Northern Ireland Longitudinal Study Metadata

NILS-RSU

NILS_RSU_JUL2018

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1. Introduction

This document should be used in conjunction with the NILS Data Dictionary. The combined set of information provides full metadata for the NILS database.

The NILS Data Dictionary will provide the value labels for all the variables. This document includes a description of variables and some value labels that are essential for the understanding of the NILS structure and NILS sample membership.

The owner of this document is NILS-RSU and any changes to the document should be suggested to NILS-RSU who will make amendments if required.

Current Database Structure

The NILS Database has been subject to various structure changes in its lifespan which can mostly be attributed to the addition of various data over time.

On its initial launch the NILS-Core dataset consisted of a download of NILS members (persons with 1 of 104 birth dates) from what is now the BSO Health Card Registrations, who were identified as being '*Live*' at April 2001. This data was linked to 2001 Census and Vital Events (Births, Deaths) information. At that point it was agreed that the NILS would be routinely updated with a bi-annual download of Health Card data and an annual download of births and deaths data.

With the further inclusion of 1981 Census, 1991 Census and 2011 Census data, the database structure has changed significantly, with the NILS-Core dataset now consisting of all NILS members identified as being '*Live*' in at least one of the 35 health downloads (April 2001 to April 2018) or having a birth date before April 1991 and reported as having died or emigrated after April 1991. The NILS also includes Vital Events information of births registrations from 1974 onwards, deaths registrations from 1991 onwards, marriages registrations from 2005 onwards and widowerhoods of deaths registered from 1991 onwards.

Restricted Files and Restricted Variables

On occasion, further restricted or confidential information may be made available for the processing of derived variables for research projects. These variables are included in the database but are flagged with an X to indicate that researchers must justify their use during the initial application process.

NILS	Solution
Property Indicator	Include XUPRN on all datasets where appropriate: CORENILSDATA, ADDRESS_HISTORY, BIRTHSSTATS, CENSUSHH, MIGRATION_EVENTS
Capital Value	Create an encrypted property number called XUPRN. The PROPERTIES table will have XUPRN as a key identifier with all property information such as Capital Value
Settlement Bands	Attach to the census household table and properties table
Age at Specific Time Point	An additional table called XAGES has been created with the age of each person at each download from the BSO. For the current database this will include 35 different ages
Detailed Cause of Death	An additional table XDEATH_DETAILS has been created containing detailed ICD09 and ICD10 codes for NILS deaths

Date of Registration vs. Date of Occurrence for Events

Vital events (including births and deaths) have 2 different dates associated with them. One is the date of the event taking place (e.g. date of birth and date of death) called the Occurrence Date and the other is the Date of Registration (i.e. the date the event was registered with the Registrar in the local offices).

Statistics on the number of events by Date of Registration do not change. Statistics on the number of events by Occurrence Date will change because of late registrations of events.

The Northern Ireland Registrar General's annual report and other Vital Events publications use the Date of Registration to produce the finalised fixed number of events. The Vital Events statistical coded data are not finalized until after the publication of the Registrar General's annual report. This is because an intense QA process takes place verifying any anomalies in the data.

The following table, using births data, highlights the delay in getting finalised information on Births Occurrences.

Occurrence*	Registration	Publication**	Months before Matching
Jan-16	Feb-16	Aug-17	19
Feb-16	Mar-16	Aug-17	18
Mar-16	Apr-16	Aug-17	17
Apr-16	May-16	Aug-17	16
May-16	Jun-16	Aug-17	15
Jun-16	Jul-16	Aug-17	14
Jul-16	Aug-16	Aug-17	13
Aug-16	Sep-16	Aug-17	12
Sep-16	Oct-16	Aug-17	11
Oct-16	Nov-16	Aug-17	10
Nov-16	Dec-16	Aug-17	9
Dec-16	Jan-17	Aug-17	8
Jan-17	Feb-17	Aug-18	19

Date-Stamped Database

It is planned to release a NILS database in Quarter 2 (July - September) and Quarter 4 (January - March) each year. The table below details the new information that will be added into the NILS at each download.

Quarter 2 Release	Quarter 4 Release
Health (April Download)	Health (October Download)
Pointer (May Download)	Pointer (November Download)
VLA (Annual Download)	GRO Births (Latest available RG Report)
	GRO Deaths (Latest available RG Report)
	GRO Marriages (Latest available RG Report)
	GRO Widowerhoods (Latest available RG Report)
	NIMS Update (Latest available RG Report)

The database will be called NILS_RSU_MMMYYYY. The current NILS database structure has been created and date stamped 'NILS_RSU_JUL2018'.

Each database will have a table called DATA_RELEASED which indicates the time period which the data in each table covers. The NILS_RSU_JUL2018 database DATA_RELEASED table contents are shown below.

Any additional changes to the database such as the definition/format of a variable, improved coverage of, etc. will be recorded in the DATA_RELEASED table.

Data	Date Reference
CORENILSDATA	APRIL 2001 to APRIL 2018 (35 downloads)
XAGES	APRIL 2001 to APRIL 2018 (35 downloads)
ADDRESS_HISTORY	APRIL 2001 to APRIL 2018 (35 downloads)
MIGRATION_EVENTS	APRIL 2001 to APRIL 2018 (35 downloads)
EVENTS: BIRTHS OF NILS MEMBERS	JANUARY 1974 to DECEMBER 2016 (Registrations)
EVENTS: BIRTHS TO NILS MOTHERS	JANUARY 1974 to DECEMBER 2016 (Registrations)
EVENTS: BIRTHS TO NILS FATHERS	JANUARY 1974 to DECEMBER 2016 (Registrations)
EVENTS: DEATHS OF NILS MEMBERS	JANUARY 1991 to DECEMBER 2016 (Registrations)
EVENTS: WIDOWERHOODS OF NILS MEMBERS	JANUARY 1991 to DECEMBER 2016 (Registrations)
BIRTHSSTATS	JANUARY 1974 to DECEMBER 2016 (Registrations)
DEATHSSTATS	JANUARY 1991 to DECEMBER 2016 (Registrations)
MARRIAGESSTATS	JANUARY 2005 to DECEMBER 2016 (Registrations)
CENSUSP_1981	5th APRIL 1981
CENSUSHH_1981	5th APRIL 1981
CENSUSP_1991	21st APRIL 1991
CENSUSHH_1991	21st APRIL 1991
CENSUSP_2001	29th APRIL 2001
CENSUSHH_2001	29th APRIL 2001
CENSUS01_RELATIONSMATRIX	29th APRIL 2001
CENSUSP_2011	27th MARCH 2011
CENSUSHH_2011	27th MARCH 2011
CENSUS11_RELATIONSMATRIX	27th MARCH 2011
PROPERTIES	Based on DECEMBER 2016 LPS Data & MARCH 2018 POINTER Data
WEATHER	JANUARY 1981 to DECEMBER 2010
POLLUTION	JANUARY 2001 to DECEMBER 2016
SCHOOLS	Institution level information based on 2010/11 SCHOOL ENROLMENT Data

SOA Geography Methodology

Over time the various Northern Ireland Census' have used different geographies and different methods of applying those geographies onto households within NI. To allow consistency of geographies over time for research purposes Super Output Areas have been deemed the most suitable. To allocate SOA for each Census the following methods have been used:

2001 Census - SOAs were created using the 2001 Census information
2011 Census - New SOAs were created as new houses had been built and land shifted. They will be very similar to those created in 2001.
1991 Census - Postcodes were collected. These were linked to the Central Postcode Directory in order to assign a 2001 SOA to the 1991 information.
1981 Census - No postcode information was collected, however 1km grid square data for homes was used and the closest 2001 SOA was assigned.

Summary Analysis of Core NILS Data

The following table indicates the estimated count of core NILS members in 1981, 1991, 2001 and 2011, and shows the number of NILS members linked to each of the datasets.

			1981	1991	2001	2011
NILS Members			---	493676	504747	538620
1 Census			340033	439560	457412	486682
2 Censuses	315590		X	X		
	266549		X		X	
	232384		X			X
	356404			X	X	
	306165			X		X
	373512				X	X
3 Censuses	252715		X	X	X	
	218003		X	X		X
	217014		X		X	X
	287819			X	X	X
4 Censuses	205645		X	X	X	X
Vital Events	293812	Births of Babies				
	283058	Births to Mothers				
	251289	Births to Fathers				
	107736	Deaths				
	27124	Brides Married				
	25577	Grooms Married				
	37039	Widowerhoods				
Migration Events	769524	Address Changes				

2. Metadata for CORENILSDATA

Table Name:	CORENILSDATA
Table Description:	NILS members' core information based on Health Card Registrations. A person is chosen as a NILS member if the day and month of their date of birth falls on one of the 104 NILS dates. The NILS members are selected from the earliest available Health data download (April 2001) and identified as being '*Live*' in at least one of the health downloads. To integrate the 1991 Census into NILS, NILS members born before April 1991 and who either died or emigrated between April 1991 and April 2001 were included.
Source of the Data:	Business Services Organisation (BSO) Health Card Registrations
Number of Records:	776666
Currency of the Data:	Latest information included for 201804 (YYYYMM). This table is updated and released every 6 months.
Unique Identifier:	NILSID
Tables Linked to:	Via NILSID: ADDRESS_HISTORY, CENSUSP_1981, CENSUSP_1991, CENSUSP_2001, CENSUSP_2011, EVENTS, MIGRATION_EVENTS, XAGES
	Via CURRENT_ADDRESS_XUPRN: PROPERTIES

Variables:		
Variable Name	Variable Description	Variable Values
NILSID	System generated unique reference number for NILS member	
SOURCE	This provides the source of the first time the record joined NILS. Many records have a source of 200104 (April 2001)	YYYY04 = April download of the given year YYYY10 = October download of the given year
GENDER	Gender of NILS member as recorded by the BSO	M = Male F = Female
C91_STATUS	Indicates if a NILS member has been selected on having a NILS birth date prior to April 1991 and they have been identified as having died or emigrated by April 2001. This indicator should not be assumed to be the status of the NILS member at this time.	0 = Estimated as not being live at April 1991 L = Estimated as being live at April 1991
STATUSHISTORY_FULL	Full status history of the person. This field is variable length and has one status flag for a NILS member for each download so one can identify if/when status has changed or define a NILS population at a particular point in time. Users should note that persons reported as having a dead or emigrated status at April 2001 may have been linked to preceding Census or Vital Events data but status information is only available from April 2001. Also it should be noted that it was decided that from the April 2005 download onwards, NILS members having a long-term emigrated or dead status would not be included in each new NILS download.	0 = Not on Health Register L = Live on Health Register E = Flagged as gone away D = Flagged as deceased

STATUSHIST	Summarised version of STATUSHISTORY_FULL - Main changes recorded only	See STATUSHISTORY_FULL
CURRENT_ ADDRESS_SOA	Super Output Area of current address	There are 890 valid SOA codes XXXXXXXX = Missing (Normally invalid postcode) 00000000 = No code
CURRENT_ADDRESS_ XUPRN	Anonymised Property Reference Number of current address (can be used to link to PROPERTIES table)	
DODMMM	Month of death if flagged as deceased (i.e. status = 'D')	
DODYEAR	Year of death if flagged as deceased (i.e. status = 'D')	

Additional Information for CORENILSDATA

SOURCE

This identifies the number of records that were added to the NILS in each 6 month period. The majority of NILS records were added in the first download which took place in April 2001. The first four digits of the source indicate the year and the last two digits indicate in which download each record was added (04 = April download, 10 = October download).

Although downloads are referred to as April and October, the exact date is determined by the date the BSO took the quarterly extract of their data for GP payment purposes.

CORENILSDATA – Table 1 – Distribution of SOURCE		
Year	April	October
2001	573608	4818
2002	4914	5277
2003	4680	5044
2004	5396	4859
2005	6283	6188
2006	6634	6420
2007	7617	7214
2008	6864	7072
2009	6106	6152
2010	5806	6351
2011	6201	6105
2012	5742	6081
2013	5851	5983
2014	6151	6122
2015	5937	6262
2016	5926	6099
2017	6057	5232
2018	5614	0

The source is an indication of when the person first appeared on the BSO downloads and not an indication of when the person became live in NILS. STATUSHISTORY_FULL should be used for that.

In each download the BSO provides information on all live people and people who used to live in Northern Ireland and are flagged as emigrated (see Table 4).

STATUSHISTORY_FULL

The NILS_RSU_JUL2018 database includes information on all downloads, and so the length of the STATUSHISTORY_FULL field is the same as the number of downloads (within the current download this equals 35 characters). This will change in future date-stamped database downloads when more downloads are added.

This variable gives details of the status of each NILS member at each download and it is essential that this is understood. The following table gives the most common values for STATUSHISTORY_FULL and has a brief description to illustrate what this variable means.

CORENILSDATA – Table 2 – STATUSHISTORY_FULL Descriptions		
STATUSHISTORY_FULL	STATUSHIST	Description
LLLLLLLLLLLLLLLLLLLLLLLLLLLLLL	L	Live throughout the study
00000000000000000000000LLLL	0L	Not in the study at the beginning
000000000000LLLLLLLLLLLLLLLLLL	0L	but joined and is currently live
000000000000000000LLLLLLLLLLLL	0L	
0000000000000000000000000LLLLL	0L	
000000000000000000000000LLLLL	0L	
00000000000LLLLLLLLLLLLLLLLL	0L	
000000000000000LLLLLLLLLLLLL	0L	
000LLLLLLLLLLLLLLLLLLLLLLLLLLL	0L	
LLLLLLLLLEEEEEEEEEEEEEEEEEEE	LE	Live in the study at the
LLLLLLLLLEEEEEEEEEEEEEEEEEEEEE	LE	beginning but has since been
LLLLLLLLLLLLLEEEEEEEEEEEEEEEE	LE	flagged as emigrated
LLLEEEEEEEEEEEEEEEEEEEEEEEEEE	LE	
LLLLLLLLLLLLLDDDDDDDDDDDDDDD	LD	Live in the study at the
LLLLLLLLDDDDDDDDDDDDDDDDDDDD	LD	beginning but has since been
LLLLLLLLLLLLLLLLLLLLLLLLDDDDD	LD	flagged as deceased
LLLLLLLLLLLLLLLLDDDDDDDDDDDDD	LD	
EEEEEEEE00000000000000000000	E0	Flagged as having a long-term
DDDDDDDD00000000000000000000	D0	emigrated or dead status

STATUSHIST

The following table shows the different combinations for STATUSHIST.

CORENILSDATA – Table 3 – STATUSHIST Distributions	
STATUSHIST	Records
L	370994
0L	159895
LD	68976
D0	43388
LE	39347
0LE	31526
LEL	15259
E	7712
EL	6577
E0	6337
0LEL	5069
L0	3340
LELE	2733
0LD	2182
0LELE	1746
ELE	1721
L0L	1396
E0L	1375
LELEL	1097
0L0	918
ELEL	634
0LELEL	449
LELD	428
0EL	363
0L0L	292
ELD	279
E0LE	269

A NILS member could be flagged as a '0' starting position if they were born after April 2001 or immigrated to Northern Ireland and have a NILS date of birth.

A person who was live in the study could drop out of the study, resulting in a STATUSHIST ending in '0'. This could happen if the person was removed from BSO records totally, had a date of birth which was changed to a non-NILS date, or were among a small number of records with a duplicate Central Health Index (CHI) or National Health Application and Infrastructure Services (NHAIS) number (approximately 500 per 1.6 million).

There may also be some inconsistent looking records. Examples of these include DL, DE, E0 and D0. These are likely to be administrative errors and are very small in number.

The following table shows the number of records in each of the statuses. As expected '0' is smallest in the latest download (i.e. all babies and immigrants now have full records).

CORENILSDATA – Table 4 – STATUSHIST Distributions by Download

Download	STATUSHIST			
	0	D	E	L
1st Download	203058	43389	25472	504747
2nd Download	198310	45266	27210	505880
3rd Download	193458	47568	29230	506410
4th Download	188239	49638	31635	507154
5th Download	183603	51784	33495	507784
6th Download	178617	53795	35208	509046
7th Download	173263	55908	37952	509543
8th Download	168506	57846	39228	511086
9th Download	214348	16574	33933	511811
10th Download	208089	18493	37964	512120
11th Download	201387	20700	41190	513389
12th Download	195041	22722	42510	516393
13th Download	187383	25162	44846	519275
14th Download	180217	27077	46414	522958
15th Download	173453	29303	49753	524157
16th Download	166429	31280	51721	527236
17th Download	160406	33555	53614	529091
18th Download	154298	35421	54426	532521
19th Download	148558	37664	56844	533600
20th Download	142287	39598	57873	536908
21st Download	136169	41759	60118	538620
22nd Download	130255	43668	61877	540866
23rd Download	124696	45822	64354	541794
24th Download	118752	47945	65973	543996
25th Download	113090	50162	68687	544727
26th Download	107191	52173	70105	547197
27th Download	100661	54366	72159	549480
28th Download	94663	56408	73443	552152
29th Download	88899	58771	75696	553300
30th Download	82760	60808	77169	555929
31st Download	76984	63126	78633	557923
32nd Download	70961	65201	80123	560381
33rd Download	64974	67606	82059	562027
34th Download	59819	69739	83919	563189
35th Download	54295	72357	85955	564059

CURRENT_ADDRESS_SOA

Current address is the last known address for a NILS member. It can also be extracted from the ADDRESS_HISTORY table where CURRENT_FLAG = 'C'. The following table shows the level of CURRENT_ADDRESS_SOA coverage.

CORENILSDATA – Table 5 – CURRENT_ADDRESS_SOA Assignment			
SOA Code	Description	Records	% Distribution
XXXXXXXX	Missing/invalid postcode	6751	0.9
Valid	Valid SOA Code	769915	99.1

The following table shows that the percentage of assigned SOAs is high no matter when the record was added to NILS.

CORENILSDATA – Table 6 – CURRENT_ADDRESS_SOA Assignment by SOURCE						
	APRIL DOWNLOAD			OCTOBER DOWNLOAD		
YEAR	None Assigned	Assigned Valid SOA	% Assigned	None Assigned	Assigned Valid SOA	% Assigned
2001	5550	568058	99.0	37	4781	99.2
2002	39	4875	99.2	35	5242	99.3
2003	52	4628	98.9	45	4999	99.1
2004	32	5364	99.4	40	4819	99.2
2005	63	6220	99.0	44	6144	99.3
2006	55	6579	99.2	54	6366	99.2
2007	64	7553	99.2	33	7181	99.5
2008	33	6831	99.5	44	7028	99.4
2009	27	6079	99.6	28	6124	99.5
2010	32	5774	99.4	39	6312	99.4
2011	26	6175	99.6	25	6080	99.6
2012	31	5711	99.5	31	6050	99.5
2013	42	5809	99.3	34	5949	99.4
2014	15	6136	99.8	23	6099	99.6
2015	25	5912	99.6	22	6240	99.6
2016	32	5894	99.5	34	6065	99.4
2017	23	6034	99.6	25	5207	99.5
2018	17	5597	99.7	0	0	0.0

CURRENT_ADDRESS_XUPRN

The coverage of XUPRN is lower than SOA but is still high at 95%. There are 33020 records which do not have a valid property identifier in NILS_RSU_JUL2018 current addresses.

CORENILSDATA – Table 7 – CURRENT_ADDRESS_XUPRN Assignment			
XUPRN	Description	Records	% Distribution
MISSING	Missing (Invalid/Missing UPRN)	33020	4.3
Valid UPRN	Valid Unique Property ID	743646	95.7

The following table shows there is a slight change in the percentage assignment of a property ID in each download.

CORENILSDATA – Table 8 – CURRENT_ADDRESS_XUPRN Assignment by SOURCE						
	APRIL DOWNLOAD			OCTOBER DOWNLOAD		
YEAR	Records	Valid UPRN	% of Valid UPRN	Records	Valid UPRN	% of Valid UPRN
2001	573608	547651	95.5	4818	4609	95.7
2002	4914	4707	95.8	5277	5040	95.5
2003	4680	4446	95.0	5044	4818	95.5
2004	5396	5205	96.5	4859	4695	96.6
2005	6283	5993	95.4	6188	5993	96.8
2006	6634	6368	96.0	6420	6224	96.9
2007	7617	7285	95.6	7214	6983	96.8
2008	6864	6633	96.6	7072	6854	96.9
2009	6106	5869	96.1	6152	5966	97.0
2010	5806	5598	96.4	6351	6138	96.6
2011	6201	5993	96.6	6105	5933	97.2
2012	5742	5528	96.3	6081	5915	97.3
2013	5851	5639	96.4	5983	5788	96.7
2014	6151	5975	97.1	6122	5948	97.2
2015	5937	5743	96.7	6262	6086	97.2
2016	5926	5721	96.5	6099	5926	97.2
2017	6057	5839	96.4	5232	5087	97.2
2018	5614	5450	97.1	0	0	0.0

Date of Death (Month and Year)

The total number of people who have been flagged as deceased in the NILS_RSU_JUL2018 database via STATUSHISTORY_FULL is 115715. All records flagged as deceased should have a date of death but this is not always the case.

