Annex A. Analysis of datasets and existing identifiers of civil society

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This Annex contains a detailed account of analysis carried out for the report 'A Feasibility Study and Preliminary Framework for a Civil Society Satellite Account' on selected official datasets that contain identifiers that could be used to identify organisations and workers in the civil society sector. A summary of this analysis is in Chapter 3 of the main report, in relation to the 'Do now' option. This Annex to that report provides a more detailed description of methods and findings of the analysis, with more technical details. We recommend reading the relevant section of the main report before reading this Annex.

1. Overview and objectives of the analysis

To assess the suitability of various official data sources for measuring the civil society sector, we conducted extensive analysis in the Secure Research Service (SRS) – a secure data repository hosted by the ONS.[1] We explored four main datasets:

- Labour Force Survey (LFS) – a large representative sample survey of households, with questions on work and various other topics;
- Annual Business Survey (ABS) – a large representative sample survey of businesses, with questions on turnover, costs and capital investments;
- Annual Survey of Hours and Earnings (ASHE) – a large representative sample survey of employees, collecting information on hours and pay about sampled individuals from their employers;
- Business Structure Database (BSD) – an annual snapshot of the Inter-Departmental Business Register (IDBR), containing basic information about the entire business population.

Key points about the data sources are included in Table 1, including the time span of the data we used, and the variables used to identify relevant observations in the civil society sector. More details on the data sources and identifiers are in section 2.

[1] This work was produced using statistical data from ONS. The use of the ONS Statistical data in this work does not imply the endorsement of the ONS in relation to the interpretation or analysis of the statistical data. This work uses research datasets which may not exactly reproduce National Statistics aggregates.

Table 1. Summary of microdata sources analysed

Source	Time span	Identifier	Notes
LFS	2009-2022 (quarterly)	*sectro03* = 7 (self-reported) *sectro03* = 5, 7 or 9	5 = "A university, or other grant funded educational establishment (include opted-out schools)" 7 = "A charity, voluntary organisation or trust" 9 = "Other kind of organisation"
ABS	2009-2019 (annual)	*acp_stat* = 7 (equivalent to legal status on IDBR at time of sampling)	Predecessor survey the Annual Business Inquiry (ABI) was not available for this analysis, but should be available in future
ASHE	1999-2019 (annual)	*status* = 7 (equivalent to legal status on IDBR at time of sampling)	
BSD	1997-2021 (annual)	*status* = 7 (legal status on IDBR at time of snapshot) *sector* = "S15001", "S15002" or "S15003" (ESA 2010 institutional sector codes for NPISH)	

The objective of the analysis was to test both the feasibility and quality of each source for the purposes of a civil society satellite account. To determine feasibility, we considered sample sizes, statistical disclosure control, and ability to reliably identify relevant units. To determine quality, we considered consistency in the results over time, comparability against other sources, and expert judgement.

2. Findings for each dataset

Labour Force Survey (LFS)

We identified relevant workers on the LFS based on them responding with "A charity, voluntary organisation or trust" (category 7) on the variable *sector03* which asks about the "Type of non-private organisation" the respondent works for. Respondents are asked this question if they respond "Some other kind of organisation" to a former question "Whether working for private firm or business" (*sector*). The full list of options for these variables are listed below:

sector – Whether working for private firm or business

- A private firm or business or a limited company;
- Some other kind of organisation.

sectro03 – Type of non-private organisation

- A Public limited company (plc);
- Nationalised industry or state corporation;
- Central Government or Civil Service;
- Local government or council (inc. police, fire services & local authority controlled schools or colleges);
- A university, or other grant funded educational establishment (include opted-out schools);
- A health authority or NHS trust;
- A charity, voluntary organisation or trust;
- The armed forces;
- Other kinds of organisation.

The LFS is likely to capture a narrower set of relevant workers using this approach than NPISH or most civil society definitions. For instance, workers for universities and Further Education colleges are explicitly included in a different category (5) in *sectro03*, which might also include workers for nurseries which are often non-profit. Workers of churches and other religious organisations are included in category 9 in *sectro03*, although this category (9) might also include some irrelevant types of workers.

The routing also means this is likely to be a lower bound, as the filter question *sector* may capture some people working for 'private sector' non-

profits as working for “a private firm or business or a limited company”. Indeed the user guide for the LFS microdata states: “The aim is to get a split between the public & private sector; not necessarily an accurate split between each category listed”. We focus on category 7 of *sectro03* when exploring the characteristics of relevant workers, but expect this to give a smaller total relative to broader definitions. We include categories 5 and 9 of *sectro03* when making aggregate comparisons.

For this group of workers, we calculate their total pay and total actual hours of work, in each case weighted appropriately. These variables are collected on the LFS, we are simply summing them for the group of workers identified by the *sectro03* variable as relevant for the civil society sector. In order to compare the aggregate pay measure against other measures of ‘staff costs’ in Section 3, we apply an uplift of 15% to account for non-wage labour costs such as employers’ pension and National Insurance contributions.

Using categories 5, 7 and 9 of *sectro03* gives a total about twice the size as when using category 7 alone (Table 2). This demonstrates the importance of using this broader measure when making comparisons against other datasets.

Table 2. Thousands of workers with various combinations of *sectro03*, LFS

Year	Category 7	Categories 7 and 5	Categories 7, 5 and 9
2009	744	1,244	1,462
2010	800	1,314	1,537
2011	766	1,304	1,525
2012	793	1,374	1,608
2013	807	1,423	1,677
2014	816	1,494	1,805
2015	828	1,533	1,861
2016	854	1,581	1,913
2017	882	1,623	1,947
2018	878	1,654	1,987
2019	920	1,729	2,040
2020	940	1,768	2,069
2021	953	1,810	2,105
2022	968	1,852	2,145

Source: ONS – Labour Force Survey; authors' calculations

Notes: Categories based on combinations of the sectro03 variable.

We also calculate the number of relevant workers (based on category 7 of *sectro03* only), and their total hours worked and total pay, by industry division of the Standard Industrial Classification (SIC) 2007. Many industry divisions have very few or no relevant workers, and would thus fail statistical disclosure control, which typically requires a minimum of 10 observations underlying a data point. The industries with limited observations are largely those expected to have little civil society activity, including all of the agriculture, mining, manufacturing, utilities, transport, ICT services, and finance and insurance industries, and most of the construction and business services industries.

There are sufficient observations for outputs in retail, accommodation and food services, real estate, veterinary services, education, health and social care, arts, cultural, sports, and membership organisation industries. This is largely consistent with expectations and other sources.

On the basis of the feasible industry aggregation, Table 3 shows for each industry group the proportion of workers, hours actually worked, and pay for those that report they are in the non-profit sector (category 7 of *sectro03*). The proportions are fairly stable over time, albeit with considerable volatility on a quarterly basis. The proportion of pay by industry is also shown in Table 3, which has a reduced industry breakdown compared to the other variables, since pay questions are only asked in the first and fifth wave of the LFS, and thus the sample sizes are much smaller than for questions asked in all waves, which prevents a more detailed industry breakdown on statistical disclosure grounds.

Table 3. Non-profit workers share (%) of variables by industry group, LFS

	Workers		Hours		Pay	
Industry group	Average 2009-2019	2019	Average 2009-2019	2019	Average 2009-2019	2019
Agriculture	0.7	0.3	0.5	0.3	0.2	0.3
Production and construction	0.2	0.2	0.1	0.2		
Wholesale, retail	0.3	0.3	0.3	0.2	0.3	0.2
Transportation	0.3	0.3	0.2	0.3		
Accommodation services	1.0	0.7	1.1	0.9	0.7	0.5
Food services	0.5	0.6	0.4	0.5		
ICT services, finance	0.3	0.3	0.3	0.3	0.3	0.4
Real estate	11.6	13.2	11.7	14.1	16.7	21.3
R&D	7.4	8.2	7.3	8.2	7.9	9.9
Other professional services	0.8	0.9	0.7	0.8	0.8	0.7

	Workers		Hours		Pay	
Industry group	Average 2009-2019	2019	Average 2009-2019	2019	Average 2009-2019	2019
Services to buildings	0.5	0.3	0.5	0.2		
Other admin services	1.8	1.1	1.5	0.9		
Public admin, defence	0.6	0.8	0.6	0.8	0.5	0.6
Education	3.2	3.3	3.2	3.5	3.5	3.9
Human healthcare	1.8	2.0	1.7	1.9	1.6	1.9
Residential care	13.0	11.4	13.1	11.6	16.1	12.1
Social work	31.6	34.1	30.7	32.6	37.7	39.6
Arts, entertainment	5.7	4.0	6.0	4.2	19.2	13.5
Libraries, culture	20.6	26.5	21.4	27.1	21.5	29.7
Sports, recreation	3.3	3.6	3.5	3.5	4.3	3.1
Membership organisations	27.2	23.0	26.3	21.5	25.3	21.8
Other services	0.6	0.9	0.6	1.2	1.4	2.4

Source: ONS – Labour Force Survey; authors' calculations

Notes: Relevant workers identified by category 7 of sectro03 variable. Industry groupings are based on SIC 2007, see Table 5 for details.

