Europe Economics

The economic value of advice provided by the Citizens Advice Network in Scotland in 2019-20, with an extension to Q2 2020

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Final Report

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Contents

I	Executive Summary	I
2	Introduction	3
Part	: I: The value of advice provided in Scotland in 2019-20	4
3	Summary of the value of advice provided in 2019-20	5
4	Quantitative approach using the Legal Problem and Resolution Survey (LPRS)	6
	4.1 Overview of valuation approach	6
	4.2 Updated data	7
	4.3 Additional areas of advice	13
	4.4 Results	14
	4.5 The value of Legal Proceedings advice	18
5	Direct and indirect economic impacts of CAS and CAB	21
	5.1 Client financial gain: indirect and induced economic benefits	21
	5.2 Indirect and induced impacts of CAS and CAB expenditure	23
6	The value of information provided on the CAS website	25
	6.1 Introduction	25
	6.2 The approach to quantification: using LPRS to quantify benefits	26
	6.3 Results	28
7	The non-monetary benefits of advice	30
	7.1 Introduction	30
	7.2 The environmental benefit of advice: lower greenhouse gas emissions	30
	7.4 Conclusions on non-monetary benefits	35
Part	2: The value of advice provided in Scotland during Q2 2020	36
8	Summary of the value of advice provided in Q2 2020	37
9	The value of advice provided in Scotland during Q2 2020	38
	9.1 Introduction	38
	9.2 Applying the existing quantitative approach to Q2 2020	39
	9.3 Legal Proceedings	43
	9.4 Direct and indirect impacts of CAS and CAB in Q2 2020	43
Арре	endix I: LPRS dataset	45
	The effectiveness of advice	45
Арре	endix 2: CAB client satisfaction survey	47

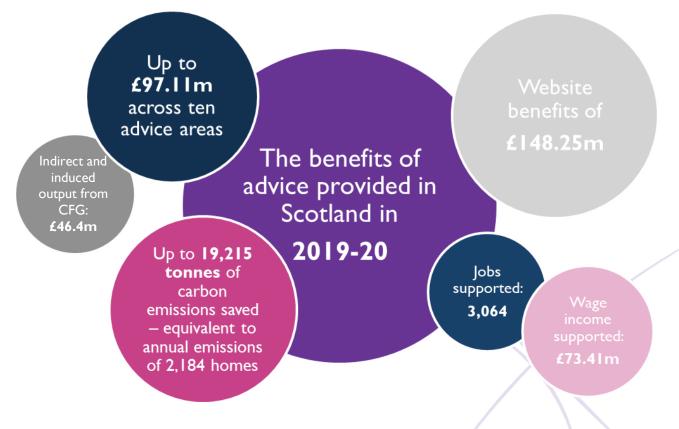
1 Executive Summary

Citizens Advice Scotland ("CAS") and its network of 59 member Citizens Advice Bureaux ("CAB"), the Extra Help Unit, and the network's online advice presence together form Scotland's largest independent advice network. In 2019-20, the CAB network dealt with 186,600 clients across Scotland, helping them gain more than £170m in client financial gain (CFG).¹

This report by Europe Economics is the latest in a series of analyses which quantify the economic value of advice provided by CAS and the CAB network in Scotland. It is a continuation and an extension of this series.

As a continuation, it brings the most recent data to an existing approach to quantifying the economic value of advice. This involves estimating the extent to which advice can help to resolve people's problems which can then, in turn, relieve pressure on the public purse and help to maintain economic activity. In 2019-20, this value is estimated to be as much as \pounds 97.11m across just ten CAB advice areas. The continuation also provides input-output analysis of the client financial gain from advice, and of the wage and supplier expenditures of CAS and CAB. This analysis for 2019-20 finds that client financial gain supported an additional \pounds 46.4m of economic output through indirect and induced effects, and that CAS and CAB supported 3,064 jobs and \pounds 73.41m in wage income.

As an extension, it broadens the scope of the existing approach to cover more areas of advice and ways of receiving it, whilst also considering some non-financial benefits from the advice provided by CAS and CAB in Scotland.



CAS (2020) "Citizens Advice Service Statistics 2019-20" [online].

Websites offer some of the most accessible sources of information for helping people with their issues. The "Advice for Scotland" website offers a trove of information, available to its visitors for free, potentially enabling them to resolve their issues. This report adapts the existing quantitative approach to account for the potential impact of the network's advice webpages, finding that advice and information provided on the webpage produced up to £148.25m in benefits in 2019-20. The addition of the website benefits to the estimated benefits of in-person advice across the ten advice areas produces a total of up to £245m in benefits to society in 2019-20.

Recognising the limited ability of blunt monetary figures to reflect the full range of benefits, this report has begun to portray some of the non-monetary impacts of advice. This includes how the of advice provided by CAB advisors could reduce carbon emissions and influence measures of social deprivation. For example, in 2019-20 the advice provided in the advice areas analysed may have saved 19,215 tonnes of carbon from being emitted, the equivalent annual emissions of 2,184 homes. It is anticipated that CAS might continue to investigate the non-monetary benefits of the advice provided by the CAB network in Scotland in future work.

Preparing this report in 2020, it is difficult to ignore the ways in which the COVID-19 pandemic has changed economies and societies – and with them the landscape of advice provision. Restrictions introduced to curb the spread of the virus meant that the provision of face-to-face advice was suspended.² However, all 59 Scottish CABs were offering advice over email and phone by March 2020, and the online webpages remained accessible. This helped to maintain the flow of advice provision to those who needed it.

In light of the unprecedented consequences of the COVID-19 pandemic, this report provides analysis of the impact of CAS and CAB in the second quarter (Q2) of 2020. This period covers the first 'spike' in recorded COVID-19 cases in Scotland as well as the ensuing national lockdown. For this analysis, the existing quantitative approach is applied to the client numbers in the relevant advice areas and the input-output analysis to the activities of CAS and CAB during this period. With the existing quantitative approach, we estimate an impact of £24.9m across the same ten advice areas. Input-output analysis of the wage and supplier expenditure of CAS alone – due to a lack of data for the CABs – shows that it supported 542 jobs and \pounds 12.66m in wage income in Q2 2020.



"Wage income supported" and "Jobs supported" do not account for the full benefits of the CAB network due to limited data, so the results in these bubbles cannot be compared with those of the 2019-20 bubbles.

² Mitchell, D. (2020) "People need support through COVID-19, and we are there to provide it", [online].

2 Introduction

This is a report by Europe Economics for Citizens Advice Scotland (CAS) on the value of advice provided by the Citizens Advice Network in Scotland. The quantified benefits cover those generated by both CAS and the network of Citizens Advice Bureaux (CAB) in Scotland. The report is divided into two parts.

Part I: The value of advice provided in Scotland in 2019-20

Part I begins with an update to the analysis carried out previously for CAS on the benefits of advice provided in Scotland.³ This involves estimating the financial savings to the Scottish economy when advice resolves some of the adverse consequences associated with clients' problem. This is called the "existing quantitative approach". It is updated to include a total of nine advice areas. The benefit of advice in a tenth advice area, Legal Proceedings, is quantified separately.

Next, Part I presents estimates of the indirect economic impact of CAS and CAB calculated using an inputoutput framework of analysis.

As not all of the information provided by the CAB network is conveyed at in-person consultations, it is important to take account of other ways in which people access advice and information. Part I continues by estimating the benefits of information provided through the Advice for Scotland website of CAS.

Finally, Part I presents the results of a number of ways of estimating the non-monetary benefits of the CAB network. We have sought to quantify, where possible, the reduction in carbon emissions due to helping people solve their problems as well as the positive impact of CAB advice on measures of social deprivation.

Part 2: The value of advice provided in Scotland in Q2 2020

Scotland experienced the first wave of COVID-19 infections in the second quarter of 2020. This coincided with a national lockdown and social and economic restrictions that led many people to require financial support for the first time. The CAB network in Scotland was a crucial source of information to help people understand the options available to them. In Part 2, we analyse the impact of advice provided in all ten advice areas during this period using the existing quantitative approach.

³ Fraser of Allander Institute (2012) "The financial benefits of advice provision – the example of the Citizens Advice Service in Scotland", a report prepared for Citizens Advice Scotland [online]; Fraser of Allander Institute (2014) "The continuing financial benefits of advice provision to the common good: the example of the Citizens Advice Service in Scotland", a report prepared for Citizens Advice Scotland [online].

Part 1: The value of advice provided in Scotland in 2019-20

3 Summary of the value of advice provided in 2019-20

This page summarises the results of the impact analyses contained within the rest of Part I. These tables do not include the benefits for the measures of social deprivation.

Table 1: The value of advice calculated using the existing quantitative approach and its extensions to new advice areas, 2019-20

Advice area / type	Approach	Unit	2019-20
All advice areas except for Legal Proceedings	Existing quantitative approach	£m	56.67 – 85.53*
Legal Proceedings	Revealed value	£m	11.58
Client Financial Gain		£m	172.02
Employment supported	Input-output model	jobs	1,616
Wage income supported	Input-output model	£m	51.14
Economic impacts of CAS and CAB			
Employment supported	Input-output model	jobs	1,448
Wage income supported	Input-output model	£m	22.27

Note: *Lower total when LPRS advice effectiveness figures used; higher total when CAB survey figures used. Source: Europe Economics analysis.