The date of death recorded is the month and year that BSO staff entered onto the CHI or NHAIS when they were notified of the death. This may have come from the death certificate, a GP Practice, a family member or through a data cleansing exercise.

There are a smaller number of records within the latest year because only deaths notified to the BSO by April/October have been included. This therefore does not represent a full year's data. These deceased records provide the basis for death events although not all of them will have a link to the DEATHSSTATS data. The following table shows the distribution of date of death.

CORENILSDATA – Table 9 – Death Distribution by DOD (MMM/YEAR)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1991	460	362	388	334	339	316	306	270	285	318	321	400	4099
1992	400	410	374	308	351	322	342	297	350	346	322	386	4208
1993	382	333	424	394	366	315	342	311	328	347	426	473	4441
1994	423	337	398	365	358	351	366	284	341	368	351	341	4283
1995	425	346	383	362	345	323	330	335	312	333	354	445	4293
1996	432	402	400	303	355	286	322	274	320	338	335	400	4167
1997	473	385	322	299	368	315	371	302	321	303	370	364	4193
1998	396	363	404	351	320	364	334	338	316	333	330	396	4245
1999	528	399	373	319	332	313	379	345	322	316	308	495	4429
2000	496	385	334	327	361	301	307	315	318	348	337	372	4201
2001	427	359	384	374	350	319	316	352	340	352	335	411	4319
2002	389	349	343	321	318	347	309	350	336	332	344	388	4126
2003	402	363	357	334	349	333	326	328	352	366	380	371	4261
2004	403	341	357	376	360	305	320	313	313	352	326	394	4160
2005	351	357	388	345	333	350	309	316	288	300	345	354	4036
2006	366	343	417	360	326	336	351	316	333	353	354	361	4216
2007	404	383	384	341	311	296	300	322	306	339	329	384	4099
2008	404	381	400	344	312	335	327	313	314	311	376	416	4233
2009	460	359	371	344	294	299	304	304	314	337	347	383	4116
2010	406	308	364	317	360	345	295	317	313	329	365	378	4097
2011	404	339	349	349	330	328	286	306	316	312	337	387	4043
2012	369	349	415	384	373	323	336	341	304	323	332	405	4254
2013	415	358	426	381	348	284	347	304	303	327	345	385	4223
2014	395	366	384	344	339	300	346	341	335	359	352	409	4270
2015	470	395	398	351	358	364	303	317	327	381	317	418	4399
2016	404	338	390	345	343	344	333	318	329	364	386	416	4310
2017	453	391	380	323	377	340	346	304	345	368	365	456	4448
2018	511	373	347	0	0	0	0	0	0	0	0	0	1231

3. Metadata for EVENTS

Table Name:	EVENTS
Table Description:	This table gives the linking ID for all the vital event occurrences to a NILS member, or in the case of widowerhoods, their spouse. It currently includes 7 types of events relating to births, deaths, marriages and the introduction of widowerhoods within the JUN2016 download. It will potentially be expanded over time to also include stillbirths, infant deaths, etc. Each NILS member can have many events. Only those with a valid link are included. Those that were expected to be matched but where a match could not be found are excluded.
Source of the Data:	General Register Office (GRO)
Number of Records:	1025635
Currency of the Data:	At each new release of the GRO data more events will be included. There is a significant increase in the number of records from JUN2015 due to the addition of historical births information, from JAN2016 due to the addition of marriage information from 2005 onwards and from JUN2016 with the addition of widowerhood information from 1991 onwards.
Unique Identifier:	NILSID
Tables Linked to:	Via LINKID: Birth of a NILS member – GROBID to BIRTHSSTATS Birth of a baby to NILS member – GROBID to BIRTHSSTATS Death of a NILS member – GRODID to DEATHSSTATS Marriage of a NILS member – GROMID to MARRIAGESSTATS Widowerhood of a NILS member – GRODID to DEATHSSTATS

Variables:		
Variable Name	Variable Description	Variable Values
NILSID	System generated unique reference number for NILS member	
EVENT_TYPE_NAME	Name of event occurrence to NILS member	
EVENT_TYPE_CODE	Coded description to indicate the type of event occurred	BF = Birth to NILS father BM = Birth to NILS mother BB = Birth of NILS baby DL = Death of NILS member BR = Marriage of NILS bride GR = Marriage of NILS groom WH = Widowerhood of NILS member
LINKID	System generated unique reference number for event occurrence to NILS member. Used to link corresponding Births, Deaths and Marriages information tables	Beginning with 'B' = Birth (GROBID) Beginning with 'D' = Death (GRODID) Beginning with 'M' = Marriage (GROMID)

Additional Information for EVENTS

EVENT_TYPE

EVENTS – Table 1 – Number of Events by EVENT_TYPE_NAME	
Event Type	Number Of Events
BIRTH	293812
BIRTH TO NILS DAD	251289
BIRTH TO NILS MUM	283058
DEATH	107736
MARRIAGE BRIDE	27124
MARRIAGE GROOM	25577
WIDOWERHOOD	37039

A birth can be represented 1, 2 or 3 times depending on whether the baby, mother and father are NILS members. A marriage can be represented 1 or 2 times depending on whether the bride and groom are NILS members. A death registration can be represented 1 or 2 times depending on whether the deceased and any potential spouse are NILS members. This figure may increase if infant deaths to NILS members are included.

EVENTS – Table 2 – Unique Birth, Death and Marriage Events	
Event	Records
Number of Birth Event Records	828159
Number of Unique Birth Registrations	625571
Number of Death Event Records	144775
Number of Unique Death Registrations	129231
Number of Marriage Event Records	52701
Number of Unique Marriage Registrations	45436

The probability of the birth having a NILS mum is 0.28, the probability of the birth having a NILS dad is 0.28, and the probability of the baby being a NILS member is 0.28.

The probability of each birth having a NILS mum, dad or baby is 0.627. Therefore approximately 62.7% of published births to Northern Ireland residents should be included in NILS.

The following table shows the number of records for each baby, mum and dad combination.

EVENTS – Table 3 – Combination of NILS Baby, Mum and Dad	
Combination	Records
Baby Only	163219
Mum Only	151665
Dad Only	128303
Baby & Mum (No Dad)	59398
Mum & Dad (No Baby)	51791
Baby & Dad (No Mum)	50991
Baby, Mum & Dad	20204

The probability of the marriage having a NILS bride is 0.28, and the probability of the marriage having a NILS groom is 0.28.

The probability of each marriage having a NILS bride or groom is 0.482. Therefore approximately 48.2% of published marriages to Northern Ireland residents should be included in NILS.

The following table shows the number of records for each bride and groom combination.

EVENTS – Table 4 – Combination of NILS Bride and Groom	
Combination	Records
Bride Only	19859
Groom Only	18312
Bride & Groom	7265

The probability of a death being of a NILS member is 0.28. In the 2011 Census, approximately 38.4% of NILS members were married and so the probability of a death being of a NILS member's spouse is approximately 0.38x0.28 = 0.11.

The probability of each death being of a NILS member or to a NILS member's spouse is 0.359. Therefore approximately 35.9% of published deaths to Northern Ireland residents should be included in NILS.

The following table shows the number of records for each death combination.

EVENTS - Table 5 - Combination of NILS members and their spouse	
Combination	Records
Member Only	97035
Spouse Only	26307
Member & Spouse	10694

4. Metadata for BIRTHSSTATS

Table Name:	BIRTHSSTATS
Table Description:	This gives statistical coded information for birth registrations from 1974 onwards. This information is provided by the informant at the time of birth registration and coded/validated by the teams in GRO and NISRA. For more information on the births data see GRO Births Information.
Source of the Data:	General Register Office (GRO)
Number of Records:	625564
Currency of the Data:	Latest information included for 201612 (YYYYMM). At each new data release more births will be included. There is a significant increase in the number of records from JUN2015 onwards due to the addition of historical births information.
Unique Identifier:	GROBID
Tables Linked to:	Via GROBID: EVENTS

Variables:

See Data Dictionary for descriptions and values of all variables included - Please note there is reduced coverage of variables within historical birth registrations

GROBID	OUTSIDENI	MB	FEMPSTATNEW**
REGYR	SEX*	MARSTATOFPARENTS	MEMPSTATNEW**
REGMONTH	FAGE	DUROFMARR	MOCCCDE*
REGCOUN	MAGE	PREVMARR	FOCCCDE*
REGDIST2014	FCOB_CODED*	SOCIALCL*	MSOCCLASS**
OCCYR	MCOB_CODED*	SOCIALCL01	FSOCCLASS**
OCCMONTH	TOTALPREV	FEMPSTAT*	SOA2001*
HMEADDCO*	TLB	MEMPSTAT*	XUPRN**
POB	TSB	EMPSTAT	
POB05*	MLB	EMPSTATNEW**	

No coverage of this variable for birth registrations from 1974-1996
**No coverage of this variable for birth registrations from 1974-2004*

Additional Information for BIRTHSSTATS

Legal Requirements

Babies born in Northern Ireland must be registered within 42 days of birth.

Who can register a birth?

For married couples either parent can register the birth on their own. However, in the case of a child born to an unmarried couple, the name of the father may only be recorded in the entry of birth if both parents attend and sign the registration together or a declaration of paternity is produced.

The following people may also register the birth:
- Grandparent, uncle or aunt of the baby who has knowledge of the birth
- Any person present at the birth
- Any person having charge of the child
- The occupier of the premises where the baby was born
- District Registrars in Northern Ireland

The following information is required to register a birth:
- A birth registration form filled in by person registering the birth (usually mother)
- Full name of the baby (any language providing any Unicode character is used)
- Sex, date of birth, district and place of birth of the baby
- Full names, dates of birth, addresses and occupations of parents

Declaration of Paternity

An unmarried father who registers the birth of his child jointly with the child's natural mother, and has his name recorded on the birth registration form, will for children born on or after 15 April 2002, acquire parental responsibilities.

DATE OF BIRTH

The following table shows the distribution of date of birth.

| BIRTHSSTATS – Table 1 – Distribution of Births by OCCYR and OCCMONTH													
YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1974	1143	1028	1208	1237	1180	1089	1154	1070	1189	1148	1081	1074	13601
1975	1157	1023	1220	1124	1199	1144	1158	1079	1133	1064	926	1137	13364
1976	1179	1061	1240	1273	1258	1287	1188	1157	1101	1124	1033	1005	13906
1977	1130	1057	1207	1147	1254	1246	1238	1177	1174	1156	1038	1015	13839
1978	1169	1070	1197	1176	1281	1191	1159	1176	1327	1185	1136	1124	14191
1979	1222	1146	1376	1427	1438	1281	1316	1312	1286	1323	1146	1135	15408
1980	1218	1167	1395	1405	1470	1244	1385	1278	1317	1309	1098	1219	15505
1981	1166	1102	1283	1283	1252	1187	1155	1159	1234	1201	1048	1126	14196
1982	1191	1012	1151	1272	1191	1240	1125	1149	1206	1194	1067	1084	13882
1983	1208	1014	1286	1207	1242	1326	1209	1300	1301	1108	1108	1091	14400
1984	1173	1148	1248	1250	1291	1311	1190	1256	1220	1261	1156	1189	14693
1985	1267	1086	1300	1233	1228	1191	1261	1266	1275	1243	1094	1086	14530
1986	1216	1189	1417	1313	1308	1227	1258	1262	1263	1239	1078	1221	14991
1987	1283	1126	1265	1307	1353	1275	1176	1256	1271	1202	1105	1117	14736
1988	1282	1092	1275	1281	1337	1305	1296	1230	1269	1109	1078	1038	14592
1989	1158	1118	1221	1242	1219	1211	1221	1250	1197	1123	1113	1148	14221
1990	1166	1090	1291	1225	1251	1298	1193	1183	1281	1235	1125	1243	14581
1991	1258	1225	1369	1295	1300	1273	1330	1308	1296	1181	1220	1194	15249
1992	1248	1147	1354	1308	1332	1333	1210	1281	1312	1195	1091	1163	14974
1993	1181	1061	1271	1259	1327	1296	1192	1206	1284	1207	1187	1204	14675
1994	1213	1071	1241	1211	1287	1287	1183	1212	1230	1131	1160	1100	14326
1995	1170	1047	1210	1192	1198	1266	1209	1190	1238	1156	1123	1080	14079
1996	1267	1124	1202	1139	1199	1143	1213	1293	1240	1258	1177	1243	14498
1997	1215	1192	1301	1235	1253	1232	1244	1268	1233	1217	1061	1153	14604
1998	1211	1104	1247	1266	1317	1214	1276	1207	1299	1229	1053	1123	14546
1999	1160	1034	1257	1218	1215	1203	1177	1211	1288	1179	1054	1126	14122
2000	1219	991	1111	1062	1180	1146	1151	1167	1161	1109	1020	1142	13459
2001	1129	1030	1123	1133	1073	1172	1152	1204	1173	1161	1103	1053	13506
2002	1050	971	1151	1083	1126	1037	1112	1180	1147	1156	1074	1124	13211
2003	1049	1051	1081	1110	1107	1057	1236	1174	1101	1141	1082	1117	13306
2004	1163	972	1114	1121	1172	1124	1164	1159	1292	1289	1137	1119	13826
2005	1177	1038	1159	1175	1127	1207	1159	1257	1239	1139	1078	1131	13886
2006	1174	1070	1167	1173	1287	1225	1213	1271	1328	1242	1215	1183	14548
2007	1271	1154	1290	1189	1213	1221	1290	1369	1339	1376	1225	1283	15220
2008	1363	1220	1276	1354	1285	1258	1324	1341	1378	1427	1225	1309	15760
2009	1271	1178	1396	1300	1260	1320	1312	1288	1361	1289	1277	1332	15584
2010	1361	1196	1353	1277	1337	1328	1411	1294	1448	1361	1350	1355	16071
2011	1343	1173	1311	1271	1300	1273	1399	1313	1420	1267	1311	1278	15659
2012	1381	1237	1358	1318	1271	1295	1304	1360	1444	1388	1345	1286	15987
2013	1248	1159	1193	1229	1239	1166	1374	1306	1336	1247	1164	1228	14889
2014	1293	1145	1275	1274	1250	1190	1244	1386	1370	1345	1223	1272	15267
2015	1218	1051	1244	1215	1267	1191	1313	1319	1381	1340	1223	1274	15036
2016	1210	1129	1207	1174	1268	1279	1279	1297	1362	1243	1264	531	14243

AGE OF FATHER AND MOTHER (FAGE/MAGE)

The following figures show that the recorded ages of both fathers and mothers when their child is born are normally distributed. The average age of fathers is 31.1, whilst the average age for mothers is 28.4.

BIRTHSSTATS – Figure 1 – Father's Age at Birth of Child
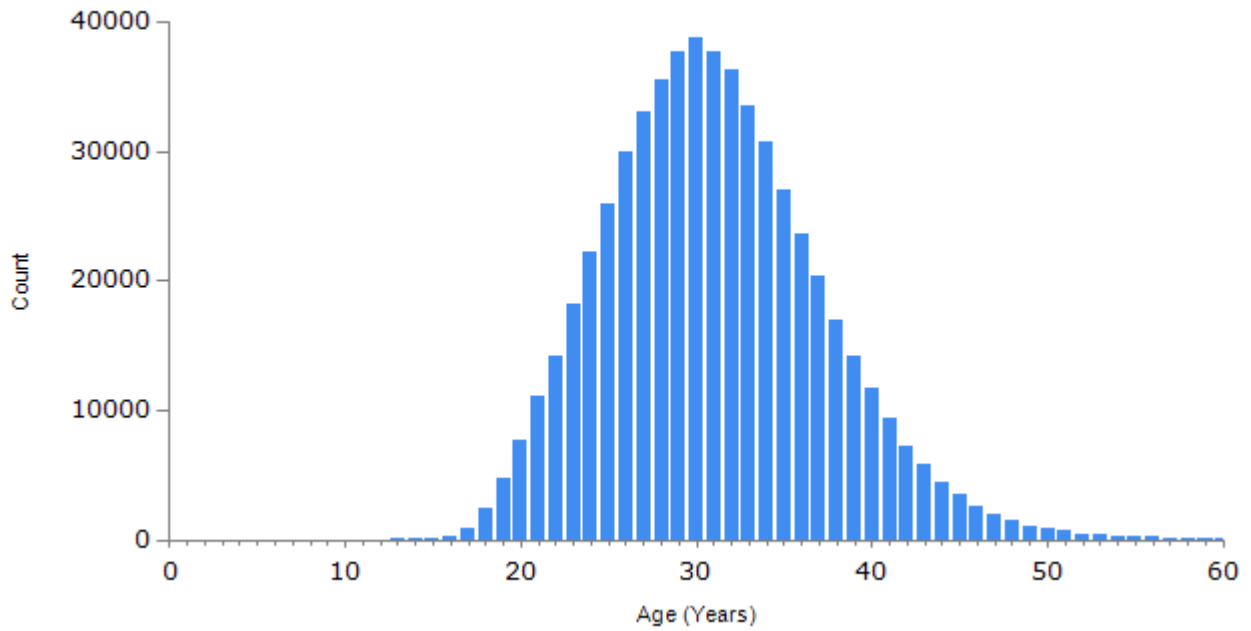
BIRTHSSTATS – Figure 2 – Mother's Age at Birth of Child
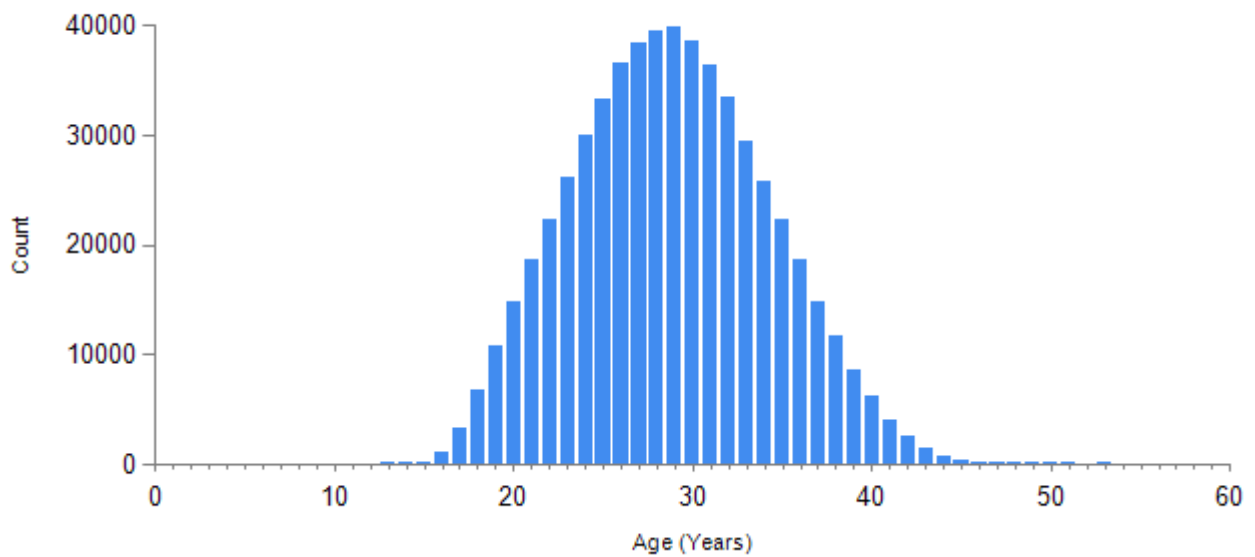
HOME ADDRESS (HMEADDCO)

The following table shows NILS births registered within each district up to December 2014. This information is not available for birth registrations prior to 1997.

BIRTHSSTATS – Table 2 - Distribution of Births by DISTRICT		
District	Records	% Distribution
Antrim	8243	3.1
Ards	9759	3.7
Armagh	8753	3.3
Ballymena	8528	3.2
Ballymoney	4270	1.6
Banbridge	6917	2.6
Belfast	40121	15.2
Carrickfergus	5016	1.9
Castlereagh	8889	3.4
Coleraine	7206	2.7
Cookstown	5158	2.0
Craigavon	14599	5.5
Derry	17460	6.6
Down	9921	3.8
Dungannon	9087	3.5
Fermanagh	8870	3.4
Larne	3777	1.4
Limavady	4739	1.8
Lisburn	16904	6.4
Magherafelt	7249	2.8
Moyle	1970	0.7
Newry & Mourne	16471	6.3
Newtownabbey	11762	4.5
North Down	9592	3.6
Omagh	7512	2.9
Strabane	5748	2.2
NULL	4846	1.8

HOME ADDRESS (HMEADDCO)

The following table shows NILS births registered within each of the new council districts from January 2015 onwards.