The results appear largely consistent with expectations of the spread and rough proportions across industries. In section 3 we compare this against other sources, which are largely comparable.

The LFS also allows breakdowns of civil society workers by age, sex, qualification, region and various other characteristics. Many of these are reported in NCVO's UK Civil Society Almanac[2], and we were able to match closely the results published there. A civil society satellite account could

[2] https://www.ncvo.org.uk/news-and-insights/news-index/uk-civil-society-almanac-2022/

include similar information. We also explored the feasibility of producing cross-tabulations of characteristics given sample sizes. There are typically just over 1,000 relevant workers on the LFS each quarter. We judge that the sample in the LFS would be largely insufficient to provide cross-tabulations below the very highest levels. For instance:

- Sex by industry would be feasible only for the largest 10 or so civil society industries;
- Age group by industry would be feasible only for the largest 10 or so civil society industries, and with fairly aggregated age groups (e.g. 16-39, 40-54, over 55);
- Regional breakdowns would be possible only at a high level (e.g. ITL1) and not at lower levels (e.g. local authorities);
- Industry by region is infeasible beyond the largest few civil society industries;
- Estimates of pay are largely infeasible in cross-tabulations given they are based on even smaller sample sizes.

Modelling techniques could be used to enable more reliable estimates with more detail. For instance, pay could be imputed for relevant workers who are not asked the pay question (or refuse to answer it) using regressions based on observables such as education, age, sex and industry. Small area estimation or Bayesian techniques could be used to model estimates for local authorities.

Annual Business Survey (ABS)

We identify relevant units on the ABS using the variable *acp_stat* which is the legal status variable of the enterprise on the IDBR at the time of sample selection. Units with a legal status of 7 (non-profit making body) are assumed to be part of the civil society sector for this analysis. The legal status variable can take one of seven categories, listed below:

- Company
- Sole proprietor
- Partnership4
- Public corporation
- Central government
- Local government
- Non-profit making body

We produced aggregates of turnover (from the IDBR at sample selection, and reported on the ABS), employment (from the IDBR at sample selection), employment costs, approximate Output (aOutput), approximate Gross Value Added (aGVA), and approximate Gross Operating Surplus (aGOS) for relevant units, in each year from 2008 to 2019.[3] These are detailed in Table 4. There are around 2,500 to 3,500 relevant respondents per year on the ABS.

Table 4. Aggregates of various variables for non-profit organisations, ABS

Year	Turnover (IDBR), £bn	Turnover (ABS), £bn	Employment (IDBR), thousands	Employment costs (ABS), £bn	aGVA (ABS), £bn	aOutput (ABS), £bn	Gross Operating Surplus (ABS), £bn
2008	61.35	50.06	1,806	41.45	18.52	47.69	-23.25
2009	62.82	51.05	1,831	43.71	18.08	48.46	-25.97
2010	65.68	52.96	1,645	40.21	19.84	49.78	-20.66
2011	68.07	55.01	1,675	41.27	22.74	52.54	-18.94
2012	68.97	58.58	1,888	46.08	24.70	56.58	-21.84
2013	73.38	64.15	1,885	47.21	27.61	62.23	-20.04
2014	75.23	66.93	1,890	47.66	31.28	65.43	-16.75
2015	88.38	73.94	1,998	50.84	36.53	72.20	-14.65
2016	98.21	79.14	2,127	54.59	38.97	77.21	-16.13
2017	93.87	82.59	2,117	56.21	41.05	81.41	-15.77
2018	100.19	86.69	2,118	58.39	42.57	85.12	-16.41
2019	102.25	89.86	2,132	63.32	44.17	87.85	-19.74

Source: ONS – Annual Business Survey; authors' calculations
Notes: Relevant organisations identified by category 7 (non-profit making body) of acp_stat (reflecting legal status on IDBR).

We also calculated these variables by industry division of SIC 2007. As with the LFS, most industries had insufficient sample sizes to enable the data to

[3] "Approximate" variables are similar to the relevant National Accounts concepts, but may be have a more limited definition or coverage than their National Accounts equivalents, and are hence labelled as "approximate". For more, see Ayoubakhani (2014) - https://webarchive.nationalarchives.gov.uk/ukgwa/20160106210631/http://www.ons.gov.uk/ons/rel/abs/annual-business-survey/a-comparison-between-abs-and-national-accounts-measures-of-value-added/index.html

be used. In addition, we had to consider the "dominance rule" as part of statistical disclosure control. This says that when an individual unit accounts for a large proportion[4] of a given aggregate, it cannot be released, as the aggregate might reveal information about the large unit within. Given the relatively small sample sizes in many industries, and the presence of large bodies in the civil society sector in some industries, this issue often occurs.

To avoid issues with statistical disclosure control (sample sizes and dominance rule) we designed an industry aggregation that would enable maximum detail to be released, but still be consistent with the thresholds. This is used for LFS, ABS and ASHE estimates, and is detailed in Table 5.

Table 5. Industry aggregations used in analysis of micro-datasets

Industry grouping	SIC 2007 sections	SIC 2007 divisions
Agriculture	A	01 – 03
Production and construction	B, C, D, E, F	05 – 43
Wholesale, retail	G	45 – 47
Transportation	H	49 – 53
Accommodation services	I (part)	55
Food services	I (part)	56
ICT services, finance	J, K	58 – 66
Real estate	L	68
R&D	M (part)	72
Other professional services	M (part)	69 – 71, 73 – 75
Other admin services	N (part)	77 – 81
Services to buildings	N (part)	82
Public admin, defence	O	84

[4] Official guidance uses 43.75%. In this analysis we used 40%. There are also other conditions. For more details, contact the ONS.

Industry grouping	SIC 2007 sections	SIC 2007 divisions
Education	P	85
Human healthcare	Q (part)	86
Residential care	Q (part)	87
Social work	Q (part)	88
Arts, entertainment	R (part)	90
Libraries, culture	R (part)	91
Sports, recreation	R (part)	93
Membership organisations	S (part)	94
Other services	R (part), S (part), T, U	92, 95 – 99

Notes: Public administration and defence (section O, equivalently division 84) was omitted from some analysis given the definition of civil society excludes units under government control. For more on SIC 2007, see:
https://www.ons.gov.uk/methodology/classificationsandstandards/ukstandardindustrialclassificationofeconomicactivities/uksic2007

On the basis of this bespoke industry aggregation, Table 6 details the proportion of aggregate turnover (as reported on the ABS), employment costs, and aGVA in each industry group which civil society units account for in 2019, and on average between 2009 and 2019. Consistent with LFS estimates in Table 3, and as explored in more detail in section 3, these estimates are broadly consistent with other sources.