Table 2: The value of information provided on the Advice for Scotland website, 2019-20

Advice area / type	Approach	Unit	Value in 2019-20 (£m)
Website benefits	Existing quantitative approach	£m	148.25

Source: Europe Economics analysis.

Table 3: The carbon emissions saved due to advice received in-person and information provided online,2019-20

Driver of emissions reduction	Total tonnes CO2e saved (LPRS data)	Total tonnes CO2e saved (CAB survey)	
Reduced GP visits and pharmaceutical prescriptions	15,989	18,420	
Not having to move home	737	794	
Total	16,726	19,215	

Source: Europe Economics analysis. Totals may not add due to rounding. "LPRS data" and "CAB survey" refer to the advice effectiveness figures used.

4 Quantitative approach using the Legal Problem and Resolution Survey (LPRS)

4.1 Overview of valuation approach

The approach to quantifying the benefits of advice provided by CAB taken in previous editions of this work involves the following steps.

- 1. The first step is to collect the number of clients seen by CAB in each of the advice areas. These figures are estimated by CAS and were provided to Europe Economics for this work. The figures for the period 2019-20 are shown in Table 4, below.
- 2. The second step is to determine the likelihood that a client approaching CAB about a problem in a given advice area experiences a range of adverse consequences. The Legal Problem and Resolution Survey (LPRS) dataset is used for this.
- 3. The third step is to source variables that can quantify the costs of a sample of the adverse consequences. Europe Economics has sourced updated figures for these costs.
- 4. The fourth step is to estimate the proportion of CAB clients in a given advice area whose problems are resolved after receiving advice from CAB. The LPRS dataset is used for consistency with previous editions. We also provide results using alternative figures from a CAB client satisfaction survey.

Combining steps 1-4 results in monetary values for some of the potential costs of adverse consequences and the amount of these costs that may be avoided as a result of receiving advice from CAB. We refer to this method of estimating the benefits of advice provided by CAB as the "existing quantitative approach" as it follows the approach used in previous studies on the benefits of advice provided by CAB. In this section, we focus attention on steps 2-4 of the existing quantitative approach.

CAB advice areas covered in this project	Total clients (2019-20)
Benefits	103,430
Debt	26,241
Housing	18,401
Employment	18,092
Legal Proceedings	17,964
Utilities and communications	13,307
Finance (excluding Charitable Support)	10,492
Relationship	9,975
Travel, transport and holidays	7,903
Consumer	7,044

Table 4: Advice areas and numbers of clients seen in 2019-20

Source: Citizens Advice Scotland. The advice areas in purple text were not included in the previous analyses.

4.2 Updated data

4.2.1 Statistics from the LPRS dataset

The approach relies on the LPRS conducted in 2014-15 in England and Wales.⁴ The LPRS is a successor of the English and Welsh Civil and Social Justice Survey (CSJS), the latter being used in the 2012 and 2014 studies for the same purpose. CAS provided Europe Economics with access to the full LPRS dataset to enable us to estimate 1) the prevalence of adverse consequences among people with different problems; and 2) the effectiveness of advice provided by Citizens Advice.

Prevalence of adverse consequences

The LPRS reports the prevalence of adverse consequences for a number of "problem descriptions" which are grouped into "problem categories" that largely align with the CAB advice areas. Europe Economics has extracted these from the LPRS dataset. The one CAB advice area that does not have an LPRS counterpart problem category is "Legal Proceedings". This means that we can incorporate all the required CAB advice areas except one into the existing quantitative approach. Our approach to quantifying the value of advice in the area of Legal Proceedings is set out in section 4.5.

In Table 6, below, we display the results of the analysis of LPRS data for the problem categories that closely align with the CAB advice areas. This alignment is based on the following mapping of CAB advice areas (left) to the problem categories coded in the LPRS dataset (right).

CAB advice area	LPRS problem categories
Benefits "Problems concerning benefits, tax credits or pensions"	
Consumer	"Problems with purchasing goods or services"
Debt	"Problems concerning debt"
Employment	"Problems concerning your employment"
Finance	"Problems concerning money"
Housing	"Problems concerning the home you own", AND "problems concerning the home you rent"
Relationships	"Problems concerning relationship break-up"

Table 5: Mapping CAB advice areas to LPRS problem categories

The table below displays the results of this analysis.

Ministry of Justice, Surveys and Insight, Analytical Services. (2017). Legal Problem and Resolution Survey, 2014-2015.
 [data collection]. UK Data Service. SN: 8169, <u>http://doi.org/10.5255/UKDA-SN-8169-1;</u> <u>https://beta.ukdataservice.ac.uk/datacatalogue/studies/study?id=8169</u>

Adverse consequence	Benefits	Consumer	Debt	Employment	Finance	Housing	Relationships
Physical ill health	16.1%	6.9%	14.6%	14.7%	9.9%	8.9%	15.8%
Stress-related illness	33.6%	15.4%	34.1%	27.8%	20.3%	22.3%	41.7%
Relationship breakdown	3.9%	0.7%	4.1%	3.5%	1.7%	0.9%	14.9%
Harassment/abuse	4.7%	6.1%	9.7%	8.0%	6.8%	5.9%	28.8%
Property damage	0.8%	6.5%	2.4%	2.3%	3.3%	7.7%	8.0%
Had to move home	5.7%	2.8%	7.2%	2.9%	3.6%	6.7%	21.7%
Loss of employment	6.2%	2.9%	7.9%	19.1%	5.5%	1.7%	8.8%
Loss of income	38.4%	17.0%	27.4%	32.7%	23.4%	19.2%	43.8%
Loss of confidence	23.5%	18.2%	29.5%	35.3%	18.9%	20.0%	36.9%

Table 6: Prevalence of adverse consequences, by CAB advice area

Source: LPRS, Europe Economics analysis. The figures are weighted according to the individual characteristics of each respondent.

Two of the CAB advice areas do not have direct counterparts in the LPRS: Travel, transport and holidays; and Utilities and communication. For the prevalence of adverse consequences among people with problems in these areas, we used two individual problem descriptions within the LPRS problem category "with purchasing goods or services" (categorised as "Consumer" problems).

- Travel, transport, holidays experience of problems concerning "services that were substantially short of what was promised, such as holidays". This is an imperfect proxy, but the LPRS does not contain information relating to transport problems more generally.
- Utilities and communication experience of problems concerning "major disruption in the supply of utilities such as water, gas, Internet".

Adverse consequence	Travel, transport, holidays	Utilities and communication
Physical ill health	11.5%	7.4%
Stress-related illness	14.8%	13.7%
Relationship breakdown	2.1%	0.9%
Harassment/abuse	6.8%	6.8%
Property damage	3.8%	4.6%
Had to move home	1.7%	2.9%
Loss of employment	6.0%	2.4%
Loss of income	22.4%	12.9%
Loss of confidence	16.4%	14.4%

Table 7: Prevalence of adverse consequences among people with specific problems

Source: LPRS, Europe Economics analysis. The figures are weighted according to the individual characteristics of each respondent.

Effectiveness of advice

The LPRS also reports on the extent to which respondents were able to resolve their problems with the help of the organisation that they contacted last about it. We retrieved the extent to which a Citizens Advice client's problem was resolved,⁵ using the relevant variables to calculate the effectiveness of advice for each

⁵ This was based on those respondents who stated that the advice "helped resolve or reduce the problem".

problem category. Note that this is not specific to Scotland; the effectiveness figures are based on the advice received by survey respondents in England and Wales reporting on the advice provided by Citizens Advice. Again, this is possible for all advice areas except "Legal Proceedings". The retrieval of this information is described further in Appendix I.

The effectiveness of advice figures reflect the extent to which the Citizens Advice network in England and Wales helped solve a problem, which is a good proxy for the effectiveness of CAB advice in Scotland, absent better data. In keeping with the existing approach, we also assume that resolving the problem eliminates the possibility that the related adverse consequences – and associated costs – arise.

We encounter the same issue as with the prevalence of adverse consequences, in that two CAB advice areas do not have direct counterparts in the LPRS. We explored whether the individual problem descriptions (displayed above) could shed light on the effectiveness of advice provided by Citizens Advice. However, we find only one respondent for each individual problem who fits the necessary criteria that a) the relevant problem was the subject of the effectiveness of advice question, and b) the respondent sought help from Citizens Advice about it. A sample size of one is insufficient to calculate advice effectiveness. Therefore, we use the figures calculated for the Consumer problem category as a proxy for the effectiveness of advice in the two other CAB advice areas. The table below provides the results.

