

## Exploring the reach of the Census-based Longitudinal Studies 2010-2017

### Overview

The Northern Ireland Longitudinal Study, ONS Longitudinal Study (England and Wales), and Scottish Longitudinal Study include a vast range of data relevant to many different types of research question. Their combination of administrative, census and health data across time make them a rich and unique set of resources. Examples of the types of research enabled by these features of the LSs include: Assessing the contributions of the workplace and employment history, the local area, and individual health and social factors from childhood and adulthood to extended working life, The role of subject choices in secondary education on further education studies and labour market outcomes and Population characteristics of stigma, condition disclosure and chronic health conditions.

As an exploration of the many ways in which the LSs have been used, CALLS have conducted an analysis of the journal papers produced by LS researchers. This citation analysis demonstrates the impressive range of academic fields to which LS-based research has contributed in the last 7 years. Research featured in over 70 journals, and spanned more than 50 Scopus subject categories.

Research based on the LSs is regularly published in top quality international peer reviewed journals such as Demography, the International Journal of Epidemiology and Population, Space and Place. Eighteen papers included in the citation analysis were published in journals ranked within the top 5 for one of the following SCImago subject areas:<sup>1</sup>

- Geography, Planning and Development
- Epidemiology
- Demography
- Health (Social Science)
- Urban Studies
- Community and Home Care
- Applied Psychology
- Pulmonary and Respiratory Medicine
- Biotechnology

Papers had excellent citation rates indicating the unique contribution LS data offer. Forty papers had been cited 10 or more times, and 13 papers had more than 20 citations.

LS	n papers published	Total citation count
NILS	41	217 (avg 5.6 per paper)
ONS LS	70	454 (avg 7.2)
SLS	43	421 (avg 11.1)
All LSs	139	1018 (avg 8.0)

The subject categories of papers using the LSs reflect the strengths of the data that they offer. Whilst the categories were very similar, ONS LS's top 5 included 'Demography', whereas the SLS and NILS had a higher proportion of 'Health(social science)' papers, likely due to their excellent linkages with health data.

<sup>1</sup> articles ranked by SJR Impact Rating for the relevant subject category in the publication year

Overall the analysis shows the valuable contribution of the NILS, ONS LS and SLS to a diverse range of academic fields including medicine, demography, geography, economics, business, psychology, environmental science and more.

Although we only focus on publications in academic journals in this report, LS research has considerable impact in other output formats such as [briefing notes](#), [books](#) and presentations to government, and has also formed the basis of a variety of [PhD Theses](#). A full list of outputs can be explored in our [outputs database](#).

The raw data for this analysis can be downloaded from the [CALLS website](#) (Excel, 82kB).

## Methods

Using the CALLS Hub outputs database a total of 139 published papers from the period January 2010 - October 2017 were identified from the three LSs. It should be noted that whilst CALLS and the RSUs actively solicit LS users to notify them of all outputs, and also conduct occasional literature searches to maximise capture, it is possible that some further papers exist.

All papers published in journals or regularly produced official publications - such as ONS Population Trends - were included. We did not include working papers in this analysis. Citation counts were gathered from [Scopus](#), taking the final counts as of 21 November 2017. Impact Factors were taken from the Scopus project [SCImago](#) using the [SJR2 indicator](#).

## Results

### The LSs combined

Of the 139 papers identified, 16 were from non-peer-reviewed journals such as Population Trends. Ten papers used more than one LS for their analysis. (see figure 1)

