

**2015 Survey of Doctorate Recipients
Recode Variable Documentation**

Final Version

March 15, 2019

Contents

Introduction	4
General Recode Algorithms	4
A. Education Field-of-Study Variables	4
B. Occupation Variables	5
C. Location-Based Variables	6
D. Age Groupings	7
E. Academic Year	8
F. Three-Year Groupings	8
G. Five-Year Groupings	9
Specific Recode Algorithms	10
A. Employment-Related Recodes	10
EMTP	10
EMSECSM	11
LFSTAT	11
TENI	12
WKSWK	12
B. Work Activity Recodes	12
ACTCAP	13
ACTDED	13
ACTMGT	13
ACTRD	13
ACTRDT	14
ACTRES	14
ACTTCH	14
WAPRSM	14
WASCSM	15
C. Demographic Recodes	15
CTZN	15
HCAPIN	15
MARIND	16

MINRTY	16
RACEM.....	16
RACETHM	17
Children in the Household	17
Recoded Variables in the 2015 SDR Restricted Use Data File.....	22
SAS Code to Generate Recoded Variables in the 2015 SDR Restricted Use Data File	26

Introduction

The 2015 SDR data file primarily reflects information collected directly from the questionnaire responses as well as other contributing sources. In addition to questionnaire responses and external source data, the 2015 SDR restricted use data file contains analytical variables of interest that are derived from existing information in the file and are referred to as recodes. In this document, we provide descriptions of all recoded variables and algorithms used to create them. Please see Appendix A.1 for a full list of recoded variables found in the 2015 SDR restricted use data file. The recoded SDR Variable name and SDR input variables associated with each recoded variable are also given in that table. In Appendix B.1 we provide the SAS code used to produce the recoded variables in Appendix A.1.

A small number of variables on the 2015 restricted use data file were derived from variables in the Doctorate Records file. These are listed in Appendix A.2 and their SAS code is documented in Appendix B.2.

Finally, while this document discusses recode variables in the 2015 SDR restricted use data file, please note that a subset of these recode variables are included in the 2015 SDR public use data file.

General Recode Algorithms

There are many situations where the same algorithm is used to generate multiple recode variables. We describe these algorithms in detail below, including the algorithm, input variables, and outcome variables.

A. Education Field-of-Study Variables

Information on degrees earned by SDR respondents are carried over from their responses to the Survey of Earned Doctorates (SED) questionnaire that asked about their degree history. However, in each cycle of the survey respondents are asked to report any degree earned since the last cycle (i.e., in the past 2 years). For each new degree earned or for existing degrees reported in the SED, there can be up to 2 associated variables.

1. Minor Group, Field of Study—this is a recoded variable that groups over 200 fine fields of study into broader categories for the minor group variable that has 26 categories. The variable is created by taking the first two characters of the six-digit education code.
2. Major Group, Field of Study— this is a recoded variable that further group the fields of study into 8 broader categories for the major group variable. The variable is created by taking the first character of the six-digit education code.

For the 2015 SDR, the variables that are recoded this way are given in the table below.

Best Code Variable Name	Respondent-Entered Variable Name	Minor Group Variable Name	Major Group Variable Name
NSDRMED	N/A*	NSDRMEN	NSDRMEM
NBAMED	NBAMEDX	NBAMENG	NBAMEMG

NMRMED	NMRMEDX	NMRMENG	NMRMEMG
NACED	NACEDX	NACEDNG	NACEDMG
NDGRMED	NHDMEDX	NDGMENG	NDGMEMG
ND2MED	ND2MEDX	ND2MENG	ND2MEMG
ND3MED	ND3MEDX	ND3MENG	ND3MEMG
ND4MED	ND4MEDX	ND4MENG	ND4MEMG
ND5MED	ND5MEDX	ND5MENG	ND5MEMG

*The major field of study for the first US PhD (NSDRMED) is taken from the SED and therefore does not have a respondent-entered value.

To aid researchers in coding the first US SEH PhD field of degree at the highest level aggregation (i.e. science, engineering and health), the SDR team created the variable SEH, which collapses values of NSDRMEM from '1' to '6' into category '1', renamed as "science". Categories '7' (engineering) and '8' (health) retain their original values and meanings from NSDRMEM.

B. Occupation Variables

For questions involving primary occupation, respondents are asked to enter a three-digit occupation code when completing the questionnaire, in addition to verbatim reporting of their job title, and description of duties, and employer name. For each situation where we collect occupation information, there can be up to 4 associated variables.

1. Respondent-Entered Value—the respondent selects a 3-digit occupation code from the options listed on the back of the questionnaire. While these variables are not considered recodes, post-collection processing does convert these three-digit values to a six-digit value via the Education and Occupation Codes Crosswalk.
2. Best Code—Respondent-entered values go through a system of checks that apply several criteria to determine if the respondent-entered value best describes the primary job responsibility. Because some respondents do not provide an occupation code, a best code is assigned based on their verbatim response to job title, description of duties and employer name. The final result of this best-coding process is stored in a new variable. The best code is not considered a recode, but is transformed to a six-digit code using the NCSES Editing Guidelines for Education and Occupation Codes Classifications and Taxonomies.
3. Minor Group, Occupation—these recode variables group occupation codes into broader categories for the minor group variable. The variable is created by taking the first two characters of the six-digit best code.
4. Major Group, Occupation— these recode variables group occupation codes into even broader categories for the major group variable. The variable is created by taking the first character of the six-digit best code.

For the 2015 SDR, the variables that are recoded this way are given in the table below.

Best Code Variable Name	Respondent-Entered Variable Name	Minor Group Variable Name	Major Group Variable Name
N2OCLST	N2OCLSTX	N2OCLNLT	N2OCLMLT
N2OCPR	N2OCPRX	N2OCPRNG	N2OCPRMG

C. Location-Based Variables

In several instances, location information is collected from either the respondent or from other data sources. For example, the place of birth is taken from the questionnaire response or the location of the academic institution where a respondent earned a degree is taken from IPEDS data based on the institution name. All location variables are stored at the state or country code level using a three-digit code that specifies the state within the United States or the country outside the United States. Each location variable will have two associated recodes: one that gives the larger geographic region containing that location and one that is an indicator for whether the location is within the United States or not. Please see the table below for location, region, and US/non-US flags that can be found on the 2015 SDR.

Location Variable Name	Region Variable Name	US/Non-US Variable Name
SDRST	SDRRGN	N/A*
RESPLO3	RESPLOC	RESPLCUS
BTHST	BTHRGN	BTHUS
BAST	BARGN	BADGRUS
D2ST	D2RGN	D2DGRUS
D3ST	D3RGN	D3DGRUS
D4ST	D4RGN	D4DGRUS
D5ST	D5RGN	D5DGRUS
EMST	EMRG	EMUS
FNCCD	FNCRGN	N/A**
HDST	HDRGN	HDDGRUS
MRST	MRRGN	MRDGRUS

* There is no US/Non-US recode variable associated with SDRST and SDRRGN. The first US PhD was by definition earned within the US so there is no need for a US/Non-US indicator variable.

** There is no US/Non-US recode variable associated with FNCCD and FNCRGN. These variables denote the location and region of a foreign country where a respondent has citizenship. These are outside the US by definition so there is no need for a US/Non-US indicator variable.

The region and US/Non-US recodes are created as follows.

Three-Digit Location Code	Region Code	US / Non-US Flag
999	M (Missing)	M (Missing)
998	L (Logical Skip)	L (Logical Skip)
009, 023, 025, 033, 044, 050, or 085	01 (New England)	Y
034, 036, 042, or 086	02 (Middle Atlantic)	Y
017, 018, 026, 039, 055, or 087	03 (East North Central)	Y
019, 020, 027, 029, 031, 038, 046, or 088	04 (West North Central)	Y
010, 011, 012, 013, 024, 037, 045, 051, 054, or 089	05 (South Atlantic)	Y
001, 021, 028, 047, or 090	06 (East South Central)	Y
005, 022, 040, 048, or 091	07 (West South Central)	Y

004, 008, 016, 030, 032, 035, 049, 056, or 092	08 (Mountain)	Y
002, 006, 015, 041, 053, 060, 066, 067, 069, 071, 072, 076, 078, 079, 081, 082, 083, 084, 093, 095, or 096	09 (Pacific and US Territories)	Y
099	Varies*	Y
990	99 (Unknown/Not Applicable)	N
100 to 199	10 (Europe)	N
200 to 299	20 (Asia)	N
300 to 309	30 (North America)	N
310 to 318	31 (Central America)	N
330 to 359	33 (Caribbean)	N
375 to 399	37 (South America)	N
400 to 499	40 (Africa)	N
500 to 529	50 (Oceania)	N
550 to 599	55 (Abroad, Not Specified)	N

* A state location code of 099 indicates “US Territory, Suppressed”. In these cases it is not possible to determine the region using the above table because the exact location has been suppressed due to confidentiality concerns. The data collection contractor provides the correct region based on the unpublicized location. Because the location is within the US by definition, we can set the US/Non-US flag to Y.

Because the 2015 SDR restricted use dataset included both US-residing and non-US residing individuals, an additional variable was added to enforce consistency between the US/non-US indicator variable FNINUS and the 3-digit respondent location. Though the indicator and three-digit codes are largely consistent, for a small number of cases, they are not. The creation of the FNINUSLOC variable enforces consistency between the two variables so that the three-digit code aligns with the FNINUS indicator variable. Each of these steps is applied in the order listed in the table below.

FNINUS	Location variable condition	Set FNINUSLOC to:
N	RESPLO3 GE '100'	RESPLO3
N	RESPLO3 LT '100'	RESIDEV
Y	RESPLO3 LT '096'	RESPLO3
Y	RESPLO3 GE '096' AND EMST LT '096'	EMST
Y	None of the above	'096'

D. Age Groupings

There are two variables created by grouping values of single year of age into five-year categories—AGEGR and DIFAGEGR (age at first disability in 5-year grouping). The input variables for these recodes are AGE and DIFAGE, respectively. In both cases the algorithm is as follows:

AGE / DIFAGE*	AGEGR / DIFAGEGR*
98	98

24 or younger	20
25 to 29	25
30 to 34	30
35 to 39	35
40 to 44	40
45 to 49	45
50 to 54	50
55 to 59	55
60 to 64	60
65 to 69	65
70 to 75	70

*DIFAGE and DIFAGEGR have valid values of logical skip (98) when the respondent does not report a disability. For the AGE variable, 98 is not a valid value.

E. Academic Year

The academic year of each earned degree is calculated using both the month and year the degree was awarded. Because academic years are defined as being earned between July 1 and June 30, we associate a degree with the academic year as follows. If a degree was earned in January through June or if the month is unknown, the academic year will be the same as the calendar year in which the degree was earned. If the degree was earned in July or later months, it will be considered part of the following academic year. Academic year recodes are created for all degree variables. We show the creation of SDRAYR as an example below.

SDRYR	SDRMN	SDRAYR
Any Valid Year	1, 2, 3, 4, 5, 6,	Same as MRYR / DGRYR
Any Valid Year	7, 8, 9, 10, 11, 12	MRYR + 1 / DGRYR + 1

The input and output variables for these recodes are given in the table below.

Degree Year Variable	Degree Month Variable	Academic Year Recode
SDRYR	SDRMN	SDRAYR
MRYR	MRMN	MRDACYR
BAYR	BAMN	BAACYR
DGRYR	HDMN	HDACYR
D2YR	D2MN	D2AYR
D3YR	D3MN	D3AYR
D4YR	D4MN	D4AYR
D5YR	D5MN	D5AYR

F. Three-Year Groupings

The year of each earned degree is collapsed into three-year groupings based on the calendar year of award. We use the example of MR3YR, which groups the variable MRYR into three-year groups. The value of MR3YR is the floor value of each three-year group for MRYR. For example MR3YR = 1971 represents 1971 to 1973. MR3YR = 1974 represents 1974 to 1976, etc. MR3YR is created as follows:

MRYR	MR3YR
Any Valid Year	$3 * \text{INT}(\text{MRYR} / 3)$

The input and output variables for these recodes are given in the table below.

Degree Year Variable	Three-Year Grouping Variable
SDRYR	SDR3YR
MRYR	MR3YR
BAYR	BAAYR3
DGRYR	HDACY3
D2YR	D23YR
D3YR	D33YR
D4YR	D43YR
D5YR	D53YR

G. Five-Year Groupings

The year of each earned degree is collapsed into five-year groupings based on the calendar year of award. We use the example of MR5YR, which groups the variable MRYR into five-year groups. The value of MR5YR is the floor value of each five-year group for MRYR. For example MR5YR = 1970 represents 1970 to 1974. MR5YR = 1975 represents 1975 to 1979, etc. MR5YR is created as follows:

MRYR	MR5YR
Any Valid Year	$5 * \text{INT}(\text{MRYR} / 5)$

The input and output variables for these recodes are given in the table below.

Degree Year Variable	Five-Year Grouping Variable
SDRYR	SDR5YR
MRYR	MR5YR
BAYR	BAAYR5
DGRYR	HDAY5
D2YR	D25YR
D3YR	D35YR
D4YR	D45YR
D5YR	D55YR

Specific Recode Algorithms

Several recode algorithms are used once per survey cycle. There may be several input variables and only one outcome variable. There are several situations where there are multiple recode variables generated based on the same series of questions. We group those together in this section.

A. Employment-Related Recodes

There are several recode variables associated with the basic employer and employment information requested of all respondents.

EMTP

This variable describes the type of employer based with separate categories for educational institution and other employers. Three variables are used to generate EMTP: EMED (Y/N indicator for employer being an educational institution), NEDTP (employer type, disregarding educational institution status), and EDTP (type of educational institution for employer). EMTP is created as follows:

EMED	EDTP	NEDTP	EMTP
L	L	L	L (Logical Skip)
Y	1	Any	01 (elementary, middle, or secondary school)
Y	2	Any	02 (two-year, technical, or junior college)
Y	3	Any	03 (four-year college or university)
Y	4	Any	04 (medical school)
Y	5	Any	05 (university research institution)
Y	6	Any	06 (other educational institution)
N	L	3	10 (Private-for-profit (non-educational institution)
N	L	4	11 (Private-non-profit (non-educational institution)
N	L	1	12 (Self-employed, not incorporated (non-educational institution)
N	L	2	13 (Self-employed, incorporated (non-educational institution)
N	L	5	14 (Local government (non-educational institution)
N	L	6	15 (State government (non-educational institution)
N	L	7	16 (U.S. military (non-educational institution)
N	L	8	17 (U.S. government (non-educational institution)
N	L	9	18 (Other (non-educational institution)
N	L	10	19 (Non-US Government (non-educational institution)

Note that these criteria are applied in the order in which they appear in the table.

EMSECDT

This variable describes the type of employer based with separate categories for educational institution and other employers at a higher level of aggregation than is constructed in EMTP. Three variables are used to generate EMSECDT: EMED (Y/N indicator for employer being an educational institution), NEDTP (employer type, disregarding educational institution status), and EDTP (type of educational institution for employer). EMSECDT is created as follows:

EMED	EDTP	NEDTP	EMTP
L	L	L	L (Logical Skip)

Y	3, 4, 5	Any	11 (4-year college/university, medical school, university-based research institute)
Y	1, 2, 6	Any	12 (two-year, technical, or junior college and pre-college institutions)
N	L	2, 3, 9	21 (Business/Industry for-profit (non-educational institution))
N	L	1	22 (Business/industry, self-employed, not incorporated (non-educational institution))
N	L	4	23 (Business/industry, not for profit (non-educational institution))
N	L	7, 8	31 (U.S. Federal government (non-educational institution))
N	L	5, 6	32 (U.S. state or local government (non-educational institution))
N	L	10	33 (Non-US Government (non-educational institution))

Note that these criteria are applied in the order in which they appear in the table.

EMSECSM

This variable describes the sector in which the respondent is employed. Two variables are used to generate EMSECSM: EMED (Y/N indicator for employer being an educational institution) and NEDTP (employer type, disregarding educational institution status). EMSECSM is created as follows:

EMED	NEDTP	EMSECSM
L	Any	L (Logical Skip)
Y	Any	1 (Educational Institution)
N	5, 6, 7, 8, or 10	2 (Government)
N	1, 2, 3, 4, or 9	3 (Business / Industry)

GOVSUP

This variable indicates whether the respondent received government support in the form of Federal contracts or grants for their work in the previous year. It is a collapsed version of the questionnaire variable GOVSUP, which is the Input variable. GOVSUP is created as follows:

GOVSUP on SDR	GOVSUP on RUF
'L','0'	'L' (Logical skip)
'1'	'Y' (Received government support)
'2','3'	'N' (Did not receive government support)
N	3 (Not in Labor Force)

LFSTAT

This variable describes the respondent's labor force status. Input variables to this recode are WRKG (Y/N indicator for whether the respondent is working), LOOKWK (Y/N indicator for whether the

respondent was looking for work), and NWLAY (Y/N indicator for whether the respondent was not working due to a layoff). LFSTAT is created as follows:

WRKG	LOOKWK	NWLAY	LFSTAT
Y	L	L	1 (Employed)
N	N	Y	2 (Unemployed)
N	Y	Any	2 (Unemployed)
N	N	N	3 (Not in Labor Force)

TENI

This variable summarizes the respondent's tenure status into three categories using the response to the tenure status question (TENSTA, question A18 on the SDR 2015 questionnaire). The variable is created as follows:

TENSTA	TENI
1 or 2	1 (Not Applicable)
4 or 5	2 (Not Tenured)
3	3 (Tenured)
L	L (Logical Skip)

WKSWK

This variable gives the number of weeks per year in which the respondent is working. The input variables to this recode are WKSYP (indicates if the respondent's salary is based on a 52-week year) and WKSLYR (the number of weeks per year the respondent's salary is based on, if less than 52). The variable is created as follows:

WKSYP	WKSLYR	WKSWK
L	Any	98
Y	L	52
N	1 – 51	same value as WKSLYR
N	N	N

B. Work Activity Recodes

The work activity questions (A30 and A31 in the SDR 2015 questionnaires) ask the respondent to indicate whether or not they perform fourteen different work activities and then to indicate which are their primary and secondary activities. Based on the primary and secondary responses (WAPRI and WASEC), seven recode variables collapse the fourteen possible answers to the work activities module into broader categories. These outcome variables are: ACTCAP, ACTDED, ACTMGT, ACTRD, ACTRDT, ACTRES, and ACTTCH. There is significant overlap in these variables. Two other summary variables for work activities are created—WASPRSM and WASCSM. The algorithms for creating the work activity recodes are given below by variable name.

