
c#dintdays C# D DAYS BETWN Sample Person INT CG INT	NSOC I, II and III: Days between the NHATS Sample Person interview and the NSOC interview	1 = 30 days or less 2 = 31 to 60 3 = 61 to 90 4 = 91 to 120 5 = 121 days or more
chd#dmartstat C# D HD1 MARITAL STATUS	NSOC I and II: chd#dmartstat=hh#dmarstat if c#relatnshp=2 Otherwise, ch#dmarstat=HD1 NSOC III: -4 if fl7routing=4 5 if r7dresid=6 and c7relatnshp=2 Else chd7dmartstat=hh7dmarstat if c7relatnshp=2 and fl7spdied = -1 Else chd7dmartstat=HD1	-9 = missing -8 = DK -7 = RF -4 = Did not help last month or in last month of life 1 = Married 2 = Living with a partner 3 = Separated 4 = Divorced 5 = Widowed 6 = Never married

<p>chd#dchldlvng C# D HD3 HAVE CHILDREN LIVING</p>	<p>NSOC I: chd1dchldlvng=1 if (c1relatnshp=2 & cs1dnumchild>0) chd1dchldlvng=2 if (c1relatnshp=2 & cs1dnumchild=0) Else chd1dchldlvng=chd1chldlvng</p> <p>NSOC II: chd5dchldlvng=1 if chd5numchild>0 chd5dchldlvng=1 if (c5relatnshp=2 & cs5dnumchild>0) or ((c5relatnshp=3 or 4 or 7 or 8) & op5numchldrn>0 & chd5chldlvng = -1 or -9) chd5dchldlvng=2 if (c5relatnshp=2 & cs5dnumchild=0) or ((c5relatnshp=3 or 4 or 7 or 8) & op5numchldrn=0 & chd5chldlvng = -1 or -9) Else chd5dchldlvng=chd5chldlvng</p> <p>NSOC III: chd7dchldlvng=-4 if fl7routing=4 chd7dchldlvng=1 if (c7relatnshp=2 & cs7dnumchild>0 & fl7spdied = -1) chd7dchldlvng=2 if (c7relatnshp=2 & cs7dnumchild=0 & fl7spdied = -1) Else chd7dchldlvng= chd5chldlvng</p>	<p>-9 = Missing -8 = DK -7 = RF -4 = Did not help last month or in last month of life -1 = Inapplicable 1 = YES 2 = NO</p>
<p>chd#dnumchild C# D HD4 NUMBER OF CHILDREN</p>	<p>NSOC I: chd1dnumchild=0 if chd1chldlvng=2 chd1dnumchild=cs1dnumchild if c1relatnshp=2 Else chd1dnumchild=chd1numchild</p> <p>NSOC II: chd5dnumchild=0 if chd5chldlvng=2 chd5dnumchild=cs5dnumchild if c5relatnshp=2 chd5dnumchild=op5numchldrn if chd5chldlvng = -9 & (c5relatnshp=3 or 4 or 7 or 8) Else chd5dnumchild=chd5numchild</p> <p>NSOC III: -4 if fl7routing=4 chd7dnumchild = 0 if chd7chldlvng=2 chd7dnumchild = cs7dnumchild if c7relatnshp=2 and fl7spdied = -1</p>	<p>0 to XX -9 = missing -7 = RF -4 = Did not help last month or in last month of life -1 = Inapplicable</p>

<p>chd#dnumchu18 C# D HD5 NUMBER CHILDREN UNDER 18</p>	<p>Else chd7dnumchild = chd7numchild</p> <p>NSOC I: chd1dnumchu18 = 0 if chd1dnumchild = 0; chd1dnumchu18 = Count of persons where op1relatnshp = 3 or 4 or 7 or 8 and op1age is > 0 and <18 if c1relatnshp = 2;Else chd1dnumchu18=chd1numchu18</p> <p>NSOC II: chd5dnumchu18 = 0 if chd5dnumchild = 0 chd5dnumchu18 = Count of persons where op5relatnshp = 3 or 4 or 7 or 8 and op5age is > 0 and <18 if c5relatnshp = 2 chd5dnumchu18=op5numchdu18 if chd5chldlvng=-9 & (c5relatnshp=3 or 4 or 7 or 8) & op5anychdu18=1 & chd5numchu18 = -1 chd5dnumchu18=0 if chd5chldlvng=-9 & (c5relatnshp=3 or 4 or 7 or 8) & op5anychdu18=2 & chd5numchu18 =-1 Else chd5dnumchu18= chd5numchu18</p> <p>NSOC III: -4 if fl7routing=4 chd7dnumchu18 = 0 if chd7dnumchild = 0 chd7dnumchu18=Count of persons where op7relatnshp = 3 or 4 or 7 or 8 and op7age is > 0 and <18 if c7relatnshp= 2 and fl7spdied = -1 Else chd7dnumchu18= chd7numchu18</p>	<p>0 to XX -9 = Missing -7 = RF -4 = Did not help last month or last month of life -1 = Inapplicable</p>
<p>chd#dnuminhh C# D HD6 NUMBR OF PEOPLE LIVE HERE INCLUDING CG</p>	<p>NSOC I: chd1dnuminhh=chd1numinhh + 1 if chd1numinhh>=0 Else chd1dnuminhh=hh1dhshldnum if op1prsninhh=1 & chd1numinhh = -1 & hh1dhshldnum > 0</p> <p>NSOC II: chd5dnuminhh=chd5numinhh+1 if chd5numinhh >= 0 Else chd5dnuminhh=hh5dhshldnum if op5prsninhh=1 & chd5numinhh = -1 & hh5dhshldnum > 0</p> <p>NSOC III: -4 if fl7routing=4 chd7dnuminhh=chd7numinhh +1 if chd7numinhh >=0 Else chd7dnuminhh=hh7dhshldnum if op7prsninhh=1 &</p>	<p>1 to XX -9 = missing -8 = DK -7 = RF -4 = Did not help last month or in last month of life -1* = Inapplicable</p> <p>*A small number of spouses/partners of SPs who did not live with the SP but skipped chd#numinhh were assigned a missing value of -1 on this derived variable.</p>

