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European Social Survey bibliographic monitoring
Annual report 2018

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INTRODUCTION: aims, methods and content of the report

In order to evaluate ESS academic impact, guide its questionnaire design and refinement, inform its outreach and communications actions and similar, ESS needs continuous and detailed feedback about its academic use. Bibliographic monitoring is the main self-observation tool to obtain such information. It provides:

- Empirical evidence on the scope, geographical and disciplinary patterns of ESS academic usage and policy references;
- Support for informed decision-making by ESS bodies (CST, SAB and QDTs) concerning the questionnaire content, i.e. when reviewing the Core part, repeating Rotating modules etc.
- Summary bibliographic reports, statistics and tailor-made lists of citations that help demonstrate ESS academic relevance to European and national funders and users.
- Bibliographic repository for other work packages to be used for methodological testing, updating of ESS online bibliography, as well as to support ESS communication actions and produce relevant outreach materials.

The 2018 report (Deliverable 10.3) includes publications for the period 2003-2017, as identified by the Google Scholar indexing tool (see Nederhof, 2006; Mayr and Walter 2007; Ware and Mabe, 2012). To identify relevant publications the key phrase ‘*European Social Survey*’ was searched for anywhere in the text or abstract. An ESS-based publication is defined as academic publication in English language (journal article, book, chapter, published conference or research paper), either 1) methodological, or 2) substantive, with at least one ESS item used in primary analysis. Accordingly, the relevant universe does not include ESS based publications in other languages or substantive publications using European Social Survey keyword without primary data usage (e.g. publications that report replicating ESS items, secondary citations of ESS data and similar). Annually, approximately 950 English language publications containing the keyword “European Social Survey” are reviewed case-by-case to confirm primary ESS data use. About 60% of the original Google Scholar hits are discarded through this process due to irrelevance or duplication. With the inclusion of the publishing year 2017, the combined number of ESS based publications and presentations has reached 3904.

The 2018 ESS annual bibliographic report includes the following sections:

- 1 Academic user communities
- 2 Research topics
- 3 The geography of ESS Authors
- 4 The use of country data
- 5 The use of A, B, C core and rotating modules
- 6 The use of individual items
- 7 The use of ESS rounds and analytic feedback
- 8 Accessing ESS publications
- 9 Informing policy
- 10 Key findings

1 ACADEMIC USER COMMUNITIES

1.1 Publishing trends

The combined number of **international academic publications** and presentations based on ESS data as identified via Google Scholar is now 3904, making ESS the leading European comparative data source on a number of social issues. In the period 2004-2017, ESS has seen a steady growth in the number of international publications and presentations, with the annual count fluctuating between 350 and 400¹ (Figure 1). The fluctuations in the overall count are mainly due to conference events with strong ESS presence (e.g. ESRA or ESS conferences) but can also be caused by ESS focused monographs containing a large number of chapters or special ESS based journal issues.

On the other hand, the trend for **journal articles**, the most prestigious and most numerous publication category by far (1848) is rather steady, stabilized around 220 in the last 5 year period².

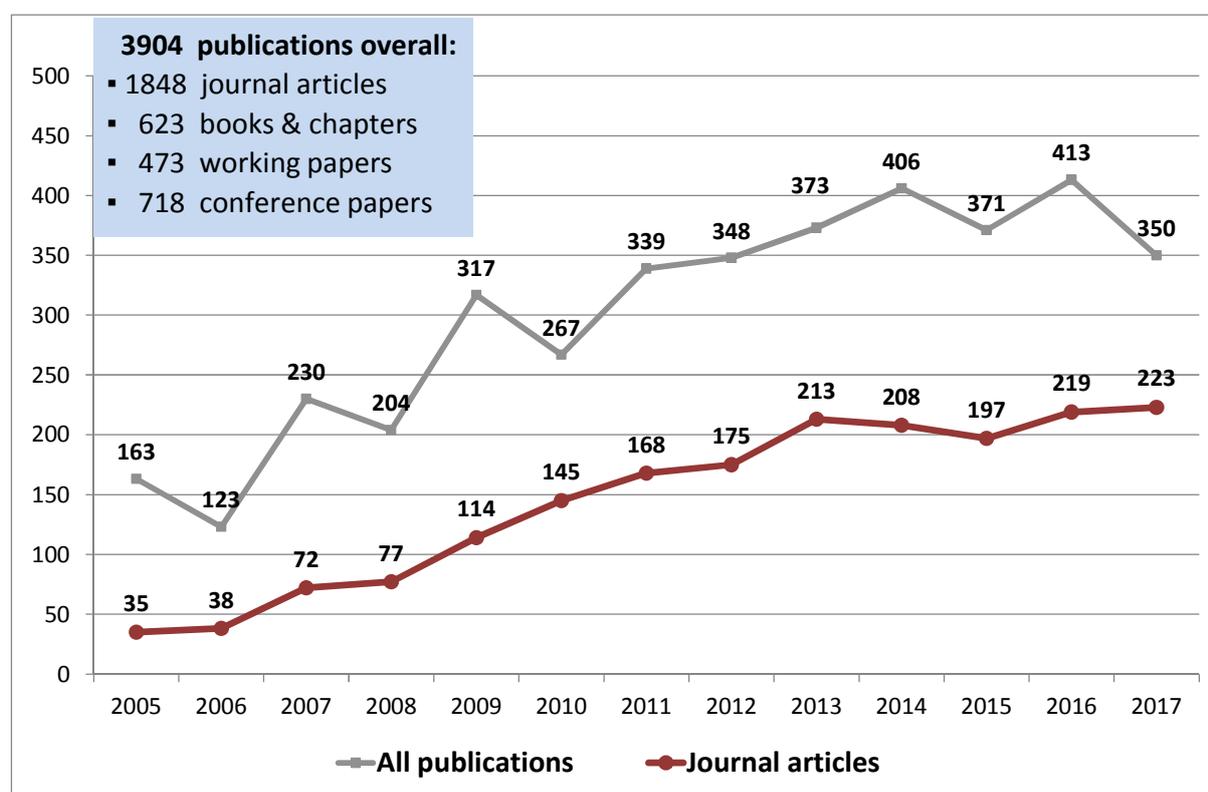


Figure 1: Trends in ESS academic publishing in the 2006-2017 period (N=3904)

¹ As explained in the introduction, the report presents results based on ESS English language publications only. This is partly due to technical reasons (the coding of topics, policy references etc. in national language publications would require extensive additional effort), but mostly due to relevance. English language publications, particularly journal articles, more or less equal international outreach and visibility and are, as such, considered to be top quality publications ranking highest in national research evaluation exercises.

² There is a possibility that the annual count of journal articles has reached a level where it could be affected by the Google scholar limitation to a 1000 search results. To test this hypothesis other specialized repositories (i.e. Scopus or Web of Science) will be explored during future bibliographic exercises.

Methodological note: From publishing year 2017 on, only conference presentations with actual papers in existence are included into ESS bibliographic count, as well as ESS Online bibliography. The rationale behind this is that actual papers (usually available online) represent a much more lasting academic influence than the presentations itself and also correspond much closer to the definition of an ESS ‘publication’. This is going to reduce the overall annual count of publications somewhat, but will essentially make it more accurate.

1.2 Disciplinary profile of academic users

As noted in earlier reports, the disciplinary structure of academic journals where ESS based articles are published can give us a rough estimate of which academic communities ESS data reach. As a rule, academic journals are profiled, publishing scholarship relating to a specific academic discipline. Figure 2 presents the six **scholarly fields** where ESS based articles are published most frequently, with sociology, political science and economy holding the largest shares. Judging by journal profiles, ESS data are also exploited significantly by health and psychology scholars, along with methodologists.

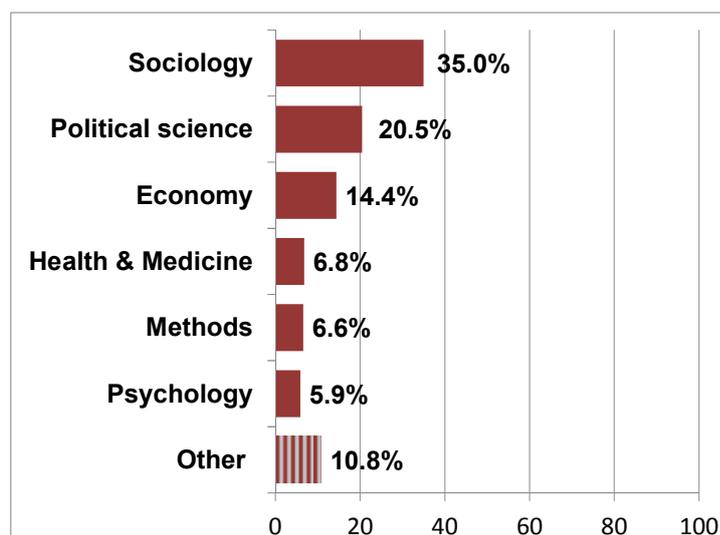


Figure 2: ESS outreach into academic fields (based on journal typology, 2003-2017, N=1880)

Figure 3 provides a more detailed structure of academic sub-disciplines within the three largest fields, sociology, political science and economy and the category ‘other’. In addition to publishing ESS based findings in the general profile sociological journals, sociological scholars frequently publish in journals covering family and immigration studies. Among political science scholars, about three quarters publish in journals in the domain of politics and political parties, while about a quarter publish in journals specialized in policy studies and public administration. Finally, the majority of economic scholars publish their ESS based findings in the general profile economic journals, but a significant number is also present in business journals and industrial relations journals.

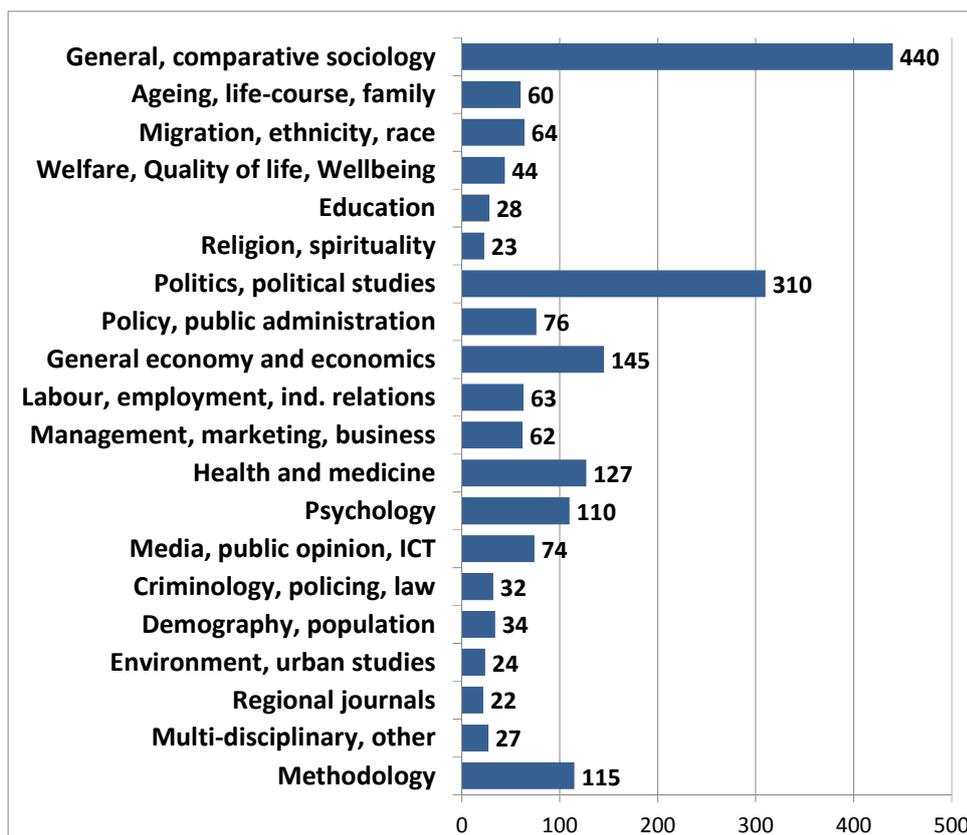


Figure 3: ESS outreach into academic fields –detailed structure (based on journal typology, 2003-2017, N=1880)

2 RESEARCH TOPICS

Among the 3904 ESS publications and presentations, 85.0% are substantive and 15.0% or 584 methodological (Figure 4). The methodological share is lower for journal articles (10.3% or 174 articles), reflecting the fact that a relatively large part of methodological publications are in fact conference presentations at methodological events.