Note that in practice, we do not expect to see values of M (missing) or X (survey exclusion/confidentiality suppression) in the input or output variables for the work activity recodes. We

include them in the algorithm for completeness. However, imputation and editing procedures will have replaced these values with valid responses before the recode generation process begins.

ACTCAP

This is a Y/N indicator for whether or not a respondent's primary or secondary work activity involves computer applications. The variable is created as follows:

WAPRI	WASEC	ACTCAP
L	L	L (Logical Skip)
06	00 - 14	Y (Yes)
01 - 14	06	Y (Yes)
01, 02, 03, 04, 05, 07, 08, 09, 10, 11, 12, 13, or 14	00, 01, 02, 03, 04, 05, 07, 08, 09, 10, 11, 12, 13, or 14	N (No)

ACTDED

This is a Y/N indicator for whether or not a respondent's primary or secondary work activity involves development or design. The variable is created as follows:

WAPRI	WASEC	ACTDED
L	L	L (Logical Skip)
04, 05	00 - 14	Y (Yes)
01 - 14	04, 05	Y (Yes)
01, 02, 03, 06, 07, 08, 09, 10, 11, 12, 13, or 14	00, 01, 02, 03, 06, 07, 08, 09, 10, 11, 12, 13, or 14	N (No)

ACTMGT

This is a Y/N indicator for whether or not a respondent's primary or secondary work activity involves accounting/finance, human resources, management, sales or quality control. The variable is created as follows:

WAPRI	WASEC	ACTMGT
L	L	L (Logical Skip)
01, 07, 08, 11, or 12	00 - 14	Y (Yes)
01 - 14	01, 07, 08, 11, or 12	Y (Yes)
02, 03, 04, 05, 06, 09, 10, 13, or 14	00, 02, 03, 04, 05, 06, 09, 10, 13, or 14	N (No)

ACTRD

This is a Y/N indicator for whether or not a respondent's primary or secondary work activity involves basic research, applied research, development or design. The variable is created as follows:

WAPRI	WASEC	ACTRD
L	L	L (Logical Skip)
02, 03, 04, 05	00 - 14	Y (Yes)
01 - 14	02, 03, 04, 05	Y (Yes)

01, 06, 07, 08, 09, 10, 11, 12, 13, or 14	00, 01, 06, 07, 08, 09, 10, 11, 12, 13, or 14	N (No)
--	--	--------

ACTRDT

This is a Y/N indicator for whether or not a respondent's primary or secondary work activity involves basic research, applied research, development, design or teaching. The variable is created as follows:

WAPRI	WASEC	ACTRDT
L	L	L (Logical Skip)
02, 03, 04, 05, 13	00 - 14	Y (Yes)
01 – 14	02, 03, 04, 05, 13	Y (Yes)
01, 06, 07, 08, 09, 10, 11, 12, or 14	00, 01, 06, 07, 08, 09, 10, 11, 12, or 14	N (No)

ACTRES

This is a Y/N indicator for whether or not a respondent's primary or secondary work activity involves basic or applied research. The variable is created as follows:

WAPRI	WASEC	ACTRES
L	L	L (Logical Skip)
02, 03	00 - 14	Y (Yes)
01 – 14	02, 03	Y (Yes)
01, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, or 14	00, 01, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, or 14	N (No)

ACTTCH

This is a Y/N indicator for whether or not a respondent's primary or secondary work activity involves teaching. The variable is created as follows:

WAPRI	WASEC	ACTTCH
L	L	L (Logical Skip)
13	00 - 14	Y (Yes)
01 – 14	13	Y (Yes)
01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, or 14	00, 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, or 14	N (No)

WAPRSM

This variable summarizes or collapses the primary work activity into broader categories that are mutually exclusive. The variable is created as follows:

WAPRI	WAPRSM
L	L (Logical Skip)
02, 03, 04, 05	1 (Research and Development)
13	2 (Teaching)

01, 07, 08, 11, 12	3 (Management and Administration)
06	4 (Computer Applications)
09, 10, 14	5 (Other)

WASCSM

This variable summarizes or collapses the secondary work activity into broader categories that are mutually exclusive. The variable is created as follows:

WASEC	WASCSM
L	L (Logical Skip)
02, 03, 04, 05	1 (Research and Development)
13	2 (Teaching)
01, 07, 08, 11, 12	3 (Management and Administration)
06	4 (Computer Applications)
09, 10, 14	5 (Other)
00	6 (No Secondary Activity)

C. Demographic Recodes

There are several recode variables associated with the basic demographic information requested of all respondents. Please note that respondents who have reported data on gender, race and/or ethnicity are not asked the full series of demographic questions as we have already collected this information from them. Their previous responses to these questions are merged on to the 2015 data and demographic recodes are created using that information. However, questions on citizenship status and disability status are asked of all respondents in each survey round.

CTZN

This variable describes a respondent's citizenship status. It is created using input variables CTZUSIN (Y/N indicator for US citizen), CTZUS (categorical variable describing the basis of US citizenship), and CTZFOR (categorical variable describing a foreign citizen's US resident status). CTZN is created as follows:

CTZUSIN	CTZUS	CTZFOR	FNINUS	CTZN
L	L	L	Any	L (Logical Skip)
Y	1, 2	L	Any	1 (US Citizen, native)
Y	3	L	Any	2 (US Citizen, naturalized)
N	L	1	Any	3 (Non-US citizen, Permanent resident)
N	L	2	Any	4 (Non-US citizen, temporary resident)
N	Any	Any	N	5 (Non-US citizen, living outside the U.S.)

HCAPIN

This is a Y/N indicator for whether or not a respondent reported a disability. It is created by looking at the variables DIFSEE, DIFHEAR, DIFWALK, DIFLIFT, and DIFCOGN. If *any* of these variables has a value of '3' (moderate difficulty), '4' (severe difficulty) or '5' (unable to do) then HCAPIN will equal Y. If *all* of these variables do not have values of '3', '4' or '5', then HCAPIN will equal N.

DIFSEE	DIFHEAR	DIFWALK	DIFLIFT	DIFCOGN	HCAPI
'3', '4', '5'	Any	Any	Any	Any	Y (Yes)
Any	'3', '4', '5'	Any	Any	Any	Y (Yes)
Any	Any	'3', '4', '5'	Any	Any	Y (Yes)
Any	Any	Any	'3', '4', '5'	Any	Y (Yes)
Any	Any	Any	Any	'3', '4', '5'	Y (Yes)
'1', '2', '9'	'1', '2', '9'	'1', '2', '9'	'1', '2', '9'	'1', '2', '9'	N (No)

MARIND

This is a Y/N indicator for whether or not the respondent is married. It is created by recoding the MARSTA variable. If MARSTA equals 1 then MARIND = Y. Otherwise MARIND = N.

MARSTA	MARIND
1	Y (Yes)
2, 3, 4, 5, 6	N (No)

MINRTY

This is a Y/N indicator for whether or not the respondent is part of an underrepresented minority group. It is created using the variables HISPCAT and RACEM. Also note that people of White or Asian descent who are not Hispanic and not members of multiple racial categories are not underrepresented in the SDR population. Hence they will have MINRTY = N.

HISPCAT	RACEM*	MINRTY
1, 2, 3, 4	Any	Y (Yes)
Any	2, 3, 5, 6	Y (Yes)
'L'	1,4	N (No)

* Please note that RACEM is also a recode variable. Therefore RACEM should be created before MINRTY is created.

RACEM

This variable collapses responses to individual race questions into broader categories, without regard to Hispanic origin, as follows.

ASIAN	BLACK	NATIVE	PACIFIC	WHITE	RACEM
Any	Any	Any	Any	Any	6 (Multiple race)
Y	N	N	N	N	1 (Asian only)
N	N	Y	N	N	2 (American Indian/Alaskan Native Only)
N	Y	N	N	N	3 (Black only)
N	N	N	N	Y	4 (White only)
N	N	N	Y	N	5 (Native Hawaiian/Pacific Islander only)

The steps in this table are processed in order. RACEM is set to 6 (multiple race) by default. It is changed if any of the other conditions are met. Previous responses are imported for old cohort respondents. Editing and imputation procedures will fill these variables with valid values before RACEM is created.

RACETHM

This variable collapses responses to race questions and Hispanic origin questions as follows.

HISPANIC	ASIAN	BLACK	NATIVE	PACIFIC	WHITE	RACETHM
Y	Any	Any	Any	Any	Any	4 (Hispanic, Any Race)
N	Y	N	N	N	N	1 (Asian, Non-Hispanic only)
N	N	N	Y	N	N	2 (American Indian/Alaskan Native, Non-Hispanic Only)
N	N	Y	N	N	N	3 (Black, Non-Hispanic only)
N	N	N	N	N	Y	5 (White, Non-Hispanic only)
N	N	N	N	Y	N	6 (Native Hawaiian/Pacific Islander, Non-Hispanic only)
N	Any	Any	Any	Any	Any	7 (Multiple Race, Non-Hispanic)

These steps are processed in the order in which they appear in the table. If at the end of the first six steps, no value of RACETHM has been assigned, then RACETHM will be set to 7. Previous responses are imported for old cohort respondents. Editing and imputation procedures will fill these variables with valid values before RACETHM is created.

Children in the Household

Respondents are asked to enter the number of children within the household that fall into certain age categories. Collected directly from the questionnaire we have the following age variables:

Questionnaire Variable Name	Ages Represented
CHU2	Under 2
CH25	2 to 5
CH611	6 to 11
CH1218	12 to 18
CH19	19 and Older

In addition to the number-of-children variables collected directly from the questionnaire, we create one additional variable to count the number of children under the age of six—CH6. This variable is created as follows:

CHU2	CH25	CH6
98	98	98
0 to 96	0 to 96	CHU2 + CH25

Note that values of CHU2 and CH25 up to 96 are defined, valid values. However, in practice, high values observed in the data would trigger an anomaly investigation and be corrected. We do expect values of 98 (logical skip) for households that have no children.

A series of additional recode variables are created to indicate the presence of children within each of those age groupings. The algorithm for creating these indicators is as follows:

Input Variable Values	Outcome Variable Values
98	L
0	N
1 – 96	Y

The input and output variables for these recodes are given in the table below.

Input Variable Names	Outcome Variable Names	Indicates Presence of Children Ages...
CHU2	CHU2IN	Under 2
CH25	CH25IN	2 to 5
CH6*	CH6IN	Under 6
CH611	CH611IN	6 to 11
CH1218	CH1218IN	12 to 18
CH19	CH19IN	19 and Older

* Note that CH6 is also a recode variable and must be created before CH6IN.

There is one additional indicator variable for the number of children in the household, but it is created differently than those previously described. The variable CHUN12 is a Y/N indicator for whether there are children under the age of 12 in the household. It is created as follows:

CHU2	CH25	CH611	CHUN12
98	98	98	L
CHU2 + CH25 + CH611 = 0			N
CHU2 + CH25 + CH611 > 0			Y

D. Recodes from Doctorate Records File

At NCSES request, a small number of variables was created from data in the Doctorate Records File (DRF) frame. These variables were intended to capture key constructs for SDR sample members at the time of their doctorate receipt. Below the tables show the original DRF variable in the left-hand column and their recoded RUF variable in the right-hand column. These are discussed below and documented further in Appendices A.2 and B.2.

CNTRYCIT_DRF

This variable describes is created using input variables CNTRYCIT. CNTRYCIT_DRF is set to equal the values at CNTRYCIT with the additional logical skip recodes. Note that the value of '999' in the DRF applies to US citizens. For that reason, we coded CNTRYCIT_DRF for these cases to the standard "logical skip" code (i.e. '998').

CNTRYCIT	CNTRYCIT_DRF
999	998
Missing	999

CTZN_DRF

This variable describes [...]. It is created using input variables CITIZ. It is created as follows:

CITIZ	CTZN_DRF
Missing, '-1'	M
'0', 'U', 'P'	'1'
'1'	'2'
'2', 'A'	'3'
'3', '4'	'4'

EMSECDT_DRF

This variable collapses responses to key employment variables into broader categories parallel to the RUF recode EMSECDT. Detailed specifications are given in the table below. The DRF does not distinguish between incorporated and unincorporated self-employment. All self-employed people were classified in category '21' and category '22' (unincorporated self-employed) is left uncoded:

PDEMPLOY	CTZN_DRF	PDUSFOR	PDOCPLAN	PHDFY	EMSECDT_DRF
'A', 'B', 'C', '4', 'F'	Any	Any	Any	Any	'11' (4-year univ, medical school, research inst, foreign univ)
'D', 'E'	Any	Any	Any	Any	'12' (Community college and pre-college educ inst.)
'L', 'N', 'M'	Any	Any	Any	Any	'21' (Industry/business, self-employed and other)
'K'	Any	Any	Any	Any	'23' (Not for profit)
'H'	Any	Any	Any	Any	'31' (US federal government)
'2'	'1', '2'	'1'	Any	Any	'31' (National government, US)
'3'	'1', '2'	'1'	Any	Any	'32' (State or local government, US)
'I', 'J'	Any	Any	Any	Any	'32' (State or local government, US)
'1', 'G'	Any	Any	Any	Any	'33' (Non-US government)
'2', '3'	'3', '4'	'2'	Any	Any	'33' (Non-US government)
' ', '-1'	Any	Any	NOT IN ('4', '5', '6')	GE 1969 & LE 2003	'L'
'99'	Any	Any			'L'
' ', '-1'	Any	Any	Any	(GE 1958 & LE 1968) OR (GE 2004)	'M'
' ', '-1'					'M'

FFOD_215

This variable recodes PHDFIELD into 215 21st century fine fields of degree. It is created using input variables PHDFIELD. It is created as follows:

PHDFIELD	FFOD_215
'007'	'005'
'032'	'039'
'040'	'043'
'054'	'055'
'065'	'066'
'060'	'080'
'140'	'139'
'156'	'157'
'171'	'170'
'219','224'	'212'
'225'	'240'
'322','323'	'324'
'354'	'399'
'506'	'500'
'521'	'539'
'545'	'544'
'547','549'	'548'
'554','555'	'559'
'562'	'561'
'563'	'564'
'567','573'	'570'
'679'	'678'

PDSTAT_DRF

This variable recodes PDOCSTAT (post-graduation status, including plans for work or study) in the DRF into three categories. It is created as follows:

PDOCSTAT	PDSTAT_DRF
'0','1','A'	'1' (Definite plans)
'2','3','4','5','6'	'2' (Not definite)
','-1'	'3' (Unknown)

PDUSFOR

The following recode was applied at PDUSFOR, the indicator of whether the sample member planned to reside in the U.S. (PDUSFOR = '1') or outside the U.S. (PDUSFOR = '2') after doctorate receipt.

PDUSFOR	PDUSFOR
'1','2'	'M'

POSTDOC

POSTDOC is transformed to a character variable, with the additional value of 'M' for "missing" added. This variable indicates whether the sample member had the intention to take a postdoc position at the time of doctorate receipt.