Table 8: The effectiveness of advice from Citizens Advice, by problem type (proportion of respondents,	
weighted)	

Problem on which advice was sought	Resolved or reduced the problem	Made no difference	Don't know
Consumer problems*	67.1%	32.9%	0%
Employment problems	47.6%	52.4%	0%
Housing problems	48.1%	51.9%	0%
Debt problems	90.3%	9.7%	0%
Finance problems	60.6%	37.0%	2.4%
Benefits problems	41.9%	50.2%	7.9%
Relationship problems	38.5%	61.5%	0%

Note: * Also used for effectiveness of advice provided to CAB clients in the Travel, transport, holidays and Utilities and communication advice areas. Source: LPRS, Europe Economics analysis. The figures are weighted according to the individual characteristics of each respondent.

For consistency with the approach taken previously, the LPRS advice effectiveness figures reported above inform the relevant calculations in this report. However, there are some important limitations of the figures that are worth noting. First, the figures are based on recipients of advice from Citizens Advice bureaux in England and Wales contacted in a survey from 2014-15. This means that the figures are lacking in accuracy both geographically and temporally. Second, the figures are informed by a small number of responses for each type of problem/advice area (see Appendix 1). The LPRS advice effectiveness figures therefore have some limitations.

With these data limitations in mind, we provide a sense-check of results for the existing quantitative approach using alternative advice effectiveness figures. This is discussed below.

4.2.2 CAB client satisfaction survey

Periodically, the CAB network carries out client satisfaction surveys to gauge whether clients benefitted from the advice they received from CAB advisors. These surveys are therefore direct representations of the advice provided by CAB advisors in Scotland. Unlike the LPRS, however, the client satisfaction surveys are not necessarily representative of the potential variety of advice experiences; the survey respondents choosing to provide feedback may be generally more satisfied than the average recipient of advice. The survey results can be disaggregated into the separate advice areas and may be used as an alternative set of advice effectiveness figures.

The following table summarises the strengths and weaknesses of using the two sets of advice effectiveness figures.

Advice effectiveness figures	Strengths	Weaknesses
LPRS	 Independently collected and analysed Captures positive and negative experiences Responses weighted by the representativeness of each individual Maps to CAB advice areas 	 Informed by small samples Old data (from 2014-15) Not specific to CAB in Scotland Same effectiveness figure assumed for clients with Consumer, TT&H and U&C problems
CAB client satisfaction survey	 Specific to CAB in Scotland Recent data Maps to CAB advice areas Captures experience of clients with TT&H and U&C problems 	 Potential selection bias in responses (effectiveness biased upwards) Not an independent source

TT&H – Travel, transport and holidays; U&C - Utilities and communications

The alternative advice effectiveness figures (shown below) represent the proportion of respondents in each area who reported that CAB "Almost Completely" or "Completely" resolved their issues. We have not included the proportions of responses for whom CAB "Partially" resolved issues because it is not clear what proportion of the monetary benefits calculated in this report would be realised in these instances. Future editions of this analysis could integrate such responses to generate more nuanced monetary benefits of advice. These advice effectiveness figures are materially higher than the LPRS-informed figures, and the results using them are presented alongside the results for the existing quantitative approach throughout this report.

Table 10: Alternative effectiveness of advice figures: CAB client satisfaction survey

Problem on which advice was sought	Effectiveness of advice
Consumer problems	90.9%
Employment problems	82.5%
Housing	79.3%
Debt problems	69.5%
Money problems	81.8%
Benefits problems	80.4%
Relationship problems	78.7%
Travel, transport and holidays problems	70.9%
Utilities and communications problems	71.0%

The "Effectiveness of advice is the sum of "Almost completely" and "Completely" resolved issues in the survey. Source: CAS. The full table may be found in Appendix 2.

4.2.3 Sourced estimates

The quantification approach estimates three types of savings that may result from the advice provided by CAB. These costs savings are estimated using the prevalence of three adverse consequences: stress-related illness, physical ill health, and loss of employment. We have sourced updated figures for the costs of these adverse consequences.

• **Health cost savings**: The savings from reducing the extent to which people might require medical assistance from suffering the adverse consequences of stress-related illness and physical ill health as a result of their problem. This reduces general practitioner consultation and prescription costs.

- **Unemployment cost savings**: The savings from reducing the extent to which people might lose their job as a result of their problem. This reduces the amount of unemployment benefit expenditure.
- **Output loss savings**: The further benefits from reducing the extent to which people might lose their job, since a job kept represents a person continuing to produce output and receive income. This reduces the potential output loss resulting from a lost job.

Health cost savings

We use three non-LPRS figures to estimate the health cost savings of advice:

- The average number of consultations a patient has with a general practitioner (GP).
- The average cost per GP consultation.
- The average prescription cost per consultation.

For the average costs of consultations and prescriptions we are able to use the most recent edition of the Unit Costs of Health and Social Care published by the Personal Social Services Research Unit (PSSRU). This reports average costs for England, and it was used in the previous analyses for prescription costs. Given that a 2011 figure for the cost of a consultation were used in both analyses, we consider the PSSRU's 2019 figure to be a suitable alternative. We therefore use figures of £39.23 and £32.12 for the cost per consultation and the prescription cost per consultation, respectively.

For the average number of contacts with a GP, we continue to use the 4.4 figure used in the 2014 study. Some alternative figures are available, but we consider these to reflect less accurately the datapoint we are trying to capture: the number of times a person with a stress-related illness or physical ill health requires medical assistance. For example, Papanicolas et al. (2019) report a 2017 estimate of healthcare professional utilisation in the UK (5 visits),⁶ but this is based on the number of hospital admissions per person. Suggesting that all individuals with the health problems considered in our analysis are admitted to hospital is likely to be too strong an assumption. The Commonwealth Fund and OECD (2019) also report a value of 5 for the average annual number of physician visits per person in England in 2017.⁷

Input variable in 2014 study	Value used in 2014 study	Equivalent variable for this study	Value used in this study	Source of figure used in this study
Average number of visits to GP in 2012-13	4.4	NA	4.4	NA
Cost per GP consultation in 2011	£35	General practitioner unit cost in 2019: Per patient contact lasting 9.22 minutes (including carbon emissions of 6 KgCO2e) (with qualification costs)	£39.23	PSSRU Unit Costs of Health and Social Care 2019, p.120. https://kar.kent.ac.uk/79286/
Prescription cost per consultation in 2013	£44.64	Prescription costs per consultation in 2019 (actual cost) including carbon emissions (16 KgCO2e)	£32.12	PSSRU Unit Costs of Health and Social Care 2019, p.120. https://kar.kent.ac.uk/79286/

Table II: Health cost savings input values

Unemployment cost savings

We use two non-LPRS figures to estimate the unemployment cost savings of advice:

⁶ Papanicolas et al. (2019), "Performance of UK National Health Service compared with other high income countries: observational study", BMJ 367:I6326, p.7. <u>https://www.bmj.com/content/bmj/367/bmj.I6326.full.pdf</u>

⁷ The Commonwealth Fund (2019), Average Annual Number of Physician Visits per Capita, 2017, OECD data. <u>https://www.commonwealthfund.org/international-health-policy-center/system-stats/annual-physician-visits</u>

- The unemployment benefit expenditure on a typical unemployed worker.
- The length of time a typical worker could be expected to be unemployed.

Unemployment cost savings have been calculated using the standard monthly allowance of Universal Credit in place of the weekly Jobseeker's Allowance (JSA) figures used in the previous analyses. We calculate an average of the standard allowance for single claimants in the age brackets (1) under 25 and (2) 25 and above, weighted by the average number of recipients in these age brackets in Scotland in 2019. This produces a value of Universal Credit paid to the typical recipient of £305.37 per month. This is higher in nominal terms than the 2014 figure (\pounds 72.49; approximately £290 per month).

We also need a figure for the length of time a person is out of work. We find a recent source stating that the mean duration of unemployment of people in Local Authority Districts with medium unemployment rates is 6.7 months. This is somewhat higher than the figure used in the 2014 study of 19 weeks (approximately four and three-quarter months).

Input variable in 2014 study	Value used in 2014 study	Equivalent variable for this study	Value used in this study	Source of figure used in this study
Unemployment benefit (pre-2014)	£72.49 JSA per week	Universal Credit standard monthly allowance for single claimants under 25 years old and 25 and above in 2019- 20, weighted by the average number of recipients in these age brackets in Scotland in 2019.	£305.37 per month	Allowance: UK Government Benefit and pension rates 2019 to 2020 https://www.gov.uk/governme nt/publications/benefit-and- pension-rates-2019-to- 2020/proposed-benefit-and- pension-rates-2019-to-2020 Stat X-Plore (DVVP), People on Universal Credit in Scotland in 2019 https://stat- xplore.dwp.gov.uk/webapi/jsf/l ogin.xhtml
Duration of unemployment in 2011	19 weeks	Mean unemployment duration of Local Authority Districts with 'medium' unemployment rates (months)	6.7 months	Pierse, T. and J. McHale (2020) "Unemployment Durations and Local Labour Market Conditions" <u>https://iea2017.exordo.com/file</u> <u>s/papers/129/initial_draft/IEA_</u> <u>Tom_Pierse.pdf</u>

Table 12: Unemployment cost savings input values

Output loss savings

We use two non-LPRS figures to estimate the output loss savings of advice:

- The output produced by the typical worker in Scotland.
- The time it takes to fill a job vacancy and hence to stop the loss of output.

