REPORT

FINAL REPORT

National Beneficiary Survey–General Waves Round 5: (Volume 2 of 3) Data Cleaning and Identification of Data Problems

August 17, 2017

Sara Skidmore
Debra Wright
Kirsten Barrett
Eric Grau

This page has been left blank for double-sided copying.

CONTENTS

This page has been left blank for double-sided copying.

TABLES

This page has been left blank for double-sided copying.

ACRONYMS

ACS	American Community Survey
ADL	Activities of daily living
CAPI	Computer-assisted personal interviewing
CATI	Computer-assisted telephone interviewing
IADL	Instrumental activities of daily living
ICD-9	International Classification of Diseases—9th revision
NAICS	North American Industry Classification System
NBS	National Beneficiary Survey
PSU	Primary sampling unit
SOC	Standard Occupational Classification
SSA	Social Security Administration
SSDI	Social Security Disability Insurance (Title II of the Social Security Act)
SNAP	Supplemental Nutrition Assistance Program
SSI	Supplemental Security Income (Title XVI of the Social Security Act)
SVRA	State Vocational Rehabilitation Agency (also called VR)
TRS	Telecommunications relay service
TTW	Ticket to Work and Self-Sufficiency Program

This page has been left blank for double-sided copying.

NBS DATA DOCUMENTATION REPORTS

The following publicly available reports are available from SSA through its website (https://www.ssa.gov/disabilityresearch/nbs_round_5.htm#general):

- **User's Guide for Restricted- and Public-Use Data Files** (Wright et al. 2017). This report provides users with information about the restricted-use and public-use data files, including construction of the files; weight specification and variance estimation; masking procedures employed in the creation of the Public-Use File; and a detailed overview of the questionnaire design, sampling, and NBS–General Waves data collection. The report provides information covered in the Editing, Coding, Imputation and Weighting Report and the Cleaning and Identification of Data Problems Report—including, procedures for data editing, coding of open-ended responses, and variable construction—as well as a description of the imputation and weighting procedures and development of standard errors for the survey. In addition, this report contains an appendix addressing total survey error and the NBS.

- **NBS Public-Use File Codebook** (Bush et al. 2017). This codebook provides extensive documentation for each variable in the file, including variable name, label, position, variable type and format, question universe, question text, number of cases eligible to receive each item, constructed variable specifications, and user notes for variables on the public-use file. The codebook also includes frequency distributions and means as appropriate.

- **NBS–General Waves Questionnaire** (Barrett et al. 2016). This document contains all items on Round 5 of the NBS–General Waves and includes documentation of skip patterns, question universe specifications, text fills, interviewer directives, and checks for consistency and range.

- **Editing, Coding, Imputation, and Weighting Report** (Grau et al. 2017). This report summarizes the editing, coding, imputation, and weighting procedures as well as the development of standard errors for Round 5 of the NBS–General Waves. It includes an overview of the variable naming, coding, and construction conventions used in the data files and accompanying codebooks; describes how the sampling weights were computed to the final post-stratified analysis weights for the representative beneficiary sample; outlines the procedures used to impute missing responses; and discusses procedures that should be used to estimate sampling variances for the NBS.

- **Cleaning and Identification of Data Problems Report** (current report). This report describes the data processing procedures performed for Round 5 of the NBS–General Waves. It outlines the data coding and cleaning procedures and describes data problems, their origins, and the corrections implemented to create the final data file. The report describes data issues by sections of the interview and concludes with a summary of types of problems encountered and general recommendations.

- **NBS Nonresponse Bias Analysis** (Grau 2017)**.** The purpose of this report was to determine whether the nonresponse adjustments applied to the sampling weights of Round 5 of the NBS-General Waves appropriately accounted for differences between respondents and nonrespondents or whether the potential for nonresponse bias still existed.

The following restricted-use report is available from SSA through a formal data sharing agreement:

- **NBS Restricted-Access Codebook** (Bush et al. 2017). This codebook provides extensive documentation for each variable in the file, including variable name, label, position, variable type and format, question universe, question text, number of cases eligible to receive each item, constructed variable specifications, and user notes for variables on the restricted-access file. The codebook also includes frequency distributions and means as appropriate.

I. INTRODUCTION

As part of the National Beneficiary Survey–General Waves (NBS–General Waves) project, Mathematica Policy Research conducted the first of three new rounds of data collection in 2015, with two additional rounds to be administered in 2017 and 2019. Sponsored by the Social Security Administration's (SSA) Office of Retirement and Disability Policy, the survey collected data from a national sample of SSA disability beneficiaries. Mathematica collected data by using computer-assisted telephone interviewing (CATI). We used computer-assisted personal interviewing (CAPI) for follow-ups of CATI nonrespondents and for those who preferred or needed an in-person interview to accommodate their disabilities.

The prior rounds of the NBS—conducted by SSA in 2004, 2005, 2006, and 2010[1]—took an important first step toward understanding the work interest and experiences of Supplemental Security Income (SSI) recipients and Social Security Disability Insurance (SSDI) beneficiaries. These surveys helped glean information about beneficiaries' impairments; health; living arrangements; family structure; occupation before disability; and use of non-SSA programs (for example, the Supplemental Nutrition Assistance Program, or SNAP). The prior NBS rounds also evaluated the Ticket to Work and Self-Sufficiency (TTW) program. The NBS–General Waves no longer includes a focus on TTW. Instead, the survey seeks to uncover important information about the factors that promote beneficiary self-sufficiency and, conversely, the factors that impede beneficiary efforts to maintain employment.

Mathematica conducted an extensive review of the NBS data in order to identify data problems before analysis. In the following discussion, we describe the data processing procedures that we performed for Round 5 of the NBS–General Waves. In the remaining sections of Chapter I, we provide an overview of the NBS-General Waves, including the objectives of the study. In Chapter II, we summarize the NBS data collection instrument while in Chapter III, we describe the data coding and cleaning procedures and highlight the main data issues that we encountered. We present a section-by-section summary of findings in Chapter IV, and provide concluding comments in Chapter V.

A. NBS–General Waves Objectives

The NBS–General Waves collects important beneficiary data that are not available from SSA administrative data or other sources. The survey addresses five major questions:

1. What are the work-related goals and activities of SSI and SSDI beneficiaries, particularly as they relate to long-term employment?

2. What are the short-term and long-term employment outcomes for SSI and SSDI beneficiaries who work?

---

[1] In this report, we refer to the NBS rounds conducted in 2004, 2005, 2006, 2010, and 2015 as Round 1, Round 2, Round 3, Round 4, and Round 5, respectively. We refer to the planned 2017 and 2019 rounds as Round 6 and Round 7, respectively.

3. What supports help SSA beneficiaries with disabilities find and keep jobs and what barriers to work do they encounter?

4. What are the characteristics and experiences of beneficiaries who work?

5. What health-related factors, job-related factors, and personal circumstances hinder or promote employment and self-sufficiency?

The NBS–General Waves captures information on SSA beneficiaries, including their disabilities, interest in work, use of services, and employment. SSA will combine data from the NBS–General Waves with SSA administrative data to provide critical information on access to jobs and employment outcomes for beneficiaries. As a result, SSA and external researchers who are interested in disability and employment issues may use the survey data for policymaking and program planning efforts.

B. NBS–General Waves Sample Design Overview

During Round 5 of the NBS–General Waves, we fielded a nationally representative sample of 7,682 SSA disability beneficiaries (hereafter referred to as the representative beneficiary sample). The sample design for the representative beneficiary sample (RBS) was nearly identical to the design of the RBS in the fourth round of the prior NBS. As in the prior NBS, the target population for the RBS consisted of SSI recipients and SSDI beneficiaries between the ages of 18 and full retirement age who resided in all 50 states and the District of Columbia, excluding outlying territories, and who were in an active pay status as of June 30, 2014.[2] As of that date, the target population consisted of approximately 13.8 million beneficiaries. As in prior rounds, we stratified the cross-sectional RBS by four age-based strata within the PSUs: (1) 18- to 29-year-olds, (2) 30- to 39-year-olds, (3) 40- to 49-year-olds, and (4) 50-year-olds and older. To ensure a sufficient number of persons seeking work, beneficiaries in the first three cohorts were oversampled (18- to 49-year-olds). The target number of completed interviews for Round 5 was 1,111 beneficiaries in each of the three younger age groups. For those 50 years and older, the target number of completed interviews was 667 beneficiaries. We summarize the actual sample sizes and number of completed interviews for both samples under the revised design in Table I.1.

For Round 5 of the NBS–General Waves we used a multistage sampling design. Because the geographical distribution of beneficiaries changed little between 2003 and 2011, we used the same 1,330 PSUs—which consist of one or more counties—that were created for the prior NBS. The measure of size for each PSU in this sample was based upon the most current counts of beneficiaries. We selected a stratified national sample of 79 PSUs, with probability proportional to size.

---

[2] Active status includes beneficiaries who are currently receiving cash benefits as well as those whose benefits have been temporarily suspended for work or other reasons. Active status does not include beneficiaries whose benefits have been terminated.

Table I.1. NBS–General Waves Round 5 actual sample sizes, target completes, and completes

Sampling Strata	Sample Size	Target Completed Interviews	Actual Completed Interviews
Representative Beneficiary Sample	7,682	4,000	4,062
18- to 29-years-old	2,268	1,111	1,149
30- to 39-years-old	2,126	1,111	1,097
40- to 49-years-old	2,076	1,111	1,104
50 or older	1,212	667	712

Source: NBS–General Waves Round 5.

C. Round 5 Survey Overview

The NBS was designed and implemented to maximize both response and data quality. Table I.2 describes the most significant sources of potential error identified at the outset of the NBS and describes the ways we attempted to minimize the impact of each. A more detailed discussion of our approach to minimizing total survey error can be found in Appendix A of the Round 5 User's Guide (Wright et al. 2017).

Table I.2. Sources of error, description, and methods to minimize impact

Source of Error	Description	Method to Minimize Impact
Sampling	Error that results when characteristics of the selected sample deviates from the characteristics of the population.	Select a large sample size; select primary sampling units with probability proportional to size, basing the measure of size for each PSU on the counts of beneficiaries in the study population; use stratified sampling by age categories to create units within each stratum as similar as possible.
Specification	An error that results when the concept intended to be measured by the question is not the same as the concept the respondent ascribes to the question.	Cognitive interviewing during survey development[a] and pre-testing; use of proxy if sample member unable to respond due to cognitive disability
Unit Nonresponse	An error that occurs when a selected sample member is unwilling or unable to participate (failure to interview). This can result in increased variance and potential for bias in estimates if nonresponders have different characteristics than responders.	Interviewer training; intensive locating, including field locating; in-person data collection; refusal conversion; incentives; nonresponse adjustment to weights
Item Nonresponse	An error that results when items are left blank or the respondent reports that he or she does not know the answer or refuses to provide an answer (failure to obtain and record data for all items). This can result in increased variance and potential bias in estimates if nonresponders have different characteristics than responders.	Use of probes; allowing for variations in reporting units; assurance of confidentiality; assistance during interview; use of proxy if sample member unable to respond due to cognitive disability; imputation on key variables
Measurement	An error that occurs as a result of the respondent or interviewer providing incorrect information (either intentionally or unintentionally). This may result from inherent differences in interview mode.	Same instrument used in both interview modes; use of probes; adaptive equipment; interviewer training, validation of field interviews; assistance during interview; use of proxy if sample member unable to respond due to cognitive disability
Data Processing	An error in data entry, coding, weighting, or analyses.	Coder training; monitoring and quality control checks of coders; quality assurance review of all weighting and imputation procedures

[a]Conducted during survey development phase under a separate contract held by Westat.

We did not expect item nonresponse to be a large source of error because the survey contained few obviously sensitive items. In fact, item nonresponse was greater than 5 percent only for select items asking for wages and household income. Unit nonresponse was the greater concern given the population; thus, the survey was designed to be executed as a dual-mode survey. Mathematica made all initial attempts to interview beneficiaries using CATI. If a sample member could not participate in the survey because of an intellectual disability, even with help from a friend or family member, Mathematica sought a proxy respondent. To promote response among Hispanic populations, we translated the questionnaire into Spanish. For languages other than English or Spanish, interpreters, if available in the sample person's home, conducted the interviews. We made a number of additional accommodations for those with hearing or speech impairments, including using a telecommunications relay service (TRS) and amplifiers.

If Mathematica could not locate and contact a sample member by telephone, a field locator was deployed to make contact in person. Once located, the field locator attempted to facilitate an interview with the sample member via CATI, using a staff cell phone to call into the data collection center (or the sample member's own phone, if preferred). If a sample member could not complete the interview by telephone in this manner due to his or her disability, trained field staff conducted the interview in person using CAPI. To reduce measurement error, the survey instrument was identical in each mode.

We began Round 5 CATI data collection for the NBS in February 2015. In June 2015, Mathematica began in-person locating and CAPI, which continued concurrent with CATI interviewing through October 2015. The NBS–General Waves Round 5 sample comprised 7,682 cases.