	hh7dhshldnum > 0 & fl7spdied = -1 & c7relatnshp=2	
chd#deduc C# D HD7 HIGHEST DEGREE OR GRADE	<p>NSOC I and II: chd#deduc= op#leveledu if c#relatnshp=2 Else chd#deduc=HD7</p> <p>NSOC III: -4 if fl7routing=4 Else chd7deduc= op7leveledu if c7relatnshp=2 and fl7spdied = -1 Else chd7deduc=HD7</p>	<p>-9 = missing -8 = DK -7 = RF -4 = Did not help last month or in last month of life 1 = No schooling completed 2 = 1st to 8th grade 3 = 9th to 12th grade (no diploma) 4 = High school graduate (High school diploma or equivalent) 5 = Vocational, technical, business, or trade school certificate or diploma (beyond high school level) 6 = Some college but no degree 7 = Associate's degree 8 = Bachelor's degree 9 = Master's, professional, or doctoral degree</p>
chd#deducsprt C# D HD8 SPOUS PARTR HIGH DEGREE	<p>NSOC I: chd1deducsprt = el1higstschl if c1relatnshp=2 Else chd1deducsprt = chd1educsprt</p> <p>NSOC II: chd5deducsprt = el5higstschl if r5dcontnew=2 & c5relatnshp=2 Else chd5deducsprt= el1higstschl if r5dcontnew=1 & c5relatnshp=2 Else chd5deducsprt=HD8</p> <p>NSOC III: -4 if fl7routing=4 Else chd7deducsprt = el5higstschl if r5dcontnew=2 & c7relatnshp=2 and fl7spdied = -1 Else chd7deducsprt= el1higstschl if r5dcontnew=1 & c7relatnshp=2 and fl7spdied = -1 Else chd7deducsprt=HD8</p>	<p>-9 = missing -8 = DK -7 = RF -1 = Inapplicable -4 = Did not help last month or in last month of life -1 Inapplicable 1 = No schooling completed 2 = 1st to 8th grade 3 = 9th to 12th grade (no diploma) 4 = High school graduate (High school diploma or equivalent) 5 = Vocational, technical, business, or trade school certificate or diploma (beyond high school level) 6 = Some college but no degree 7 = Associate's degree 8 = Bachelor's degree</p>

		9 = Master's, professional, or doctoral degree
chd#dcgbrthmt C# D HD9 CG BIRTHDATE MONTH	NSOC I and II: chd#dcgbrthmt= op#birthmth if c#relatnshp=2 Else chd#dcgbrthmt=HD9 NSOC III: -4 if fl7routing=4 Else chd7dcgbrthmt= op7birthmth if c7relatnshp=2 & fl7spdied = -1 Else chd7dcgbrthmt=HD9	-9 = missing -8 = DK -7 = RF -4 = Did not help last month or in last month of life -1 = Inapplicable 1= January 2 = February 3 = March 4 = April 5 = May 6 = June 7 = July 8 = August 9 = September 10 = October 11 = November 12 = December
chd#dcgbrthyr C# D HD9 CG BIRTHDATE YEAR	NSOC I and II: chd#dcgbrthyr=op#birthyear if c#relatnshp=2 Else chd#dcgbrthyr = HD9 NSOC III: -4 if fl7routing=4 Else chd7dcgbrthyr = op7birthyear if c7relatnshp=2 and fl7spdied = -1 Else chd7dcgbrthyr =HD9	-9 = missing -8 = DK -7 = RF -4 = Did not help last month or in last month of life -1 = Inapplicable Year of caregiver's birth
chd#dage C# D HD9 CG AGE	NSOC I and II: chd#dage=op#age if c#relatnshp = 2 Else chd#dage = age calculated from HD9 NSOC III: -4 if fl7routing=4 chd#dage=op#age if c7relatnshp = 2 Else use derived birth month and year in calculation: chd7dcgbrthmt and chd7dcgbrthyr	-9 = missing -8 = DK -7 = RF -4 = Did not help last month or in last month of life Age in years
chd#dspbrthmt	NSOC I:	-9 = missing

<p>C# D HD10 SPOUS PARTR DOB MONTH</p>	<p>chd1dspbrthmt = r1dbirthmth if c1relatnshp = 2 chd1dspbrthmt = -1 if chd1martstat > 2 or chd1martstat == -8 or chd1martstat == -7 ELSE chd1dspbrthmt = chd1spbrthmt</p> <p>NSOC II: chd5dspbrthmt = r5dbirthmth if c5relatnshp=2 Else chd5dspbrthmt=HD10</p> <p>NSOC III: -4 if fl7routing=4 Else chd7dspbrthmt = r5dbirthmth if c7relatnshp=2 and fl7spdied = -1 Else chd7dspbrthmt=HD10</p>	<p>-8 = DK -7 = RF -4 = Did not help last month or in last month of life -1 = Inapplicable 1 = January 2 = February 3 = March 4 = April 5 = May 6 = June 7 = July 8 = August 9 = September 10 = October 11 = November 12 = December</p>
<p>chd#dspbrthyr C# D HD10 SPOUS PARTR DOB YEAR</p>	<p>NSOC I: chd1dspbrthyr = r1dbirthyr if c1relatnshp = 2 chd1dspbrthyr = -1 if chd1martstat > 2 or chd1martstat == -8 or chd1martstat == -7 ELSE chd1dspbrthyr = chd1spbrthyr</p> <p>NSOC II: chd5dspbrthyr= r5dbirthyr if c5relatnshp=2 Else chd5dspbrthyr= HD10</p> <p>NSOC III: -4 if fl7routing=4 Else chd7dspbrthyr= r5dbirthyr if c7relatnshp=2 Else chd7dspbrthyr= HD10</p>	<p>-9 = missing -8 = DK -7 = RF -4 = Did not help last month or in last month of life -1 = Inapplicable Year of caregiver's spouse/partner's birth</p>
<p>chd#dspouage C# D HD10 SPOUS PARTR AGE</p>	<p>NSOC I and II: chd#dspouage=r#dintvwage if c#relatnshp=2 Else chd#dspouage=age calculated from HD10</p> <p>NSOC III: -4 if fl7routing=4 Else chd7dspouage=r7dintvwage if c7relatnshp=2 and fl7spdied = -1</p>	<p>-9 = missing -8 = DK -7 = RF -4 = Did not help last month or in last month of life -1 = Inapplicable Age in years</p>