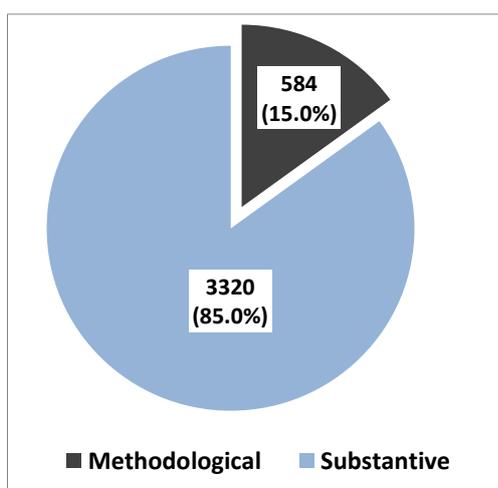
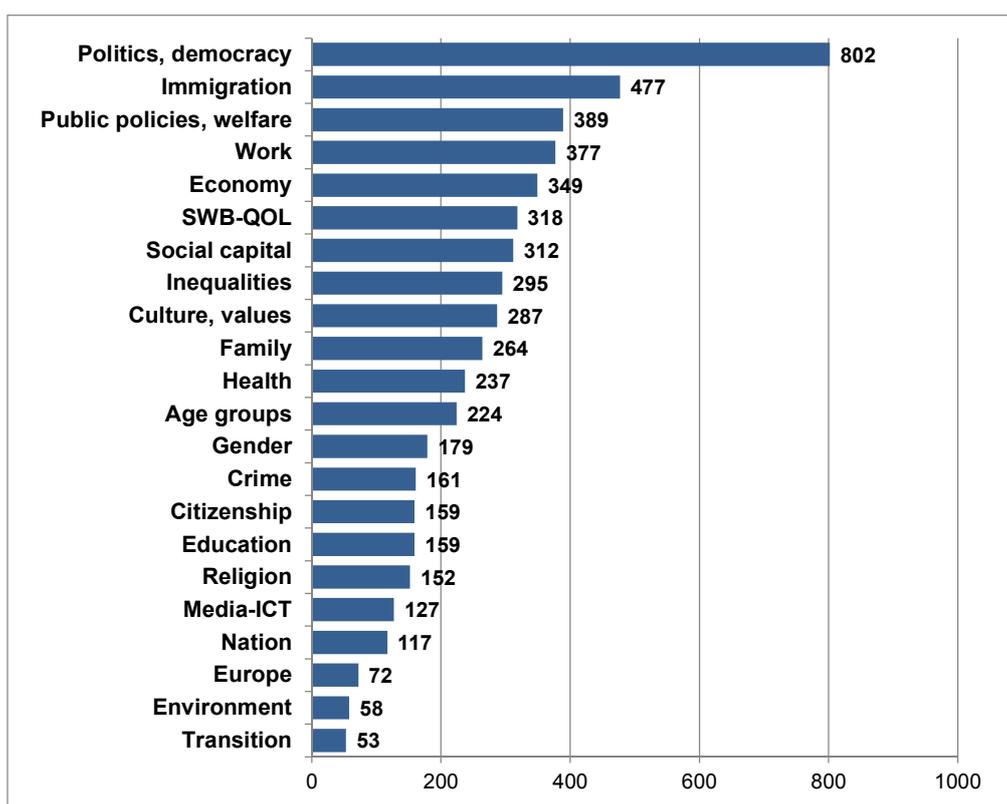


Figure 4: Shares of methodological and substantive publications (2003-2017, N=3904).

Adding to this broad division, Figure 5 presents a detailed picture of **substantive research topics** explored by the ESS based authors. The most frequently explored topic by far remains **politics**, political participation in particular, indicating the crucial significance of citizens' involvement for democratic decision-making, the voting as the central act in the democratic process, and political parties as an essential component to a democratic

political system, along with the issue of declining public confidence in them.

Immigration is now well established as the second largest ESS based research topic. It is one of the key social issues facing the EU and its individual members and has the capacity to transform societies' political, economic, social and cultural life. This is where ESS is specifically strong compared to other comparative surveys (see Table 1), owing to the R1 immigration module, the early inclusion of 6 immigration items in the longitudinal core, the possibility to identify 1st and 2nd generation immigrants and their countries or origin, relatively large annual samples, and the quickly expanding cumulative sample across rounds and countries.



Figures 5: Number ESS publications addressing individual topics (up to two topics coded per publication, 2003-2017, N=3904)

Other big topics include public policies, welfare, work-life conflict, economic conditions and social capital.

To put ESS findings structure in context, Table 1 compares it with three other general purpose comparative surveys, WVS, EVS and ISSP. The results indicate that ESS is a particularly dominant source of findings in the area immigration, but also politics. This is partly due to its thematic modules (Immigration and Democracy), but mostly due to ESS large cross-round samples which make it possible to analyse otherwise relatively small analytical categories such as immigrants or radical party supporters. ESS also generates the largest share of findings addressing health issues and is level with ISSP in the share of research on work. In comparison with other surveys, ESS has considerably smaller shares of articles studying culture and values, as well as religion. The values-culture topics are strongly present particularly in the WVS-EVS pair. On its part, ISSP has developed several successful modules, i.e. Welfare, Family, Social Inequalities and Environment that are well used by scholars. It should be kept in mind though that in comparisons with ISSP and EVS, smaller

ESS shares do not necessarily imply smaller absolute numbers as annual counts of ESS articles are twice as large than those of the other two surveys³.

Table 1: Thematic structure of research findings across four comparative surveys (%)⁴

	ESS	WVS	EVS	ISSP
<i>Topic^(a)</i>	(%)	(%)	(%)	
Politics, democracy	22.3	14.5	16.8	14.5
Immigration	15.1	5.2	3.5	6.1
Work	12.0	4.7	6.3	12.2
Welfare, policies	11.7	6.2	7.0	21.0
SWB-QOL ^(b)	10.5	15.0	8.4	6.1
Economy	10.5	15.6	13.3	9.2
Health	10.0	4.7	4.9	5.3
Culture, values	9.4	24.9	17.5	5.3
Social capital	9.4	11.9	10.5	3.8
Family	8.4	5.7	10.5	16.8
Social inequalities	7.9	1.6	6.3	13.0
Gender issues	6.0	8.8	10.5	5.3
Religion	4.7	10.9	14.7	8.4
Environment	2.0	5.8	0.7	10.7
<i>N</i>	<i>1674</i>	<i>193</i>	<i>143</i>	<i>262</i>

Note: (a) Up to two topics were coded per article. Only topics addressed in 50 or more articles are presented; (b) Subjective wellbeing and quality of life.

3 THE GEOGRAPHY OF ESS AUTHORS

First authors in ESS publications are **affiliated in 55 countries** or international institutions (e.g. OECD). Figure 6 gives an overview of countries and regions where most ESS authors come from. Almost 90% of ESS publications are produced by first authors affiliated in Europe, particularly in the western and northern European countries with strong social science communities (i.e. UK, Germany, The Netherlands). Among non-European countries the largest numbers of publications come from authors affiliated in USA, Canada and Australia.

Table 2 compares ESS authorship structure with three other comparative surveys. Authorship composition generally mirrors a survey's geographical scope and is overwhelmingly Europe based for ESS and EVS and globally based for WVS and ISSP.

³ The number of articles identified via Google Scholar in the publishing year 2016 was 226 for WVS, 197 for ESS, 90 for EVS and 88 for ISSP

⁴ 598 journal articles with verified primary data use from the three other comparative surveys were identified via Google Scholar by key-phrase search: WVS 2016 (N=193), EVS 2015, 2016 (N=143), ISSP 2011, 2014, 2016 (N=262)

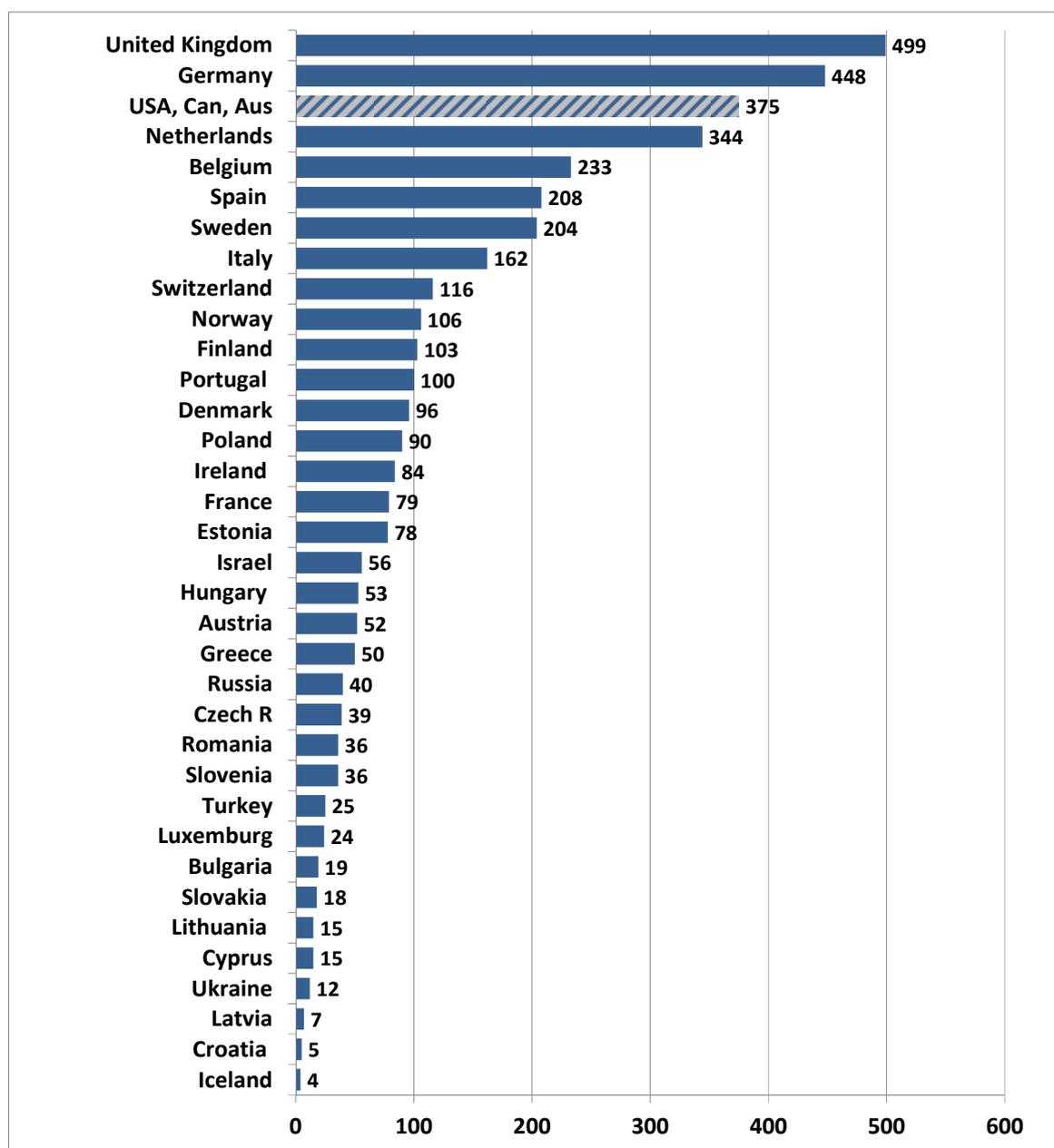


Figure 6: First author's affiliation across countries (2003-2017, N=3903)

Table 2: Comparing first authors' affiliations across four surveys

	WVS	EVS	ISSP	ESS
First authors' affiliation (%)				
Western Europe	29.8	64.7	44.4	74.3
Eastern Europe	5.2	20.9	10.3	13.1
North America, AUS, NZ	40.8	12.9	35.6	10.5
Asia, Africa, Latin America	24.1	1.4	9.6	2.1
<i>N</i>	193	143	199	262

However, there are notable differences within this grand division. EVS has a fifth of its internationally published first authors coming from Eastern Europe, reflecting its wide coverage of these countries, and WVS a quarter of its 1st authors affiliated non-Western world, by far the largest share. Thus in a number of countries WVS and EVS represent a unique comparative data source which makes both studies particularly valuable in regions outside Europe and North America (Kołczyńska 2014).

The number of first authors coming from individual countries is one of the key indicators of ESS based academic production among national scientific communities. However, over 60% of ESS publications were produced by more than one author, most frequently, by two (Figure 7). In order to present a more thorough picture of national authorships and explore cross-national collaboration next year's annual report will include codes for up to five authors in ESS based journal articles.