1. Completes and Response Rates

In total, Mathematica completed 4,062 interviews (including 40 partially completed interviews). We deemed an additional 297 beneficiaries as ineligible for the survey.[3] Mathematica completed 3,649 cases by CATI and 413 by CAPI.[4]

In Round 5, we completed proxy interviews for 771 sample members (19 percent of all completed interviews). Of the completed proxy interviews, approximately 60 percent needed a proxy because the caregiver deemed the sample member unable to respond due to an intellectual disability; 32 percent needed a proxy because the sample member failed the cognitive assessment; and the remaining 8 percent needed a proxy because they were unable to complete the interview, as they did not understand the questions or the question-response sequence after passing the cognitive assessment.[5] There were an additional 136 cases in which sample members

---

[3] We marked as ineligible any beneficiaries who died between the sample selection and the start of data collection, based on information obtained from informants, SSA, or LexisNexis/Accurint prior to the start of data collection. Beneficiaries who were found to be incarcerated or no longer living in the continental United States or who reported that they had not received benefits in the past five years at the time of the interview were marked as ineligible during the data collection period. Approximately 4 percent of sample members were ineligible for the survey in Round 5, compared to 6 percent in the prior round of the NBS.

[4] Of the 3,649 cases completed by CATI, 932 were facilitated by a field locator at the sample person's home.

[5] The cognitive assessment was developed under a separate contract held by Westat.

could not participate in the interview and proxies could not be identified to complete it on their behalf. Of these cases, approximately 82 percent were situations in which a gatekeeper reported an intellectual disability; the remaining 18 percent were situations in which sample members could not participate because they were unable to successfully complete the cognitive screener. The weighted response rate for the representative beneficiary sample was 62.6 percent. More information about sample selection and sampling weights is available in Grau et al. (2017).

Despite intensive locating and contact efforts, we obtained fewer than the targeted number of completes in most of the sampling strata at Round 5, with the exception of the oldest cohort (50 and older), and achieved response rates that were lower than in prior rounds (see Table I.1). There were two main reasons for this. First, more beneficiaries refused participation in Round 5 of the NBS–General Waves than in prior NBS rounds (14 percent of households contacted refused in Round 5 compared to 12 percent in Round 4).[6] Second, we located fewer beneficiaries than in prior rounds (approximately 13 percent of the sample members were not located at the end of data collection in Round 5, compared to 9 percent in Round 4). In addition, contact information was invalid for more than half of the beneficiaries in the sample—63 percent of the released sample required locating. Finally, in keeping with an increasing trend for household surveys generally, we placed more calls on average in an attempt to complete an interview than we did in the prior Round 4 NBS (36 percent versus 31 percent). We also had significantly more cases that resulted in a "noncontact" status (that is, repeated attempts that end with an answering machine or no answer at all)—13 percent of the sample compared to 9 percent in Round 4. However, fewer beneficiaries were ineligible for the current survey (4 percent compared to 6 percent in the prior NBS).

In response to the lower yield rates, we considered the possibility of extending the data collection period to continue our effort on hard-to-reach cases. For cost reasons, SSA elected to add to the sample instead to increase the target number of completed interviews. This was a necessary trade-off to ensure statistical power for analyses.

2. Nonresponse Bias

Because the weighted response rates within strata ranged from 54.7 percent to 63.1 percent and the overall response rate was less than 80 percent, we conducted a nonresponse bias analysis at the conclusion of data collection using all 7,682 sample cases to determine if systematic differences existed between respondents and nonrespondents that could result in a potential for nonresponse bias.

In sum, our analysis indicates that the nonresponse and poststratification adjustments alleviated all differences observed between respondents and nonrespondents for the SSA program variables we had at our disposal. This included variables for which the sampling distribution, when using the original sampling weights for all sample members, closely matched the frame, as well as other variables for which this was not the case. In Round 4 of the prior NBS, even after incorporating nonresponse and poststratification adjustments to the sampling weights, average earnings estimates were considered lower than expected, due to lower response rates among sample members with sustained high earnings. To account for this in Round 5 of the

---

[6] Reported percentages are unweighted.

NBS—General Waves, we included a variable in the poststratification adjustments that ensured the potential for this nonresponse bias would be minimized. The full nonresponse bias analysis can be obtained from SSA (https://www.ssa.gov/disabilityresearch/nbs_round_5.htm#general).

II. DESCRIPTION OF THE NBS–GENERAL WAVES INSTRUMENT

The NBS collects data on a wide range of topics—including, employment, disability, experience with SSA programs, employment services used in the past year, health and functional status, health insurance, income and other assistance, and sociodemographic information. Under a separate contract, Westat developed and initially pre-tested the survey items. Mathematica subsequently made revisions to the survey items to prepare the instrument for CATI/CAPI programming and made minor wording changes in response to pre-testing results. Minor revisions were made in Round 5 of the NBS–General Waves to accommodate changes in reference periods and changes in federal programs. In addition, questions specific to TTW were deleted (Sections F and H). The survey instrument is available from SSA (https://www.ssa.gov/disabilityresearch/nbs_round_5.htm#general).

To promote responses among Hispanic populations, Mathematica translated the questionnaire into Spanish. Certified bilingual interviewers administered the Spanish interviews. If a Spanish speaker was more familiar with a word or term in English than in Spanish, we provided the term in both languages—allowing interviewers to reinforce the question by using the second language as a probe, if necessary.[7] We treated measurements in a similar way. Questions that mentioned a particular weight also mentioned the kilogram equivalent.[8] We did not conduct interviewers in languages other than English and Spanish unless someone in the home, such as an adult child or other family member, could interpret the questions for the sample member.

A. Summary of Modules

The questionnaire is divided into 11 sections, labeled A through M:[9]

- Section A—Introduction and Screener

- Section B—Disability and Current Work Status

- Section C—Current Employment

- Section D—Jobs/Other Jobs During 2014

- Section E—Awareness of SSA Work Incentive Programs

- Section G—Employment-Related Services and Supports Used in 2014

- Section I—Health and Functional Status

- Section J—Health Insurance

---

[7] For example, on Item L-5: Did {you/NAME} receive any food stamps last month? Spanish: Recibió {usted/NAME} food stamps o cupones de alimentos el mes pasado?

[8] For example, on Item Jb-10: {Do you/Does NAME} have any difficulty lifting and carrying something as heavy as 10 pounds, such as a full bag of groceries? Spanish: Tiene {usted/NAME} cualquier dificultad en levantar y cargar algo que pesa hasta unas 10 libras {4½ kilos}, tal como una bolsa llena con compras del mercado?

[9] Sections F and H were deleted from the Round 5 of the NBS–General Waves survey, as they were focused on the TTW program.

- Section K—Income and Other Assistance

- Section L—Sociodemographic Information

- Section M—Closing Information and Observations

  Descriptions of each section follow.

1. Section A—Screener

This section confirms that the interviewer has contacted the correct sample person and verifies that the sample person is still eligible for the survey. In addition, the screener allows interviewers to do the following:

- **Identify any barriers to participation** and, if needed, identify a proxy respondent. The sample member is offered every opportunity to complete the interview himself or herself; a proxy responds only if necessary.

- **Identify the need for an interpreter** for a respondent who speaks a language other than English or Spanish.

- **Administer a cognitive assessment** to ensure that the respondent is capable of completing a complex survey.

We present three statements in the screener: (1) a brief description of what it means that the survey is confidential, (2) what it means that the survey is voluntary, and (3) an overview of the study topics. Then we ask respondents to reiterate the concepts in their own words. If a respondent cannot restate a concept, the question is read a second time. If the respondent still cannot restate a concept, we ask if someone else (such as a friend, parent, caseworker, or payee) can answer questions about the respondent's health, daily activities, and jobs. We then pursue an interview with the proxy respondent, if available. To minimize bias in reporting, we do not ask the proxy respondent to provide subjective assessments on behalf of the sample person with respect to, for example, satisfaction with jobs or programs. The constructed variable C_Rtype indicates whether the sample person or a proxy completed most of the interview.

2. Section B—Disability and Current Work Status

This section collects information on the beneficiary's limiting physical or mental conditions and current employment status. If a beneficiary is not currently employed, we explore the reasons for not working. We also ask questions to determine the job characteristics that are important to beneficiaries and collect information about work-related goals and expectations.

3. Section C—Current Employment

In this section, we collect detailed information about the beneficiary's current job. Respondents address the type of work performed, type of employer, hours worked, benefits offered, and wages earned. We also ask about work-related accommodations—those received as well as those needed but not received. We solicit information about job satisfaction in other questions.

4.   Section D—Jobs/Other Jobs During 2014

Questions in this section collect information about employment during the 2014 calendar year, including type of employer; hours worked; wages earned; and the reasons for leaving employment, if applicable. In other questions, we ask whether beneficiaries worked or earned less than they could have (and, if so, why) and collect information about their experiences with adjustments to social security benefits due to work.

5.   Section E—Awareness of SSA Work Incentive Programs

In this section, we ask questions to assess whether the beneficiary is aware of or is participating in SSA work incentive programs and services.

6.   Section G—Employment-Related Services and Supports Used in 2014

Questions in this section ask beneficiaries about their use of employment-related services in calendar year 2014, including types of services received, types of providers used, length of service receipt, payment for the services, and reasons for and satisfaction with services. We also ask about sources of information about services and the nature of any services needed but not received.

7.   Section I—Health and Functional Status

In this section, we ask about the beneficiary's health status and daily functioning, including the need for special equipment or assistive devices. We ask for information about general health status (via the SF-8™ scale), difficulties with activities of daily living (ADLs) and instrumental activities of daily living (IADLs), functional limitations, substance abuse or dependence, and treatment for mental health conditions.[10]

8.   Section J—Health Insurance

Questions in this section collect information about the beneficiary's sources of health insurance, both at the time of interview and during calendar year 2014.

9.   Section K—Income and Other Assistance

In this section, we ask about sources of income, including income received from earnings, social security, workers' compensation, and other government programs and sources.

10.   Section L—Sociodemographic Information

This section collects basic demographic information about the beneficiary, such as race, ethnicity, education, parental education, marital status, living arrangements, and household income.

---

[10] SF-8™ is a trademark of QualityMetric, Inc.

11. Section M—Closing Information and Observations

In this section, we collect address information for the sample person so that the $20 incentive check may be mailed. The interviewer also records the reasons that a proxy or other assistance was required, if appropriate, and documents special circumstances.

B. Instrument Pathing and Preloaded Data

CATI and CAPI respondents received the same questionnaire. Round 5 of the NBS–General Waves required 45 minutes to administer on average. The interview length ranged from 14 minutes to 180 minutes, excluding TRS interviews.

Interviewers asked all respondents questions from Sections A, B, E, G, I, J, K, L, and M. Only respondents who reported that they were currently working answered the questions in Section C. Similarly, only respondents who reported working in 2014 answered the questions in Section D. Table II.1 provides a summary description of the main questionnaire pathing.

Table II.1. NBS–General Waves instrument sections

Section	Title of Section	Respondents Receiving the Section
A	Screener	All respondents
B	Disability and Current Work Status	All respondents
C	Current Employment	Respondents who answer (B24 = YES) Question B24: Are you currently working at a job or business for pay or profit?
D	Jobs/Other Jobs During 2014	Respondents who answer (B30 = YES) Question B30: Did you work at a job or business for pay or profit any time in 2014?
E	Awareness of SSA Work Incentive Programs	All respondents
G	Employment-Related Services and Supports Used in 2014	All respondents
I	Health and Functional Status	All respondents
J	Health Insurance	All respondents
K	Income and Other Assistance	All respondents
L	Sociodemographic Information	All respondents
M	Closing Information and Observations	All respondents

Source: NBS–General Waves Round 5.

The NBS–General Waves instrument, which Mathematica programmed in Blaise, is complex and involves several integrated skips within and across sections. The use of preloaded SSA administrative data and allowances for proxy participation introduce further complexities into the questionnaire pathing. Preloaded data on respondents' disability benefits status (SSI, SSDI, or both) and age at which respondents first received SSI benefits determine pathing for

certain survey items. Other administrative variables serve as fills for particular items to provide respondents with names of local programs or to prompt recognition of program participation. Table II.2 provides a complete list and description of the preloaded variables.

Table II.2. Survey preloads

Variable	Definition	Purpose
Bstatus	SSA benefit type (SSI only, SSDI only, or SSI and SSDI) received by sample member	Used to determine pathing for awareness of SSA work incentive items. Only respondents who received SSDI benefits were asked Items E3 through E13. Only respondents who received SSI were asked Items E15 and E17.
DOB	Sample member date of birth	Reported date of birth (or age) matched with administrative data to verify that the correct person was contacted in the screener portion of the survey.
SSIage	Age at which sample member first received SSI benefits	Used to determine pathing at Items E11 and E12. Only respondents who received SSI before age 22 (and were 25-years-old or younger) were asked these items.
StateMed	State name for Medicaid, based on state of residence reported at time of survey	Used at Item J2 to identify, by name, the Medicaid program in the respondent's state.
VRname	State name for State Vocational Rehabilitation Agency, based on state of residence reported at time of survey	Used at Items B29 and to identify, by name, the State Vocational Rehabilitation Agency in the respondent's state.

Source: NBS–General Waves Round 5.

Finally, given that proxies are needed when the sample member's disability precludes participation, we programmed the instrument to fill in the proper pronoun or name in the question text after the interviewer indicated that the survey respondent would be either a sample member or a proxy. In addition, the instrument was programmed to skip attitudinal and opinion items for proxy respondents to minimize bias in reporting. (See Table II.3 for a complete list of items not asked of proxy respondents.) As mentioned previously, interviewers completed 771 proxy interviews.

