

BUNMD Supplementary Geography Variables File Codebook

Page	Variable	Label
2	ssn	Social Security Number
3	birth_gnis_code	GNIS Code of Birth Place
4	birth_city	City of Birth
5	birth_county	County of Birth
6	birth_region	Census Region of Birth
7	death_zip	ZIP Code of Death
8	death_state	FIPS code of Death County
9	death_state	State of Death
10	death_city	City of Death
11	death_county	County of Death
12	death_country	Country of Death
13	death_region	Census Region of Death
14	death_ruc1993	USDA Rural-Urban Continuum Code

Summary: The Berkeley Unified Numident Mortality Detailed Supplementary Geography Variables File (N = 42,878,885) provides information on a person’s birth and death locations. This dataset provides details on the death location based on the deceased’s ZIP code. It consists of 29,676,585 entries specifying birthplaces at city, county, and state levels, but it excludes data on individuals born in Washington D.C. or U.S. territories. To combine the Supplementary Geography Variables File with the BUNMD, use the individual’s social security number as the linking variable.

To construct the “place of birth” variables, we used a crosswalk originally developed for this paper:

Black, Dan A., Seth G. Sanders, Evan J. Taylor, and Lowell J. Taylor. 2015. “The Impact of the Great Migration on Mortality of African Americans: Evidence from the Deep South.” *American Economic Review* 105(2):477–503. doi: 10.1257/aer.20120642.

SSn

Label: Social Security Number

Description: ssn reports a person's Social Security number as recorded in the Numident death records. This variable uniquely identifies all records in the dataset and can be used to merge onto the BUNMD dataset.

birth_gnis_code

Label: GNIS Code of Birth Place

Description: birth_gnis_code is a numeric variable that denotes an individuals' Geographic Names Information System (GNIS) code for their place of birth. The GNIS code maps onto physical locations located in the U.S., including longitude and latitude coordinates and physical feature names.

For more information on GNIS codes, please see <https://www.usgs.gov/faqs/what-geographic-names-information-system-gnis>.

birth__city

Label: City of birth

Description: birth__city reports the city of birth recorded in the BUNMD database. This variable is the result of the linkage between the BUNMD and GNIS crosswalk dataset. Approximately 94% of individuals in the BUNMD with city of birth information were matched with the crosswalk (29,676,585).

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birth__county

Label: County of Birth

Description: birth__county reports the county of birth for an individual as a character string.

birth__region

Label: Census Region of Birth

Description: birth__region is a categorical variable that categorizes an individual's place of birth into one of the four Census Regions – Northeast, Midwest, South, and West – based on their state of birth.

For more information on Census Regions, please see <https://www.census.gov/programs-surveys/economic-census/guidance-geographies/levels.html>.

Births by Census Region

Region	n	freq %
midwest	8722283	20.3
northeast	7459050	17.4
south	10870153	25.4
west	2625099	6.1
NA	13202300	30.8

death_zip

Label: Death ZIP Code

Description: death_zip is the ZIP code that is recorded at the time of death in the BUNMD. ZIP codes are primarily used for USPS mail delivery purposes, not as geographic units.

For a more detailed description of ZIP codes, please see: <https://faq.usps.com/s/article/ZIP-Code-The-Basics>.

death_fips

Label: Death County FIPS Code

Description: death_fips, a numeric variable, is the FIPS code for an individual's county of death as sourced from their ZIP code of death.

For a more detailed description of FIPS codes, please see: <https://transition.fcc.gov/oet/info/maps/census/fips/fips.txt#:~:text=FIPS%20codes%20are%20numbers%20which,to%20which%20the%20county%20belongs>.

death__state

Label: State of Death

Description: death__state reports the state the death ZIP code falls into.

For a more detailed description of ZIP codes, please see: <https://faq.usps.com/s/article/ZIP-Code-The-Basics>.

death__city

Label: City of Death

Description: death__city reports a ZIP code's primary city according to the USPS. In the case that a ZIP code crosses a city line, the city listed will be where the primary post office for that ZIP code is located.

For a more detailed description of ZIP codes, please see: <https://faq.usps.com/s/article/ZIP-Code-The-Basics>.

death__county

Label: County of Death

Description: death__county reports the county that the individual's ZIP code falls into, according to the USPS.

death_country

Label: Country of Death

Description: death_country indicates the country where the reported ZIP code is located. While the majority of these ZIP codes are within the United States, countries that host U.S. military bases on their territories may also have ZIP codes associated with them.

death__region

Label: Census Region of Death

Description: death__region is a categorical variable that categorizes an individual's place of death, based on their ZIP code and state of death, into one of the four Census Regions – Northeast, the Midwest, the South, and the West.

Deaths by Census Region

region	n	freq %
midwest	7445766	17.4
northeast	7372376	17.2
south	12843523	30.0
west	7347540	17.1
NA	7869680	18.4

death_ruc1993

Label: USDA Rural-Urban Continuum Code

Description: death_ruc1993 is sourced from the United States Department of Agriculture (USDA) Urban-Rural Continuum Codes, which are a classification system developed to categorize U.S. counties based on their degree of urbanization and adjacency to metropolitan areas. The system consists of ten codes, ranging from 0 to 9, where lower codes represent more urbanized counties and higher codes represent more rural areas.

For more information: <https://www.ers.usda.gov/data-products/rural-urban-continuum-codes.aspx>

Rural-Urban Deaths

code	description	n	freq %
0	Central counties of metro areas of 1 million population or more	14394896	33.6
1	Fringe counties of metro areas of 1 million population or more	1224950	2.9
2	Counties in metro areas of 250,000 to 1 million population	7848375	18.3
3	Counties in metro areas of fewer than 250,000 population	2901397	6.8
4	Urban population of 20,000 or more, adjacent to a metro area	1529092	3.6
5	Urban population of 20,000 or more, not adjacent to a metro area	933918	2.2
6	Urban population of 2,500 to 19,999, adjacent to a metro area	2802950	6.5
7	Urban population of 2,500 to 19,999, not adjacent to a metro area	2261344	5.3
8	Rural or fewer than 2,500 urban population, adjacent to a metro area	441397	1.0
9	Rural or fewer than 2,500 urban population, not adjacent to a metro area	663520	1.5
NA	NA	7877046	18.4