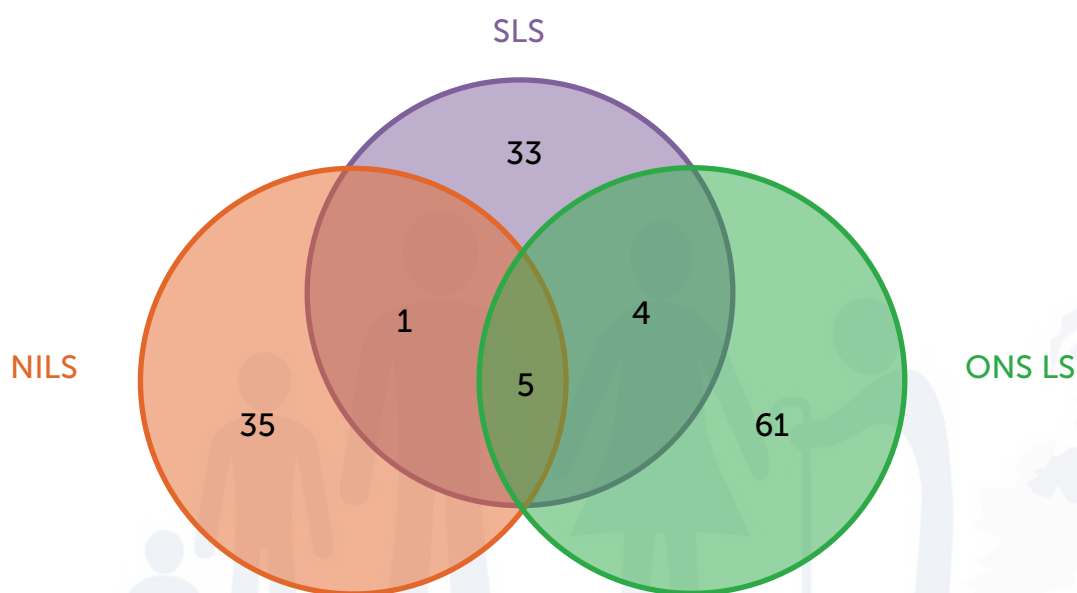


figure 1. Number of published papers per LS, Jan 2010 - Oct 2017. n = 139

Papers from the three LSs were published in a total of 73 different journals, spanning 52 SCImago Subject Categories in 13 Subject Areas (figure 2). SJR Impact Factors for the journals ranged from 0.104 to 10.113, with an average of 1.573.