	Else chd7dspouage=age calculated from HD10	
crl#dcgracehisp C# D CG RACE AND HISPANIC ETHNICITY	<p>NSOC II:</p> <p>1 if (crl5dyourrace1 = 1 and crl5dprimarace = -1 and crl5dhisplatno NE 1) or (crl5dprimarace = 1 and crl5dhisplatno NE 1)</p> <p>2 if (crl5dyourrace2 = 1 and crl5dprimarace = -1 and crl5dhisplatno NE 1) or (crl5dprimarace = 2 and crl5dhisplatno NE 1)</p> <p>3 if (crl5dyourrace3 = 1 and crl5dprimarace = -1 and crl5dhisplatno NE 1) or (crl5dyourrace4 = 1 and crl5dprimarace = -1 and crl5dhisplatno NE 1) or (crl5dyourrace5 = 1 and crl5dprimarace = -1 and crl5dhisplatno NE 1) or (crl5dprimarace = 3 or 4 or 5 and crl5dhisplatno NE 1)</p> <p>4 if crl5dhisplatno = 1</p> <p>5 if (crl5dyourrace1 = -7 or -8 and crl5dyourrace2 = -7 or -8 and crl5dyourrace3 = -7 or -8 and crl5dyourrace4 = -7 or -8 and crl5dyourrace5 = -7 or -8 and crl5dprimarace = -1 and crl5dhisplatno NE 1) or (crl5dprimarace = -7 or -8 and crl5dhisplatno NE 1)</p> <p>6 otherwise</p> <p>NSOC III:</p> <p>1 if (crl7yourrace1 = 1 and crl7primarace = - 1 and crl7hisplatno = 2 or -7 or -8) or (crl7primarace = 1 and crl7hisplatno = 2 or -7 or -8)</p> <p>2 if (crl7yourrace2 = 1 and crl7primarace = - 1 and crl7hisplatno = 2 or -7 or -8) or (crl7primarace = 2 and crl7hisplatno = 2 or -7 or -8)</p> <p>3 if [(crl7yourrace3 = 1 or crl7yourrace4 = 1 or crl7yourrace5 = 1) and crl7primarace = - 1 and crl7hisplatno = 2 or -7 or -8] or (crl7primarace = 3 or 4 or 5 and crl7hisplatno = 2 or -7 or -8)</p> <p>4 if crl7hisplatno =1</p> <p>6 if (crl7yourrace1 through crl7yourrace5 and crl7hisplatno) = 2 or -7 or -8 or -1</p> <p>Else 5 if crl7primarace = -7 or -8 or -1</p>	<p>1 =White, non-Hispanic</p> <p>2 =Black, non-Hispanic</p> <p>3 =Other (Am Indian/Asian/Native Hawaiian/Pacific Islander/other specify), non-Hispanic</p> <p>4 =Hispanic</p> <p>NSOC II:</p> <p>5 = DKRF</p> <p>6 = Missing</p> <p>NSOC III:</p> <p>5 = More than one and DKRF primary</p> <p>6 = DKRF</p>
chi#downhome	NSOC I and II:	-9 = Missing

C# HI8 OWN YOUR HOME	chi#downhome = 1 if hp#ownrentot = 1 & c#relatnshp = 2 chi#downhome = 2 if (hp#ownrentot = 2 or hp#ownrentot = 3) & c#relatnshp = 2 Else chi#downhome = chi#ownhome NSOC III: -4 if fl7routing=4 Else chi7downhome = 1 if hp7ownrentot = 1 & c7relatnshp = 2 & fl7spdied = -1 Else chi7downhome = 2 if (hp7ownrentot = 2 or hp7ownrentot = 3) & c7relatnshp = 2 & fl7spdied = -1 Else chi7downhome = chi7ownhome	-8 = DK -7 = RF -4 = Did not help last month -1 = Inapplicable 1 = YES 2 = NO
chi#dchckacct C# HI9A CG HAS CHECKING ACCT	NSOC I and II: chi#dchckacct = 1 if ia#bnkacccd4 = 2 & c#relatnshp = 2 chi#dchckacct = 2 if ia#bnkacccd4 = 1 & c#relatnshp = 2 Else chi#dchckacct = chi#chckacct NSOC III: -4 if fl7routing=4 Else chi7dchckacct = 1 if ia7bnkacccd4 = 2 & c7relatnshp = 2 & fl7spdied = -1 Else chi7dchckacct = 2 if ia7bnkacccd4 = 1 & c7relatnshp = 2 & fl7spdied = -1 Else chi7dchckacct = chi7chckacct	-9 = Missing -8 = DK -7 = RF -4 = Did not help last month 1 = YES 2 = NO
chi#dsvgsacct C# HI9B CG HAS SAVINGS ACCOUNT	NSOC I and II: chi#dsvgsacct = 1 if ia#bnkacccd8 = 2 & c#relatnshp = 2 chi#dsvgsacct = 2 if ia#bnkacccd8 = 1 & c#relatnshp = 2 Else chi#dsvgsacct = chi#svgsacct NSOC III: -4 if fl7routing=4 Else chi7dsvgsacct = 1 if ia7bnkacccd8 = 2 & c7relatnshp = 2 & fl7spdied = -1 Else chi7dsvgsacct = 2 if ia7bnkacccd8 = 1 & c7relatnshp = 2 & fl7spdied = -1 Else chi7dsvgsacct = chi7svgsacct	-9 = Missing -8 = DK -7 = RF -4 = Did not help last month 1 = YES 2 = NO
chi#dcertdpst C# HI9C CG HAS CERT OF DEPOSIT	NSOC I and II: chi#dcertdpst = 1 if ia#bnkacc12 = 2 & c#relatnshp = 2 chi#dcertdpst = 2 if ia#bnkacc12 = 1 & c#relatnshp = 2	-9 = Missing -8 = DK -7 = RF