Table 6. Non-profit organisations share (%) of variables by industry group, ABS

	Turnover (ABS)		Employment costs		aGVA	
Industry group	Average 2009 - 2019	2019	Average 2009 - 2019	2019	Average 2009 - 2019	2019
Agriculture	1.2	1.8	4.3	5.2	1.2	0.6
Production and construction	0.1	0.0	0.1	0.1	0.1	0.1

	Turnover (ABS)		Employment costs		aGVA	
Wholesale, retail	0.1	0.1	0.3	0.3	0.2	0.1
Transportation	0.2	0.3	0.3	0.4	0.2	0.3
Accommodation services	1.9	2.3	2.4	3.1	1.6	2.1
Food services	2.5	1.3	2.8	1.3	1.8	1.1
ICT services, finance	0.8	0.8	0.9	1.0	0.9	1.0
Real estate	18.1	17.1	17.1	17.6	17.7	18.0
R&D	4.2	5.0	10.7	10.7	-1.5	-10.1
Other professional services	0.8	0.6	1.3	1.3	0.6	0.4
Services to buildings	2.1	1.0	3.3	2.4	2.0	1.3
Other admin services	0.2	0.3	0.3	0.5	0.2	0.2
Education	65.5	72.4	81.7	85.1	57.5	68.3
Human healthcare	16.4	19.6	30.0	32.8	15.7	21.0
Residential care	30.5	28.9	35.4	33.3	26.7	25.7
Social work	39.7	41.1	57.1	55.1	19.5	21.2
Arts, entertainment	10.5	10.7	32.2	32.4	1.5	1.3
Libraries, culture	28.4	34.7	26.2	33.5	22.9	34.7
Sports, recreation	17.6	16.8	21.5	20.9	17.4	15.7
Membership organisations	76.0	73.6	79.1	77.5	64.9	64.2
Other services	0.3	0.5	2.4	2.9	0.5	0.6

Source: ONS – Annual Business Survey; authors' calculations

Notes: Relevant organisations identified by category 7 (non-profit making body) of acp_stat (reflecting legal status on IDBR). Negative GVA is possible if intermediate costs exceed output; this is especially true for aGVA in the ABS since the output measure is narrower than the output measure in the National Accounts. Turnover is a proxy for output, and cannot be negative.

The ABS does not cover some parts of the economy, including most of the agricultural, finance and insurance, public administration, education and healthcare industries. The public sector is explicitly excluded (based on categories 5 and 6 of the legal status variable on the IDBR). As such, the fraction of turnover that civil society accounts for will be overstated in industries with a public sector presence, including education, and health and social care.

The ABS contains a large number of variables, and we have explored only a handful of them, based on the likely main variables of a civil society satellite account. Other variables may also prove useful in the construction of a civil society satellite account. For instance, the ABS asks a question on "other income", which includes income from donations and grants, to some types of respondent. This could be used to understand the total income of the civil society sector, and the breakdown of output into types of output (market output and non-market output). Table 2 in Chapter 3 of the main report documents the recommended variables for a civil society satellite account in more detail.

Annual Survey of Hours and Earnings (ASHE)

We identify relevant workers in ASHE using the variable *status* which is the legal status variable of the enterprise, for which the sampled employee works, on the IDBR at the time of sample selection. Employees of units with legal status of 7 (non-profit making body) are assumed to be part of the civil society sector; this is the same approach as for the ABS.

We produced aggregates of pay and hours worked from ASHE based on the inclusion criteria above (Table 7). We also calculated these variables by industry division of SIC 2007. ASHE is one of the largest official sample surveys available, covering around 150,000 workers per year, so statistical disclosure control is less of a worry here. There are around 14,000 to 15,000 relevant respondents per year on ASHE in recent years (2013 to 2019), up from around 9,000 to 12,000 in earlier years given general growth in the labour force and changes in the sample size of the survey over time. Nonetheless, many industries had insufficient sample sizes to be used. We used the same industry aggregation as for the LFS and ABS (detailed in Table 5) to enable comparison.

Table 7. Aggregates of various variables for non-profit organisations, ASHE

Year	Number of employees (thousands)	Total annual labour costs (£m)	Total annual hours worked (millions)
1999	1,294	18,012	1,939
2000	1,342	19,214	1,962
2001	1,351	19,711	1,969
2002	1,577	24,749	2,363
2003	1,623	26,854	2,463
2004	1,770	29,404	2,658
2005	1,759	31,680	2,719
2006	1,838	34,588	2,857
2007	1,864	36,645	2,895
2008	1,918	38,283	2,954
2009	1,994	41,711	3,050
2010	1,811	39,145	2,785
2011	1,789	38,457	2,728
2012	1,964	42,443	2,985
2013	2,104	45,338	3,187
2014	2,134	46,369	3,228
2015	2,232	49,370	3,414
2016	2,254	51,567	3,449
2017	2,325	53,784	3,538
2018	2,325	55,131	3,541
2019	2,434	59,039	3,712

Source: ONS – Annual Survey of Hours and Earnings; authors' calculations
Notes: Relevant organisations identified using category 7 (non-profit making body) of the status variable (reflecting legal status on the IDBR).

On the basis of this bespoke industry aggregation, Table 8 details the aggregate pay and hours worked of each industry group in 2019, and the

fraction of the industry which civil society accounts for on average between 2009 and 2019, and in 2019. As explored in more detail in section 3, these estimates are broadly consistent with other sources. The total for employment costs is also similar to that estimated from the ABS, and broadly consistent with that calculated from the LFS once accounting for differences in coverage.

Table 8. Non-profit organisations share (%) of variables by industry group, ASHE

	Employees		Total annual pay		Total annual hours worked	
Industry group	Average 2009-2019	2019	Average 2009-2019	2019	Average 2009-2019	2019
Agriculture	2.1	2.2	1.5	1.5	1.7	1.6
Production and construction	0.1	0.1	0.1	0.1	0.1	0.1
Wholesale, retail	0.4	0.6	0.3	0.5	0.4	0.6
Transportation	0.4	0.5	0.2	0.2	0.3	0.4
Accommodation services	2.5	2.3	3.3	2.9	2.6	2.4
Food services	2.8	2.2	2.3	1.6	2.2	1.6
ICT services, finance	1.0	1.1	0.8	0.8	0.9	1.1
Real estate	22.4	21.2	20.3	20.2	22.3	21.3
R&D	16.5	18.0	13.3	14.0	14.8	15.9
Other professional services	1.6	1.4	1.2	1.1	1.5	1.3
Services to buildings	3.5	3.5	2.8	2.5	2.9	2.9
Other admin services	0.6	0.5	0.7	0.6	0.6	0.5

	Employees		Total annual pay		Total annual hours worked	
Education	25.1	29.6	29.5	34.4	26.4	30.9
Human healthcare	3.4	4.5	2.7	3.6	3.2	4.1
Residential care	32.3	30.1	35.4	31.5	31.6	29.5
Social work	49.9	47.8	55.6	55.1	48.6	46.9
Arts, entertainment	36.5	38.5	32.3	30.5	35.3	38.6
Libraries, culture	29.9	37.5	23.9	34.1	27.4	35.7
Sports, recreation	27.7	29.8	22.1	23.0	27.0	28.2
Membership organisations	81.8	84.1	80.4	83.0	81.1	83.3
Other services	3.9	4.0	3.8	3.9	3.4	3.7

Source: ONS – Annual Survey of Hours and Earnings; authors' calculations
Notes: Relevant organisations identified using category 7 (non-profit making body) of the status variable (reflecting legal status on the IDBR).

Business Structure Database (BSD)

We identify civil society units on the BSD using the legal status variable (*status*). In addition, we use the National Accounts institutional sector[5] variable (*sector*), which is available from 2015 onwards, and cross-tabulate this with the *status* variable. The main National Accounts sector of relevance is the Non-Profit Institutions Serving Households (NPISH) sector (S.15), comprising sub-sectors "S15001" (public NPISHs), "S15002" (private domestic NPISHs) or "S15003" (private foreign NPISHs) on the BSD. The "S15001" sub-sector is empty in the UK, and the "S15003" sub-sector has small sample sizes, so we combine these into sector "S15" covering all of the listed sub-sectors.

We also combine the other National Accounts sub-sectors into the following sectors:

[5] The National Accounts institutional sector variable is consistent with institutional sectors in the European System of Accounts (ESA) 2010, which is the national account rules followed by all members of the European Union. At the time of writing, the UK also follows ESA 2010.

- S.11 – non-financial corporations
- S.12 – financial corporations
- S.13 – government units
- S.14 – households

Enterprises in legal status 7 (non-profit making bodies) exist only in National Accounts sectors S.11, S.12 and S.15 – that is S.13 (government) and S.14 (households) are empty within legal status 7. All units in National Accounts sector S.15 (NPISH) are within legal status 7. The National Accounts variable is assigned by ONS using an algorithm based on industry code and legal status. Thus, the National Accounts sector marker on the BSD does not add any additional information over and above the industry code and legal status. It does not reflect the judgements of ONS on a record-by-record basis.

Figure 1 depicts the populated cells of the cross-tabulation of legal status and National Accounts sector on the IDBR. The cell defined by National Accounts sector S.12 (financial corporations) and legal status 7 (non-profit making bodies) – orange in Figure 1 – could be consistent with a somewhat different meaning of "non-profit". Examination of the National Accounts sub-sectors and industry classification reveals that many of these units are related to pension funds and insurance schemes – these may be "non-profit" in the economic sense, but not of relevance to the civil society sector, and so potentially not in-scope of the civil society satellite account. On this basis, we set this combination aside.