BIRTHSSTATS – Table 3 - Distribution of Births by DISTRICT		
District	Records	% Distribution
Antrim and Newtownabbey	2263	7.5
Armagh, Banbridge and Craigavon	2075	6.9
Belfast	5464	18.2
Causeway Coast and Glens	2059	6.9
Derry and Strabane	1477	4.9
Fermanagh and Omagh	1784	6.0
Lisburn and Castlereagh	2219	7.4
Mid and East Antrim	1914	6.4
Mid Ulster	2655	8.9
Newry, Mourne and Down	3140	10.5
North Down and Ards	1289	4.3
NULL	3643	12.2

SEX

The following table shows the number and percentage of births for each gender.

BIRTHSSTATS – Table 4 - Distribution of Births by SEX		
Gender	Records	% Distribution
Male	321043	51.3
Female	304521	48.7

MARITAL STATUS OF PARENTS

The BIRTHSSTATS table includes information on the status of the relationship between parents at birth. The following table shows the distribution of marital status at the time of birth within Northern Ireland.

BIRTHSSTATS – Table 5 - Distribution of Births by MARSTATOFPARENTS		
Marital Status of Parents	Records	% Distribution
Married	489166	78.2
Mother Only	49257	7.9
Mother and Father at same Address	40916	6.5
Mother and Father at different Address	46225	7.4

5. Metadata for DEATHSSTATS

Table Name:	DEATHSSTATS
Table Description:	This gives statistical coded information for death registrations from 1991 onwards. This information is provided by the informant at the time of death registration and coded/validated by the teams in GRO and NISRA.
Source of the Data:	General Register Office (GRO)
Number of Records:	133987
Currency of the Data:	Latest information included for 201612 (YYYYMM). At each new data release more deaths will be included.
Unique Identifier:	GRODID
Tables Linked to:	Via GRODID: EVENTS, XDEATH_DETAILS

Variables:

See Data Dictionary for descriptions and values of all variables included - Please note there is reduced coverage of variables within historical death registrations

GRODID	DTHMNTH	HMEDIST	PLACEOFDEATHCODED
REGDIST	DTHYR	HYPERTENSION*	SEX
REGDIST2014	AGE	ICD10CHAP**	SOA_USRES*
REGMNTH	COUNTRYOFBIRTH**	MAINCAUSE**	SOCIALCLASS
REGYR	COUNTRYOFUSUALRESIDENCE*	MARITAL	SOCIALCLASS01
BRTHMNTH	EMPSTAT	OCCCDE	TYPEOFDT
BRTHYR	EMPSTAT05	OUTSIDENI	TYPEOFDT05

No coverage of this variable for death registrations from 1991-1996
**No coverage of this variable for death registrations from 1991-2001*

Additional Information for DEATHSSTATS

Legal Requirements

In Northern Ireland a death should be registered within five days to allow funeral arrangements to be made. This is with the exception of deaths which have been referred to the coroner. A death can be registered with the registrar in the district in which the person died, or in the district in which the person normally lived, if within Northern Ireland.

A death which occurs in Northern Ireland can be registered by:
- Any relative of the deceased who has knowledge of the details required to be registered (including a relative by marriage)
- A person present at the death
- A person taking care of the funeral arrangement
- The executor or administrator of the deceased's estate
- The governor, matron or chief officer of a public building where the death occurred
- A person living in/responsible for a house/lodging/apartment where the death occurred
- A person finding, or a person taking charge of the body

Most deaths are registered by a relative of the deceased. The registrar would normally only allow one of the others listed to do so if no relatives are available or they cannot be traced.

Information required for registering a death:
- Full name, surname, maiden name (if applicable), date and place of birth of deceased
- Date and place of death and usual address
- Marital status (single, married, widowed or divorced)
- Occupation of the deceased (if the deceased was a wife or widow, the full name and occupation of her husband or deceased husband) will be required
- If the deceased was a child the name and occupation of the father is required, or where parents aren't married the name and occupation of the mother is required
- The name and address of the deceased's GP
- Details of any pension apart from a state pension that the deceased held

DATE OF DEATH

The following tables show distribution of date of death by both year and month.

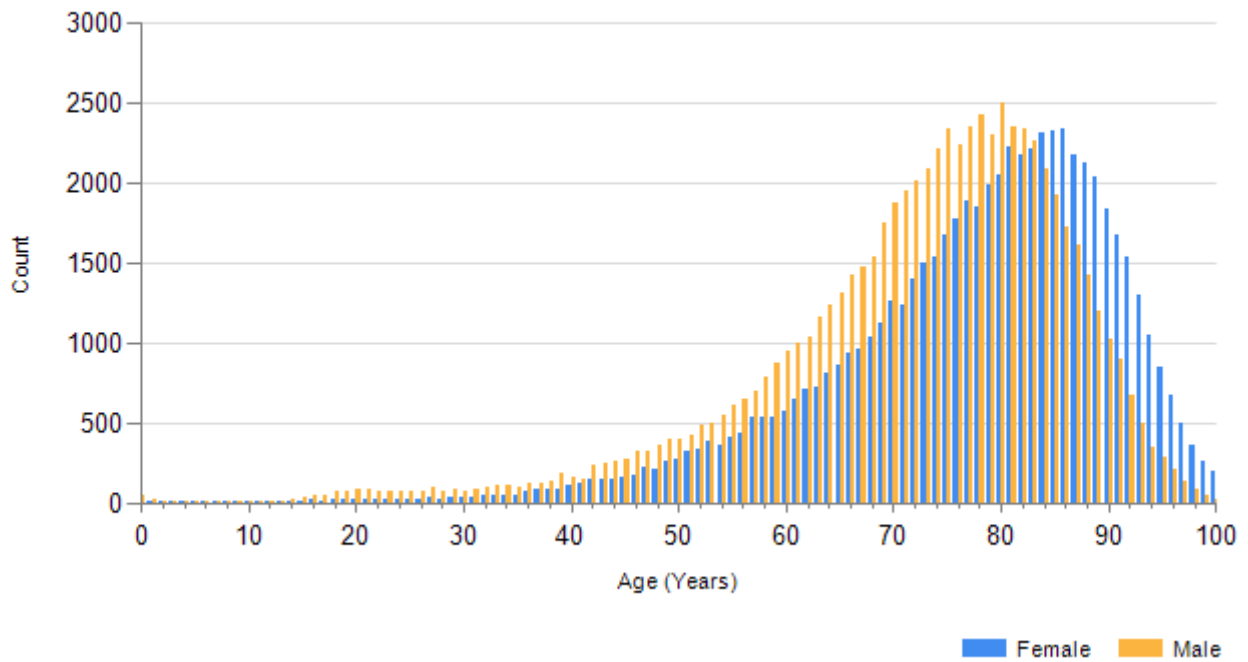| DEATHSSTATS – Table 1 – Distribution of Death by DTHYR and DTHMNTH													
YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1991	466	366	391	357	403	379	373	340	359	381	390	499	4704
1992	493	502	461	365	433	382	428	378	415	434	397	480	5168
1993	458	430	493	490	447	406	409	398	407	434	539	572	5483
1994	507	408	481	436	454	434	452	352	410	440	424	432	5230
1995	503	437	454	444	441	397	398	406	393	413	427	522	5235
1996	543	501	495	390	431	352	410	346	395	408	422	497	5190
1997	578	464	405	376	440	384	458	394	399	381	440	449	5168
1998	486	458	478	454	376	421	420	429	400	421	413	474	5230
1999	634	488	472	388	399	378	456	422	389	392	384	600	5402
2000	610	453	411	410	446	365	390	381	388	429	408	445	5136
2001	502	427	476	454	429	387	388	432	412	433	396	480	5216
2002	462	445	435	393	406	421	392	433	414	415	423	464	5103
2003	497	444	440	402	423	398	407	401	427	461	449	449	5198
2004	487	430	436	459	437	368	403	393	375	434	387	464	5073
2005	427	442	481	428	415	434	378	397	372	372	432	445	5023
2006	461	432	513	442	409	422	426	393	418	414	430	447	5207
2007	507	483	458	421	398	374	392	399	357	428	406	468	5091
2008	501	461	495	435	391	415	407	404	397	396	453	521	5276
2009	549	431	470	418	369	379	379	378	396	428	429	496	5122
2010	498	402	443	368	434	420	370	391	380	424	427	480	5037
2011	496	410	422	416	430	412	363	378	390	403	420	491	5031
2012	486	415	502	479	471	400	420	417	381	405	426	498	5300
2013	477	415	495	449	402	339	407	368	350	416	412	456	4986
2014	462	422	444	421	396	346	406	422	410	426	414	481	5050
2015	566	461	468	420	441	433	384	382	394	451	383	499	5282
2016	485	410	454	420	425	404	417	389	392	426	457	357	5036

AGE AT DEATH

The following figures show the distribution of deaths in Northern Ireland by age and gender. The average age of death is currently 74.3. The average age of death by gender is 72.0 for males and 76.9 for females.

DEATHSSTATS – Figure 1 – Distribution of Death by AGE
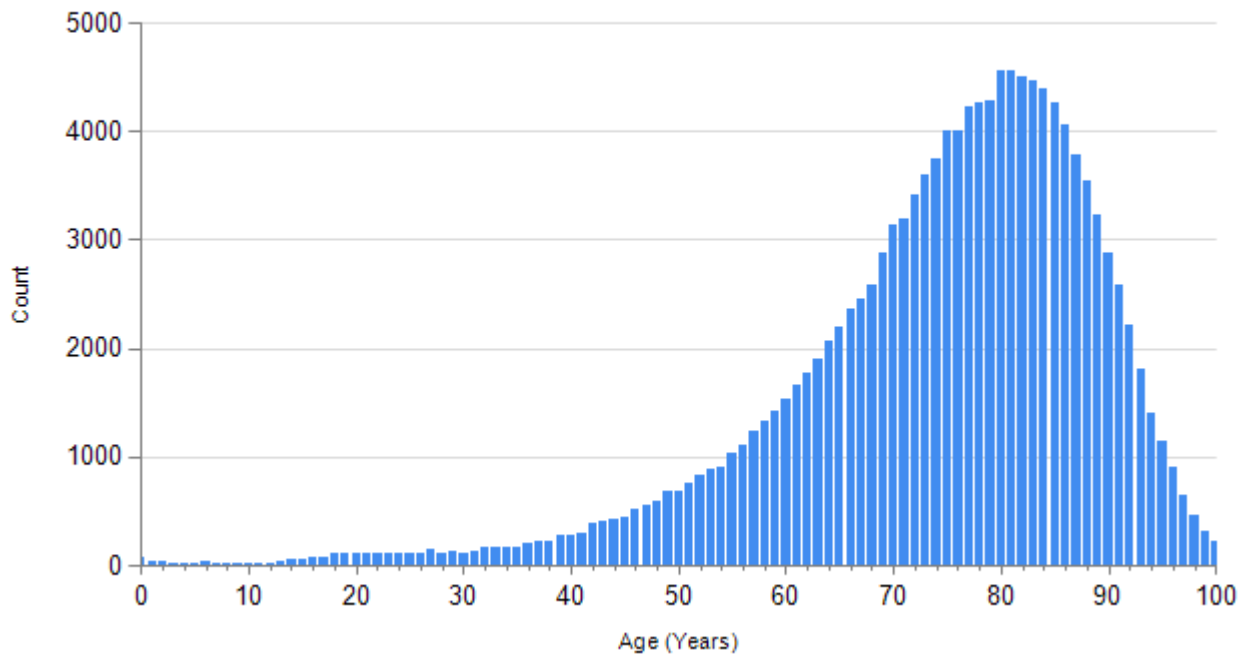
DEATHSSTATS – Figure 2 – Death Distribution by AGE and SEX

6. Metadata for MARRIAGESSTATS

Table Name:	MARRIAGESSTATS
Table Description:	This gives statistical coded information for marriage registrations from 2005 onwards. This information is provided by the informant at the time of marriage registration and coded/validated by the teams in GRO and NISRA.
Source of the Data:	General Register Office (GRO)
Number of Records:	45436
Currency of the Data:	Latest information included for 201612 (YYYYMM). At each new data release more births will be included.
Unique Identifier:	GROMID
Tables Linked to:	Via GROMID: EVENTS

Variables:

See Data Dictionary for descriptions and values of all variables included - Please note there is reduced coverage of variables within historical birth registrations

GROMID	BNATIONALITY	GMARSTAT	COHABITING
REGYR	BMARSTAT	GMARSTAT_CODED	MARRTYPE
REGMNTH	BMARSTAT_CODED	GEMPLDEF	MARRLOCATION
REGDIST	BEMPLDEF	GEMPLSTAT	DENOM_CODED
REGDIST2014	BEMPLSTAT	GSOC	PLACETYPE
EVENTDIST	BSOC	GSOCIALCLASS	VENUE
EVENTDIST2014	BSOCIALCLASS	GRETIRED	BAGEMARR
MARRYR	BRETIRED	BCCOUNTRY_CODED	GAGEMARR
MARRMNTH	GSEX	GCCOUNTRY_CODED	
BSEX	GCOB_CODED	BFCOUNTRY_CODED	
BCOB_CODED	GNATIONALITY	GFCOUNTRY_CODED	

Additional Information for MARRIAGESSTATS

Legal Requirements

Any two people can marry in Northern Ireland provided:

- Both are at least 16 years of age on the day of their marriage – anyone under 18 will need permission from their parent or guardian, or if appropriate a court order to allow their marriage to go ahead
- They are not related to each other in a way which would prevent their marrying
- They are unmarried (any previous marriage must have been ended by divorce, death or annulment)
- They are not the same sex
- They are capable of understanding the nature of a marriage ceremony and of agreeing to marriage

Couples intending to marry in Northern Ireland have a choice of either a religious or civil ceremony. The following information is required to register a marriage:
- Full names, dates of birth, addresses and occupations of bride and groom
- Signatures from you, your partner and 2 witnesses (over 16 years of age)

DATE OF MARRIAGE

The following table shows the distribution of date of marriage.

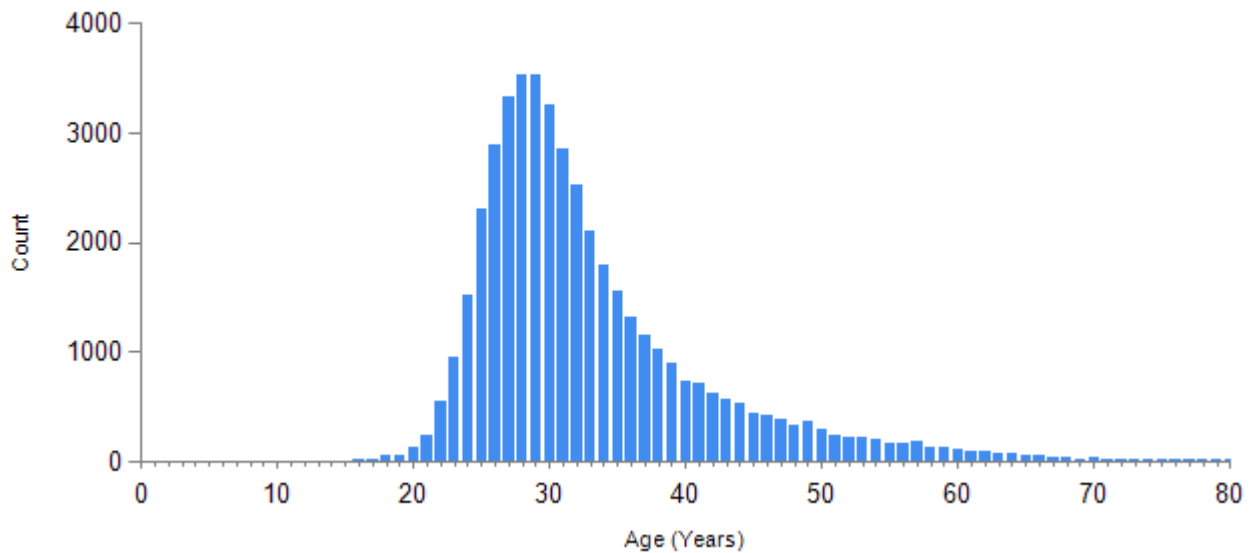| MARRIAGESSTATS – Table 1 – Distribution of Marriages by MARRYR and MARRMNTH												
YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
2005	75	116	191	268	308	406	501	602	505	291	153	233	3649
2006	84	124	159	279	293	439	529	617	570	280	175	226	3775
2007	77	118	207	260	348	496	556	681	531	287	192	222	3975
2008	113	140	264	227	378	410	523	738	465	318	190	227	3993
2009	90	124	141	302	378	395	511	513	430	324	171	210	3589
2010	81	111	173	304	383	413	552	480	443	359	157	247	3703
2011	88	113	167	368	337	468	533	574	461	293	211	237	3850
2012	64	115	203	282	388	484	473	595	457	261	186	271	3779
2013	86	114	203	297	378	410	458	591	409	258	222	238	3664
2014	93	142	195	339	446	410	491	640	439	295	197	221	3908
2015	91	115	190	298	427	386	524	559	452	343	174	238	3797
2016	112	123	225	312	328	411	535	555	454	316	187	177	3735

AGE OF BRIDE AND GROOM

The following figures show that the recorded ages of both brides and grooms at marriage are normally distributed. The average age of brides is 30.9, whilst the average age for grooms is 33.1.

MARRIAGESSTATS – Figure 1 – Bride's Age at Marriage
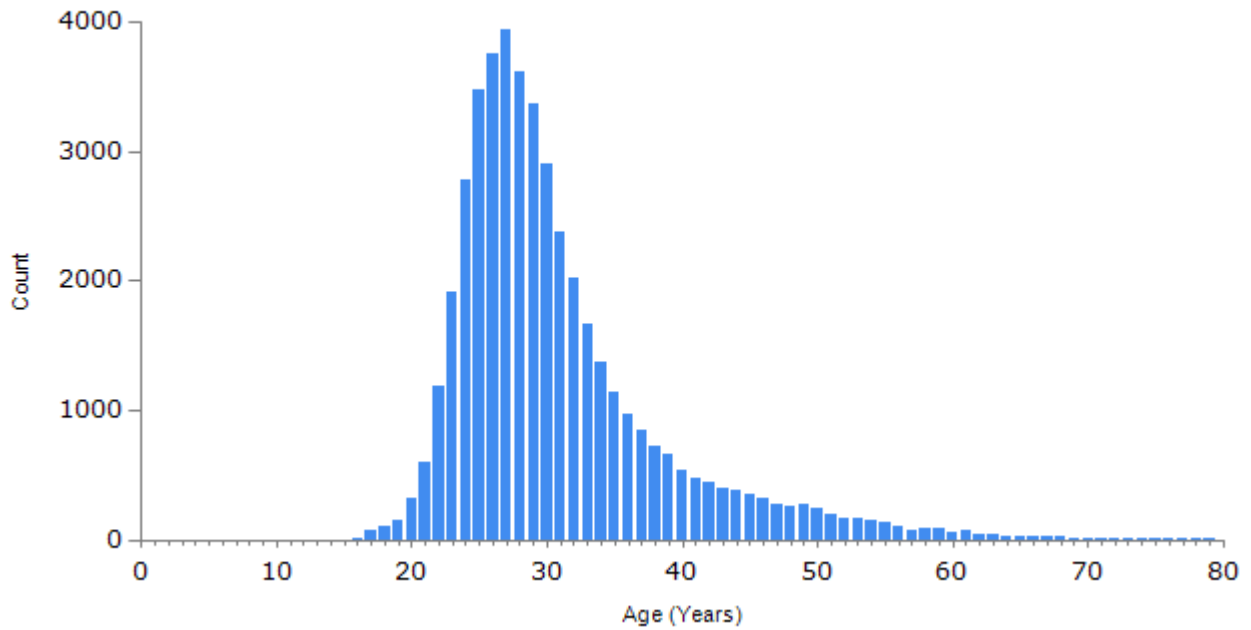
MARRIAGESSTATS – Figure 2 – Groom's Age at Marriage

REGISTRATION DISTRICT

The following table shows NILS marriages registered within each district between January 2005 and December 2014.