Table II.3. Items skipped for proxy respondents

Survey Item	Question Text
B29_3a	You said that one of the reasons you did not accept a job you were offered was because it did not pay enough. What is the lowest wage or salary you would have accepted for this job?
B29_3b	If you did get a job offer that matched your current needs and abilities, what is the lowest wage or salary you would be willing to accept for such a job?
B29_8a	You said that one of the reasons you are unable to find a job is that the jobs that are available do not pay enough. What is the lowest wage or salary you would accept for a job that matched your current needs and abilities?
B29_8b	If you did get a job offer that matched your needs and abilities, what is the lowest wage or salary you would be willing to accept for such a job?
B29_12a	If you did get a job offer that matched your current needs and abilities, what is the lowest wage or salary you would be willing to accept for such a job?
C18	Taking all things into account, how satisfied are you with your {main/current} job? Would you say very satisfied, somewhat satisfied, not very satisfied, or not at all satisfied?
C39a–C39m	Again, thinking about your {main/current} job, how much do you agree with each of the following statements? Would you say you strongly agree, agree, disagree, or strongly disagree?
C39a	The pay is good.
C39b	The benefits are good.
C39c	The {job security is good/work is steady}.
C39d	You have a chance for promotion.
C39e	You have a chance to develop abilities.
C39f	You have recognition or respect from others.
C39g	You can work on your own in your job if you want to.
C39h	You can work with others in a group or team if you want to.
C39i	Your work is interesting or enjoyable.
C39j	Your work gives you a feeling of accomplishment or contribution.
C39k	Your supervisor is supportive.
C39l	Your co-workers are friendly and supportive.
C39m	You plan to stay at this job for the next five years.

Source: NBS–General Waves Round 5.

C. Changes Made to Survey Instrument in Round 5

Mathematica made minor modifications to the Round 4 NBS instrument for administration in Round 5 of the NBS–General Waves, including (1) changing reference periods from 2009 to 2014, (2) updating items to reflect changes in SSA programs or policies, (3) improving question wording and adding response categories, and (4) incorporating six disability items from the American Community Survey (ACS). We also deleted items from Round 4 that were no longer

applicable in Round 5, including those related to TTW or because of administrative data availability, programs that no longer exist, or items of limited analytic value.

Changes to the Reference Period. We updated year references for questions and response categories. For example, in Section D (Jobs/Other Jobs in 2014), we changed the reference year from 2009 to 2014. Similarly, in Section G (Employment-Related Services and Supports in 2014), we changed the reference year from 2009 to 2014. Further, on items asking about the year in which services were last received, we changed the response options from "in 2010," "in 2009," or "before 2009" to "in 2015," "in 2014," or "before 2014," respectively. The change in the reference period also necessitated changes to the upper bound of soft and hard edit checks for certain numeric items. For example, in Section C (Current Employment), we changed the upper bound for the year in which the respondent started his or her current job from 2010 to 2015 because Round 5 was fielded in that year.

Changes to Reflect Changes in SSA Programs or Policies. In some instances, programs referenced in the Round 4 NBS instrument—primarily in Section E (Awareness of SSA Work Incentive Program)—no longer operate or operate under a different name. We deleted or updated survey items as appropriate. Before fielding the survey, we also updated items to reflect the 2015 dollar amounts for some SSA work support provisions (that is, trial work period, student earned-income exclusion, and so on).

Changes to Question Wording and Response Categories. For a few items, we revised the question wording slightly or added a response category. These changes were based on (1) a review of the prior Round 4 NBS data and (2) the analytic goals of Round 5 of the NBS–General Waves. For example, item B29 asks respondents about activities they performed to look for work. We added a response category about contacting a previous employer, as this was a frequently cited verbatim response in the prior NBS. In addition, for the same item, based on verbatim responses in the Round 4 NBS, we added "by email" as a contact method for reaching employers.

Inclusion of Disability Items from the ACS. We included the six disability questions currently in use on the ACS in Round 5 of the NBS–General Waves. In cases where new items overlapped with previously existing questions, we deleted the prior items and replaced them with the ACS question. Inclusion of these items will permit greater comparability to other national surveys. Table II.4 shows which questions were replaced and the wording of the new ACS questions.

Table II.4. NBS questions replaced with ACS questions

NBS Round 4 Question	ACS Replacement Question for the NBS–General Waves
I17b. {Do you/Does NAME} have any difficulty seeing words and letters in ordinary newsprint even when wearing {your/his/her} glasses or contact lenses?	Are you blind or do you have serious difficulty seeing, even when wearing glasses?
I21. {Do you/Does NAME} have any difficulty hearing normal conversation even if using a hearing aid if {you/he/she} usually wear{s} one?	Are you deaf or do you have serious difficulty hearing?
I29. {Do you/Does NAME} have any difficulty walking without assistance for a quarter of a mile or about 3 city blocks?	Do you have serious difficulty walking or climbing stairs?
I33. {Do you/Does NAME} have any difficulty climbing up 10 steps without resting?	
I47. {Do you/Does NAME} have any difficulty getting around outside {your/his/her} home, for example to shop or visit a doctor's office?	Because of a physical, mental, or emotional condition, do you have difficulty doing errands alone such as visiting a doctor's office or shopping?
I51. {Do you/Does NAME} have any difficulty bathing or dressing?	Do you have difficulty dressing or bathing?
I59. {Do you/Does NAME} have a lot of trouble concentrating long enough to finish everyday tasks?	Because of a physical, mental, or emotional condition, do you have serious difficulty concentrating, remembering, or making decisions?

Removal of TTW-Related Items. We deleted the TTW sections for participants (Section H) and nonparticipants (Section F). We also deleted screening items in Section E (Awareness of SSA Work Incentive Programs) that determined TTW participation and routing to Section H or F. Further, in Section G (Employment-Related Services and Supports Used in 2014) we deleted items that pertained to TTW or State Vocational Rehabilitation Agency (SVRA) services. In earlier rounds of the NBS, these items were specific to TTW participants.

Items Deleted Because of Administrative Data Availability. In Section E (Awareness of SSA Work Incentive Programs), we asked respondents if they had heard about various SSA programs and, if so, whether they had used a program. To streamline the instrument, we deleted items about program use and retained the awareness items. Data on program use are available through administrative records. Removing such items from the survey reduced respondent burden. This change also will help avoid inconsistencies between survey and administrative data.

Programs that No Longer Exist and Items of Limited Analytic Value. We deleted the questions in Section E (Awareness of SSA Work Incentive Programs) about the Work Incentive Seminar Events, as it no longer exists. We also deleted questions pertaining to payments made by respondents for particular employment supports (queried in Section C) because of the limited analytic value of these questions. During Round 4, few respondents indicated that they used such supports; therefore, data about out-of-pocket costs are unlikely to be reliable.

III ROUND 5 DATA PROCESSING

A. Coding of Open-Ended and Verbatim Responses

The NBS questionnaire includes several questions designed to elicit open-ended responses. To make it easier to analyze the data connected with these responses, we grouped the responses and assigned them numeric codes when possible. The methodology used to code each variable depended upon the variable's content. Three types of questions did not have designated response categories; rather, responses to these questions were recorded verbatim:

1. **Open-ended questions** have no response options specified. For example, Item G61 asks, "Why {were you/was NAME} unable to get these services?" For such items, interviewers recorded the verbatim response. Using common responses, we developed categories and reviewed them with analysts. Coders then attempted to code the verbatim response into an established category. If the response did not fit into one of the categories, coders coded it as "other."

2. **Other/specify** is a response option for questions with a finite number of possible answers that may not necessarily capture all possible responses. For example, "Did you do anything else to look for work in the last four weeks that I didn't mention?" For such questions, respondents are asked to specify an answer to the question "anything else?" or "anyone else?"

3. **Field-coded responses** are answers coded by interviewers into a predefined response category without reading the categories aloud to the respondent. If none of the response options seems to apply, interviewers select an "other/specify" category and type in the response.

As part of data processing and based on an initial review of data, we examined verbatim responses in an attempt to uncover dominant themes for each question. We developed a list of categories and decision rules for coding verbatim responses to open-ended items. We also added supplemental response categories to some field-coded or "other/specify" items in order to facilitate coding if a sufficient number of such responses could not be back-coded into pre-existing categories. In Chapter IV, we indicate which items in each instrument section required coding and list all additional response categories created during coding. Thus, we categorized verbatim responses for quantitative analyses by coding responses that clustered together (for open-ended and "other/specify" responses) or by back-coding responses into existing response options if appropriate (for field-coded and "other/specify" items). We applied categories developed during prior rounds of the NBS. In some cases, we added to the questionnaire categories developed in earlier rounds in order to minimize back-coding.

If the need for changes to the coding scheme became apparent during coding (for example, the addition of categories or clarification of coding decisions), we discussed and documented new decision rules. We sorted verbatim responses alphabetically by item for coders. The responses then lent themselves to filtering by coding status so that new decision rules could be easily applied to previously coded cases. When it was impossible to code a response, when a response was invalid, or when a response could not be coded into a given category, we assigned a two-digit supplemental code to the response (Table III.1). The data files do not include the

verbatim responses, although we note in Chapter IV which items in each instrument section required coding and list any additional response categories created during coding.

Table III.1. Supplemental codes for "other/specify" coding

Code	Label	Description
94	Invalid Response	Indicates that response should not be counted as an "other" response and should be deleted.
95	Refused	Used only if verbatim response indicates that respondent refused to answer question.
96	Duplicate Response	Indicates that verbatim response has already been selected in a "code all that apply" item.
98	Don't Know	Used only if verbatim response indicates that respondent does not know answer.
99	Not Codeable	Indicates that a code may not be assigned based on verbatim response.

Source: NBS–General Waves Round 5.

B. Data Cleaning

Once we incorporated coded data into a preliminary data file, we conducted a systematic review of the frequency counts of the individual questionnaire items. We reviewed the counts by each questionnaire path to identify possible errors in skip patterns. We then reviewed interviewer notes and comments as a means to flag and correct individual cases.

Although the CATI instrument sets data entry ranges to prevent the entry of improbable responses, the ranges intentionally encompass a wide spectrum of values to account for the diversity expected in the sample population and to permit the interview to continue in most instances. Several consistency checks embedded throughout the NBS instrument also flag potential problems during the interview. To minimize respondent burden, however, all consistency checks encountered during the interview are suppressible. Although interviewers are instructed to probe such responses, interviews can continue past the item if the respondent cannot resolve the problem. We applied a data processing program, created in Round 2 of the prior NBS, to identify consistency problems as well as cases that were outside the preset upper and lower values for all items with fixed field numeric responses (such as number of weeks, number of jobs, dollar amounts, and so on). We reviewed flagged cases and set data to missing (.D) if an error likely occurred. As in earlier rounds, we took the general approach of editing only those cases with an obvious data entry or respondent error. As a result, although substantial time went into meticulously reviewing individual responses, some suspect values remain in the file.

During data processing, we created several constructed variables to combine data across items. For these items, we reviewed the specifications and all data values for the constructed variables based on composite variable responses and frequencies.

For open-ended items assigned numeric codes, we examined frequencies to ensure the assignment of valid values. For health condition coding, we also examined codes to verify that the same codes had not been assigned to both main and secondary conditions. We recoded cases coded incorrectly per the original verbatim response.

C. Identification of Data Problems

The data problems we identified during the course of checking the data file may be characterized as either measurement error or processing error. Measurement error is the difference between the observed value of a variable and the true, but unobserved, value of that variable. Sources of measurement error may include the questionnaire itself (including, design, format, and content); data collection mode; the interviewer; and the respondent. As discussed below, the questionnaire, interviewer, and respondent likely all contributed to data problems identified in the NBS. Processing errors discussed in this report consist of incorrect specification or implementation of a complicated skip pattern or edit. We discuss programming errors that resulted in incorrect skip patterns throughout the NBS–General Waves and focus on measurement errors and processing errors at the individual-item level.

The identification of data problems in the NBS–General Waves file occurred at several points during the data cleaning and data preparation processes. In particular, many errors surfaced during the systematic review of frequency counts of individual questionnaire items and during the identification of cases flagged by the data processing program. Other problems surfaced during development of the constructed variables and implementation of the imputation procedures. In Chapter IV, we describe the results of the review by instrument section.

In Round 5 of the NBS–General Waves, we corrected processing errors leading to data problems identified in prior rounds of the NBS. Some issues, although somewhat resolved, persisted in Round 5—including, interviewer error in identifying and de-duplicating employment-related service providers. Although far less data were missing in Round 5 than in earlier rounds because of an improved Blaise interviewing screen and intensive training, some these data processing errors still occurred, as summarized in Table III.2 and described in Chapter IV.