POSTDOC	POSTDOC
NOT IN ('1','2')	'M'

Appendix A.1

Recoded SDR SESTAT Variables in the 2015 SDR Restricted Use Data File

Recoded SDR SAS Variable Name	SDR SESTAT Variable Name	Input SDR SAS Variable(s)
ACTCAP	F_JOB_WRK_ACTIVITY_PRIM_SEC_COMPUTER	WAPRI, WASEC
ACTDED	F_JOB_WRK_ACTIVITY_PRIM_SEC_DEV_DESIGN	WAPRI, WASEC
ACTMGT	F_JOB_WRK_ACTIVITY_PRIM_SEC_MGT_SALES	WAPRI, WASEC
ACTRD	F_JOB_WRK_ACTIVITY_PRIM_SEC_RSRCH_DEV	WAPRI, WASEC
ACTRDT	F_JOB_WRK_ACTIVITY_PRIM_SEC_RSRCH_DEV_TEACH	WAPRI, WASEC
ACTRES	F_JOB_WRK_ACTIVITY_PRIM_SEC_RSRCH	WAPRI, WASEC
ACTTCH	F_JOB_WRK_ACTIVITY_PRIM_SEC_TEACH	WAPRI, WASEC
AGEGR	U_DEM_AGE_GROUP_5_YR_GROUPING	AGE
BAACYR	J_ED_BA_DEGREE_AWARD_ACADEMIC_YR	BAYR, BAMN
BAAYR3	J_ED_BA_DEGREE_AWARD_YR_3_YR_GROUPING	BAYR
BAAYR5	J_ED_BA_DEGREE_AWARD_YR_5_YR_GROUPING	BAYR
BADGRUS	J_ED_BA_SCHOOL_REGION_US_NONUS	BARGN, BAST
BARGN	J_ED_BA_SCHOOL_REGION	BAST
BTHRGN	U_DEM_BIRTH_PLACE_REGION	BTHST
BTHUS	U_DEM_BIRTH_PLACE_REGION_US_NONUS	BTHRGN, BTHST
CH1218IN	W_DEM_CHILDREN_IND_12_18	CH1218
CH19IN	W_DEM_CHILDREN_IND_19	CH19
CH25IN	W_DEM_CHILDREN_IND_2_5	CH25
CH6	W_DEM_CHILDREN_NBR_UNDER_6	CHU2, CH25
CH611IN	W_DEM_CHILDREN_IND_6_11	CH611
CH6IN	W_DEM_CHILDREN_IND_UNDER_6	CH6
CHU2IN	W_DEM_CHILDREN_IND_UNDER_2	CHU2
CHUN12	W_DEM_CHILDREN_UNDER_12_IND	CHU2, CH25, CH611
CTZN	V_DEM_CITIZENSHIP_STATUS	CTZUS, CTZFOR, FNINUS
D23YR	P_ED_2ND_HD_DEGREE_AWARD_YR_3_YR_GROUPING	D2YR
D25YR	P_ED_2ND_HD_DEGREE_AWARD_YR_5_YR_GROUPING	D2YR
D2AYR	P_ED_2ND_HD_DEGREE_AWARD_ACADEMIC_YR	D2YR, D2MN
D2DGRUS	P_ED_2ND_HD_SCHOOL_REGION_US_NONUS	D2RGN, D2ST
D2RGN	P_ED_2ND_HD_SCHOOL_REGION	D2ST
D33YR	Q_ED_3RD_HD_DEGREE_AWARD_YR_3_YR_GROUPING	D3YR
D35YR	Q_ED_3RD_HD_DEGREE_AWARD_YR_5_YR_GROUPING	D3YR
D3AYR	Q_ED_3RD_HD_DEGREE_AWARD_ACADEMIC_YR	D3YR, D3MN

Recoded SDR SAS Variable Name	SDR SESTAT Variable Name	Input SDR SAS Variable(s)
D3DGRUS	Q_ED_3RD_HD_SCHOOL_REGION_US_NONUS	D3RGN, D3ST
D3RGN	Q_ED_3RD_HD_SCHOOL_REGION	D3ST
D43YR	R_ED_4TH_HD_DEGREE_AWARD_YR_3_YR_GROUPING	D4YR
D45YR	R_ED_4TH_HD_DEGREE_AWARD_YR_5_YR_GROUPING	D4YR
D4AYR	R_ED_4TH_HD_DEGREE_AWARD_ACADEMIC_YR	D4YR, D4MN
D4DGRUS	R_ED_4TH_HD_SCHOOL_REGION_US_NONUS	D4RGN, D4ST
D4RGN	R_ED_4TH_HD_SCHOOL_REGION	D4ST
D53YR	S_ED_5TH_HD_DEGREE_AWARD_YR_3_YR_GROUPING	D5YR
D55YR	S_ED_5TH_HD_DEGREE_AWARD_YR_5_YR_GROUPING	D5YR
D5AYR	S_ED_5TH_HD_DEGREE_AWARD_ACADEMIC_YR	D5YR, D5MN
D5DGRUS	S_ED_5TH_HD_SCHOOL_REGION_US_NONUS	D5RGN, D5ST
D5RGN	S_ED_5TH_HD_SCHOOL_REGION	D5ST
DIFAGEGR	X_DEM_DISABLE_EARLIEST_AGE_5_YR_GROUPING	DIFAGE
EMRG	E_JOB_EMPLR_LOC_REGION	EMST
EMSECDT	E_JOB_EMPLR_SECTOR_CD	EMED, EDTP, NEDTP
EMSECSM	E_JOB_EMPLR_SECTOR_CD_SUMRY	EMED, NEDTP
EMTP	E_JOB_EMPLR_TYPE	EDTP, NEDTP, EMED
EMUS	E_JOB_EMPLR_LOC_REGION_US_NONUS	EMRGN, EMST
FNCRGN	V_DEM_CITIZENSHIP_CNTRY_REGION	FNCCD
FNINUSLOC	V_LIVE_WORK_LOCATION_STATE_COUNTRY	FNINUS, RESPLO3, RESIDEV, EMST
HCAPIN	X_DEM_DISABLE_IND	DIFHEAR, DIFSEE, DIFWALK, DIFLIFT, DIFCOGN
HDACY3	O_ED_HD_DEGREE_AWARD_YR_3_YR_GROUPING	DGRYR
HDACYR	O_ED_HD_DEGREE_AWARD_ACADEMIC_YR	DGRYR, HDMN
HDAY5	O_ED_HD_DEGREE_AWARD_YR_5_YR_GROUPING	DGRYR
HDDGRUS	O_ED_HD_SCHOOL_REGION_US_NONUS	HDRGN, HDST
HDRGN	O_ED_HD_SCHOOL_REGION	HDST
LFSTAT	A_JOB_STATUS_LABOR_FORCE_STAT	WRKG, LOOKWK, NWLAY
MARIND	W_DEM_MARITAL_STAT_MARRIED	MARSTA
MINRTY	U_DEM_RACE_MINORITY_IND	RACEM, HISPCAT
MR3YR	M_ED_MR_DEGREE_AWARD_YR_3_YR_GROUPING	MRYR
MR5YR	M_ED_MR_DEGREE_AWARD_YR_5_YR_GROUPING	MRYR
MRDACYR	M_ED_MR_DEGREE_AWARD_ACADEMIC_YR	MRYR, MRMN
MRDGRUS	M_ED_MR_SCHOOL_REGION_US_NONUS	MRRGN, MRST
MRRGN	M_ED_MR_SCHOOL_REGION	MRST
N2OCMLST	C_JOB_LAST_OCC_GRP_MAJOR_NEW2	N2OCLST

Recoded SDR SAS Variable Name	SDR SESTAT Variable Name	Input SDR SAS Variable(s)
N2OCLST	C_JOB_LAST_OCC_GRP_MINOR_NEW2	N2OCLST
N2OCPRMG	B_JOB_OCC_GRP_MAJOR_NEW2	N2OCPR
N2OCPRNG	B_JOB_OCC_GRP_MINOR_NEW2	N2OCPR
NACEDMG	N_ED_REF_WK_ENROLL_ED_CAT_MAJOR_NEW	NACED
NACEDNG	N_ED_REF_WK_ENROLL_ED_CAT_MINOR_NEW	NACED
NBAMEMG	J_ED_BA_MAJOR_ED_GROUP_MAJOR_NEW	NBAMED
NBAMENG	J_ED_BA_MAJOR_ED_GROUP_MINOR_NEW	NBAMED
ND2MEMG	P_ED_2ND_HD_MAJOR_ED_GRP_MAJOR_NEW	ND2MED
ND2MENG	P_ED_2ND_HD_MAJOR_ED_GRP_MINOR_NEW	ND2MED
ND3MEMG	Q_ED_3RD_HD_MAJOR_ED_GRP_MAJOR_NEW	ND3MED
ND3MENG	Q_ED_3RD_HD_MAJOR_ED_GRP_MINOR_NEW	ND3MED
ND4MEMG	R_ED_4TH_HD_MAJOR_ED_GRP_MAJOR_NEW	ND4MED
ND4MENG	R_ED_4TH_HD_MAJOR_ED_GRP_MINOR_NEW	ND4MED
ND5MEMG	S_ED_5TH_HD_MAJOR_ED_GRP_MAJOR_NEW	ND5MED
ND5MENG	S_ED_5TH_HD_MAJOR_ED_GRP_MINOR_NEW	ND5MED
NDGMEMG	O_ED_HD_MAJOR_ED_GRP_MAJOR_NEW	NDGRMED
NDGMENG	O_ED_HD_MAJOR_ED_GRP_MINOR_NEW	NDGRMED
NMRMEMG	M_ED_MR_MAJOR_ED_GRP_MAJOR_NEW	NMRMED
NMRMENG	M_ED_MR_MAJOR_ED_GRP_MINOR_NEW	NMRMED
NSDRMEM	T_ED_USDOC_MAJOR_ED_GRP_MAJOR_NEW	NSDRMED
NSDRMEN	T_ED_USDOC_MAJOR_ED_GRP_MINOR_NEW	NSDRMED
RACEM	U_DEM_MULTIPLE_RACE_CAT	ASIAN, BLACK, NATIVE, PACIFIC, WHITE
RACETHM	U_DEM_MULTIPLE_RACE_ETHNICITY_CAT	ASIAN, BLACK, HISPANIC, NATIVE, PACIFIC, WHITE
RESPLCUS	U_RESPONDENT_LOCATION_US_NONUS	RESPLOC
RESPLOC	U_RESPONDENT_LOCATION	RESPLO3
SDR3YR	T_ED_USDOC_DEGREE_AWARD_YR_3_YR_GROUPING	SDRYR
SDR5YR	T_ED_USDOC_DEGREE_AWARD_YR_5_YR_GROUPING	SDRYR
SDRAYR	T_ED_USDOC_DEGREE_AWARD_ACADEMIC_YR	SDRYR, SDRMN
SDRRGN	T_ED_USDOC_SCHOOL_REGION	SDRST
TENI	E_JOB_EMPLR_EDUC_INST_TENURE_STAT_IND	TENSTA
WAPRSM	F_JOB_WRK_ACTIVITY_PRIMRY_SUMRY	WAPRI
WASCSM	F_JOB_WRK_ACTIVITY_SECONDARY_SUMRY	WASEC
WKSWK	B_PRINCIPAL_JOB_WEEKS	WKSyr, WKSlyr

Appendix A.2

Recoded DRF Variables in the 2015 SDR Restricted Use Data File

Recoded DRF SAS variable name	SDR15 Variable Name	Input DRF SAS Variable(s)
CNTRYCIT_DRF	V_DEM_CITIZENSHIP_CNTRY_DRF	CNTRYCIT
CTZN_DRF	V_DEM_CITIZENSHIP_STATUS_DRF	CITIZ
EMSECDT_DRF	E_JOB_EMPLR_SECTOR_CD_DRF	PDEMPLOY, PDOCPLAN, CITIZ, PDUSFOR, PHDFY
FFOD_215	T_ED_USDOC_FINE_FIELD_215	PHDFIELD
PDSTAT_DRF	B_POSTDOC_EMPLOYMENT_PLANS_DRF	PDOCSTAT
PDUSFOR	B_POSTGRADUATION_LOCATION_DRF	PDUSFOR
POSTDOC	B_INTENTION_FOR_POSTDOC_DRF	POSTDOC

Appendix B

SAS Code to Generate Recoded Variables in the 2015 SDR Restricted Use Data File

```
*****;
* PROGRAM:   SDR15_RecodeAlgorithms.sas                               ;
* DATE      : 11APR17                                                ;
* PURPOSE:   To be used as an include file to generate SESTAT recodes;
*****;

* Set input and output dataset names here;
%let indata = datasetname;
%let outdata = datasetname;

data &outdata;
  set &indata;

  ** SAS_NAME          : BARGN
  ** SURVEY            : SDR15
  ** ALGORITHM_NAME    : R_BARGN
  ** VARIABLE_NAME     : J_ED_BA_SCHOOL_REGION
  ** Input Variables   : BAST
  ** Code Name         : REGION_CODES
  ** Additional Notes: BARGN must be generated before BADGRUS
  ** Variable Creation;
  IF BAST IN('009','023','025','033','044','050','085') THEN BARGN = '01';
  ELSE IF BAST IN('034','036','042','086') THEN BARGN = '02';
  ELSE IF BAST IN('017','018','026','039','055','087') THEN BARGN = '03';
  ELSE IF BAST IN('019','020','027','029','031','038','046','088') THEN BARGN = '04';
  ELSE IF BAST IN('010','011','012','013','024','037','045','051','054','089') THEN BARGN = '05';
  ELSE IF BAST IN('001','021','028','047','090') THEN BARGN = '06';
  ELSE IF BAST IN('005','022','040','048','091') THEN BARGN = '07';
  ELSE IF BAST IN('004','008','016','030','032','035','049','056','092') THEN BARGN = '08';
  ELSE IF BAST IN('002','006','015','041','053','060','066','067','069',
                  '071','072','076','078','079','081','082','083','084','093','095','096') THEN BARGN = '09';
  ELSE IF '100' LE BAST LE '199' THEN BARGN = '10';
  ELSE IF '200' LE BAST LE '299' THEN BARGN = '20';
  ELSE IF '300' LE BAST LE '309' THEN BARGN = '30';
  ELSE IF '310' LE BAST LE '318' THEN BARGN = '31';
```

```

ELSE IF '330' LE BAST LE '359' THEN BARGN = '33';
ELSE IF '375' LE BAST LE '399' THEN BARGN = '37';
ELSE IF '400' LE BAST LE '499' THEN BARGN = '40';
ELSE IF '500' LE BAST LE '529' THEN BARGN = '50';
ELSE IF '550' LE BAST LE '599' THEN BARGN = '55';

```

```

** SAS_NAME          : BTHRGN
** SURVEY            : SDR15
** ALGORITHM_NAME    : R_BTHRGN
** VARIABLE_NAME      : U_DEM_BIRTH_PLACE_REGION
** Input Variables   : BTHST
** Code Name          : REGION_CODES
** Additional Notes: BTHRGN must be generated before BTHUS
** Variable Creation;
IF BTHST IN('009','023','025','033','044','050','085') THEN BTHRGN = '01';
ELSE IF BTHST IN('034','036','042','086') THEN BTHRGN = '02';
ELSE IF BTHST IN('017','018','026','039','055','087') THEN BTHRGN = '03';
ELSE IF BTHST IN('019','020','027','029','031','038','046','088') THEN BTHRGN = '04';
ELSE IF BTHST IN('010','011','012','013','024','037','045','051','054','089') THEN BTHRGN = '05';
ELSE IF BTHST IN('001','021','028','047','090') THEN BTHRGN = '06';
ELSE IF BTHST IN('005','022','040','048','091') THEN BTHRGN = '07';
ELSE IF BTHST IN('004','008','016','030','032','035','049','056','092') THEN BTHRGN = '08';
ELSE IF BTHST IN('002','006','015','041','053','060','066','067','069',
                '071','072','076','078','079','081','082','083','084','093','095','096') THEN BTHRGN = '09';
ELSE IF '100' LE BTHST LE '199' THEN BTHRGN = '10';
ELSE IF '200' LE BTHST LE '299' THEN BTHRGN = '20';
ELSE IF '300' LE BTHST LE '309' THEN BTHRGN = '30';
ELSE IF '310' LE BTHST LE '318' THEN BTHRGN = '31';
ELSE IF '330' LE BTHST LE '359' THEN BTHRGN = '33';
ELSE IF '375' LE BTHST LE '399' THEN BTHRGN = '37';
ELSE IF '400' LE BTHST LE '499' THEN BTHRGN = '40';
ELSE IF '500' LE BTHST LE '529' THEN BTHRGN = '50';
ELSE IF '550' LE BTHST LE '599' THEN BTHRGN = '55';

```

```

** SAS_NAME          : CH6
** SURVEY            : SDR15
** ALGORITHM_NAME    : R_CH6
** VARIABLE_NAME      : W_DEM_CHILDREN_NBR_UNDER_6
** Input Variables   : CHU2, CH25
** Code Name          : NUMERIC_TWO
** Additional Notes: QUESTIONNAIRE: 2003/ RECODE: ALL OTHER YEARS,
                    CH6 must be generated before CH6IN
** Variable Creation;
IF CHU2= 97 AND CH25= 97 THEN CH6=97;

```

```

ELSE IF CHU2= 98 AND CH25= 98 THEN CH6=98;
ELSE IF CHU2= 99 AND CH25= 99 THEN CH6=99;
ELSE IF CHU2 NOT IN (97, 98, 99) AND CH25 NOT IN (97, 98, 99) THEN CH6= CHU2 + CH25;

** SAS_NAME           : D2RGN
** SURVEY             : SDR15
** ALGORITHM_NAME     : R_D2RGN
** VARIABLE_NAME      : P_ED_2ND_HD_SCHOOL_REGION
** Input Variables    : D2ST
** Code Name          : REGION_CODES
** Additional Notes: D2RGN must be generated before D2DGRUS
    Please note that confidentiality suppression of input state variables
    could impact the outcome of the region/US recode variables. In these
    cases the correct state was used as input to the region/US recodes but
    the user will not be able to replicate results with this algorithm. ;
** Variable Creation;
IF D2ST IN('009','023','025','033','044','050','085') THEN D2RGN = '01';
ELSE IF D2ST IN('034','036','042','086') THEN D2RGN = '02';
ELSE IF D2ST IN('017','018','026','039','055','087') THEN D2RGN = '03';
ELSE IF D2ST IN('019','020','027','029','031','038','046','088') THEN D2RGN = '04';
ELSE IF D2ST IN('010','011','012','013','024','037','045','051','054','089') THEN D2RGN = '05';
ELSE IF D2ST IN('001','021','028','047','090') THEN D2RGN = '06';
ELSE IF D2ST IN('005','022','040','048','091') THEN D2RGN = '07';
ELSE IF D2ST IN('004','008','016','030','032','035','049','056','092') THEN D2RGN = '08';
ELSE IF D2ST IN('002','006','015','041','053','060','066','067','069',
    '071','072','076','078','079','081','082','083','084','093','095','096') THEN D2RGN = '09';
ELSE IF '100' LE D2ST LE '199' THEN D2RGN = '10';
ELSE IF '200' LE D2ST LE '299' THEN D2RGN = '20';
ELSE IF '300' LE D2ST LE '309' THEN D2RGN = '30';
ELSE IF '310' LE D2ST LE '318' THEN D2RGN = '31';
ELSE IF '330' LE D2ST LE '359' THEN D2RGN = '33';
ELSE IF '375' LE D2ST LE '399' THEN D2RGN = '37';
ELSE IF '400' LE D2ST LE '499' THEN D2RGN = '40';
ELSE IF '500' LE D2ST LE '529' THEN D2RGN = '50';
ELSE IF '550' LE D2ST LE '599' THEN D2RGN = '55';

** SAS_NAME           : D3RGN
** SURVEY             : SDR15
** ALGORITHM_NAME     : R_D3RGN
** VARIABLE_NAME      : Q_ED_3RD_HD_SCHOOL_REGION
** Input Variables    : D3ST
** Code Name          : REGION_CODES
** Additional Notes: D3RGN must be generated before D3DGRUS
    Please note that confidentiality suppression of input state variables
    could impact the outcome of the region/US recode variables. In these

