



**An Phríomh-Oifig Staidrimh**  
Central Statistics Office

# **Census of Population of Ireland 2016**

## **Place of Work, School or College**

### **Census of Anonymised Records (POWSCAR)**

#### **User Guide**

<b>Contents</b>	<b>Page</b>
1 CENSUS 2016 .....	3
1.1 COVERAGE OF THE CENSUS .....	3
1.2 CONDUCT OF THE CENSUS .....	3
1.3 PRODUCTION OF RESULTS .....	3
1.4 PLACE OF WORK, SCHOOL OR COLLEGE CENSUS OF ANONYMISED RECORDS (POWSCAR) .....	4
1.5 APPLICATION TO USE 2016 POWSCAR .....	4
1.6 FURTHER INFORMATION .....	4
2 POWSCAR SCOPE .....	5
2.1 PLACE OF WORK, SCHOOL OR COLLEGE CODING .....	5
2.2 ANONYMISATION AND RECODING .....	6
3 POWSCAR STRUCTURE AND CONTENT .....	6
3.1 DATA MINIMISATION .....	6
TABLE 1 - DETAILS OF POWSCAR VARIABLES .....	8
APPENDIX 1 - LINK TO 2016 CENSUS QUESTIONNAIRE .....	17
APPENDIX 2 - CENSUS 2016 PUBLICATION SCHEDULE .....	18

# 1 Census 2016

A Census of Population was taken on the night of Sunday, 24 April 2016, in accordance with the Statistics Act 1993 and the Statistics (Census of Population) Order 2015 (S.I. No. 445 of 2015)<sup>1</sup>.

A link to the census questionnaire is provided in Appendix 1.

## 1.1 Coverage of the Census

The census figures relate to the *de facto* population i.e. the population recorded for each area represents the total of all persons present within its boundaries on the night of Sunday, 24 April 2016, together with all persons who arrived in that area on the morning of Monday, 25 April 2016, not having been enumerated elsewhere. Persons on board ships in port are included with the population of adjacent areas. The figures, therefore, include visitors present on Census Night as well as those in residence, while usual residents temporarily absent from the area are excluded.

The date of the census was chosen to coincide with a period when passenger movements were at a minimum and, consequently, the figures closely approximate to those for the normally resident population. Members of the Defence Forces who, on Census Night, were serving abroad with the United Nations were excluded from the enumeration.

## 1.2 Conduct of the Census

A temporary field force consisting of 6 Census Liaison Officers, 44 Regional Supervisors, 430 Field Supervisors and some 4,663 part-time Enumerators carried out the census enumeration. During the four weeks before Census Night the enumerators entered details in respect of 2 million private residences and communal establishments in their enumerator record books. They simultaneously delivered blank census questionnaires to 1.7 million of these dwellings that were expected to be occupied on Census Night. Approximately 250,000 residences were vacant at the time of the census, while in the remaining cases the household was either enumerated elsewhere or temporarily absent from the State. The collection of completed questionnaires took place between Monday 25 April and Sunday 22 May, 2016.

**The Central Statistics Office (CSO) wishes to record its appreciation of the public-spirited co-operation received from households and the dedication and commitment displayed by the census field force.**

## 1.3 Production of Results

Each enumerator first prepared and returned to the CSO a summary of the population of his/her enumeration area. These summaries formed the basis for the preliminary 2016 census results published in July 2016. The completed questionnaires for individual households were subsequently transported to the CSO for processing. The population summaries, dwelling listings and enumeration maps for individual enumeration areas were checked for consistency and used to determine the boundaries of census towns and suburbs. The capture and processing of the responses to questions on the questionnaires proceeded concurrently.

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<sup>1</sup> The Statistics (Census of Population) Order 2015 was made by An Taoiseach in pursuance of powers conferred on him by section 25 (1) of the Statistics Act 1993 (No. 21 of 1993).

## **1.4 Place of Work, School or College Census of Anonymised Records (POWSCAR)**

Anonymised census records relating to persons at work and students who were enumerated and usually resident in Ireland are available to bona fide researchers for the purposes of research on commuting patterns etc. Where the application is granted the researcher will be signed up as an Officer of Statistics. POWSCAR is described in Sections 2 and 3.