Table III.2. Main problems encountered

Item	Description of Problem	Plans to Correct in Round 6
Cognitive screener	In 18 cases the respondent did not receive the cognitive screener items either at A74 or at A86 when it appears they should have. We are still looking into what caused this problem so that it can be corrected for the Round 6 instrument.	We will correct the programming error that resulted in this missing data.
B29_12a	Twenty-six respondents were routed to B29_12a (they did not identify barriers to employment in B25_b-B25_o) when they should not have been. These responses were converted to logical skip	The programming specifications for this item were revised to clarify that only those responding "yes" to at least one item in B25_a-_B25o should receive B29_12a.
G13–G14 (Type of provider supplying job training)	To aid in the recall of employment-related services received in 2014, respondents were first asked if they had ever received employment services, job training, medical services, or counseling to improve their ability to work or live independently. For each type of service, respondents were to list up to eight providers or places where the service was received (Items G2, G11, G16, and G20). Provider type then was collected for each provider mentioned. To minimize respondent burden by avoiding the need to ask provider type again, interviewers could indicate that a provider already had been mentioned in Item G12, thus skipping the follow-up questions on provider type. In some cases, however, interviewers indicated that a provider already had been mentioned, when it had not. The result was missing data on the questions about provider type. In these cases, Items G13 and G14 were coded as .M (53 cases). Chapter IV, Section F.1 addresses the problem.	We redesigned the NBS-General Waves Round 6 instrument to remove the items that require individual provider names and de-duplication of providers, thus this issue is no longer relevant.
G18 (Type of provider supplying medical services)	Similar to Items G13 and G14, interviewers incorrectly indicated in some cases in Item G17 that a provider already had been mentioned when it had not. For this reason, provider type is missing for 28 cases in Item G18, with the cases coded as .M in the data file. Chapter IV, Section F.1 addresses the problem.	We redesigned the NBS-General Waves Round 6 instrument to remove the items that require individual provider names and de-duplication of providers, thus this issue is no longer relevant.
G22 (Type of provider supplying mental health services)	Similar to Items G13, and G14, interviewers incorrectly indicated in Item G21 that a provider already had been mentioned when it had not. For this reason, Item G22 is missing for 151 cases, with the cases coded as .M in the data file. Chapter IV, Section F.1 addresses the problem.	We redesigned the NBS-General Waves Round 6instrument to remove the items that require individual provider names and de-duplication of providers, thus this issue is no longer relevant.
K3 and K3a (Pretax and after tax earnings last month)	An instrument programming error caused some respondents who answered "0" to K3 to skip K3a. K3a was set to .M for these cases (19 cases). Chapter IV, Section I.1 addresses this problem.	We have revised the NBS-General Waves Round 6 instrument programming specifications to correct this programming error.
L16 (Number of adults living in the household)	Finally, during data review we discovered that respondents who reported living with more than one person were not asked L16. We set L16 to .D for these cases (28 cases).	We have revised the NBS-General Waves Round 6 instrument programming specifications to correct this programming error.

IV. SECTION-BY-SECTION DESCRIPTION OF FINDINGS

A. Section A—Screener

We designed the NBS screener to identify and gain the cooperation of the respondent in addition to verifying that the sample person was still eligible for the survey. We also determined if the sample member was capable of completing the interview and if the sample member required special accommodations, such as TRS or an in-person interview.

1. Date of Birth

We used sample member name and date of birth from SSA records to verify that the correct person had been contacted. If two of the three date of birth elements provided by SSA matched self-reported information (for example, month and year), we continued the interview. If none or only one of the elements matched, we terminated the interview and the case was sent to locating. If the respondent could not provide date of birth, we requested the age of the sample member. If the age fell within two years (plus or minus) of the age in the SSA records, we continued the interview.

Of the successfully screened respondents, date of birth provided by SSA differed from the collected date of birth in 52 cases. In 35 percent of these cases (20 cases), year of birth diverged by one year. In 26 percent of the cases (15 cases), the year diverged by two to nine years. We did not edit these discrepancies and they remain in the file. For cases that differed by 10 or more years (17 cases), we set the year of birth to equal year of birth from SSA records because the birth year appeared to be the result of data entry error. In addition, for cases in which age was provided in lieu of date of birth (7 cases), we used date of birth from SSA records to populate the self-reported date of birth (Items A68, A68a, and A68b).

2. Discrepancies in Respondent Type

We used three screener items to determine if the sample member was cognitively able to participate in the survey. The items addressed important elements of informed consent—the study topics, the voluntary nature of participation, and confidentiality. If the sample member did not pass any of the three items (within two attempts), the interviewer sought a proxy respondent. For the proxy to complete the survey on the sample member's behalf, the proxy also had to pass the cognitive screener. In addition, interviewers could complete the interview with a proxy if a knowledgeable informant indicated that the sample person would not be able to participate even with an accommodation or if it became clear during the course of the interview that the sample person was not capable of responding. Participation of the beneficiary instead of a proxy whenever possible was highly preferable because sample members generally provide more complete and more accurate information than proxy respondents do.

At the end of Section A, the interviewer had to indicate whether the survey respondent was a sample member or a proxy. We used the resultant information to create the constructed variable, C_Rtype (Respondent Type). At the end of the interview, the interviewer recorded whether the sample member or proxy completed the majority of the survey. In most cases, the two items were congruent, although they were discrepant in 18 cases. That is, a sample member began the interview and a proxy completed a large share of it or vice versa. We were not surprised by a

switch in respondents and expected that a small number of sample members would pass the cognitive screener but then be unable to recall or report information for the vast number of survey questions. We reviewed cases with discrepancies to determine if interviewer error occurred in coding the respondent. In general, we considered the interviewer data collected at the time of survey completion as the most accurate data for purposes of creating the constructed variable. That is, if the sample member began the interview but the interviewer indicated that the proxy completed most of it, we recoded respondent type to proxy.

In terms of the survey questions, we asked perception and attitudinal questions only of sample members. These questions focused on overall job satisfaction and satisfaction with various work characteristics, awareness of SSA programs, and satisfaction with state vocational rehabilitation services. We skipped questions B29_3a, B29_3b, B29_4a, B29_4b, B29_8a, B29_8b, B29_8c, B29_8d, B29_12a, B29_12b, B29_12c, C18, and C39 for proxy respondents. In some cases, the sample member answered some sample member–only items before a proxy stepped in and completed the rest of the survey. In these cases, we recoded respondent type to proxy. To avoid confusion in following the instrument pathing, we recoded the sample member–only questions for these cases to equal logical skip.

B. Section B—Disability and Work Status

In section B, we asked about the sample member's limiting physical or mental conditions and employment status. We also included questions designed to determine what job characteristics were important to sample members and collected information about work-related goals and expectations.

1. Health Condition Coding

In section B of the questionnaire, we asked each respondent to cite the primary and secondary physical or mental conditions that limit the type or amount of work or daily activities that he or she performs. Respondents could report main conditions in one of four questions: B2 (primary reason limited), B6 (primary reason eligible for benefits), B12 (primary reason formerly eligible for benefits if not currently eligible), and B15 (primary reason limited when first receiving disability benefits). The majority of respondents (87 percent) reported a primary limiting condition in Item B2. The main purpose of the other questions (B6, B12, and B15) was to collect information on a health condition from people who reported no limiting conditions in Item B2. For example, if respondents reported no limiting conditions, they were asked if they were currently receiving social security benefits. If they answered "yes," they were asked about the main reason that made them eligible for benefits (Item B6). If respondents said that they were not currently receiving benefits, we asked whether they had received disability benefits in the last five years. If they answered "yes," we asked for the condition that made them eligible for social security benefits (Item B12) or the reason that first made them eligible if they no longer had that condition (Item B15). If respondents said that they had not received disability benefits in the last five years, we screened them out of the survey and coded them as ineligible. We assigned a value for the three health condition constructs to each response for Items B2, B6, B12, and B15. Although respondents were asked to cite one "main" condition in question B2, B6, B12, or B15, many listed more than one. We maintained the additional responses under the primary condition variable and coded in the order in which they were recorded.

For each item on a main condition, we asked respondents to list any other, or secondary, conditions. For example, in Item B4, we asked respondents who had reported a main condition in Item B2 to list other conditions that limited the type or amount of work or daily activities that they could perform. In Item B8, we asked respondents who had reported the main reason for their eligibility for disability benefits in Item B6 to list other conditions that made them eligible. For respondents who reported that they were not currently receiving benefits but who reported a main condition in Item B12 (the condition that made them eligible to receive disability benefits in the last five years), we asked in Item B14 for other reasons that made them eligible for benefits. Those who reported that their current main condition was not the condition that made them eligible for benefits and who were asked for the main reason for their initial limitation were also asked if any other conditions limited them when they started receiving benefits (Item B17).

We coded respondents' verbatim responses by using the International Classification of Diseases, 9th revision, Clinical Modification (ICD-9-CM) five-digit coding scheme.[11] The ICD-9 is a classification of morbidity and mortality information developed in 1950 to index hospital records by disease for data storage and retrieval. The ICD-9 was available in hard copy for each coder. The coders, many of whom had medical coding experience, attended an eight-hour training session before coding and were instructed to code to the highest level of specificity possible. We coded responses that were not specific enough for a five-digit code to four digits (subcategory) or three digits (category codes). More information on coding responses to health condition items is available in "The National Beneficiary Survey–General Waves: Round 5 Editing, Coding, Imputing, and Weighting Procedures" report (Grau et al. 2017).

Following ICD-9 coding, we grouped a series of constructed variables reported in Items B1 and B2 into four classes of broad disease groups. A set of separate constructs summarized responses provided in Items B6, B12, and B15 (C_REASBECELIGICD9, C_REASBECELIGDIAGGRP, C_REASBECELIGCOLDIAGGRP, and C_REASBECELIGBODYGROUP). The constructs clarified the eligibility of sample members who indicated in Items B1 and B2 that they did not have a disabling condition.

a. Several Primary Conditions

Health condition coding of respondent-provided data is complex. Often, respondents either do not know the name of a condition or describe it in vague terms (for example, "he is slow," or "she has trouble breathing"). As previously mentioned, although respondents were asked to provide one "main" condition in Item B2, B6, B12, or B15, many listed more than one. Despite the emphasis in interviewer training on collecting one main condition, 32 percent of respondents reported more than one condition in Item B2. Rather than attempting to discern which condition was the main condition among more than one condition listed, we coded conditions in the order provided by the respondent and named on the file as _1, _2, and so on.

b. Duplicate Conditions

In 140 cases (approximately 3 percent), respondents mentioned a condition twice when reporting their main condition or reported a secondary condition already reported as a main

---

[11] Although the ICD-10 was available at the time of coding, we used ICD-9 to be consistent with how we coded in previous rounds. More information on comparing ICD-9 codes to ICD-10 codes is available at http://www.qualityindicators.ahrq.gov/resources/Toolkits.aspx.

condition. During the process of coding such responses, coders identified any duplicate conditions by assigning the code 96. In addition, during data cleaning and editing, we compared ICD-9 codes within and across main and secondary conditions to check for duplicate codes. We dropped duplicates identified during coding or cleaning that followed valid codes. In the event that the only condition reported was a duplicate of the main condition, we dropped the code, and recoded the filter item ("Do you have any other physical or mental conditions that limit the kind or amount of work or other daily activities you can do?") to "no."

c. Uncodeable Conditions

We expected that not all verbatim responses would contain enough information to allow coders to assign a specific ICD-9 code. To handle such situations, we provided coders with supplemental two-digit codes that mirrored the chapter-level headings in the ICD-9 index, allowing a general code to be assigned in such instances (Table IV.1). We could not code between 1 percent and 4 percent of the verbatim responses provided at each medical condition item to a specific ICD-9 code, so we instead assigned a two-digit supplemental code.

We could not code approximately 3 percent of the verbatim responses into either an ICD-9 code or a broader two-digit supplemental code. In such cases, we coded responses as "don't know" if the respondent indicated he or she did not know the answer; code 98), "refused" (if the respondent indicated he or she refused to answer; code 95), "uncodeable" (a response was provided but not enough information was given to code; code 99), or "no condition reported" (no condition is reported in the verbatim; code 97).

2. Back-Coding Responses to "Other/Specify" Items

At Item B25 we asked respondents if any one of a series of items (Item B25_a through Item B25_o) was a reason that they were not currently working. In addition, at Item B26 we asked respondents if there were any other reasons not already mentioned that explain why they were not working. If they answered "yes," we collected a verbatim response at B27. Before coding, verbatim responses to Item B27 were reviewed to determine whether they could be back-coded into Items B25_a through B25_o, or if not, whether they could be clustered into additional categories. Table IV.2 shows the response categories added for coding. We back-coded responses whenever possible into one of the existing or newly created categories. We retained responses that could not be coded as "other." If all responses could be coded, we recoded Item B26 to "no." If a verbatim response could not be coded into any of the B25 categories, we kept the code for Item B26 as "yes."

