

HEALTH AND RETIREMENT STUDY
2015 Life History Mail Survey (LHMS)

Restricted Data

Residential History Detail Level Data

Data Description and Usage

Version 1.0, April 2025

To the Restricted Data Investigator: This restricted data set is intended for exclusive use by you and the persons specified in the *Agreement for Use of Restricted Data from the Health and Retirement Study* and/or the *Supplemental Agreement with Research Staff for Use of Restricted Data from the Health and Retirement Study*.

If there are any questions about this data set and its use, refer to the HRS Restricted Data Web Site (<http://hrsonline.isr.umich.edu/rda>) or contact the HRS Help Desk (hrsquestions@umich.edu).

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1. Overview

The *2015 Life History Mail Survey (LHMS) Version 1.0* contains questions about residential history, education history, and other important childhood and family events.

The LHMS is part of the Health and Retirement Study (HRS), which is funded under a cooperative agreement between the National Institute on Aging (NIA) and the Survey Research Center at the University of Michigan. The HRS is designed to study labor force, health, and family transitions of the U.S. population aged 51 and older, and the impact of those transitions on economic resources, claims on structured programs such as Social Security, Medicare, and Medicaid, and informal assistance and transfers to and from family members.

The National Institute on Aging (NIA) provided funding (U01 AG009740) for the 2015 LHMS, which was conducted by the Survey Research Center (SRC), at the Institute for Social Research (ISR), at the University of Michigan.

This dataset (lhms15_detail_reshist_v1) extends the LHMS by including ZIP code, city and state residential information. By receiving access to this dataset, you agree to use it for research and statistical purposes only and make no effort to identify respondents. In addition, you agree to send us a copy of publications you produce based on the data. See **Obtaining the Data** (at the end of this document) for additional details.

The questions in the 2015 LHMS (Version 1.0) are based on several similar studies around the world, including: the English Longitudinal Study of Aging (ELSA), England, The Survey of Health, Ageing and Retirement in Europe (SHARELIFE), and the China Health and Retirement Longitudinal Study (CHARLS).

The restricted data include the actual state indicators for the residential histories whereas the public release LHMS 2015 state data includes an enumeration of state residence.

2. Sampling Information

In December 2015, questionnaires were mailed to a subsample of HRS respondents (n= 11,256). The sample for the 2015 LHMS consists of all living HRS respondents who were not included in the 2015 Consumption and Activities Mail Survey (CAMS) and who completed their most recent HRS core interview in English (rather than Spanish). The field period for the 2015 LHMS was December 2015 through summer 2016.

3. LHMS Content

3a. Variable Names and Labels

As shown in the example, the variable label contains the question number found in the 2015 LHMS questionnaire. Unlike LHMS 2015 public data, these records are stacked. Use the values in ENTRY to determine which row of Table 5 (see below) the respondent recorded residential data.

INSTRUCTION AND TABLE COLUMNS SPAN ACROSS PAGES ►

Q5 On the next pages please fill in as much information as you can about **all the places that** **To begin, next to #1 please write your year of birth as the “start year” on the top row.** decade (e.g., late 1950s). If you lived outside the U.S., write the country name instead of the

#	Start Year	End Year	Street	City/Town	State
1	1951				
2	1952				
3	1969				
4	1970				

3b. Files Distributed

Directory	File	Type
.\docs\	LHMS15_detail_reshist_v1.pdf	Data Description
.\sas\	LHMS15_detial_reshist_v1.sas7bdat	SAS system file
.\stata\	LHMS15_detail_reshist_v1.dta	Stata system file

3c. Data Quality

Due to the skip patterns in this questionnaire, all missing answers are treated the same in the dataset and coded as simply “Answer not given/Missing.” This is true whether the respondent was expected to answer the question or not, based on earlier responses. In cases where the respondent recorded ditto marks, and provided either a start or end year, the last observation was carried forward. Records missing both start and end year were removed from the final dataset.