## **1.5 Application to use 2016 POWSCAR**

POWSCAR data is only available to bona fide researchers who are approved by CSO and signed up as Officers of Statistics. All appointments as an Officer of Statistics are for one year. Should the research require, a new application can be made for additional period(s) of one year. **All material proposed for publication which has been derived from POWSCAR must be approved in advance by CSO.**

Application to access POWSCAR microdata must be made using the Research microdata application forms on the CSO website. Where the application is approved all researchers accessing the data will be required to undertake training, sign a declaration making them Officers of Statistics under the Statistics Act 1993 and agree to be bound by the confidentiality provisions of the Act. There are severe penalties under the Act for divulging confidential data. See <http://www.cso.ie/en/aboutus/descriptionsandfunctions/statisticsact1993/>

Applications which require access to the restricted variables (see section 3.1 below) should include a covering document outlining why the variable(s) are required for the research project.

Completed application forms should be marked "POWSCAR Application" and posted to the address below.

## **1.6 Further information**

For further information on the data content contact:

Census Enquiries Section,  
Central Statistics Office,  
Swords Business Campus,  
Balheary Road,  
Swords,  
Co. Dublin  
K67 D2X4

LoCall 1850 201604  
Tel: +353 1 895 1460  
Fax: +353 1 895 1399  
E-mail: [powskar@cso.ie](mailto:powskar@cso.ie)  
Web: [www.cso.ie](http://www.cso.ie)

For further information on Digital Boundaries or maps contact:

Ordnance Survey Ireland,  
Phoenix Park, Dublin 8  
Phone: +353-1-802-5300  
Web: [www.osi.ie](http://www.osi.ie)



## **2.1 Anonymisation and recoding**

The coded records relating to persons within households were anonymised by stripping off all identifiable information such as household number, person number within the household and by re-coding variables where the number of categories could lead to the identification of an individual when combined with other information on the record.

## **3 POWSCAR Structure and Content**

Table 1 gives details of the variables in the microdata file and how they are classified.

The Place of Work, School or College Census data file IE\_COP\_Place\_Of\_Work\_School\_2016.txt is a TAB delimited text file in the format outlined in Table 1. Note that the first record of this file contains the variable names as indicated.

POWSCAR\_2016\_Codes.xlsx contains a worksheet for each variable which links the variable values and their associated labels.

For persons who were usually resident in Ireland on Census Night but were enumerated away from their home, it is not possible to produce household or family characteristics. In this case, the variable will be populated with a "U" for unknown.

### **3.1 Data minimisation**

A new European regulation on data protection, the General Data Protection Regulation (Regulation (EU) 2016/679 of the European Parliament and of the Council), comes into force in Ireland in May 2018. This regulation puts stringent requirements on data processing organisations such as the CSO to protect the personal data of individuals and undertakings. One of the principles of the GDPR is data minimisation which specifies that personal data should be adequate, relevant and limited to what is necessary in relation to the purposes for which they are processed.

Following a review by CSO of the research projects undertaken using the POWSCAR 2011 data, 9 variables, which were made available as part of POWSCAR 2011, have been removed from the standard version of POWSCAR 2016.

These variables are still available on request. In order to gain access, a business case is required from the applicant for each variable specifying why the variable is required and how it will be used in the research outputs. CSO will assess each business case and the Director General will be the final arbiter on whether access will be granted to them.

Variables for which a specific business case is required. More details on these variables can be found in Table 1 below.

1. Year\_built
2. Cars\_or\_vans
3. One\_off\_housing\_indicator
4. Nationality\_student
5. Religion\_student
6. Able\_to\_speak\_english\_student
7. Marital\_status
8. Highest\_level\_ed\_parents
9. Family\_unemployed\_parents

**Table 1 - Variables in the Anonymised Place of Work, School or College micro data file and the classifications used**

Variable	Type	Length	Label/Notes	Values <sup>2</sup>	Variable populated for students (Persons aged 5-14 or Q27=4)	Variable populated for workers (Q27=1)
POWSC_Location	Char	2	Place of work, school or college location	IE=POWSC in Republic of Ireland NI=POWSC in Northern Ireland 98=POWSC Overseas H=Home School M=Mobile worker(Q34) W=Works mainly at or from home(Q34) B=Place of work, school or college address blank or uncodeable	YES	YES
Work_School_College_Indicator	Char	1	At work, school or college indicator.	S=Attending school or college (i.e. students) W=At work (i.e. workers)	YES	YES
Sex	Char	1	Sex	1=Males 2=Females	YES	YES
Five_Year_Age_Group	Char	5	Age group	05-09=05-09 10-14=10-14 15-19=15-19 20-24=20-24 25-29=25-29 30-34=30-34 35-39=35-39 40-44=40-44 45-49=45-49 50-54=50-54 55-59=55-59 60-64=60-64 65-69=65-69 70-74=70-74 75+=75+	NO	YES