The savings produced by reducing the levels of lost output as a result of unemployment are calculated using the estimated number of people made unemployed as a consequence of their problems. These figures are calculated at the previous stage when we estimate unemployment cost savings. To determine how much output may then be lost, and the extent to which advice may reduce the loss, these figures are combined with estimates of per-worker output and the time it takes to fill a job vacancy.

The output estimate chosen is from the most recent update of the data series used in the previous studies: Gross Value Added per worker in Scotland calculated by the Office for National Statistics (ONS). The 2018 value is £25,485.

For the job vacancy period estimate, we use a more recent value of 48 days. The source of the estimate used previously, five weeks, was not disclosed in the 2012 or 2014 studies. The figure we have reflects the average time to fill a vacant position in the UK and Ireland calculated by Workable, a recruitment software provider.

Input variable in 2014 study	Value used in 2014 study	Equivalent variable for this study	Value used in this study	Source of figure used in this study
Gross Value Added (GVA) per worker in Scotland in 2014	£20,013	Gross Value Added (GVA) per worker in Scotland in 2018	£25,485	ONS (2018) Regional economic activity by gross value added (balanced), UK: 1998 to 2017 https://www.ons.gov.uk/ economy/grossvalueadd edgva/bulletins/regionalg rossvalueaddedbalanced uk/1998to2017
Time taken to fill job vacancy in Scotland in 2012 (weeks)	5 weeks (35 days)	Average time to fill a position, UK and Ireland (days)	48 days	Workable (n.d.) "What is time to fill? KPIs for recruiters" <u>https://resources.workab</u> <u>le.com/tutorial/recruiting</u> <u>-kpis</u>

Table 13: Output loss savings input values

4.3 Additional areas of advice

Next, we describe our approach to the inclusion of five additional CAB advice areas:

- Consumer;
- Finance (excluding charitable support);
- Utilities and communications;
- Travel, transport and holidays; and
- Legal Proceedings.

The LPRS enables us to incorporate the first four into the existing approach, which is the first thing we explain in this section. Then we describe our approach to incorporating the Legal Proceedings advice area, for which direct incorporation into the previous approach is not possible.

4.3.1 Availability of information in the LPRS to extend the analysis

As explained above, we have been able to map all but one of the additional CAB service areas against the problem categories of the LPRS. This has enabled a straightforward incorporation of these new advice areas. To recap, we have mapped them as follows:

CAB advice area	LPRS problem category
Consumer	"Problems with purchasing goods or services"
Finance	"Problems concerning money"
Travel, transport	Experience of problems concerning "services that were substantially short of what was
and holidays	promised, such as holidays"
Utilities and	Experience of problems concerning "major disruption in the supply of utilities such as water,
communication	gas, Internet"

Table 14: Summary of the mapping of CAB advice areas to LPRS problem categories to extend analysis

Table 6 and Table 7 (on page 8) display the prevalence of adverse consequences statistics obtained from the LPRS for these advice areas. The same non-LPRS variables are applied to the analysis of cost savings.

4.4 Results

Combining the information from the LPRS with the sourced inputs and the existing quantitative approach allows us to calculate updated estimates of the value of advice provided by CAB. In what follows, we report the savings for each of the nine advice areas for which the existing quantitative approach is suitable.

4.4.1 Health cost savings

Stress-related illness

The various problems on which advice is sought from CAB advisors can sometimes lead to people developing stress-related illnesses. In this quantitative approach, such problems are assumed to cause cost pressure on public healthcare. Thus, the reduction in the prevalence of stress-related illnesses can have a positive, pressure-relieving effect on the provision of public healthcare.

Taking clients with Benefits problems as an example, according to CAS, the number of clients with Benefits problems seen by CAB advisors reached 103,430 in 2019-20. Based on the prevalence of adverse consequences in 2019-20, approximately 34,736 of these clients may have suffered from a stress-related illness as a result of their problem (see the second column of Table 15). We can analyse how the advice provided by CAB advisors can help to reduce the healthcare expenditure costs that can result from these illnesses.

Table 15, below, shows the results of this analysis. The first five rows of the table relate to the problem areas that were covered in previous editions of the advice provided by the Citizens Advice network in Scotland. These rows therefore facilitate comparisons with the previous editions (in which the results are informed by the LPRS advice effectiveness figures). The next four rows relate to the additional problem areas to which the existing quantitative approach has been applied.

The additional healthcare expenditure that would be caused by the nine different types of problems taken to CAB advisors given our assumptions, in the third column of Table 15, is £19.84m. Using the LPRS advice effectiveness figures, advice provided by CAB is assumed to have resolved the problem for 32,668 clients (fourth column), thus reducing the associated expenditure by approximately £10.26m (fifth column). However, using the higher CAB client satisfaction survey advice effectiveness figures, CAB may have resolved the problems of nearly 50,000 clients (49,696; sixth column). This realises a savings of £15.6m (seventh column).

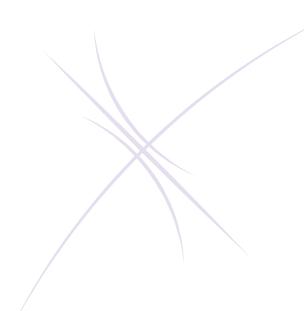
Problem category	Number of affected clients	Additional health expenditure (£m)	Clients with resolved problems (LPRS data)	Savings from advice (£m) (LPRS data)	Clients with resolved problems (CAB survey)	Savings from advice (£m) (CAB survey)
Benefits	34,736	10.91	14,564	4.57	27,928	8.77
Debt	8,958	2.81	8,092	2.54	6,226	1.95
Employment	5,039	1.58	2,400	0.75	4,157	1.30
Housing	4,099	1.29	1,972	0.62	3,250	1.02
Relationship	4,160	1.31	1,603	0.50	3,274	1.03
Total	56,992	17.89	28,63 I	8.99	44,835	14.08
Consumer	1,086	0.34	729	0.23	988	0.31
Finance (excluding Charitable Support)	2,134	0.67	1,294	0.41	1,746	0.55
Travel, transport and holidays	1,172	0.37	787	0.25	831	0.26
Utilities and communications	1,826	0.57	1,226	0.38	1,297	0.41
Total	6,220	1.95	4,037	1.27	4,861	1.53
Grand Total	63,211	19.84	32,668	10.26	49,696	15.60

Table 15: Stress-related illness healthcare cost savings, 2019-20

Europe Economics analysis. Totals may not sum due to rounding.

Physical ill health

Similarly, the problems that people bring to CAB advisors may be associated with the risk of developing physical ill health. This can put a strain on public healthcare resources. We estimate that 29,777 clients who brought their problems to CAB may have developed physical ill health as a result of their problems (see Table 16). If these clients were left without assistance, they may have required healthcare at a value of some £9.35m. However, an estimated 15,337 to 23,421 clients sought and received advice from CAB advisors and had their problems resolved (depending on whether the LPRS or CAB client survey advice effectiveness data are used). This supported a reduction estimated at approximately $\pounds 4.81$ m to $\pounds 7.35$ m in public healthcare expenditure.



Problem category	Number affected clients	of Additional health expenditure (£m)	Clients with resolved problems (LPRS data)	Savings from advice (£m) (LPRS data)	Clients with resolved problems (CAB survey)	Savings from advice (£m) (CAB survey)
Benefits	l 6,648	5.23	6,980	2.19	13,385	4.20
Debt	3,840	1.21	3,469	1.09	2,669	0.84
Employment	2,661	0.84	1,267	0.40	2,195	0.69
Housing	1,633	0.51	785	0.25	1,295	0.41
Relationship	1,576	0.49	607	0.19	1,240	0.39
Total	26,357	8.27	13,109	4.12	20,784	6.52
Consumer	488	0.15	328	0.10	444	0.14
Finance (excluding Charitable Support)	1,042	0.33	632	0.20	852	0.27
Travel, transport and holidays	910	0.29	611	0.19	645	0.20
Utilities and communications	980	0.31	658	0.21	696	0.22
Total	3,420	1.07	2,228	0.70	2,637	0.83
Grand Total	29,777	9.35	15,337	4.81	23,421	7.35

Table 16: Physical ill health healthcare cost savings, 2019-20

Europe Economics analysis. Totals may not sum due to rounding.

4.4.2 Unemployment cost savings

Some problems brought to CAB may have resulted in clients losing their jobs. If these people lose their jobs and claim unemployment benefits, this can increase the expenditure burden on the state. Table 17 shows that around 14,656 people who brought their problems to CAB advisors are estimated to have been at risk of losing their job in 2019-20. Whilst one might expect that people with Employment problems would account for a large share of these people, we find that it is actually people with Benefits problems who constitute the largest share. This is driven by the very high number of people who brought benefits-related problems to CAB advisors in 2019-20 (see Table 4).

Using the LPRS advice effectiveness figures, the advice provided by the CAB advisors is estimated to have resolved this issue for around 7,690 people, enabling a saving on Universal Credit expenditure of ± 15.83 m. The CAB survey advice effectiveness figures put these values at 11,567 and ± 23.81 m, respectively.