Table IV.1. ICD-9 category and supplemental codes

Code	Label	Description of ICD-9 Codes	Corresponding ICD-9 Codes
00	Other	Other and unspecified infectious and parasitic disease, alcohol dependence syndrome and drug dependence, learning disorders and developmental speech or language disorders, and complications of medical care not elsewhere classified	136.0–136.9, 303.00–304.90, 315.00–315.39, 999.0–999.9
01	Infectious and parasitic diseases	Borne by a bacterium or parasite and viruses that can be passed from one human to another or from an animal/insect to a human, including tuberculosis, HIV, other viral diseases, and venereal diseases (excluding other and unspecified infectious and parasitic diseases)	001.0–135, 137.0–139.8
02	Neoplasms	New abnormal growth of tissue (that is, tumors and cancer), including malignant neoplasms, carcinoma in situ, and neoplasm of uncertain behavior	140.0–239.9
03	Endocrine/nutritional disorders	Thyroid disorders, diabetes, abnormal growth disorders, nutritional disorders, and other metabolic and immune disorders	240.0–279.9
04	Blood/blood-forming	Diseases of blood cells and spleen	280.0–289.9
05	Mental disorders	Psychoses, neurotic and personality disorders, and other non-psychotic mental disorders, including mental retardation (excluding alcohol and drug dependence as well as learning, developmental, speech, and language disorders)	290.0–302.9, 305.00–314.9, 315.4–319
06	Diseases of nervous system	Disorders of brain, spinal cord, central nervous system, peripheral nervous system, and senses, including paralytic syndromes and disorders of eye and ear	320.0–389.9
07	Diseases of circulatory system	Heart disease; disorders of circulation; and diseases of arteries, veins, and capillaries	390–459.9
08	Diseases of respiratory system	Disorders of the nasal, sinus, upper respiratory tract, and lungs, including chronic obstructive pulmonary disease	460–519.9
09	Diseases of digestive system	Diseases of the oral cavity, stomach, esophagus, and duodenum	520.0–579.9
10	Diseases of genitourinary system	Diseases of kidneys, urinary system, genital organs, and breasts	580.0–629.9
11	Complications of pregnancy, child birth, and puerperium	Complications related to pregnancy or delivery; complications of puerperium	630–677
12	Diseases of skin/subcutaneous tissue	Infections of skin, inflammatory conditions, and other skin diseases	680.0–709.9

TABLE IV.1 (*continued*)

Code	Label	Description of ICD-9 Codes	Corresponding ICD-9 Codes
13	Diseases of musculoskeletal system	Muscle, bone, and joint problems, including arthropathies, dorsopathies, rheumatism, osteopathies, and acquired musculoskeletal deformities	710.0–739.9
14	Congenital anomalies	Problems arising from abnormal fetal development, including birth defects and genetic abnormalities	740.0–759.9
15	Conditions in perinatal period	Conditions that have origin in birth period even if disorder emerges later	760.0–779.9
16	Symptoms, signs, and ill-defined conditions	Ill-defined conditions and symptoms; used when no more specific diagnosis can be made	780.01–799.9
17	Injury and poisoning	Problems resulting from accidents and injuries, including fractures, brain injury, and burns (excluding complications of medical care not elsewhere classified)	800.00–998.9
18	Physical problem, not elsewhere classified (NEC)	Condition is physical, but a more specific code cannot be assigned	No ICD-9 codes
95	Refused	Verbatim response indicates respondent refused to answer question	No ICD-9 codes
96	Duplicate condition reported	Condition already coded for respondent	No ICD-9 codes
97	No condition reported	Verbatim response does not contain symptom for condition to code	No ICD-9 codes
98	Don't know	Respondent reports that he or she does not know condition	No ICD-9 codes
99	Uncodeable	A code cannot be assigned based on verbatim response	No ICD-9 codes

Source:　NBS–General Waves Round 5.

Table IV.2. Response categories added to section b during coding

Item	Question Text	Categories Added
B25	Are you not working because…	p = CAN'T FIND A JOB q = LACK SKILLS
B29_6	What benefits are you most worried about losing?	14 = Health Insurance Unspecified
B29_10	What benefits are you most worried about losing?	14 = Health Insurance Unspecified
B29_11b	What benefits were you most worried about losing?	14 = Health Insurance Unspecified

At Items B29_6, B29_10, and B29_11b, we asked respondents which benefits they were most worried about losing if they took a job. Responses coded as "other" by the interviewer were reviewed by coders and back-coded into existing response options when possible. We added the category "Health Insurance Unspecified" during coding in a previous round to capture responses that could not be classified into the more specific insurance categories.

We also included "other/specify" responses at Items B29 (what did you do to look for work), B29_2 (reasons did not accept a job), and B29_7 (reasons have not found a job), which were examined by coders and back-coded when possible.

C. Section C—Current Employment

In Section C, we collected information about the respondent's current job or jobs by asking respondents about the type of work performed, type of business, hours worked, benefits offered, and wages earned. We also asked about the receipt of work-related accommodations and those needed but not received. We also gathered information on job satisfaction.

We collected job-specific information (Items C2 through C13) separately for each current job held. We represent these items in the data file with an _n indicating the job to which the data refer (for example, C4mth_1 indicating month started first job, C4mth_2 indicating month started second job, and so on). Respondents reported first on their main job (that is, the job at which they worked the most hours) and then on other jobs currently held. For purposes of the constructed variables based on data collected in Section C, we named constructs pertaining to the "main" job based on responses provided in the first job slots (_1).

1. Occupation and Industry Coding

In Item C2, we asked respondents to describe the type of work they performed at each of their current jobs (occupation). To maintain comparability with earlier rounds, we used the Bureau of Labor Statistic's 2000 Standard Occupational Classification (SOC) to code verbatim responses to the occupation items.[12] The SOC classifies all occupations in the economy, including private, public, and military occupations in which work is performed for pay or profit. Occupations are classified on the basis of work performed, skills, education, training, and credentials. The sample member's occupation was assigned an occupation code. The first two

---

[12] See Standard Occupational Classification Manual (2000) available at http://www.bls.gov/soc.

digits of the SOC codes classify the occupation to a major group and the third digit to a minor group. For the NBS, we assigned three-digit SOC codes to describe the major group that the occupation belonged to and the minor groups within that classification (using the 23 major groups and 96 minor groups).

At Item C3, we collected information about the type of business employing the sample person (industry). To maintain comparability with earlier rounds, we coded verbatim responses to the industry items according to the 2002 North American Industry Classification System (NAICS).[13] The NAICS is an industry classification system that groups establishments into industrial categories based on the activities in which those establishments are primarily engaged. It uses a hierarchical coding system to classify all economic activity into 20 industry sectors. For the NBS, we coded NAICS industries to three digits, with the first two numbers specifying the industry sector and the third specifying the subsector. Most federal surveys use both the SOC and NAICS coding schemes, thus providing uniformity and comparability across data sources. Although both classification systems allow coding to high levels of specificity, SSA and the analysts decided based on research needs to limit coding to three digits. More information on coding responses to the occupation and industry items is available in "The National Beneficiary Survey–General Waves: Round 5 Editing, Coding, Imputing, and Weighting Procedures" report (Grau et al. 2017).

The verbatim responses to Items C2 and C3 do not appear in either the restricted- or public-use version of the file. Rather, we provided the coded responses to Item C2 in the constructed variables C_MainCurJobSOC, C_CurJob2SOC, and so on; the coded responses to Item C3 were provided in C_MainCurJobNAICS, C_CurJob2NAICS, and so on.

a.   Uncodeable Occupation and Industry Verbatim Responses

We expected that some verbatim responses would lack sufficient detail to permit coding at the three-digit level. We provided coders with supplemental two-digit codes to allow assignment of a general code in such cases (Table IV.3).

If a respondent did not provide a codeable occupation but indicated either in the verbatim response or in Item C7 (job part of sheltered workshop) that the occupation was a sheltered workshop position, we assigned code 94 only if the position could not be assigned an SOC code. If a position in a sheltered workshop was described by an accompanying codeable occupation, we coded the occupation with the SOC classification. When respondents indicated in Item C7 that their current job was a sheltered workshop position, we coded the industry as 624 (social assistance), which encompasses service for people with disabilities. If the occupation was uncodeable with no indication that the position was a sheltered workshop position, we assigned code 99 (uncodeable) to the occupation. In all, less than 1 percent of both the current occupation verbatim responses and the industry verbatim responses for each job were uncodeable.

---

[13] See North American Industry Classification System (2002), available at http://www.census.gov/eos/www/naics/.

Table IV.3. Two-digit supplemental codes for occupation and industry coding

Code	Label	Description
94	Sheltered workshop	Code used if occupation is in sheltered workshop and a specific occupation cannot be coded from the verbatim response. All industry responses for sheltered workshop are coded as 624.
95	Refused	The respondent refused to give his or her occupation or type of business.
97	No occupation or industry reported	No valid occupation or industry is reported in verbatim response.
98	Don't know	The respondent reports that he/she does not know the occupation or industry.
99	Uncodeable	A code cannot be assigned based on the verbatim response.

2. Hours Worked

In Item C8, we asked respondents to provide the number of hours per week that they usually worked at their current job. We incorporated a soft edit check incorporated into the Blaise instrument to prompt interviewers to verify that the response was correct for any response over 60 hours per week. We reviewed all responses under 5 hours per week (31 cases for job 1) during data cleaning. After a review of other job-related information, including occupation and industry verbatim responses, wage rates, self-employment, and sheltered workshop indicators, we recoded nine cases to .D. In general, if the respondent was working in a sheltered employment setting, we determined that low values for hours worked were not unreasonable and should be retained. Similarly, if the respondent's occupation was consistent with a high number of hours worked per week (for example, truck driver), we retained the values. Although some other values were suspect, our general approach was to recode only those cases that appeared to be obvious data entry or respondent errors.

3. Weeks per Year

Item C9 asked respondents how many weeks per year they usually worked at their current job. We reviewed responses of fewer than 20 weeks during data cleaning (22 cases for job 1), along with other job-related information, in order to determine if the values were reasonable. In general, if the occupation verbatim and other job-related information was consistent with the possibility of minimal weeks worked per year, we retained the original values. In some cases, the respondents apparently interpreted the question as asking how many weeks they had worked if they had just started their job—despite the inclusion of the probe, "If you have worked less than a year, please answer for the number of weeks you expect to work." Because it was not possible based on other information to determine whether such values were errors, we retained them in the data file.

4. Pay

At Item C11 or C12amt, we asked respondents to report their pretax earnings for each current job if reported as an hourly wage or their pretax earnings for each current job if reported in another unit, such as daily, weekly, monthly, or annually. In Item C13amt, we asked for respondents' take-home pay. We created three constructed variables: one designed to combine

pretax responses into an hourly wage (C_MainCurJobHrPay, C_CurJob2HrPay, and so on); one into a monthly wage (C_MainCurJobMnthPay, C_CurJob2MnthPay, and so on) regardless of where the initial reporting occurred; and one for monthly take-home pay (C_MainCurJobPayTH, C_CurJob2MnthPayTH, and so on). In addition, we constructed a total monthly pay variable to sum across all jobs (C_TotCurMnthPay). Given that the earning constructs are subject to imputation, we were concerned that outliers might become imputation donors and exacerbate the outlier problem. Thus, we performed a detailed review of high and low values for both the source variables and constructs. The donor pool for imputation excluded cases with very high and very low values.

We included a soft edit check included in the Blaise instrument to prompt interviewers to verify any response that was more than $25 per hour in Item C11. The check could be suppressed, however, leading to six cases reporting hourly rates over $25. Because other job-related information, including the verbatim occupation response, indicated that the entries could be valid, we retained all in the file. We also examined all hourly wage values of $3 and below. In such cases (two cases), we retained the value because the verbatim job descriptions indicated that the low value for hourly wages was not unreasonable.

We built soft edit checks into the instrument to flag high entries for each of the various reporting units in Items C12amt and C13amt. We examined values that were suppressed or that were at the high and low ends of the range. In most cases, the verbatim occupation and industry descriptions indicated that the values could be valid; thus, we retained them in the file. Generally, if the respondents were working in a sheltered employment setting or the verbatim job descriptions indicated that the low values for wages were not unreasonable, we retained the values. In eight cases in which interviewer or respondent error was highly likely, we set Items C12amt and C13amt to missing (.D) for later imputation.

During post-processing, we also compared take-home and pretax values; 11 cases had a difference of 30 percent or more and were flagged for verification. However, we recoded or set to missing (.D) only those cases with the most extreme differentials and whose other job-related information did not support the difference.

Although a few questionable values remain in the file, we created two flag variables for inclusion in the file to identify cases reporting total monthly pay over $10,000 and cases reporting pay less than $20 per month or $1.50 per hour. Users of the data file may choose to eliminate these cases from analyses.

5. Back-Coding Responses to "Other/Specify" Items

In Items C33_a through C33_e, we asked whether the sample member's employer made a series of accommodations. If the respondent indicated that other accommodations were made (C33_f = 1), we collected a verbatim response. We reviewed and back-coded the responses into questions C33_a through C33_e when possible.

We also included the "other/specify" option at Item C39b (reasons work fewer hours or earn less money) and Item C39_3 (supports needed to work or earn more). We added one category during coding for Item C39b (Table IV.4).

6. Back-Coding Field-Coded Responses

Items C23 (what type of special equipment was used at work), C24 (who paid for equipment used at work), C28 (what type of personal assistance services are used at work), C29 (who paid for personal assistance services), and C39_2 (benefits reduced or ended as a result of job) were all open-ended items that interviewers attempted to code into one of several predefined response categories during the interview. We reviewed responses coded as "other" by the interviewer and back-coded them into existing response options when possible. We added the category "Health Insurance Unspecified" during a prior round of coding to Item C39_2 to capture responses that could not be classified into the more specific insurance categories. We kept verbatim responses that could not be recoded into one of these categories as "other."