<sup>2</sup> Missing numeric values are represented with a “-“ in the file. Character values not applicable are represented with a “-“ in the file.

Variable	Type	Length	Label/Notes	Values <sup>2</sup>	Variable populated for students (Persons aged 5-14 or Q27=4)	Variable populated for workers (Q27=1)
Highest_Level_of_Education	Char	2	<p>Highest level of education completed to date</p> <p>Completed secondary or lower combines categories:</p> <p>1-No formal education 2-Primary education 3-Lower secondary 4-Upper secondary 5-Technical or vocational qualification 6-Advanced Certificate/ Completed Apprenticeship</p> <p>Completed third level or higher combines categories Third level:</p> <p>7-Higher Certificate 8-Ordinary Bachelor Degree or National Diploma 9-Honours Bachelor/ Professional qualification or both 10-Postgraduate Diploma or Degree 11-Doctorate (Ph.D) or higher</p>	<p>1= Completed secondary or lower (NFQ 1-6) 2= Completed third level or higher (NFQ 7-10) *=Not stated</p>	NO	YES
Industrial_Group	Char	1	<p>Industrial group</p> <p>Industry is coded to over 200 detailed industry codes (using NACE Rev.2) on the basis of the name and address of the business/employer and/or the free text description of the nature of business carried on. The detailed industry codes have been grouped into the eight broad groups for the purposes of this sample.</p>	<p>1=Agriculture, forestry and fishing 2=Manufacturing, mining and quarrying, Electricity, Gas, Water supply and Waste Management 3=Construction 4=Wholesale, Retail Trade, Transportation and Storage, Accommodation and Food Service Activities 5=Information and Communication, Financial, Real Estate, Professional, administration and support service activities 6=Public Administration and Defence; Compulsory Social Security 7=Education, Human Health and Social Work Activities 8=Other Service Activities *=Not stated</p>	NO	YES

Variable	Type	Length	Label/Notes	Values <sup>2</sup>	Variable populated for students (Persons aged 5-14 or Q27=4)	Variable populated for workers (Q27=1)
Time_of_Departure	Char	1	Time leaves home for work, school or college	1=Not at work, school or college 2=Before 06:30 3=06:31-07:00 4=07:01-07:30 5=07:31-08:00 6=08:01-08:30 7=08:31-09:00 8=09:01-09:30 9=After 09:30 *=Not stated	YES	YES
Journey_Minutes	Num	3	Journey to work – minutes	Numeric value=actual minutes *=Not stated	YES	YES
Means_of_Travel	Char	2	Means of travel to work, school or college	01=Not at work, school or college 02=On foot 03=Bicycle 04=Bus, minibus or coach 05=Train, DART or LUAS 06=Motor cycle or scooter 07=Driving a car 08=Passenger in a car 09=Van 10=Other, including lorry 11=Work mainly at or from home *=Not stated	YES	YES
Household_Composition	Char	1	Household composition	1=Single Person 2=Lone Parent with at least one resident child aged 19 or under 3=Lone Parent with resident children but none aged 19 or under 4=Couple with at least one resident child aged 19 or under 5=Couple with resident children but none aged 19 or under 6=Couple with no resident children 7=Other Households U=Unknown	YES	YES