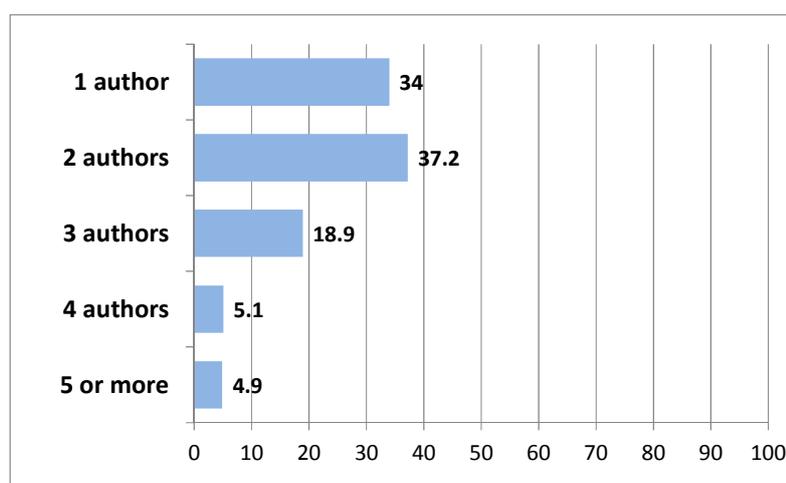


Figure 7: Co-authorship structure in ESS articles (2003-2017, N= 1872 journal articles)

4 THE USE OF COUNTRY DATA

The use of country data was assessed by examining 2268 downloaded publications. In **85.5% of publications ESS data was used comparatively**, with more than one country studied, while in the remaining 14.5% data from only one ESS country was used. Figure 8 presents the shares of data use from individual countries, grouped according to the number of ESS rounds they fielded. Data availability in terms of a country's participation consistency is expected to be the main explanation behind large differences in inclusion rates.

As a rule, countries that fielded more rounds have higher inclusion rates, with Germany being the most analysed country (almost 75% of international publications used its data), followed by UK (74%). On the other end are two countries which only fielded one round (Albania and Kosovo), with their national data inclusion at only 3.2%. Skipping a wave results in a drop of inclusion three to four years later, when publications based on the latest round prevail. A typical case is Austria which skipped round 6 and was late depositing its data for several rounds before, thus missing the prime publishing period for several rounds. As a result the share of its analytical inclusion dropped from almost 74% to about 33%, but is now on the rise again (Figure 9). On the other hand, Denmark skipped round 8, but the effect on

the publications is delayed and can be expected to be the strongest in publishing years 2020 – 2022.

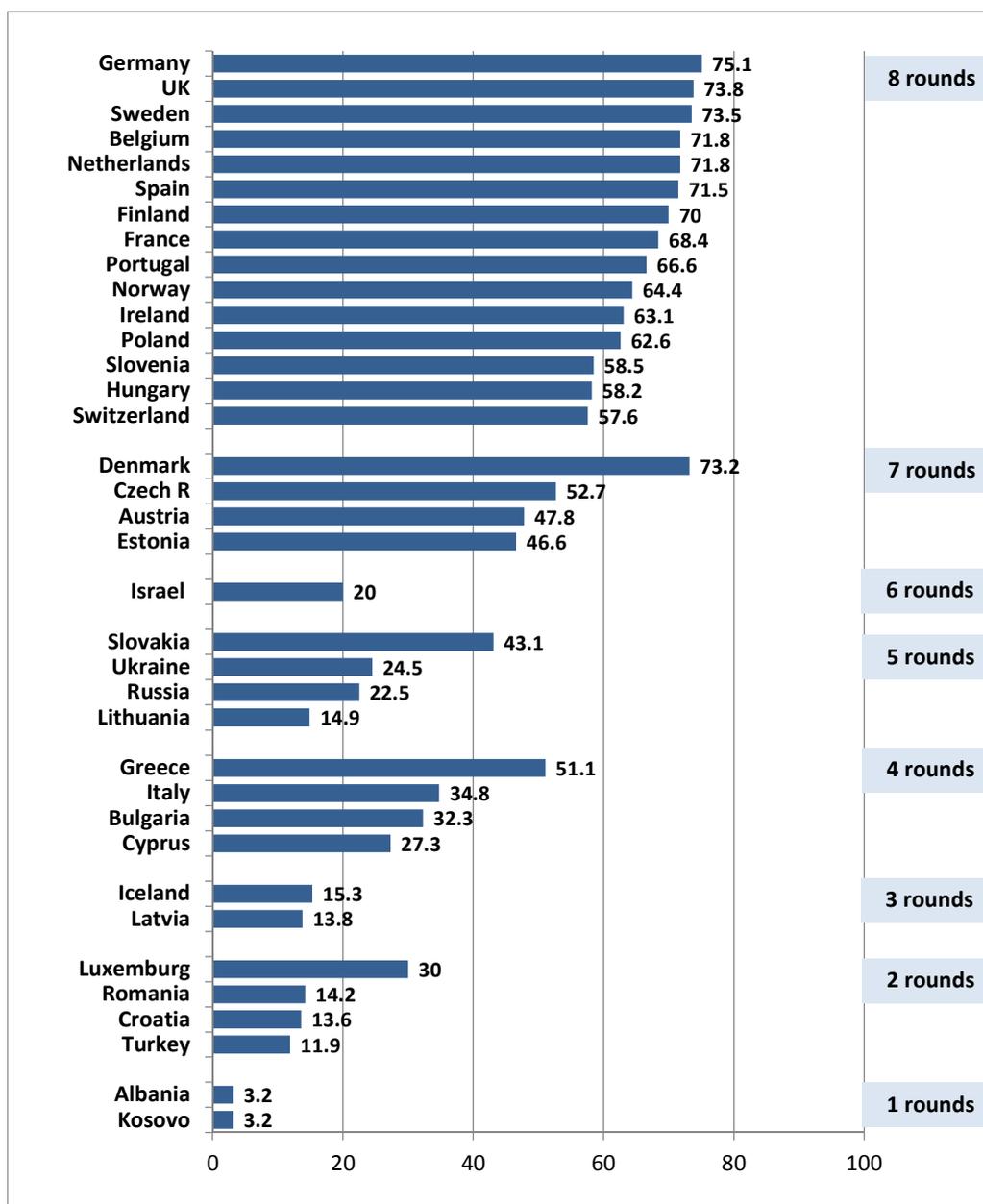


Figure 8: Country data inclusion rates. Countries grouped according to the number of rounds fielded (2003-2017, N=2268)

Despite the strong effect of the number of rounds fielded, considerable differences in inclusion can be observed between countries that fielded the same number of rounds. There are clearly additional factors that determine inclusion rates, such as which particular rounds (and modules) were fielded or missed, country's 'comparative value' in view of the issues typically addressed by authors using ESS data (e.g. immigration issues, macro-economic issues, welfare regime, radical voting) and availability of various country-level indicators, often facilitated by EU membership. In addition, authors list a host of methodological reasons for leaving out individual countries, such as missing items, high item non-response,

missing contextual data, quality or equivalence issues, insufficient sub-sample size or variation, delays in data deposit.

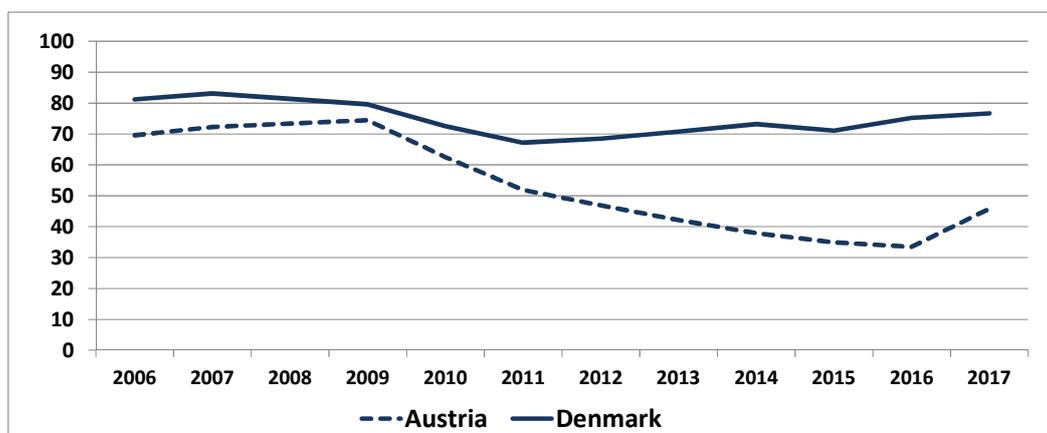


Figure 9: Data inclusion trends for Austria and Denmark

All in all, missing one or more rounds inevitably results in a drop of inclusion rates, which translates into findings deficit, i.e. countries not being included in analytical comparisons for the absent rounds and modules. The deficit is greatest for the country's own academic and non-academic user groups, but in essence all ESS data analysts are affected, being deprived of a section of comparative aspect.

5 THE USE OF A, B, C CORE AND ROTATING MODULES

5.1 The use of questionnaire sections

Monitoring the use of questionnaire sections – A, B, C Core part, Portrait Values Questionnaire and rotating modules – is based on recorded item use in 2375 downloaded papers (the minimum criteria being at least 1 item found from a respective section). In most cases the items are listed in the *Data and methods* part of publications, otherwise they are identified from tables, appendices and the text itself. Figure 10 shows the number of publications using various parts of the ESS questionnaire.

Unsurprisingly, the longitudinal **A, B, C core sections** are the most used substantive parts of the ESS questionnaire by far, with at least one of their items present in 80% of ESS publications. The main factors explaining the high usage of the Core are the presence of powerful explanatory concepts (e.g. social capital, political participation, subjective wellbeing etc. – see next section), biannual fielding frequency and the widespread preference of analysts for merging rounds to increase sample sizes and examine trends, which makes the core section of the data most epistemologically attractive.

The **Portrait Values Questionnaire**, another longitudinal section, is used by about 14% of ESS publications, partly as a source of independent value predictors and partly as the dependant concept itself, most frequently by psychologists.

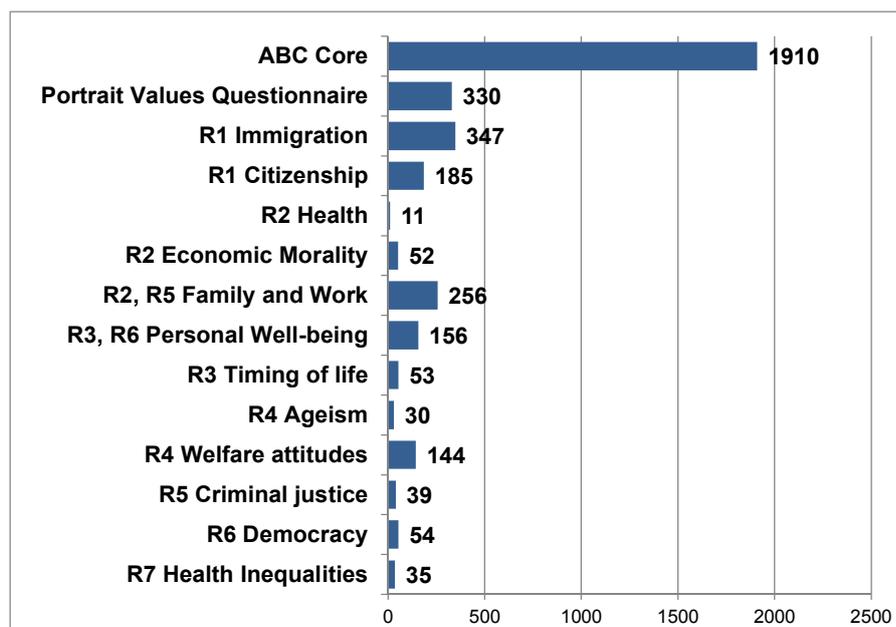


Figure 10: The use of ABC Core and rotating modules (2003-2017, N=2375) (* For the 2004-2015 period, publications, Immigration module counts include 6 core items)

To present the most recent picture of the rotating modules use, Figure 11 is restricted to publications from year 2017. Out of 275 examined publications, 126 or 45.8% included items from rotating modules, others were based solely on items from the core part(s). The most used module in publishing year 2017 was the **R7 Health Inequalities** with 30 publications, though it should be noted that 16 of them are part of a special issue of the European Journal of Public Health. Nevertheless, this indicates to an excellent start by a module whose publishing peak is to be expected in the next 2-3 years.

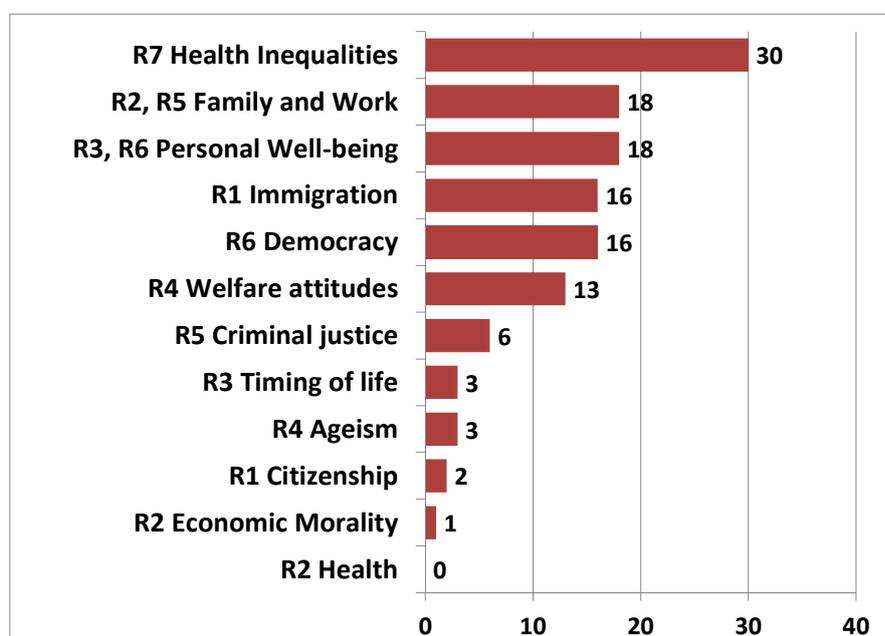


Figure 11: The use of rotating modules in 2017 (2003-2017, N=275) (Immigration module count does not include 6 core items)

Other well used modules were Family & Work and Personal Well-being, Immigration (whose use is somewhat underestimated⁵) and Democracy. The bottom five modules are those whose data has 'aged' now and their use can only be revitalised by a repeat module. This is particularly true for the Citizenship module, while some modules at the bottom were never widely used in the first place (i.e. R4 Ageism and R2 Health).