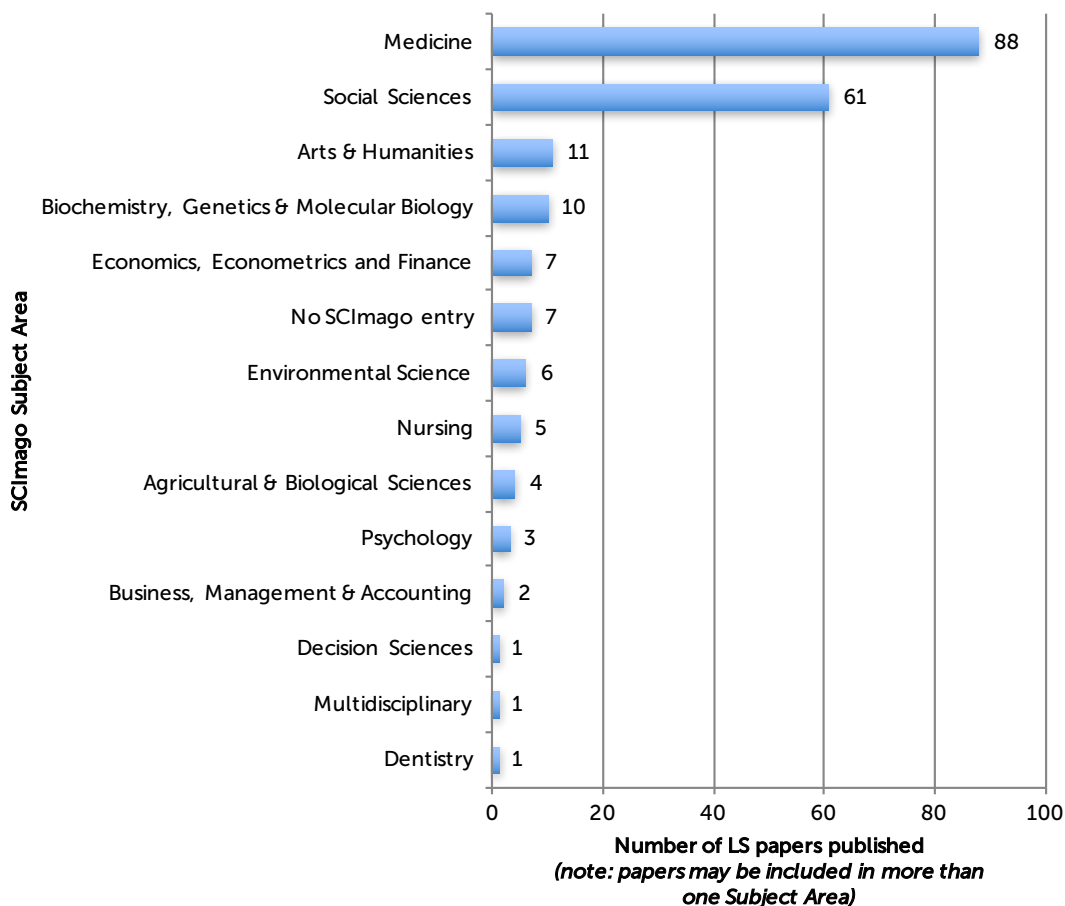


figure 2: Number of LS papers published by SCImago Subject Area

The 5 most frequent subject categories for LS papers were:

1. Public Health, Environment & Occupational Health (39 papers)
2. Geography, Planning & Development (27 papers)
3. Medicine(misc) (26 papers)
4. Health(social science) (22 papers)
5. Epidemiology (21 papers)



The ten most cited papers from the three LSs were:

<u>LS</u>	<u>Year</u>	<u>Authors</u>	<u>Paper Title</u>	<u>Scopus Citation Count</u>	<u>Journal</u>	<u>SJR Impact Factor</u>
SLS	2010	van Ham, M. & Manley, D.	<u>The effect of neighbourhood housing tenure mix on labour market outcomes: a longitudinal investigation of neighbourhood effects</u>	74	Journal of Economic Geography	3.083
ONS LS	2013	Clark, D. & Royer, H.	<u>The Effect of Education on Adult Mortality and Health: Evidence from Britain</u>	67	American Economic Review	10.113
SLS	2011	Boyle, P., Feng, Z. & Raab, G.	<u>Does widowhood increase mortality risk? Comparing different causes of spousal death to test for selection effects</u>	37	Epidemiology	2.382
SLS	2013	Spijker, J. & MacInnes, J.	<u>Population ageing: the timebomb that isn't?</u>	36	BMJ	2.064
ONS LS	2010	Grundy, E. & Tomassini, C.	<u>Marital history, health and mortality among older men and women in England and Wales</u>	29	BMC Public Health	1.245
NILS	2011	O'Reilly, D., Rosato, M., Catney, G., Johnston, F. & Brolly, M.	<u>Cohort description: The Northern Ireland Longitudinal Study (NILS)</u>	26	International Journal of Epidemiology	3.222
SLS	2014	Gaye, A., Marcon, Y., Isaeva, J. et al	<u>DataSHIELD: taking the analysis to the data, not the data to the analysis</u>	24	International Journal of Epidemiology	4.562
ONS LS	2013	Elliot, P., Shaddick, G., Douglass, M. et al	<u>Adult Cancers Near High-voltage Overhead Power Lines</u>	23	Epidemiology	2.759
NILS	2010	Connolly, S., O'Reilly, D. & Rosato, M.	<u>House value as an indicator of cumulative wealth is strongly related to morbidity and mortality risk in older people: a census-based cross-sectional and longitudinal study</u>	23	International Journal of Epidemiology	2.563
NILS, ONS LS & SLS	2010	Young, H., Grundy, E., O'Reilly, D. & Boyle, P.	<u>Self-rated health and mortality in the UK: results from the first comparative analysis of the England and Wales, Scotland, and Northern Ireland Longitudinal Studies</u>	23	Population Trends	0.262

## Northern Ireland Longitudinal Study

During the period January 2010 to October 2017, a total of 41 journal papers were found which had used NILS data, including three papers which had used all 3 LSs and one which used the SLS and NILS. Five NILS publications appeared journals with a top-5 ranked SJR impact factor.