Figure 1. Representation of identifiers on the Business Structure Database

		ESA10 institutional sector marker				
		S.11 – Non-financial corporations	S.12 – Financial corporations	S.13 – Government	S.14 – Households	S.15 – NPISH
Legal status	1 – Companies					
	2 – Sole proprietors					
	3 – Partnerships					
	4 – Public corporations					
	5 – Central government					
	6 – Local government					
	7 – Non-profit marking bodies					

The cell defined by National Accounts sector S.15 (NPISH) and legal status 7 on the IDBR – green in Figure 1 – is not equivalent to the NPISH sector in the National Accounts. The only industries represented in this cell are retail, education, health and social care, and membership organisations. This cell will thus include trade unions, political parties, and universities, but will not include many registered charities and many other units in scope of NPISH in the National Accounts (which exists across many more industries). This cell accounts for around a half to two-thirds of the aggregates of legal status 7 (after the units in ESA10 sector S.12 are excluded).

The cell defined by ESA10 sector S.11 and legal status 7 on the IDBR – blue in Figure 1 – contains non-financial corporations that are recorded as non-profit making. By virtue of being corporations, they operate in the market. However, they will not be registered companies (or else they would have legal status 1 [company]). Many of these are likely to be non-profit institutions serving businesses or non-profit institutions serving government, such as industry trade bodies, policy think tanks, R&D labs –

they thus do not 'serve households' and thus are not included in the NPISH sector. This group may also include some 'social enterprises' – businesses run with a social mission, which explicitly do not make a profit. Examples might include shops and restaurants that offer employment opportunities for former convicts, people with disabilities, or people from disadvantaged backgrounds.

Using the definition of civil society units described above (using both the legal status and ESA10 sector variables) we produced estimates of aggregate turnover and employment of the relevant units from the BSD. This included the cross-tabulation of legal status and ESA10 sector for 2015 onwards.

Table 9. Aggregates of various variables for non-profit organisations, BSD

Year	Number of enterprises	Employment (thousands)	Turnover (£bn)
1997	53,990	1,234	107.8
1998	54,610	1,229	126.8
1999	54,330	1,180	141.4
2000	56,420	1,230	133.3
2001	57,990	1,227	127.5
2002	58,670	1,258	81.4
2003	58,980	1,315	39.9
2004	72,340	1,559	54.0
2005	74,160	1,621	55.4
2006	77,870	1,676	59.7
2007	82,170	1,781	64.3
2008	81,870	1,797	67.3
2009	82,100	1,848	72.4
2010	83,170	1,901	74.4
2011	81,840	1,689	73.6
2012	81,600	1,671	72.4

Year	Number of enterprises	Employment (thousands)	Turnover (£bn)
2013	78,630	1,985	83.1
2014	79,290	1,928	87.3
2015	79,290	1,957	91.9
2016	86,770	2,077	100.5
2017	89,970	2,125	107.2
2018	90,560	2,172	113.4
2019	90,610	2,180	133.3
2020	90,110	2,178	158.4
2021	89,070	2,168	153.4

Source: ONS – Business Structure Database; authors' calculations

Notes: Relevant organisations identified using category 7 (non-profit making body) of the legal status variable. Number of enterprises rounded to the nearest 10.

Table 10. Aggregates of various variables, non-profit organisations by ESA sector, BSD

	2015	2016	2017	2018	2019	2020	2021
							Number of enterprises
S.11	28,430	33,710	34,430	33,190	32,560	31,820	30,820
S.12	11,730	12,040	13,280	14,510	14,730	14,830	14,650
S.15	39,120	41,020	42,270	42,860	43,320	43,470	43,600
							Employment (thousands)
S.11	399	436	478	490	485	464	451
S.12	14	20	20	37	22	18	22
S.15	1,543	1,620	1,626	1,644	1,673	1,696	1,694
							Share of turnover (%)
S.11	30.1	30.8	32.4	32.6			
S.12	10.3	10.1	9.6	11.3			
S.15	59.7	59.1	58.0	56.0			
							Share of turnover (%), of S.11 and S.15 only
S.11	33.5	34.3	35.9	36.8	35.4	34.5	34.6
S.15	66.5	65.7	64.1	63.2	64.6	65.5	65.4

Source: ONS – Business Structure Database; authors' calculations

Notes: Relevant organisations identified using category 7 (non-profit making body) of the legal status variable. Turnover for S.12 in 2019-2021 fail dominance rule, so turnover for these years are presented in a different manner to avoid disclosure. Number of enterprises rounded to the nearest 10. Sum across sectors may not match aggregates in Table 9 due to rounding.

In addition, we produced breakdowns by industry division of SIC 2007. Given the large number of units on the IDBR, the cell sizes were sufficiently large in most industries to enable some estimates to be released, although we use the same industry breakdown as with the other sources for comparability. Tables 11 and 12 show the proportion of employment and turnover, respectively, which enterprises with legal status 7 account for within the aggregate industry, annually from 2009 to 2019. These are fairly consistent over time, and largely conform to expectations about the size of civil society in different industries.

Table 11. Non-profit organisations share (%) of employment by industry group, BSD

Industry group	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Agriculture	0.9	0.7	0.7	0.7	0.7	0.7	0.8	0.9	1.0	1.0	1.0
Production and construction	0.2	0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.2	0.2
Wholesale, retail	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4
Transportation	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.6
Accommodation services	1.6	1.9	2.0	1.8	1.7	1.8	1.8	1.8	1.7	1.5	1.4
Food services	3.6	3.9	3.8	3.1	3.1	2.8	2.6	2.6	2.5	2.3	2.4
ICT services, finance	0.8	0.9	0.8	0.7	2.8	1.2	1.0	1.2	1.3	2.0	1.3
Real estate	15.1	15.7	14.2	13.7	13.3	13.2	12.3	12.9	14.1	12.6	12.9
R&D	13.0	13.5	13.2	14.1	13.5	13.0	13.6	15.6	15.3	14.7	17.6
Other professional services	1.6	1.6	1.6	1.4	1.3	1.3	1.3	1.3	1.3	1.5	1.2
Other admin services	0.4	0.4	0.5	0.4	0.3	0.4	0.3	0.3	0.3	0.4	0.4
Services to buildings	3.7	3.9	3.6	3.2	3.2	2.6	2.6	3.1	2.8	3.3	2.7
Education	23.0	22.9	16.3	16.5	22.3	22.3	22.7	24.2	24.9	25.3	26.1
Human healthcare	2.6	2.6	2.8	3.2	3.5	3.7	3.7	4.1	3.5	3.4	3.6
Residential care	30.7	30.5	30.5	29.5	28.9	26.7	26.9	28.2	27.7	28.8	28.8
Social work	51.6	49.9	49.0	46.8	44.4	44.3	42.5	42.7	40.8	40.8	39.6
Arts, entertainment	21.3	22.2	22.9	22.3	22.2	22.6	23.3	25.0	24.7	24.0	25.3
Libraries, culture	30.6	27.8	27.1	28.5	29.4	27.7	28.4	30.7	32.4	34.4	34.8

Industry group	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Sports, recreation	25.2	25.1	26.4	25.2	26.1	25.5	25.9	27.3	31.0	31.6	27.9
Membership organisations	81.9	80.	79.9	78.2	76.0	76.6	76.4	78.8	76.8	80.0	79.9
Other services	2.1	2.1	1.9	1.8	1.7	1.6	1.6	2.4	2.2	2.3	2.5

Source: ONS – Business Structure Database; authors' calculations

Notes: Relevant organisations identified using category 7 (non-profit making body) of the legal status variable.