Problem category	Number of affected clients	Additional expenditure on UC (£m)	Clients with resolved problems (LPRS data)	Savings from advice (£m) (LPRS data)	Clients with resolved problems (CAB survey)	Savings from advice (£m) (CAB survey)
Benefits	6,373	13.12	2,672	5.50	5,124	10.55
Debt	2,067	4.25	l,867	3.84	I,436	2.96
Employment	3,451	7.10	1,643	3.38	2,847	5.86
Housing	318	0.66	153	0.32	252	0.52
Relationship	877	1.80	338	0.70	690	1.42
Total	13,086	26.93	6,673	13.74	10,350	21.30
Consumer	205	0.42	138	0.28	187	0.38
Finance (excluding Charitable Support)	577	1.19	350	0.72	472	0.97
Travel, transport and holidays	474	0.98	318	0.66	336	0.69
Utilities and communications	314	0.65	211	0.43	223	0.46
Total	1,570	3.23	1,017	2.09	1,218	2.51
Grand Total	14,656	30.16	7,690	15.83	11,567	23.81

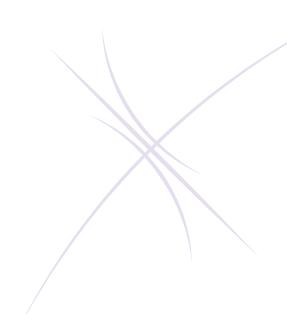
Table 17: Unemployment benefit expenditure savings, 2019-20

Europe Economics analysis. Totals may not sum due to rounding.

4.4.3 Output loss savings

The potential loss of a job is not only a driver of increased expenditure on Universal Credit – it also potentially leads to reduced output in the economy. From the unemployment cost savings estimates, we know that around 14,656 CAB clients might have lost their job as a consequence of the problem that was brought to the attention of CAB advisors. For the length of time that an employer has a job vacancy that is unfilled – which we find to be 48 days on average (see section 4.2.3) – the economy is not producing at a level that would be expected were the vacancy to be filled. On this basis, if all 14,656 clients did indeed lose their jobs, output in the economy would be £49.12m lower (see Table 18, below).

If the loss of employment was eliminated for people whose problems were resolved by CAB advisors, the advice they received may have supported the continued production of output valued at $\pm 25.77m$ to $\pm 38.77m$ (using LPRS and CAB survey data, respectively).



Problem category	Number of affected clients	Potential output loss (£m)	Clients with resolved problems (LPRS data)	Savings from advice (£m) (LPRS data)	Clients with resolved problems (CAB survey)	Savings from advice (£m) (CAB survey)
Benefits	6,373	21.36	2,672	8.96	5,124	17.17
Debt	2,067	6.93	I,867	6.26	I,436	4.81
Employment	3,451	11.57	1,643	5.5 I	2,847	9.54
Housing	318	1.07	153	0.51	252	0.85
Relationship	877	2.94	338	1.13	690	2.31
Total	13,086	43.86	6,673	22.37	10,350	34.69
Consumer	205	0.69	138	0.46	187	0.63
Finance (excluding Charitable Support)	577	1.93	350	1.17	472	1.58
Travel, transport and holidays	474	1.59	318	1.07	336	1.13
Utilities and communications	314	I.05	211	0.71	223	0.75
Total	1,570	5.26	1,017	3.41	1,218	4.08
Grand Total	14,656	49.12	7,690	25.77	11,567	38.77

Table 18: Output loss savings, 2019-20

Europe Economics analysis. Totals may not sum due to rounding.

4.5 The value of Legal Proceedings advice

4.5.1 Overview of approach

Unlike the other new CAB advice areas, there is no candidate problem category in the LPRS to match the Legal Proceedings advice area. We have identified a method of quantifying the benefits of receiving CAB advice with other aspects of the LPRS, basing our chosen approach on the concept of willingness to pay.

We can place a value on the non-marketed Legal Proceedings advice provided by CAB by estimating what this advice could have cost CAB clients had they used a paid advice service (which is marketed). People requiring assistance with tribunals, advocates and legal aid, for example, may feel a greater need to seek specialist help than those with other types of problems. Those who can afford it may opt for paid advice. In doing so, the value of this advice is revealed by their willingness to pay for these services.

This valuation approach is distinct from the existing quantitative approach used for the other advice areas. It is, in effect, an alternative approach to estimating the same thing – the value of advice – since the avoidance of adverse consequences will be 'priced in' to what people are willing to pay for advice received from other organisations. For example, the risk of losing earnings (which is related to lost output in the economy) will feed into the willingness of clients to pay for advice on legal issues. There would be double counting if the same approach were also used for the nine other advice areas alongside the existing quantitative approach.⁸

4.5.2 Availability of information in the LPRS to extend the analysis

The LPRS asks respondents with problems if they contacted any other sources of support where they had to pay for information, help or advice. Based on responses in England and Wales, the sources include barristers and solicitors, and other legal advice organisations such as Civil Legal Advice (CLA) and other

⁸ That said, the willingness to pay for advice on legal issues will not capture the effects of adverse consequences that are borne by other parties (e.g. healthcare costs borne by the NHS).

independent advice services.⁹ Some of these sources may have offered assistance similar to that offered by CAB to its Legal Proceedings clients. The average expenditure on assistance with various problems from other sources is displayed below.

Problem category	Solicitor	Barrister	Law Centre	The service 'Civil Legal Advice'	Another advice service
Consumer problems	1,167				1,025
Debt problems					1,533
Antisocial problems	605				380
Employment problems	644	1,100			135
Money problems	2,676	12,625	300	600	235
Health problems	2,320	2,000			40
Benefits problems					
Renting problems	300				
Owning property problems	2,428	6,250			908
Average	1,449	5,494	300	600	608

Table 19: Average amount spent by LPRS respondents on other advice sources, by problem category, £

Europe Economics analysis of LPRS data.

We consider that the services offered by "Another advice service" are likely to be the most comparable with those offered by CAB. This column is therefore used as the cost variable for this quantification method.

We proceed to categorise the CAB clients in the Legal Proceedings advice area into the broad problem categories used in the LPRS. For example, employment tribunals are categorised into the Employment problem category; and benefits and Scotland social security tribunals into the Benefits problem category. A variety of other Legal Proceedings clients could not be categorised into the problem categories and are shown in the "Other". This categorisation generates the figures below.

Problem category	Client sub-category	Number in 2019-20
Employment	First Tier Tribunal (Employment) Upper Tribunal (Employment)	685
Health	Incapacity	1,659
Benefits	First Tier Tribunal (Benefits) Upper Tribunal (Benefits) First Tier Tribunal (Scotland Social Security) Upper Tribunal (Scotland Social Security)	3,504
Housing	First Tier Tribunal (Housing and Property) Upper Tribunal (Housing and Property)	291
Other (Not an LPRS problem category)	First Tier Tribunal (Non-Benefits and Employment) First Tier Tribunal (Scotland Tax Chamber) Legal aid Solicitors / advocates Court – Sheriff (various) Other	14,843
Europe Economics analysis of	CAS data.	

Table 20. CAR clients seeking	g advice in Legal Proceedings advice area,	hy I PRS problem category
Table 20. CAD clients seeking	g autice in Legal i locecungs autice al ca	by LI NO Problem category

⁷ This point serves to reiterate the fact that the LPRS was conducted in England and Wales since it uses English legal terminology (e.g. "barristers" rather than "advocates").

The previous steps enable a matching (albeit imperfect) of CAB Legal Proceedings clients with the average amount that could be spent on another advice service for each problem category. For those clients that could not be matched to a problem category (labelled as "Other" in Table 20), we assume that the advice would have cost the average amount spent on another advice service (\pounds 608). Multiplying the CAB clients by the respective costs of advice yields an estimate of the value of the advice provided by CAB in the area of Legal Proceedings.

Assumptions of the method

We make the following assumptions in calculating these savings:

- That the average issue CAB deals with in its Legal Proceedings advice area is not materially different to the issues dealt with by other advice services, so that the value of CAB advice is reflective of what CAB clients would have paid had they received advice elsewhere.
- That CAB clients seeking assistance with legal aid, as well as assistance in obtaining other services that are free at the point of delivery, derive value from the support of CAB advisors through being signposted to these services and through related assistance (for example, checking of eligibility). The value we assume for this is the average amount (£608 the same as other clients in the "Other" category).
- That CAB clients seeking assistance with legal proceedings related to benefits would have paid the average amount (£608) had they purchased the advice from another advice service. The LPRS did not contain responses stating numeric costs for benefits problems but it did contain some "Don't know" responses, suggesting that there could have been a cost.
- That CAB clients seeking assistance with legal proceedings related to property would all have paid another advice service the amount corresponding to LPRS respondents with problems with their own property (i.e. that clients with renting issues in the Legal Proceedings area experienced the same costs as those who owned property).