NILS journal papers were published in 27 different journals, spanning 13 SCImago Subject Areas and 33 Subject Categories (see below). SJR Impact Factors for the journals ranged from 0.216 to 4.914, with an average of 1.631.

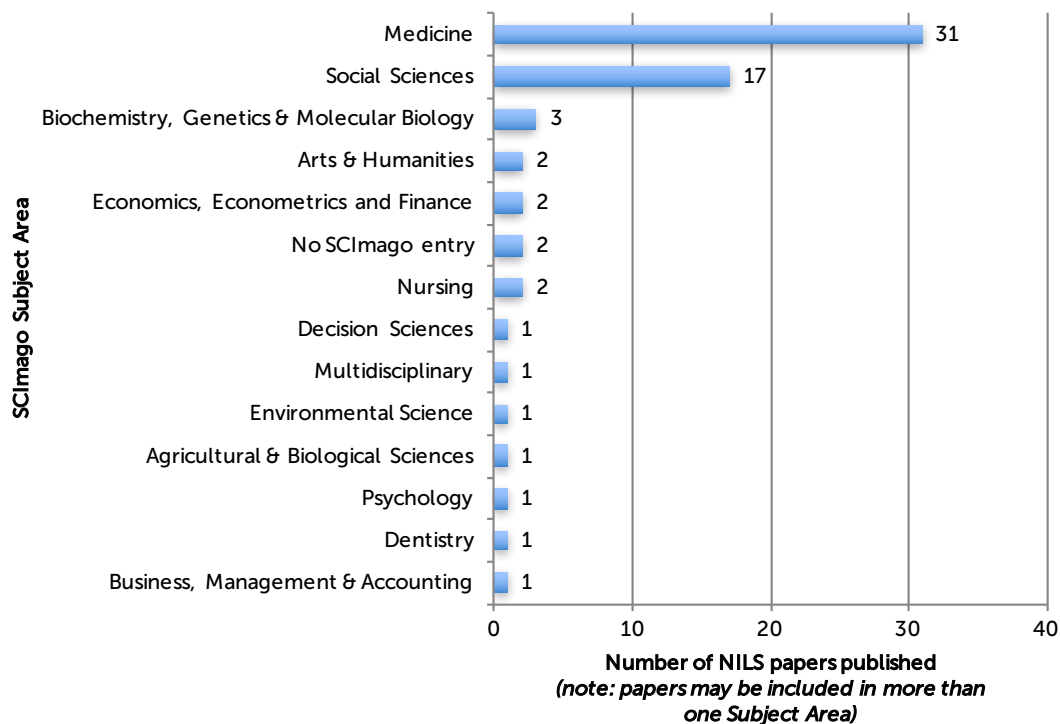


figure 3: Number of NILS papers published by SCImago Subject Area

The 5 most frequent subject categories for NILS papers to be published under were:

1. Public Health, Environmental & Occupational Health (15 papers)
2. Geography, Planning & Development (1 papers)
3. Health(social science) (10 papers)
4. Epidemiology (7 papers)
5. Medicine(misc) (5 papers)



The 10 most cited NILS papers were:

<u>Year</u>	<u>Authors</u>	<u>Paper Title</u>	<u>Scopus Citation Count</u>	<u>Journal</u>	<u>SJR Impact Factor</u>
2011	O'Reilly, D., Rosato, M., Catney, G. et al	<u>Cohort description: The Northern Ireland Longitudinal Study (NILS)</u>	26	International Journal of Epidemiology	3.222
2010	Connolly, S., O'Reilly, D. & Rosato, M.	<u>House value as an indicator of cumulative wealth is strongly related to morbidity and mortality risk in older people: a census-based cross-sectional and longitudinal study</u>	23	International Journal of Epidemiology	2.563
2010	Young, H., Grundy, E., O'Reilly, D. & Boyle, P.	<u>Self-rated health and mortality in the UK: results from the first comparative analysis of the England and Wales, Scotland, and Northern Ireland Longitudinal Studies</u>	23	Population Trends	0.262
2011	McCann, M., Donnelly, M., & O'Reilly, D.	<u>Living arrangements, relationship to people in the household and admission to care homes for older people</u>	17	Age & Ageing	1.666
2011	McCann, M., Grundy, E. & O'Reilly, D.	<u>Why is housing tenure associated with a lower risk of admission to a nursing or residential home? Wealth, health and the incentive to keep 'my home'</u>	14	Journal of Epidemiology & Community Health	1.649
2011	Connolly, S., O'Reilly, D., Rosato, M. & Cardwell, C.	<u>Area of residence and alcohol-related mortality risk: a five-year follow-up study</u>	14	Addiction	2.220
2014	Stockdale, A. & Catney, G.	<u>A Life Course Perspective on Urban–Rural Migration: the Importance of the Local Context</u>	12	Population, Space & Place	1.385
2010	O'Reilly, D. & Rosato, M.	<u>Dissonances in self-reported health and mortality across denominational groups in Northern Ireland</u>	11	Social Science & Medicine	1.652
2013	O'Reilly, D. & Rosato, M.	<u>Worked to death? A census-based longitudinal study of the relationship between the numbers of hours spent working and mortality risk</u>	11	International Journal of Epidemiology	4.187
2012	Shuttleworth, I., Barr, P.J. & Gould, M.	<u>Does Internal Migration in Northern Ireland Increase Religious and Social Segregation? Perspectives from the Northern Ireland Longitudinal Study (NILS) 2001–2007</u>	9	Population, Space & Place	1.667

## ONS Longitudinal Study

During the period in question, 70 journal papers were identified as having been produced from ONS LS projects (including 9 papers which also used other LSs). Of these, 14 appeared in non peer-reviewed journals. Nine papers appeared in top-5 ranked journals.

ONS LS papers appeared in 42 journals, and covered 27 SCImago Subject Categories in 9 Subject Areas. SJR Impact Factors for the journals ranged from 0.104 to 10.113 with an average of 1.443.