Table 12. Non-profit organisations share (%) of turnover by industry group, BSD

Industry group	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Agriculture	0.8	0.7	0.7	0.7	0.7	0.8	0.8	0.9	1.1	1.1	1.0
Production and construction	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1
Wholesale, retail	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Transportation	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Accommodation services	1.6	1.8	1.7	1.7	1.6	1.5	1.7	1.8	1.8	1.5	1.5
Food services	2.6	2.9	2.7	2.4	2.2	2.1	1.9	1.8	1.8	1.6	1.5
ICT services, finance	0.6	0.5	0.4	0.4	0.9	0.9	0.7	0.8	0.7	0.7	
Real estate	12.9	13.2	14.8	14.2	14.0	15.4	14.1	13.8	15.9	14.4	13.3
R&D	3.7	3.6	3.3	3.8	3.2	2.7	2.8	3.7	4.7	4.3	4.6
Other professional services	1.1	1.0	1.1	1.2	0.9	0.9	0.9	0.9	0.9	1.3	1.0
Other admin services	0.3	0.3	0.5	0.3	0.3	0.4	0.3	0.3	0.3	0.4	0.3
Services to buildings	2.8	3.0	2.9	2.8	2.9	2.5	2.4	2.9	2.7	2.4	2.0

Industry group	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Education	27.4	29.4	24.1	23.8	29.6	30.3	31.7	34.0	36.8	37.0	38.0
Human healthcare	1.8	1.8	1.8	2.0	1.8	2.1	2.4	2.4	2.1	2.2	2.3
Residential care	27.9	29.3	27.3	26.1	24.8	22.9	23.9	24.5	23.4	24.3	27.1
Social work	48.5	50.4	49.1	46.8	44.2	43.6	43.5	44.4	41.5	40.0	36.3
Arts, entertainment	9.1	9.2	9.5	9.2	9.4	9.8	10.2	10.7	11.1	10.3	10.7
Libraries, culture	31.3	25.9	25.1	25.2	27.9	23.7	25.2	27.0	29.9	30.6	31.9
Sports, recreation	19.7	19.6	19.1	18.6	17.7	17.7	18.4	18.3	20.7	20.4	18.1
Membership organisations	75.7	74.8	73.1	70.9	69.5	69.0	73.1	74.6	73.1	76.6	76.1
Other services	0.8	0.7	0.5	0.6	0.5	0.4	0.4	0.6	0.6	0.7	0.8

Source: ONS – Business Structure Database; authors' calculations

Notes: Relevant organisations identified using category 7 (non-profit making body) of the legal status variable. 2019 figures for wholesale and retail and ICT services and finance industry groups left blank due to statistical disclosure control.

Using the legal status and National Accounts sector enables an assessment of the size of the non-NPISH component of the civil society sector within each industry. As noted previously, only a limited number of industries are included in the NPISH sector, based on an ONS algorithm. In the majority of industries, there are no enterprises in the NPISH sector, but in most there are at least some enterprises with legal status 7.

In the retail, education, healthcare and social care industries, all non-profit organisations (legal status 7) are included in the NPISH sector. In the membership organisations industry, a minority of legal status 7 enterprises are in the NPISH sector, accounting for around 18% of the legal status 7 employment in this industry, and around a third of the turnover. Table 13 summarises. This is not consistent with the industries included in the NPISH sector in the National Accounts; as such, Table 13 should only be interpreted as describing the data on the IDBR, and not the make-up.

Table 13. Relationship between legal status 7 and NPISH sector in the BSD, by industry group, 2015-2019

Industry group(s)	Of enterprises with a legal status of category 7, what proportion are in the NPISH sector:
Retail, education, healthcare, residential care, social work	100%
Membership organisations	Around 8% (accounting for about 18% of employment, and 33% of turnover)
All others	0%

Source: ONS – Business Structure Database; authors' calculations
Notes: Relevant organisations identified using category 7 (non-profit making body) of the legal status variable.

Technical analysis using the BSD

We also used the BSD to explore more technical questions.

Multiple reporting units

First, we considered the fraction of civil society enterprises which had multiple reporting units. This is a relevant question, since the legal status variable is assigned at the enterprise level and reporting units inherit this information from their parent enterprises. It is plausible that a reporting unit could be relevant to civil society even if its associated enterprise were not; and vice versa, that a reporting unit could be outside the scope of civil society even though it belongs to a relevant enterprise. This problem is likely to be larger the more enterprises there are with multiple reporting units. On average between 2015 and 2018, only 0.2% of civil society enterprises had multiple reporting units; however, these accounted for 4.1% of turnover and 7.1% of employment within the legal status 7 group. That suggests the potential for some of the civil society estimates derived from enterprises on the BSD to overstate the true values for the sector. However, we cannot put a figure on the opposite problem – that is, the fraction of non-civil society enterprises which might have in-scope reporting units, which would act to offset the potential issue described above. Thus, we judge this potentially creates some uncertainty, but would warrant further investigation in future.

Consistency over time

We also explored the degree of consistency in legal status over time for units on the BSD. A civil society satellite account will need to develop a time series of estimates including years prior to the present year. This will require use of historic data, and it may not be possible to obtain historic data on registered charities or other registers and lists of known civil society units. It also will not be possible to link them to historic snapshots of the IDBR, since only linkage to the live IDBR is possible. As such, inferences about the past may be required based on data linkage done in the present. Assumptions about the past may be more reliable if the civil society sector has a high degree of stability over time, such that matched units today were highly likely to still be relevant in earlier years.

Table 14 summarises measures of transition for different legal statuses on the BSD, between year-pairs from 1997-1998 to 2020-2021. The transition measures are the fraction of units that are alive in year 1 which are alive and in a different legal status in year 2; and the fraction of units that are alive in year 1 which are dead or absent from the IDBR in year 2. Units with legal status 7 in year 1 (i.e. civil society units) are slightly more likely to transition between legal status than companies (legal status 1) but slightly less likely to die or disappear. This is therefore a mixed picture and suggests the need for care in constructing historic estimates if inference is drawn from data linkage done in the present.

Table 14. Measures of transition for enterprises on the BSD, year-pairs from 1997-98 to 2020-21, by legal status

	Count	Employment	Turnover
Proportion (%) changing legal status			
Non-profit organisations	0.6	1.9	2.0
Companies	0.2	0.3	0.5
Companies, sole proprietors and partnerships	1.2	0.9	0.7

	Count	Employment	Turnover
	Proportion (%) dying/disappearing		
Non-profit organisations	11.4	2.9	7.3
Companies	20.4	8.4	5.5
Companies, sole proprietors and partnerships	20.4	9.5	6.1

Source: ONS – Business Structure Database; authors' calculations

3. Comparison of datasets

In this section we compare various estimates obtained from different sources, with a view to understanding the differences. Given different coverage and definition, we would not necessarily expect all the results to be consistent. And given normal sampling error and other data collection uncertainties, we would also expect a degree of difference between sources that on paper were measuring the same concept.

Employment

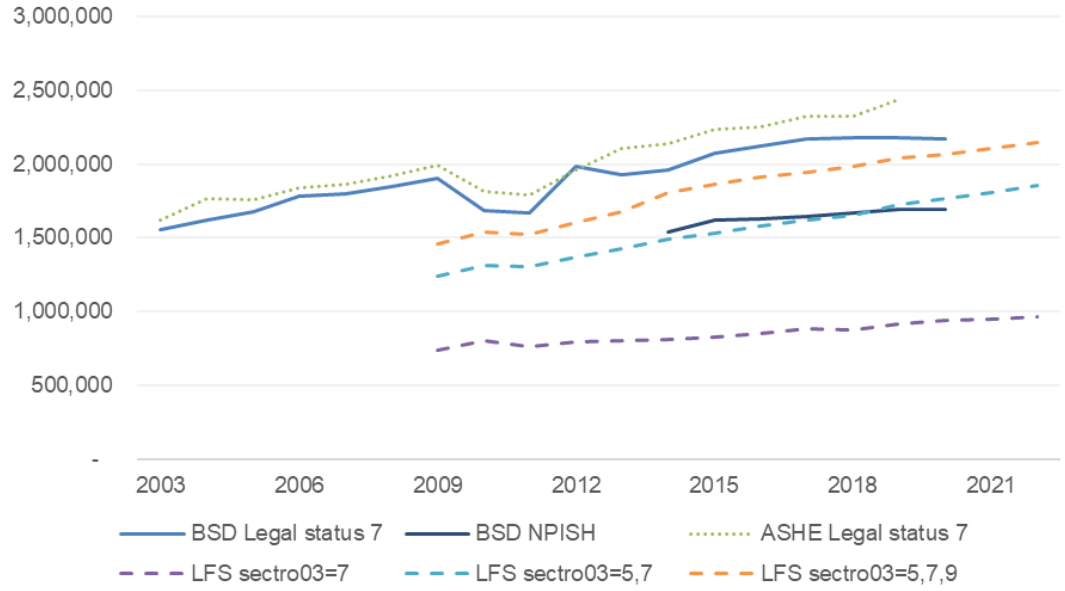
Figure 2 compares the number of workers in the civil society sector estimated from the Business Structure Database (BSD), Annual Survey of Hours and Earnings (ASHE) and Labour Force Survey (LFS). The chart runs from 2003 to 2022, although not all sources and measures are available in all years. The BSD lines (solid lines) have been lagged a year, since the data content for the IDBR snapshot in a given year are predominantly from the previous year. We include three measures from the LFS (dashed lines), relating to three combinations of categories of the *sectro03* variable. There is a single line from ASHE (dotted line).