	<p>Else chi#dcertdpst = chi#certdpst</p> <p>NSOC III: -4 if fl7routing=4 Else chi7dcertdpst = 1 if ia7bnkaccc12 = 2 & c7relatnshp = 2 & fl7spdied = -1 Else chi7dcertdpst = 2 if ia7bnkaccc12 = 1 & c7relatnshp = 2 & fl7spdied = -1 Else chi7dcertdpst = chi7certdpst</p>	-4 = Did not help last month 1 = YES 2 = NO
chi#dretrplan C# HI9D CG HAS RETIREMENT PLAN	NSOC I and II: chi#dretrplan = 1 if ia#iraothac3 = 2 & c#relatnshp = 2 chi#dretrplan = 2 if ia#iraothac3 = 1 & c#relatnshp = 2 Else chi#dretrplan = chi#retrplan NSOC III: -4 if fl7routing=4 Else chi7dretrplan = 1 if ia7iraothac3 = 2 & c7relatnshp = 2 & fl7spdied = -1 Else chi7dretrplan = 2 if ia7iraothac3 = 1 & c7relatnshp = 2 & fl7spdied = -1 Else chi7dretrplan = chi7retrplan	-9 = Missing -8 = DK -7 = RF -4 = Did not help last month 1 = YES 2 = NO
chi#dmutlfnds C# HI9E CG HAS STOCKS MUT FUNDS	NSOC I and II: chi#dmutlfnds = 1 if ia#mutfdstk4 = 2 & c#relatnshp = 2 chi#dmutlfnds = 2 if ia#mutfdstk4 = 1 & c#relatnshp = 2 chi#dmutlfnds = ia#mutfdstk4 if ia#mutfdstk4 <0 & c#relatnshp = 2 Else chi#dmutlfnds = chi#mutlfnds NSOC III: -4 if fl7routing=4 Else chi7dmutlfnds=1 if ia7mutfdstk4=2 & c7relatnshp=2 & fl7spdied = -1 Else chi7dmutlfnds=2 if ia7mutfdstk4=1 & c7relatnshp=2 & fl7spdied = -1 Else chi7dmutlfnds=chi7mutlfnds	-9 = Missing -8 = DK -7 = RF -4 = Did not help last month 1 = YES 2 = NO
FLAG chi#incimf C# F IMPUTED INCOME LAST YEAR FLG	NSOC I and II: 1 if income value reported in HI10 2 if income skipped in NSOC for spouse/partner of SP, and reported income in NHATS were brought over	-4 = Did not help last month 1 = Reported in NSOC I 2 = Reported in NHATS R1 (Spouse/partner of SP)

	3 if income imputed in NSOC 4 if income imputed in NHATS for spouse/partner of SP NSOC III: -4 if fl7routing=4 1 if income value reported in HI10 2 if income skipped in NSOC for spouse/partner of SP, and reported income in NHATS were brought over 3 if income imputed in NSOC 4 if income imputed in NHATS for spouse/partner of SP	3 = Imputed in NSOC I 4 = Imputed in NHATS R1 (Spouse/partner of SP)
FLAG fl7routing C7 F NSOC ROUTING	NSOC III: 2 if fl7spdied=-1 and fl7helpplstmth=1 3 if fl7spdied=1 and fl7helpplstmth=1 4 if fl7helpyear=1 or fl7nohelpyear=1	2 = Helped last month, Sample Person alive 3 = Helped last month of life, Sample Person deceased 4 = Did not help last month or in last month of life

NSOC Longitudinal file

Variable Name VARIABLE LABEL	CODING SPECIFICATIONS	VALUES and VALUE LABELS
lc#dgender C# D HD 11 12 CG GENDER	NSOC III: op#gender from the NHATS OP file was confirmed in the NSOC interview. Caregivers were given the opportunity to correct the gender reported by the SP.	1 = Male 2 = Female
lc#relatnshp C# OPRELATNSHP FROM OP FILE	NSOC III: lc#relatnshp = op#relatnshp (the relationship to the Sample Person as reported by the SP)	Relationship codes in op#relatnshp codes
lc#intmonth C# MONTH OF NSOC INTERVIEW	NSOC III: Month of the NSOC interview	1 = May 2 = June 3 = July 4 = August 5 = September 6 = October 7 = November