MARRIAGESSTATS – Table 2 - Distribution of Marriages by REGDIST		
District	Records	% Distribution
Antrim	1256	2.8
Ards	1254	2.8
Armagh	1550	3.4
Ballymena	2012	4.4
Ballymoney	601	1.3
Banbridge	912	2.0
Belfast	6560	14.4
Carrickfergus	949	2.1
Castlereagh	936	2.1
Coleraine	1428	3.1
Cookstown	1136	2.5
Craigavon	1747	3.8
Derry	2453	5.4
Down	1840	4.0
Dungannon	1488	3.3
Fermanagh	1972	4.3
Larne	614	1.4
Limavady	868	1.9
Lisburn	2301	5.1
Magherafelt	1102	2.4
Moyle	493	1.1
Newry & Mourne	2436	5.4
Newtownabbey	997	2.2
North Down	2598	5.7
Omagh	1339	2.9
Strabane	801	1.8
NULL	3793	8.3

NEW REGISTRATION DISTRICT

The following table shows NILS marriages registered within each of the new districts from January 2015 onwards.

MARRIAGESSTATS – Table 3 - Distribution of Marriages by REGDIST		
District	Records	% Distribution
Antrim and Newtownabbey	358	2.3
Armagh, Banbridge and Craigavon	718	4.6
Belfast	1226	8.0
Causeway Coast and Glens	669	4.4
Derry and Strabane	598	4.2
Fermanagh and Omagh	684	4.0
Lisburn and Castlereagh	449	3.0
Mid and East Antrim	691	4.6
Mid Ulster	665	4.5
Newry, Mourne and Down	841	5.8
North Down and Ards	681	4.5

MARRIAGE TYPE

The following table shows the number and percentage of type of marriage ceremony.

MARRIAGESSTATS – Table 4 - Distribution of Marriages by MARRTYPE		
Marriage Type	Records	% Distribution
Civil	13262	29.2
Religious	32174	70.8

VENUE

The following table shows the number and percentage of marriage for each marriage venue classification.

MARRIAGESSTATS – Table 5 - Distribution of Marriages by VENUE		
Venue	Records	% Distribution
No Information Available	11	0.0
Civil Marriage in Registrar's Office	7145	15.7
Civil Marriage in Approved Venue	6114	13.5
Religious Marriage in a Church	29001	63.8
Religious Marriage Outside a Church (i.e. hotel, castle, etc.)	3165	7.0

7. Metadata for XAGES

Table Name: XAGES

Table Description: This table is a restricted X-file and information will only be provided when sufficient justification for use has been provided during the application process. It shows the calculated age of all NILS members at each bi-annual Health Card Registration data download. Age is only shown if the person is a live member. This is the most consistent form of age and is the only one available for all NILS members.

Source of the Data: Business Services Organisation (BSO) Health Card Registrations

Number of Records: 776666

Currency of the Data: At each new download an additional age variable is created. Within the current table there are 35 age variables included. This table is updated and released every 6 months.

Unique Identifier: NILSID

Tables Linked to: Via NILSID: CORENILSDATA

Variables:

Variable Name	Variable Description	Variable Values
NILSID	Unique Identifier	
AGEATAPR91	Age at Apr 1991	These one-off values are calculated using DOB taken from the Health data. Age ranges from 0 to approximately 110. Missing values occur where the NILS member is not flagged as live
AGEATAPR01	Age at Apr 2001 download	
AGEATOCT01	Age at Oct 2001 download	
..	..	
AGEATOCT17	Age at Oct 2017 download	
AGEATAPR18	Age at Apr 2018 download	

Additional Information for XAGES

XAGES – Table 1 – Average Age At Various Time Points

v2.3	Apr 1991	Apr 2001	Apr 2011	Apr 2018
Average Age	33.5	35.8	37.5	38.9
Total	507731	504747	538620	564059
Total Records	776666	776666	776666	776666

8. Metadata for ADDRESS HISTORY

Table Name:	ADDRESS_HISTORY
Table Description:	Address details of NILS members derived from all Health Card Registration data downloads. One record is added for each person for each download.
Source of the Data:	Business Services Organisation (BSO) Health Card Registrations
Number of Records:	21776399
Currency of the Data:	Latest information included for 201804 (YYYYMM). This table is updated and released every 6 months.
Unique Identifier:	NILSID
Tables Linked to:	Via NILSID: CORENILSDATA
	Via XUPRN: PROPERTIES

Variables:

Variable Name	Variable Description	Variable Values
NILSID	System generated unique reference number for NILS member	
SOURCE	This gives the date of the download that the NILS member first joined	YYYY04 = April download of the given year YYYY10 = October download of given year
CURRENT_FLAG	This indicates whether an address is a current or previous address.	C = Current Address P = Previous Address
CHANGE_TYPE	This is used to identify why an address change occurrence and can also be used to get a summative total of address changes for a NILS member	NC = No address change AC = Address change EM = Emigration RE = Re-Entrant NR = New Record (first occurrence of NILS member)
SOA2001	Super Output Area of the address	890 valid SOA codes NULL = Missing value (Normally invalid postcode)
XUPRN	The Anonymised Property Reference Number	
PREVADD	Reference to Health Download when the NILS member was first identified as residing at the previous address	
PREV_SOA2001	Super Output Area of previous address	
PREV_XUPRN	The Anonymised Property Reference Number of the previous address	

Additional Information for ADDRESS HISTORY

What is an Address Change?

Address changes have been notified to the BSO by the patient, GP or through a data cleansing exercise. Any new address is entered using QuickAddress software and the system automatically updates the date of address change field. The new postcode and/or unique property reference number (UPRN) is stored. An address change on NILS is determined by change in postcode or UPRN.

Quality Assurance

As each new download is loaded onto NILS the migration events are created. The number of address changes may be sent to the BSO for quality assurance.

Data Issues

Some data cleansing of the BSO data may show up as an address change. This data does not pick up moves that occur within a six-month period, for example:
- If someone moves several times between 2 BSO downloads this would only be picked up as 1 move with the address set to the latest BSO download address
- If someone moved out of an address and back into the same address between 2 downloads this would not be recorded on NILS

The BSO changed IT systems from the Central Health Index (CHI) to the NHAIS system in 2005. There is a slight increase in the number of address changes (and hence migration events) at this time as the BSO worked closely with GPs to remove people from their lists who had emigrated and where the BSO had not been notified. BSO also carried out a significant address cleansing exercise during 2011 and 2012, resulting in an inflated number of address changes for both the 201110 and 201204 downloads.

If someone returns to Northern Ireland the Health Card Registration System is searched and the original record is reactivated. In a small number of cases the original record cannot be found and a new Health and Care number is created. NILS matching exercises may link this person to both the old and new numbers and therefore duplicate records are identified. Approximately 15-50 of these occur in every download of the NILS.

Dr Paul Barr has analysed BSO migration data and compared against the 2000-2001 Census Migration Data to look at timing of the migration events. In summary his research has shown that address change (migration) events did happen but there is a delay in notifying the BSO. This differs based on socio-economic characteristics. Therefore caution should be used when analysing the download of the move.

ADDRESS_HISTORY – Table 1 – Number of Address Changes	
Number Of Address Changes	Records
1	184362
2	93292
3	48824
4	24974
5	12686
6	6514
7	3400
8	1864
9	1047
10	1423

SOURCE

The following table gives information on the number of records for each SOURCE variable.

ADDRESS_HISTORY – Table 2 – Distribution of SOURCE		
Year	April	October
2001	573608	578356
2002	583208	588427
2003	593063	598049
2004	603403	608160
2005	548866	555125
2006	561827	568173
2007	575831	582996
2008	589760	596784
2009	602807	608915
2010	614655	620926
2011	627044	632954
2012	638509	644447
2013	650104	655998
2014	662517	668510
2015	674271	680406
2016	686177	692190
2017	698171	703322
2018	708840	0

CHANGE_TYPE

The following table gives details on type of address change.

ADDRESS_HISTORY – Table 3 – Distribution of CHANGE_TYPE		
Description	Change Type	Records
New Record	NR	776666
No Address Change	NC	20091941
Address Change	AC	784164
Emigration	EM	106202
Re-entrant	RE	17426

CURRENT_FLAG

The following table shows the number of current addresses (this should be the same number as the number of records in CORENILSDATA) and previous addresses.

ADDRESS_HISTORY – Table 4 – Distribution of CURRENT_FLAG	
CURRENT FLAG	Records
C	776666
P	20999733

ADDRESS_HISTORY – Table 5 – Distribution of CURRENT_FLAG (Live at Latest Source)	
CURRENT FLAG	Records
C	564059
P	16069309

Note: There are 564059 live records within the latest download

SOA2001

ADDRESS_HISTORY – Table 6 – Coverage of SOA2001			
SOACode	Description	Records	% Distribution
NULL	Missing/Invalid SOA Code	192003	0.9
Valid	Valid SOA Code	21584396	99.1

XUPRN

ADDRESS_HISTORY – Table 7 – Coverage of XUPRN			
XUPRN	Description	Records	% Distribution
Missing	No Property ID Available	1176813	5.4
Included	Valid Property ID	20599586	94.6

9. Metadata for MIGRATION EVENTS

Table Name: MIGRATION_EVENTS

Table Description: Information on migration event occurrences derived from the Health Care Registration System data downloads and in particular, the ADDRESS_HISTORY table. This includes internal migration, immigrants, emigration and information on re-entrants.

Source of the Data: Business Services Organisation (BSO) Health Card Registrations

Number of Records: 983560

Currency of the Data: Latest information included for 201804 (YYYYMM). This table is updated and released every 6 months.

Unique Identifier: NILSID

Tables Linked to: Via NILSID: CORENILSDATA

Variables:

Variable Name	Variable Description	Variable Values
NILSID	System generated unique reference number for NILS member	
DATEMOVED	Date of migration event - This is a proxy for date moved. It is determined by the date BSO is notified and the NILS is updated	
CHANGETYPE	Variable that identifies the type of migration event	AC = Address Change EM = Emigration IM = Immigrant RE = Reentrant
OUTOF_SOA2001	Super Output Area of address moved out of	890 valid SOA codes 'NULL' value includes missing and invalid postcodes
INTO_SOA2001	Super Output Area of address moved into	See OUTOF_SOA2001
OUTOF_XUPRN	Anonymised Property Reference Number of address moved out of	An ID that can be used to link to PROPERTIES table
INTO_XUPRN	Anonymised Property Reference Number of address moved into	See OUTOF_XUPRN
ORDER	The order of the migration event since April 2001	1 is 1st, 2 is 2nd, etc.

Additional Information for MIGRATION EVENTS

How were Migration Events created?

A download of demographic data is taken every six months from the BSO. The address information of the latest download is compared with the previous download using Unique Property Reference Numbers (UPRNs), postcodes and date of address changes from the BSO system. If there has been a change in address, this is recorded as a migration event. There are 4 different types of migration event and all are included in this table. They are distinguished by the CHANGETYPE variable.

MIGRATION_EVENTS – Table 1 – Percentage Distribution of CHANGETYPE	
Change Type	% Distribution
AC	78.2
EM	10.8
IM	9.2
RE	1.8

Address Change

If the person is flagged on the current download as live and was on the previous download as live then the event is classed as an internal migration event and the CHANGETYPE is set to 'AC' (address change). The INTO_SOA2001 and INTO_XUPRN are set to the current address and the OUTOF_SOA2001 and OUTOF_XUPRN are set to the previous address.

Emigration

If the person was previously live and are now flagged as moved out of Northern Ireland then an emigration record is created. CHANGETYPE is set to 'EM'. The OUTOF_SOA2001 and OUTOF_XUPRN are set to the previous address and INTO_SOA2001 and INTO_XUPRN are set to NULL.

Immigration

If the person has not been on the NILS system before (since 2001), or was born on or after 1997 but do not have a birth link created for them, they are treated as an immigration event and the CHANGETYPE is set to 'IM'. The OUTOF_SOA2001 and OUTOF_XUPRN are set to NULL and the INTO_SOA and INTO_XUPRN are set to the current address.

Re-Entrants

If the NILS member has been on the NILS system before but is currently flagged as 'away' their return is treated as a re-entrant event and the CHANGETYPE is set to 'RE'. The OUTOF_SOA and OUTOF_XUPRN are set to the address the NILS member had prior to emigration and the INTO_SOA and INTO_XUPRN are set to the current address.

ORDER

The order is set at each extract and is the rank order of the event. If a NILS member has 5 events they are sorted in date order with the earliest event getting an order of 1 and the latest event getting an order of 5.

TYPE

The following table shows the number of each type of migration event for each six-month period.

MIGRATION_EVENTS – Table 2 – Distribution of CHANGETYPE	
Change Type	Records
AC	769524
EM	106202
IM	90408
RE	17426

MIGRATION_EVENTS – Table 3 – Distribution of CHANGETYPE by DATE										
	April Download					October Download				
Year	AC	EM	IM	RE	Records	AC	EM	IM	RE	Records
2001	0	0	0	0	0	19967	2865	2888	484	26204
2002	20317	3132	1994	419	25862	20272	3533	2191	464	26460
2003	19215	2896	1930	400	24441	20228	2761	2112	415	25516
2004	19427	3867	2417	373	26084	24908	2385	1984	460	29737
2005	12723	4077	3095	370	20265	22366	4907	2894	439	30606
2006	19686	4117	3551	362	27716	24331	2469	3102	536	30438
2007	23953	3557	4031	497	32038	22629	2911	3580	619	29739
2008	20613	4378	3422	469	28882	20813	3109	3353	488	27763
2009	20539	2925	2831	420	26715	21097	2048	2474	602	26221
2010	20273	3405	2430	426	26534	20037	2194	2465	563	25259
2011	19809	3138	2585	405	25937	34178	2846	2419	585	40028
2012	43958	3529	2271	456	50214	25460	2776	2320	545	31101
2013	22248	3682	2405	426	28761	27347	2752	2392	658	33149
2014	25342	3258	2853	586	32039	24672	2563	2566	612	30413
2015	23926	3266	2827	461	30480	23652	2595	2690	543	29480
2016	24921	2912	2691	1060	31584	20723	2686	2477	693	26579
2017	20816	2963	2889	534	27202	20526	2741	1778	567	25612
2018	18552	2959	2501	489	24501	0	0	0	0	0

Note: The dates used are the dates of the download

OUTOF_SOA2001

The following table shows the proportion of records that had an SOA allocated. 'XXXXXX' are those that could not be allocated, most likely because the postcode was missing. '000000' are those where the postcode was valid but the CPD had not allocated an SOA.

MIGRATION_EVENTS – Table 4 – Coverage of OUTOF_SOA2001			
Out Of SOA2001	Description	Records	% Distribution
NULL	Not Required/Not Linked to CPD	102253	10.4
Valid	Valid SOA Code	881307	89.6

The following tables show the number and proportion of records that had an OUTOF_SOA2001 allocated (excluding missing, '00000000' or 'XXXXXXXX' values) for each type of migration event.

MIGRATION_EVENTS – Table 5 – Coverage of OUTOF_SOA2001 by TYPE

Change Type	Out Of SOA2001	Records	% Distribution
AC	759578	769524	98.7
EM	104979	106202	98.8
IM	0	90408	0.0
RE	16750	17426	96.1

MIGRATION_EVENTS – Table 6 – Coverage of OUTOF_SOA2001 by DATE

	April Download		October Download	
Year	Out of SOA2001	% Distribution	Out of SOA2001	% Distribution
2001	0	0.0	22906	98.2
2002	23476	98.4	23875	98.4
2003	22204	98.6	23146	98.9
2004	23325	98.6	27034	97.4
2005	16892	98.4	27267	98.4
2006	23924	99.0	26925	98.5
2007	27726	99.0	25897	99.0
2008	25201	99.0	24171	99.0
2009	23632	98.9	23521	99.0
2010	23880	99.1	22581	99.1
2011	23098	98.9	36763	97.8
2012	47264	98.6	28172	97.9
2013	26158	99.2	29761	96.8
2014	28638	98.1	27596	99.1
2015	27479	99.4	26589	99.2
2016	28347	98.1	24012	99.6
2017	24249	99.7	23653	99.2
2018	21945	99.8	0	0.0

Note: Immigration events are excluded

INTO_SOA2001

MIGRATION_EVENTS – Table 7 – Coverage of INTO_SOA2001

Into SOA2001	Description	Records	% Distribution
NULL	Not Required/Not Linked to CPD	112829	11.5
Valid	Valid SOA Code	870731	88.5

The following tables show the number and proportion of records that had an INTO_SOA2001 allocated (excluding missing, '00000000' and 'XXXXXXXX' values) for each type of migration event.

MIGRATION_EVENTS – Table 8 – Coverage of INTO_SOA2001 by TYPE

Change Type	Into SOA2001	Records	% Distribution
AC	764280	769524	99.3
EM	0	106202	0.0
IM	89635	90408	99.1
RE	16816	17426	96.5

MIGRATION_EVENTS – Table 9 – Coverage of INTO_SOA2001 by DATE

	April Download		October Download	
Year	Into SOA2001	% Distribution	Into SOA2001	% Distribution
2001	0	0.0	23208	99.4
2002	22598	99.4	22794	99.4
2003	21369	99.2	22591	99.3
2004	22015	99.1	27176	99.4
2005	16034	99.0	25557	99.4
2006	23450	99.4	27782	99.3
2007	28191	99.0	26435	98.5
2008	24118	98.4	24409	99.0
2009	23610	99.2	23959	99.1
2010	22921	99.1	22868	99.1
2011	22558	98.9	36906	99.3
2012	46460	99.5	28104	99.2
2013	24679	98.4	30204	99.4
2014	28617	99.4	27769	99.7
2015	27121	99.7	26824	99.8
2016	28120	98.1	23858	99.9
2017	24075	99.3	22832	99.8
2018	21519	99.9	0	0.0

Note: Emigration events are excluded

OUTOF_XUPRN

The following table shows the proportion of records that had a unique property ID allocated (excluding missing or postcode values) for each type of migration event and the time-period of the migration event. A total of 0 records did not have a valid XUPRN. This is for several reasons, including not required (for immigration events) and not assigned.

MIGRATION_EVENTS – Table 10 – Coverage of OUTOF_XUPRN by TYPE

Change Type	Out of UPRN	Records	% Distribution
AC	711294	769524	92.4
EM	97836	106202	92.1
IM	0	90408	0.0
RE	16038	17426	92.0

MIGRATION_EVENTS – Table 11 – Coverage of OUTOF_XUPRN by DATE				
	April Download		October Download	
Year	Out of UPRN	% Distribution	Out of UPRN	% Distribution
2001	0	0.0	21351	91.6
2002	21952	92.0	22395	92.3
2003	20862	92.7	21841	93.3
2004	21998	92.9	24839	89.5
2005	15793	92.0	25524	92.1
2006	22677	93.8	25100	91.8
2007	26196	93.5	24426	93.4
2008	23621	92.8	22735	93.1
2009	22232	93.1	22147	93.3
2010	22526	93.5	21262	93.3
2011	21754	93.2	31469	83.7
2012	44829	93.5	25821	89.7
2013	24019	91.1	25782	83.8
2014	26114	89.5	25352	91.0
2015	25333	91.6	23895	89.2
2016	28133	97.4	23776	98.6
2017	24041	98.9	23580	98.9
2018	21793	99.1	0	0.0

Note: Immigration events are excluded

INTO_XUPRN

MIGRATION_EVENTS – Table 12 – Coverage of INTO_XUPRN by TYPE			
Change Type	Into UPRN	Records	% Distribution
AC	723712	769524	94.0
EM	0	106202	0.0
IM	83079	90408	91.9
RE	16168	17426	92.8

MIGRATION_EVENTS – Table 13 – Coverage of INTO_XUPRN by DATE				
	April Download		October Download	
Year	Into UPRN	% Distribution	Into UPRN	% Distribution
2001	0	0.0	22056	94.5
2002	21440	94.3	21873	95.4
2003	20386	94.6	21099	92.7
2004	20836	93.8	25513	93.3
2005	14233	87.9	23986	93.3
2006	21901	92.8	25827	92.3
2007	26354	92.5	24707	92.1
2008	22283	90.9	22790	92.4
2009	22039	92.6	22395	92.6
2010	21338	92.3	21305	92.4
2011	20848	91.4	35436	95.3
2012	43435	93.0	26063	92.0
2013	23024	91.8	28616	94.1
2014	26685	92.7	26054	93.6
2015	25508	93.7	25349	94.3
2016	27881	97.2	23672	99.1
2017	23956	98.8	22706	99.3
2018	21365	99.2	0	0.0

10. Metadata for CENSUSP_1981

Table Name: CENSUSP_1981

Table Description: This table gives statistical coded person information from the 1981 Census for NILS members with a census link and non-NILS members living in a household with a NILS member. This table only includes the enumerated population. The Census 1981 linkage is based on WARD1984 boundaries and SOA2001_Old which is an approximation of SOA based on a 1km grid-square location. These levels of geography may not be directly comparable to those used within other Census linkages. A Summary Report which details key results of the 1981 Census can be found at: https://www.nisra.gov.uk/publications/1981-census-reports

Source of the Data: 1981 Census

Number of Records: 915482 (340033 NILS members and 575449 other household occupants)

Currency of the Data: Typically static, but a small number of records may be added at each download due to additional matching exercises

Unique Identifier: NILSID

Tables Linked to: Via CENSUSHID8: CENSUSHH_1981

Variables:

See Data Dictionary for descriptions and values of all variables included

NILSID	USADDP8	EMPSTATP8	EDP8
NILS_MEMBERP8	USADD1YAP8	WORKPLACP8	SOA2001_OLDP8
CENSUSPID8	BIRTHPLP8	TRANSP8	HSSBP8
CENSUSHID8	REL1P8	TIMEJOURP8	ELBP8
SEXP8	PRIMECP8	RECTYPEP8	PC1P8
AGEP8	ESTSIZEP8	DWELLINGP8	PC2P8
MARSTATP8	SOCIALP8	DISTRICTP8	HEADHHP8
WHEREP8	SOCGRPP8	WARDP8	MARCPP8

11. Metadata for CENSUSHH_1981

Table Name: CENSUSHH_1981

Table Description: This table gives statistical coded household information from the 1981 census for all NILS members with a census link. This table only includes households within the enumerated population. The Census 1981 linkage is based on WARD1984 boundaries and SOA2001_Old which is an approximation of SOA based on a 1km grid-square location. These levels of geography may not be directly comparable to those used within other Census linkages. A Summary Report which details key results of the 1981 Census can be found at: https://www.nisra.gov.uk/publications/1981-census-reports

Source of the Data: 1981 Census

Number of Records: 227687

Currency of the Data: Typically static, but a small number of records may be added at each download due to additional matching exercises

Unique Identifier: CENSUSHID8

Tables Linked to: Via CENSUSHID8: CENSUSP_1981

Variables:

See Data Dictionary for descriptions and values of all variables included

CENSUSHID8	INWCH8	FUELH8	WARDH8
ROOMSH8	OUTWCH8	INSULH8	EDH8
SHAREH8	WATERH8	CARH8	SOA2001_OLDH8
TENUREH8	SEWAGEH8	NOPERSH8	HSSBH8
BATHH8	HEATH8	DISTRICTH8	ELBH8

12. Metadata for CENSUSP_1991

Table Name: CENSUSP_1991

Table Description: This table gives statistical coded person information from the 1991 Census for NILS members with a census link and non-NILS members living in a household with a NILS member. This table only includes the enumerated population.