4.5.3 Estimated value of advice on Legal Proceedings

The amount paid to other organisations for similar advice services reflects the economic value of advice. The following table shows the value that should be placed on the advice provided by CAB. In total, the value is estimated to be $\pounds 11.58$ m. This comprises advice estimated to be worth approximately $\pounds 92,000$ in relation to employment issues, $\pounds 66,000$ in relation to health issues, $\pounds 2.13$ m in relation to benefits issues, $\pounds 260,000$ in relation to the uncategorised issues.

Table 21: T	The value	of Legal	Proceedings	advice, 2	019-20
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Legal proceedings issue dealt with by CAB	The value of CAB advice (£m)			
Employment issues	0.09			
Health issues	0.07			
Benefits issues	2.13			
Housing issues	0.26			
Other issues	9.03			
Legal Proceedings (total)	11.58			

Europe Economics analysis. Totals may not sum due to rounding.

5 Direct and indirect economic impacts of CAS and CAB

5.1 Client financial gain: indirect and induced economic benefits

CAB supports clients in resolving issues where they are owed or entitled to money. When CAB intervenes successfully in such cases, clients receive a financial gain. In 2019-20, CAB interventions on behalf of clients by, for example, supporting clients in completing over 68,000 official forms,¹⁰ yielded a client financial gain of \pounds 172.02m.¹¹ This is income to which clients are entitled but may not have received had CAB not intervened on their behalf. In this section, we update the previous analyses of the knock-on economic impacts of client financial gain using the same methodology.

In economic analysis of income changes, it is common to employ an "input-output" model to understand how changes in the resulting expenditure is distributed around the economy. In such models, an increase in demand for bread, for example, is assumed to spark an increase in the production of bakeries – this is the direct effect. The bakeries need supplies to bake more bread, so a knock-on impact is felt by the flour and salt purveyors in the baker's supply chain – this is the indirect effect. The additional income in the supply chain sectors is then assumed to support additional employment, generating wage income. A proportion of this wage income is then recirculated into the economy when employees spend it – this is the induced effect.

We have constructed an input-output model to quantify the above effects of an increase in income in Scotland resulting from client financial gain. In this context, we can think of client financial gain as an injection of income into the Scottish economy which will be distributed according to how CAB clients spend it.¹² For consistency with the previous method, we assume that it is distributed on goods and services according to the most recent figures for Scotland provided in the Office of National Statistics (ONS) publication "Family Spending".¹³ The spending is assumed to have ripple effects (indirect and induced) on various sectors of the economy according to the relationships set out in published Scottish input-output tables.¹⁴

We also (conservatively) assume that client financial gain represents gross income – that is, income people receive before direct taxes have been paid. We therefore convert client financial gain into disposable income – what clients have available for spending on goods and services – using the ratio of gross to disposable income reported at the UK-level in another ONS publication.¹⁵

The model enables us to identify the direct, indirect and induced effects of the client financial gain spending injection. The impact on Scottish national output is presented in the figure below. The direct injection (the assumed disposable component of client financial gain of $\pounds 172.02m$), causes output to increase by $\pounds 22.2m$

¹⁰ CAS (2020) "Advice in Scotland" [online].

¹¹ Data provided by CAS.

¹² Some of this spending injection may also be understood as a transfer of money to CAB clients from some people who owed the money. Without CAB involvement, these people may have spent an amount of money equal to what they transferred to CAB clients and thus have stimulated a portion of the economic impacts we are estimating in this section. In this sense, the economic impacts of client financial gain may be a legitimate additional benefit of CAB but they are not necessarily additional to the Scottish economy.

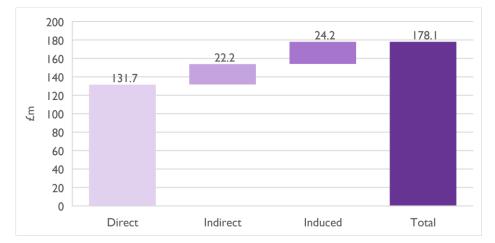
¹³ ONS (2020) "Family spending in the UK: April 2018 to March 2019", Workbook 3 - Expenditure by Region, Table A33 [online].

¹⁴ Scottish Government (2020) "Supply, Use and Input-Output Tables", Type I and Type II multipliers [online].

¹⁵ ONS (2020) "Household Disposable Income and Inequality, UK, 2019/20 - Reference Tables", Table 30 [online].

indirectly and by a further \pounds 24.2m through its induced effects. This means that clients spending their financial gain supported an additional \pounds 46.4m in economic output, totalling \pounds 178.1m in economic output contribution.

Figure I: The direct, indirect and induced output impact of client financial gain, 2019-20



Europe Economics analysis of CAS and ONS data. Totals may not add due to rounding.

The increase in output is associated with employment and wage impacts ultimately resulting from the client financial gain enabled by CAB advisors. We estimate that the client financial gain of \pounds 172m supported approximately 1,616 jobs and \pounds 51.14m in wages in 2019-20.

Table 22: Additional employment and wages in Scotland supported by client financial gain, 2019-20

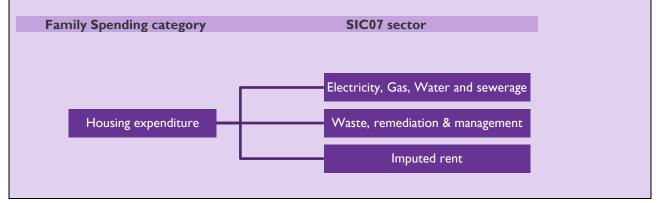
Indirect and induced impacts					
Client Financial Gain (£m)	172.02				
Employment supported	1,616				
Wages supported (£m)	51.14				

Europe Economics analysis of CAS and ONS data. Totals may not add due to rounding.

Technical Box I: Mapping household expenditure to Scottish economic sectors (SIC07)

The input-output analysis of client financial gain uses the ONS publication "Family Spending" to apportion the additional income on different goods and services. The categories of goods and services included in the publication, such as "Food and non-alcoholic drinks" and "Clothing & footwear", sometimes map onto several different economic sectors in the input-output multipliers data, as defined by the Standard Industrial Classification 2007 (SIC07). In our input-output model, the spending injection of client financial gain, distributed based on the Family Spending categories, affects the economy based on the average Type I multipliers (accounting for direct and indirect impacts) and Type II multipliers (direct, indirect and induced impacts) of the matching SIC07 sectors reported in Scottish input-output tables.

To illustrate this, the Family Spending category "Housing" covers spending in a number of different SIC07 sectors, such as electricity and other utilities, refuse collection and housing rent. The average of the multipliers associated with spending in each of these sectors is then used to calculate the indirect and induced impact of the "Housing" component.



5.2 Indirect and induced impacts of CAS and CAB expenditure

The day-to-day functions of the CAS and CAB in Scotland also generate further economic activity. The organisations have a network of suppliers on which they rely for certain goods and services. The suppliers benefit from this expenditure, which in turn supports employment and wage income. In addition, the wage income of paid CAS and CAB employees is spent on goods and services which – as described above in relation to client financial gain – can then support various economic sectors. The result is that employment and associated wage income, beyond that directly provided by CAS and CAB, is supported by the wage and supplier expenditure of the organisations.

We update the input-output analysis of the previous studies to estimate the additional economic impacts of CAS and CAB wage and supplier expenditure.¹⁶ For this, we use Scottish input-output tables to estimate the wage and supplier expenditure impacts of CAS and CAB. The total supplier expenditure of CAS is assumed to be distributed according to the pattern of the relevant economic sector.¹⁷ The amount received by each supplying sector is then multiplied by the associated employment and income multipliers.

For the wage expenditure, we use the same process as that used for client financial gain: the employee income is assumed to be distributed according to the pattern exhibited by the typical Scottish household as given in

¹⁶ A drawback of input-output analysis is that it interprets the *costs* of providing a good or service as a source of economic benefit. This type of analysis does not account for possible alternative uses of the resources. If the resources had been used instead to provide other goods and services, that could also have led to indirect and induced impacts.

¹⁷ SIC07 sector 87/88 "Residential care and social work". This sector includes sector 88.99 "Other social work activities without accommodation", which includes "social, counselling, welfare, refugee, referral and similar services which are delivered to individuals and families in their homes or elsewhere and carried out by government offices or by private organisations, disaster relief organisations and national or local self-help organisations and by specialists providing counselling services".

"Family Spending". This spending is then injected into an input-output model. Data are not available on CAB's total wage and salary expenditure, so this has been estimated using the average salary of CAS and CAB employees in 2014¹⁸ and the change in gross median weekly earnings for full-time employees 2014-2019 (13 per cent).¹⁹ This amounts to approximately £18.5m in wage income supported directly by CAS and CAB in 2019-20.

In 2019-20, CAB provided employment to 1,027 people, whilst CAS employed an average of 157 throughout the year.²⁰ CAS also spent more than \pounds 4.35m on suppliers. The additional employment resulting from wage and supplier expenditure is estimated to be 264 people, meaning that CAS and CAB supported a total of approximately 1,448 jobs in Scotland.

Table 23: Employment impacts of CAS and CAB, 2019-20

	Employment (persons)
CAS / CAB Total (2019-20)	1,184
Additional employment	264
Total	I,448

Europe Economics analysis of CAS and ONS data. Totals may not add due to rounding.