5.2 The use of rotating module and the structure of QDTs

As indicated by usage figures, some modules, including modules from the same round, are used consistently more than others. The reason could be that the little used modules failed to reach their target audience, or that the target audience was a niche audience in the first place. Some topics (e.g. economic morality, ageism, the timing of life or criminal justice) seem to be of interest to a narrower academic audience in comparison with others (e.g. welfare, immigration, wellbeing, democratic system).

This speculation seems to be reinforced by examining the **structure of Questionnaire Design Teams (QDTs)**, where it appears that academic from certain disciplines, most notably sociology, political science and economy, produce questionnaire content that is more widely used (Figure 12).

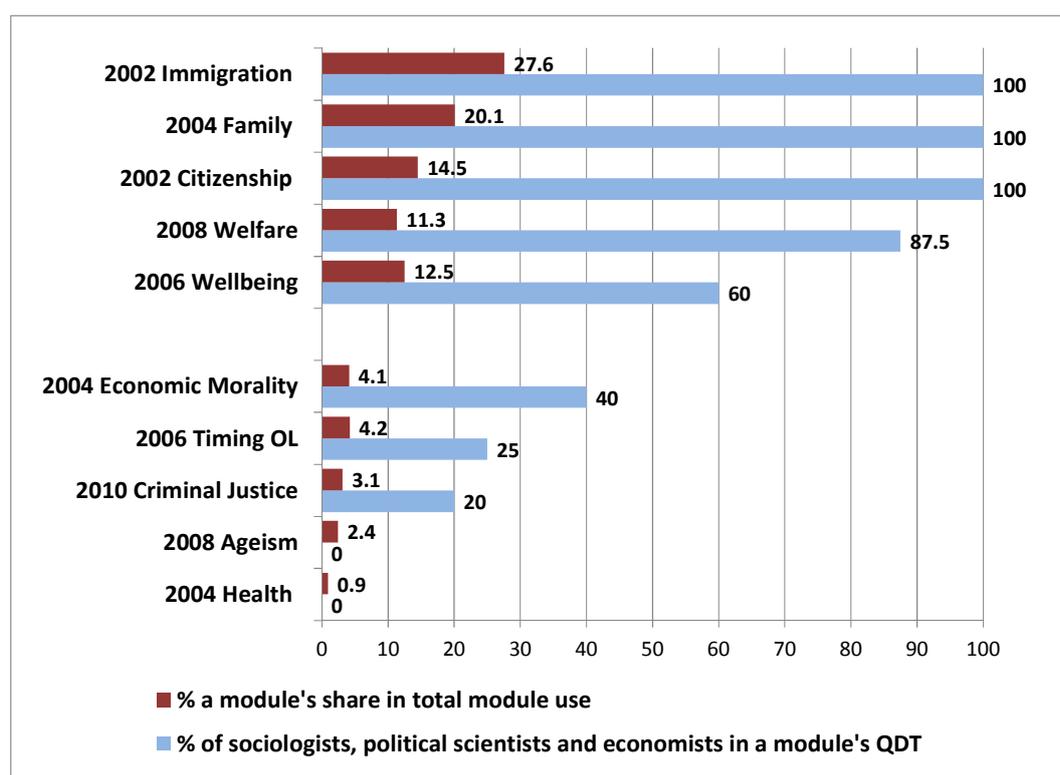


Figure 12: QDTs' disciplinary structure and the use ESS rotating modules (2003-2017, N=1273)

⁵ Six items from the R1 Immigration module became part of the core questionnaire and are asked in every round, which makes Immigration incomparable with other modules due to a much higher frequency of their fielding. On the other hand, the use of the Immigration module is underestimated without including them, which has to be taken into account. The topics map (coded from publication abstracts) can be used as correction for this problem.

According to Figure 12, the five most used rotating modules were overwhelmingly authored by academics belonging to three disciplines, sociology, political science and economy. In two cases (Welfare and Wellbeing) social psychologists were also included, but were not the dominant academic discipline. On the other hand, the bottom five modules were overwhelmingly designed by specialists from other fields. None of the bottom five modules included economists into their QDTs, the three least used modules did not include sociologists and the two least used modules (Ageism and R2 Health) included none of the three. These modules were primarily designed by academic from the fields of psychology, social psychology, criminology, health & medicine, demography and pharmacy.

It is not entirely clear, why academics from three disciplines (sociology, political science and economy) seem to create modules which are (far) more widely used. The answer may lie in the type of questionnaire content they design, i.e. the type of social issues they address, in a much wider initial target audience to begin with, or both. In the future years, the use of three most recent modules may provide additional information on this issue. The R5 Democracy module QDT was composed 100% from political scientists, in the R6 Health Inequalities module 40% of QDT members were sociologists and in R7 Climate change 20%.

It should be noted though that targeting academic peer groups through QDT structure is not a straightforward task. Economists seem to be a particularly unpredictable group. On one hand, R1 Immigration module was largely created by economists, but they are not among the two largest user groups. A similar case is R3 Wellbeing. On the other hand, economists emerge as significant 'non-designated' user group in five out eight remaining modules (which economists did not co-author), seemingly finding unanticipated epistemological value in them. Other cases of good cross-discipline travel include Family module, created by sociologists and used in 68.2% of ESS articles in demographic journals, as well as Portrait Values Questionnaire designed by a psychologist and used in 40.5 of ESS articles in business journals.

6 THE USE OF INDIVIDUAL ITEMS

6.1 Item use frequencies

Items are the smallest questionnaire units monitored for usage and also the most reliable basis for monitoring the use of rotating modules (previous section). Among the four big comparative surveys, ESS is on the way to soon become the richest in item content (Table 3).

Table 3: The development of indicators across 4 comparative surveys

	WVS	EVS	ISSP	ESS
Number of substantive indicators	300	350	1100	840
Number of thematic modules developed	1	1	11	13

Source: survey web pages

WVS and EVS consist primarily of the core section with minor modifications between waves. Therefore, regarding the diversity of indicators, ESS and ISSP are far richer owing to their modules based on hybrid format which incorporates regular development of new questionnaire content. Judging by usage patterns, longitudinal format carries wider analytic appeal than specialized modules, which not only target more specific scientific communities, but are also less suitable for merging across waves. This is corroborated by ESS bibliographic statistics based on 1238 journal articles which shows that 43.4 per cent used only longitudinal Core items (mimicking WVS/EVS format), 39.7 combined Core and module items (ESS hybrid format) and 17.0 per cent used only specialized module items (ISSP format).

Item usage is currently based on 2433 downloaded substantive publications for the period 2003-2017. Along with item pre-testing and post-testing, item usage monitoring is one of the key mechanisms in the process of questionnaire refinement (e.g. reviewing the ESS core review, designing repeat modules). When making revisions to the questionnaire, frequently used items should not be easily dropped, as they seem to tap into relevant issues and carry high analytical value for academic users. Associations between items, as well as items and modules can also be examined and taken into account.

While module usage numbers from the previous section are a robust summary indicator, they only show part of the picture. Based on item level statistics, Table 4 presents a more elaborate set of module use indicators for the Round 1 – Round 5 rotating modules, i.e. modules with enough publishing life to offer relevant information.

Table 4: Item usage parameters for A, B, C Core and R1-R5 modules (2003-2017, based on 2433 publications)

	number of core & module uses	Average number of uses per item	% of items with 10 or more uses	% of items with 4 or less uses	% of items with 0 uses	N of items in the section
	A.	B.	C.	D.	E.	F.
A,B,C Core¹	1910	136.8	93.2	4.0	1.3	74
Overall good usage						
2008 Welfare	144	14.0	62.5	10.4	0.0	48
2006 Wellbeing	156	18.9	58.5	13.2	1.9	53
2002 Citizenship	185	31.9	56.6	13.2	0.0	53
2002 Immigration ²	347	17.0	55.8	23.1	1.9	52
Partial good usage						
2004 Family and Work	256	11.3	39.3	43.7	25.9	112
2010 Democracy	54	8.3	38.3	34.0	14.9	47
2010 Criminal justice	39	5.5	26.2	45.2	7.1	42
2004 Economic Moral.	52	5.6	3.3	43.3	0.0	30
Overall low usage						
2006 Timing of Life	53	3.4	7.4	70.4	16.7	54
2008 Ageism	30	2.3	0.0	85.5	9.1	55
2004 Health	11	1.5	0.0	97.1	20.6	34

¹Current A, B, C core items; ²The 6 immigration core items not included;

As mentioned earlier, the A, B, C core section is widely used, with only a few ‘filter’ items showing low usage. Modules, on the other hand, can be sorted into several categories according to the spread of use across their items. Column C shows the share of module items with 10 or more uses found in publications. We are therefore using 10 as an arbitrary criterion to define the lower end of a ‘good’ item use. The modules in the **‘overall good usage’ group** are those where the majority (i.e. more than 50%) of their items were used 10 times or more. With the exception of Family, all of the most used modules are in this group, suggesting that the QDTs managed to include the majority of concepts that attract analytical use.

The **‘partial good usage’ group** consists of modules, whose strong or moderate use is based on a relative minority of items. The R2 Family module is a somewhat atypical case, being one of the two most used ESS modules, yet containing almost two-thirds of items for which weak use or no use was detected. These items mostly belong to the rather lengthy ‘experience of studying section’, completely overlooked by analysts. The other three modules in this group also contain parts that exhibit strong usage and parts with low usage (4 times or less) and also seem to include a number of concepts that attract relatively low analytical use.

In the **‘overall low usage’ group** a large majority of items show low use or no use, suggesting that the entire module was either targeting a niche analytical audience to begin with, or did not manage to include concepts that would draw analytical interest in the targeted academic domain. Other possible explanations are, that the existence of the module data was not successfully communicated to the relevant audience, or that a more specialized, dedicated survey exists in that area (e.g. SHARE for ageing, EU-SILC for living conditions) and is therefore the preferred choice by respective analysts. It would be worth exploring these aspects when selecting and designing new modules or new versions of modules to avoid extremely low usage. While it is certainly normal that some concepts get used more than others, a more than 70% share of low item usage probably indicates some sort of targeting or design failure.

6.2 Most analysed items and concepts – a brief overview

While previous section focused more on the lower end of item usage, this section will explore the most used concepts in each questionnaire part. Figure 13 presents most used items in the **A, B, C core** sections. They include ***social capital, political participation, subjective well-being and immigration***, i.e. analytical concepts or research subjects equally popular with analysts from the three academic fields that draw most frequently from ESS data, sociology, political science and economy. These universally used concepts make the core part of the ESS questionnaire a powerful analytical tool for examining key social developments and issues.

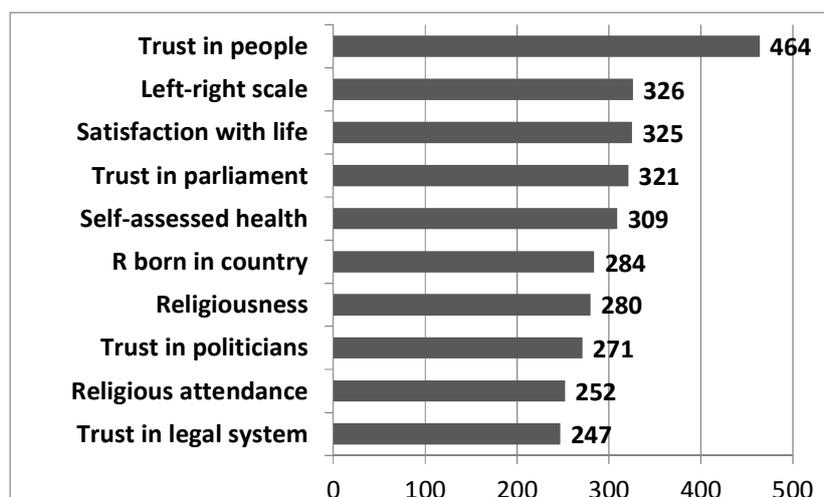


Figure 13: Most used ESS A, B, C core items (2003-2017, based on 2433 publications)

Unsurprisingly, the 6 core items are the most used battery from the **Immigration module**, particularly the three items measuring the *perceptions of immigration effects on culture, economy and way of life* (Figure 14). The second widely used concept is the extent and type of immigration in terms of immigrants' origin the public prefers or tolerates. Other popular analytical issues include immigration effects on labour market, welfare state and crime.