Source of the Data: 1991 Census

Number of Records: 1088336 (439560 NILS members and 648776 other household occupants)

Currency of the Data: Typically static, but a small number of records may be added at each download due to additional matching exercises

Unique Identifier: NILSID

Tables Linked to: Via CENSUSHID9: CENSUSHH_1991

Variables:

See Data Dictionary for descriptions and values of all variables included

NILSID	MIGDETP9	SOCCLASSP9	NUTS3P9
NILS_MEMBERP9	MIGDISTP9	SOCCLAS2P9	PARLCONP9
CENSUSPID9	WMHOHP9	ESTSIZEP9	PERSNOP9
CENSUSHID9	COBP9	WKADDCDP9	ECACMARWP9
GENDER1P9	COB1P9	WK_SOA2001P9	MWPTEMPP9
GENDERP9	RELIGIONP9	WK_SOA2001OLDP9	TEN60P9
AGEP9	RELIGN1P9	TRANSPORP9	AMEN60P9
AGE1P9	LTILLP9	FIRQUALP9	NOPER2P9
AGE2P9	IRISHP9	SECQUALP9	NOPERUR2P9
MARITALP9	PRIMARYP9	THIRQUALP9	ESTTYPEP9
MARITAL1P9	SECONDP9	FOURQUALP9	DWELTYPEP9
MARFEMP9	PARTFULLP9	FIFQUALP9	ACCTYPEP9
RELATIONP9	ECONACTP9	SIXQUALP9	ACCDWELP9
HEADHOUSP9	EMPSTATP9	RECTYPP9	TENUREP9
FAMTYPEP9	EMPSTAT1P9	VOCSUBP9	SHARACCP9
WHEREP9	CHECSUPPP9	VOCLEVP9	NOROOM1P9
TOTCHILDP9	NOEARN1P9	DISTRICTP9	DENSITYP9
LYCHILDP9	CURRENTP9	WARDP9	NOCARP9
USADDCP9	OLDJOBP9	SOA2001P9	PENSHOUSP9
TERMCODEP9	HOURSP9	SOA2001_OLDP9	AGECOMBP9
UALYCODEP9	MAJOCCP9	ELBP9	NODECH1P9
MIGTYPE1P9	SOCCODEP9	HSSBP9	PENSCOMBP9

13. Metadata for CENSUSHH_1991

Table Name: CENSUSHH_1991

Table Description: This table gives statistical coded household information from the 1991 census for all NILS members with a census link. This table only includes households within the enumerated population.

Source of the Data: 1991 Census

Number of Records: 297281

Currency of the Data: Typically static, but a small number of records may be added at each download due to additional matching exercises

Unique Identifier: CENSUSHID9

Tables Linked to: Via CENSUSHID9: CENSUSP_1991

Variables:

See Data Dictionary for descriptions and values of all variables included

CENSUSHID9	ESTTYPEH9	NOEARNH9	ELBH9
ACCTYPEH9	NOPERSH9	NOEARN1H9	HSSBH9
NOROOMH9	NOPER2H9	NODECHH9	NUTS3H9
DENSITYH9	NOMALEH9	NODECH1H9	PARLCONH9
NOROOM1H9	NOFEMH9	DWELTYPEH9	SOA2001H9
TENUREH9	NOPERURH9	ACCDWELH9	SOA2001_OLDH9
BATHSHOWH9	NOPERUR2H9	ACCDWEL2H9	SEGCESH9
TOILETH9	NOMALEURH9	SHARACCH9	USADDHHH9
HEATINGH9	NOFEMLURH9	MIGDETH9	GENDERHHH9
WATERH9	FAMTYPEH9	MIGDISTH9	AGEHHH9
SEWAGEH9	PENSHOUSH9	MIGD1H9	MARHHH9
NOCARH9	PENSCOMBH9	DISTRICTH9	COBHHH9
RECTYPEH9	AGECOMBH9	WARDH9	RELHHH9

14. Metadata for CENSUSP_2001

Table Name: CENSUSP_2001

Table Description: This table gives statistical coded information from the 2001 census for NILS members with a census link and non-NILS members living in a household with a NILS member. This table only includes the enumerated population. It also includes some students identified as being away at term time. To filter these out users should use the STU_INDP0 and TTADDP0 fields.

Source of the Data: 2001 Census

Number of Records: 1066684 (457412 NILS members and 609272 other household occupants)

Currency of the Data: Typically static, but a small number of records may be added at each download due to additional matching exercises

Unique Identifier: NILSID

Tables Linked to: Via CENSUSHID0: CENSUSHH_2001, CENSUS01_RELATIONSMATRIX

Variables:

See Data Dictionary for descriptions and values of all variables included

NILSID	CMMNITY_BCKGRNDP0	EDLEV05P0	WP_SOA2001P0
NILS_MEMBERP0	RELUPBRP0	EDLEV06P0	TRVWDISTP0
CENSUSPID0	COBP0	EDLEV07P0	TRVWDISTGROUPP0
CENSUSHID0	ETH_GRPP0	EDLEV08P0	TRV_OAP0
SEXP0	ETHNICITYP0	EDLEV09P0	TRV_PARLP0
WRKPEN_INDP0	GHEALTHP0	EDLEV10P0	TRAVWRKP0
DEPPERSP0	UNPAIDCAREP0	EDLEV11P0	NOHOURSP0
AGEP0	LLTIP0	EDLEV12P0	MGRPP0
MARITALP0	MIGSTATP0	EDLEV13P0	PRSN_TYPP0
LIVARRP0	COUNADD1YRP0	EDQUAL_HIGHP0	POSCOMMP0
STU_INDP0	MIG_OAP0	ACTLWKP0	STUACCP0
TTADDP0	MIG_PARLP0	ECACTP0	HHRPP0
SOAENUMP0	MIG_HBP0	EMPSTATP0	FRPP0
UNDERIRISHP0	MIG_ELBP0	YEARLSTWRKDP0	DEPCHLDP0
SPEAKIRISHP0	MIG_NUTSP0	COMPSIZEP0	FAMSTATP0
READIRISHP0	SOAADD1YRP0	OCCUPP0	GENINFAMP0
WRITEIRISHP0	EDLEV01P0	NSSECP0	SOC90P0
KNOWIRISHP0	EDLEV02P0	INDUSTRYP0	IMPUTEDPERSON_NOT AWAYSTUDENTP0
RELPRACP0	EDLEV03P0	WP_LOCP0	SETTLEMENTBANDP0
RLGNP0	EDLEV04P0	WP_COUNTRYP0	

Imputation Variables:

See Data Dictionary for descriptions and values of all variables included

GENDER_IMPP0	RELG_IMPP0	GHEALTH_IMPP0	EDU_IMPP0
AGE_IMPP0	RELUPBR_IMPP0	UNPAIDCARE_IMPP0	ACTLW_IMPP0
MARITAL_IMPP0	ETHNIC_IMPP0	LLTI_IMPP0	

15. Metadata for CENSUSHH_2001

Table Name: CENSUSHH_2001

Table Description: This table gives statistical coded household information from the 2001 census for all NILS members with a census link. This table only includes households within the enumerated population.

Source of the Data: 2001 Census

Number of Records: 320741

Currency of the Data: Typically static, but a small number of records may be added at each download due to additional matching exercises

Unique Identifier: CENSUSHID0

Tables Linked to: Via CENSUSHID0: CENSUSP_2001
(to get NILS or other household members)

Variables:

See Data Dictionary for descriptions and values of all variables included

CENSUSHID0	ACCTYPEH0	HHWKRSTRANSH0	CEREGSTATH0
SOAENUMH0	SELDCONTH0	HRP_SEXH0	CEAGE_ELDH0
HHSIZEH0	HHROOMS_COUNTH0	HRP_AGEH0	CEAGE_ADH0
HH17PLS_COUNTH0	PERSPERROOMH0	HRP_MARSTATH0	CEAGE_CLHDH0
HHWRKG_COUNTH0	HHROOMSREQH0	HRP_COMMBACKH0	CETYP_PHYH0
HHPEN_COUNTH0	OCCRATH0	HRP_RELH0	CETYP_LDH0
HHADULST_COUNTH0	BATHSHOWH0	HRP_COBH0	CETYP_MHH0
HHDEPCHLDH0	LWST_FLR_LVLH0	HRP_ETHGRPH0	CETYP_CNVH0
HHDEPCHLD_COUNTH0	HHFLRS_COUNTH0	HRP_EDHLQH0	CETYP_DRUGH0
HHSTUHOME_COUNTH0	CENTHEATH0	HRP_ECACTH0	CETYP_TLH0
HHADEMP_COUNTH0	HHCARS_COUNTH0	HRP_OCCH0	CETYP_CIH0
HHPENSH0	OWNERSHIPH0	HRP_SOC90H0	CETYP_AIH0
HHCARERSH0	TENUREH0	HRP_INDH0	CETYP_ELDH0
HHOCCSTATH0	LNDLRDH0	HRP_NSSH0	CETYP_STH0
HHLLTIH0	HHCOMBACKH0	HRP_SOCGRDH0	CETYP_PRSH0
STUAWAYH0	HHETHRELH0	NS_DEP_EMPH0	CETYP_NURSH0
HHCOMPH0	HHETHSTRH0	NS_DEP_EDUH0Q	CETYP_AFH0
HHFAMTYPEH0	HHMIG_INDH0	NS_DEP_HEAH0	CETYP_HMLSSH0
HHADCHLDSTRH0	HHMIG_OAH0	NS_DEP_HOUSH0	CETYP_OTHH0
HHFAM_COUNTH0	HHMIG_PARLH0	NS_DEP_TENH0	CETYP_NOURH0
HHCARERS_COUNTH0	HHMIG_HBH0	CETYP_H0	XUPRN
HHLLTI_COUNTH0	HHMIG_ELBH0	CEMANTYPEH0	
HHPEOPLE_COUNTH0	HHMIG_NUTSH0	CECOMBTYPEH0	

Imputation Variables:

See Data Dictionary for descriptions and values of all variables included

CENTHEAT_IMPH0	CARS_IMPH0	TENURE_IMPH0	

16. Metadata for CENSUS01_RELATIONSMATRIX

Table Name: CENSUS01_RELATIONSMATRIX

Table Description: This table gives statistical coded household information from the 2001 census for all NILS members with a census link. This table only includes households within the enumerated population.

Source of the Data: 2001 Census

Number of Records: 3167478

Currency of the Data: Typically static, but a small number of records may be added at each download due to additional matching exercises

Unique Identifier: CENSUSHID0

Tables Linked to: Via CENSUSHID0: CENSUSP_2001
(to get NILS or other household members)

Variables:

Variable Name	Variable Description	Variable Values
CENSUSHID0	System Generated Unique Reference Number for the Census Household Record	
P1_CENSUSPID0	Person 1 Unique Reference Number	
P2_CENSUSPID0	Person 2 Unique Reference Number	
P2_TO_P1_RELATIONS0	Code indicating how Person 2 is related to Person 1	Values 1-9 = Relationship type A-B = 'Other' relationship X-Y = 'No code required'

Additional Information for CENSUS01_RELATIONSMATRIX

P2_TO_P1_RELATIONS0

CENSUS01_RELATIONSMATRIX – Table 1 – Distribution of Relationship			
Relationship Code	Relationship	Count	% Distribution
1	Husband or Wife	415268	13.1
2	Partner	28052	0.9
3	Son or Daughter	822343	26.0
4	Stepchild	11995	0.4
5	Brother or Sister	828333	26.2
6	Mother or Father	822335	26.0
7	Stepmother or Stepfather	11994	0.4
8	Grandchild	18515	0.6
9	Grandparent	18515	0.6
A	Other Related	45043	1.4
B	Other Unrelated	53007	1.7
X	No code required	92078	2.9

17. Metadata for CENSUSP_2011

Table Name:	CENSUSP_2011	
Table Description:	This table gives statistical coded information from the 2011 census for NILS members with a census link and non- NILS members living in a household with a NILS member. This table only includes the enumerated population. It also includes some students identified as being away at term time. To filter these out users should use the STUDENTP1 and TERMINDP1 fields. People who are not identified as permanent residents of Northern Ireland can be excluded using the INTENTIONP1 field.	
Source of the Data:	2011 Census	
Number of Records:	1088832 (486682 NILS members and 602150 other household occupants)	
Currency of the Data:	Typically static, but a small number of records may be added at each download due to additional matching exercises	
Unique Identifier:	NILSID	
Tables Linked to:	Via CENSUSHID1: CENSUSHH_2011, CENSUS11_RELATIONSMATRIX	

Variables:

See Data Dictionary for descriptions and values of all variables included

NILSID	PSPTELP1	HEACONMHCP1	OCCP1
NILS_MEMBERP1	NATIDBP1	HEACONLTP1	NSSECP1
CENSUSPID1	NATIDIP1	HEACONDBP1	POSITIONP1
CENSUSHID1	NATIDNIP1	HEACONMLP1	INDP1
SEXP1	NATIDEP1	HEACONCIP1	INDEP1
AGEP1	NATIDSP1	HEACONOCP1	INDUSTRY_CODEP1
SCHOOLAGEP1	NATIDWP1	HEACONP1	HOURSP1
PENP1	NATIDOP1	HEALTHP1	WKPLINDP1
PENP01P1	NATIDUSP1	CARERP1	WKPLINTP1
PENEXACTP1	IDENINTP1	QUALS01P1	WPS_ELB_2011P1
WRKAGEP1	IDENUKP1	QUALS02P1	WPS_HSCT_2011P1
ADULTLSP1	ETHP1	QUALS03P1	WPS_HSSB_2011P1
WF65PLP1	ETHFULLP1	QUALS04P1	WPS_LA_CODE_2011P1
AGGMAINLANGPRFP1	RELBTP1	QUALS05P1	WPS_SOA_CODE_2011P1
AGEARRP1	RELBUP1	QUALS06P1	WPS_NUTS3_2011P1
MARSTATP1	RELBTBUIP1	QUALS07P1	TRANSPORTP1
STUDENTP1	MAINLANGP1	QUALS08P1	DCHP1
TERMINDP1	MAINLANGPRFP1	QUALS09P1	ELARP1
STAINDP1	AMAINLANGPRFP1	QUALS10P1	FMSP1
STAP1	AGGMAINLANGP1	QUALS11P1	FRPP1
COBP1	LANGPRFP1	QUALS12P1	HRPP1
MIGORIGP1	ILANUP1	QUALS13P1	LARP1
LRESP1	ILANSP1	QUALS14P1	PTRANSP1
INTENTIONP1	ILANRP1	HLQP1	RLARP1
YRARRP1	ILANWP1	VOLWORKP1	SOC2000P1
CPRP1	USLANUP1	ACTLWP1	GENINFAMP1

YRARR_YEARP1	USLANSP1	ECOP1	RESIDENCE_TYPEP1
YRADINTP1	USLANRP1	ECOCATP1	DTWSPP1
A1YR_HSCT_2011P1	USLANWP1	EMPLYGRPP1	YRADINDP1
A1YR_HSSB_2011P1	IRISH1P1	AGGECOP1	MIGOAPUK11P1
A1YR_LA_CODE_2011P1	IRISH2P1	LOOKWORKP1	YRADOAP1
A1YR_ELB_2011P1	ULSTER1P1	AVAILWORKP1	YRADOA_MIGBABYP1
A1YR_NUTS3_2011P1	ULSTER2P1	WAITWORKP1	MIGWARDPUK11P1
A1YR_SOA_CODE_2011P1	DISABILITYP1	EVERWORKP1	MIGBABY_IND
PSSPUKP1	HEACONDP1	LASTYRWRKP1	IMPUTED
PSSPIP1	HEACONBP1	AGGLASTYRWRKP1	MIGSTATP1
PSSPOP1	HEACONCDP1	UNEMPHISTP1	MIGSTATP1_NOMIGBABY
PSSPNP1	HEACONMDP1	EMPSTATP1	SCHOOL_ID
PSSPRTP1	HEACONLDP1	EMPLOYP1	

Imputation Variables:

See Data Dictionary for descriptions and values of all variables included

SEX_IMPP1	IDENUK_IMPP1	QUALS07_IMPP1	LASTYRWRK_IMPP1
AGE_IMPP1	MAINLANG_IMPP1	QUALS08_IMPP1	EMPSTAT_IMPP1
MARSTAT_IMPP1	LANGPRF_IMPP1	QUALS09_IMPP1	INDUSTRY_CODE_IMPP1
STUDENT_IMPP1	DISABILITY_IMPP1	QUALS10_IMPP1	HOURS_IMPP1
TERMIND_IMPP1	HEALTH_IMPP1	QUALS11_IMPP1	WKPLIND_IMPP1
COB_IMPP1	CARER_IMPP1	QUALS12_IMPP1	WKPLINT_IMPP1
INTENTION_IMPP1	QUALS01_IMPP1	QUALS13_IMPP1	TRANSPORT_IMPP1
YRARR_YEAR_IMPP1	QUALS02_IMPP1	EMPLYGRP_IMPP1	RESIDENCE_TYPE_IMPP1
YRADINT_IMPP1	QUALS03_IMPP1	LOOKWORK_IMPP1	SCHOOL_ID_IMPP1
PSSPRT_IMPP1	QUALS04_IMPP1	AVAILWORK_IMPP1	
PSPTEL_IMPP1	QUALS05_IMPP1	WAITWORK_IMPP1	
IDENINT_IMPP1	QUALS06_IMPP1	EVERWORK_IMPP1	

18. Metadata for CENSUSHH_2011

Table Name: CENSUSHH_2011

Table Description: This table gives statistical coded household information from the 2011 census for all NILS members with a census link. This table only includes households with the enumerated population.