lc#dintdays C# D DAYS BETWN Sample Person INT CG INT	NSOC III: Days between the NHATS Sample Person interview and the NSOC interview	1 = 30 days or less 2 = 31 to 60 3 = 61 to 90 4 = 91 to 120 5 = 121 days or more
lchd#dmartstat C# D HD1 MARITAL STATUS	NSOC III: -4 if lfl7routing=4 5 if (r7dresid=6 and lc7relatnshp=2) or (r6dresid=6 and lc7relatnshp=2) Else lchd7dmartstat=hh7dmarstat if lc7relatnshp=2 and lfl7spdied = -1 Else lchd7dmartstat=HD1	-8 = DK -7 = RF -4 = Did not help last month or in last month of life 1 = Married 2 = Living with a partner 3 = Separated 4 = Divorced 5 = Widowed 6 = Never married
lchd#dchldlvng C# D HD3 HAVE CHILDREN LIVING	NSOC III: -4 if lfl7routing=4 1 if (lc7relatnshp=2 & cs7dnumchild>0 and lfl7spdied = -1) 2 if (lc7relatnshp=2 & cs7dnumchild=0 and lfl7spdied = -1) Else lchd7dchldlvng=HD3	-9 = Missing -8 = DK -7 = RF -4 = Did not help last month or in last month of life -1 = Inapplicable 1 = YES 2 = NO
lchd#dnumchild C# D HD4 NUMBER OF CHILDREN	NSOC III: -4 if lfl7routing=4 lchd7dnumchild = 0 if lchd7chldlvng=2 Else lchd7dnumchild = cs7dnumchild if lc7relatnshp=2 and lfl7spdied = -1 Else lchd7dnumchild = HD4	0 to XX -9 = Missing -7 = RF -4 = Did not help last month or in last month of life -1 = Inapplicable
lchd#dnumchu18 C# D HD5 NUMBER CHILDREN UNDER 18	NSOC III: -4 if lfl7routing=4 lchd7dnumchu18 = 0 if lchd7dnumchild = 0 if lc7relatnshp= 2 and lfl7spdied = -1: Count of persons where op7relatnshp = 3 or 4 or 7 or 8 and op7age is > 0 and <18 Else lchd7dnumchu18=HD5	0 to XX -9 = Missing -8 = DK -7 = RF -4 = Did not help last month or last month of life -1 = Inapplicable
lchd#dnuminh C# D HD6 NUMBR OF PEOPLE LIVE	NSOC III: -4 if fl7routing=4	1 to XX -9 = Missing

HERE INCLUDING CG	lchd7dnuminhh=lchd7numinhh+1 if lchd7numinhh>=0 Else lchd7dnuminhh=hh7dhshldnum if op7prsninhh = 1 & hh7dhshldnum > 0 & lfl7spdied= -1 & lc7relatnshp = 2	-8 = DK -7 = RF -4 = Did not help last month or in last month of life -1 = Inapplicable
lchd#deduc C# D HD7 HIGHEST DEGREE OR GRADE	NSOC III: -4 if lfl7routing=4 Else lchd7deduc= op7leveledu if lc7relatnshp=2 and lfl7spdied = -1 Else lchd7deduc=HD7	-8 = DK -7 = RF -4 = Did not help last month or in last month of life 1 = No schooling completed 2 = 1st to 8th grade 3 = 9th to 12th grade (no diploma) 4 = High school graduate (High school diploma or equivalent) 5 = Vocational, technical, business, or trade school certificate or diploma (beyond high school level) 6 = Some college but no degree 7 = Associate's degree 8 = Bachelor's degree 9 = Master's, professional, or doctoral degree
lchd#deducsprt C# D HD8 SPOUS PARTR HIGH DEGREE	NSOC III: -4 if lfl7routing=4 Else lchd7deducsprt = el5higstschl if r5dcontnew=2 & lc7relatnshp=2 and lfl7spdied = -1 Else lchd7deducsprt= el1higstschl if r5dcontnew=1 & lc7relatnshp=2 and fl7spdied = -1 Else lchd7deducsprt=HD8	-8 = DK -7 = RF -1 = Inapplicable -4 = Did not help last month or in last month of life 1 = No schooling completed 2 = 1st to 8th grade 3 = 9th to 12th grade (no diploma) 4 = High school graduate (High school diploma or equivalent) 5 = Vocational, technical, business, or trade school certificate or diploma (beyond high school level) 6 = Some college but no degree 7 = Associate's degree 8 = Bachelor's degree

		9 = Master's, professional, or doctoral degree
lchd#dcgbrthmt C# D HD9 CG BIRTHDATE MONTH	NSOC III: -4 if lfl7routing=4 lchd7dcgbrthmt= op7birthmth if lc7relatnshp=2 & lfl7spdied = -1 Else lchd7dcgbrthmt=HD9	-8 = DK -7 = RF -4 = Did not help last month or in last month of life 1= January 2 = February 3 = March 4 = April 5 = May 6 = June 7 = July 8 = August 9 = September 10 = October 11 = November 12 = December
lchd#dcgbrthyr C# D HD9 CG BIRTHDATE YEAR	NSOC III: -4 if lfl7routing=4 lchd7dcgbrthyr = op7birthyear if lc7relatnshp=2 and lfl7spdied = -1 Else lchd7dcgbrthyr =HD9	-8 = DK -7 = RF -4 = Did not help last month or in last month of life Year of caregiver's birth
lchd#dage C# D HD9 CG AGE	NSOC III: -4 if lfl7routing=4 lchd#dage=op#age if lc7relatnshp = 2 Otherwise, use derived birth month and year in calculation: lchd7dcgbrthmt and lchd7dcgbrthyr	-8 = DK -7 = RF -4 = Did not help last month or in last month of life Age in years
lchd#dspbrthmt C# D HD10 SPOUS PARTR DOB MONTH	NSOC III: -4 if lfl7routing=4 Else lchd7dspbrthmt =r5dbirthmth if lc7relatnshp=2 and lfl7spdied = -1 Else lchd7dspbrthmt=HD10	-8 = DK -7 = RF -4 = Did not help last month or in last month of life 1= January 2 = February 3 = March 4 = April 5 = May