Based on units in category 7 (non-profit making bodies) of the legal status variable (assumed to be part of the civil society sector for this analysis), the measures from ASHE and BSD are similar in level and trend. This is reassuring but not surprising, since we use the same approach to identifying civil society in both, and the source data for both are related to the Pay-As-You-Earn (PAYE) income tax system. That said, they are collected differently: BSD is employment totals for relevant enterprises, and ASHE is weighted counts of sampled employees in relevant enterprises.

The measure from the LFS based on category 7 only of the *sectro03* variable is much lower than the BSD and ASHE estimates (both based on category 7 of the legal status variable). As previously discussed, this is likely because *sectro03* on the LFS allocates workers in universities and further education colleges to category 5, and workers in religious organisations (amongst other things) to category 9. Figure 2 shows measures from the LFS which also include one or both of these categories. Including both of these categories, in addition to category 7, produces an estimate which is much closer in level and trend to the ASHE and BSD measures.

A BSD measure for just the NPISH sector is about 20-25% lower than the measure based on all of legal status 7, and more in line with the broader LFS estimates. This does not mean that the broader LFS measures are only capturing workers in the NPISH sector. Rather they are likely to have roughly offsetting inclusions and omissions relative to the other source, and thus are unlikely to be representing all of the same workers in each case. This follows from the coverage of the various identifiers discussion in section 2.

Figure 2. Comparison of estimates of civil society employment between data sources, UK, 2003-2022



Source: ONS – Business Structure Database, Labour Force Survey, Annual Survey of Hors and Earnings; authors' calculations

Notes: BSD lines (solid lines) have been lagged a year, since the data content for the IDBR snapshot in a given year are predominantly from the previous year. Identification of relevant workers and organisations described in text.

Characteristics of workers

As well as comparing the number of workers, we can also compare some characteristics of the workers in the civil society sector between estimates using LFS and ASHE. Table 15 shows the proportion of relevant workers by age group and sex from ASHE and LFS, on average over many years, and in 2019. The LFS measures are based on category 7 only of the *sectro03* variable, which is a narrower set of workers than the ASHE measures which are based on category 7 of the legal status variable. Based on Figure 2, the LFS measures in Table 15 represent about 40% of the number of workers in

the ASHE measures, although we cannot be sure they represent the same workers in each case.

Table 15 suggests that the two sources represent broadly similar people since the age and sex breakdown are similar. The LFS has a higher female proportion than the ASHE, likely reflecting differences in coverage. For instance, ASHE will include universities in these measures while the LFS will not, and workers at universities might be disproportionately male, increasing the male proportion in ASHE relative to LFS in Table 15. The age profiles are very similar between the sources, with the LFS having slightly higher shares at most older age groups.

Table 15. Comparison of workforce characteristics, proportion (%) by age and sex, LFS and ASHE

	ASHE		LFS	
	Average 1999-2019	2019	Average 2009-2019	2019
				Sex
Male	38.5	38.8	33.1	32.8
Female	61.5	61.2	66.9	67.2
				Age group
16 to 19	2.1	2.2	1.6	1.3
20 to 24	6.3	6.3	5.8	5.9
25 to 29	9.2	9.0	9.6	9.2
30 to 34	10.8	11.0	10.3	10.7
35 to 39	11.7	12.1	10.6	11.0
40 to 44	12.9	11.3	11.4	11.4
45 to 49	13.3	12.5	13.6	13.3
50 to 54	13.1	12.7	13.6	13.7
55 to 59	11.0	11.8	11.6	11.3

	ASHE		LFS	
60 to 64	6.5	7.3	7.3	7.4
65 to 69	2.0	2.6	3.1	2.8
70 and over	0.9	1.3	1.5	2.1

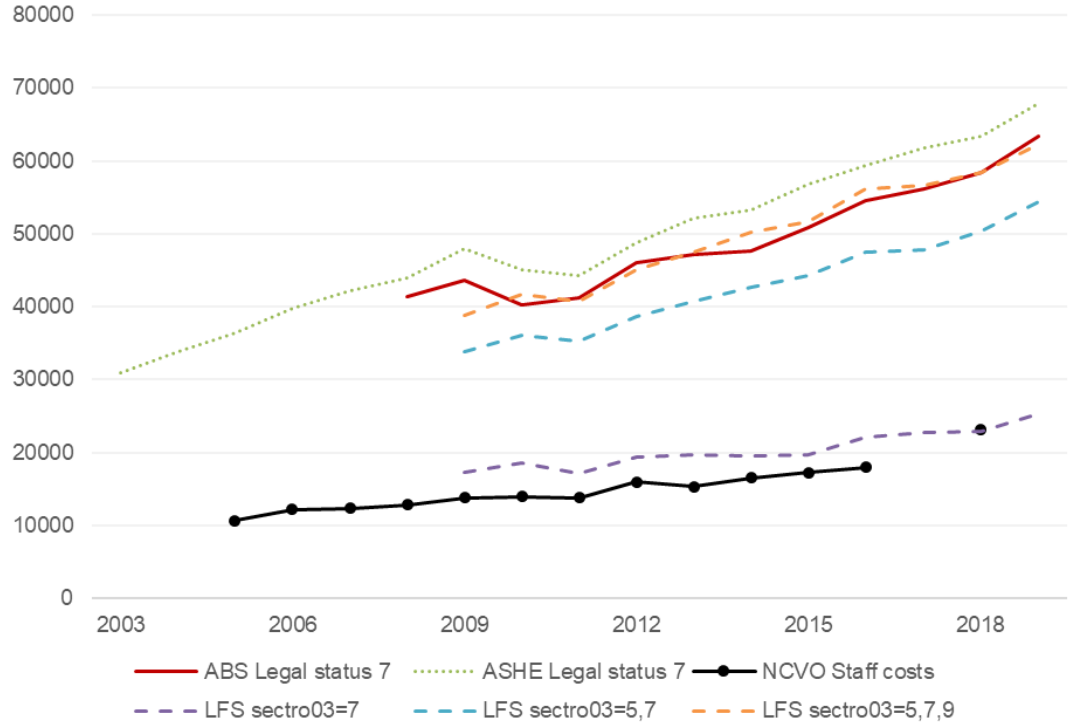
Notes: Relevant workers in ASHE identified using category 7 (non-profit making body) of the legal status variable. Relevant workers on LFS identified using category 7 of the sectro03 variable.

Employment costs

Figure 3 compares estimates of total employment costs measures from the LFS, ABS and ASHE with the equivalent from NCVO's UK Civil Society Almanac (henceforth "the Almanac"). All of the labour data in the Almanac comes from the LFS so comparing against that would be circular. However, the staff costs measure in the Almanac comes from financial statement data and is therefore a useful external source for comparison. Figure 3 shows that the estimate from the Almanac and from aggregating pay of workers in category 7 of *sectro03* on the LFS are similar in both level and trend. This suggests that the "general charities" scope of the Almanac is approximately consistent with category 7 of *sectro03* on the LFS.

The estimates of staff costs from ASHE and ABS (based on category 7 of the legal status variable) are much higher than that of the Almanac, consistent with the different scope, which is also apparent in Figure 2. ASHE and ABS are reassuringly similar to each other. Expanding the civil society definition on the LFS to include categories 5 and 9 of *sectro03* gives a very close match to the level and trend from the ABS and ASHE. This again suggests that the scope of category 7 of the legal status variable on the IDBR (and by extension, ABS and ASHE) is similar to the combination of *sectro03* categories 5, 7 and 9 on the LFS.

Figure 3. Comparison of estimates of civil society employment costs between data sources, UK, 2003-2019



Source: ONS – Annual Business Survey, Labour Force Survey, Annual Survey of Hors and Earnings; NCVO UK Civil Society Almanac; authors' calculations
Notes: LFS and ASHE include an uplift of 15% for non-wage labour costs for consistency with ABS and NCVO measures, and National Accounts concepts.