7. Coding Open-Ended Responses

We asked respondents whether any changes were needed but not made to the sample member's workplace (Item C34). If the answer was yes, we collected a verbatim response at Item C35 on the specific changes needed. We reviewed the verbatim responses before coding and used five categories from earlier rounds to summarize them (Table IV.4). We retained responses that could not be coded into one of the five categories as "other."

Table IV.4. Response categories added to section c items during coding

Item	Question Text	Categories Added
C35	Are there any changes in {your/NAME's} {main/current} job or workplace related to {your/his/her} mental or physical condition that {you need/he/she needs} but that have not been made? (IF YES) What are those changes?	a = NEED SPECIAL EQUIPMENT b = NEED CHANGES IN SCHEDULE c = NEED CHANGES TO TASKS d = NEED CHANGES TO ENVIRONMENT e = NEED CO-WORKERS TO ASSIST f = NEED OTHER CHANGES
C39b	{Do you/Does NAME} work fewer hours or earn less money than {you/he/she} could because {you/he/she}…	g = POOR HEALTH/HEALTH CONCERNS
C39_2	What benefits have been reduced or ended as a result of your main/current job?	14 = HEALTH INSURANCE UNSPECIFIED

D. Section D—Job/Other Jobs During 2014

In Section D, we collected information about employment during the 2014 calendar year, including types of employers, hours worked, wages earned, and reasons for leaving employment, if applicable. We also asked if respondents worked or earned less than they could have (and, if so, why) and collected information about experiences related to any adjustments made in social security benefits due to work.

As in Section C, we collected job-specific information (Items D2 through D23) for each job held in 2014. We represent data for each job in the data file with an _n indicating the job to which the data refer (for example, D6mth_1 indicating month started first job, D6mth_2 indicating month started second job, and so on). Respondents reported first on their main job—that is, the job at which they worked the most hours—and then reported on other jobs held. To reduce respondent burden, respondents did not have to report on any jobs held during 2014 that

were mentioned in Section C as current employment. Rather, we copied employment data from Section C into Section D during data processing for all current jobs also held during 2014. Table IV.5 lists all job-specific items that were filled in with Section C data. Items in Section D that had no equivalent in Section C (D8mnth, D8yr, D23, D23_oth) were coded as .L (indicating logical skip).

Table IV.5. Job variables in sections c and d

Variable in Section C	Variable in Section D	Variable Description
C2	D4	Occupation
C3	D5	Industry
C4mth, C4yr	D6mth, D6yr	Start month and year of job
No equivalent item	D8mth, D8yr	Stop month and year of job
C6	D14	Self-employed status
C7	D15	Sheltered workshop status
C8	D16	Hours usually worked per week
C9	D17	Weeks usually worked per year
C10	D18	Paid by the hour
C11	D19	Hourly pay
C12amt, C12hop	D20amt, D20hop	Amount of pretax pay
C13amt, C13hop	D21amt, D21hop	Amount of after tax pay
No equivalent item	D23_1 through D23_22	Reasons for stopping work

1. Including Current Jobs Held in 2014 in Section D

We included jobs mentioned in Section C as held in 2014 if Item C4yr (year started current job) was earlier than or equal to 2014. We copied each applicable job from Section C into the first blank job slot in Section D (for example into D6mth_2 if D6mth_1 already contained data and into D6mth_3 if both D6mth_1 and D6mth_2 already contained data). We included the variables C_job_from_SecC_1 through C_job_from_SecC_4 in the data file to indicate which jobs from Section C (by job number) were copied into specific Section D job slots.

2. Determining Main Job Held in 2014

In addition to copying job data from Section C into the Section D items, we had to determine which job held in 2014 was the main job. Before including the jobs from Section C, we stored the main jobs held in 2014 as job 1. Given that it was possible that a job reported in Section C was the respondent's main job in 2014, we compared hours worked in 2014 on each job with the first job mentioned in Section D after incorporating the jobs from Section C. We deemed the job with the greatest number of hours per year (number of hours per week multiplied by the number of weeks per year) the main 2014 job.[14] We used the variable

---

[14] If hours per year could not be calculated because of missing data on either number of hours per week or number of weeks per year, we coded the hours as missing. If hours per year were missing for all 2009 Section C jobs, job 1

Main_Job_grid_num, which identifies the job number of the main job held in 2014 based on number of hours worked, to create a series of variables ending with _m to represent each job-specific item listed in Table IV.5 for the main job held in 2014 (for example D6mth_m and D6yr_m). We did not delete information related to the main job from the job_1 through job_5 variables. For example, for a case with three jobs listed in Section D (after copying relevant jobs from Section C) that had the second job deemed the main job, information related to hours worked on the second job is available in both Items C8_m and C8_2. Therefore, _m jobs should not be counted as additional jobs. The public-use version of the file provides only the main job variables (_m) for jobs held in 2014.

For purposes of the constructed variables created in Section D, we created separate constructs for each job mentioned (job 1, job 2, and so on) as well as additional constructs for the "main" job (C_MainJob2014SOC, C_MainJob2014NAICS, C_MainJobHrPay2014, C_MainJobMnthPay2014, C_MainJobMnthPayTH2014, and C_MnthsMain2014Job) as identified by the variable Main_Job_grid_num. As stated, information in the main job constructs is replicated in one of the other job slots in the restricted-use file and does not represent an additional job.

During data processing, we found 27 cases in which a respondent reported in Item B30 that he or she did not work in 2014 (B30 = 0), but the respondent also had a reported current job start date that indicated that the individual had held a job in 2014. We recoded such cases to B30 = 1 (indicating that the respondent did work in 2014). It is important to note that we did not recode Item D3 ("Other than the current jobs you just told me about, how many other jobs did you hold for at least one month in 2014?") to reflect the number of jobs held in 2014 after including jobs from Section C. To determine the total number of jobs held in 2014, the data user should sum Item D3 and C_Totjobcopied, a construct that indicates the number of jobs copied from Section C to Section D.

3.   Occupation and Industry Coding

In Item D4, we asked respondents to describe the type of work they performed on each job held in 2014 (occupation). In Item D5, we asked respondents to describe the corresponding type of business (industry). As for equivalent items in Section C, we coded the verbatim responses to these items by using the SOC and NAICS classification systems described in section IV.C.1. We did not include the verbatim responses to Items D4 and D5 in the restricted- or public-use version of the data file. Rather, the coded responses to Item D4 are in the construct C_MainJob2009SOC, C_Job12014SOC, and so on. The coded responses to Item D5 are in C_MainJob2014NAICS, C_Job12014NAICS, and so on.

4.   Uncodeable Occupation and Industry Verbatim Responses

Coders used the same supplemental two-digit codes described in IV.C.1 to assign general-level codes when full SOC and NAICS codes could not be assigned. In all, we deemed

---

in Section D was counted as the main job in 2014. If no jobs were listed in Section D and hours per year were missing for all 2014 jobs in Section C, the first job listed in Section C that was a 2014 job was counted as the main job in 2014. If hours per year were missing for job 1 in Section D, the Section C job with most hours per year was counted as the main 2014 job. If there was no 2014 job from Section C or hours per year were missing for all Section C 2014 jobs, job 1 in Section D was counted as the main 2014 job. If hours per year were missing for all 2014 Section C jobs and for job 1 in Section D, job 1 in Section D was counted as the main job in 2014.

uncodeable between 1 percent and 4 percent of the 2014 occupation verbatim responses and industry verbatim responses for each job in Section D for any given item.

5.   Dates Worked at 2014 Job

In Items D6mth, D6yr, D8mth, and D8yr, we collected start and stop dates for each job held in 2014. We built soft edit checks into the Blaise instrument to verify that stop dates were later than start dates and that each job was held for at least one month in 2014. If the interviewer verified that the job ended before 2014 or was held for less than one month in 2014, we skipped items collecting job-specific information in Items D14 through D21hop. We retained occupation and industry data as well as start and stop dates for these jobs in the data file because respondents answered other items in Section D (why they stopped working at the job in Item D23 and general questions about working in 2014 in Items D25 through D30).

6.   Hours Worked

In Item D16, we asked respondents for the number of hours per week usually worked in their 2014 job. As in Section C, we incorporated a soft edit check into the Blaise instrument to prompt interviewers to verify that the response was correct for any response greater than 60 hours per week. We examined responses over 60 hours per week (4 cases for job 1, for example) and under 5 hours per week (23 cases on job 1) during data cleaning. After a review of other job-related information, we retained all data. In general, if the respondent was working in a sheltered employment setting, we determined that low values for hours worked were not unreasonable and should be retained. Similarly, if the respondent's occupation was consistent with a high number of hours worked per week, we retained the values.

7.   Weeks per Year

In Item D17, we asked respondents how many weeks per year they usually worked in their 2014 job. We reviewed responses indicating fewer than 20 weeks during data cleaning (76 cases for job 1). In general, if the occupation verbatim response and other job-related information were consistent with the possibility of few weeks worked per year, we retained the original values. It was not possible, based on other information, to determine whether the values were errors; therefore, we retained them in the file.

8.   Pay

Respondents reported their pretax earnings for each 2014 job in Item D19 (if reported as an hourly wage) or in Item D20amt (if reported in another unit, such as daily, weekly, monthly, or annually) and their take-home pay in Item D21amt. We combined pretax responses from three constructed variables into an hourly wage (C_MainJobHrPay2014, C_Job1HrPay2014, and so on), a monthly wage (C_MainJobMnthPay2014, C_Job1MnthPay2014, and so on) regardless of where the initial reporting occurred, and monthly take-home pay (C_MainJobMnthPayTH2014, C_Job1MnthPayTH2014, and so on). In addition, we created a constructed total monthly pay variable to sum pay across all jobs (C_Tot2014Pay). We examined source variables and constructed variables for extremely high and low values.

We incorporated a soft edit check into the Blaise instrument to prompt interviewers to verify any response over $25 an hour in Item D19. We examined responses over $25 an hour (eight cases for job 1). We retained all of these entries in the file because other job-related information,

including the verbatim occupation response, indicated that the entries could be valid. We also examined hourly wage values of $3 and below (three cases). In all cases, respondents were working in a sheltered employment setting or the verbatim job description indicated that the low values for hourly wages were not unreasonable; thus, we retained the values.

We built soft edit checks into the instrument and flagged high entries for each of the various reporting units in Items D20amt and D21amt. As for hourly wages, we examined values that were suppressed or that were at the high and low ends of the range by looking at other job-related information. In most cases, the verbatim occupation and industry descriptions indicated that the values could be valid; thus, we retained the values in the file. Generally, if the respondent was working in a sheltered employment setting or the verbatim job description indicated that the low values for wages were not unreasonable, we retained the values. Recoding of data occurred only in cases of an obvious data entry error or when the respondent's job characteristics were inconsistent with reported earnings or pay.

9. Back-Coding Responses to "Other/Specify" Items

We asked Items D25_a through D25_f if respondents indicated several issues were the reasons that they had worked fewer hours than they might have worked. In Items D26a through D26h, we asked if several issues were the reasons that the sample member did not work or earn more. We reviewed responses coded as "other" during data processing. For both Items D25 and D26, we added categories during a prior round of coding to allow further categorization of responses (Table IV.6).

10. Back-Coding Field-Coded Responses

Where possible, interviewers attempted to code verbatim responses to Items D23 (why the sample person quit working at the job held in 2014) and D25_2 (benefits reduced or ended as a result of 2014 job) into a series of predetermined categories. We reviewed responses coded as "other reason" to determine if they could be back-coded into an existing category. We used four additional categories in earlier rounds to facilitate the coding for Item D23 (Table IV.6). We retained responses that could not be coded into one of these four categories as "other."

Table IV.6. Response categories added to section d during coding

Item	Question Text	Categories Added
D23	Why did {you/NAME} stop working at this job?	19 = MOVED TO ANOTHER AREA 20 = FOUND ANOTHER JOB 21 = LOSS OF BENEFITS 22 = WORK SCHEDULE
D25a	Did you work fewer hours or earn less money than you could have because you…	g = HAD MEDICAL PROBLEMS
D26	In 2014, do you think {you/NAME} could have worked or earned more if {you/he/she} had…	i = BETTER HEALTH/TREATMENT j = MORE SUPPORTIVE/HELPFUL EMPLOYER AND/OR CO-WORKER

E. Section E—Awareness of SSA Work Incentive Programs

In Section E, we assessed whether the beneficiary was aware of or participating in specific SSA work incentive programs and services. We made no edits to data in this section.

F. Section G—Employment-Related Services and Supports Used in 2014

In Section G, we collected information from respondents about their use of employment-related services in 2014, including types of services received, types of providers used, how long services were received, payments for services, and reasons for and satisfaction with service utilization. We asked questions about the sources of information for services and the nature of any services needed but not received.

1. Missing Provider Names

To aid in the recall of employment-related services received in 2014, respondents were first asked if they had ever received employment services, job training, medical services, or counseling to improve their ability to work or live independently. For each type of service, we asked respondents in Items G2, G11, G16, and G20 to list up to eight providers or places where they received services. We collected provider type for each provider mentioned. In several cases, respondents did not know the name of the provider and thus we did not ask follow-up questions about provider type. In total, less than 1 percent of provider names were missing for Item G2, 6 percent were missing for Item G11, 1 percent for Item G16, and 3 percent for Item G20.