		6 = June 7 = July 8 = August 9 = September 10 = October 11 = November 12 = December
lchd#dspbrthyr C# D HD10 SPOUS PARTR DOB YEAR	NSOC III: -4 if lfl7routing=4 Else lchd7dspbrthyr= r5dbirthyr if lc7relatnshp=2 Else lchd7dspbrthyr= HD10	-8 = DK -7 = RF -4 = Did not help last month or in last month of life Year of caregiver's spouse/partner's birth
lchd#dspouage C# D HD10 SPOUS PARTR AGE	NSOC III: -4 if lfl7routing=4 lchd7dspouage=r7dintvwrage if lc7relatnshp=2 and lfl7spdied = -1 Else lchd7dspouage=age calculated from HD10	-8 = DK -7 = RF -4 = Did not help last month or in last month of life Age in years
lcl#dcgracehisp C# D CG RACE AND HISPANIC ETHNICITY	NSOC III: 1 if (lcl7yourrace1 = 1 and lcl7primarace = - 1 and lcl7hisplatno = 2 or -7 or -8) or (lcl7primarace = 1 and lcl7hisplatno = 2 or -7 or -8) 2 if (lcl7yourrace2 = 1 and lcl7primarace = - 1 and lcl7hisplatno = 2 or -7 or -8) or (lcl7primarace = 2 and lcl7hisplatno = 2 or -7 or -8) 3 if [(lcl7yourrace3 = 1 or lcl7yourrace4 = 1 or lcl7yourrace5 = 1) and lcl7primarace = - 1 and lcl7hisplatno = 2 or -7 or -8] or (lcl7primarace = 3 or 4 or 5 and lcl7hisplatno = 2 or -7 or -8) 4 if lcl7hisplatno =1 6 if (lcl7yourrace1 through lcl7yourrace5 and lcl7hisplatno) = 2 or -7 or -8 or -1 Else 5 if lcl7primarace = -7 or -8 or -1	1 =White, non-Hispanic 2 =Black, non-Hispanic 3 =Other (Am Indian/Asian/Native Hawaiian/Pacific Islander/other specify), non-Hispanic 4 =Hispanic NSOC II: 5 = DKRF 6 = Missing NSOC III: 5 = More than one and DKRF primary 6 = DKRF
lchi#downhome C# HI8 OWN YOUR HOME	NSOC III: -4 if lfl7routing=4 Else lchi7downhome = 1 if hp7ownrentot = 1 & lc7relatnshp = 2 & lfl7spdied = -1 Else lchi7downhome = 2 if (hp7ownrentot = 2 or hp7ownrentot = 3) & lc7relatnshp = 2 & lfl7spdied = -1	-8 = DK -7 = RF -4 = Did not help last month -1 = Inapplicable 1 = YES

	Else lchi7downhome = lchi7ownhome	2 = NO
lchi#dchckacct C# HI9A CG HAS CHECKING ACCT	NSOC III: -4 if lfl7routing=4 Else lchi7dchckacct = 1 if ia7bnkacccd4 = 2 & lc7relatnshp = 2 & lfl7spdied = -1 Else lchi7dchckacct = 2 if ia7bnkacccd4 = 1 & lc7relatnshp = 2 & lfl7spdied = -1 Else lchi7dchckacct = lchi7chckacct	-8 = DK -7 = RF -4 = Did not help last month 1 = YES 2 = NO
lchi#dsvgsacct C# HI9B CG HAS SAVINGS ACCOUNT	NSOC III: -4 if lfl7routing =4 Else lchi7dsvgsacct = 1 if ia7bnkacccd8 = 2 & lc7relatnshp = 2 & lfl7spdied = -1 Else lchi7dsvgsacct = 2 if ia7bnkacccd8 = 1 & lc7relatnshp = 2 & lfl7spdied = -1 Else lchi7dsvgsacct = lchi7svgsacct	-8 = DK -7 = RF -4 = Did not help last month 1 = YES 2 = NO
lchi#dcertdpst C# HI9C CG HAS CERT OF DEPOSIT	NSOC III: -4 if lfl7routing =4 Else lchi7dcertdpst = 1 if ia7bnkacc12 = 2 & lc7relatnshp = 2 & lfl7spdied = -1 Else lchi7dcertdpst = 2 if ia7bnkacc12 = 1 & lc7relatnshp = 2 & lfl7spdied = -1 Else lchi7dcertdpst = lchi7certdpst	-8 = DK -7 = RF -4 = Did not help last month 1 = YES 2 = NO
lchi#dretrplan C# HI9D CG HAS RETIREMENT PLAN	NSOC III: -4 if lfl7routing =4 Else lchi7dretrplan = 1 if ia7iraothac3 = 2 & lc7relatnshp = 2 & lfl7spdied = -1 Else lchi7dretrplan = 2 if ia7iraothac3 = 1 & lc7relatnshp = 2 & lfl7spdied = -1 Else lchi7dretrplan = lchi7retrplan	-8 = DK -7 = RF -4 = Did not help last month 1 = YES 2 = NO
lchi#dmutlfnds C# HI9E CG HAS STOCKS MUT FUNDS	NSOC III: -4 if lfl7routing =4 Else lchi7dmutlfnds=1 if ia7mutfdstk4=2 & lc7relatnshp =2 & lfl7spdied = -1 Else lchi7dmutlfnds=2 if ia7mutfdstk4=1 & lc7relatnshp =2 & lfl7spdied = -1 Else lchi7dmutlfnds=lchi7mutlfnds	-8 = DK -7 = RF -4 = Did not help last month 1 = YES 2 = NO
FLAG lchi#incimf C# F IMPUTED INCOME LAST YEAR	NSOC III: -4 if lfl7routing =4 1 if income value reported in HI10	-4 = Did not help last month 1 = Reported in NSOC I 2 = Reported in NHATS R1

FLG	2 if income skipped in NSOC for spouse/partner of SP, and reported income in NHATS were brought over 3 if income imputed in NSOC 4 if income imputed in NHATS for spouse/partner of SP	(Spouse/partner of SP) 3 = Imputed in NSOC I 4 = Imputed in NHATS R1 (Spouse/partner of SP)
FLAG fl7routing C7 F NSOC ROUTING	NSOC III: 2 if fl7spdied=-1 and fl7help1stmth=1 3 if fl7spdied=1 and fl7help1stmth=1 4 if fl7helpyear=1 or fl7nohelpyear=1	2 = Helped last month, Sample Person alive 3 = Helped last month of life, Sample Person deceased 4 = Did not help last month or in last month of life