```

```

    cases the correct state was used as input to the region/US recodes but
    the user will not be able to replicate results with this algorithm. ;
** Variable Creation;
IF D3ST IN('009','023','025','033','044','050','085') THEN D3RGN = '01';
ELSE IF D3ST IN('034','036','042','086') THEN D3RGN = '02';
ELSE IF D3ST IN('017','018','026','039','055','087') THEN D3RGN = '03';
ELSE IF D3ST IN('019','020','027','029','031','038','046','088') THEN D3RGN = '04';
ELSE IF D3ST IN('010','011','012','013','024','037','045','051','054','089') THEN D3RGN = '05';
ELSE IF D3ST IN('001','021','028','047','090') THEN D3RGN = '06';
ELSE IF D3ST IN('005','022','040','048','091') THEN D3RGN = '07';
ELSE IF D3ST IN('004','008','016','030','032','035','049','056','092') THEN D3RGN = '08';
ELSE IF D3ST IN('002','006','015','041','053','060','066','067','069',
'071','072','076','078','079','081','082','083','084','093','095','096') THEN D3RGN = '09';
ELSE IF '100' LE D3ST LE '199' THEN D3RGN = '10';
ELSE IF '200' LE D3ST LE '299' THEN D3RGN = '20';
ELSE IF '300' LE D3ST LE '309' THEN D3RGN = '30';
ELSE IF '310' LE D3ST LE '318' THEN D3RGN = '31';
ELSE IF '330' LE D3ST LE '359' THEN D3RGN = '33';
ELSE IF '375' LE D3ST LE '399' THEN D3RGN = '37';
ELSE IF '400' LE D3ST LE '499' THEN D3RGN = '40';
ELSE IF '500' LE D3ST LE '529' THEN D3RGN = '50';
ELSE IF '550' LE D3ST LE '599' THEN D3RGN = '55';

** SAS_NAME          : D4RGN
** SURVEY             : SDR15
** ALGORITHM_NAME     : R_D4RGN
** VARIABLE_NAME      : R_ED_4TH_HD_SCHOOL_REGION
** Input Variables    : D4ST
** Code Name          : REGION_CODES
** Additional Notes: D4RGN must be generated before D4DGRUS
    Please note that confidentiality suppression of input state variables
    could impact the outcome of the region/US recode variables. In these
    cases the correct state was used as input to the region/US recodes but
    the user will not be able to replicate results with this algorithm. ;
** Variable Creation;
IF D4ST IN('009','023','025','033','044','050','085') THEN D4RGN = '01';
ELSE IF D4ST IN('034','036','042','086') THEN D4RGN = '02';
ELSE IF D4ST IN('017','018','026','039','055','087') THEN D4RGN = '03';
ELSE IF D4ST IN('019','020','027','029','031','038','046','088') THEN D4RGN = '04';
ELSE IF D4ST IN('010','011','012','013','024','037','045','051','054','089') THEN D4RGN = '05';
ELSE IF D4ST IN('001','021','028','047','090') THEN D4RGN = '06';
ELSE IF D4ST IN('005','022','040','048','091') THEN D4RGN = '07';
ELSE IF D4ST IN('004','008','016','030','032','035','049','056','092') THEN D4RGN = '08';
ELSE IF D4ST IN('002','006','015','041','053','060','066','067','069',

```

```

        '071','072','076','078','079','081','082','083','084','093','095','096') THEN D4RGN = '09';
ELSE IF '100' LE D4ST LE '199' THEN D4RGN = '10';
ELSE IF '200' LE D4ST LE '299' THEN D4RGN = '20';
ELSE IF '300' LE D4ST LE '309' THEN D4RGN = '30';
ELSE IF '310' LE D4ST LE '318' THEN D4RGN = '31';
ELSE IF '330' LE D4ST LE '359' THEN D4RGN = '33';
ELSE IF '375' LE D4ST LE '399' THEN D4RGN = '37';
ELSE IF '400' LE D4ST LE '499' THEN D4RGN = '40';
ELSE IF '500' LE D4ST LE '529' THEN D4RGN = '50';
ELSE IF '550' LE D4ST LE '599' THEN D4RGN = '55';

** SAS_NAME          : D5RGN
** SURVEY            : SDR15
** ALGORITHM_NAME    : R_D5RGN
** VARIABLE_NAME     : S_ED_5TH_HD_SCHOOL_REGION
** Input Variables   : D5ST
** Code Name         : REGION_CODES
** Additional Notes: D5RGN must be generated before D5DGRUS
    Please note that confidentiality suppression of input state variables
    could impact the outcome of the region/US recode variables. In these
    cases the correct state was used as input to the region/US recodes but
    the user will not be able to replicate results with this algorithm. ;
** Variable Creation;
IF D5ST IN('009','023','025','033','044','050','085') THEN D5RGN = '01';
ELSE IF D5ST IN('034','036','042','086') THEN D5RGN = '02';
ELSE IF D5ST IN('017','018','026','039','055','087') THEN D5RGN = '03';
ELSE IF D5ST IN('019','020','027','029','031','038','046','088') THEN D5RGN = '04';
ELSE IF D5ST IN('010','011','012','013','024','037','045','051','054','089') THEN D5RGN = '05';
ELSE IF D5ST IN('001','021','028','047','090') THEN D5RGN = '06';
ELSE IF D5ST IN('005','022','040','048','091') THEN D5RGN = '07';
ELSE IF D5ST IN('004','008','016','030','032','035','049','056','092') THEN D5RGN = '08';
ELSE IF D5ST IN('002','006','015','041','053','060','066','067','069',
    '071','072','076','078','079','081','082','083','084','093','095','096') THEN D5RGN = '09';
ELSE IF '100' LE D5ST LE '199' THEN D5RGN = '10';
ELSE IF '200' LE D5ST LE '299' THEN D5RGN = '20';
ELSE IF '300' LE D5ST LE '309' THEN D5RGN = '30';
ELSE IF '310' LE D5ST LE '318' THEN D5RGN = '31';
ELSE IF '330' LE D5ST LE '359' THEN D5RGN = '33';
ELSE IF '375' LE D5ST LE '399' THEN D5RGN = '37';
ELSE IF '400' LE D5ST LE '499' THEN D5RGN = '40';
ELSE IF '500' LE D5ST LE '529' THEN D5RGN = '50';
ELSE IF '550' LE D5ST LE '599' THEN D5RGN = '55';

** SAS_NAME          : EMRG
** SURVEY            : SDR15

```

```

** ALGORITHM_NAME      : R_EMRG
** VARIABLE_NAME       : E_JOB_EMPLR_LOC_REGION
** Input Variables     : EMST
** Code Name           : REGION_CODES
** Additional Notes: EMRG must be generated before EMUS
** Variable Creation;
IF EMST IN('009','023','025','033','044','050','085') THEN EMRG = '01';
ELSE IF EMST IN('034','036','042','086') THEN EMRG = '02';
ELSE IF EMST IN('017','018','026','039','055','087') THEN EMRG = '03';
ELSE IF EMST IN('019','020','027','029','031','038','046','088') THEN EMRG = '04';
ELSE IF EMST IN('010','011','012','013','024','037','045','051','054','089') THEN EMRG = '05';
ELSE IF EMST IN('001','021','028','047','090') THEN EMRG = '06';
ELSE IF EMST IN('005','022','040','048','091') THEN EMRG = '07';
ELSE IF EMST IN('004','008','016','030','032','035','049','056','092') THEN EMRG = '08';
ELSE IF EMST IN('002','006','015','041','053','060','066','067','069',
                '071','072','076','078','079','081','082','083','084','093','095','096') THEN EMRG = '09';
ELSE IF '100' LE EMST LE '199' THEN EMRG = '10';
ELSE IF '200' LE EMST LE '299' THEN EMRG = '20';
ELSE IF '300' LE EMST LE '309' THEN EMRG = '30';
ELSE IF '310' LE EMST LE '318' THEN EMRG = '31';
ELSE IF '330' LE EMST LE '359' THEN EMRG = '33';
ELSE IF '375' LE EMST LE '399' THEN EMRG = '37';
ELSE IF '400' LE EMST LE '499' THEN EMRG = '40';
ELSE IF '500' LE EMST LE '529' THEN EMRG = '50';
ELSE IF '550' LE EMST LE '599' THEN EMRG = '55';

** SAS_NAME           : EMSECDT
** SURVEY             : SDR15
** ALGORITHM_NAME     : R_EMSECDT
** VARIABLE_NAME       : E_JOB_EMPLR_SECTOR_CD
** Input Variables     : EMED, EDTP, NEDTP
** Code Name           : EMP_SECTOR_DET_CODES
** Additional Notes: EMSECDT must be generated before EMSECPB
** Variable Creation;
IF EMED= 'Y' AND EDTP IN ('3', '4', '5') THEN EMSECDT= '11';
ELSE IF EMED= 'Y' AND EDTP IN ('1', '2', '6') THEN EMSECDT= '12';
ELSE IF EMED= 'N' AND NEDTP IN ('2', '3', '9') THEN EMSECDT= '21';
ELSE IF EMED= 'N' AND NEDTP= '1' THEN EMSECDT= '22';
ELSE IF EMED= 'N' AND NEDTP= '4' THEN EMSECDT= '23';
ELSE IF EMED= 'N' AND NEDTP IN ('7', '8') THEN EMSECDT= '31';
ELSE IF EMED= 'N' AND NEDTP IN ('5', '6') THEN EMSECDT= '32';
ELSE IF EMED= 'N' AND NEDTP IN ('10') THEN EMSECDT= '33';
ELSE IF EMED= 'L' THEN EMSECDT= 'L';

** SAS_NAME           : HDRGN

```

```

** SURVEY           : SDR15
** ALGORITHM_NAME   : R_HDRGN
** VARIABLE_NAME    : O_ED_HD_SCHOOL_REGION
** Input Variables  : HDST
** Code Name        : REGION_CODES
** Additional Notes: HDRGN must be generated before HDDGRUS
    Please note that confidentiality suppression of input state variables
    could impact the outcome of the region/US recode variables. In these
    cases the correct state was used as input to the region/US recodes but
    the user will not be able to replicate results with this algorithm. ;
** Variable Creation;
IF HDST IN('009','023','025','033','044','050','085') THEN HDRGN = '01';
ELSE IF HDST IN('034','036','042','086') THEN HDRGN = '02';
ELSE IF HDST IN('017','018','026','039','055','087') THEN HDRGN = '03';
ELSE IF HDST IN('019','020','027','029','031','038','046','088') THEN HDRGN = '04';
ELSE IF HDST IN('010','011','012','013','024','037','045','051','054','089') THEN HDRGN = '05';
ELSE IF HDST IN('001','021','028','047','090') THEN HDRGN = '06';
ELSE IF HDST IN('005','022','040','048','091') THEN HDRGN = '07';
ELSE IF HDST IN('004','008','016','030','032','035','049','056','092') THEN HDRGN = '08';
ELSE IF HDST IN('002','006','015','041','053','060','066','067','069',
                '071','072','076','078','079','081','082','083','084','093','095','096') THEN HDRGN = '09';
ELSE IF '100' LE HDST LE '199' THEN HDRGN = '10';
ELSE IF '200' LE HDST LE '299' THEN HDRGN = '20';
ELSE IF '300' LE HDST LE '309' THEN HDRGN = '30';
ELSE IF '310' LE HDST LE '318' THEN HDRGN = '31';
ELSE IF '330' LE HDST LE '359' THEN HDRGN = '33';
ELSE IF '375' LE HDST LE '399' THEN HDRGN = '37';
ELSE IF '400' LE HDST LE '499' THEN HDRGN = '40';
ELSE IF '500' LE HDST LE '529' THEN HDRGN = '50';
ELSE IF '550' LE HDST LE '599' THEN HDRGN = '55';

** SAS_NAME        : MRRGN
** SURVEY           : SDR15
** ALGORITHM_NAME   : R_MRRGN
** VARIABLE_NAME    : M_ED_MR_SCHOOL_REGION
** Input Variables  : MRST
** Code Name        : REGION_CODES
** Additional Notes: MRRGN must be generated before MRDGRUS
    Please note that confidentiality suppression of input state variables
    could impact the outcome of the region/US recode variables. In these
    cases the correct state was used as input to the region/US recodes but
    the user will not be able to replicate results with this algorithm. ;
** Variable Creation;
IF MRST IN('009','023','025','033','044','050','085') THEN MRRGN = '01';
ELSE IF MRST IN('034','036','042','086') THEN MRRGN = '02';

```



```

ELSE IF MRST IN('017','018','026','039','055','087') THEN MRRGN = '03';
ELSE IF MRST IN('019','020','027','029','031','038','046','088') THEN MRRGN = '04';
ELSE IF MRST IN('010','011','012','013','024','037','045','051','054','089') THEN MRRGN = '05';
ELSE IF MRST IN('001','021','028','047','090') THEN MRRGN = '06';
ELSE IF MRST IN('005','022','040','048','091') THEN MRRGN = '07';
ELSE IF MRST IN('004','008','016','030','032','035','049','056','092') THEN MRRGN = '08';
ELSE IF MRST IN('002','006','015','041','053','060','066','067','069',
                '071','072','076','078','079','081','082','083','084','093','095','096') THEN MRRGN = '09';
ELSE IF '100' LE MRST LE '199' THEN MRRGN = '10';
ELSE IF '200' LE MRST LE '299' THEN MRRGN = '20';
ELSE IF '300' LE MRST LE '309' THEN MRRGN = '30';
ELSE IF '310' LE MRST LE '318' THEN MRRGN = '31';
ELSE IF '330' LE MRST LE '359' THEN MRRGN = '33';
ELSE IF '375' LE MRST LE '399' THEN MRRGN = '37';
ELSE IF '400' LE MRST LE '499' THEN MRRGN = '40';
ELSE IF '500' LE MRST LE '529' THEN MRRGN = '50';
ELSE IF '550' LE MRST LE '599' THEN MRRGN = '55';

** SAS_NAME          : RACEM
** SURVEY            : SDR15
** ALGORITHM_NAME    : R_RACEM
** VARIABLE_NAME     : U_DEM_MULTIPLE_RACE_CAT
** Input Variables   : ASIAN, BLACK, NATIVE, PACIFIC, WHITE
** Code Name         : RACE_CODES_NEW
** Additional Notes: , RACEM must be generated before MINRTY
** Variable Creation;
RACEM= '6';
IF ASIAN= 'Y' AND BLACK ^= 'Y' AND NATIVE ^= 'Y' AND WHITE ^= 'Y' AND PACIFIC ^= 'Y' THEN RACEM= '1';
IF NATIVE= 'Y' AND BLACK ^= 'Y' AND ASIAN ^= 'Y' AND WHITE ^= 'Y' AND PACIFIC ^= 'Y' THEN RACEM= '2';
IF BLACK= 'Y' AND NATIVE ^= 'Y' AND ASIAN ^= 'Y' AND WHITE ^= 'Y' AND PACIFIC ^= 'Y' THEN RACEM= '3';
IF WHITE = 'Y' AND BLACK ^= 'Y' AND NATIVE ^= 'Y' AND ASIAN ^= 'Y' AND PACIFIC ^= 'Y' THEN RACEM= '4';
IF PACIFIC= 'Y' AND BLACK ^= 'Y' AND NATIVE ^= 'Y' AND ASIAN ^= 'Y' AND WHITE ^= 'Y' THEN RACEM= '5';

** SAS_NAME          : RACETHM
** SURVEY            : SDR15
** ALGORITHM_NAME    : R_RACETHM
** VARIABLE_NAME     : U_DEM_MULTIPLE_RACE_ETHNICITY_CAT
** Input Variables   : ASIAN, BLACK, HISPANIC, NATIVE, PACIFIC, WHITE
** Code Name         : ETHNICITY_CODES_NEW
** Additional Notes: RACETHM must be generated before RACETHMP
** Variable Creation;
IF HISPANIC = 'Y' THEN RACETHM= '4';
IF HISPANIC= 'N' THEN RACETHM= '7';

```

```

IF ASIAN = 'Y' AND BLACK ^= 'Y' AND NATIVE ^= 'Y' AND WHITE ^= 'Y' AND PACIFIC ^= 'Y'
    AND HISPANIC ^= 'Y' THEN RACETHM= '1';
IF NATIVE= 'Y' AND BLACK ^= 'Y' AND ASIAN ^= 'Y' AND WHITE ^= 'Y' AND PACIFIC ^= 'Y'
    AND HISPANIC ^= 'Y' THEN RACETHM= '2';
IF BLACK= 'Y' AND NATIVE ^= 'Y' AND ASIAN ^= 'Y' AND WHITE ^= 'Y' AND PACIFIC ^= 'Y'
    AND HISPANIC ^= 'Y' THEN RACETHM= '3';
IF WHITE = 'Y' AND BLACK ^= 'Y' AND NATIVE ^= 'Y' AND ASIAN ^= 'Y' AND PACIFIC ^= 'Y'
    AND HISPANIC ^= 'Y' THEN RACETHM= '5';
IF PACIFIC= 'Y' AND BLACK ^= 'Y' AND NATIVE ^= 'Y' AND ASIAN ^= 'Y' AND WHITE ^= 'Y'
    AND HISPANIC ^= 'Y' THEN RACETHM= '6';

** SAS_NAME          : RESPLOC
** SURVEY            : SDR15
** ALGORITHM_NAME    : R_RESPLOC
** VARIABLE_NAME     : U_RESPONDENT_LOCATION
** Input Variables   : RESPLO3
** Code Name         : REGION_CODES
** Additional Notes: RESPLOC must be generated before RESPLCUS
** Variable Creation;
IF RESPLO3 IN('009','023','025','033','044','050','085') THEN RESPLOC = '01';
ELSE IF RESPLO3 IN('034','036','042','086') THEN RESPLOC = '02';
ELSE IF RESPLO3 IN('017','018','026','039','055','087') THEN RESPLOC = '03';
ELSE IF RESPLO3 IN('019','020','027','029','031','038','046','088') THEN RESPLOC = '04';
ELSE IF RESPLO3 IN('010','011','012','013','024','037','045','051','054','089') THEN RESPLOC = '05';
ELSE IF RESPLO3 IN('001','021','028','047','090') THEN RESPLOC = '06';
ELSE IF RESPLO3 IN('005','022','040','048','091') THEN RESPLOC = '07';
ELSE IF RESPLO3 IN('004','008','016','030','032','035','049','056','092') THEN RESPLOC = '08';
ELSE IF RESPLO3 IN('002','006','015','041','053','060','066','067','069',
    '071','072','076','078','079','081','082','083','084','093','095','096') THEN RESPLOC = '09';
ELSE IF '100' LE RESPLO3 LE '199' THEN RESPLOC = '10';
ELSE IF '200' LE RESPLO3 LE '299' THEN RESPLOC = '20';
ELSE IF '300' LE RESPLO3 LE '309' THEN RESPLOC = '30';
ELSE IF '310' LE RESPLO3 LE '318' THEN RESPLOC = '31';
ELSE IF '330' LE RESPLO3 LE '359' THEN RESPLOC = '33';
ELSE IF '375' LE RESPLO3 LE '399' THEN RESPLOC = '37';
ELSE IF '400' LE RESPLO3 LE '499' THEN RESPLOC = '40';
ELSE IF '500' LE RESPLO3 LE '529' THEN RESPLOC = '50';
ELSE IF '550' LE RESPLO3 LE '599' THEN RESPLOC = '55';

** SAS_NAME          : WKSWK
** SURVEY            : SDR15
** ALGORITHM_NAME    : R_WKSWK
** VARIABLE_NAME     : B_PRINCIPAL_JOB_WEEKS
** Input Variables   : WKSYSR, WKSLYR
** Code Name         : NUMERIC_TWO