To minimize respondent burden if a provider was listed under two or more services, interviewers could indicate that a provider had already been mentioned and then skip the provider type follow-up questions. In some cases, however, interviewers indicated that a provider had already been mentioned, when in fact it had not been mentioned, resulting in missing data for the provider type questions. A careful examination of Section G data revealed that interviewers inappropriately deleted some providers. For example, we examined cases in which Item G1 = 0 (no employment services received) and Item G10 = 1 (received job training) but Item G13_1 = .L. In these cases, the interviewer had indicated in Item G12 that the first provider given in Item G11 had already been mentioned (causing the provider type follow-ups to be skipped), which was not possible. In such cases, we set the provider type items (Items G13 and G14) to .M, indicating that an error caused the item to be skipped. We employed similar approaches to examine the providers marked as already mentioned in Items G17 and G20. In all, there were 53 cases in which provider type Items G13 and G14 were set to missing (.M) for a provider listed in Item G11, 28 cases in which provider type Item G18 was set to missing (.M) for a provider listed in Item G16, and 151 cases in which provider type Item G22 was set to missing (.M) for a provider listed in Item G20.

Once we obtained a list of providers ever used, we asked respondents when they last received services from each provider. For each provider who provided services to the respondent in 2014, we then asked follow-up questions about specific services received, number of visits, duration of visits, cost of services, and usefulness of services. Before asking when services were received, we compiled for the interviewer a list of providers from Items G2, G11, G16, and G20. The interviewer then had to determine if any of the providers on the list were duplicates and confirm with the respondent if any of the providers on the list were the same. Providers whom interviewers marked as duplicates were removed from the list, and provider-specific follow-up information was not obtained. Although the process worked relatively well, some cases marked as duplicates did not appear to be duplicates upon an examination of provider name and type. We coded such cases as .M (indicating missing due to error) on Item G33 because the follow-up questions regarding when services were received were not asked about the relevant providers. We included a flag variable for each provider on the restricted-access file that indicated whether

the provider was marked for removal from the list (for example, G_Del_1-G_DEL_34). We did not ask Item G33 or subsequent follow-up questions about 2014 services when interviewers coded the provider name as missing in questions G2, G11, G16, and G20 (coded as .L = logical skip).

2. Back-Coding Responses to "Other/Specify" Items

Each of the questions on provider type in Section G (Items G7 and G9, G13 and G14, G18, and G22) included an "other" option that prompted a verbatim response. During data processing, we reviewed the verbatim responses to determine whether they could be clustered into additional categories. In Table IV.7 we provide the response categories added during coding. Responses were then back-coded whenever possible into one of the existing or newly created categories. We retained responses that could not be coded as "other." We recoded cases in Item G9 that were back-coded as "state agency" in Item G7 to indicate the type of state agency. We recoded cases in Item G14 that were back-coded as "state agency" in Item G13. We reviewed "other" responses in Items G29c (reasons did not receive services), G36_a through G36_m (services received), and G40_1 (reasons services provided were not useful). We reviewed responses and back-coded them into existing response options when possible. Table IV.7 describes answer categories added during coding.

3. Back-Coding Field-Coded Responses

Items G28 (type of degree working toward), G53 (reasons for service use), G55 (who pressured to use services), and G56 (how pressured to use services) were all open-ended items that required interviewers to attempt to code respondents' verbatim responses into predetermined categories. Coders reviewed responses coded as "other" by the interviewer and back-coded them into existing response options when possible. In some cases, we added other categories during coding to cluster "other" responses that did not fit into a predetermined category (Table IV.8).

4. Coding Open-Ended Items

Item G61 (reasons unable to get needed services) was an open-ended question with no response options. We reviewed responses and developed seven categories based on common responses (Table IV.8). Coders then attempted to code the verbatim response into an established category. We retained the response "other" if it did not fit into one of the categories.

Table IV.7. Response categories added to section g during coding

Item	Question Text	Response Categories Added
G7	Thinking about {PROVIDER FROM ITEM G2}, was this place:	4 = SCHOOL
G18	Thinking about {NEW PROVIDER FROM ITEM G16}, was this place:	5 = A SCHOOL 6 = A NURSING HOME/GROUP HOME 7 = A GOVERNMENT AGENCY 8 = IN-HOME CARE 9 = A MEDICAL EQUIPMENT STORE 10 = A REHABILITATION CENTER 11 = A PHYSICAL THERAPY CENTER
G22	Thinking about {NEW PROVIDER FROM ITEM G20}, was this place:	6 = A RESIDENTIAL TREATMENT PROGRAM/FACILITY 7 = A REHABILITATION CENTER/COUNSELING CENTER/DAY PROGRAM 8 = A CHURCH OR RELIGIOUS INSTITUTION
G36	In 2014, please tell me if {you/NAME} received any of the following services from {PROVIDER FROM ITEM G32 DE-DUPLICATED LIST IF USED IN 2014}. Did {you/he/she} receive:	N = SCHOLARSHIPS/GRANTS/LOANS O= PRESCRIPTION SERVICES/MEDICATION
G61	Why {were you/was NAME} unable to get these services?	1 = NOT ELIGIBLE/REQUEST REFUSED 2 = LACK INFORMATION 3 = COULD NOT AFFORD 4 = DID NOT TRY 5 = TOO DIFFICULT/TOO CONFUSING 6 = PROBLEMS WITH THE SERVICE 7 = OTHER

G. Section I—Health and Functional Status

In Section I, we collect information about the respondent's general health status and daily functioning, including the need for special equipment or assistive devices. We also collect information on difficulties with ADLs and IADLs, functional limitations, substance abuse or dependence, and treatment for mental health conditions.

Back-Coding Responses to "Other/Specify" Items

Items I20 (equipment used for seeing), I24 (equipment used for hearing), I28 (equipment used for speaking), and I32 (equipment used for walking) were all open-ended items that required interviewers to attempt to code respondents' verbatim responses into predetermined categories. Coders reviewed responses coded as "other" by the interviewer and back-coded them into existing response options when possible. In some cases, we added other categories during coding to cluster "other" responses that did not fit into a predetermined category.

H. Section J—Health Insurance

In Section J, we collected information about the sources of the beneficiary's health insurance coverage both at the time of the interview and during calendar year 2014.

1. **Back-Coding Responses to "Other/Specify" Items**

Items J6 (type of private insurance), J9 (type of health coverage), and J11 (type of health coverage in 2014) were all open-ended items that required interviewers to attempt to code respondents' verbatim responses into predetermined categories. Coders reviewed responses coded as "other" by the interviewer and back-coded them into existing response options when possible.

I.   Section K—Income and Other Assistance

In Section K, we asked about sources of income, including income received from earnings, social security, workers' compensation, and other government programs and sources.

1. **Earnings Last Month**

In Item K3, we asked respondents how much they earned last month before taxes and deductions. In Item K3a, we then asked how much remained after taxes and deductions. We built soft edit checks into the instrument and flagged high and low values for both items, although the checks were set to accept a wide range of responses. According to the distribution of responses, we examined extremely low (less than $50 per month) and high (over $5,000 per month) values for both pretax and take-home pay. In most cases, we were able to evaluate the values in the context of the job-specific information in Section C by reviewing the number of jobs currently held by the sample person, the number of hours worked, the sample person's occupation, and whether the sample person was in a supported employment setting. Almost half of the sample members who reported less than $50 a month (n=48) worked in a sheltered workshop or were involved in a self-employment activity that could explain low monthly wages. In most cases with $0 income reported, sample persons were employed in seasonal work or sporadic work such as substitute teaching and photography. Finally, during data review, we discovered an instrument programming error in which those respondents answering "0" to K3 were not asked K3a as they should have been. K3a was set to .M for these cases (19 cases).

2. **Income from Other Sources**

We built soft edit checks into the instrument to flag high and low values for income received from each source specified (Items K7_a through K7_h). We examined values for cases in which the edit check had been suppressed (over $1,000 per month) and cases at the high and low ends of the distribution. In general, as in prior rounds, although some values exceeded the maximum benefit amounts for 2014, we decided to retain the values on the original items. However, for purposes of creating the imputed variable, we did not use values above the limits when calculating the median from which the imputed values were derived. In addition, we did not use values over $8,000 per month for Item K7_g (other regular sources) when calculating the median for the imputed variables. Similarly, we reviewed values associated with questions K7_h (other non-regular sources) and K14 (other government assistance), but we did not edit them because we could not clearly identify them as data entry errors. In general, we did not recode values of "0" for amounts received from other sources.

3. **SNAP Dollar Value**

In question K12, we asked respondents who had reported receiving SNAP last month to report the dollar value of the SNAP. We instructed respondents to include SNAP benefits

received only by the sample person, not by other family members. Despite reports of some high values (67 values of $500 or greater), we retained the values in the file.

4. Irregular SSI Income

Item K7_h (amount of income received from other sources not on a regular basis) inquired about irregular SSI payments as non-regular income. For respondents who had not indicated the receipt of income from other non-regular sources but who, according to SSA administrative records, had received irregular payments from SSA, we recoded question K6_h as "yes," with the overages in benefit payments (as determined from administrative data) entered at Item K7_h. For cases that had already reported the receipt of income from other sources on an irregular basis, we reviewed verbatim responses at Item K6_h regarding the source of the income to determine if any SSA or SSI benefits were included. None of the responses suggested that SSA or SSI benefits were the source. Therefore, for such cases, we added administrative data representing overages in benefit payments to the amount already reported in Item K7_h, accounting for a total of 48 cases.

5. Back-Coding Responses to "Other/Specify" Items

If respondents indicated receipt of income from other sources on either a regular (Item K6_g) or non-regular (Item K6_h) basis, they were asked to specify the source. Although we could have created additional categories during coding to cluster responses to the query about income sources, such categories would have necessitated the development of additional amount variables in Item K7 in order have appropriate coding of the amount of income received from each source. Cases reporting more than one source would not lend themselves to disaggregation of amounts. Therefore, we did not back-code "other" responses for these items.

6. Coding Open-Ended Items

Item K14 (type of assistance received from other government program) was an open-ended question with no response options. Following a review of the responses, we developed categories based on common responses (Table IV.8). Coders then attempted to code each verbatim response into an established category. If the response did not fit into one of the categories, we kept it as "other."

Table IV.8. Response categories added to section k as a result of coding

Item	Question Text	Response Categories Added
K14	What other assistance did {you/NAME} receive last month?	1 = HOUSING ASSISTANCE 2 = ENERGY ASSISTANCE 3 = FOOD ASSISTANCE 4 = OTHER

J. Section L—Sociodemographic Information

In Section L, we collected basic demographic information about the beneficiary, such as race, ethnicity, education, parental education, marital status, living arrangements, and household income.

1.   Living Situation

In Item L11, we asked respondents to indicate whether they lived alone; lived with parents, guardians, a spouse or partner, or other relative; lived with friends or roommates; lived in a group setting; or lived in some other arrangement. In Item L12, we then asked respondents to describe the place they lived. We built a soft edit check into the instrument to prompt interviewers to clarify answers in which the respondent indicated that he or she lived alone at Item L11 but also lived in a group setting at Item L12, such as a supervised apartment, group home, halfway house, personal care or board-and-care home, assisted living facility, nursing or convalescent home, center for independent living, or some other type of supervised group residence or facility. In some cases, the interviewer suppressed the edit check (33 cases) and the inconsistency remained. For these cases, we recoded question L11 to 4 (live in another group setting). Finally, during data review we discovered that respondents who reported living with more than one person were not asked L16. We set L16 to .D for these cases (28 cases).

2.   Number of Children

In Item L17, we asked how many children under age 18 lived in the sample person's household. We then asked respondents who reported children how many of the children were their own (Item L19). In 37 cases, the number of own children living in the household (Item L19) was greater than the number of children living in the household (Item L17). For these cases, we set question L19 to missing (.D).

3.   Reporting of Household Income

In Item L23Aamt, we asked respondents to provide either their total income in 2014 or the total combined income of their household, before taxes and other deductions. Respondents who experienced difficulty in calculating an annual amount could report their income in monthly, twice-a-month, weekly, biweekly, or daily units (recorded in Item L23Ahop). The level of item nonresponse was higher for Item L23Aamt than for any other item in the survey (34 percent). We asked those answering "don't know" or "refused" to indicate which of a series of ranges described their income (Item L24). Of the 1,392 respondents who did not respond to Item L23Aamt, 52 percent (725 cases) provided income data in Item L24.

We created the construct C_HhInc2014 to combine the responses expressed in various units into an annual income amount. We first examined high and low values of Item L23Aamt by unit reported (Item L23Ahop) and then examined high and low values on C_HhInc2014 to determine if any appeared to be invalid. Twenty-seven cases reported an annual income of less than $100. After reviewing work status, household size, and other sources of income, we set all to L23Aamt to "don't know." Although the 27 cases prevented the imputation of household income, we created and imputed a more general construct C_FEDPOVERTYLEVEL_CAT1 (Household Poverty Level) based on reported income and household size. We examined other cases on a case-by-case basis by reviewing household size and work-related variables in 2014. Generally, we coded most cases reporting household income of $250,000 or more as .D. In all, we edited 4 cases.

4.   Back-Coding Responses to "Other/Specify" Items

As mentioned, we asked respondents to indicate which of a series of items best described their living situation in Item L11. Coders reviewed responses of "some other living situation"

and back-coded them when possible. We also reviewed "other" responses to Item L23ahop (how often paid), although we could not back-code most into an existing category.