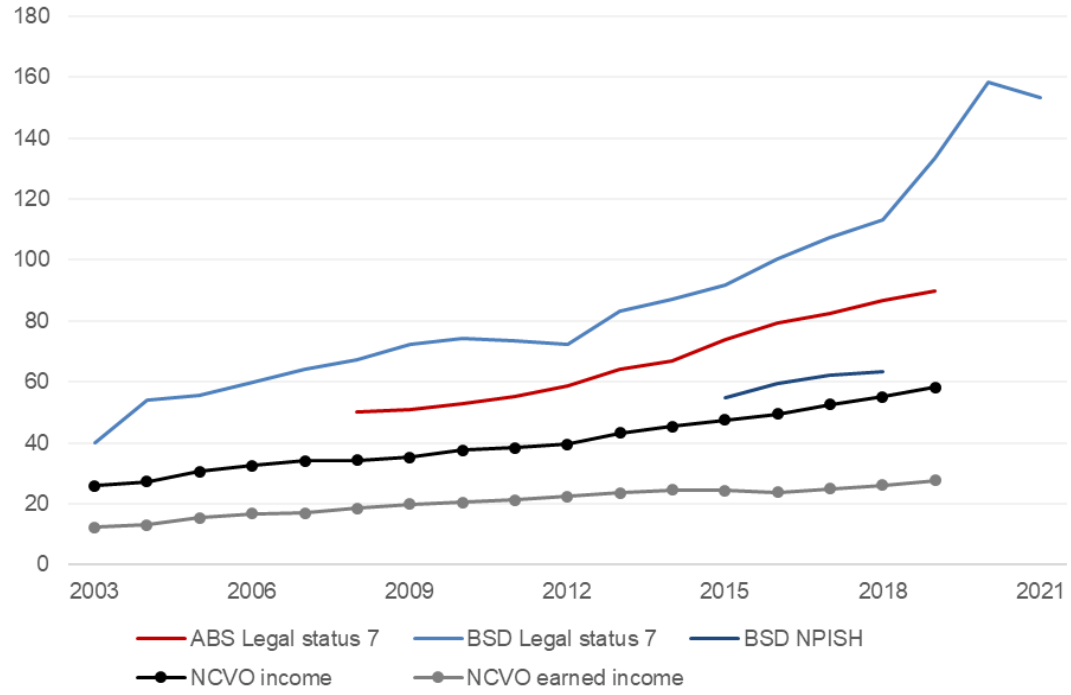
Turnover

Figure 4 compares estimates of turnover for the civil society sector from the ABS, BSD and the Almanac. The Almanac series is "Income" from Table B2, and includes voluntary income (donations, grants, legacies), earned income (contracts, membership fees, charity shops, fundraising through sales), and investment income (principally the former two categories). Turnover in the ABS and BSD is turnover from sales of goods and services, so roughly equivalent to earned income from NCVO.

Consistent with the employment and employment costs estimates, the Almanac measure of turnover is much lower than that from the ABS and BSD, reflecting different coverage. The Almanac coverage of "general charities" is much narrower than category 7 of the legal status variable. The measure from the BSD for the NPISH sector is still much larger than the Almanac measure, since the BSD NPISH sector will include universities,

which have high turnover, whereas the Almanac measures do not include universities.

Figure 4. Comparison of estimates of civil society turnover between data sources, UK, 2003-2021



Source: ONS – Annual Business Survey, Business Structure Database; NCVO UK Civil Society Almanac; authors' calculations

Industry proportions

Finally, we compared the proportion of industry aggregates that are accounted for by civil society across a range of measures and data sources. Similar aggregates, as in Figures 2-4, might hide differences in the composition by industry, with potentially offsetting inclusions and exclusions between sources.

Generally, Tables 16 and 17 show relatively similar civil society proportions in most industries across sources. While the proportions are rarely exactly the same, the relative rankings of the industries are very consistent across sources. Larger differences can usually be explained by differences in the coverage of the civil society identifier or source, as detailed in the comments column of each Table.

Differences between the LFS and other sources reflect the coverage of the *sectro03* variable relative to other civil society sector definitions, since the

LFS data in Table 16 is based on category 7 of the *sectro03* variable only. The LFS is also the only source to include the self-employed, which will affect the industry total used as the denominator in the industry proportion calculation.

The National Accounts GVA proportions only reflect the NPISH sector, while other measures are all for the broader civil society sector. As such we expect the proportions to be larger in many industries in the other sources than in the National Accounts GVA proportions. This is true in most cases, with most industries having a small amount of civil society activity, but no NPISH GVA. Some industries have some NPISH GVA, but much larger proportions for civil society, including the residential care, libraries and culture, sports and recreation, and membership organisations industries.

Table 16. Civil society share (%) of employment and hours worked by industry group, comparison of sources, 2009-2019 average

	Employment			Hours worked		
Industry group	LFS	ASHE	BSD	LFS	ASHE	Comments
Agriculture	0.7	2.1	0.8	0.5	1.7	
Production and construction	0.2	0.1	0.2	0.1	0.1	
Wholesale, retail	0.3	0.4	0.3	0.3	0.4	
Transportation	0.3	0.4	0.4	0.2	0.3	
Accommodation services	1.0	2.5	1.7	1.1	2.6	
Food services	0.5	2.8	3.0	0.4	2.2	
ICT services, finance	0.3	1.0	1.2	0.3	0.9	
Real estate	11.6	22.4	13.8	11.7	22.3	LFS includes many self-employed in the 'denominator' (i.e. not civil society); missing from ASHE and largely absent from BSD

	Employment			Hours worked		
R&D	7.4	16.5	14.3	7.3	14.8	
Other professional services	0.8	1.6	1.4	0.7	1.5	
Other admin services	0.5	0.6	0.4	0.5	0.6	
Services to buildings	1.8	3.5	3.2	1.5	2.9	
Public admin, defence	0.6			0.6		
Education	3.2	25.1	22.4	3.2	26.4	LFS coverage missing universities and FE colleges
Human healthcare	1.8	3.4	3.3	1.7	3.2	
Residential care	13.0	32.3	29.1	13.1	31.6	LFS coverage likely missing care home workers
Social work	31.6	49.9	45.3	30.7	48.6	
Arts, entertainment	5.7	36.5	22.9	6.0	35.3	LFS includes many self-employed in the 'denominator' (i.e. not civil society); missing from ASHE and largely absent from BSD
Libraries, culture	20.6	29.9	31.1	21.4	27.4	
Sports, recreation	3.3	27.7	26.7	3.5	27.0	
Membership organisations	27.2	81.8	78.9	0.6	81.1	LFS coverage missing workers of

	Employment			Hours worked		
						religious organisations
Other services	0.6	3.9	2.0	26.3	3.4	

Source: ONS – Labour Force Survey, Annual Survey of Hors and Earnings, Business Structure Database; authors' calculations

Notes: ASHE is an employee-only survey, so is strictly the proportion amongst employees rather than the proportion amongst employment. BSD is the proportion amongst employment within enterprises included on the IDBR, which excludes most self-employed. LFS figures relate only to category 7 of the sectro03 variable.

Table 17. Civil society share (%) of turnover and GVA by industry group, comparison of sources, 2009-2019 average

	Turnover		GVA		
Industry group	BSD	ABS	ABS (aGVA)	National Accounts (NPISH)	Comments
Agriculture	0.9	1.2	1.2	0.0	
Production and construction	0.1	0.1	0.1	0.0	
Wholesale, retail	0.1	0.1	0.2	0.0	
Transportation	0.2	0.2	0.2	0.0	
Accommodation services	1.6	1.9	1.6	0.0	
Food services	2.2	2.5	1.8	0.0	
ICT services, finance	0.6	0.8	0.9	0.0	
Real estate	14.0	18.1	17.7	1.2	National Accounts GVA proportion weighted excluding imputed rental; BSD and ABS do not include self-employed which will be included in the industry total

	Turnover		GVA		
					denominator in National Accounts
R&D	3.7	4.2	-1.5	5.7	Negative aGVA in ABS reflects that the GVA concept is incomplete relative to National Accounts; turnover cannot be negative
Other professional services	1.0	0.8	0.6	0.7	
Other admin services	0.3	0.2	0.2	0.3	National Accounts GVA proportion includes division 81, which we suspect might be intended to be industry 82
Services to buildings	2.6	2.1	2.0	0.0	National Accounts GVA proportion is zero for division 82, but approximately 2% for division 81, suggesting an industry alignment issue
Public admin, defence				0.0	
Education	30.8	65.5	57.5	36.4	ABS excludes the public sector, making the civil society proportion appear larger than BSD and National Accounts due to different denominators