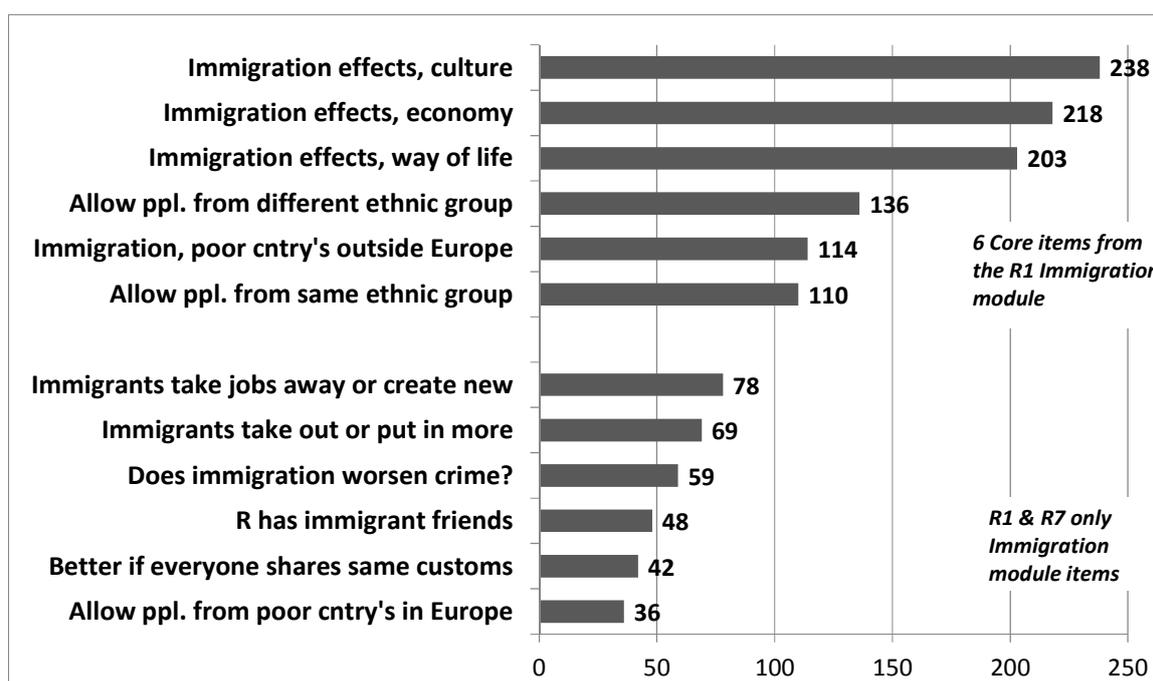


Figure 14: Most used Immigration module items (2003-2017, based on 2433 publications)

Figure 15 contains information for three round 1 and round 2 rotating modules. The **Citizenship** module is one of the modules with a low share of poorly used items (see Table 4). Nevertheless, the extent of usage for most of its items pales in comparison with the battery measuring involvement in **12 voluntary organizations**. These items are, without competition, the most used rotating module items ESS has generated so far, though their usage is now almost non-existent due to the aged data set. It can be speculated that a module that would re-run this battery and add other concepts related to volunteering would

be highly appreciated among the many analysts of social capital, one of the leading concepts in explaining various social outcomes (e.g. subjective well-being, political participation, attitudes towards immigration, social cohesion, welfare regimes etc.).

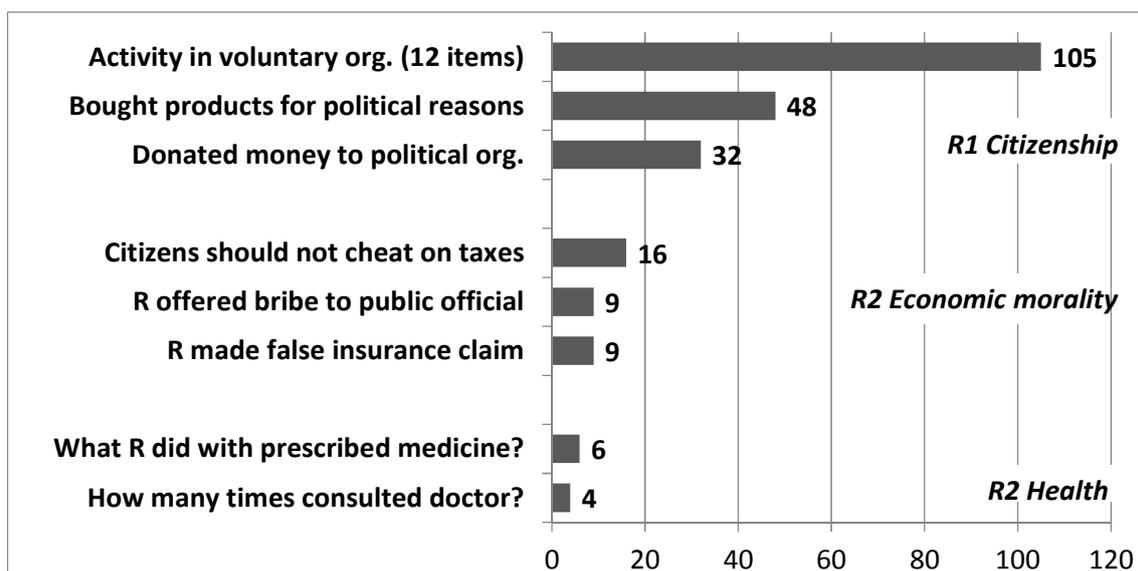


Figure 15: Most used R1 Citizenship module and R2 Health and Economic morality items (2003-2017, based on 2433 publications)

The R2 **Economic morality** and **R2 Health** modules do not contain widely used concepts, with the partial exception of an item measuring the norms of citizenship (i.e. cheating on taxes). Figure 16 presents the ten most used items in **Family & Work**, the second most used ESS rotating module. The two leading items tackle the concept of **gender and family roles** and are also shared with the Welfare module, which explains the higher usage count. If new items were sought to be added to the core, these two items would seem to make excellent candidates, given the importance of (non)traditionalist family values for a number of social issues (e.g. labour market participation, the welfare state, general value orientation etc.).

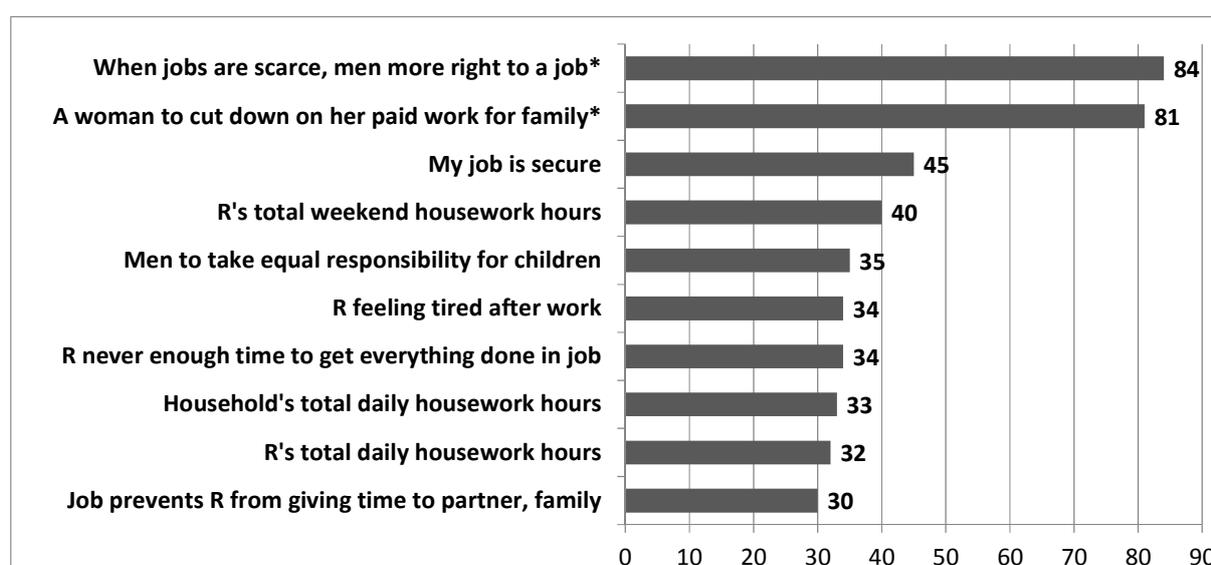


Figure 16: Most used items in R2 Family & work module (*two items shared with Welfare module) (2003-2017, based on 2433 publications)

The second widely examined concept is **housework load** and division of housework chores between women and men, issues are related to **work-life conflict**, another set of widely used indicators.

Some other sections which basically tackle different or more detailed aspects of the above mentioned issues – e.g. subjective feelings about household work, disagreements between partners, inter-generational solidarity, unpaid help, childcare preferences and effects of having children on occupational career – drew comparatively little attention. It appears it is rather difficult to predict, even by QDT specialists, which specific angle will be explored most and at what level of detail. In other words, unless well used pre-existing concepts are included (e.g. WHO-Five Well-being index), a certain amount of relative ‘usage failure’ should be expected in case of most new modules. According to Table 4, this ‘usage failure’ can fluctuate rather wildly, ranging from 10% to more than 80% of items. Even in case of well-used modules, the majority of analysts seem to limit themselves to certain angles while rather overlooking others. In this respect, **publishing item usage data** on ESS webpage could perhaps contribute to more even use across concepts, by highlighting questionnaire parts that are underexplored.

Figure 17 presents most popular items in round 3 modules. **Personal and social wellbeing** (and later Health Inequalities) module included the established 8-item CES-D **Depression scale**, a measure of subjective wellbeing which became its most used section. Two other well used concepts are **voluntarism and work-life balance**, themes that seem to transpire across all modules where they are available. The users of the **Timing of life** module seem to be particularly interested in respondents’ **personal transition to adulthood** (milestones), while other sections dealing with societal *norms* about transition to adulthood or old age are used to a lesser extent.

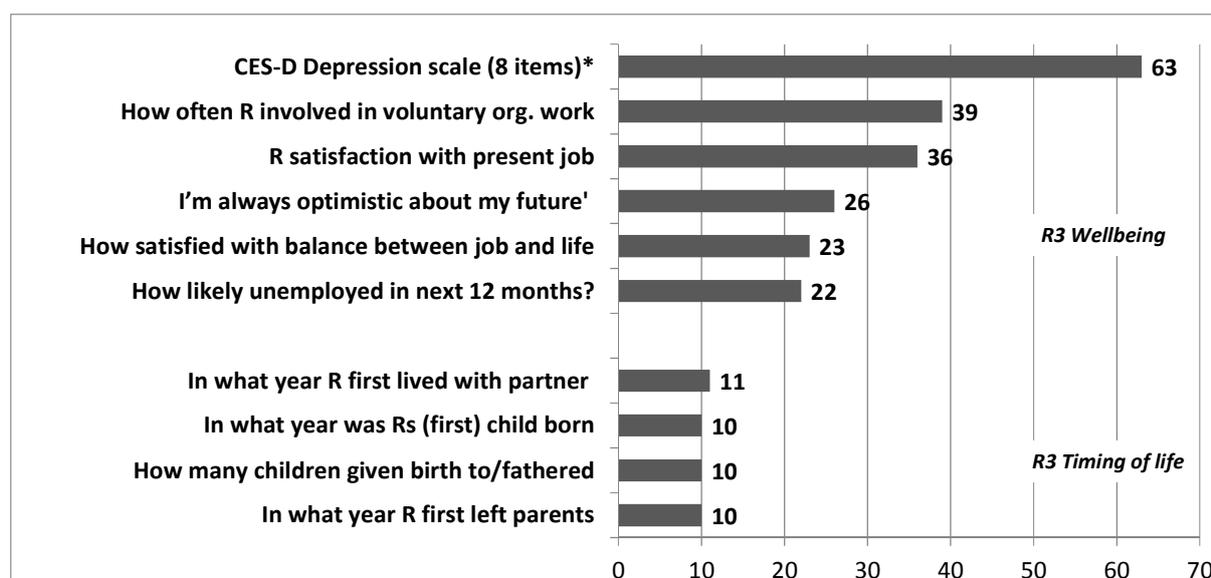


Figure 17: Most used R3 Wellbeing and R3 Timing of life items (*depression scale shared with R7 Health Inequalities module) (2003-2017, based on 2433 publications)

Round 4 **Welfare** is one of the ESS modules with fairly even usage across items. Nonetheless, the **role of government battery** stands out as the most used section, measuring a key

division between the pro-market or pro-welfare position at the societal and individual level (Figure 18). The related core item (*whether government should reduce differences in income*) is among the most used ESS items in general. Other well used sections are the ones dealing with **social benefits** and their perceived effects on individuals and society or their perceived misuse. The Round 4 **Ageism** module is generally little used, but when using it, analysts are most often interested in respondents' personal experience in overt **age-based discrimination**.