The expenditure of CAS and CAB employees and CAS expenditure on suppliers generate wage income through the additional employment supported. We estimate the additional wage income to be £3.77m (based on the relationship between additional employment and wages supported in 2014, uplifted to account for wage growth), bringing the total wage income supported by CAS and CAB to £22.27m.

Table 24: Wage income impacts of CAS and CAB, 2019-20

	Wages (£m)
CAS / CAB Total (2019-20)	18.50
Additional employment	3.77
Total	22.27

Europe Economics analysis of CAS and ONS data. Totals may not add due to rounding.

¹⁸ Fraser of Allander Institute (2014) "The continuing financial benefits of advice provision to the common good: the example of the Citizens Advice Service in Scotland", a report prepared for Citizens Advice Scotland [online].

¹⁹ Scottish Government (2020) "Annual summary of hours and earnings 2019: tables", Table 1.1 [online].

²⁰ 157 is the average of 2019 (148) and 2020 (165) values.

6 The value of information provided on the CAS website

6.1 Introduction

The CAS website "Advice for Scotland" is a useful source of information to help people with their civil and legal problems. Nearly half of the unique users of the Advice for Scotland webpages included in this analysis were recorded on webpages in the Family and Benefits advice areas in 2019-20 (see Figure 2). The unique webpage users shown below are a subset of the total website users – people visit many other webpages which have not been included in the following analysis.

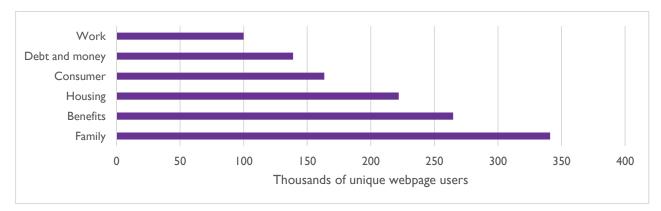


Figure 2: Unique users of CAS webpages included in this analysis, 2019-20

Data provided by CAS. Unique users of other advice areas webpages are not shown because they have not been included in the following analysis.

We can approach the quantification of website benefits by assuming that a certain proportion of people who viewed the webpages might have suffered from adverse consequences as a result of their problems. These people may therefore have been able to avoid the adverse consequences due to the advice and information they received online, thus reducing the economic costs of the problems. This is the same method used to quantify the in-person advice presented in section 4. However, it would be inappropriate to assume that the information provided online has the same effect in resolving the adverse consequences associated with different problems as in-person advice. And, as people are not constrained by their geographic location when surfing webpages as they are when accessing physical services, we also need to adjust for the value of the website for Scotland-based users.

Information presented online is not tailored to an individual's exact needs and the individual may not be fully aware of how to navigate to the most pertinent information. Furthermore, differences in computer literacy across the people in need of advice means that online information cannot always be fully accessed. This could reduce the effectiveness of online information compared with in-person consultations.

In this section, we use other LPRS data to adjust the LPRS effectiveness of advice metric used to calculate the benefits of advice in the existing quantitative approach. We then estimate an "effective" number of pageviews to reflect those that are most likely to have been initiated by individuals who genuinely suffered from the various problems. This enables us to more accurately capture the benefits of the information provided on the Advice for Scotland website in the existing quantitative approach.

6.2 The approach to quantification: using LPRS to quantify benefits

The LPRS contains some questions that help us understand the value of the CAS website pages.

6.2.1 The prevalence of adverse consequences among those who use the internet to resolve their problems

We can use the LPRS to understand the prevalence of adverse consequences among respondents who used the internet – and did not visit a Citizens Advice bureau – to help resolve the problem. This accounts for the possibility that the distribution of adverse consequences is different among those who visited a website for information. The results of this for the relevant adverse consequences are presented in the table below.

Table 25: The prevalence of adverse consequences among people who used the internet to resolve theirproblems, by relevant LPRS problem category

Adverse consequence	Benefits	Consumer	Debt	Employment	Money	Housing	Relationships
Physical ill health	16.0%	3.9%	9.0%	16.4%	10.3%	1.6%	13.9%
Stress-related illness	28.2%	17.1%	32.6%	25.2%	20.3%	5.2%	34.3%
Loss of employment	1.2%	2.9%	2.8%	27.1%	5.0%	0.6%	9.4%

Source: LPRS, Europe Economics analysis. The figures are weighted according to the individual characteristics of each respondent.

6.2.2 The effectiveness of information provided online for resolving problems

The LPRS asked respondents what was "achieved" from using the internet. We focus on the number of respondents who selected the third and fourth options to the question below:

Q: What did you achieve from using the internet:²¹

- I. Find contact details for an advisor
- 2. Obtain online information about your rights
- 3. Obtain online information about how to sort out the problem
- 4. Obtain documents needed to resolve the problem
- 5. Use an online claim or dispute resolution system

Since respondents who selected these options were able to obtain information to resolve the problem from the website, we have ensured that they are different people from those asked about the effectiveness of advice received from Citizens Advice advisors in-person to calculate the effectiveness of advice figures reported in **Table 8**. This is important because it reduces the risk that the same sample could have had an in-person consultation with Citizens Advice advisors, which would cause us to double-count the benefits of advice reported thus far. We must assume that the people who visited CAS webpages in 2019-20 are separate from those who visited a Bureau.

For each type of problem, we collected the weighted number of respondents answering with options 3 and 4, above. With these data, we calculated the respondents who used the internet with the results listed in options 3 and 4 as a proportion of all respondents asked about their internet use. This yields figures for the effectiveness of advice provided online, equivalent to the effectiveness of advice figures calculated previously (see **Table 8**). These figures are presented in Table 26, below.

²¹ This question is asked of respondents who answered 'the internet' to question D5: "When trying to sort out this PROBLEM DESCRIPTION, did you obtain information, advice or any other form of help from any of the following?"

Consumer problem category	Obtained information or documents (or both) online to sort problem	Total asked about internet use	Effectiveness of internet in solving problems
Consumer problems	127	163	77.7%
Employment problems	136	145	93.8%
Housing problems	174	190	91.7%
Debt problems	40	49	80.9%
Money problems	131	162	80.8%
Benefits problems	70	87	80.4%
Relationship problems	48	52	91.2%

Table 26: The effectiveness of information received online, by relevant LPRS problem category

Source: LPRS, Europe Economics analysis. The figures are weighted according to the individual characteristics of each respondent.

The fourth column of Table 26 shows the proportions of website users *with problems* who reported having successfully obtained information or documents to solve their problems in the LPRS. However, it is unlikely that these same figures apply to *all* visits to a given website – doing so could dramatically overestimate the impacts. Typical browsing behaviour often involves a user viewing various pages before finding the one(s) with the relevant information. For instance, a user looking for information relating to benefits may also visit (or be directed to) pages in the "Debt and Money" section of the CAS website as well as the "Work" area. The "bounce rate" captures the proportion of website visits where the user visits a single page before leaving the website. People with more serious problems may require more direct and personalised forms of advice, for whom information gleamed from a webpage may not solve the issue. Furthermore, some webpage visits may simply not be related to a particular problem; some who visit the "Benefits" webpages may be satisfying a personal or research interest, rather than trying to solve a problem they have.

Adjustments to website user figures

The above discussion necessitates the adjustment of the website user figures used in the benefit calculations. First, we use data provided by CAS on the annual number of unique page users in 2019-20. Page users are broken down into categories of issues on which the Advice for Scotland website provides guidance and information. These categories broadly match the problem areas analysed in section 4 and therefore enable us to extend the existing quantitative approach to the following problem categories:

- Benefits
- Consumer
- Debt ("Debt and money" webpages)
- Employment ("Work" webpages)
- Housing
- Relationship ("Family" webpages).

Second, we adjust the website user counts to account, to the extent possible, for the points raised in the discussion above. We do this by removing the proportion of website users who leave the website after visiting just one page – the "bounce rate". According to SimilarWeb, the bounce rate of the Citizens Advice (UK) website is 68 per cent.²² We use this to proxy for the fact that a user may visit a page without necessarily retrieving information from it.

²² SimilarWeb analysis of the Citizens Advice (UK) website [<u>online</u>]. By using this bounce rate, we assume that we are also removing the users from outside Scotland from the page user counts (who may only visit briefly and discover that the advice is not suitable for them).

Google Analytics information received from CAS on the duration of visits to the Advice for Scotland website shows that the majority of the total page views are associated with a smaller share of long user sessions (i.e. exceeding three minutes). Supposing that a user would require a longer period of time to retrieve the relevant information or documents from the website to solve a problem, this information broadly aligns with the bounce rate. Using both metrics would result in removing the shorter-duration visitors twice, thus risking the underestimation of the website's benefits.

Assumptions of the method

We make the following assumptions in calculating the benefits of information provided online:

- The category of webpages visited by a unique viewer is a direct indicator of the type of problem being experienced.
- The prevalence of adverse consequences amongst unique users (adjusted) is equal to the prevalence observed in respondents to the LPRS (enabling us to use the prevalence of adverse consequences figures presented in Table 25). We are then able to use the sourced estimates of costs reported in section 4.2.3.
- CAS webpages have the same effectiveness as those on which respondents were reporting in the LPRS (enabling us to use the figures presented in Table 26).