	Turnover		GVA		
Human healthcare	2.0	16.4	15.7	1.6	ABS excludes the public sector, making the civil society proportion appear larger than BSD and National Accounts due to different denominators
Residential care	25.8	30.5	26.7	5.4	
Social work	44.8	39.7	19.5	22.7	
Arts, entertainment	9.7	10.5	1.5	13.8	
Libraries, culture	28.7	28.4	22.9	8.6	
Sports, recreation	18.8	17.6	17.4	3.5	
Membership organisations	73.1	76.0	64.9	18.5	
Other services	0.6	0.3	0.5	0.0	

Source: ONS – Annual Business Survey, Business Structure Database, National Accounts; authors' calculations

Notes: National Accounts GVA proportions are for the NPISH sector, whereas other measures are for the broader civil society sector (category 7 of the legal status variable for BSD and ABS). Negative GVA is possible if intermediate costs exceed output; this is especially true for aGVA in the ABS since the output measure is narrower than the output measure in the National Accounts. Turnover is a proxy for output, and cannot be negative.

4. Discussion of findings

This Annex has presented a range of analysis of existing identifiers for civil society in official datasets which could allow the construction of building blocks of a civil society satellite account. We have considered three main identifiers:

- The legal status variable on the IDBR (as found in the BSD, ABS and ASHE) – where category 7 is "Non-profit organisations"
- The National Accounts sector variable on the IDBR (as found in the BSD) – specifically the NPISH (S.15) sector
- The self-reported 'sector' (*sectro03* variable) on the LFS – where category 7 is "A charity, voluntary organisation or trust", and categories 5 ("A university, or other grant funded educational establishment (include opted-out schools)") and 7 ("Other kind of organisation") also appear relevant

Category 7 of the legal status variable appears to encompass a broad definition of civil society, including enterprises in many industries and accounting for a relatively large fraction of the total economy. It is clearly broader than NPISH, since legal status 7 enterprises appear in many more industries than NPISH data in the National Accounts. The National Accounts sector variable on the IDBR does not fully allow identification of the NPISH sector, since the allocation of this variable is deterministically related to industry and legal status and is not present in all industries with NPISH activity in the National Accounts.

The values obtained for enterprises with category 7 of the legal status variable, both in level and distribution across industries, appears broadly consistent with expectations for the civil society sector. The results are fairly consistent across sources (after accounting for differences in the coverage of each data source), with broadly stable trends over time. It is unlikely to capture all relevant units, especially social enterprises which will mostly likely be recorded as "companies" (category 1 of the legal status variable) and is also likely to include some units which are not relevant.

However, on balance, we judge that category 7 of the legal status variable contains some useful information for the construction of a civil society satellite account and could be used in a first iteration of such an account. Further research would be useful to understand how the legal status

variable is assigned to units by HMRC, and the extent to which the identified units are also present on external registers of relevant units (as detailed in Chapter 3 of the main report).

Since category 7 of the legal status variable is unlikely to include social enterprises, further work to establish a method to account for these in a civil society satellite would be required, as set out in Chapter 4 of the main report.

The identifier on the LFS also appears to provide some useful information, but should be interpreted carefully to ensure consistency in the definition of civil society. Specifically, category 7 of the *sectro03* variable appears most aligned to the "general charities" definition in NCVO's UK Civil Society Almanac, and much narrower than either NPISH or civil society. This category excludes most education-related organisations, and religious organisations. Including the categories that cover these omissions results in a set of measures that are much more closely aligned with category 7 of the legal status variable from other sources, in level and trend, for comparable variables.

The data sources considered generally have sufficient sample sizes to produce stable estimates over time, and allow release of data for usable industry groupings, although not for more detailed breakdowns. We judge that these sources would broadly support a limited geographic breakdown. Regional breakdowns would likely not be feasible in combination with other breakdowns such as by industry or person characteristic, although country breakdowns may be. Statistical techniques could be used to enable estimates at small geographies, but this would require additional research.

A drawback to using the existing identifiers is that we know relatively little about how they are assigned, and thus precisely what types of organisations they cover or do not cover. We have made judgements on this by comparing sources and reviewing data source information, but we cannot be very specific or sure of the accuracy of any of the identifiers we have considered. As such, using existing identifiers would allow limited breakdown of data by 'legal form' or 'type of organisation' in a civil society satellite account, which might be of interest to users and necessary to construct relevant 'modules' in a modular approach.

That said, the industry classification, available on all the sources we considered, would allow some modules to be created, since SIC 2007 industry codes exist for some important types of organisations, including:

- Universities – class 85.42
- Further Education colleges – class 85.41
- Nurseries – group 85.1
- Care homes – group 87.1
- Trade unions – group 94.2
- Political parties – class 94.92

Some other considerations are on the future of the data sources we considered. The ONS is currently transforming the Labour Force Survey to an online collection, which will change the way in which some variables are collected.[6] The variables *sector* and *sectro03* are included in the Transformed LFS, and an additional open text box is included to collect more information from respondents who select category 9 ("Some other kind of organisation") of the *sectro03* variable. This may improve data quality, but may also have implications for the consistency of the *sectro03* variable in coming years. The ONS are also developing a "Statistical Business Register" (SBR) as a replacement for the IDBR.[7] This may lead to changes in the way the legal status and National Accounts sector of enterprises is determined or recorded, leading to discontinuities over time. The plans for the SBR are still in development at the time of writing.

In both cases, even if there are changes to the variables in future, the information in historic datasets will be important and necessary to construct time series of data for a civil society satellite account. As such, it is still beneficial to understand the existing identifiers, to enable the construction of historic estimates for a civil society satellite account.

Overall, our preliminary view is that the existing identifiers (legal status, and *sectro03*) are informative – they produce estimates in industries, and in proportions, that we would expect. Therefore, using these existing identifiers in the 'Do now' option seems to be a sensible first step, though it would benefit from further investigation. In the immediate term, we

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6 https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/methodologies/transformedlabourforcesurveyuserguidance

7 https://www.digitalmarketplace.service.gov.uk/digital-outcomes-and-specialists/opportunities/16546

recommend discussion with HMRC to better understand the allocation of the legal status variable on the IDBR. In the medium term, we recommend further analysis of the legal status variable by matching the various external registers and lists of relevant organisations to the IDBR, to better understand the coverage of the legal status variable. See Chapter 5 of the main report for more on our recommendations for data.

5. Further considerations for using survey data in a satellite account

Aggregate data from surveys will inevitably not be consistent with national accounts aggregates such as GVA and GDP. The ONS uses a wide range of sources to estimate these macroeconomic variables, reconciling different estimates from different sources to produce an internally consistent set of National Accounts. As such, it would be necessary to 'benchmark' or 'constrain' the survey aggregates to the relevant national accounts variables to ensure the civil society estimates are consistent with existing economic statistics. For example, the ABS might give an estimate of turnover in an industry of £9bn, but the National Accounts show it to be £10bn. If civil society accounted for £1bn of turnover in this industry according to the ABS it might be necessary to scale up the contribution of civil society accordingly.

The best approach to benchmarking/constraining will depend on the reasons for the difference between the survey source and National Accounts data, which may not be clear. If the difference is due to the inclusion of a sub-industry which is omitted from the survey, then it would be appropriate to consider whether civil society is likely to be a part of that sub-industry. If the difference is instead due to data quality adjustments (e.g. there are two sources which conceptually cover the same variable but give different answers), then a blanket 'scaling' might be sufficient. While additional work would be beneficial to understand the appropriate method for each variable and data source, such constraining and benchmarking is fairly standard in economic statistics, and so this should be possible with little difficulty.

As a refinement, post-stratification analysis could be applied to the survey data and the sample weights re-estimated. Most official business surveys use samples that are stratified by industry and employment (and/or turnover) size band, but rarely by legal status. As such, there is no guarantee that the sample weights on the basis of industry and size will be appropriate for a survey aggregate on any other dimension (namely, legal status). Post-stratification is a statistical technique to re-estimate sample weights to better account for over- or under-sampled sub-populations – this would allow the estimates to better reflect the known distribution of

the civil society sub-population based on the legal status identifier on the IDBR.

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