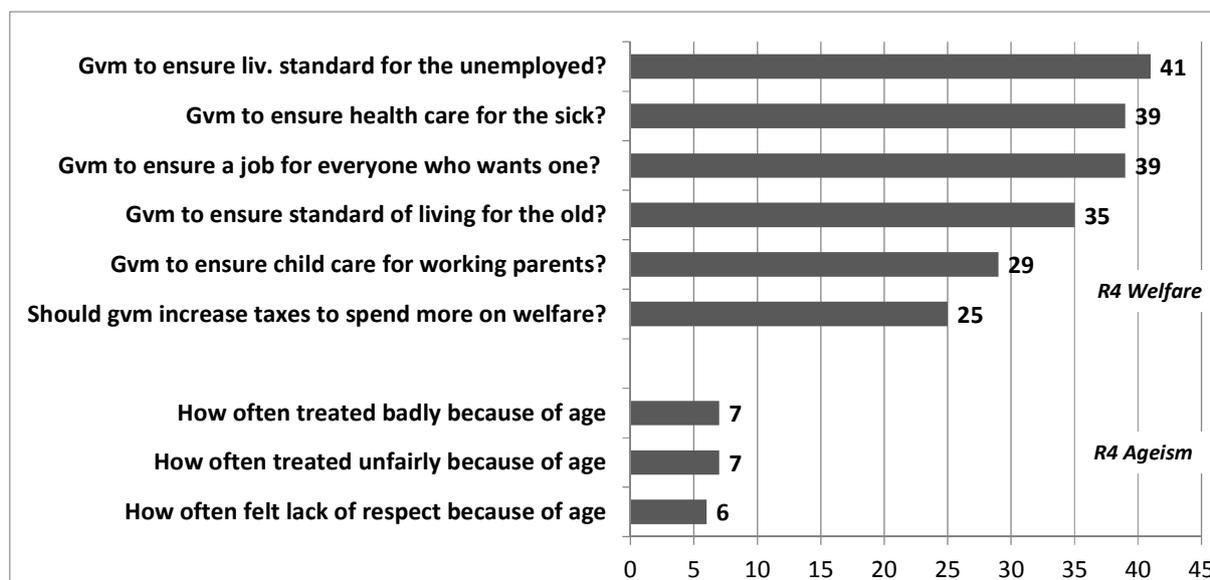


Figure 18: Most used items in R4 Welfare and R4 Ageism modules (2003-2017, based on 2433 publications)

Finally, Figure 19 presents the most used concepts in the new round 5 and round 6 modules.

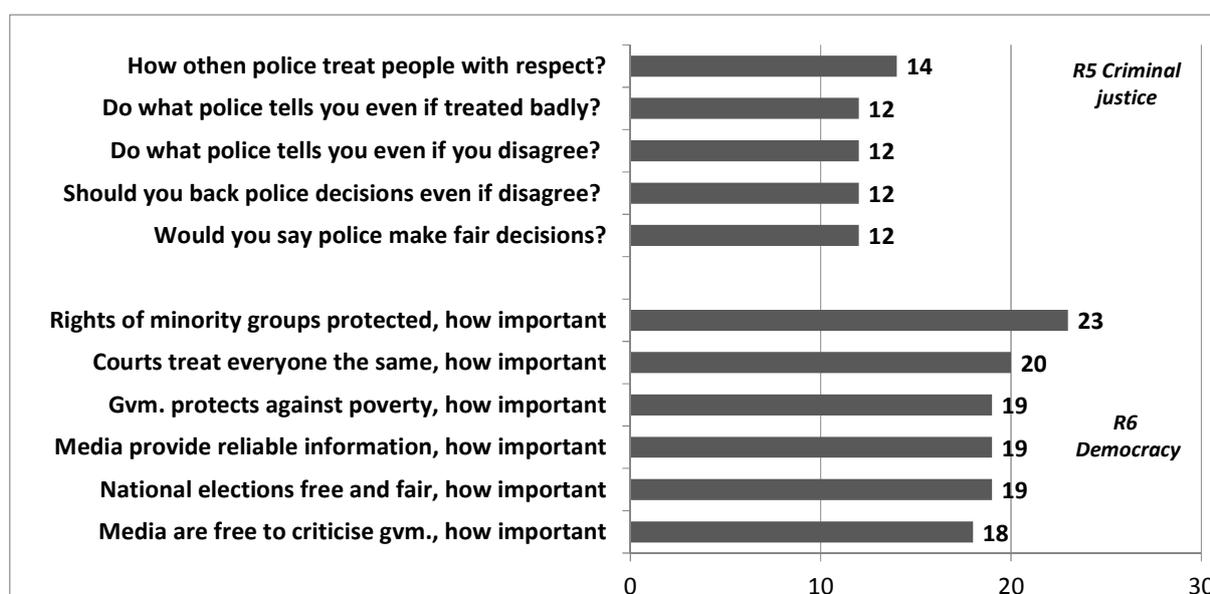


Figure 19: Most used items in R5 Criminal Justice and R6 Democracy modules (2003-2017, based on 2433 publications)

When using the **Criminal justice**, the majority of analysts seem to focus on the institution of **police**, e.g. perception of police fairness among various social groups such as immigrants, as well as normative aspects of police legitimacy. Being the most 'exposed' part of the criminal justice system in terms of direct contact with residents, the analytical focus on police seems an obvious choice. In case of the **Understanding Democracy** module the most used section is proving to be the normative section, i.e. what dimensions are believed to be most important for a democracy, while the perception of actual functioning of a country's democracy seems to be a less analysed angle.

7 THE USE OF ESS ROUNDS AND ANALYTIC FEEDBACK

7.1 Round use

Information on the use of ESS rounds was obtained from 2398 downloaded publications. A freshly published data wave is picked up by analysts as soon as it is issued and reaches its publication peak about 5 years later. After that the usage begins to decline, but not dramatically. Data from the first three rounds are, to some extent, getting replaced by the fresher data sets from last three rounds, but their usage rates are still between 30% and 40%. The inclusion of rounds four, five and six were at about 50% in year 2017.

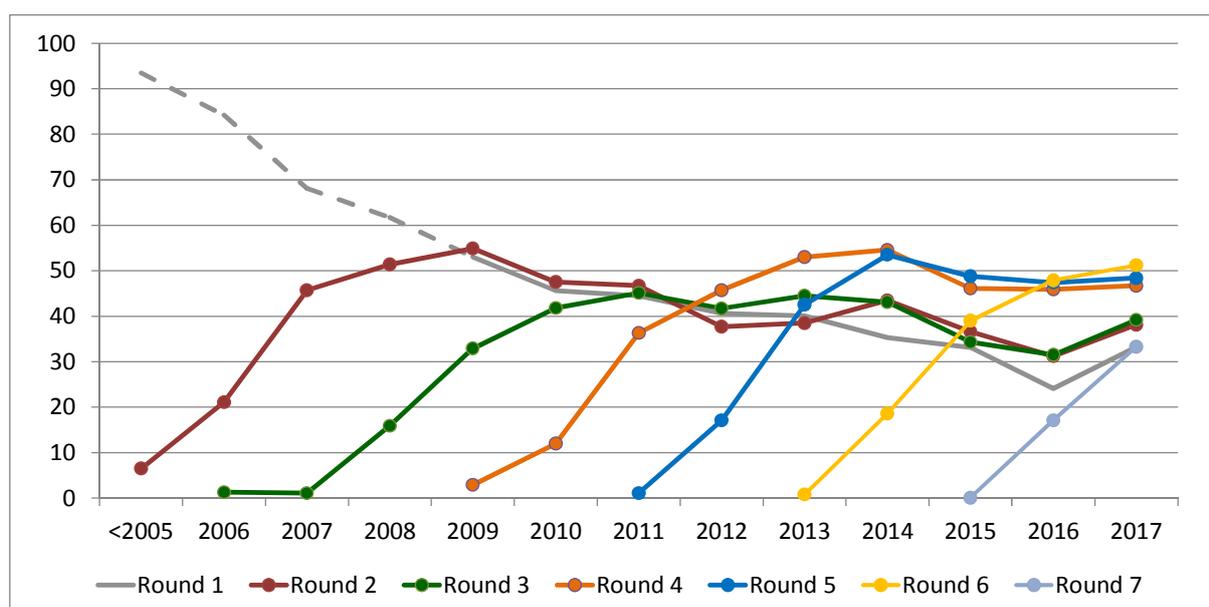


Figure 20: The use of seven ESS rounds in annual publications (2003-2017, N=2398)

It is therefore rather obvious that the **use of data from multiple rounds** is a very frequent analytical choice by ESS based authors and one of ESS main epistemological advantages. Figure 21 shows the trend of multiple round use, much facilitated by the ESS online tool *Cumulative data wizard*.

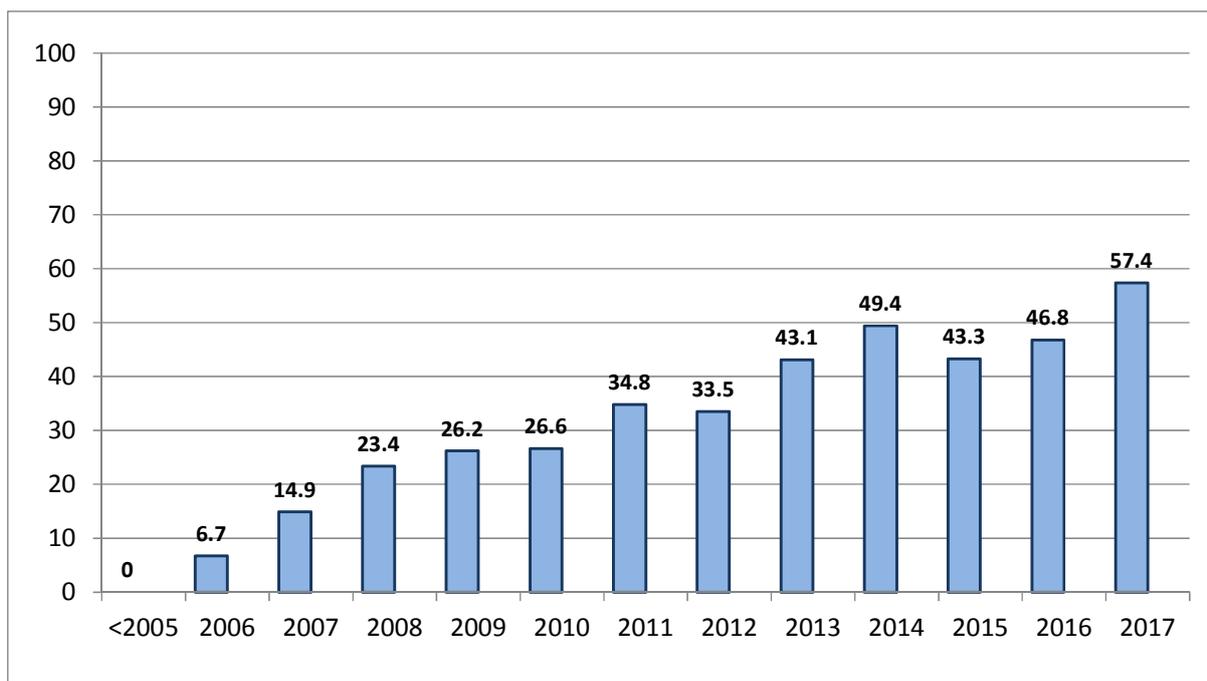


Figure 21: Annual shares of multi-round publications, i.e. ESS publications including 2 or more rounds (2003-2017, N=2321)

Since year 2013, more than 40% of publications have included data from more than one round, while in year 2017 this share has jumped quite sharply, and perhaps temporarily, to 57.4%. The most frequent reason for using multiple rounds is **increasing sample sizes** for the general population and its subgroups (e.g. 1st and 2nd generation immigrants, ISCO code groups, age cohorts etc.). This analytical strategy was detected in 57.1% publications using multiple rounds, while 27.4% of publications combined rounds primarily to examine cross time trends.