While cleaning the data, when extreme, unlikely or conflicting values were encountered, electronic images of the questionnaires were checked directly to determine if errors were introduced during the data entry/scanning process. This includes instances where a start year is greater than an end year, or a start age is greater than an end age. If the respondent reported the extreme or conflicting value, the value appears unchanged in the data.

The variable for reported cities includes not only incorporated places but also a range of other geographic references, such as counties, townships, villages, neighborhoods, hamlets, census-designated places (CDPs), unincorporated communities, boroughs, military instillations and terms (e.g., “Base”), and broader descriptions like “in the country” and references to regions (e.g., “Western, MA”). These responses were retained as originally reported to preserve the language and intent of respondents, rather than imposing standardized geographic classifications that might obscure local or subjective meaning.

State FIPS and Census region is included to assist researchers, it was not entered by the respondents.

3c-1. LH5 Series, Residential History - Start and End Years

For this question, respondents were instructed to write the start and end year for each of their residences before age 50, and to write their age or the decade if they could not remember the exact year. Some respondents recorded consecutive years on each line and the same residence i.e., city and state names, the values appear unchanged in the data.

3c-2. LH5 Series, Residential History – Data Corrections

Missing state values were imputed using the following correction scheme:

1. A valid zip code was provided
2. Review address components for state information
3. Examine scanned questionnaire

State code 'ZZ' denotes a foreign country and/or broad responses such as "Pacific theatre WWII" and "Overseas." Records that matched at the ZIP code level but contained complete address information were carefully reviewed and corrected, when possible, to achieve better precision. Efforts were made to ensure that each entry represents a unique location.

The majority of records lacked ZIP codes. If a record included a street address, the corresponding ZIP code was retrieved and entered. For records without a street address, adjustments were made accordingly. In cities with a single ZIP code, assignment was straightforward. For cities with multiple ZIP codes, the first listed ZIP code was assigned.

3d. LH5 Series, Residential History – Record Aggregation

Questionable responses were checked against questionnaire scans, and discrepancies between state codes and ZIP codes were investigated and resolved. The data were modified by removing records without both a start and end year and incorporating newly found records. To eliminate redundancy, records with repeating information were collapsed. For example:

Version 1					
entry	start	end	street	city	state
10	1995	2005		Detroit	MI
11	2006	2012		Detroit	MI
12	2015			Wixom	MI

Version 2					
entry	start	end	street	city	state
10	1995	2012		Detroit	MI
12	2015			Wixom	MI

Researchers should be advised to not use the ENTRY number field to determine the number of residences (or “moves”). This number simply represents on which line the respondent recorded data.

The 117 records missing state codes pertain to non-geographically specific military service responses, such as “US Army” and “Navy.”

4. File Structure

The 2015 HRS LHMS Geographic Detail Level records are presented at the resident address-level. Street address table contain questions that were asked of all respondents about themselves (or were answered by a proxy for the respondent if the respondent was not able to fill out the questionnaire). The data file contains multiple records for each respondent or proxy who filled out and returned a 2015 LHMS questionnaire with valid residential history responses. The data consist of 38,607 records collected from 5,849 respondents, with each respondent contributing one or more records. On average, each respondent recorded 6.6 entries (min = 1, max = 25).

The data files are named LHMS15_DETAIL_RES HIST_v1, loosely translated as: Life History Mail Survey 2015, geographic detail-level data.

The primary identification variables (IDs) are:

- HHID HOUSEHOLD IDENTIFIER
- PN PERSON NUMBER

These data will need to be transposed before merging these data with and publicly available HRS product.

Records in the data files are sorted in order by HHID and PN and ENTRY. The variable PN refers to the respondent to whom the questionnaire was mailed. Please note that identification variables in the *HRS 2015 LHMS Geographic Detail Level* are stored in character format. For further information about HRS identification variables and merging data, see the Tracker Data Description and the Data Descriptions for each HRS Core wave.