Source of the Data: 2011 Census

Number of Records: 354514

Currency of the Data: Typically static, but a small number of records may be added at each download due to additional matching exercises

Unique Identifier: CENSUSHID1

Tables Linked to: Via CENSUSHID1: CENSUSP_2011 (to get NILS or other household members)

Variables:

See Data Dictionary for descriptions and values of all variables included

CENSUSHID1	AGEGRP24H1	CLIENTS17H1	ILLH1
SIZH1	AGEGRP64H1	CLIENTS18H1	ILLLITTLEH1
HHCH1	AGEGRP65H1	CLIENTS19H1	ILLLOTH1
HH_STRUCTUREH1	AGGETHH1	CLIENTS20H1	MEIGH1
TYPACCOMH1	AHCH1	CLIENTS21H1	MNAGEMNTH1
SELFCONH1	AHTH1	HRPCOBH1	HEACONAH1
ROOMSH1	CEAH1	CRSH1	HEACONH1
NORDH1	CECTMCEWSH1	DEPEDH1	NSSH1
ADAPTWH1	CGHH1	DEPEMH1	NSTAH1
ADAPTPMH1	CLIENTS01H1	DEPHDH1	P17H1
ADAPTVH1	CLIENTS02H1	DEPHSH1	PENH1
ADAPTHH1	CLIENTS03H1	DEPRIVEDH1	PPROOMH1
ADAPTOH1	CLIENTS04H1	DEPTNH1	ROOMREQH1
ADAPT1H1	CLIENTS05H1	DPCH1	STAH1
ADAPT2H1	CLIENTS06H1	EILAH1	TEMPNATUREH1
ADAPT3H1	CLIENTS07H1	ESTNATUREH1	USHC1H1
CENHEATH1	CLIENTS08H1	ETHH1	USHC2H1
TENUREH1	CLIENTS09H1	FAMH1	HHSDH1
TENH1	CLIENTS10H1	FRM_RESP_CHNLH1	EA_ELB_2011H1
TENDH1	CLIENTS11H1	HHLDLANGH1	EA_HSCT_2011H1
LANDLORDH1	CLIENTS12H1	HHLSH1	EA_HSSB_2011H1
CARSNOH1	CLIENTS13H1	IHC1H1	EA_LA_CODE_2011H1
ADEMH1	CLIENTS14H1	IHC2H1	EA_NUTS3_2011H1
ADTH1	CLIENTS15H1	ILAH1	EA_SOA_CODE_2011H1
AGEGRP17H1	CLIENTS16H1	ILLADULTH1	XUPRN

Imputation Variables:

See Data Dictionary for descriptions and values of all variables included

TYPACCOM_IMPH1	ROOMS_IMPH1	TENURE_IMPH1	CARSNO_IMPH1
SELFCON_IMPH1	CENHEAT_IMPH1	LANDLORD_IMPH1	

19. Metadata for CENSUS11_RELATIONSMATRIX

Table Name: CENSUS11_RELATIONSMATRIX

Table Description: This table gives statistical coded household information from the 2011 census for all NILS members with a census link. This table only includes households within the enumerated population.

Source of the Data: 2011 Census

Number of Records: 2959198

Currency of the Data: Typically static, but a small number of records may be added at each download due to additional matching exercises

Unique Identifier: CENSUSHID1

Tables Linked to: Via CENSUSHID1: CENSUSP_2011 (to get NILS or other household members)

Variables:

Variable Name	Variable Description	Variable Values
CENSUSHID1	System Generated Unique Reference Number for the Census Household Record	
P1_CENSUSPID1	Person 1 Unique Reference Number	
P1_NUMBER1	Person 1 Number within Household	
P2_CENSUSPID1	Person 2 Unique Reference Number	
P2_NUMBER1	Person 2 Number within Household	
P2_TO_P1_RELATIONS1	Code indicating Relationship of Person 2 to Person 1	Values 1-13 indicate relationship type

Additional Information for CENSUS11_RELATIONSMATRIX

P2_TO_P1_RELATIONS1

CENSUS11_RELATIONSMATRIX – Table 1 – Distribution of Relationship			
P2 to P1 Code	Relationship	Count	% Distribution
01	Husband or Wife	413996	14.0
02	Same-Sex Civil Partner	356	0.0
03	Partner	46992	1.6
04	Son or Daughter	793483	26.8
05	Stepchild	14724	0.5
06	Brother or Sister	684956	23.1
07	Stepbrother or Stepsister	24854	0.8
08	Mother or Father	793483	26.8
09	Stepmother or Stepfather	14724	0.5
10	Grandchild	20428	0.7
11	Grandparent	20428	0.7
12	Relation - Other	63466	2.1
13	Unrelated	67308	2.3

20. Metadata for PROPERTIES

Table Name: PROPERTIES

Table Description: This table gives the coded information from Land and Property Services POINTER product and valuation lists, of which more information can be found at https://www.nidirect.gov.uk/articles/pointer. This table is based upon all properties listed in the latest available POINTER dataset linked to latest available LPS valuation list where possible.

Source of the Data: Land and Property Services (LPS)

Number of Records: 999834

Currency of the Data: Based on DECEMBER 2016 LPS Data & MARCH 2018 POINTER Data. At each new data release a number of records may be added.

Unique Identifier: XUPRN

Tables Linked to: Via XUPRN: CORENILSDATA, ADDRESS_HISTORY, CENSUSHH_2001, CENSUSHH_2011, MIGRATION_EVENTS

Variables:

See Data Dictionary for descriptions and values of all variables included

XUPRN	HAB_ROOMS	FLOOR	CV_NON_EX3
X_SETTLEMENTBAND	TOTAL_BED	PARKING	CV_NON_EX5
PRIMARY_CLASS	BATHS	GLAZING	CV_NON_EX10
SUB_CLASS	HALF_BATHS	HEATING	
PROP_TYPE	YEAR_BUILT	CV_EX	
ANC_SPACE	STOREYS	CV_NON_EX	

Additional Information for PROPERTIES

Issues

POINTER is a live database supplied by LPS on a monthly basis. Property information is linked to the latest available POINTER download. Work is continually ongoing to try and improve the quality of the data. These improvements may lead to slight changes in locational information across downloads.

CV_NON_EX is the domestic capital value based in 2005. There are currently no plans to change this to a more up to date capital value.

Approximately 95% of records have an XUPRN attached. Approximately 90-95% of property records have detailed property information from the valuation list. This gives about 85% of records with detailed property information

LPS are currently working on improving the link between XUPRN and the valuation list.

http://www.lpsni.gov.uk/index/property_rating.htm

SETTLEMENTBAND

Each property lies within a recorded settlement band. These settlement bands enable researchers to determine whether a property is located within an urban or rural area. Settlement bands A-E reflect urban areas, whilst settlement bands F-H indicate rural areas. The following table shows distribution of properties by urban/rural classification.

PROPERTIES – Table 1 – Distribution by SETTLEMENTBAND		
Classification	Records	% Distribution
RURAL	369168	36.9
URBAN	630666	63.1

SUB-CLASS

The PROPERTIES table gives an indication of the classification of each property, which is recorded as Sub_Class. The table below indicates the top 5 most popular property sub-classes.

PROPERTIES – Table 2 – Distribution by SUB_CLASS		
Sub-Class	Records	% Distribution
Post 1990 Detached	122353	12.2
1966-1990 Terrace	77367	7.7
1966-1990 Detached	77013	7.7
Post 1990 Semi-Detached	70559	7.1
Purpose Built Apartment	69707	7.0

21. Metadata for XDEATH_DETAILS

Table Name: XDEATH_DETAILS

Table Description: This table gives statistical coded information for the main cause of death and other subsequent causes. This provides a summary of preceding cause of death variables and expands on the main cause of death provided within the DEATHSSTATS table. This information is coded/validated by the teams in GRO and NISRA. The content of this table is available through the initial application process on the proviso that appropriate research justification is demonstrated.

Source of the Data: General Register Office (GRO)

Number of Records: 133987

Currency of the Data: Latest information included for 201612 (YYYYMM).

Unique Identifier: GRODID

Tables Linked to: Via GRODID: EVENTS, DEATHSSTATS

Variables		
Variable Name	Variable Description	Variable Values
GRODID	System generated unique reference number for death event	
X_DetailedICD09List	International Classification of Diseases 9th Revision. This classification is used for any death registration prior to 2001.	Alphanumeric coded cause of death (main cause listed first with subsequent causes in the remaining brackets)
X_DetailedICD10List	International Classification of Diseases 10th Revision. This classification is used for any death registration from 2001 onwards.	See X_DetailedICD09List Variable Values

22. Metadata for WEATHER

Table Name: WEATHER

Table Description: This table provides background weather data at 5x5 km resolution which is modelled by the Met Office every ten years. It is linked to the Pointer database based on the 5km grid square which has been translated from the British to Irish grid. Each household on the Pointer database is assigned a range of weather measures which can then be linked to other datasets via XUPRN.
Further information on weather data is available at
http://www.metoffice.gov.uk/climatechange/science/monitoring/ukcp09/download/

Source of the Data: Met Office

Number of Records: 999834

Currency of the Data: JANUARY 1981 to DECEMBER 2010. Average over thirty year period - 1981-2010. Updated every ten years. Last updated April 2012.

Unique Identifier: XUPRN

Tables Linked to: Via XUPRN: CORENILSDATA, ADDRESS_HISTORY, CENSUSHH_2001, CENSUSHH_2011, MIGRATION_EVENTS, PROPERTIES

Variables:

See Data Dictionary for descriptions and values of all variables included

XUPRN	SUNSHINE_XXX	SNOWFALL_XXX	SNOWLYING_XXX
MAXTEMP_XXX	AIRFROST_XXX	GRDFROST_XXX	
RAINDAY1_XXX	MEANTEMP_XXX	MINTEMP_XXX	
HUMIDITY_XXX	RAINDAYS10_XXX	RAINFALL_XXX	

Additional Information for WEATHER

Missing values

There are some grid squares in each data set that do not have values. These are coastal squares for which the centre of the grid square is not located on the land (or is across the border with the Republic of Ireland) and therefore the model does not provide a concentration for. 0.5% of addresses on the Pointer dataset do not have weather attributes assigned. Some of the datasets being linked to may also have missing UPRNs and thus cannot have weather attributes linked to them.

Acknowledgements / Conditions of supply

Please acknowledge the Met Office as source if using this data. The terms and conditions for the use of Met Office data are available at http://ukclimateprojections.metoffice.gov.uk/23476

Met Office data is available for non-commercial uses only. Users should be aware of the following license agreement: http://www.nationalarchives.gov.uk/doc/non-commercial-government-licence/non-commercial-government-licence.htm

23. Metadata for POLLUTION

Table Name: POLLUTION

Table Description: This table provides background pollution data at 1x1 km resolution which is modelled by DEFRA on an annual basis. It is linked to the Pointer database based on the 1km grid square which has been translated from the British to Irish grid. Each household on the Pointer database is assigned a range of pollution measures which can then be linked to other datasets via XUPRN. Further information on pollution data is available at http://uk-air.defra.gov.uk/data/pcm-data

Source of the Data: DEFRA

Number of Records: 999834

Currency of the Data: JANUARY 2001 to DECEMBER 2016. Data updated annually.

Unique Identifier: XUPRN

Tables Linked to: Via XUPRN: CORENILSDATA, ADDRESS_HISTORY, CENSUSHH_2001, CENSUSHH_2011, MIGRATION_EVENTS, PROPERTIES

Variables:

See Data Dictionary for descriptions and values of all variables included

XUPRN	PM2PT5_XXXX	PM10_XXXX	
BENZENE_XXXX	CO_XXXX	NO2_XXXX	
NOX_XXXX	OZONE_XXXX	SO2_XXXX	

Additional Information for POLLUTION

Missing values

There are some grid squares in each data set that do not have values associated with them. These are grid square for which the centre is not located on the land or is across the border with Republic of Ireland. 0.8% of properties on the Pointer dataset do not have pollution attributes assigned. Some of the datasets being linked to may also have missing UPRNs and thus cannot have pollution attributes assigned to them.

Methodology

The models are continually updated and improved and so the methodology often changes each year. The most recent methodology report is for 2013 and can be found on the UK-AIR website. Users should be mindful of these year to year changes when comparing model outputs between years.

Units

Most of the model outputs are annual means, represented in µg m-3. CO concentrations are represented in mg m-3. Specific units and information about the different metrics is provided in the table above.

Updates

The maps are produced over the summer each year and typically the latest updates are checked and approved by the autumn and made available on this website by mid-October.

Acknowledgements

Please acknowledge Defra as source if using this data.

24. Metadata for WEATHER AND POLLUTION

Table Name: WEATHER AND POLLUTION

Table Description: This table contains a lookup of XUPRN to WEATHER ID and POLLUTION ID.

Source of the Data: Met Office and DEFRA

Number of Records: 995816

Currency of the Data: Typically static, but a small number of records may be added at each download due to additional matching exercises

Unique Identifier: XUPRN

Tables Linked to: Via WID: WEATHER
                        Via PID: POLLUTION

Variables

Variable Name	Variable Description	Variable Values
XUPRN	Anonymised Property Reference Number	
WID	Unique Weather ID	
PID	Unique Pollution ID	

25. Metadata for SCHOOL

Table Name:	SCHOOL
Table Description:	This table provides coded school level information which has been drawn from the annual school census exercise carried out by the Department of Education. It is linked to the 2011 Census which included data on travel to place of work or study and subsequently can be linked to the CENSUSP_2011 table using SCHOOL_ID. The information was coded/validated by the teams in DE and Census Office and more information on school enrolment data can be found at https://www.education-ni.gov.uk/articles/school-enrolments-school-level-data
Source of the Data:	Department of Education (DE)
Number of Records:	1,120
Currency of the Data:	School Enrolment data 2010/11. Data will remain static.
Unique Identifier:	SCHOOL_ID
Tables Linked to:	Via SCHOOL_ID: CENSUSP_2011

Variables:

See Data Dictionary for descriptions and values of all variables included

SCHOOL_ID	SCHOOL_IRISH_MEDIUM	SCHOOL_NOPUPILS_SEN	SCHOOL_PTR
SCHOOL_TYPE	SCHOOL_SIZE	SCHOOL_AVAILABLE_SPACES	
SCHOOL_MANAGEMENT	SCHOOL_NOPUPILS_FSM	SCHOOL_ATTENDANCE	

26. Metadata for 2001 PERSON IMPUTATION FLAGS

Table Name:	CENSUSP_2001
Table Description:	This table includes question level imputation flags for all person-level variables
Number of Records:	1066684
Currency of the Data:	Generated for 2001. This data is not updateable.
Unique Identifier:	CENSUSPID0
Tables Linked to:	Via CENSUSPID0: CENSUSP_2001

Variables:

Variable Name	Variable Description	Variable Values
GENDER_IMPP0	Gender	All variables have the same values
AGE_IMPP0	Age	0 = No change
MARITAL_IMPP0	Marital Status	1 = No response (edited/missing)
RELG_IMPP0	Religion	
RELUPBR_IMPP0	Religion of Upbringing	
ETHNIC_IMPP0	Ethnicity	
GHEALTH_IMPP0	General Health	
UNPAIDCARE_IMPP0	Provision of Unpaid Care	
LLTI_IMPP0	Limiting Long-Term Illness	
EDU_IMPP0	Education	
ACTLW_IMPP0	Activity Last Week	

Additional Information for 2001 PERSON IMPUTATION FLAGS

How were they created?

Imputation flags have been created for the NILS. These compare the original scanned response with the basic edit checks completed to the final census database that was used for published outputs and for the NILS variables. Not all variables are included in the original scanned database and therefore imputation flags can only be created for a subset of variables.

The processes in the 2001 Census which may have affected/changed the response to person or household questions are:

1. Edit and Imputation System (EDIS) – See below for further details
2. Record Swapping – A small (undisclosed) percentage of the households had unique IDs swapped

For example GENPUK in original CENSUS_POSTEDIT_PERSON file was compared with DATA3/SEX in the final census database. Where the codes in the 2 files were the same the imputation flag (GENDER_IMPP0) was set to zero. Any change between the 2 files was set to 1. This included those where a valid value was changed and those where a missing value in the original file was changed to a valid value in the final file.

The following table shows the distribution of each of the imputation flags.

2001 IMPUTATION_FLAGS (PERSON) – Table 1 – Distributions

Imputation Flag	Description	Value	Records	% Distribution
GENDER_IMPP0	No change	0	1050206	99.1
	No response (edited/missing)	1	9713	0.9
AGE_IMPP0	No change	0	1031394	97.3
	No response (edited/missing)	1	28525	2.7
MARITAL_IMPP0	No change	0	1044508	98.5
	No response (edited/missing)	1	15411	1.5
RELG_IMPP0	No change	0	913187	86.2
	No response (edited/missing)	1	146732	13.8
RELUPBR_IMPP0	No change	0	1012239	95.5
	No response (edited/missing)	1	47680	4.5
ETHNIC_IMPP0	No change	0	1018894	96.1
	No response (edited/missing)	1	41025	3.9
GHEALTH_IMPP0	No change	0	1038799	98.0
	No response (edited/missing)	1	21120	2.0
UNPAIDCARE_IMPP0	No change	0	1039836	98.1
	No response (edited/missing)	1	20083	1.9
LLTI_IMPP0	No change	0	1006305	94.9
	No response (edited/missing)	1	53614	5.1
EDU_IMPP0	No change	0	995922	94.0
	No response (edited/missing)	1	63997	6.0
ACTLW_IMPP0	No change	0	689466	65.0
	No response (edited/missing)	1	370453	35.0

2001 IMPUTATION_FLAGS (PERSON) – Figure 1 – Distributions
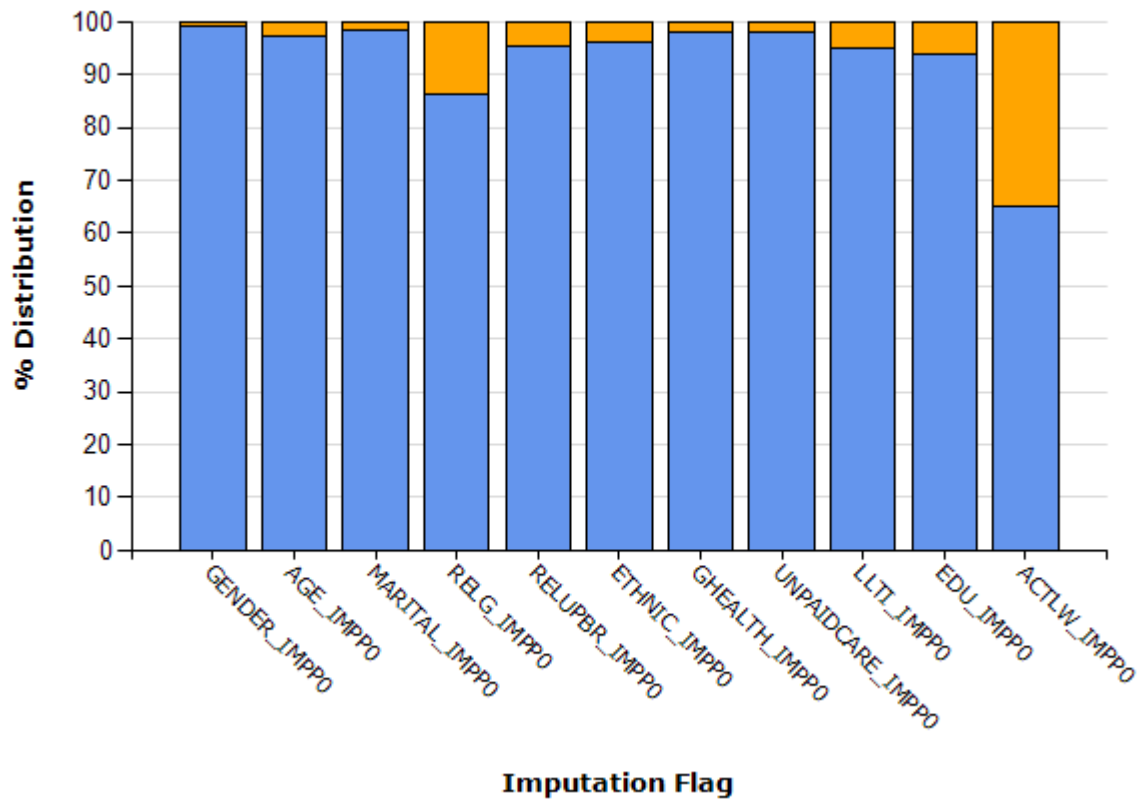
27. Metadata for 2001 HOUSEHOLD IMPUTATION FLAGS

Table Name: CENSUSHH_2001

Table Description: This table includes question level imputation flags for selected household-level variables

Number of Records: 320741

Currency of the Data: Generated for 2001. This data is not updateable.

Unique Identifier: CENSUSHID0

Tables Linked to: Via CENSUSHID0: CENSUSHH_2001

Variables:

Variable Name	Variable Description	Variable Values
CENTHEAT_IMPH0	Presence of Central Heating	All variables have the same values
CARS_IMPH0	Number of Cars	0 = No change
TENURE_IMPH0	Tenure of Household	1 = No response (edited/missing)

Additional Information for 2001 HOUSEHOLD IMPUTATION FLAGS

How were they created?