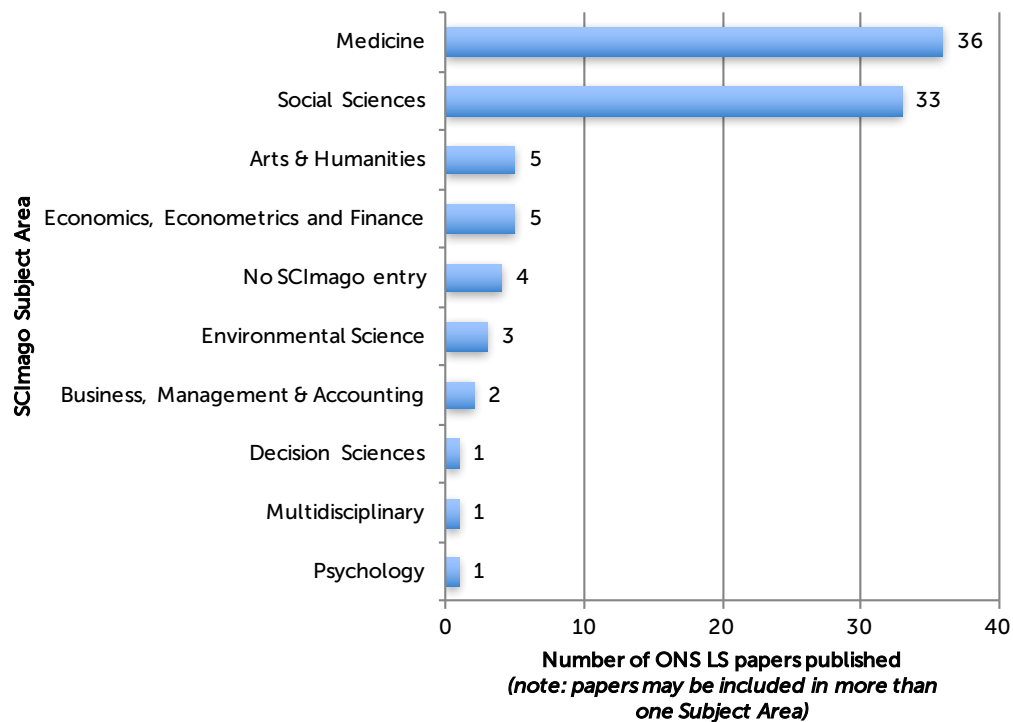
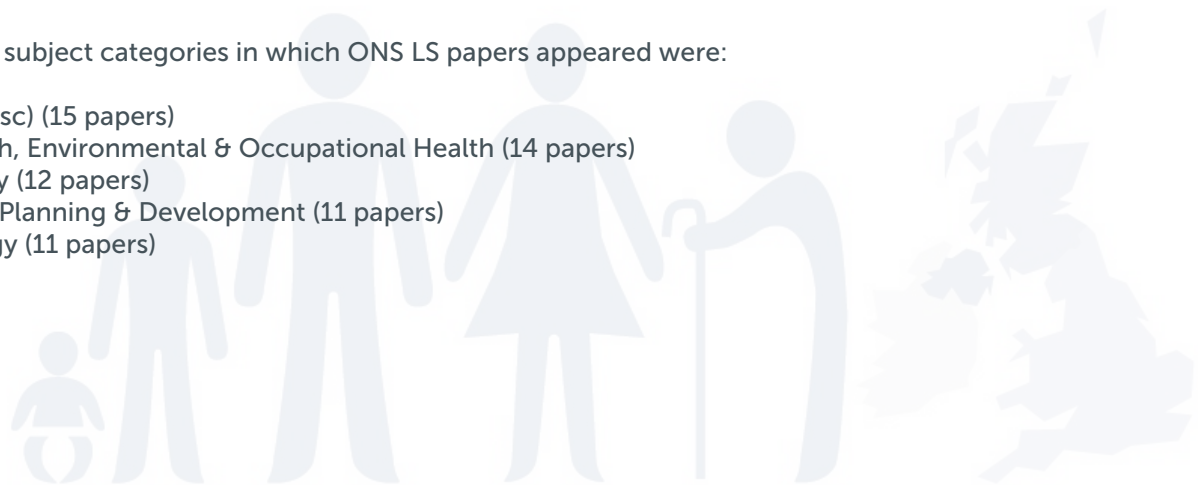


figure 4: Number of ONS LS papers published by SCImago Subject Area

The most frequent subject categories in which ONS LS papers appeared were:

1. Medicine(misc) (15 papers)
2. Public Health, Environmental & Occupational Health (14 papers)
3. Demography (12 papers)
4. Geography, Planning & Development (11 papers)
5. Epidemiology (11 papers)



The most cited ONS LS papers were:

<u>Year</u>	<u>Authors</u>	<u>Paper Title</u>	<u>Scopus Citation Count</u>	<u>Journal</u>	<u>SJR Impact Factor</u>
2013	Clark, D. & Royer, H.	<u>The Effect of Education on Adult Mortality and Health: Evidence from Britain</u>	67	American Economic Review	10.113
2010	Grundy, E. & Tomassini, C.	<u>Marital history, health and mortality among older men and women in England and Wales</u>	29	BMC Public Health	1.245
2013	Elliot, P., Shaddick, G., Douglass, M. et al	<u>Adult Cancers Near High-voltage Overhead Power Lines</u>	23	Epidemiology	2.759
2010	Young, H., Grundy, E., O'Reilly, D. & Boyle, P.	<u>Self-rated health and mortality in the UK: results from the first comparative analysis of the England and Wales, Scotland, and Northern Ireland Longitudinal Studies</u>	23	Population Trends	0.262
2011	Riva, M., Curtis, S., Norman, P.	<u>Residential mobility within England and urban-rural inequalities in mortality</u>	22	Social Science & Medicine	1.819
2012	Blomgren J., Martikainen P., Grundy E. & Koskinen S.	<u>Marital history 1971-91 and mortality 1991-2004 in England &amp; Wales and Finland</u>	18	Journal of Epidemiology & Community Health	1.590
2011	Popham, F. & Boyle, P.J.	<u>Is there a 'Scottish effect' for mortality? Prospective observational study of census linkage studies</u>	16	Journal of Public Health	0.891
2013	Scott, A.P. & Timæus, I.M.	<u>Mortality differentials 1991–2005 by self-reported ethnicity: findings from the ONS Longitudinal Study</u>	14	Journal of Epidemiology & Community Health	1.881
2011	Webb, R.T., Marshall, C.E. & Abel, K.M.	<u>Teenage motherhood and risk of premature death: long-term follow-up in the ONS Longitudinal Study</u>	13	Psychological Medicine	3.192
2013	Ramsay, S., Grundy, E. & O'Reilly, D.	<u>The relationship between informal caregiving and mortality: an analysis using the ONS Longitudinal Study of England and Wales</u>	13	Journal of Epidemiology & Community Health	1.881
2013	Blackburn, C.M., Spencer, N.J. & Read, J.M.	<u>Is the onset of disabling chronic conditions in later childhood associated with exposure to social disadvantage in earlier childhood? A prospective cohort study using the ONS Longitudinal Study for England and Wales</u>	13	BMC Pediatrics	1.119



## Scottish Longitudinal Study

During the period January 2010 - October 2017, 43 SLS-based journal papers were identified (including 10 papers which also used other LSs). Of these, 2 appeared in non peer-reviewed journals. Three papers were published in top-5 ranked journals.

The SLS papers were published in 33 different journals, spanning 32 SCImago Subject Categories in 12 Subject Areas. SJR Impact Factors for the journals ranged from 0.173 to 5.895, with an average of 1.466.