NSOC Sample Person Tracker Files (Cross-Sectional)		
fl#dnsoc R# F CC Sample Person IS ELIGIBLE FOR NSOC	NSOC I, II and III: 1 if Sample Person meets NSOC eligibility criteria -1 otherwise	1 = Sample Person eligible for cross-sectional NSOC -1 = Inapplicable
fl#dnsoccnt R# F CC CNT HLPRS ELG FOR NSOC	NSOC I, II and III: Number of caregivers eligible for NSOC (up to 5) for each eligible SP	1 to 5 -1 = Inapplicable
fl#dcgphncnt R# F CC CNT HLPRS Sample Person GAVE PHNE	NSOC I and II: Number of eligible caregivers that eligible Sample Person provided phone contact information for	0 to 5 -1 = Inapplicable
fl#dcgadonly R# F CC HLPRS ADDRESS ONLY	NSOC I and II: Number of eligible caregivers that eligible Sample Person provided address for (but no phone contact)	0 to 5 -1 = Inapplicable
fl#dcgcontactinfo R# F CC HLPRS Sample Person GAVE CONTACT INFO	NSOC III: Number of eligible caregivers that eligible Sample Person provided contact information for	0 to 5 -1 = Inapplicable
fl#dnsocomp R# D CC CNT HLPRS WITH NSOC COMP	NSOC I, II and III: Number of eligible caregivers who participated in NSOC for each eligible SP	0 to 5 -1 = Inapplicable
fl#dtrackspstat R# F D Sample Person VITAL STATUS AT INTERVIEW	NSOC III: 1 if Sample Person is living at 2017 NHATS & NSOC [r7status =60 or 63 and CA1PRE NE 7] and fl7dnsoc=1 2 if r6status=62 and fl7dnsoc=1 (longitudinal NSOC III only) 3 if r7status=62 and fl7dnsoc=1	1 = Sample Person interview at 2017 NHATS & alive at NSOC 2 = Sample Person 2016 LML 3 = Sample Person 2017 LML 4 = Sample Person interview at 2017 & deceased at NSOC

	<p>4 if [r7status = 60 or 63 and CA1PRE=7 for all op7dnsocelig caregivers] and fl7dnsoc=1</p> <p>5 if r7status = [60 or 63 and CA1PRE NE 7 for at least one op7dnsocelig caregiver and CA1PRE=7 for least one op7dnsocelig caregiver] and fl7dnsoc=1</p> <p>-1 otherwise</p>	<p>5 = Sample Person interview at 2017 & more than 1 caregiver & at least 1 caregiver reports Sample Person deceased at NSOC</p> <p>-1 = Inapplicable</p>
--	--	---

NSOC OP Tracker Files (Cross-Sectional)		
<p>op#dnsocelig</p> <p>R# D CAREGIVER IS ELIGIBLE FOR NSOC</p>	<p>NSOC III:</p> <p>1 if OP meets eligibility criteria</p> <p>-1 otherwise</p>	<p>1 = Helper eligible for cross-sectional NSOC</p> <p>-1 = Inapplicable</p>
<p>op#dnsoc</p> <p>R# D NSOC STATUS</p>	<p>NSOC I and II:</p> <p>1 = eligible helper who was interviewed</p> <p>2 = eligible helper not interviewed for whom Sample Person gave phone contact</p> <p>3 = eligible helper not interviewed Sample Person refused contact information</p> <p>4 = eligible helper not interviewed other (could not locate, too ill, other)</p> <p>5 = eligible helper who was not fielded for NSOC interview (Sample Person broke off interview before contact information could be obtained; CAPI programming error)</p> <p>6 = helper ineligible because Sample Person had more than 5 caregivers and caregiver was not sampled</p> <p>7 = helper found ineligible upon contact (Sample Person died, caregiver under age, caregiver died, caregiver said had not helped in last year)</p> <p>-1 = all other persons on the NHATS OP file</p> <p>NSOC III:</p> <p>1 = eligible helper who was interviewed</p> <p>2 = eligible helper refused interview</p> <p>3 = eligible helper not interviewed other reasons</p> <p>4 = eligible helper and not interviewed Sample Person did not provide contact information</p> <p>6 = helper ineligible because Sample Person had more than 5 caregivers and helper not sampled</p> <p>7 = Named by Sample Person as a helper but determined ineligible (caregiver under age, caregiver died)</p>	<p>NSOC I and II:</p> <p>1 = Eligible and interviewed</p> <p>2 = Eligible and not interviewed phone number provided</p> <p>3 = Eligible and not interviewed Sample Person refused</p> <p>4 = Eligible and not interviewed other</p> <p>5 = Eligible and not fielded for NSOC</p> <p>6 = 5+ caregivers and not sampled</p> <p>7 = Ineligible</p> <p>-1 = Inapplicable</p> <p>NSOC III:</p> <p>1 = Eligible and interviewed</p> <p>2 = Eligible and caregiver refused</p> <p>3 = Eligible and caregiver not interviewed other reasons</p> <p>4 = Eligible and not interviewed Sample Person did not provide contact information</p> <p>6 = >5 caregivers and not</p>