See Additional Information for 2001 PERSON IMPUTATION FLAGS.

The following table shows the distribution of each of the imputation flags.

2001 IMPUTATION_FLAGS (HOUSEHOLD) – Table 1 – Distributions

Imputation Flags	Description	Variable Value	Records	% Distribution
CARS_IMPH0	No change	0	306563	95.8
	No response (edited/missing)	1	13418	4.2
CENTHEAT_IMPH0	No change	0	310890	97.2
	No response (edited/missing)	1	9091	2.8
TENURE_IMPH0	No change	0	303132	94.7
	No response (edited/missing)	1	16849	5.3

2001 IMPUTATION_FLAGS (PERSON) – Figure 1 – Distributions
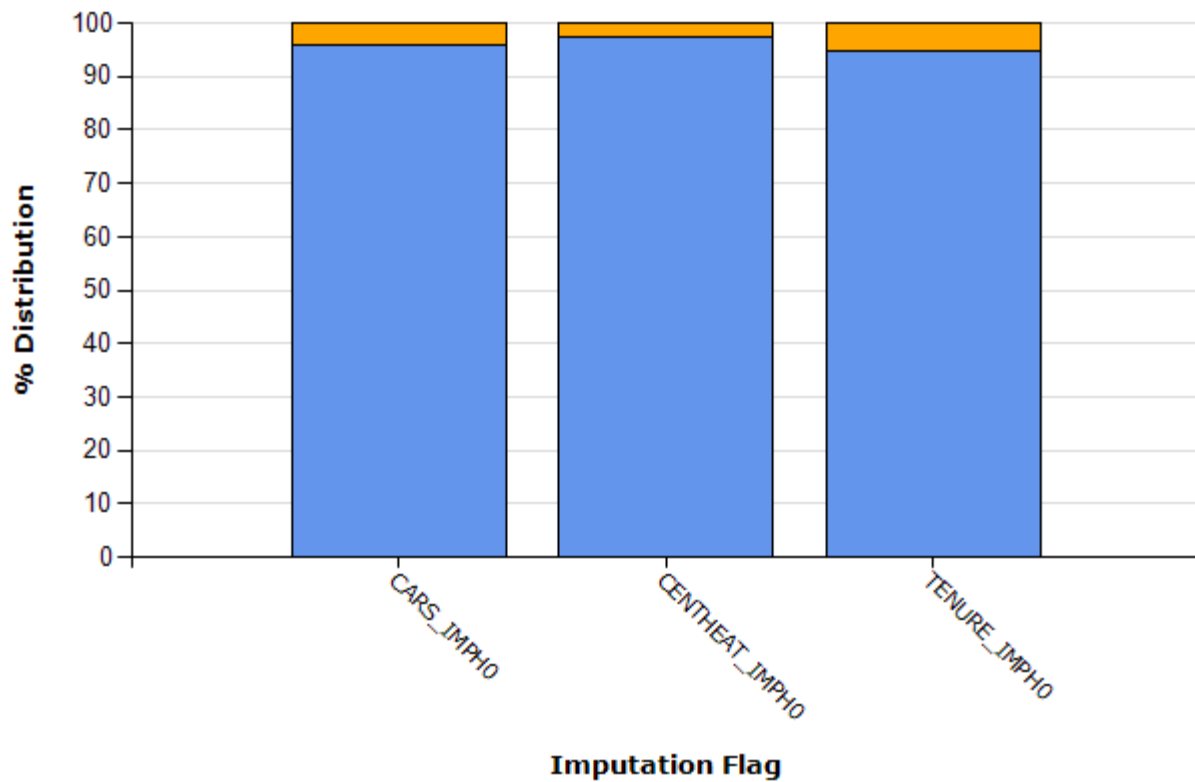
More Detail on Item Imputation in 2001 Census

Although full completion of the census form is a statutory requirement, it is recognised that some census forms will not be fully completed for all questions, and it is impractical to return to each household to insist upon full completion. Further, the completion rate for most questions exceeds 90%.

The Census White Paper (CM 4253, 1999) announced that a system would be developed to impute responses to omitted questions in otherwise completed census forms. This was developed and applied to all questions, with the exception of religion, although it was applied to the derived variable of community background.

The purpose of the census is to produce a statistical portrait of the population, and the sole purpose of item imputation is to ensure that the portrait of the population is as complete and accurate as possible. One major benefit of the use of item imputation is that there is no longer a residual category in census outputs labeled 'Not stated'.

Users generally appear to find this beneficial and seem to be content with the application of item imputation. Accordingly, the use of item imputation was incorporated into the 2001 methodology.

Methodology

The adjustment of census results for respondents who either failed to answer a question, answered inconsistently, or answered incorrectly was made possible using an Edit and Donor Imputation System (EDIS) that was derived for the 2001 Census. The system was created to fill in a number of gaps in the records for enumerated people and households. At a later stage in processing, the database was adjusted using the One Number Census process.

EDIS contained four initial components:
- Multi-tick rules when more than one box was ticked but only one option allowed
- Range checks to prevent answers being outside an acceptable range
- Filter rules to resolve some inconsistencies and to decide which fields should be set to 'No Code Required' where questions were answered but should not have been, and
- Edit rules to deal with missing items or responses which appeared to be in error or inconsistent when compared with other data. Edit either set a specific value or left it to imputation to determine a value.

After the application of these components, the Imputation component was applied. The basis for the Imputation component is to search for a single 'donor' person to supply all the missing variables for a recipient person. The method searched for a donor person who was similar using a number of other census variables. A series of criteria were drawn up to determine what was meant by 'similar'. A suitable selection of variables known as Primary Matching Variables was defined to match on for each missing item. Values were copied from the donor person to fill the missing values on the record of the recipient person.

If more than one suitable donor person was found a donor was selected from a similar household. This was based on the age, sex, marital status and relationship between the people in the household. For the Community Background, Ethnicity, Language, Address one year ago and Country of birth variables, the system also considered the responses given by the rest of the household. If there was still more than one suitable donor the person in the geographically closest household was picked.

A similar method was applied for household variables (e.g. tenure) and people living in communal establishments. If several people in a household had missing responses or some of the responses to the household questions were missing the system tried to select all the donors from the same household in order to preserve household structure.

The application of the EDIS system means that missing responses have been catered for in all Census topics (except a person's current religion). The system was designed to remove bias that would otherwise have been created in the final statistics by missing responses. [Extracted from 2001 Census Methodology Paper]

More detail on Record Swapping

This procedure adds uncertainty to data by swapping the geographical location of a small sample of households with that of another household in the same District Council (or group of District Councils). The procedure was designed such that the integrity of swapped data was not substantially different among key variables from that of unswapped data. The percentage of records swapped and the basis on which they are swapped must remain confidential.

28. Metadata for 2011 PERSON IMPUTATION FLAGS

Table Name: CENSUSP_2011

Table Description: This table includes question level imputation flags for all person-level variables

Number of Records: 1088832

Currency of the Data: Generated for 2011. This data is not updateable.

Unique Identifier: CENSUSPID1

Tables Linked to: Via CENSUSPID1: CENSUSP_2011

Variables:

Variable Name	Variable Description	Variable Values
SEX_IMPP1	Gender	All variables have same values
AGE_IMPP1	Age	0 = No change
MARSTAT_IMPP1	Marital Status	1 = No response (edited/missing)
STUDENT_IMPP1	Student Indicator	
TERMIND_IMPP1	Term-Time Indicator	
COB_IMPP1	Country of Birth	
INTENTION_IMPP1	Intention to Stay	
YRARR_YEAR_IMPP1	Year of arrival	
YRADINT_IMPP1	Country One Year Ago	
PSSPRT_IMPP1	Passport Imputation	
PSPTEL_IMPP1	Passports Held	
IDENINT_IMPP1	National Identity (Country)	
IDENUK_IMPP1	UK National Identity	
MAINLANG_IMPP1	Main Language	
LANGPRF_IMPP1	Language Proficiency	
DISABILITY_IMPP1	Disability	
HEALTH_IMPP1	Health	
CARER_IMPP1	Care	
QUALS01_IMPP1	Qualifications Level 1	
QUALS02_IMPP1	Qualifications Level 2	
QUALS03_IMPP1	Qualifications Level 3	
QUALS04_IMPP1	Qualifications Level 4	
QUALS05_IMPP1	Qualifications Level 5	
QUALS06_IMPP1	Qualifications Level 6	
QUALS07_IMPP1	Qualifications Level 7	
QUALS08_IMPP1	Qualifications Level 8	
QUALS09_IMPP1	Qualifications Level 9	
QUALS10_IMPP1	Qualifications Level 10	
QUALS11_IMPP1	Qualifications Level 11	

QUALS12_IMPP1	Qualifications Level 12
QUALS13_IMPP1	Qualifications Level 13
EMPLYGRP_IMPP1	Employment - In Work
LOOKWORK_IMPP1	Looking for Work
AVAILWORK_IMPP1	Available for Work
WAITWORK_IMPP1	Waiting to Start a Job
EVERWORK_IMPP1	Ever Worked
LASTYRWRK_IMPP1	Year Last Worked
EMPSTAT_IMPP1	Employment Status
INDUSTRY_CODE_IMPP1	Industry of Work
HOURS_IMPP1	Hours Worked
WKPLIND_IMPP1	Workplace/Study Indicator
WKPLINT_IMPP1	Workplace/Study Country
TRANSPORT_IMPP1	Method of Travel to Work
RESIDENCE_TYPE_IMPP1	Residence Type
SCHOOL_ID_IMPP1	School Identifier

Additional Information for 2011 PERSON IMPUTATION FLAGS

How were they created?

A system was used in 2011, similar to that in 2001, to impute responses to omitted questions in otherwise complete Census forms. This was developed and applied to all questions, with the exception of religion although it was applied to the derived variable of community background. Respondents who answered inconsistently or incorrectly had their responses edited.

In addition to completing incomplete returns through item imputation, additional people were imputed, sometimes within existing households, and this may have affected household composition/relationship variables.

As well as this, a small (undisclosed) percentage of the households had their records slightly modified by random record swapping. This involved 'swapping' a sample of records with similar records in other geographical areas.

Imputation flags have been created for a number of variables within the NILS. These compare the original scanned response with the basic edit checks completed (initial extract) to the final census database that was used for published outputs and for the NILS variables. For a small number of variables the edit checks were completed after the initial extract which may result in a higher level of 'edit/imputation'.

The following table shows the distribution of each of the imputation flags.

2011 IMPUTATION_FLAGS (PERSON) – Table 1 – Distributions

Imputation Flag	Description	Records	% Distribution
AGE_IMPP1	No response (edited/missing)	47250	4.3
AVAILWORK_IMPP1	No response (edited/missing)	27213	2.5
CARER_IMPP1	No response (edited/missing)	84715	7.8
COB_IMPP1	No response (edited/missing)	56296	5.2
DISABILITY_IMPP1	No response (edited/missing)	75578	6.9
EMPLYGRP_IMPP1	No response (edited/missing)	47368	4.4
EMPSTAT_IMPP1	No response (edited/missing)	56856	5.2
EVERWORK_IMPP1	No response (edited/missing)	94047	8.6
HEALTH_IMPP1	No response (edited/missing)	62927	5.8
HOURS_IMPP1	No response (edited/missing)	59304	5.4
IDENINT_IMPP1	No response (edited/missing)	3649	0.3
IDENUK_IMPP1	No response (edited/missing)	68579	6.3
INDUSTRY_CODE_IMPP1	No response (edited/missing)	650	0.1
INTENTION_IMPP1	No response (edited/missing)	31039	2.9
LANGPRF_IMPP1	No response (edited/missing)	336037	30.9
LASTYRWRK_IMPP1	No response (edited/missing)	64353	5.9
LOOKWORK_IMPP1	No response (edited/missing)	50919	4.7
MAINLANG_IMPP1	No response (edited/missing)	63723	5.9
MARSTAT_IMPP1	No response (edited/missing)	95415	8.8
PSPTEL_IMPP1	No response (edited/missing)	3153	0.3
PSSPRT_IMPP1	No response (edited/missing)	70944	6.5
QUALS01_IMPP1	No response (edited/missing)	66351	6.1
QUALS02_IMPP1	No response (edited/missing)	66324	6.1
QUALS03_IMPP1	No response (edited/missing)	66357	6.1
QUALS04_IMPP1	No response (edited/missing)	66336	6.1
QUALS05_IMPP1	No response (edited/missing)	66317	6.1

QUALS06_IMPP1	No response (edited/missing)	66333	6.1
QUALS07_IMPP1	No response (edited/missing)	66325	6.1
QUALS08_IMPP1	No response (edited/missing)	66331	6.1
QUALS09_IMPP1	No response (edited/missing)	66319	6.1
QUALS10_IMPP1	No response (edited/missing)	66332	6.1
QUALS11_IMPP1	No response (edited/missing)	66329	6.1
QUALS12_IMPP1	No response (edited/missing)	81497	7.5
QUALS13_IMPP1	No response (edited/missing)	68403	6.3
RESIDENCE_TYPE_IMPP1	No response (edited/missing)	45820	4.2
SEX_IMPP1	No response (edited/missing)	45498	4.2
STUDENT_IMPP1	No response (edited/missing)	88083	8.1
TERMIND_IMPP1	No response (edited/missing)	71241	6.5
TRANSPORT_IMPP1	No response (edited/missing)	198700	18.2
WAITWORK_IMPP1	No response (edited/missing)	23910	2.2
WKPLIND_IMPP1	No response (edited/missing)	472982	43.4
WKPLINT_IMPP1	No response (edited/missing)	87736	8.1
YRADINT_IMPP1	No response (edited/missing)	2763	0.3
YRARR_YEAR_IMPP1	No response (edited/missing)	18372	1.7

2011 IMPUTATION_FLAGS (PERSON) – Figure 1 – Distributions
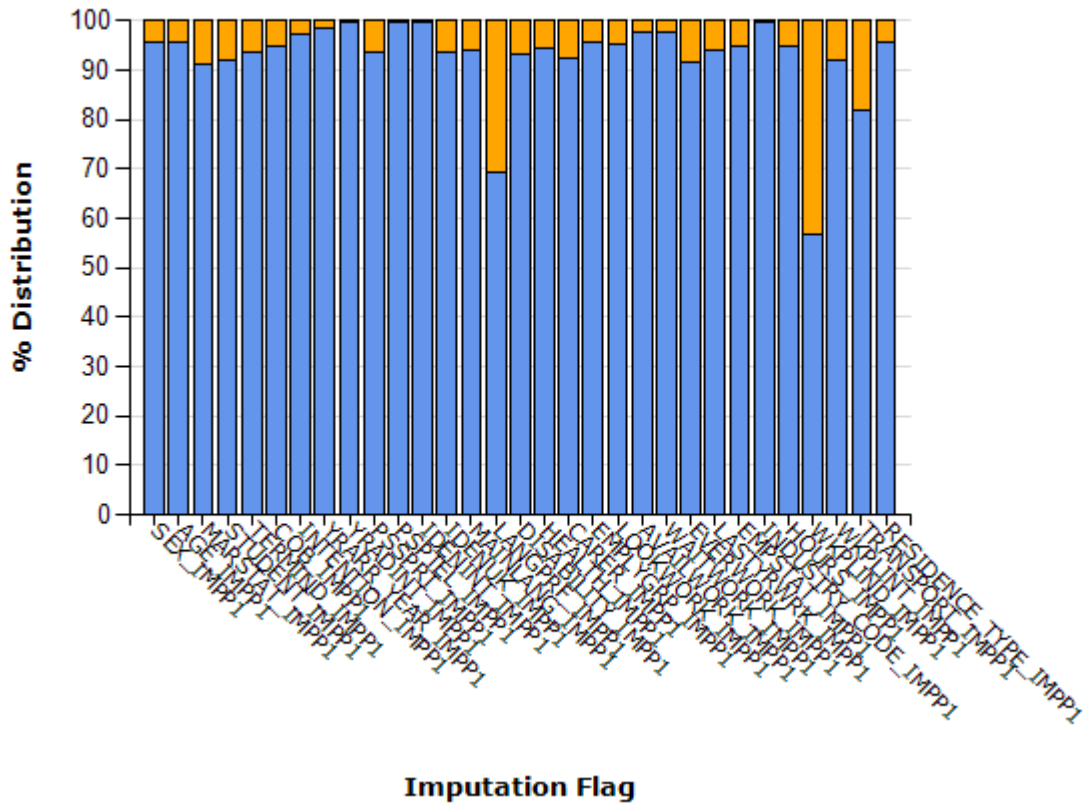
29. Metadata for 2011 HOUSEHOLD IMPUTATION FLAGS

Table Name: CENSUSHH_2011

Table Description: This table includes question level imputation flags for selected household-level variables

Number of Records: 354514

Currency of the Data: Generated for 2011. This data is not updateable.

Unique Identifier: CENSUSHID1

Tables Linked to: Via CENSUSHID1: CENSUSHH_2011

Variables:

Variable Name	Variable Description	Variable Values
CENSUSHID	Census Household ID	
TYPACCOM_IMPH1	Accommodation Type	All variables have the same values
TENURE_IMPH1	Tenure	0 = No change
SELFCON_IMPH1	Self Contained	1 = No response (edited/missing)
ROOMS_IMPH1	Number of Rooms	
LANDLORD_IMPH1	Landlord	
CENHEAT_IMPH1	Central Heating	
CARSNO_IMPH1	Number of Cars/Vans	

Additional Information for 2011 HOUSEHOLD IMPUTATION FLAGS

How were they created?

See Additional Information for 2011 PERSON IMPUTATION FLAGS.

The following table shows the distribution of each of the imputation flags.

2011 IMPUTATION_FLAGS (HOUSEHOLD) – Table 1 – Distributions

Imputation Flags	Description	Variable Value	Records	% Distribution
CARSNO_IMPH1	No change	0	346330	97.7
	No response (edited/missing)	1	8184	2.3
CENHEAT_IMPH1	No change	0	348378	98.3
	No response (edited/missing)	1	6136	1.7
LANDLORD_IMPH1	No change	0	346527	97.7
	No response (edited/missing)	1	7987	2.3
ROOMS_IMPH1	No change	0	346722	97.8
	No response (edited/missing)	1	7792	2.2
SELFCON_IMPH1	No change	0	346614	97.8
	No response (edited/missing)	1	7900	2.2
TENURE_IMPH1	No change	0	346028	97.6
	No response (edited/missing)	1	8486	2.4
TYPACCOM_IMPH1	No change	0	346383	97.7
	No response (edited/missing)	1	8131	2.3

2011 IMPUTATION_FLAGS (PERSON) – Figure 1 – Distributions
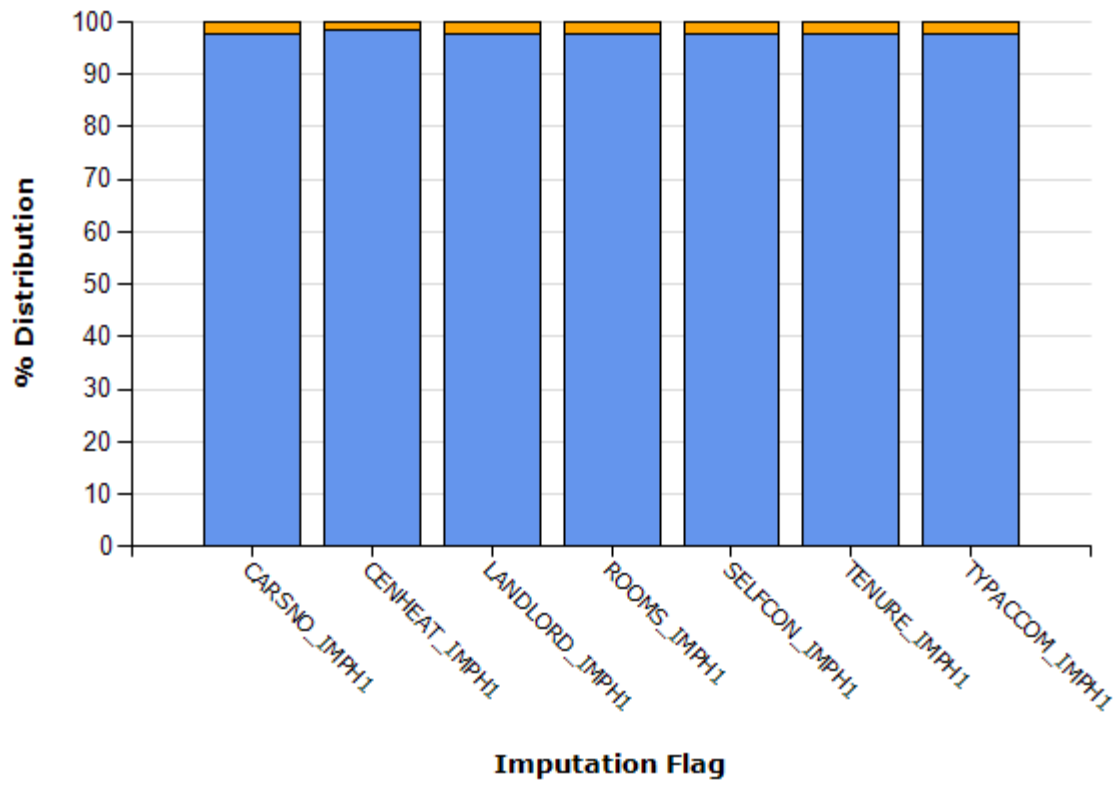
More Detail on Imputation in 2011 Census

Although there is a legal obligation to complete a Census return, a small minority of individuals failed to provide information for all questions, or in some instances provided inconsistent information. As it is NISRA's policy to report estimates for the entire population, imputation was utilised to "fill the gaps" and correct for both non-response and item inconsistency, using information based on recorded Census returns.