5. Back-Coding Field-Coded Responses

Item L12 (type of place respondent lives) was an open-ended item that required interviewers to attempt to code the respondent's verbatim response into a predetermined category. Coders reviewed responses coded as "other" by the interviewer and back-coded them into existing response options when possible. We did not code responses from "other" to a non-group living situation (Item L12 = 1 through 3), however, as such coding would have affected instrument pathing.

Table IV.9. Response categories added to section I as a result of coding

Item	Question Text	Response Categories Added
L12	The next question is about the place where you live. Was this place a…	13 = HOMELESS

K. Section M—Closing Information and Observations

In Section M, we updated the sample member's contact information so that the incentive check could be mailed. The interviewer recorded the reasons that a proxy or assistance was required, if appropriate, and documented special circumstances.

1. Back-Coding Field-Coded Responses

In Items M2a_rlshp and M13, we asked interviewers to indicate the relationship of the proxy respondent to the sample person. We reviewed responses coded as "other relative" or "other not related" and back-coded them when possible. At Item M14 (why assistant/proxy needed), we required interviewers to attempt to code respondents' verbatim responses into predetermined categories. We reviewed responses coded as "other" by the interviewer and back-coded them into existing response options when possible.

2. Respondent Type

At Item M11, we asked the interviewer to code whether the interview was conducted with the sample member or with a proxy. We compared this item to the responses asked of sample members only or proxies only and edited M11 to match the survey items completed. In all, we edited 14 cases.

V. CONCLUSIONS

In this report, we highlighted data quality issues identified during the NBS–General Waves Round 5 data editing and cleaning process. In sum, both programming errors and interviewer errors led to the loss of some survey data; however, errors were fewer compared to what we experienced in rounds of the prior NBS.

In general, although survey data processing could have been made more efficient by introducing stricter range checks for unusually high or low values, we were hesitant to apply checks that could have overwhelmed and frustrated respondents by rejecting survey responses during the interview. Any addition of checks must balance the complications associated with survey instrument programming to account for known data complexities against the need to address data complexities after survey completion.

We continued to strengthen interviewer training to emphasize areas of the questionnaire where data problems surfaced during Round 4. Such areas include the use of screens to mark providers, the importance of correct data entry for job-specific items, probing for sufficient information on open-ended items, and avoiding the suppression of edit checks without entering comments. The improved training aimed to sensitize interviewers to areas of the questionnaire that were particularly error-prone or to survey concepts that were particularly difficult.

In conclusion, the NBS–General Waves data file provides a rich array of data. As a result of data cleaning and editing, we identified and reported some instances where micro-level errors were obvious.

This page has been left blank for double-sided copying.

REFERENCES

Barrett, K., D. Wright, and G. Livermore. "The National Beneficiary Survey-General Waves Round 5 Questionnaire." Washington, DC: Mathematica Policy Research, May 2016.

Bush, C., R. Callahan, and J. Markesich. "The National Beneficiary Survey—General Waves Round 5: Public-Use File Codebook." Washington, DC: Mathematica Policy Research, 2017.

Bush, C., R. Callahan, and J. Markesich. "The National Beneficiary Survey—General Waves Round 5: Restricted-Use File Codebook." Washington, DC: Mathematica Policy Research, 2017.

Grau, E., Y. Zheng, D. Wright, S. Skidmore, H. Zhou, and K. Barrett. "The National Beneficiary Survey-General Waves Round 5 (Volume 1 of 3): Editing, Coding, Imputation, and Weighting Procedures." Washington, DC: Mathematica Policy Research, August 2017.

Grau, E. "The National Beneficiary Survey-General Waves Round 5: Nonresponse Bias Analysis." Washington, DC: Mathematica Policy Research, August 2017.

Wright, D., K. Barrett, S. Skidmore, E. Grau, Y. Zheng, K. Barrett, C. Bush and J. Markesich. "The National Beneficiary Survey-General Waves Round 5 (Volume 3 of 3): User's Guide for Restricted and Public Use Data Files." Washington, DC: Mathematica Policy Research, August 2017.

This page has been left blank for double-sided copying.

APPENDIX A

**CHANGES IN QUESTIONNAIRE CONTENT BETWEEN NBS ROUND 4
AND NBS–GENERAL WAVES ROUND 5**

This page has been left blank for double-sided copying.

Table A.1. Changes in questionnaire content between Round 4 and Round 5 NBS–General Waves

Item	Change	Reason
Section B		
B23_2. How often do you use a computer to access the Internet?	Item revised	Removed reference to World Wide Web because it is outdated; the term 'Internet' is the commonly used term
B29. Next, I am going to read you a list of things that some people do to look for work. Please tell me whether or not {you/NAME} did any of these things during the last four weeks. To look for work in the last four weeks did {you/NAME}: Contact a former employer in person, by mail or email, or by phone?	Item added	Based on information from Round 4, contacting a former employers was commonly cited in verbatim responses.
B29_2 Now, I am going to read you a list of reasons why people sometimes do not accept a job offer. Please tell me if any of these are reasons why {you/NAME} did not accept a job that {you/he/she} {were/was} offered in the past four weeks: The job did not offer a flexible enough schedule.	Item deleted	Item deleted because of low number of cases responding affirmatively in prior round.
B29_2 Now, I am going to read you a list of reasons why people sometimes do not accept a job offer. Please tell me if any of these are reasons why {you/NAME} did not accept a job that {you/he/she} {were/was} offered in the past four weeks: Job did not pay enough.	Item added	Based on information from Round 4, inadequate pay was commonly cited in verbatim responses.
B37 Do {your/NAME's} personal goals include working at a job, moving up in a job, or learning new job skills?	Item revised	Changed 'getting a job' to 'working at a job' so item is applicable to both those not working as well as those currently working. This change negates the need for programming alternative wording if B36=00.
B47 Please tell me how much you agree with the following statements. Would you say you strongly agree, agree, disagree, or strongly disagree? You see {yourself/NAME} continuing to work/working} for pay in the next two years.	Item revised	Changed temporal reference from one to two years, to reflect change from annual survey to a biennial survey.
Section C		
C26amt., C26hop, C31amt, C31hop How much {do you or your/does NAME or (his/her)} family have to pay?	Items deleted	Items asked about payments made by the sample member and his/her family for equipment (C26) and personal assistant services (C31). Most respondents skip these items; this resulted in data being of little analytic value.
C39 Again, thinking about your {main/current} job, how much do you agree with each of the following statements? Would you say you strongly agree, agree, disagree, or strongly disagree? **You plan to stay at this job for the next five years**	Item added	Item added because of analytic value.

Item	Change	Reason
Section E		
E4. {Have you/Has NAME} ever used a Plan for Achieving Self-Support or a PASS Plan?	Item deleted	Information about participation is available through SSA administrative records.
E6. {Have you/Has NAME} ever used the earned income exclusion or the 1 for 2 earnings exclusion?	Item deleted	Information about participation is available through SSA administrative records.
E8. {Have you/Has NAME} ever used Property Essential to Self-Support or PESS?	Item deleted	Information about participation is available through SSA administrative records.
E10. {Have you/Has NAME} ever used Continued Medicaid Eligibility or 1619(b) coverage?	Item deleted	Information about participation is available through SSA administrative records.
E13. {Have you/Has NAME} ever used the student earned-income exclusion?	Item deleted	Information about participation is available through SSA administrative records.
E16. {Have you/Has NAME} ever used a Trial Work Period?	Item deleted	Information about participation is available through SSA administrative records.
E18. {Have you/Has NAME} ever used an Extended Period of Eligibility for Medicare?	Item deleted	Information about participation is available through SSA administrative records.
E20. {Have you/Has NAME} ever used exclusions for Impairment-Related Work Expenses or Blind Work Expenses?	Item deleted	Information about participation is available through SSA administrative records.
E22 thru E51	Items deleted	Items focused on Ticket-to-Work program.
Section F		
F1 thru F33 (Entire Section)	Items deleted	Items focused on Ticket-to-Work program.
Section G		
G29b. Earlier you said you {used a Ticket to sign up with an Employment Network}/{were signed up with a State Vocational Rehabilitation Center} in 2009, but you just reported that in 2009 you did not receive any employment services to help improve your ability to work or live independently. Is this correct?	Item deleted	Item focused on the Ticket-to-Work program.
G5. In 2009, did {you/NAME} receive employment services from {FIRST/SECOND EMPLOYMENT NETWORK IN 2009 (E39)}?	Item deleted	Item focused on the Ticket-to-Work program.
G6. Then let me add {FIRST/SECOND EMPLOYMENT NETWORK FROM 2009 (E39)} to this list.	Item deleted	Item focused on the Ticket-to-Work program.
G29b. Earlier you said that you {used a Ticket to sign up with an Employment Network}/ {were signed up with a State Vocational Rehabilitation Center} in 2009, but you just reported that in 2009 you did not receive any employment services to help improve your ability to work or live independently. Is this correct?	Item deleted	Item focused on the Ticket-to-Work program.
G29c. Did you not receive services in 2009 because…	Item deleted	Item focused on the Ticket-to-Work program.

48

Item	Change	Reason
G49. In 2009, did any Employment Network give {you/NAME} money to use for any reason?	Item deleted	Item focused on the Ticket-to-Work program.
G50. In 2009, how much money did {you/NAME} receive from all Employment Networks?	Item deleted	Item focused on the Ticket-to-Work program.
G51. How many [months/ weeks] in 2009 {did you/did NAME} receive this money from {your/his/her} Employment Networks?	Item deleted	Item focused on the Ticket-to-Work program.
Section H		
H1 thru H58 (entire section)	Items deleted	Items focused on Ticket-to-Work evaluation.
Section I		
I17b. {Are you/Is NAME} blind or do {you/ does he/she} have serious difficulty seeing even when wearing glasses?	Item revised	Replaced existing item with the American Community Survey (ACS) version.
I17a. {Do you/Does NAME} ever wear glasses or contact lenses?	Item deleted	
I18. {Do you/Does NAME} have any difficulty seeing words and letters in ordinary newsprint?	Item deleted	
I20. What devices, equipment, or other types of assistance {do you/does NAME} use?	Response options revised	Added "screen readers" and "text-to-voice devices" as response options.
I21. {Are you/is NAME} deaf or do {you/he/she} have serious difficulty hearing?	Item revised	Replaced existing item with the American Community Survey (ACS) version.
I23. Do you/Does NAME} use any devices, special equipment, or other special assistance because of difficulty hearing? This includes a hearing aide, a phone amplifier, TTY or teletype **Relay**, an assistive listening or signaling device, or an interpreter.	Item revised	Added "relay" after teletype for clarification.
I24. What devices, equipment, or other types of assistance {do you/does NAME} use?	Item revised	Added two response options due to advances in technology (instant message and Skype or other video messaging).
I29. {Do you/Does NAME} have serious difficulty walking or climbing stairs?	Item revised	Replaced existing item with the American Community Survey (ACS) version.
I33. {Do you/Does NAME} have any difficulty climbing up 10 steps without resting?	Item deleted	Item deleted due to inclusion of related American Community Survey (ACS) version of question about stair climbing.
I34. {Are you/Is NAME} able to climb stairs at all?	Item deleted	Item deleted; limited analytic value.
I47. Because of a physical, mental, or emotional condition, {do you/does NAME} have difficulty doing errands alone such as visiting a doctor's office or shopping?	Item revised	Replaced existing item with the American Community Survey (ACS) version.
I51. {Do you/Does NAME} have difficulty dressing or bathing?	Item revised	Replaced existing item with the American Community Survey (ACS) version.
I59. Because of a physical, mental, or emotional condition, {do you/does NAME} have serious difficulty concentrating, remembering, or making decisions?	Item revised	Replaced existing item with the American Community Survey (ACS) version.

Item	Change	Reason
Section J		
J4. {Are you/Is NAME} currently covered by military health care, through Armed Forces retirement benefits, the VA, TRICARE or TRICARE?	Item revised	Removed reference to outdate insurance programs (CHAMPUS, CHAMP-VA).
J5. {Are you/Is NAME} currently covered by private health insurance, for example, private insurance that {you get/(he/she) gets} through an employer, a family member, or that {you purchase/(he/she) purchases} on {your/his/her} own including private insurance through the Affordable Care Act, sometimes called HealthCare.gov or ObamaCare?	Item revised	Added content to address enactment of the Affordable Care Act.
Section K		
K11. Did {you/NAME} receive any food stamps last month? You may know this as SNAP benefits. Please include only food stamps {you/NAME} received for {you/NAME} and {your/NAME's} family. Do not include food stamps received separately by other members of [your/NAME's] household.	Item revised	Added reference to SNAP benefits, a new acronym for the food stamp program since the 2010 survey administration.
Section L		
L15. Is this place primarily for people with hearing or vision impairments, mental illness, intellectual disabilities, or developmental disabilities?	Item revised	Changed "mental retardation" to "intellectual disabilities".

Improving public well-being by conducting high quality, objective research and data collection

PRINCETON, NJ ▪ ANN ARBOR, MI ▪ CAMBRIDGE, MA ▪ CHICAGO, IL ▪ OAKLAND, CA ▪ WASHINGTON, DC

MATHEMATICA
Policy Research