Variable	Type	Length	Label/Notes	Values <sup>2</sup>	Variable populated for students (Persons aged 5-14 or Q27=4)	Variable populated for workers (Q27=1)
Nature_of_Occupancy	Char	1	Nature of occupancy of household accommodation <i>Purchaser/Owner Occupied</i> combines the following categories: 1-Owner occupied with mortgage or loan 2-Owner outright  <i>Rented incl. free rent</i> combines the following categories: 3-Rent 4-Live here rent free	This indicates the nature of occupancy of the households accommodation in which the person resides. 1=Purchaser/Owner Occupied 2=Rented incl. free rent *=Not stated C=Communal Establishment U=Unknown	YES	YES
Resident_Persons	Char	2	Number of usual residents in the household	Where there are 5 or more usual residents in the households=5+.	YES	YES
Resident_Students	Char	2	Number of usually resident students in the household	This is a count of the number usually resident students in the household (i.e. persons falling within the scope of this file) where the person resides. Where there are 3 or more usually resident students in the household=3+	YES	YES
Resident_Workers	Char	2	Number of usually resident workers in the household	This is a count of the number usually resident workers in the household (i.e. persons falling within the scope of this file) where the person resides. Where there are 3 or more usually resident workers in the household=3+	YES	YES
SEG	Char	1	Socio-economic group  The socio-economic group of persons aged 15 years or over who are at work is determined by their occupation and employment status. The SEG of students is determined by their parents or of sibling where no parent is working.	A=Employers and managers B=Higher professional C=Lower professional D=Non-manual E=Manual skilled F=Semi-skilled G=Unskilled H=Own account workers I=Farmers J=Agricultural workers Z=All others gainfully occupied and unknown	YES	YES

Variable	Type	Length	Label/Notes	Values <sup>2</sup>	Variable populated for students (Persons aged 5-14 or Q27=4)	Variable populated for workers (Q27=1)
Usual_Residence_One_Year_Ago	Char	1	Flag indicating where the person usually resided one year ago	0=Different address 1=Same address *=Not stated	YES	YES
School_Level	Char	1	This is a school level based on age to coincide with the three levels of education Primary (5-12), Secondary (13-18), Third Level (19+).	1=Primary 2=Secondary 3=Third Level	YES	NO
Residence_Area_Type	Char	2	Area type indicator indicating rural or population of town of residence.	Area type indicating the total population of the town of residence based on the 2016 census. See "POWSCAR_2016_Codes.xls".	YES	YES
Residence_CSOED	Char	11	Electoral Division of usual residence CSO code	See "POWSCAR_2016_Codes.xls". This has details of the ED codes. A generalised version of ED boundaries is available in shape file format for use in the remote access system.	YES	YES
Residence_County	Char	2	Administrative County of usual residence	See "POWSCAR_2016_Codes.xls".	YES	YES
Residence_NUTS3	Char	5	Regional Authority of usual residence	See "POWSCAR_2016_Codes.xls"	YES	YES
Residence_Small_Area	Char	59	Small area of usual residence	Small areas are the lowest level of geography for the compilation of statistics and typically contain between 50 and 200 dwellings. See Small Area boundary in the boundary files folder.	YES	YES
Residence_Town	Char	5	Town of usual residence	See "POWSCAR_2016_Codes.xls". Town code (at least 50+ inhabited dwellings) This code will be NN000 (where NN is the County Code) if the person is resident in the rural area of the county. In the case of legal towns the town includes the environs of the legal town.	YES	YES
POWSC_Area_type	Char	2	Area type indicator indicating rural or population of town of place of work/school/college Derived on the basis of the 2001 population in the case of Northern Ireland	Area type indicating the total population of the town of place of work/school/college based on the 2016 census. See "POWSCAR_2016_Codes.xls".	YES	YES