Methodology

Item Edit and Imputation was used to correct for inconsistencies and item non-response, ensuring all records were complete and consistent. This strategy used a similar but enhanced version of the framework adopted in 2001. It was undertaken as part of the Downstream Processing (DSP) Project at ONS and was harmonised across the UK.

Prior to imputation, capture and coding rules were applied to the data. Complex coding was used to assign numerical values to written text and tick boxes. Any invalid responses were flagged for imputation. Determinations were made to responses to resolved combinations of tick and text. The data was subject to checks to ensure each question response was within a predefined range. Missing data was also flagged. Reconcile Multiple Responses (RMR) was also used to remove false persons or duplicate persons/households. Filter Rules and Derived Variables for Processing (FRDVP) was used to correct data by applying edits to correct for questionnaire routing errors.

Item Imputation was achieved using Canadian Census Edit and Imputation System (CANCEIS). This is a donor-based edit and imputation system that simultaneously:

- Apply nearest-neighbour donor imputation
- Apply deterministic edits and maintain consistency

Donors were selected based on matching variables. The database was divided up into three geographic units. Each geographic unit was subsequently broken down into household and person imputation. Household questions were imputed within a single module based on similar characteristics. Person imputation was based on 4 modules. The aim here was to group variables that help predict each other, in order to maximise the number of donors for a given group:

- Demographics – age, sex, marital status, student, activity last week
- Culture – ethnicity, country of birth, language, passports
- Health – general health, disability, long-term condition
- Labour Market – economic activity, hours worked, qualifications

These matching variables were weighted according to several factors including how well they would predict other values and how highly they should be prioritised when resolving inconsistencies. For example, as age is often a good predictor of other demographic variables this was given a high weighting, therefore observed ages were prioritised over other values if changes were required. Northings and Eastings were used to control for geographical differences and find donors from similar areas. Each record was checked for consistency before imputation. Any items which failed the checks were marked for imputation along with missing items.

There were 31 edit rules used which were broadly based on 2001. For example, if aged between 5 and 15 then the individual must be in full-time education. Some rules were updated to account for any changes since 2001. For example, there was removal of the rule that did not allow same-sex couples. This was replaced with rules that said married couples should be opposite-sex and civil partners had to be same-sex.

In general, most Item Imputation Rates were reassuringly low. Those for the key demographic variable were very low, while those for health, education and economic questions were only slightly higher. Although rates were higher for some variables, these were regarded as acceptably so and also tended to be relatively high in England and Wales. For example, in the case of 'Workplace/Study Address' respondents may have omitted to tick the correct box and simply entered their work address. Where possible, steps were taken to validate such responses. Similar actions were taken for both Person and Household questions. It should be noted however, that item non-response adjustment was not applied to the religion question.

An ONS paper on the Item Edit and Imputation Process can be found at:
https://www.ons.gov.uk/census/2011census/howourcensusworks/howdidwedoin2011

More detail on Record Swapping

As an additional method of statistical disclosure control, a small percentage of households had their records

slightly modified by random record swapping. Here a sample of records were 'swapped' with similar records in other geographical areas adding an additional level of protection to the data. The percentage of records swapped and the basis on which they are swapped must remain confidential.

30. Meta Data for MATCH_RATES

Births of NILS Members

Match rates for births of NILS members are based upon NILS members born on or after 1st April 1997 and the number of links of General Register Office Birth Registrations from 1974 onwards. Birth year is taken from Health Records and may have some variation to that recorded on the corresponding GRO record. A raw match rate is provided alongside an adjusted match rate to allow for list inflation in the health data (circa 4.4%)

MATCH_RATES – Table 1 – Births of NILS Members				
Year of Birth	Total	Linked to GRO	Raw Match Rate	Adjusted Match Rate
1974	9750	6492	66.6%	69.6%
1975	9351	6191	66.2%	69.3%
1976	9742	6610	67.9%	71.0%
1977	9805	6651	67.8%	71.0%
1978	10234	6753	66.0%	69.0%
1979	10922	7349	67.3%	70.4%
1980	10774	7103	65.9%	69.0%
1981	10454	6944	66.4%	69.5%
1982	10702	7036	65.7%	68.8%
1983	10726	7138	66.5%	69.6%
1984	10869	7540	69.4%	72.6%
1985	10514	7296	69.4%	72.6%
1986	10504	7420	70.6%	73.9%
1987	10314	7468	72.4%	75.7%
1988	10007	7297	72.9%	76.3%
1989	9855	7233	73.4%	76.8%
1990	10029	7493	74.7%	78.2%
1991	9353	7070	75.6%	79.1%
1992	8951	6877	76.8%	80.4%
1993	8767	6835	78.0%	81.6%
1994	8418	6628	78.7%	82.4%
1995	8252	6605	80.0%	83.7%
1996	8286	6806	82.1%	85.9%
1997	7855	6492	82.6%	86.5%

1998	7853	6568	83.6%	87.5%
1999	7820	6564	83.9%	87.8%
2000	7447	6277	84.3%	88.2%
2001	7443	6276	84.3%	88.2%
2002	7077	5898	83.3%	87.2%
2003	7074	5913	83.6%	87.4%
2004	7506	6425	85.6%	89.5%
2005	7353	6340	86.2%	90.2%
2006	7624	6653	87.3%	91.3%
2007	7817	6929	88.6%	92.7%
2008	7747	6950	89.7%	93.8%
2009	7803	7033	90.1%	94.3%
2010	8134	7434	91.4%	95.6%
2011	7695	7092	92.2%	96.4%
2012	7996	7342	91.8%	96.0%
2013	7296	6767	92.7%	97.0%
2014	7187	6750	93.9%	98.2%
2015	7061	6698	94.9%	99.2%
2016	6987	6579	94.2%	98.5%

Note: GRO births data is provided by year of registration and on average consists of 95% of births occurring in the same year with 5% of birth records having occurred in the previous year. Therefore the match rate for the most recent year of birth may be lower than previous years but will increase with inclusion of the next year of GRO birth registration data.

Deaths of NILS Members

Match rates for deaths of NILS members are based upon NILS members who have died on or after April 2001 and number of links of General Register Office Death Registrations from 1991 onwards. Death year is taken from Health Records and may have some variation to that recorded on the corresponding GRO record. A raw match rate is provided alongside an adjusted match rate to allow for list inflation in the health data (circa 4.4%)

MATCH_RATES – Table 2 – Deaths of NILS Members				
Year of Death	Total	Linked to GRO	Raw Match Rate	Adjusted Match Rate
1991	4099	4069	99.3%	103.8%
1992	4208	4142	98.4%	103.0%
1993	4441	4397	99.0%	103.6%
1994	4283	4234	98.9%	103.4%
1995	4293	4246	98.9%	103.5%
1996	4167	4115	98.8%	103.3%
1997	4193	4153	99.0%	103.6%

1998	4246	4175	98.3%	102.9%
1999	4430	4365	98.5%	103.1%
2000	4201	4143	98.6%	103.2%
2001	4319	4210	97.5%	102.0%
2002	4126	4032	97.7%	102.2%
2003	4262	4152	97.4%	101.9%
2004	4163	4040	97.0%	101.5%
2005	4038	3944	97.7%	102.2%
2006	4219	4118	97.6%	102.1%
2007	4102	4015	97.9%	102.4%
2008	4233	4159	98.3%	102.8%
2009	4117	4041	98.2%	102.7%
2010	4098	4040	98.6%	103.1%
2011	4045	3964	98.0%	102.5%
2012	4256	4179	98.2%	102.7%
2013	4224	4164	98.6%	103.1%
2014	4273	4177	97.8%	102.3%
2015	4400	4325	98.3%	102.8%
2016	4311	4085	94.8%	99.1%

Note: GRO deaths data is provided by year of registration and on average consists of 95% of deaths occurring in the same year with 5% of death records having occurred the previous year. Therefore the match rate for the most recent year of death may be lower than previous years but will increase with the inclusion of the next year of GRO death registration data.

Births to NILS Mothers

The expected number of births to NILS Mothers can only be estimated by using a count of mothers in the GRO records having one of the NILS sample birth dates. A match rate can then be calculated by using this estimated total and number of GRO births mother's records linked to NILS members.

MATCH_RATES – Table 3 – Births to NILS Mothers			
Registration Year	Total	Linked to GRO	Match Rate
1974	7512	6043	80.4%
1975	7367	5964	81.0%
1976	7494	6293	84.0%
1977	7237	6108	84.4%
1978	7441	6269	84.2%
1979	7989	6857	85.8%
1980	8098	6894	85.1%

1981	7735	6145	79.4%
1982	7675	5872	76.5%
1983	7767	6246	80.4%
1984	7860	6213	79.0%
1985	7859	6204	78.9%
1986	8020	6519	81.3%
1987	7925	6395	80.7%
1988	7880	6336	80.4%
1989	7402	6079	82.1%
1990	7530	6194	82.3%
1991	7481	7015	93.8%
1992	7274	6965	95.8%
1993	7097	6703	94.4%
1994	6914	6592	95.3%
1995	6798	6570	96.6%
1996	7005	6893	98.4%
1997	6829	6788	99.4%
1998	6798	6754	99.4%
1999	6434	6395	99.4%
2000	6221	6195	99.6%
2001	6305	6228	98.8%
2002	6190	6133	99.1%
2003	6284	6205	98.7%
2004	6494	6378	98.2%
2005	6446	6368	98.8%
2006	6855	6758	98.6%
2007	7179	7097	98.9%
2008	7591	7491	98.7%
2009	7296	7217	98.9%
2010	7395	7303	98.8%
2011	7394	7304	98.8%
2012	7459	7428	99.6%
2013	6927	6897	99.6%
2014	7032	7026	99.9%
2015	7051	7016	99.5%
2016	6904	6835	99.0%

Note: The total number of NILS Mothers from 1974-1996 is based on a sample of 28.5% of the total number of records for that Registration Year due to limited coverage of mother's birth date prior to 1997.

Births to NILS Fathers

The expected number of births to NILS Fathers can only be estimated using a count of fathers in the GRO records having one of the NILS sample birth dates. A match rate can then be calculated by using this estimated total and number of GRO births father's records linked to NILS members.

MATCH_RATES – Table 4 – Births to NILS Fathers			
Registration Year	Total	Linked to GRO	Match Rate
1974	7512	5487	73.0%
1975	7367	5431	73.7%
1976	7494	5621	75.0%
1977	7237	5530	76.4%
1978	7441	5709	76.7%
1979	7989	6213	77.8%
1980	8098	6413	79.2%
1981	7735	5512	71.3%
1982	7675	5369	70.0%
1983	7767	5520	71.1%
1984	7860	5508	70.1%
1985	7859	5399	68.7%
1986	8020	5595	69.8%
1987	7925	5324	67.2%
1988	7880	5343	67.8%
1989	7402	5091	68.8%
1990	7530	5322	70.7%
1991	7481	6283	84.0%
1992	7274	5996	82.4%
1993	7097	5929	83.5%
1994	6914	5727	82.8%
1995	6798	5346	78.6%
1996	7005	5436	77.6%
1997	6193	6102	98.5%
1998	6062	5978	98.6%
1999	5937	5836	98.3%
2000	5588	5453	97.6%
2001	5752	5636	98.0%
2002	5617	5459	97.2%
2003	5604	5434	97.0%

2004	5865	5652	96.4%
2005	5905	5733	97.1%
2006	6156	5965	96.9%
2007	6475	6248	96.5%
2008	6897	6676	96.8%
2009	6606	6415	97.1%
2010	6867	6783	98.8%
2011	6718	6529	97.2%
2012	6824	6674	97.8%
2013	6490	6375	98.2%
2014	6726	6532	97.1%
2015	6633	6497	97.9%
2016	6568	6338	96.5%

Note: The total number of NILS Fathers from 1974-1996 is based on a sample of 28.5% of the total number of records for that Registration Year due to limited coverage of father's birth date prior to 1997.

Marriages to NILS Brides

The expected number of marriages to NILS Brides can only be estimated by using a count of brides in the GRO records having one of the NILS sample birth dates. A match rate can then be calculated by using this estimated total and number of GRO marriage bride records linked to NILS members. A raw match rate is provided alongside an adjusted match rate to allow for brides who have been married in Northern Ireland but have no future intention to stay here (as indicated on marriage registration form).

MATCH_RATES – Table 5 – Marriages to NILS Brides				
Registration Year	Total	Linked to GRO	Raw Match Rate	Adjusted Match Rate
2005	2248	2142	95.3%	100.2%
2006	2355	2261	96.0%	103.5%
2007	2523	2431	96.4%	105.2%
2008	2532	2439	96.3%	105.5%
2009	2251	2152	95.6%	105.1%
2010	2336	2232	95.5%	104.2%
2011	2404	2298	95.6%	103.7%
2012	2356	2221	94.3%	102.6%
2013	2315	2205	95.2%	100.5%
2014	2460	2327	94.6%	100.8%
2015	2424	2260	93.2%	100.1%
2016	2368	2224	93.9%	105.2%

Marriages to NILS Grooms

The expected number of marriages to NILS Grooms can only be estimated by using a count of grooms in the GRO records having one of the NILS sample birth dates. A match rate can then be calculated by using this estimated total and number of GRO marriage groom records linked to NILS members. A raw match rate is provided alongside an adjusted match rate to allow for grooms who have been married in Northern Ireland but have no future intention to stay here (as indicated on marriage registration form).

MATCH_RATES – Table 6 – Marriages to NILS Grooms

Registration Year	Total	Linked to GRO	Raw Match Rate	Adjusted Match Rate
2005	2326	2067	88.9%	93.7%
2006	2323	2133	91.8%	97.8%
2007	2466	2209	89.6%	98.0%
2008	2414	2200	91.1%	99.0%
2009	2210	1992	90.1%	98.2%
2010	2288	2046	89.4%	97.7%
2011	2375	2136	89.9%	98.5%
2012	2420	2170	89.7%	97.1%
2013	2344	2127	90.7%	97.5%
2014	2497	2230	89.3%	96.4%
2015	2375	2136	89.9%	96.2%
2016	2424	2185	90.1%	100.4%

Widowerhoods of NILS Members

The expected number of widowerhoods of NILS members can only be estimated by taking a sample of 28.5% of the total number of deaths from the General Register Office Death Registrations. These deaths will have occurred after 21st April 1991 (Census date) and relate to individuals who have been recorded as married. A match rate can then be calculated by using this estimated total and the number of NILS members that link to a Northern Ireland Census (1991, 2001 or 2011) who had a partner that died according to the Northern Ireland Mortality Study (NIMS). A raw match rate is provided alongside an adjusted match rate to account for Census person imputation.

MATCH_RATES - Table 7 - Widowerhoods of NILS Members

Year of Death	Total	Linked to GRO	Raw Match Rate	Adjusted Match Rate
1991	1129	875	77.5%	77.5%
1992	1721	1457	84.7%	84.7%
1993	1756	1504	85.6%	85.6%
1994	1690	1385	82.0%	82.0%
1995	1685	1413	83.9%	83.9%
1996	1652	1439	87.1%	87.1%
1997	1640	1388	84.6%	84.6%
1998	1648	1489	90.4%	90.4%
1999	1680	1463	87.1%	87.1%
2000	1567	1399	89.3%	89.3%

2001	1542	1444	93.6%	98.2%
2002	1576	1482	94.0%	98.6%
2003	1574	1496	95.0%	99.6%
2004	1559	1477	94.7%	99.3%
2005	1522	1502	98.7%	103.3%
2006	1562	1508	96.5%	101.1%
2007	1579	1479	93.7%	98.3%
2008	1572	1517	96.5%	101.1%
2009	1518	1507	99.3%	103.9%
2010	1566	1416	90.4%	95.0%
2011	1547	1529	98.8%	103.6%
2012	1606	1587	98.8%	103.6%
2013	1592	1287	80.8%	85.6%
2014	1594	1290	80.9%	85.7%
2015	1652	1342	81.2%	86.0%
2016	1617	1369	84.7%	89.5%

NILS Members to Census

Census 2001 & Census 2011
For the 2001 and 2011 Census to Health linkages the expected number of NILS members was estimated using a count of records within the April 2001 and April 2011 BSO downloads respectively, where current status indicated the individual to be 'live'. The number of live records was adjusted for list inflation and imputation (see Table 9) to give the maximum number of records expected to be linked. A match rate was calculated using this estimated total and number of Census records linked to NILS members.

Census 1991
For the 1991 Census, using an average of the 2001 and 2011 proportions, an estimate of the number of expected eligible NILS members based on the total Census count was produced. Again, this number has been adjusted for list inflation, however unlike 2001 and 2011, there is no estimated enumeration undercount which needs to be factored into the overall match rate calculation.

MATCH_RATES – Table 8 – NILS Members to Census			
Census	Total	Linked to Census	Match Rate
2011	490760	486711	99.2%
2001	457886	457470	99.9%
1991	448096	439593	98.1%

List Inflation and Imputation

List inflation can be caused by population movement without GP knowledge e.g. people emigrating, migrants returning home and deaths of residents outside the jurisdiction. Another identified causation is non-entitled users such as Republic of Ireland residents accessing Northern Ireland health services.

Person Imputation was carried out as part of both the 2001 and 2011 Census. These imputed records cannot be matched to NILS data as they do not have any of the key demographic information to enable matching.

Rates for list inflation and person imputation for each of the Censuses are given below.

MATCH_RATES – Table 9 – Adjustment Rates for List Inflation & Person Imputation		
Census	List Inflation	Person Imputation
2011	4.1%	4.8%
2001	4.7%	4.6%
1991	4.7%	N/A

Census 1981

For the 1981 Census linkage, 1991 Census information was used to estimate the number of expected eligible NILS members who were live in 1981. As the Health Card data was not used as the spine in this instance of matching, list inflation is not an issue. There was also no estimated enumeration undercount in the 1981 Census to factor into the overall match rate calculation. As this match method is not directly comparable to the matching used within the other Census linkages, backwards linkage figures have also been created for the 1991 and 2001 Census linkages for comparison purposes.

MATCH_RATES – Table 10 – Backward Linkage Comparisons			
Census	Members Identified in Subsequent Census	Members Linked	Match Rate
1981	364,818	314,151	86.1%
1991	390,452	354,016	90.7%
2001	422,175	370,417	87.7%

31. Document Version Control

Version:	Changes Made:	Made by:
V1.1	RSU comments taken into consideration	Maire
	Finalisation of all tables and creation of database	Maire
V1.2	Updated for new data release	Daryll
V1.3	Updated for 2011 link release (beta-test version)	Maire
V1.31	Updated with values for 2011 link release (beta-test version)	Maire
V1.32	Updated with values for 2011 link release (final version)	Andrew
V1.4	Updated for new data release	Shannon
V1.5	Metadata information reviewed	Shannon
V1.51	Updated for 1991 full-link release	Shannon
V1.6	Updated for 1981 link and historical births data release	Shannon
V1.7	Updated for new data release with MarriagesStats data	Sinead
V1.8	Updated for widowerhoods and migration variables.	Sinead
V1.9	Updated to add WEATHER and POLLUTION tables. Full review of Metadata.	Glynn/Catherine
V2.0	Summer 2017 Updated for NILS Release. Review metadata.	Catherine
V2.1	November 2017 Updated to include School Data. Full review of metadata.	Glynn/Catherine
V2.2	February 2018 Information update.	Glynn/Catherine
V2.3	July 2018 Information update	Colm/Catherine