```

```

** Additional Notes: WKSWK must be generated before WKSWKP
** Variable Creation;
IF WKSYSR = '1' THEN WKSWK=52;
IF WKSYSR = '2' THEN WKSWK = WKSLYR;
IF WKSYSR = 'L' THEN WKSWK = 98;

** SAS_NAME          : ACTCAP
** SURVEY            : SDR15
** ALGORITHM_NAME    : R_ACTCAP03
** VARIABLE_NAME     : F_JOB_WRK_ACTIVITY_PRIM_SEC_COMPUTER
** Input Variables   : WAPRI, WASEC
** Code Name         : YES_NO_CODES
** Additional Notes:
** Variable Creation;
IF WAPRI= '06' OR WASEC= '06' THEN ACTCAP= 'Y';
IF WAPRI ^= '06' AND WASEC ^= '06' THEN ACTCAP= 'N';
IF WAPRI IN ('L') THEN ACTCAP= WAPRI;

** SAS_NAME          : ACTDED
** SURVEY            : SDR15
** ALGORITHM_NAME    : R_ACTDED03
** VARIABLE_NAME     : F_JOB_WRK_ACTIVITY_PRIM_SEC_DEV_DESIGN
** Input Variables   : WAPRI, WASEC
** Code Name         : YES_NO_CODES
** Additional Notes:
** Variable Creation;
IF WAPRI IN ('04','05') OR WASEC IN ('04','05') THEN ACTDED= 'Y';
IF WAPRI NOT IN ('04','05') AND WASEC NOT IN ('04','05') THEN ACTDED= 'N';
IF WAPRI IN ('L') THEN ACTDED= WAPRI;

** SAS_NAME          : ACTMGT
** SURVEY            : SDR15
** ALGORITHM_NAME    : R_ACTMGT
** VARIABLE_NAME     : F_JOB_WRK_ACTIVITY_PRIM_SEC_MGT_SALES
** Input Variables   : WAPRI, WASEC
** Code Name         : YES_NO_CODES
** Additional Notes:
** Variable Creation;
IF WAPRI IN ('01','07','08','11','12') OR WASEC IN ('01','07','08','11','12') THEN ACTMGT= 'Y';
IF WAPRI NOT IN ('01','07','08','11','12') AND WASEC NOT IN ('01','07','08','11','12') THEN ACTMGT= 'N';
IF WAPRI IN ('L') THEN ACTMGT = WAPRI;

** SAS_NAME          : ACTRD
** SURVEY            : SDR15
** ALGORITHM_NAME    : R_ACTRD03

```

```

** VARIABLE_NAME      : F_JOB_WRK_ACTIVITY_PRIM_SEC_RSRCH_DEV
** Input Variables    : WAPRI, WASEC
** Code Name          : YES_NO_CODES
** Additional Notes:
** Variable Creation;
IF WAPRI IN ('02', '03', '04', '05') OR WASEC IN ('02', '03', '04', '05') THEN ACTRD= 'Y';
IF WAPRI NOT IN ('02', '03', '04', '05') AND WASEC NOT IN ('02', '03', '04', '05') THEN ACTRD= 'N';
IF WAPRI IN ('L') THEN ACTRD= WAPRI;

** SAS_NAME           : ACTRDT
** SURVEY              : SDR15
** ALGORITHM_NAME      : R_ACTRDT03
** VARIABLE_NAME       : F_JOB_WRK_ACTIVITY_PRIM_SEC_RSRCH_DEV_TEACH
** Input Variables     : WAPRI, WASEC
** Code Name           : YES_NO_CODES
** Additional Notes:
** Variable Creation;
IF WAPRI IN ('02', '03', '04', '05', '13') OR WASEC IN ('02', '03', '04', '05', '13') THEN ACTRDT= 'Y';
IF WAPRI NOT IN ('02', '03', '04', '05', '13') AND WASEC NOT IN ('02', '03', '04', '05', '13') THEN ACTRDT= 'N';
IF WAPRI IN ('L') THEN ACTRDT= WAPRI;

** SAS_NAME           : ACTRES
** SURVEY              : SDR15
** ALGORITHM_NAME      : R_ACTRES
** VARIABLE_NAME       : F_JOB_WRK_ACTIVITY_PRIM_SEC_RSRCH
** Input Variables     : WAPRI, WASEC
** Code Name           : YES_NO_CODES
** Additional Notes:
** Variable Creation;
IF WAPRI IN ('02', '03') OR WASEC IN ('02', '03') THEN ACTRES= 'Y';
IF WAPRI NOT IN ('02', '03') AND WASEC NOT IN ('02', '03') THEN ACTRES= 'N';
IF WAPRI IN ('L') THEN ACTRES= WAPRI;

** SAS_NAME           : ACTTCH
** SURVEY              : SDR15
** ALGORITHM_NAME      : R_ACTTCH
** VARIABLE_NAME       : F_JOB_WRK_ACTIVITY_PRIM_SEC_TEACH
** Input Variables     : WAPRI, WASEC
** Code Name           : YES_NO_CODES
** Additional Notes:
** Variable Creation;
IF (WAPRI= '13' OR WASEC= '13') THEN ACTTCH= 'Y';
IF WAPRI NE '13' AND WASEC NE '13' THEN ACTTCH= 'N';
IF WAPRI IN ('L') THEN ACTTCH= WAPRI;

```

```

** SAS_NAME          : AGEGR
** SURVEY            : SDR15
** ALGORITHM_NAME    : R_AGEGR
** VARIABLE_NAME     : U_DEM_AGE_GROUP_5_YR_GROUPING
** Input Variables   : AGE
** Code Name         : AGE_GROUP_CODES
** Additional Notes:
** Variable Creation;
IF AGE <= 24 THEN AGEGR= 20;
IF 25 <= AGE <= 29 THEN AGEGR= 25;
IF 30 <= AGE <= 34 THEN AGEGR= 30;
IF 35 <= AGE <= 39 THEN AGEGR= 35;
IF 40 <= AGE <= 44 THEN AGEGR= 40;
IF 45 <= AGE <= 49 THEN AGEGR= 45;
IF 50 <= AGE <= 54 THEN AGEGR= 50;
IF 55 <= AGE <= 59 THEN AGEGR= 55;
IF 60 <= AGE <= 64 THEN AGEGR= 60;
IF 65 <= AGE <= 69 THEN AGEGR= 65;
IF AGE >= 70 THEN AGEGR= 70;

** SAS_NAME          : BAACYR
** SURVEY            : sdr15
** ALGORITHM_NAME    : R_BAACYR
** VARIABLE_NAME     : J_ED_BA_DEGREE_AWARD_ACADEMIC_YR
** Input Variables   : BAYR, BAMN
** Code Name         : NUMERIC_FOUR
** Additional Notes: ALL SURVEYS AND YEARS
** Variable Creation;
IF BAYR IN (9998) THEN BAACYR = BAYR;
ELSE IF BAMN IN (1,2,3,4,5,6) THEN BAACYR = BAYR;
ELSE IF BAMN IN (7,8,9,10,11,12) THEN BAACYR = BAYR + 1;

** SAS_NAME          : BAAYR3
** SURVEY            : SDR15
** ALGORITHM_NAME    : R_BAAYR3
** VARIABLE_NAME     : J_ED_BA_DEGREE_AWARD_YR_3_YR_GROUPING
** Input Variables   : BAYR
** Code Name         : THREE_YEAR_GROUP_CODES
** Additional Notes:
** Variable Creation;
IF BAYR IN (9998) THEN BAAYR3 = BAYR;
ELSE BAAYR3 = 3 * INT(BAYR / 3);

** SAS_NAME          : BAAYR5

```

```

** SURVEY           : SDR15
** ALGORITHM_NAME   : R_BAAYR5
** VARIABLE_NAME    : J_ED_BA_DEGREE_AWARD_YR_5_YR_GROUPING
** Input Variables  : BAYR
** Code Name        : FIVE_YEAR_GROUP_CODES
** Additional Notes:
** Variable Creation;
IF BAYR IN (9998) THEN BAAYR5 = BAYR;
ELSE BAAYR5 = 5 * INT(BAYR / 5);

** SAS_NAME         : BADGRUS
** SURVEY           : SDR15
** ALGORITHM_NAME   : R_BADGRUS
** VARIABLE_NAME    : J_ED_BA_SCHOOL_REGION_US_NONUS
** Input Variables  : BARGN
** Code Name        : US_NONUS_CODES
** Additional Notes:
** Variable Creation;
IF '00' LE BARGN LE '09' THEN BADGRUS = 'Y';
ELSE IF BAST = '099' THEN BADGRUS = 'Y';
ELSE IF BARGN = 'L' THEN BADGRUS = 'L';
ELSE IF BARGN = 'M' THEN BADGRUS = 'M';
ELSE BADGRUS = 'N';

** SAS_NAME         : BTHUS
** SURVEY           : SDR15
** ALGORITHM_NAME   : R_BTHUS
** VARIABLE_NAME    : U_DEM_BIRTH_PLACE_REGION_US_NONUS
** Input Variables  : BTHRGN
** Code Name        : US_NONUS_CODES
** Additional Notes:
** Variable Creation;
IF '00' LE BTHRGN LE '09' THEN BTHUS = 'Y';
ELSE IF BTHRGN = 'L' THEN BTHUS = 'L';
ELSE IF BTHRGN = 'M' THEN BTHUS = 'M';
ELSE BTHUS = 'N';

** SAS_NAME         : CH1218IN
** SURVEY           : SDR15
** ALGORITHM_NAME   : R_CH1218IN
** VARIABLE_NAME    : W_DEM_CHILDREN_IND_12_18
** Input Variables  : CH1218
** Code Name        : YES_NO_CODES
** Additional Notes:
** Variable Creation;

```

```

IF CH1218= 98 THEN CH1218IN= 'L';
ELSE IF CH1218 > 0 THEN CH1218IN= 'Y';
ELSE IF CH1218= 0 THEN CH1218IN= 'N';

** SAS_NAME          : CH19IN
** SURVEY            : SDR15
** ALGORITHM_NAME    : R_CH19IN
** VARIABLE_NAME     : W_DEM_CHILDREN_IND_19
** Input Variables   : CH19
** Code Name         : YES_NO_CODES
** Additional Notes:
** Variable Creation;
IF CH19= 98 THEN CH19IN= 'L';
ELSE IF CH19 > 0 THEN CH19IN= 'Y';
ELSE IF CH19= 0 THEN CH19IN= 'N';

** SAS_NAME          : CH25IN
** SURVEY            : SDR15
** ALGORITHM_NAME    : R_CH25IN
** VARIABLE_NAME     : W_DEM_CHILDREN_IND_2_5
** Input Variables   : CH25
** Code Name         : YES_NO_CODES
** Additional Notes:
** Variable Creation;
IF CH25= 98 THEN CH25IN= 'L';
ELSE IF CH25 > 0 THEN CH25IN= 'Y';
ELSE IF CH25= 0 THEN CH25IN= 'N';

** SAS_NAME          : CH611IN
** SURVEY            : SDR15
** ALGORITHM_NAME    : R_CH611IN
** VARIABLE_NAME     : W_DEM_CHILDREN_IND_6_11
** Input Variables   : CH611
** Code Name         : YES_NO_CODES
** Additional Notes:
** Variable Creation;
IF CH611= 98 THEN CH611IN= 'L';
ELSE IF CH611 > 0 THEN CH611IN= 'Y';
ELSE IF CH611= 0 THEN CH611IN= 'N';

** SAS_NAME          : CH6IN
** SURVEY            : SDR15
** ALGORITHM_NAME    : R_CH6IN
** VARIABLE_NAME     : W_DEM_CHILDREN_IND_UNDER_6
** Input Variables   : CH6

```

```

** Code Name          : YES_NO_CODES
** Additional Notes:
** Variable Creation;
IF CH6= 98 THEN CH6IN= 'L';
ELSE IF CH6 > 0 THEN CH6IN= 'Y';
ELSE IF CH6= 0 THEN CH6IN= 'N';

** SAS_NAME           : CHU2IN
** SURVEY              : SDR15
** ALGORITHM_NAME      : R_CHU2IN
** VARIABLE_NAME       : W_DEM_CHILDREN_IND_UNDER_2
** Input Variables    : CHU2
** Code Name           : YES_NO_CODES
** Additional Notes:
** Variable Creation;
IF CHU2= 98 THEN CHU2IN= 'L';
ELSE IF CHU2 > 0 THEN CHU2IN= 'Y';
ELSE IF CHU2= 0 THEN CHU2IN= 'N';

** SAS_NAME           : CHUN12
** SURVEY              : SDR15
** ALGORITHM_NAME      : R_CHUN12
** VARIABLE_NAME       : W_DEM_CHILDREN_UNDER_12_IND
** Input Variables    : CHU2, CH25, CH611
** Code Name           : YES_NO_CODES
** Additional Notes:
** Variable Creation;
IF CHU2=98 AND CH25=98 AND CH611=98 THEN CHUN12 = 'L';
ELSE IF (CHU2 + CH25 + CH611) = 0 THEN CHUN12= 'N';
ELSE IF (CHU2 + CH25 + CH611) > 0 THEN CHUN12= 'Y';

** SAS_NAME           : CTZN
** SURVEY              : SDR15
** ALGORITHM_NAME      : R_CTZN
** VARIABLE_NAME       : V_DEM_CITIZENSHIP_STATUS
** Input Variables    : CTZUS, CTZFOR, FNINUS
** Code Name           : CITIZENSHIP_CODES
** Additional Notes: QUESTIONNAIRE: 1993-2001/ RECODE: All other years
** Variable Creation;
IF CTZUSIN= 'L' AND CTZUS = 'L' AND CTZFOR = 'L' THEN CTZN= 'L';
IF CTZUSIN= 'Y' AND CTZUS IN ('1', '2') AND CTZFOR = 'L' THEN CTZN= '1';
IF CTZUSIN= 'Y' AND CTZUS = '3' AND CTZFOR = 'L' THEN CTZN= '2';
IF CTZUSIN= 'N' AND CTZUS = 'L' AND CTZFOR = '1' THEN CTZN= '3';
IF CTZUSIN= 'N' AND CTZUS = 'L' AND CTZFOR = '2' THEN CTZN= '4';
IF CTZUSIN= 'N' AND FNINUS = 'N' THEN CTZN= '5';

```



```

** SAS_NAME          : D23YR
** SURVEY            : SDR15
** ALGORITHM_NAME    : R_D23YR
** VARIABLE_NAME     : P_ED_2ND_HD_DEGREE_AWARD_YR_3_YR_GROUPING
** Input Variables   : D2YR
** Code Name         : THREE_YEAR_GROUP_CODES
** Additional Notes:
** Variable Creation;
IF D2YR IN (9998) THEN D23YR = D2YR;
ELSE D23YR = 3 * INT(D2YR / 3);

** SAS_NAME          : D25YR
** SURVEY            : SDR15
** ALGORITHM_NAME    : R_D25YR
** VARIABLE_NAME     : P_ED_2ND_HD_DEGREE_AWARD_YR_5_YR_GROUPING
** Input Variables   : D2YR
** Code Name         : FIVE_YEAR_GROUP_CODES
** Additional Notes:
** Variable Creation;
IF D2YR IN (9998) THEN D25YR = D2YR;
ELSE D25YR = 5 * INT(D2YR / 5);

** SAS_NAME          : D2AYR
** SURVEY            : sdr15
** ALGORITHM_NAME    : R_D2AYR
** VARIABLE_NAME     : P_ED_2ND_HD_DEGREE_AWARD_ACADEMIC_YR
** Input Variables   : D2YR, D2MN
** Code Name         : NUMERIC_FOUR
** Additional Notes: ALL SURVEYS AND YEARS
** Variable Creation;
IF D2YR IN (9998) THEN D2AYR = D2YR;
ELSE IF D2MN IN (1,2,3,4,5,6) THEN D2AYR = D2YR;
ELSE IF D2MN IN (7,8,9,10,11,12) THEN D2AYR = D2YR + 1;

** SAS_NAME          : D2DGRUS
** SURVEY            : SDR15
** ALGORITHM_NAME    : R_D2DGRUS
** VARIABLE_NAME     : P_ED_2ND_HD_SCHOOL_REGION_US_NONUS
** Input Variables   : D2RGN, D2ST
** Code Name         : US_NONUS_CODES
** Additional Notes:
Please note that confidentiality suppression of input state variables
could impact the outcome of the region/US recode variables. In these