Variable	Type	Length	Label/Notes	Values <sup>2</sup>	Variable populated for students (Persons aged 5-14 or Q27=4)	Variable populated for workers (Q27=1)
POWSC_CSOED	Char	11	Place of work, school or college - Electoral Division Code Ward Code in Northern Ireland	See "POWSCAR_2016_Codes.xls". B=Place of work, school or college blank or uncodeable M=No fixed place of work(Q32) W=Works mainly at or from home(Q32) H=Home schooling	YES	YES
POWSC_County	Char	2	Place of work, school or college address - Administrative County Code	See "POWSCAR_2016_Codes.xls".	YES	YES
POWSC_NUTS3	Char	5	Regional Authority of location of place of work, school or college	See "POWSCAR_2016_Codes.xls"	YES	YES
POWSC_Small_Area	Char	59	Small area of place of work, school or college location If the place of work, school or college is in Northern Ireland this field contains the NI 2001 Census Output Area.	Small areas are the lowest level of geography for the compilation of statistics and typically contain between 50 and 200 dwellings. Boundaries are available in shape file format for use in the remote access system. B=Place of work /school/college address blank or uncodeable M=No fixed place of work(Q32) W=Works mainly at or from home(Q32) H=Home schooling	YES	YES
POWSC_Town	Char	7	Place of work, school or college – CSO Town code In the case of Northern Ireland town are those defined in the 2001 population.	See "POWSCAR_2016_Codes.xls". 7 Digit Numeric=Town code of address of place of work, school or college B=Place of work /school/college address blank or uncodeable M=No fixed place of work(Q32) W=Works mainly at or from home(Q32) H =Home schooling	YES	YES
Fuzz_East_250	Num	8	250M Grid Square Easting – Irish National Grid	The position of place of work, school or college location coded has been rounded to the centre of the 250M X 250M grid square in which the place of work, school or college is located. Irish National Grid Easting of centroid of place of work, school or college location grid square.	YES	YES
Fuzz_North_250	Num	8	250M Grid Square Northing – Irish National Grid	The position of place of work, school or college, location coded has been rounded to the centre of the 250M X 250M grid square in which the place of work, school or college is located. Irish National Grid Northing of centroid of place of work, school or college location grid square.	YES	YES

Variable	Type	Length	Label/Notes	Values <sup>2</sup>	Variable populated for students (Persons aged 5-14 or Q27=4)	Variable populated for workers (Q27=1)
Residence_CSOED_GUID	Char	32	Identifier for merging Electoral Division(3409) data to boundaries		YES	YES
Residence_Small_Area_GUID	Char	36	Identifier for merging Census 2016 Small Area data to boundaries		YES	YES
Residence_Town_GUID	Char	36	Identifier for merging Census 2016 Town data to boundaries		YES	YES
Residence_Workplace_Zone	Char	6	Census 2016 Workplace Zones code		YES	YES
Residence_Workplace_Zone_GUID	Char	36	Identifier for merging Workplace Zone data to boundaries		YES	YES
POWSC_CSOED_GUID	Char	32	Identifier for merging Electoral Division(3409) data to boundaries		YES	YES
POWSC_Small_Area_GUID	Char	36	Identifier for merging Census 2016 Small Area data to boundaries		YES	YES
POWSC_Town_GUID	Char	36	Identifier for merging Census 2016 Town data to boundaries		YES	YES
POWSC_WORKPLACE_ZONE	Char	6	Census 2016 Workplace Zones code		YES	YES

Variable	Type	Length	Label/Notes	Values <sup>2</sup>	Variable populated for students (Persons aged 5-14 or Q27=4)	Variable populated for workers (Q27=1)
POWSC_WORKPLACE_ZONE_GUID	Char	36	Identifier for merging Workplace Zone data to boundaries		YES	YES
<i>Year_Built</i>	<i>Char</i>	<i>1</i>	<i>Year that the household accommodation was built</i>  <i>A business case is required to access this variable</i>	<i>1=Before 1919</i> <i>2=1919 – 1945</i> <i>3=1946 – 1960</i> <i>4=1961 – 1970</i> <i>5=1971 – 1980</i> <i>6=1981 – 1990</i> <i>7=1991 – 2000</i> <i>8=2001 – 2010</i> <i>9=2011 or later</i> <i>*=Not stated</i> <i>C=Communal Establishment</i> <i>U=Unknown</i>	YES	YES
<i>Cars_or_vans</i>	<i>Char</i>	<i>1</i>	<i>Number of cars or vans available for use in the household</i>  <i>A business case is required to access this variable</i>	<i>1=One</i> <i>2=Two</i> <i>3=Three</i> <i>4=Four or more</i> <i>5=None</i> <i>*=Not stated</i> <i>C=Communal Establishment</i> <i>U=Unknown</i>	YES	YES
<i>One_off_house_indicator</i>	<i>Char</i>	<i>1</i>	<i>Flag indicating if dwelling is likely to be a one off house i.e. dwelling has an individual sewerage system and is a detached house in rural area or a town with a population less than 1,500.</i>  <i>A business case is required to access this variable</i>	<i>This indicates the dwelling is likely to be a one off dwelling</i> <i>Y=Likely to be a one off dwelling</i> <i>N=Not likely to be a one off dwelling</i> <i>*=Insufficient information</i> <i>C=Communal Establishment</i> <i>U=Unknown</i>	YES	YES