	-1 = all other persons on the NHATS OP file Note: LML caregivers interviewed in NSOC III. See fl7dtrackspstat.	sampled 7 = Named by Sample Person but ineligible -1 = Inapplicable
op#dnsoccomplete R# D CAREGIVER NSOC COMPLETE	NSOC III: 1 = NSOC interview complete -1 = Inapplicable	1 = NSOC interview complete -1 = Inapplicable
op#dtrackspstat R# D Sample Person VITAL STATUS AT INTERVIEW	NSOC III: 1 if Sample Person is living at 2017 NHATS & NSOC Sample Person is living at 2017 NHATS & NSOC [r7status = 60 or 63 and CA1PRE NE 7] and op7dnsocelig=1 2 if r6status=62 and op7dnsocelig=1 (longitudinal NSOC III only) 3 if r7status=62 and op7dnsocelig=1 4 if Sample Person deceased between 2017 NHATS and NSOC III [r6status NE 62 or 86 and r7status NE 62 or 86 and NSOC caregiver reports Sample Person deceased [CA1PRE=7]	1 = Sample Person interview at 2017 NHATS & alive at NSOC 2 = Sample Person 2016 LML 3 = Sample Person 2017 LML 4 = Sample Person died betwn NHATS & NSOC -1 = Inapplicable
op#dnamedhelper R# D OP NAMED AS HELPER IN NHATS	NSOC III: 1 if OP named as helper in NHATS interview -1 otherwise	1 = OP named as helper in NHATS interview -1 = Inapplicable

NSOC Sample Person Tracker Files (Longitudinal)		
lfl#dnsoc R# F CC Sample Person IS ELIGIBLE FOR NSOC	NSOC III: 1 if Sample Person has any OP with lop7dnsocelig=1 -1 otherwise	1 = Sample Person eligible for longitudinal NSOC -1 = Ineligible
lfl#dnsocent R# F CC CNT HLPRS ELG FOR NSOC	NSOC III: Number of caregivers eligible for NSOC (up to 5) for each eligible SP	1 to 5 -1 = Inapplicable
lfl#dnsoccomp R# D CC CNT HLPRS WITH NSOC COMP	NSOC III: Number of eligible caregivers who participated in NSOC for each eligible SP	0 to 5 -1 = Inapplicable
lfl7dtrackspstat R7 F D Sample Person VITAL STATUS	NSOC III: 1 if Sample Person is living at 2017 NHATS & NSOC [r7status = 60 or 63 and CA1PRE NE 7] and lfl7dnsoc=1 2 if r6status=62and lfl7dnsoc=1	1 = Sample Person is alive at 2017 NHATS & NSOC 2 = Sample Person 2016 LML 3 = Sample Person 2017 LML

	<p>3 if r7status=62 and lfl7dnsoc=1 4 if [r7status = 60 or 63 and CA1PRE=7 for all lop7dnsocelig caregivers] and lfl7dnsoc=1 5 if r7status = 60 or 63 and (CA1PRE NE 7 for at least one op7dnsocelig caregiver and CA1PRE = 7 for at least one op7dnsocelig caregiver) and lfl7dnsoc=1 9 if [r6status>64 or r7status>63] and lfl7dnsoc=1 Otherwise -1 (all OPs for Sample Person have lop7dnsocelig NE 1)</p>	<p>4 = Sample Person interview at 2017 & deceased at NSOC 5 = Sample Person interview at 2017 & more than 1 caregiver & at least 1 reports Sample Person deceased at NSOC 9 = Sample Person not interviewed in 2017 and no LML interview in 2016/2017 -1 = Inapplicable</p>
--	---	--

NSOC OP Tracker Files (Longitudinal)

<p>lop#dnsocelig R# D CAREGIVER IS EIGIBLE FOR NSOC</p>	<p>NSOC III: 1 if OP completed NSOC II and meets eligibility criteria 2 if OP completed NSOC II and does not meet eligibility criteria -1 otherwise</p>	<p>1 = Helper eligible for longitudinal NSOC 2 = Helper ineligible for longitudinal NSOC -1 Inapplicable</p>
<p>lop#dnsoc R# D NSOC STATUS</p>	<p>NSOC III: 1 = eligible helper who was interviewed 2 = eligible helper refused interview 3 = eligible helper not interviewed other reasons 4 = eligible helper and not interviewed Sample Person did not provide contact information 8 = eligible helper not fielded due to no Sample Person interview 9 = eligible caregiver who is deceased Otherwise -1 if lop7dnsocelig NE 1</p> <p>Note: LML caregivers interviewed in NSOC III. See lfl7dtrackspstat.</p>	<p>1 = Eligible and interviewed 2 = Eligible and caregiver refused 3 = Eligible and caregiver not interviewed other reasons 4 = Eligible and not interviewed Sample Person did not provide contact information 8 = Eligible and not fielded no Sample Person interview in 2017 9 = Eligible caregiver deceased -1 = Inapplicable</p>
<p>lop#dnsoccomplete R# D CAREGIVER NSOC COMPLETE</p>	<p>NSOC III: 1 = NSOC interview complete -1 = Inapplicable</p>	<p>1 = NSOC interview complete -1 = Inapplicable</p>
<p>lop#dtrackspstat R# D Sample Person VITAL STATUS AT INTERVIEW</p>	<p>NSOC III: 1 if [r7status = 60 or 63 and CA1PRE NE 7] and lop7dnsocelig=1 2 if r6status=62 and lop7dnsocelig=1 3 if r7status=62 and lop7dnsocelig=1 4 if [r7status=60 or 63 and CAPRE7=1] and</p>	<p>1 = Sample Person interview at 2017 NHATS & alive at NSOC 2 = Sample Person 2016 LML 3 = Sample Person 2017 LML 4 = Sample Person interview at 2017 & deceased at NSOC</p>

	lop7dnsocelig=1 9 if [r6status>64 or r7status>63] and lop7dnsocelig=1 -1 if lop7dnsocelig NE 1	9 = Sample Person not interviewed in 2017 and no LML interview in 2016/2017
lop#ddeceased R# D CG DECEASED STATUS	NSOC III: 1 if (op6ddeceased=1 and r7status = 60 or 62 or 63) or op7ddeceased=1 or identified as deceased prior to NSOC III -1 otherwise	1 = Caregiver deceased -1 = Inapplicable