```

```

    cases the correct state was used as input to the region/US recodes but
    the user will not be able to replicate results with this algorithm. ;
** Variable Creation;
IF '00' LE D2RGN LE '09' THEN D2DGRUS = 'Y';
ELSE IF D2RGN = 'L' THEN D2DGRUS = 'L';
ELSE IF D2ST = '099' THEN D2DGRUS = 'Y';
ELSE IF D2RGN = 'M' THEN D2DGRUS = 'M';
ELSE D2DGRUS = 'N';

** SAS_NAME          : D33YR
** SURVEY            : SDR15
** ALGORITHM_NAME    : R_D33YR
** VARIABLE_NAME     : Q_ED_3RD_HD_DEGREE_AWARD_YR_3_YR_GROUPING
** Input Variables   : D3YR
** Code Name         : THREE_YEAR_GROUP_CODES
** Additional Notes:
** Variable Creation;
IF D3YR IN (9998) THEN D33YR = D3YR;
ELSE D33YR = 3 * INT(D3YR / 3);

** SAS_NAME          : D35YR
** SURVEY            : SDR15
** ALGORITHM_NAME    : R_D35YR
** VARIABLE_NAME     : Q_ED_3RD_HD_DEGREE_AWARD_YR_5_YR_GROUPING
** Input Variables   : D3YR
** Code Name         : FIVE_YEAR_GROUP_CODES
** Additional Notes:
** Variable Creation;
IF D3YR IN (9998) THEN D35YR = D3YR;
ELSE D35YR = 5 * INT(D3YR / 5);

** SAS_NAME          : D3AYR
** SURVEY            : sdr15
** ALGORITHM_NAME    : R_D3AYR
** VARIABLE_NAME     : Q_ED_3RD_HD_DEGREE_AWARD_ACADEMIC_YR
** Input Variables   : D3YR, D3MN
** Code Name         : NUMERIC_FOUR
** Additional Notes: ALL SURVEYS AND YEARS
** Variable Creation;
IF D3YR IN (9998) THEN D3AYR = D3YR;
ELSE IF D3MN IN (1,2,3,4,5,6) THEN D3AYR = D3YR;
ELSE IF D3MN IN (7,8,9,10,11,12) THEN D3AYR = D3YR + 1;

** SAS_NAME          : D3DGRUS
** SURVEY            : SDR15

```

```

** ALGORITHM_NAME   : R_D3DGRUS
** VARIABLE_NAME    : Q_ED_3RD_HD_SCHOOL_REGION_US_NONUS
** Input Variables  : D3RGN, D3ST
** Code Name        : US_NONUS_CODES
** Additional Notes:
    Please note that confidentiality suppression of input state variables
    could impact the outcome of the region/US recode variables. In these
    cases the correct state was used as input to the region/US recodes but
    the user will not be able to replicate results with this algorithm. ;
** Variable Creation;
IF '00' LE D3RGN LE '09' THEN D3DGRUS = 'Y';
ELSE IF D3RGN = 'L' THEN D3DGRUS = 'L';
ELSE IF D3ST = '099' THEN D3DGRUS = 'Y';
ELSE IF D3RGN = 'M' THEN D3DGRUS = 'M';
ELSE D3DGRUS = 'N';

** SAS_NAME         : D43YR
** SURVEY           : SDR15
** ALGORITHM_NAME   : R_D43YR
** VARIABLE_NAME    : R_ED_4TH_HD_DEGREE_AWARD_YR_3_YR_GROUPING
** Input Variables  : D4YR
** Code Name        : THREE_YEAR_GROUP_CODES
** Additional Notes:
** Variable Creation;
IF D4YR IN (9998) THEN D43YR = D4YR;
ELSE D43YR = 3 * INT(D4YR / 3);

** SAS_NAME         : D45YR
** SURVEY           : SDR15
** ALGORITHM_NAME   : R_D45YR
** VARIABLE_NAME    : R_ED_4TH_HD_DEGREE_AWARD_YR_5_YR_GROUPING
** Input Variables  : D4YR
** Code Name        : FIVE_YEAR_GROUP_CODES
** Additional Notes:
** Variable Creation;
IF D4YR IN (9998) THEN D45YR = D4YR;
ELSE D45YR = 5 * INT(D4YR / 5);

** SAS_NAME         : D4AYR
** SURVEY           : sdr15
** ALGORITHM_NAME   : R_D4AYR
** VARIABLE_NAME    : R_ED_4TH_HD_DEGREE_AWARD_ACADEMIC_YR
** Input Variables  : D4YR, D4MN
** Code Name        : NUMERIC_FOUR
** Additional Notes: ALL SURVEYS AND YEARS

```

```

** Variable Creation;
IF D4YR IN (9998) THEN D4AYR = D4YR;
ELSE IF D4MN IN (1,2,3,4,5,6) THEN D4AYR = D4YR;
ELSE IF D4MN IN (7,8,9,10,11,12) THEN D4AYR = D4YR + 1;

** SAS_NAME          : D4DGRUS
** SURVEY            : SDR15
** ALGORITHM_NAME    : R_D4DGRUS
** VARIABLE_NAME     : R_ED_4TH_HD_SCHOOL_REGION_US_NONUS
** Input Variables   : D4RGN, D4ST
** Code Name         : US_NONUS_CODES
** Additional Notes:
    Please note that confidentiality suppression of input state variables
    could impact the outcome of the region/US recode variables. In these
    cases the correct state was used as input to the region/US recodes but
    the user will not be able to replicate results with this algorithm. ;
** Variable Creation;
IF '00' LE D4RGN LE '09' THEN D4DGRUS = 'Y';
ELSE IF D4ST = '099' THEN D4DGRUS = 'Y';
ELSE IF D4RGN = 'L' THEN D4DGRUS = 'L';
ELSE IF D4RGN = 'M' THEN D4DGRUS = 'M';
ELSE D4DGRUS = 'N';

** SAS_NAME          : D53YR
** SURVEY            : SDR15
** ALGORITHM_NAME    : R_D53YR
** VARIABLE_NAME     : S_ED_5TH_HD_DEGREE_AWARD_YR_3_YR_GROUPING
** Input Variables   : D5YR
** Code Name         : THREE_YEAR_GROUP_CODES
** Additional Notes:
** Variable Creation;
IF D5YR IN (9998,9999) THEN D53YR = D5YR;
ELSE D53YR = 3 * INT(D5YR / 3);

** SAS_NAME          : D55YR
** SURVEY            : SDR15
** ALGORITHM_NAME    : R_D55YR
** VARIABLE_NAME     : S_ED_5TH_HD_DEGREE_AWARD_YR_5_YR_GROUPING
** Input Variables   : D5YR
** Code Name         : FIVE_YEAR_GROUP_CODES
** Additional Notes:
** Variable Creation;
IF D5YR IN (9998,9999) THEN D55YR = D5YR;
ELSE D55YR = 5 * INT(D5YR / 5);

```

```

** SAS_NAME          : D5AYR
** SURVEY            : sdr15
** ALGORITHM_NAME    : R_D5AYR
** VARIABLE_NAME     : S_ED_5TH_HD_DEGREE_AWARD_ACADEMIC_YR
** Input Variables   : D5YR, D5MN
** Code Name         : NUMERIC_FOUR
** Additional Notes: ALL SURVEYS AND YEARS
** Variable Creation;
IF D5YR IN (9998,9999) THEN D5AYR = D5YR;
ELSE IF D5MN IN (1,2,3,4,5,6) THEN D5AYR = D5YR;
ELSE IF D5MN IN (7,8,9,10,11,12) THEN D5AYR = D5YR + 1;

** SAS_NAME          : D5DGRUS
** SURVEY            : SDR15
** ALGORITHM_NAME    : R_D5DGRUS
** VARIABLE_NAME     : S_ED_5TH_HD_SCHOOL_REGION_US_NONUS
** Input Variables   : D5RGN, D5ST
** Code Name         : US_NONUS_CODES
** Additional Notes:
    Please note that confidentiality suppression of input state variables
    could impact the outcome of the region/US recode variables. In these
    cases the correct state was used as input to the region/US recodes but
    the user will not be able to replicate results with this algorithm. ;
** Variable Creation;
IF '00' LE D5RGN LE '09' THEN D5DGRUS = 'Y';
ELSE IF D5ST = '099' THEN D5DGRUS = 'Y';
ELSE IF D5RGN = 'L' THEN D5DGRUS = 'L';
ELSE IF D5RGN = 'M' THEN D5DGRUS = 'M';
ELSE D5DGRUS = 'N';

** SAS_NAME          : DIFAGEGR
** SURVEY            : SDR15
** ALGORITHM_NAME    : R_DIFAGEGR
** VARIABLE_NAME     : X_DEM_DISABLE_EARLIEST_AGE_5_YR_GROUPING
** Input Variables   : DIFAGE
** Code Name         : AGE_GROUP_CODES
** Additional Notes:
** Variable Creation;
IF DIFAGE <= 24 THEN DIFAGEGR= 20;
IF 25 <= DIFAGE <= 29 THEN DIFAGEGR= 25;
IF 30 <= DIFAGE <= 34 THEN DIFAGEGR= 30;
IF 35 <= DIFAGE <= 39 THEN DIFAGEGR= 35;
IF 40 <= DIFAGE <= 44 THEN DIFAGEGR= 40;
IF 45 <= DIFAGE <= 49 THEN DIFAGEGR= 45;

```

```

IF 50 <= DIFAGE <= 54 THEN DIFAGEGR= 50;
IF 55 <= DIFAGE <= 59 THEN DIFAGEGR= 55;
IF 60 <= DIFAGE <= 64 THEN DIFAGEGR= 60;
IF 65 <= DIFAGE <= 69 THEN DIFAGEGR= 65;
IF 70 <= DIFAGE <= 96 THEN DIFAGEGR= 70;
IF DIFAGE IN (98) THEN DIFAGEGR= DIFAGE;

** SAS_NAME: EMSECDT
** SURVEY: SDR15
** ALGORITHM_NAME: R_EMSECDT
** VARIABLE_NAME : E_JOB_EMPLR_SECTOR_CD
** Input Variables: EMED, EDTP, NEDTP
** Code Name: EMP_SECTOR_DET_CODES
** Display Algorithm to General Public? Y
** Additional Notes: ALL SURVEYS 1993-2010, EMSECDT must be generated before EMSECPB
** Variable Creation;
IF EMED= 'Y' AND EDTP IN ('3', '4', '5') THEN EMSECDT= '11';
ELSE IF EMED= 'Y' AND EDTP IN ('1', '2', '6') THEN EMSECDT= '12';
ELSE IF EMED= 'N' AND NEDTP IN ('2', '3', '9') THEN EMSECDT= '21';
ELSE IF EMED= 'N' AND NEDTP= '1' THEN EMSECDT= '22';
ELSE IF EMED= 'N' AND NEDTP= '4' THEN EMSECDT= '23';
ELSE IF EMED= 'N' AND NEDTP IN ('7', '8') THEN EMSECDT= '31';
ELSE IF EMED= 'N' AND NEDTP IN ('5', '6') THEN EMSECDT= '32';
ELSE IF EMED= 'N' AND NEDTP IN ('10') THEN EMSECDT= '33';
ELSE IF EMED= 'L' THEN EMSECDT= 'L';
ELSE IF EMED= 'M' THEN EMSECDT= 'M';
ELSE IF EMED= 'X' THEN EMSECDT= 'X';

** SAS_NAME : EMSECSM
** SURVEY : SDR15
** ALGORITHM_NAME : R_EMSECSM
** VARIABLE_NAME : E_JOB_EMPLR_SECTOR_CD_SUMRY
** Input Variables : EMED, NEDTP
** Code Name : EMP_SECTOR_SUM_CODES
** Additional Notes:
** Variable Creation;
IF EMED= 'L' THEN EMSECSM= 'L';
IF EMED= 'Y' THEN EMSECSM= '1';
IF EMED= 'N' AND NEDTP IN ('5', '6', '7', '8', '10') THEN EMSECSM= '2';
IF EMED= 'N' AND NEDTP IN ('1', '2', '3', '4', '9') THEN EMSECSM= '3';

** SAS_NAME : EMTP
** SURVEY : SDR15
** ALGORITHM_NAME : R_EMTP03
** VARIABLE_NAME : E_JOB_EMPLR_TYPE

```

```

** Input Variables : EDTP, NEDTP, EMED
** Code Name      : EMP_TYPE_CODE
** Additional Notes: 1993 SESTAT INTEGRATED FILE: FOR 2003-2008
** Variable Creation;
IF NEDTP= 'L' AND EDTP= 'L' AND EMED= 'L' THEN EMTP= 'L';
IF EMED= 'Y' AND EDTP= '1' THEN EMTP= '01';
IF EMED= 'Y' AND EDTP= '2' THEN EMTP= '02';
IF EMED= 'Y' AND EDTP= '3' THEN EMTP= '03';
IF EMED= 'Y' AND EDTP= '4' THEN EMTP= '04';
IF EMED= 'Y' AND EDTP= '5' THEN EMTP= '05';
IF EMED= 'Y' AND EDTP= '6' THEN EMTP= '06';
IF EDTP= 'L' AND NEDTP= '3' THEN EMTP= '10';
IF EDTP= 'L' AND NEDTP= '4' THEN EMTP= '11';
IF EDTP= 'L' AND NEDTP= '1' THEN EMTP= '12';
IF EDTP= 'L' AND NEDTP= '2' THEN EMTP= '13';
IF EDTP= 'L' AND NEDTP= '5' THEN EMTP= '14';
IF EDTP= 'L' AND NEDTP= '6' THEN EMTP= '15';
IF EDTP= 'L' AND NEDTP= '7' THEN EMTP= '16';
IF EDTP= 'L' AND NEDTP= '8' THEN EMTP= '17';
IF EDTP= 'L' AND NEDTP= '9' THEN EMTP= '18';
IF EDTP= 'L' AND NEDTP= '10' THEN EMTP= '19';

** SAS_NAME      : EMUS
** SURVEY        : SDR15
** ALGORITHM_NAME : R_EMUS
** VARIABLE_NAME  : E_JOB_EMPLR_LOC_REGION_US_NONUS
** Input Variables : EMRGN
** Code Name      : US_NONUS_CODES
** Additional Notes:
** Variable Creation;
IF '00' LE EMRG LE '09' THEN EMUS = 'Y';
ELSE IF EMRG = 'L' THEN EMUS = 'L';
ELSE EMUS = 'N';

** SAS_NAME: FNINUSLOC
** SURVEY: SDR15
** ALGORITHM_NAME: R_FNINUSLOC
** VARIABLE_NAME : V_LIVE_WORK_LOCATION_STATE_COUNTRY
** Input Variables: RESIDEV, RESPLO3, EMST, FNINUS
** Code Name: LOCAT
** Display Algorithm to General Public? Y
** Additional Notes:
** Variable Creation;
IF FNINUS = 'N' THEN DO;
  IF RESPLO3 GE '100' THEN FNINUSLOC = RESPLO3;

```

```

ELSE IF RESPLO3 LT '100' THEN FNINUSLOC = RESIDEV;
END;
IF FNINUS = 'Y' THEN DO;
  IF RESPLO3 LT '096' THEN FNINUSLOC = RESPLO3;
  ELSE IF RESPLO3 GE '096' AND EMST LT '096' THEN FNINUSLOC = EMST;
  ELSE FNINUSLOC = '096';
END;

** SAS_NAME          : FNCRGN
** SURVEY            : SDR15
** ALGORITHM_NAME    : R_FNCRGN
** VARIABLE_NAME     : V_DEM_CITIZENSHIP_CNTRY_REGION
** Input Variables   : FNCCD
** Code Name         : REGION_CODES
** Additional Notes:
** Variable Creation;
IF FNCCD IN('009','023','025','033','044','050','085') THEN FNCRGN = '01';
ELSE IF FNCCD IN('034','036','042','086') THEN FNCRGN = '02';
ELSE IF FNCCD IN('017','018','026','039','055','087') THEN FNCRGN = '03';
ELSE IF FNCCD IN('019','020','027','029','031','038','046','088') THEN FNCRGN = '04';
ELSE IF FNCCD IN('010','011','012','013','024','037','045','051','054','089') THEN FNCRGN = '05';
ELSE IF FNCCD IN('001','021','028','047','090') THEN FNCRGN = '06';
ELSE IF FNCCD IN('005','022','040','048','091') THEN FNCRGN = '07';
ELSE IF FNCCD IN('004','008','016','030','032','035','049','056','092') THEN FNCRGN = '08';
ELSE IF FNCCD IN('002','006','015','041','053','060','066','067','069',
                 '071','072','076','078','079','081','082','083','084','093','095','096') THEN FNCRGN = '09';
ELSE IF '100' LE FNCCD LE '199' THEN FNCRGN = '10';
ELSE IF '200' LE FNCCD LE '299' THEN FNCRGN = '20';
ELSE IF '300' LE FNCCD LE '309' THEN FNCRGN = '30';
ELSE IF '310' LE FNCCD LE '318' THEN FNCRGN = '31';
ELSE IF '330' LE FNCCD LE '359' THEN FNCRGN = '33';
ELSE IF '375' LE FNCCD LE '399' THEN FNCRGN = '37';
ELSE IF '400' LE FNCCD LE '499' THEN FNCRGN = '40';
ELSE IF '500' LE FNCCD LE '529' THEN FNCRGN = '50';
ELSE IF '550' LE FNCCD LE '599' THEN FNCRGN = '55';

** SAS_NAME: GOVSUP
** SURVEY: SDR15
** ALGORITHM_NAME: R_GOVSUP
** VARIABLE_NAME : I_JOB_GOV_AGCY_SUPPORT_IND
** Input Variables: GOVSUP
** Code Name: YES_NO_CODES
** Display Algorithm to General Public?   Y
** Additional Notes:
** Variable Creation;