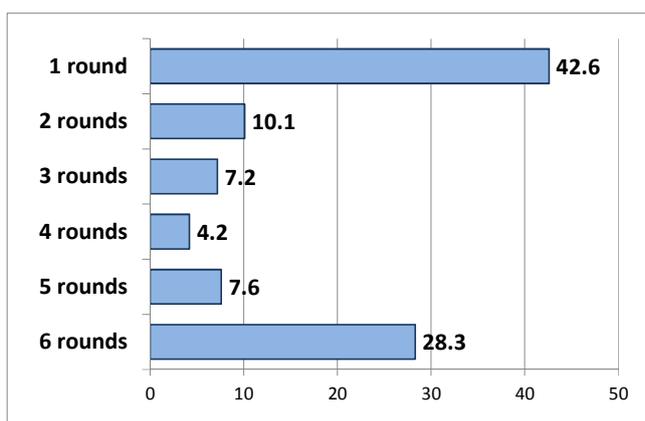


Figure 22: The pattern of multiple-rounds use in 2017 (2003-2017, N=237)

Figure 22 shows the strategy of using multiple rounds among ESS analysts in 2017, when 6 rounds were de-facto available for analysis. A relative minority of publications (42.6%) included only one of the six rounds. Among those who included more than one round, the

majority chose to combine the largest possible number of rounds (six) and obtain the largest available sample. Inevitably, the majority of these publications are limited to the concepts included the A, B, C and F core part which is fielded every round.

There is a possibility that authors will cease including earlier rounds at some point due to their data becoming too old to be pooled relevantly with more recent waves, but this does not yet seem to be happening. In terms of cross-time analysis though, the value of earlier rounds will continue to increase with time.

As pointed out in previous reports, the aspect of cumulating rounds can also be important when making decisions about item inclusion. Analytical usefulness of an item (e.g. party membership) may change significantly with the growth of the ESS cumulative sample sizes in the sense that previously small analytical groups multiply in size and become feasible for statistical analysis. Therefore the vision of usage should not be narrowed into one-round-one-country perspective.

7.2 Analytic feedback

Macro indicators are present in 50.7% of ESS journal articles, with many authors combining attitudinal data with society level measures such as GDP and Gini, among many others (Figure 23).

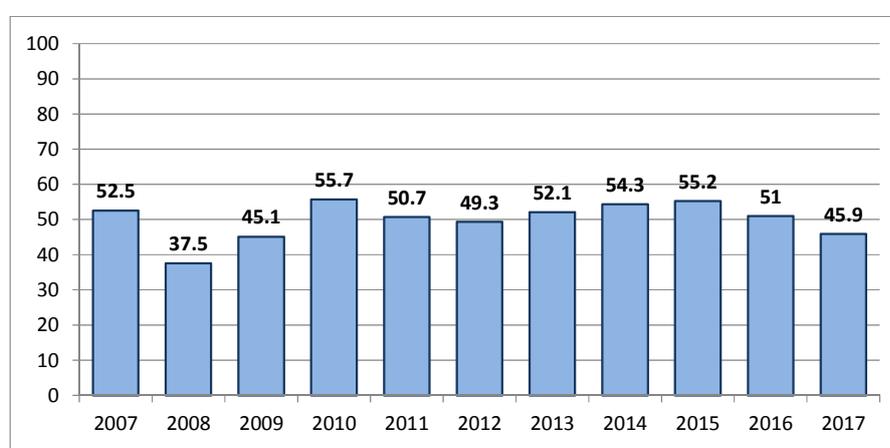


Figure 23: The use of macro indicators (2003-2017, based on 1510 journal articles)

In 29.4% articles ESS micro data is combined with **micro data from other surveys**, either national, but more often comparative (Figure 24). ESS annual bibliographic monitoring exercise measures the presence of micro data from several other comparative surveys. The most frequent combinations with ESS include WVS (162 publications), EVS (135) and ISSP (84).

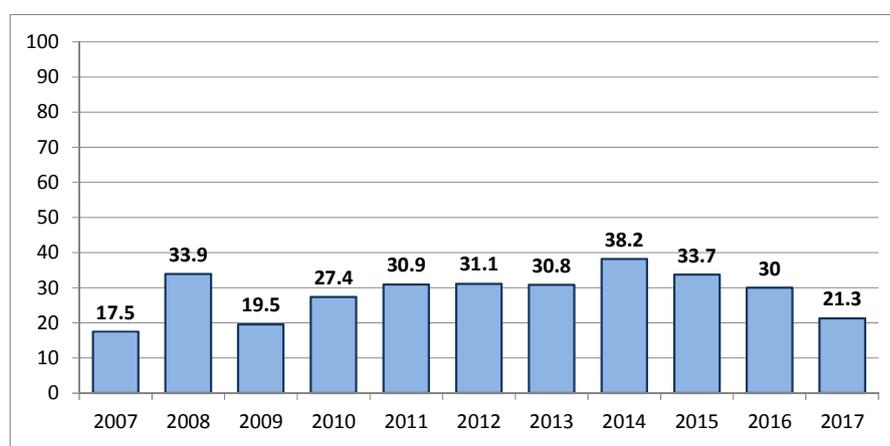


Figure 24: The presence of non-ESS micro data (2003-2017, based on 1512 journal articles)

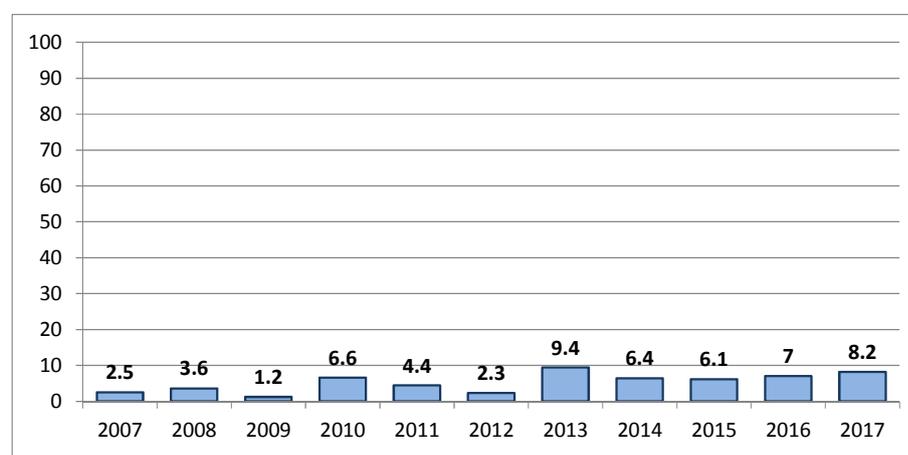
Table 3 presents analytical motivations behind combining ESS micro data with data from the other three surveys.

Table 3: Reasons for combining ESS data with data from WVS, EVS and ISSP (%)

	WVS	ISSP	EVS	Total
Combining indicators	44.2	35.7	59.1	46.9
Robustness checks	29.2	47.6	35.7	31.5
Adding non-European countries	25.2	21.4	0.0	17.7
Adding time points	12.2	7.1	15.5	12.3
Pooling samples	2.7	2.4	9.8	4.6
Adding European countries	3.4	0.0	2.8	2.7
N	147	71	42	260

Overall, the most frequent reason to combine ESS data with data from the three other surveys is **adding indicators**. This may assume several forms, from combining different concepts, additional dimensions of the same concept, adding country aggregates into multi-level models etc. The second most frequent reason (and the first in ESS-ISSP combinations) is **robustness checks**. The four surveys share several standard items such as trust, subjective health, subjective wellbeing etc., although not usually with equal measurement scales, while ESS and ISSP have developed a couple of similar thematic modules (e.g. family, role of government, health). By applying analytical models on two or more data sets authors seek robustness in testing their analytical models and theories, seeking to improve the validity and reliability of their studies. Having developed similar thematic modules, ESS and ISSP is the most suitable pair for such verification strategy, but the extent of robustness checks is also considerable between ESS and both values surveys. About a quarter of the articles that combine ESS data with both global surveys do so to **include non-European countries**, putting European societies in global comparisons. The fourth reason is **covering time points**, in particular adding historical dimension to ESS data by using similar indicators in other three data sets, or adding ESS time points in articles based on other three surveys. Finally, adding European countries is a fairly marginal reason to combine micro data.

To obtain insight into the scope of **regional level analysis**, articles were coded for the presence of the NUTS regions (Figure 25).

**Figure 25:** The use of NUTS regional variable (2003-2017, based on 1508 journal articles)

Overall, 5.9% of ESS articles use the regional geographical variable to explain the social phenomena under investigation, with a slightly increasing trend observable in the last 5 year period.

ESS **data file edition** is cited in 25.0% of journal articles and often indicates that proper, i.e. ESS recommended citation was used (Figure 26). Citing file edition has grown in the last 6 years and oscillates around 30%.

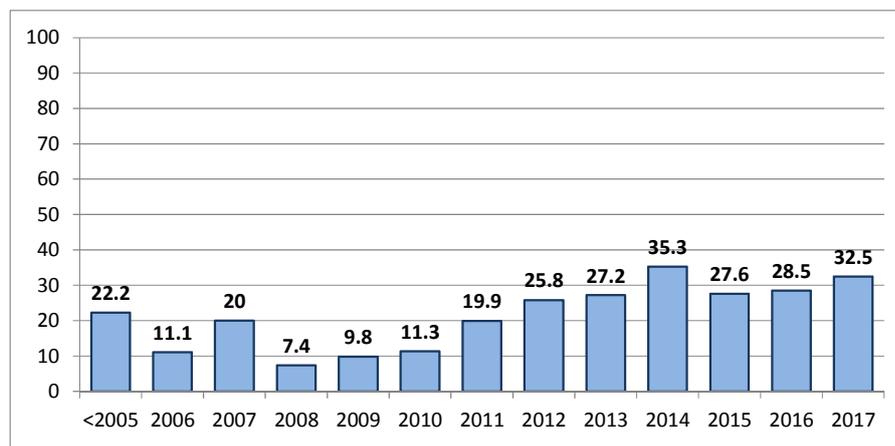


Figure 26: Citing ESS file edition (2003-2017, based on 1505 journal articles)

In 18.5% of articles references to **ESS response rates** were made and 44.6% cited **ESS web pages**. Publications were further examined for references to **ESS weights** (Figure 27). Using design or population weights was explicitly reported in 34.2% of articles, but some authors who did not mention using weights may still have used them, so this may be an underestimation. Reporting weights fluctuates across years, possibly due to increases and decreases in certain types of journals, e.g. medical or psychological, where methodological strictness is more pronounced than in many other disciplines.

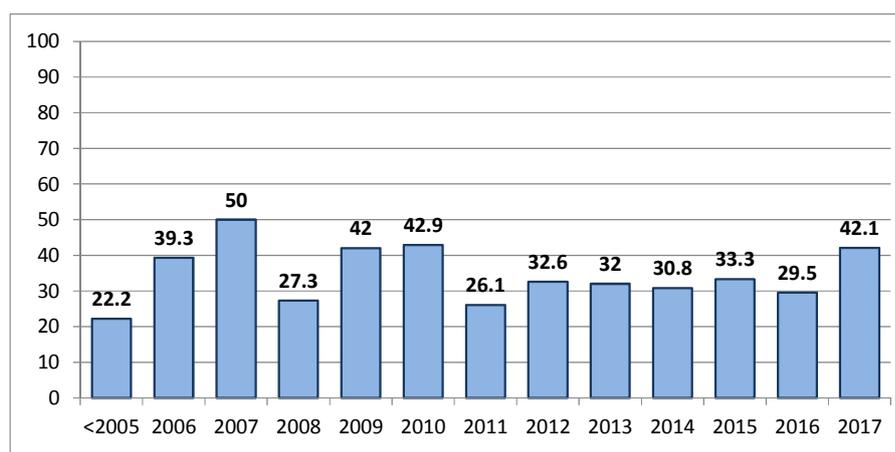


Figure 27: Mentions of weights use (2003-2017, based on 1502 journal articles)

8 ACCESSING ESS PUBLICATIONS

Among the 3287 ESS publications examined, 77.3% could be accessed from a Ljubljana university computer and 40.5% from a computer at home. The key variable in terms of access is **publication category** (Figure 28). While the large majority of working papers and reports are open access, this is not the case with most books or book chapters (except in the form of preview of a limited number of pages) and journal articles, when access attempt is made from a home computer. Generally, access to scientific articles does not seem to be an issue for academic users, as their institutions will pay for access through (costly) university subscriber schemes, yet in case of books and chapters academic users have no particular advantage.

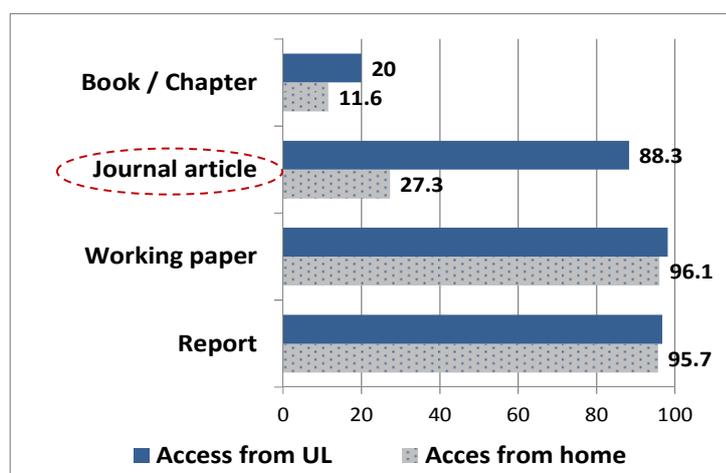


Figure 28: Open access to ESS publications (2004-2017, N=3287)

In terms of scientific rigour and quality, **journal articles** are by far the most critical category, and for the time being, non-academic users continue to have limited free access to peer-reviewed academic findings. Figure 29 shows a trend towards a larger share of open access articles in the last four years, but a few more measurements will be needed to establish, if the trend is going to continue, in the light of increased demands for openness on the part of public funders (see Suber, 2012; Kimbrough & Gasaway, 2016).