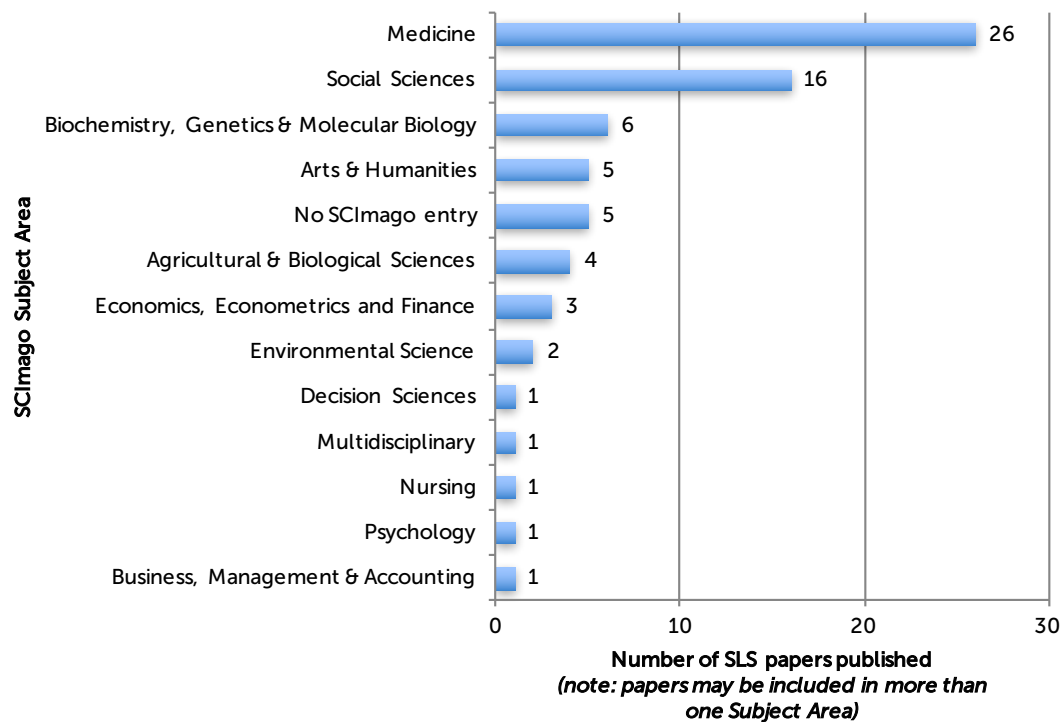


figure 5: Percentage of SLS papers published by SCImago Subject Area

SLS papers were published most frequently under the following subject categories:

1. Public Health, Environmental & Occupational Health (13 papers)
2. Medicine(misc) (8 papers)
3. Geography, Planning & Development (7 papers)
4. Health(social science) (7 papers)
5. Epidemiology (4 papers)
6. Agricultural and Biological Sciences (misc) (4 papers)
7. Biochemistry, Genetics & Molecular Biology (4 papers)

The most cited SLS papers were:

<u>Year</u>	<u>Authors</u>	<u>Paper Title</u>	<u>Scopus Citation Count</u>	<u>Journal</u>	<u>SJR Impact Factor</u>
2010	van Ham, M. & Manley, D.	<u>The effect of neighbourhood housing tenure mix on labour market outcomes: a longitudinal investigation of neighbourhood effects</u>	74	Journal of Economic Geography	3.083
2011	Boyle, P., Feng, Z. & Raab, G.	<u>Does widowhood increase mortality risk? Comparing different causes of spousal death to test for selection effects</u>	37	Epidemiology	2.382
2013	Spijker, J. & MacInnes, J.	<u>Population ageing: the timebomb that isn't?</u>	36	BMJ	2.064
2014	Gaye, A., Marcon, Y., Isaeva, J. et al	<u>DataSHIELD: taking the analysis to the data, not the data to the analysis</u>	24	International Journal of Epidemiology	4.562
2010	Young, H., Grundy, E., O'Reilly, D. & Boyle, P.	<u>Self-rated health and mortality in the UK: results from the first comparative analysis of the England and Wales, Scotland, and Northern Ireland Longitudinal Studies</u>	23	Population Trends	0.262
2012	Bailey, N.	<u>How spatial segregation changes over time: sorting out the sorting processes</u>	21	Environment & Planning A	1.456
2015	Mackenbach, J.P., Kulhánová, I., Bopp, M. et al	<u>Inequalities in Alcohol-Related Mortality in 17 European Countries: A Retrospective Analysis of Mortality Registers</u>	21	PLoS Medicine	5.895
2010	Boyle, P.J., Popham, F. & Norman, P.	<u>The Scottish excess in mortality compared to the English and Welsh: is it a country of residence or country of birth excess?</u>	19	Health & Place	1.297
2014	Eikemo, T.A., Hoffman, R., Kulik, M.C. et al	<u>How can inequalities in mortality be reduced? A quantitative analysis of 6 risk factors in 21 European populations</u>	17	PLoS ONE	1.545
2011	Popham, F., & Boyle, P.J.	<u>Is there a 'Scottish effect' for mortality? Prospective observational study of census linkage studies</u>	16	Journal of Public Health	0.891
2013	Kulik, M.C., Menvielle, G., Eikemo, T.A. et al	<u>Educational Inequalities in Three Smoking-Related Causes of Death in 18 European Populations</u>	16	Nicotine & Tobacco Research	1.388

For more info on CALLS Hub visit: [calls.ac.uk](http://calls.ac.uk)

Contact: [info@calls.ac.uk](mailto:info@calls.ac.uk)

F M Cox, 19 December 2017