```



```

IF GOVSUP IN ('L','0') THEN GOVSUP = 'L';
ELSE IF GOVSUP = '1' THEN GOVSUP = 'Y';
ELSE IF GOVSUP IN ('2','3') THEN GOVSUP = 'N';

```

```

** SAS_NAME          : HCAPIN
** SURVEY            : SDR15
** ALGORITHM_NAME    : R_HCAPIN
** VARIABLE_NAME      : X_DEM_DISABLE_IND
** Input Variables    : DIFHEAR, DIFSEE, DIFWALK, DIFLIFT, DIFCOGN
** Code Name          : YES_NO_CODES
** Additional Notes:
** Variable Creation;
IF DIFHEAR IN ('3','4','5') OR DIFSEE IN ('3','4','5') OR DIFWALK IN ('3','4','5')
OR DIFLIFT IN ('3','4','5') OR DIFCOGN IN ('3','4','5') THEN HCAPIN= 'Y';
IF DIFHEAR IN ('1','2','9') AND DIFSEE IN ('1','2','9') AND DIFWALK IN ('1','2','9')
AND DIFLIFT IN ('1','2','9') AND DIFCOGN IN ('1','2','9') THEN HCAPIN= 'N';

```

```

** SAS_NAME          : HDACY3
** SURVEY            : SDR15
** ALGORITHM_NAME    : R_HDACY3
** VARIABLE_NAME      : O_ED_HD_DEGREE_AWARD_YR_3_YR_GROUPING
** Input Variables    : DGRYR
** Code Name          : THREE_YEAR_GROUP_CODES
** Additional Notes:
** Variable Creation;
HDACY3 = 3 * INT(DGRYR / 3);

```

```

** SAS_NAME          : HDACYR
** SURVEY            : SDR15
** ALGORITHM_NAME    : R_HDACYR
** VARIABLE_NAME      : O_ED_HD_DEGREE_AWARD_ACADEMIC_YR
** Input Variables    : DGRYR, HDMN
** Code Name          : NUMERIC_FOUR
** Additional Notes:
** Variable Creation;
IF HDMN IN (1,2,3,4,5,6) THEN HDACYR = DGRYR;
ELSE IF HDMN IN (7,8,9,10,11,12) THEN HDACYR = DGRYR + 1;

```

```

** SAS_NAME          : HDAY5
** SURVEY            : SDR15
** ALGORITHM_NAME    : R_HDAY5
** VARIABLE_NAME      : O_ED_HD_DEGREE_AWARD_YR_5_YR_GROUPING
** Input Variables    : DGRYR
** Code Name          : FIVE_YEAR_GROUP_CODES

```

```

** Additional Notes:
** Variable Creation;
HDAY5 = 5 * INT(DGRYR / 5);

** SAS_NAME          : HDDGRUS
** SURVEY            : SDR15
** ALGORITHM_NAME    : R_HDDGRUS
** VARIABLE_NAME     : O_ED_HD_SCHOOL_REGION_US_NONUS
** Input Variables   : HDRGN, HDST
** Code Name         : US_NONUS_CODES
** Additional Notes:
    Please note that confidentiality suppression of input state variables
    could impact the outcome of the region/US recode variables. In these
    cases the correct state was used as input to the region/US recodes but
    the user will not be able to replicate results with this algorithm. ;
** Variable Creation;
IF '00' LE HDRGN LE '09' THEN HDDGRUS = 'Y';
ELSE IF HDRGN = 'L' THEN HDDGRUS = 'L';
ELSE IF HDST = '099' THEN HDDGRUS = 'Y';
ELSE IF HDRGN = 'M' THEN HDDGRUS = 'M';
ELSE HDDGRUS = 'N';

** SAS_NAME          : LFSTAT
** SURVEY            : SDR15
** ALGORITHM_NAME    : R_LFSTAT
** VARIABLE_NAME     : A_JOB_STATUS_LABOR_FORCE_STAT
** Input Variables   : WRKG, LOOKWK, NWLAY
** Code Name         : LABOR_FORCE_STATUS_CODES
** Additional Notes:
** Variable Creation;
IF WRKG = 'Y' THEN LFSTAT = '1';
IF WRKG = 'N' AND LOOKWK = 'N' AND NWLAY = 'Y' THEN LFSTAT = '2';
IF WRKG = 'N' AND LOOKWK = 'Y' AND NWLAY = 'N' THEN LFSTAT = '2';
IF WRKG = 'N' AND LOOKWK = 'Y' AND NWLAY = 'Y' THEN LFSTAT = '2';
IF WRKG = 'N' AND LOOKWK = 'N' AND NWLAY = 'N' THEN LFSTAT = '3';

** SAS_NAME          : MARIND
** SURVEY            : SDR15
** ALGORITHM_NAME    : R_MARIND
** VARIABLE_NAME     : W_DEM_MARITAL_STAT_MARRIED
** Input Variables   : MARSTA
** Code Name         : YES_NO_CODES
** Additional Notes:
** Variable Creation;
IF MARSTA= '1' THEN MARIND= 'Y';

```

```

IF MARSTA ^= '1' THEN MARIND= 'N';

** SAS_NAME          : MINRTY
** SURVEY            : SDR15
** ALGORITHM_NAME    : R_MINRTY03
** VARIABLE_NAME     : U_DEM_RACE_MINORITY_IND
** Input Variables   : RACEM, HISPCAT
** Code Name         : YES_NO_CODES
** Additional Notes:
** Variable Creation;
IF HISPCAT IN ('1','2','3','4') OR RACEM IN ('2','3','5','6') THEN MINRTY= 'Y';
ELSE IF HISPCAT IN ('0') AND RACEM IN ('1','4') THEN MINRTY= 'N';

** SAS_NAME          : MR3YR
** SURVEY            : SDR15
** ALGORITHM_NAME    : R_MR3YR
** VARIABLE_NAME     : M_ED_MR_DEGREE_AWARD_YR_3_YR_GROUPING
** Input Variables   : MRYR
** Code Name         : THREE_YEAR_GROUP_CODES
** Additional Notes:
** Variable Creation;
MR3YR = 3 * INT(MRYR / 3);

** SAS_NAME          : MR5YR
** SURVEY            : SDR15
** ALGORITHM_NAME    : R_MR5YR
** VARIABLE_NAME     : M_ED_MR_DEGREE_AWARD_YR_5_YR_GROUPING
** Input Variables   : MRYR
** Code Name         : FIVE_YEAR_GROUP_CODES
** Additional Notes:
** Variable Creation;
MR5YR = 5 * INT(MRYR / 5);

** SAS_NAME          : MRDACYR
** SURVEY            : SDR15
** ALGORITHM_NAME    : R_MRDACYR
** VARIABLE_NAME     : M_ED_MR_DEGREE_AWARD_ACADEMIC_YR
** Input Variables   : MRYR, MRMN
** Code Name         : NUMERIC_FOUR
** Additional Notes:
** Variable Creation;
IF MRMN IN (1,2,3,4,5,6) THEN MRDACYR = MRYR;
ELSE IF MRMN IN (7,8,9,10,11,12) THEN MRDACYR = MRYR + 1;

```

```

** SAS_NAME          : MRDGRUS
** SURVEY            : SDR15
** ALGORITHM_NAME    : R_MRDGRUS
** VARIABLE_NAME     : M_ED_MR_SCHOOL_REGION_US_NONUS
** Input Variables   : MRRGN, MRST
** Code Name         : US_NONUS_CODES
** Additional Notes:
    Please note that confidentiality suppression of input state variables
    could impact the outcome of the region/US recode variables. In these
    cases the correct state was used as input to the region/US recodes but
    the user will not be able to replicate results with this algorithm. ;
** Variable Creation;
IF '00' LE MRRGN LE '09' THEN MRDGRUS = 'Y';
ELSE IF MRST = '099' THEN MRDGRUS = 'Y';
ELSE IF MRRGN = 'L' THEN MRDGRUS = 'L';
ELSE IF MRRGN = 'M' THEN MRDGRUS = 'M';
ELSE MRDGRUS = 'N';

** SAS_NAME          : N2OCMLST
** SURVEY            : SDR15
** ALGORITHM_NAME    : R_N2OCMLST
** VARIABLE_NAME     : C_JOB_LAST_OCC_GRP_MAJOR_NEW2
** Input Variables   : N2OCLST
** Code Name         : MAJOR_OCC_GROUP_CODES_NEW
** Additional Notes:
** Variable Creation;
IF N2OCLST IN ('999998','999989') THEN N2OCMLST = '8';
ELSE IF N2OCLST IN ('999999') THEN N2OCMLST = '9';
ELSE N2OCMLST = SUBSTR(N2OCLST,1,1);

** SAS_NAME          : N2OCNLST
** SURVEY            : SDR15
** ALGORITHM_NAME    : R_N2OCNLST
** VARIABLE_NAME     : C_JOB_LAST_OCC_GRP_MINOR_NEW2
** Input Variables   : N2OCLST
** Code Name         : MINOR_GROUP_CODES_NEW
** Additional Notes:
** Variable Creation;
IF N2OCLST IN ('999998','999989') THEN N2OCNLST = '98';
ELSE IF N2OCLST IN ('999999') THEN N2OCNLST = '99';
ELSE N2OCNLST = SUBSTR(N2OCLST,1,2);

** SAS_NAME          : N2OCPRMG
** SURVEY            : SDR15
** ALGORITHM_NAME    : R_N2OCPRMG

```

```

** VARIABLE_NAME      : B_JOB_OCC_GRP_MAJOR_NEW2
** Input Variables    : N2OCPR
** Code Name          : MAJOR_OCC_GROUP_CODES_NEW
** Additional Notes:
** Variable Creation;
IF N2OCPR IN ('999998','999989') THEN N2OCPRMG = '8';
ELSE IF N2OCPR IN ('999999') THEN N2OCPRMG = '9';
ELSE N2OCPRMG = SUBSTR(N2OCPR,1,1);

** SAS_NAME           : N2OCPRNG
** SURVEY              : SDR15
** ALGORITHM_NAME      : R_N2OCPRNG
** VARIABLE_NAME       : B_JOB_OCC_GRP_MINOR_NEW2
** Input Variables     : N2OCPR
** Code Name           : MINOR_GROUP_CODES_NEW
** Additional Notes:
** Variable Creation;
IF N2OCPR IN ('999998','999989') THEN N2OCPRNG = '98';
ELSE IF N2OCPR IN ('999999') THEN N2OCPRNG = '99';
ELSE N2OCPRNG = SUBSTR(N2OCPR,1,2);

** SAS_NAME           : NACEDMG
** SURVEY              : SDR15
** ALGORITHM_NAME      : R_NACEDMG
** VARIABLE_NAME       : N_ED_REF_WK_ENROLL_ED_CAT_MAJOR_NEW
** Input Variables     : NACED
** Code Name           : MAJOR_GROUP_CODES_NEW
** Additional Notes:
** Variable Creation;
IF NACED IN ('999998','999989') THEN NACEDMG = '8';
ELSE IF NACED IN ('999999') THEN NACEDMG = '9';
ELSE NACEDMG = SUBSTR(NACED,1,1);

** SAS_NAME           : NACEDNG
** SURVEY              : SDR15
** ALGORITHM_NAME      : R_NACEDNG
** VARIABLE_NAME       : N_ED_REF_WK_ENROLL_ED_CAT_MINOR_NEW
** Input Variables     : NACED
** Code Name           : MINOR_ED_GROUP_CODES_NEW
** Additional Notes:
** Variable Creation;
IF NACED IN ('999998','999989') THEN NACEDNG = '98';
ELSE IF NACED IN ('999999') THEN NACEDNG = '99';
ELSE NACEDNG = SUBSTR(NACED,1,2);

```

```

** SAS_NAME          : NBAMEMG
** SURVEY            : SDR15
** ALGORITHM_NAME    : R_NBAMEMG
** VARIABLE_NAME     : J_ED_BA_MAJOR_ED_GROUP_MAJOR_NEW
** Input Variables   : NBAMED
** Code Name         : MAJOR_GROUP_CODES_NEW
** Additional Notes:
** Variable Creation;
IF NBAMED IN ('999998','999989') THEN NBAMEMG = '8';
ELSE IF NBAMED IN ('999999') THEN NBAMEMG = '9';
ELSE NBAMEMG = SUBSTR(NBAMED,1,1);

** SAS_NAME          : NBAMENG
** SURVEY            : SDR15
** ALGORITHM_NAME    : R_NBAMENG
** VARIABLE_NAME     : J_ED_BA_MAJOR_ED_GROUP_MINOR_NEW
** Input Variables   : NBAMED
** Code Name         : MINOR_ED_GROUP_CODES_NEW
** Additional Notes:
** Variable Creation;
IF NBAMED IN ('999998','999989') THEN NBAMENG = '98';
ELSE IF NBAMED IN ('999999') THEN NBAMENG = '99';
ELSE NBAMENG = SUBSTR(NBAMED,1,2);

** SAS_NAME          : ND2MEMG
** SURVEY            : SDR15
** ALGORITHM_NAME    : R_ND2MEMG
** VARIABLE_NAME     : P_ED_2ND_HD_MAJOR_ED_GRP_MAJOR_NEW
** Input Variables   : ND2MED
** Code Name         : MAJOR_GROUP_CODES_NEW
** Additional Notes:
** Variable Creation;
IF ND2MED IN ('999998','999989') THEN ND2MEMG = '8';
ELSE IF ND2MED IN ('999999') THEN ND2MEMG = '9';
ELSE ND2MEMG = SUBSTR(ND2MED,1,1);

** SAS_NAME          : ND2MENG
** SURVEY            : SDR15
** ALGORITHM_NAME    : R_ND2MENG
** VARIABLE_NAME     : P_ED_2ND_HD_MAJOR_ED_GRP_MINOR_NEW
** Input Variables   : ND2MED
** Code Name         : MINOR_ED_GROUP_CODES_NEW
** Additional Notes:
** Variable Creation;

```

```

IF ND2MED IN ('999998','999989') THEN ND2MENG = '98';
ELSE IF ND2MED IN ('999999') THEN ND2MENG = '99';
ELSE ND2MENG = SUBSTR(ND2MED,1,2);

** SAS_NAME          : ND3MEMG
** SURVEY            : SDR15
** ALGORITHM_NAME    : R_ND3MEMG
** VARIABLE_NAME     : Q_ED_3RD_HD_MAJOR_ED_GRP_MAJOR_NEW
** Input Variables   : ND3MED
** Code Name         : MAJOR_GROUP_CODES_NEW
** Additional Notes:
** Variable Creation;
IF ND3MED IN ('999998','999989') THEN ND3MEMG = '8';
ELSE IF ND3MED IN ('999999') THEN ND3MEMG = '9';
ELSE ND3MEMG = SUBSTR(ND3MED,1,1);

** SAS_NAME          : ND3MENG
** SURVEY            : SDR15
** ALGORITHM_NAME    : R_ND3MENG
** VARIABLE_NAME     : Q_ED_3RD_HD_MAJOR_ED_GRP_MINOR_NEW
** Input Variables   : ND3MED
** Code Name         : MINOR_ED_GROUP_CODES_NEW
** Additional Notes:
** Variable Creation;
IF ND3MED IN ('999998','999989') THEN ND3MENG = '98';
ELSE IF ND3MED IN ('999999') THEN ND3MENG = '99';
ELSE ND3MENG = SUBSTR(ND3MED,1,2);

** SAS_NAME          : ND4MEMG
** SURVEY            : SDR15
** ALGORITHM_NAME    : R_ND4MEMG
** VARIABLE_NAME     : R_ED_4TH_HD_MAJOR_ED_GRP_MAJOR_NEW
** Input Variables   : ND4MED
** Code Name         : MAJOR_GROUP_CODES_NEW
** Additional Notes:
** Variable Creation;
IF ND4MED IN ('999998','999989') THEN ND4MEMG = '8';
ELSE IF ND4MED IN ('999999') THEN ND4MEMG = '9';
ELSE ND4MEMG = SUBSTR(ND4MED,1,1);

** SAS_NAME          : ND4MENG
** SURVEY            : SDR15
** ALGORITHM_NAME    : R_ND4MENG
** VARIABLE_NAME     : R_ED_4TH_HD_MAJOR_ED_GRP_MINOR_NEW
** Input Variables   : ND4MED

```

```

** Code Name          : MINOR_ED_GROUP_CODES_NEW
** Additional Notes:
** Variable Creation;
IF ND4MED IN ('999998','999989') THEN ND4MENG = '98';
ELSE IF ND4MED IN ('999999') THEN ND4MENG = '99';
ELSE ND4MENG = SUBSTR(ND4MED,1,2);

** SAS_NAME           : ND5MEMG
** SURVEY              : SDR15
** ALGORITHM_NAME      : R_ND5MEMG
** VARIABLE_NAME       : S_ED_5TH_HD_MAJOR_ED_GRP_MAJOR_NEW
** Input Variables     : ND5MED
** Code Name           : MAJOR_GROUP_CODES_NEW
** Additional Notes:
** Variable Creation;
IF ND5MED IN ('999998','999989') THEN ND5MEMG = '8';
ELSE IF ND5MED IN ('999999') THEN ND5MEMG = '9';
ELSE ND5MEMG = SUBSTR(ND5MED,1,1);

** SAS_NAME           : ND5MEMG
** SURVEY              : SDR15
** ALGORITHM_NAME      : R_ND5MEMG
** VARIABLE_NAME       : S_ED_5TH_HD_MAJOR_ED_GRP_MINOR_NEW
** Input Variables     : ND5MED
** Code Name           : MINOR_ED_GROUP_CODES_NEW
** Additional Notes:
** Variable Creation;
IF ND5MED IN ('999998','999989') THEN ND5MEMG = '98';
ELSE IF ND5MED IN ('999999') THEN ND5MEMG = '99';
ELSE ND5MEMG = SUBSTR(ND5MED,1,2);

** SAS_NAME           : NDGMEMG
** SURVEY              : SDR15
** ALGORITHM_NAME      : R_NDGMEMG
** VARIABLE_NAME       : O_ED_HD_MAJOR_ED_GRP_MAJOR_NEW
** Input Variables     : NDGRMED
** Code Name           : MAJOR_GROUP_CODES_NEW
** Additional Notes:
** Variable Creation;
IF NDGRMED IN ('999998','999989') THEN NDGMEMG = '8';
ELSE IF NDGRMED IN ('999999') THEN NDGMEMG = '9';
ELSE NDGMEMG = SUBSTR(NDGRMED,1,1);

** SAS_NAME           : NDGMEMG
** SURVEY              : SDR15