5. Linking Respondents across Time

Respondent records in the HRS 2015 LHMS Geographic Detail Level can be linked to respondent records from prior waves by HHID and PN. The core sub-household identifiers can be used to link household data with the cross-sectional respondent level data.

6. Obtaining the Data

6a. Access to Restricted Data

Although most HRS data sets are available to the public without restriction, certain HRS data sets contain sensitive respondent information and are only available under terms of a formal agreement negotiated between the researcher and HRS. For instructions on how to proceed, visit the [HRS Restricted Data Web](#) site or contact the HRS Restricted Data Applications Processing Team (hrsrdapplication@umich.edu) by email.

6b. Restricted Data Agreement

This restricted data set is intended for exclusive use by you and the persons (if any) specified in your restricted data agreement.

6c. Publications Based on Restricted Data

Your restricted data agreement specifies that you will inform HRS of any papers, publications, or presentations based on this restricted data set. You may send a bibliographical reference (including a URL link whenever possible) for each item to hrrdaapplication@umich.edu with "Attn: Papers and Publications" in the subject line. If possible, you should also include a PDF-formatted copy of the publication.

As an alternative, you may transmit publications in paper format by postal mail:

Health and Retirement Study
Attn: Papers and Publications
The Institute for Social Research, Room 341
P.O. Box 1248
Ann Arbor, Michigan 48106-1248

7. If You Need to Know More

This document is intended to serve as a brief overview that provides guidelines for using this data product. If you have questions or concerns that are not adequately covered here or on our Web site, or if you have any comments, please contact us. We will do our best to provide answers.

7a. HRS Internet Site

Health and Retirement Study public release data and additional information about the study are available on the Internet. To access public data or to find out more about restricted data products and procedures, visit the [HRS Web site](#).

7b. Contact Information

If you need to contact us, you may do so by one of the methods listed below.

Internet: Help Desk at the HRS Web site (<https://hrs.isr.umich.edu/help>)

E-mail: hrrsquestions@umich.edu

Postal Service:

Health and Retirement Study
The Institute for Social Research
426 Thompson Street, 3450 ISR
Ann Arbor, Michigan 48104

Appendix A – SAS_NOTES_ Values¹:

Token	Score	Description
AD	20	The street name matched.
ADSDP	5	Address Direction Suffix matched lookup data Direction Prefix.
ADPDS	5	Address Direction Prefix matched lookup data Direction Suffix.
CT	5	The city name matched.
DP	15	The street direction prefix matched.
DS	15	The street direction suffix matched.
ENDNM	0	The house number was outside the ranges of values in the lookup data set for the matching street. The geocoded coordinates for the nearest end of the street were used.
MCS	0	Multiple matches were found for the input street address and the street, city, and state in the street segment lookup data set.
MVP	0	The street geocoder detected missing values for the X or Y coordinates in the user-supplied lookup data set.
MZC	0	Multiple matches were found for the street address and ZIP code.
NM	10	The house number matched on the correct side of the street.
NMOS	5	The house number matched an address range in the lookup data set, but is on the opposite side of the street from the matched range.
NOADD	0	An invalid street address was input.
NOCTM	0	A match was found using the input address' street and ZIP code. However, it was noted that the input city value was different from the city on the matched lookup data set observation. For example, the input data set's address contained an incorrect city, "100 Main St., Raleigh, NC 27513". However, the matching lookup data set observation had the correct city value, "100 Main St., Cary, NC 27513". Note: The NOCTM token might act as an alert to potential data entry problems. For example, an input data set address of Green St. in Raleigh has the wrong ZIP code of 27601. It is compared to the lookup data set address of Green St. in Knightdale with the correct ZIP code of 27601. The NOCTM token in the _NOTES_ variable indicates that though a ZIP code match was found, the cities did not match.
NODPA	-10	The input address had no direction prefix but the matching street did have a direction prefix. For example, the input street name was "Main St." but the matching street was "N Main St."
NODPM	-15	The input address had a direction prefix but it either did not match the direction prefix of the matching street or the matching street had no direction prefix. For example, the input street name was "North Main St." but the matching street was "Main St."
NODSA	-10	The input address had no direction suffix but the matching street did have a direction suffix. For example, the input street name was "Johnson Ave" but the matching street was "Johnson Ave S."
NODSM	-15	The input address had a direction suffix but it either did not match the direction suffix of the matching street or the matching street had no direction prefix. For example, the input street name was "Johnson Ave South" but the matching street was "Johnson Ave."
NOLNM	0	The lookup data set contains missing values for the house numbers of the matching street. The geocoded coordinates for the center of the matching street were used.