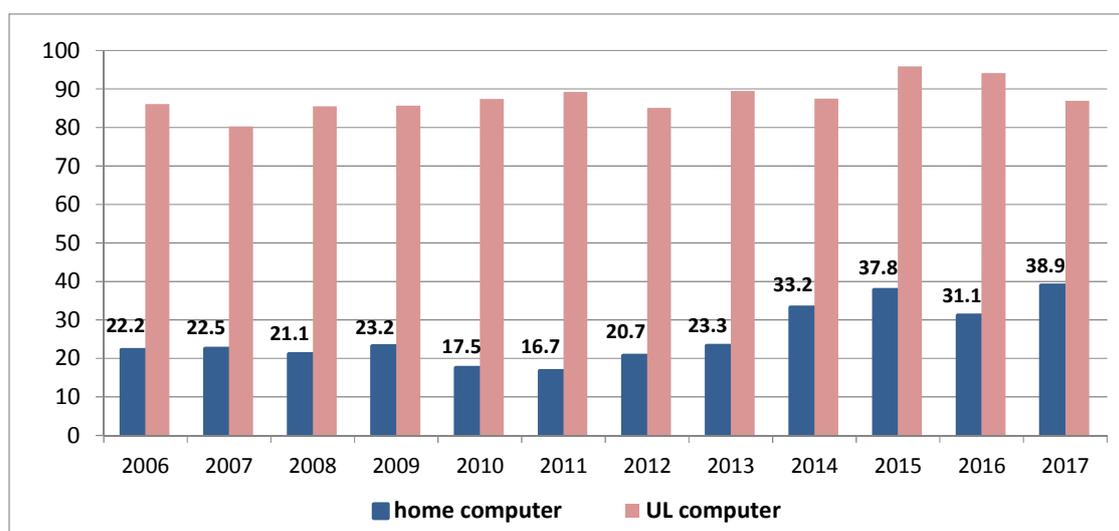


Figure 29: Access to ESS journal articles (2004-2017, N=1862)

All in all, the majority of high quality scientific publications are not freely accessible and the issue is particularly relevant for users who are not affiliated in academic institutions (e.g. private companies, NGOs, general public etc.).

9 INFORMING POLICY

Almost four decades ago the concept of a ‘new social contract’ between publicly funded science and society emerged, emphasizing the need to obtain economic and social benefits from research investments, rather than taking for granted that such benefits would naturally follow from academic enquiry. Science is expected to contribute something in return to society and its public funding, should generate ‘value for money’ and produce ‘research impact’ in the form of broader societal returns beyond academia. It should generate knowledge that will benefit society as a whole, stimulate new approaches to social issues or inform public debate and policy-making (Penfield et al. 2014: 22; Bornmann 2012: 673, Donovan 2011: 176). **Informing policy making** is generally regarded as the expected type of social impact in social sciences. By offering a possibility to compare outcomes of different policy solutions as macro structural elements, cross-national surveys provide an ideal research format to examine policy effects. Hence it is sometimes postulated that country-level comparisons, usually impossible to run at the societal level, are the closest substitute for experimental research in area of social sciences because social phenomena are otherwise hard or impossible to manipulate (Smelser 1976).

To estimate the presence of **policy-oriented content** in ESS journal articles a simple and robust quantitative indicator is used, i.e. the frequency of keywords “policy” and “policies”. In 1506 articles that were examined, the keywords were present in 76.2% of them. The combined number of occurrences is (at least⁶) 13.875, on average 9.2 per article. Up to two-thirds of policy references are domain specific, with the most frequent being **welfare, immigration, economic and family policies**, (Figure 30). These seem to be the policy domains that the ESS survey is most fit to inform.

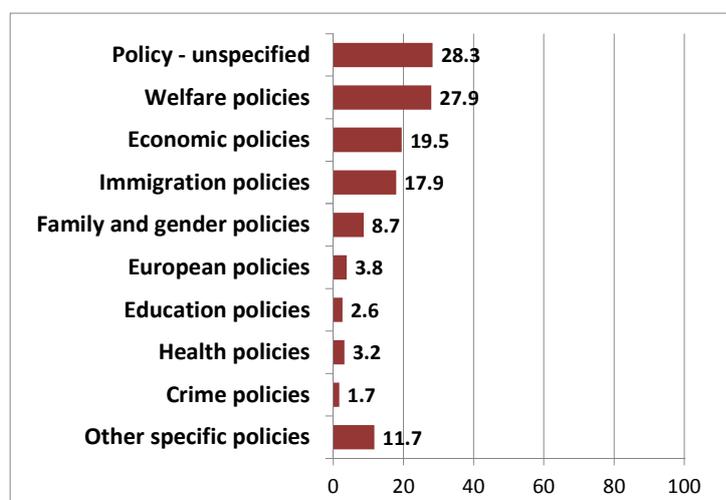


Figure 30: Shares of domain specific policy references (2003-2017, N=1508 journal articles)

A global study of research activity in modern universities, conducted among 12.379 academics in 15 countries (Bentley, Gulbrandsen and Kyvik 2015) found that basic research is an activity that continues to define academic work at most research universities

⁶ Only up to 99 occurrences per article are counted

around the world, however, more academics are engaged in applied research than basic research. Researchers overwhelmingly combine these activities, resulting in “hybrid profiles” of academics, who still consider basic research to be an important part of their work, but often as secondary to applied research. The authors further find that this “emphasis on applied research is not only related to funding and university strategies; it is even more strongly related to individual norms about academics obligations”. Thus, according to the study, academic researchers are not just being ‘tactical’ in the matter of funding, which is often easier to obtain for applied research, but have ‘internalized’ the obligation to link their research with positive societal outcomes. This seems true also for the majority of ESS based authors.

To explore in a little more detail which academic communities are most oriented towards **informing policy** and which towards **developing theories**, the 1495 downloaded articles were searched not only for keywords ‘policy’ and ‘policies’ to identify a policy orientation, but also for keywords ‘theory’ and ‘concept’ to identify a theoretical orientation. Table 4 presents the average number of ‘policy’ and ‘theory’ keywords across journal academic domains.

Table 4: Policy and theory orientation across journal disciplines (2003-2017, N=1495 journal articles)

	avg. number of <i>policy</i> keywords	avg. number of <i>theory</i> key-words	N of articles in journal domain
Journal academic field			
Policy, administration	20.7	9.9	70
Welfare, inequalities	13.2	12.8	32
Politics, parties	13.2	10.2	260
Environment	11.2	12.8	17
Demography	10.9	8.8	26
Migration, Immigration	10.5	13.3	54
Education	9.8	7.7	21
Economy general	9.6	7.7	126
Family, ageing	8.9	8.6	52
Labour, industrial relations	8.7	9.4	58
Sociology general	8.2	12.5	368
Health, medicine	5.0	2.3	111
Management, business	5.0	7.8	51
Criminology	4.6	10.1	27
Psychology	4.1	10.1	94
Media, ICT	3.0	9.8	50
Religion	2.4	12.2	17
Total	9.8	9.9	1495

Articles published in journals from the domain of welfare, inequalities, politics, environment, demography and migration are, on average, most policy oriented, but seemingly not 'at the expense' of theory development. On the other hand, articles in the domains of religion, criminology, psychology and general sociology tend to be more theoretically oriented and have considerably less policy content. The general picture seems to be, that ESS findings are rich both in theory development and policy oriented analysis. A somewhat specific domain is Health & medicine which is well below average in policy orientation and is also the least theoretically oriented, seemingly thriving on descriptive research.

10 KEY FINDINGS

- Out of **3904** ESS based publications, 1848 or 48.3% are articles in academic journals and 623 are books or book chapters. The **disciplinary areas** where ESS data are most widely used are sociology, political science, economy, psychology, health & medicine and methodology.
- 15% of ESS publications are methodological and 85% are substantive, with **most popular research topics** being politics, immigration, welfare, work-life conflict, economic conditions and social capital. In comparison with similar international surveys, ESS is the leading source of findings in the area of politics and immigration, while its shares of articles studying culture, values and religion are comparatively smaller.
- **First authors** in ESS publications are affiliated in 55 countries or international institutions, with almost 90% of ESS publications produced by authors affiliated in Europe. Individual countries where most first authors come from are United Kingdom, Germany, The Netherlands and USA.
- **National data inclusion rates** range from 58%-75% for countries that fielded 8 rounds and 3%-30% for countries that fielded one or two rounds. Other key factors that determine the inclusion of national data are, which exacts rounds were fielded or missed, a country's 'comparative value', availability of contextual data and methodological issues.
- The most used part of the ESS questionnaire is **A, B, C core**, with its items present in 80% of ESS publications. About 43% of ESS publications use only longitudinal A, B, C Core items, about 40% combine Core and module items and about 17% use only module items. The most used analytical concepts in the Core – social capital, political participation, subjective well-being and immigration – are used extensively by all three main ESS academic user groups, sociologists, political scientists and economists.
- The **five most used rotating modules** - Immigration, Family & Work, Welfare, Wellbeing and Citizenship - were overwhelmingly designed by academics belonging to three disciplines, sociology, political science and economy. The less used modules were primarily created by academics from other disciplines.
- Explanations for the **low usage of some modules** may include: the modules may have targeted a niche academic audience to begin with; they did not manage to include most relevant analytical concepts; they did not successfully communicate their existence to the

relevant audience; they faced competition from a more specialized, dedicated survey in their respective areas;

- In five rotating modules more than 50% of items are widely used, suggesting that the QDTs managed to include the majority of concepts that attract strong analytical use. In three modules 70-95% of items show low or very **low item usage**.
- The most used set of items from any ESS rotating module continues to be the battery measuring respondents' involvement in 12 **voluntary organizations** from R1 Citizenship. It can be speculated that a module which would re-run this battery and add other concepts related to volunteering would be highly appreciated among the many analysts of social capital.
- In the otherwise well-used Family module some sections – e.g. subjective feelings about household work, disagreements between partners, inter-generational solidarity, unpaid help, childcare preferences or the effect of having children on occupational career – drew comparatively little attention. **Publishing item usage data** on ESS webpage could perhaps contribute to more even use across concepts, by highlighting questionnaire parts that are underexplored.
- In the publishing year 2017, the inclusion of the first three ESS rounds in publications was still between 30% and 40%, while the inclusion of rounds four, five and six was at about 50%. The strong usage of all data waves is due to a growing share of analysts (57.4% in 2017) **using multiple rounds**. Among authors who included more than one round, the majority chose to combine a large number of rounds (6), to obtain the largest possible combined sample.
- The regional variable (**NUTS**) is used in 5.9% of ESS journal articles. **Macro indicators** are present in 50.7% of ESS articles while 29.4% articles combined ESS micro data with micro data from other comparative surveys, most often WVS, EVS and ISSP. The most frequent reasons to **combine ESS micro** are adding indicators, doing robustness checks, adding non-European countries and covering time points.
- Citing ESS **file edition** has grown in the last 6 years and oscillates around 30%. References to ESS **response rates** were made in 18.5% of articles and ESS **web pages** were cited in 44.6% of them. Using design or population **weights** was explicitly reported in 34.2% of articles.
- 77.3% of ESS publications could be accessed from a university computer and 40.5% from a home computer. The share of **open access** articles has increased from about 20% to about 35% in the last four years, but more measurements will be needed to establish, if the trend is about to continue.
- Keywords '**policy**' and '**policies**' were present in 76.2% of ESS journal articles on average 9.2 per article. Up to two-thirds of policy references are domain specific, with the most frequent being welfare, immigration, economic and family policies. ESS articles published in journals from the domain of welfare, inequalities, politics, environment, demography and migration are, on average, the most policy oriented, while articles in the domains of religion,

criminology, psychology and general sociology tend to be more theoretically oriented. ESS findings are rich both in theory development and policy oriented analysis.

Conclusion

ESS is the leading European comparative data source on a number of social issues such as immigration, political participation, work-life conflict, subjective wellbeing and others. It is also the leading source of methodological innovation in cross-national survey research. ESS methodological rigour and fast growing cumulative samples offer so far unparalleled analytical opportunities for developing theories and informing policies. Until 2017, ESS based findings were published in more than 1800 scientific articles and over 600 chapters and monographs.

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