```



```

** ALGORITHM_NAME      : R_NDGMENG
** VARIABLE_NAME       : O_ED_HD_MAJOR_ED_GRP_MINOR_NEW
** Input Variables     : NDGRMED
** Code Name           : MINOR_ED_GROUP_CODES_NEW
** Additional Notes:
** Variable Creation;
IF NDGRMED IN ('999998','999989') THEN NDGMENG = '98';
ELSE IF NDGRMED IN ('999999') THEN NDGMENG = '99';
ELSE NDGMENG = SUBSTR(NDGRMED,1,2);

** SAS_NAME            : NMRMEMG
** SURVEY              : SDR15
** ALGORITHM_NAME      : R_NMRMEMG
** VARIABLE_NAME       : M_ED_MR_MAJOR_ED_GRP_MAJOR_NEW
** Input Variables     : NMRMED
** Code Name           : MAJOR_GROUP_CODES_NEW
** Additional Notes:
** Variable Creation;
IF NMRMED IN ('999998','999989') THEN NMRMEMG = '8';
ELSE IF NMRMED IN ('999999') THEN NMRMEMG = '9';
ELSE NMRMEMG = SUBSTR(NMRMED,1,1);

** SAS_NAME            : NMRMENG
** SURVEY              : SDR15
** ALGORITHM_NAME      : R_NMRMENG
** VARIABLE_NAME       : M_ED_MR_MAJOR_ED_GRP_MINOR_NEW
** Input Variables     : NMRMED
** Code Name           : MINOR_ED_GROUP_CODES_NEW
** Additional Notes:
** Variable Creation;
IF NMRMED IN ('999998','999989') THEN NMRMENG = '98';
ELSE IF NMRMED IN ('999999') THEN NMRMENG = '99';
ELSE NMRMENG = SUBSTR(NMRMED,1,2);

** SAS_NAME            : NSDRMEM
** SURVEY              : sdr15
** ALGORITHM_NAME      : R_NSDRMEM
** VARIABLE_NAME       : T_ED_USDOC_MAJOR_ED_GRP_MAJOR_NEW
** Input Variables     : NSDRMED
** Code Name           : MINOR_ED_GROUP_CODES_NEW
** Additional Notes:
** Variable Creation;
IF NSDRMED IN ('999998','999989') THEN NSDRMEM = '8';
ELSE IF NSDRMED IN ('999999') THEN NSDRMEM = '9';
ELSE NSDRMEM = SUBSTR(NSDRMED,1,1);

```

```

** SAS_NAME          : NSDRMEN
** SURVEY            : sdr15
** ALGORITHM_NAME    : R_NSDRMEN
** VARIABLE_NAME     : T_ED_USDOC_MAJOR_ED_GRP_MINOR_NEW
** Input Variables   : NSDRMED
** Code Name         : MINOR_ED_GROUP_CODES_NEW
** Additional Notes:
** Variable Creation;
IF NSDRMED IN ('999998','999989') THEN NSDRMEN = '98';
ELSE IF NSDRMED IN ('999999') THEN NSDRMEN = '99';
ELSE NSDRMEN = SUBSTR(NSDRMED,1,2);

** SAS_NAME          : RESPLCUS
** SURVEY            : SDR15
** ALGORITHM_NAME    : R_RESPLCUS
** VARIABLE_NAME     : U_RESPONDENT_LOCATION_US_NONUS
** Input Variables   : RESPLOC
** Code Name         : US_NONUS_CODES
** Additional Notes:
** Variable Creation;
IF '00' LE RESPLOC LE '09' THEN RESPLCUS = 'Y';
ELSE IF RESPLOC = 'L' THEN RESPLCUS = 'L';
ELSE IF RESPLOC = 'M' THEN RESPLCUS = 'M';
ELSE RESPLCUS = 'N';

** SAS_NAME          : SDR3YR
** SURVEY            : sdr15
** ALGORITHM_NAME    : R_SDR3YR
** VARIABLE_NAME     : T_ED_USDOC_DEGREE_AWARD_YR_3_YR_GROUPING
** Input Variables   : SDRYR
** Code Name         : THREE_YEAR_GROUP_CODES
** Additional Notes:
** Variable Creation;
SDR3YR = 3 * INT(SDRYR / 3);

** SAS_NAME          : SDR5YR
** SURVEY            : sdr15
** ALGORITHM_NAME    : R_SDR5YR
** VARIABLE_NAME     : T_ED_USDOC_DEGREE_AWARD_YR_5_YR_GROUPING
** Input Variables   : SDRYR
** Code Name         : FIVE_YEAR_GROUP_CODES
** Additional Notes:
** Variable Creation;
SDR5YR = 5 * INT(SDRYR / 5);

```

```

** SAS_NAME          : SDRAYR
** SURVEY            : sdr15
** ALGORITHM_NAME    : R_SDRAYR
** VARIABLE_NAME     : T_ED_USDOC_DEGREE_AWARD_ACADEMIC_YR
** Input Variables   : SDRYR, SDRMN
** Code Name         : NUMERIC_FOUR
** Additional Notes: ALL SURVEYS AND YEARS
** Variable Creation;
IF SDRMN IN (1,2,3,4,5,6) THEN SDRAYR = SDRYR;
ELSE IF SDRMN IN (7,8,9,10,11,12) THEN SDRAYR = SDRYR + 1;

** SAS_NAME          : SDRRGN
** SURVEY            : sdr15
** ALGORITHM_NAME    : R_SDRRGN
** VARIABLE_NAME     : T_ED_USDOC_SCHOOL_REGION
** Input Variables   : SDRST
** Code Name         : REGION_CODES
** Additional Notes:
** Variable Creation;
IF SDRST IN('009','023','025','033','044','050','085') THEN SDRRGN = '01';
ELSE IF SDRST IN('034','036','042','086') THEN SDRRGN = '02';
ELSE IF SDRST IN('017','018','026','039','055','087') THEN SDRRGN = '03';
ELSE IF SDRST IN('019','020','027','029','031','038','046','088') THEN SDRRGN = '04';
ELSE IF SDRST IN('010','011','012','013','024','037','045','051','054','089') THEN SDRRGN = '05';
ELSE IF SDRST IN('001','021','028','047','090') THEN SDRRGN = '06';
ELSE IF SDRST IN('005','022','040','048','091') THEN SDRRGN = '07';
ELSE IF SDRST IN('004','008','016','030','032','035','049','056','092') THEN SDRRGN = '08';
ELSE IF SDRST IN('002','006','015','041','053','060','066','067','069',
                '071','072','076','078','079','081','082','083','084','093','095','096') THEN SDRRGN = '09';
ELSE IF '100' LE SDRST LE '199' THEN SDRRGN = '10';
ELSE IF '200' LE SDRST LE '299' THEN SDRRGN = '20';
ELSE IF '300' LE SDRST LE '309' THEN SDRRGN = '30';
ELSE IF '310' LE SDRST LE '318' THEN SDRRGN = '31';
ELSE IF '330' LE SDRST LE '359' THEN SDRRGN = '33';
ELSE IF '375' LE SDRST LE '399' THEN SDRRGN = '37';
ELSE IF '400' LE SDRST LE '499' THEN SDRRGN = '40';
ELSE IF '500' LE SDRST LE '529' THEN SDRRGN = '50';
ELSE IF '550' LE SDRST LE '599' THEN SDRRGN = '55';
ELSE IF '100' LE SDRST LE '199' THEN SDRRGN = '10';
ELSE IF '200' LE SDRST LE '299' THEN SDRRGN = '20';
ELSE IF '300' LE SDRST LE '309' THEN SDRRGN = '30';
ELSE IF '310' LE SDRST LE '318' THEN SDRRGN = '31';
ELSE IF '330' LE SDRST LE '359' THEN SDRRGN = '33';
ELSE IF '375' LE SDRST LE '399' THEN SDRRGN = '37';

```

```

ELSE IF '400' LE SDRST LE '499' THEN SDRRGN = '40';
ELSE IF '500' LE SDRST LE '529' THEN SDRRGN = '50';
ELSE IF '550' LE SDRST LE '599' THEN SDRRGN = '55';

** SAS_NAME: SEH
** SURVEY: SDR15
** ALGORITHM_NAME: R_NSDRMEM
** VARIABLE_NAME : T_ED_USDOC_SEH
** Input Variables: NSDRMEM
** Code Name: MAJOR_TO_SEH_CODES
** Display Algorithm to General Public? Y
** Additional Notes:
** Variable Creation;
SEH = NSDRMEM;
IF NSDRMEM IN ('1','2','3','4','5','6') THEN SEH = '1';

** SAS_NAME : TENI
** SURVEY : sdr15
** ALGORITHM_NAME : R_TENI
** VARIABLE_NAME : E_JOB_EMPLR_EDUC_INST_TENURE_STAT_IND
** Input Variables : TENSTA
** Code Name : TENURE_STATUS_IND_CODES
** Additional Notes: SDR 1993-2010
** Variable Creation;
IF TENSTA IN ('1', '2') THEN TENI= '1';
ELSE IF TENSTA IN ('4','5') THEN TENI= '2';
ELSE IF TENSTA = '3' THEN TENI= '3';
ELSE IF TENSTA = 'L' THEN TENI= 'L';

** SAS_NAME : WAPRSM
** SURVEY : SDR15
** ALGORITHM_NAME : R_WAPRSM03
** VARIABLE_NAME : F_JOB_WRK_ACTIVITY_PRIMRY_SUMRY
** Input Variables : WAPRI
** Code Name : WORK_SUMMARY_CODES
** Additional Notes:
** Variable Creation;
IF WAPRI IN ('02','03','04','05') THEN WAPRSM= '1';
IF WAPRI= '13' THEN WAPRSM= '2';
IF WAPRI IN ('01','07','08','11','12') THEN WAPRSM= '3';
IF WAPRI= '06' THEN WAPRSM= '4';
IF WAPRI IN ('09','10','14') THEN WAPRSM= '5';
IF WAPRI IN ('L') THEN WAPRSM = WAPRI;

```

```

** SAS_NAME          : WASCSM
** SURVEY            : SDR15
** ALGORITHM_NAME    : R_WASCSM03
** VARIABLE_NAME     : F_JOB_WRK_ACTIVITY_SECONDARY_SUMRY
** Input Variables   : WASEC
** Code Name         : WORK_SUMMARY_CODES
** Additional Notes:
** Variable Creation;
IF WASEC IN ('02','03','04','05') THEN WASCSM= '1';
IF WASEC= '13' THEN WASCSM= '2';
IF WASEC IN ('01', '07', '08', '11', '12') THEN WASCSM= '3';
IF WASEC= '06' THEN WASCSM= '4';
IF WASEC IN ('09', '10', '14') THEN WASCSM= '5';
IF WASEC IN ('00','0') THEN WASCSM= '6';
IF WASEC = 'L' THEN WASCSM= 'L';

```

Appendix B.2

SAS Code to Generate DRF-recoded Variables in the 2015 SDR Restricted Use Data File

```
/* CNTRYCIT_DRF */
CNTRYCIT_DRF = CNTRYCIT;
IF CNTRYCIT_DRF = '999' THEN DO; CNTRYCIT_DRF = '998'; END; /* Setting US citizens to SDR logical skip */
ELSE IF CNTRYCIT_DRF = '' THEN DO; CNTRYCIT_DRF = '999'; END;

/* CTZN_DRF */

IF CITIZ IN ('', '-1') THEN DO; CTZN_DRF = 'M'; END;
ELSE IF CITIZ IN ('0', 'U', 'P') THEN DO; CTZN_DRF = '1'; END;
ELSE IF CITIZ = '1' THEN DO; CTZN_DRF = '2'; END;
ELSE IF CITIZ IN ('2', 'A') THEN DO; CTZN_DRF = '3'; END;
ELSE IF CITIZ IN ('3', '4') THEN DO; CTZN_DRF = '4'; END;

/* EMSECDT_DRF*/

IF PDEMPLOY IN ('A', 'B', 'C', '4', 'F') THEN DO; EMSECDT_DRF = '11'; END; /* 4-year univ, medical school,
research inst, foreign univ */
ELSE IF PDEMPLOY IN ('D', 'E') THEN DO; EMSECDT_DRF = '12'; END; /* Community college and pre-college educ
inst.*/
ELSE IF PDEMPLOY IN ('L', 'M', 'N') THEN DO; EMSECDT_DRF = '21'; END ; /* Industry/business and other */
ELSE IF PDEMPLOY = 'K' THEN DO; EMSECDT_DRF = '23'; END; /* Not for profit */
ELSE IF PDEMPLOY IN ('H') THEN DO; EMSECDT_DRF = '31'; END; /* US federal government */
ELSE IF PDEMPLOY = '2' AND (CTZN_DRF IN ('1', '2') OR PDUSFOR = '1') THEN DO; EMSECDT_DRF= '31'; END; /*
National government, US */
ELSE IF PDEMPLOY = '3' AND (CTZN_DRF IN ('1', '2') OR PDUSFOR = '1') THEN DO; EMSECDT_DRF= '32'; END; /*
State or local government, US */
ELSE IF PDEMPLOY IN ('I', 'J') THEN DO; EMSECDT_DRF = '32'; END; /* State or Local government */
ELSE IF PDEMPLOY IN ('1', 'G') THEN DO; EMSECDT_DRF = '33'; END; /* Non-US government */
ELSE IF PDEMPLOY IN ('2', '3') AND (CTZN_DRF IN ('3', '4') OR PDUSFOR = '2') THEN DO; EMSECDT_DRF= '33'; END;
/* Non-US government */
```

```

ELSE IF PDEMPLOY IN ('', '-1') AND PDOCPLAN NOTIN ('4', '5', '6') AND (PHDFY GE 1969 AND PHDFY LE 2003) THEN
DO ; EMSECDT_DRF= 'L'; END;
ELSE IF PDEMPLOY = '99' THEN EMSECDT_DRF = 'L'; /* Logical skip applies to skip pattern issues [99] and
cases without firm employment plans between 1969 and 2003 */
ELSE IF PDEMPLOY IN ('', '-1') AND ((PHDFY GE 1958 AND PHDFY LE 1968) OR PHDFY GE 2004) THEN DO; EMSECDT_DRF
= 'M'; END; /*Missing data in years when all docs asked question. */
ELSE IF PDEMPLOY IN ('', '-1') THEN DO; EMSECDT_DRF = 'M'; END; /* Any other missing data */

/* FFOD_215 */
/* This recodes PHDFIELD into 215 21st century fine fields of degree.*/

FFOD_215 = PHDFIELD;

IF PHDFIELD = '007' THEN FFOD_215 = '005';
IF PHDFIELD = '032' THEN FFOD_215 = '039';
IF PHDFIELD = '040' THEN FFOD_215 = '043';
IF PHDFIELD = '045' THEN FFOD_215 = '049';
IF PHDFIELD = '054' THEN FFOD_215 = '055';
IF PHDFIELD = '065' THEN FFOD_215 = '066';
IF PHDFIELD = '060' THEN FFOD_215 = '080';
IF PHDFIELD = '140' THEN FFOD_215 = '139';
IF PHDFIELD = '156' THEN FFOD_215 = '157';
IF PHDFIELD = '171' THEN FFOD_215 = '170';
IF PHDFIELD IN ('219', '224') THEN FFOD_215 = '212';
IF PHDFIELD = '225' THEN FFOD_215 = '240';
IF PHDFIELD IN ('322', '323') THEN FFOD_215 = '324';
IF PHDFIELD = '354' THEN FFOD_215 = '399';
IF PHDFIELD = '506' THEN FFOD_215 = '500';
IF PHDFIELD = '521' THEN FFOD_215 = '539';
IF PHDFIELD = '545' THEN FFOD_215 = '544';
IF PHDFIELD IN ('547', '549') THEN FFOD_215 = '548';
IF PHDFIELD IN ('554', '555') THEN FFOD_215 = '559';
IF PHDFIELD = '562' THEN FFOD_215 = '561';
IF PHDFIELD = '563' THEN FFOD_215 = '564';
IF PHDFIELD IN ('567', '573') THEN FFOD_215 = '570';
IF PHDFIELD = '679' THEN FFOD_215 = '678';

/* PDSTAT_DRF */
/* This recodes PDOCSTAT in the DRF into three categories: Definite plans, Not definite, unknown. */
IF COMPRESS(PDOCSTAT) IN ('0', '1', 'A') THEN PDSTAT_DRF = '1'; /* Definite plans */
ELSE IF COMPRESS(PDOCSTAT) IN ('2', '3', '4', '5', '6') THEN PDSTAT_DRF = '2'; /* Not definite */

```

```

ELSE IF COMPRESS(PDOCSTAT) IN ('','-1') then PDSTAT_DRF = '3'; /*Unknown*/

/* PDUSFOR */
IF PDUSFOR NOTIN ('1','2') THEN DO; PDUSFOR = 'M'; END;

/* POSTDOCC: Transform to character, rename to original variable name POSTDOC. */
POSTDOC = PUT(POSTDOCC,$1.);
DROP POSTDOCC;
IF POSTDOC NOTIN ('1','2') THEN DO; POSTDOC = 'M'; END;

```