Variable	Type	Length	Label/Notes	Values <sup>2</sup>	Variable populated for students (Persons aged 5-14 or Q27=4)	Variable populated for workers (Q27=1)
<i>Nationality_Student</i>	<i>Char</i>	2	<i>Nationality or student indicator</i>  <i>A business case is required to access this variable</i>	1= <i>Irish</i> 2= <i>Other nationality</i> *= <i>Not stated (incl. no nationality)</i>	YES	NO
<i>Religion_Student</i>	<i>Char</i>	2	<i>Declared religion of student</i>  <i>A business case is required to access this variable</i>	1= <i>Roman Catholic</i> 2= <i>Other Religion (including no religion)</i> 3= <i>Not stated</i>	YES	NO
<i>Able_to_speak_english_Student</i>	<i>Char</i>	1	<i>Highest level of speaking English where language other than English spoken at home</i>  <i>A business case is required to access this variable</i>	1= <i>Very well</i> 2= <i>Well</i> 3= <i>Not well</i> 4= <i>Not at all</i> *= <i>Not applicable</i>	YES	NO
<i>Marital_Status</i>	<i>Char</i>	1	<i>Current marital status Ever Married combines the following categories:</i>  2= <i>Married (first marriage)</i> 3= <i>Re-married</i> 4= <i>In a registered same-sex civil partnership</i> 5= <i>Separated</i> 6= <i>Divorced</i> 7= <i>Widowed</i>  <i>A business case is required to access this variable</i>	1= <i>Single (Never married)</i> 2= <i>Ever Married</i>	NO	YES

<b>Variable</b>	<b>Type</b>	<b>Length</b>	<b>Label/Notes</b>	<b>Values<sup>2</sup></b>	<b>Variable populated for students</b> (Persons aged 5-14 or Q27=4)	<b>Variable populated for workers</b> (Q27=1)
<i>Highest_level_ed_parents</i>	<i>Char</i>	<i>1</i>	<i>Highest level of education completed to date by one or both parents</i>  <i>See Highest_level_of_education for groupings</i>  <i>A business case is required to access this variable</i>	<i>1= Completed secondary or lower (NFQ 1-6)</i> <i>2= Completed third level or higher (NFQ 7-10)</i> <i>*=Not stated</i> <i>U=Unknown</i>	YES	NO
<i>Family_unemployed_parents</i>	<i>Char</i>	<i>1</i>	<i>Unemployed parents indicator</i>  <i>A business case is required to access this variable</i>	<i>0=No parent unemployed</i> <i>1=One parent unemployed</i> <i>2=Both parents unemployed</i> <i>U=Unknown</i>	YES	NO

## **Appendix 1 - 2016 Census Questionnaire**

A copy of the Census 2016 English household form can be downloaded here:

[http://census.ie//app/uploads/2016/02/65995-English-Household\\_2016-New-Version-Do-Not-Complete.pdf](http://census.ie//app/uploads/2016/02/65995-English-Household_2016-New-Version-Do-Not-Complete.pdf)

## Appendix 2 - Census 2016 Publication Schedule

Description	Publication Date
<b>Preliminary Results</b>	14 July 2016
<b>Census 2016 Summary Results – Part 1</b>	06 April 2017
<b>Profile 1</b> Housing in Ireland	20 April 2017
<b>Profile 2</b> Population distribution and movements	11 May 2017
<b>Census 2016 Summary Results – Part 2</b>	15 June 2017
<b>Profile 3</b> An Age Profile of Ireland	06 July 2017
<b>Small Area Population Statistics (SAPS)</b> All variables	20 July 2017
<b>Profile 4</b> Households and families	27 July 2017
<b>Profile 5</b> Homeless Persons in Ireland	10 August 2017
<b>Profile 6</b> Commuting in Ireland	31 August 2017
<b>Profile 7</b> Migration and Diversity	21 September 2017
<b>Profile 8</b> Irish Travellers and Ethnicity and Religion	12 October 2017
<b>Profile 9</b> Health, disability and carers	2 November 2017
<b>Profile 10</b> Education, skills and the Irish language	23 November 2017
<b>Profile 11</b> Employment, occupations and industry	14 December 2017

*\*Interactive tables will accompany each publication*