¹[SAS Support: GEOCODE Procedure: Understanding Street Geocoding: Street Geocoding Note Values](#)

NONM	0	The input address has no house number. The geocoded coordinates for the center of the matching street were used.
NOSTM	0	A match was found using the input address' street and ZIP code. However, it was noted that the input state value was different from the state on the matched lookup data set observation. For example, the input data set's address contained an incorrect state, "100 Main St., Cary, ND 27513". However, the matching lookup data set observation had the correct state value, "100 Main St., Cary, NC 27513".
NOTPA	-10	The input address had no street type prefix, but the matching address did have a street type prefix. For example, the input address was "110 Quebec." but the matching address was "110 Boulevard Quebec"
NOTPM	-20	The street type prefix of the input address was either not the same as the type prefix of the matching street or the matching street had no type prefix. For example, the input street name was "Boulevard Quebec" but the matching street name was "Avenue Quebec".
NOTSA	-10	The input address had no street type suffix, but the matching address did have a street type suffix. For example, the input address was "110 Main." but the matching address was "110 Main St."
NOTSM	-20	The street type suffix of the input address was either not the same as the type suffix of the matching street or the matching street had no suffix. For example, the input street name was "Park St." but the matching street name was "Park Ave."
NS	0	The input address had no state value.
NSM	0	An initial match was found for the input city and country pair in the CITY lookup data set. However, the state variable value of the matching observation was not a match.
NOZC	0	No ZIP code was provided.
NOZCM	0	A match was found using the input address' street, city, and state. However, it was noted that the input ZIP code value was different from the ZIP on the matched lookup data set observation. For example, the input data set's address contained a transposed ZIP code, "100 Main St., Cary, NC 25713". However, the matching lookup data set had the correct ZIP code value, "100 Main St., Cary, NC 27513".
ST	5	The two-character state abbreviation matched.
TP	20	The street type prefix matched.
TS	20	The street type suffix matched.
ZC	15	The five-digit ZIP code or non-U.S. postal code matched.

Appendix B – Data Contents

#	Variable	Type	Label
1	HHID	Char	HOUSEHOLD IDENTIFIER
2	PN	Char	PERSON NUMBER
3	ENTRY	Char	ROW NUMBER OF DATA ENTERED
4	_MATCHED_	Char	HOW THE COORDINATES WERE FOUND
5	_NOTES_	Char	CONTAINS TOKENS THAT PROVIDE ADDITIONAL INFORMATION ABOUT THE MATCH
6	_SCORE_	Num	NUMERIC VALUE INDICATING THE RELATIVE ACCURACY OF THE MATCH
7	START	Num	RESIDENCE START YEAR
8	END	Num	RESIDENCE END YEAR
9	CITY	Char	RESIDENCE CITY
10	STATE	Char	RESIDENCE USPS STATE ABBREVIATION (ZZ = FOREIGN)
11	ZIPCODE	Num	RESIDENCE USPS ZIP CODE
12	STATEFIPS	Char	STATE FIPS CODE
13	REGION	Num	CENSUS BUREAU REGIONS AND DIVISIONS
14	FOREIGN	Num	RESIDENCE FOREIGN ADDRESS
15	STYPE	Char	SPECIAL TYPE OF RESIDENCE