6.3 Results

Applying the existing quantitative approach to the analysis of website benefits provides generally larger savings estimates than those calculated for in-person advice. This is due to the much larger numbers of people who visited the Advice for Scotland webpages and are consequently assumed to have received the information they needed to resolve their problems.

The results are presented in Table 27, below. Of the website categories to which the existing quantitative approach could be applied, Benefits pages received the most unique views with over 530,000 in 2019-20, followed by pages for Relationship issues with 450,000 unique views. The Relationship webpages, however, lead the pack in terms of the overall economic benefit resulting from use of the Advice for Scotland website, with an estimated $\pounds 64.75$ m in overall benefits. This is because the three adverse consequences whose costs are being considered (stress-related illness, physical ill health and loss of employment) are generally more prevalent in people with relationship problems than those with benefits problems, based on the LPRS information reported earlier (see Table 25). Consequently, a larger number of people are likely to be affected by the adverse consequences.

The £64.75m in benefits estimated for the Relationship webpages is the sum of:

- The healthcare expenditure savings from avoiding the costs of stress-related illness and physical ill health (in the third column of the table below);
- The expenditure in Universal Credit saved from avoiding the loss of employment (fourth column); and
- The value of output saved from avoiding the loss of employment (fifth column).

In total, we estimate that the information provided on the CAS website to people with various types of problems delivered ± 148.25 m in benefits to citizens in 2019-20. Whilst this does not account for the range of other possible adverse consequences that may have been experienced by users, nor the full range of CAS webpages, this is an impressive figure which we argue to be an upper bound for the following reasons.

- The approach assumes that the adverse consequences for people with problems resolved online can be as costly as those for people who visit a CAB. This may not be the case if the website users were visiting the website for the very reason that they considered their problems to be less severe or urgent.
- The website users may have different characteristics to the people who visit in-person. Users could be wealthier on average, which could bias the results upwards by assuming that they would claim Universal Credit immediately after losing a job.

• Unlike visits to physical Bureaux, it is not possible to say accurately exactly how many users genuinely suffered from the adverse consequences used in this approach. Some of the users may have been visiting pages of the website to satisfy some research or personal interest. The bounce rate accounts for this imperfectly, since some of the people who stay for long durations may not be trying to solve a problem.

Table 27: The value of information provided on the Advice for Scotland webpages, by webpage category,2019-20

Webpage category	Unique users (adjusted)	Healthcare expenditure savings (£m)	Expenditure on UC savings (£m)	Output loss savings (£m)	Total benefit
Benefits	83,772	9.34	1.68	2.73	13.74
Debt	43,948	4.64	2.05	3.35	10.04
Employment	31,641	3.87	16.57	26.99	47.44
Housing	70,228	1.37	0.78	1.26	3.41
Relationship	107,909	14.90	18.96	30.88	64.75
Consumer	51,734	2.65	2.36	3.85	8.86
Total	389,231	36.79	42.41	69.05	148.25

Europe Economics analysis. Totals may not sum due to rounding.

7 The non-monetary benefits of advice

7.1 Introduction

Until this point in the report, we have investigated how the advice provided by the CAB network in Scotland has saved the state or clients money, how clients value the services they receive from CAB advisors, and how the network has supported additional income. Whilst the monetary benefits of a service are revealing and provide a measure of benefit that stakeholders are likely to comprehend, they cannot always tell the full story. In this section, we supplement our monetary analysis by looking at some non-monetary benefits of CAB advice. In particular, we estimate the value in terms of environmental benefit and contribution to improving measures of social deprivation.

7.2 The environmental benefit of advice: lower greenhouse gas emissions

We calculate the carbon emissions resulting from the following impacts of CAB advice:

- The reduction in demand on healthcare services due to stress-related illness and physical ill health; and
- The reduction in the number of people who have to move home as a result of their problems.

Emissions savings from a reduced prevalence of stress-related illness and physical ill health

We have previously seen that some CAB clients may experience a reduced risk of developing stress-related illnesses and physical ill health when their problems are resolved by the advice they receive. This results in carbon savings through a reduction in the number of visits to GPs and prescriptions.

The PSSRU Unit Costs of Health and Social Care 2019 publication that was used for the expenditure savings calculations includes the costs of carbon emissions associated with GP services. These emissions result from patient and staff travel, electricity and gas for the building, and emissions embedded in the goods and services used to provide appointments.²³ The publication also shows the embedded carbon in prescribed pharmaceutical products, given that they account for half of GP emissions. Indeed, the complex manufacturing process to make one milligram of a typical pharmaceutical may cause embedded carbon emissions of more than three times its weight.²⁴ This drives the high carbon dioxide emissions equivalent in kilograms (kgCO2e) shown in the following table.

Table 28: Carbon dioxide equivalent per GP consultation and prescription

	CO2 equivalent (kg)		
Per consultation	6		
Per prescription	16		

Source: PSSRU Unit Costs of Health and Social Care 2019.

Our healthcare savings calculations (which included the cost of carbon emissions) estimate that approximately 32,668 in-person CAB clients avoided stress-related illnesses and 15,337 avoided physical illness across the nine CAB service areas in 2019-20 (excluding Legal Proceedings). Using the same assumption that each client would have otherwise visited a GP 4.4 times, and would have been prescribed medication at each visit, we estimate that CAB advice saved 4,647 tonnes CO2e in 2019-20 just from the avoidance of these health issues

²³ Curtis, L. A., and A. Burns (2019) "Unit Costs of Health and Social Care 2019", PSSRU, University of Kent [online].

²⁴ Meinreken et al. (2020) "Carbon emissions embodied in product value chains and the role of Life Cycle Assessment in curbing them", *Scientific Reports*, 10(6184) [online].

- the equivalent of the average annual emissions of 528 homes.²⁵ The avoided prescriptions drives the majority of these savings (3,380m tonnes CO2e), whilst the GP visits contribute 1,267 tonnes CO2e.

Including the people who benefitted from advice and information provided on the Advice for Scotland website dramatically increases the estimated carbon emissions savings. Considering both in-person CAB clients and those receiving information online, approximately 82,002 people avoided stress-related illnesses and 35,174 avoided physical illness across the nine CAB service areas in 2019-20 (excluding Legal Proceedings). This yields a total of 15,989 tonnes CO2e saved, equivalent to the emissions of 1,817 homes. These results can be seen in Table 29. The figure increases to 18,420 tonnes CO2e saved when the CAB client satisfaction survey advice effectiveness figures are used (which change the in-person figures only).

As shown in the figure below, the Benefits advice area shows the most significant emissions savings, driven by both the large number of in-person clients and unique page views of people whose benefits problems are resolved with the advice and information they receive. Note that the advice areas Utilities and communications, Travel, transport and holidays, and Finance only include the in-person clients.

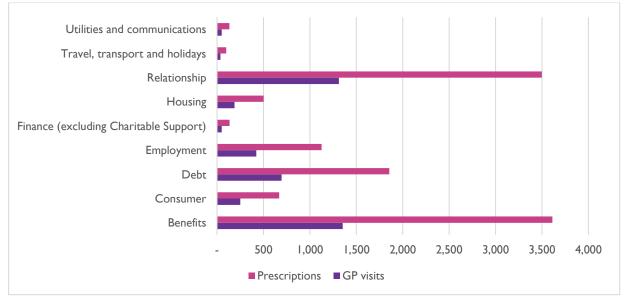


Figure 3: Carbon emissions avoided due to healthcare savings, by CAB advice area, tonnes CO2e

Europe Economics analysis. Results shown correspond to LPRS advice effectiveness figures.

Table 29: Carbon emissions avoided due to healthcare savings, by	CAB advice area, tonnes CO2e
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	In-person only		W	Total	
Area of advice / information	GP visits	Prescriptions	GP visits	Prescriptions	
Benefits	569	1,517	786	2,095	4,966
Consumer	28	74	223	595	920
Debt	305	814	390	1,041	2,551
Employment	97	258	326	869	1,549
Finance (excluding Charitable Support)	51	136	-	-	186

²⁵ Based on estimates by Energy Systems Catapult that the average UK household emitted 8,798 kgCO2e in 2017. Source: Energy Systems Catapult (2017) "Living Carbon Free", p.4 [online].

	In-person only GP visits Prescriptions		w	Total	
Area of advice / information			GP visits	Prescriptions	
Housing	73	194	116	308	691
Relationship	58	156	1,253	3,342	4,809
Travel, transport and holidays	37	98	-	-	135
Utilities and communications	50	133	-	-	182
Total	1,267	3,380	3,093	8,249	15,989

Europe Economics analysis. Results shown correspond to LPRS advice effectiveness figures. Totals may not sum due to rounding.

Emissions savings resulting from not having to move home

The process of moving home can have costs for the environment. The packing, cleaning, transporting, storing and unpacking involved in a house move uses energy which, in the UK, results in an average emission of 16.8kg of CO2.²⁶

The prevalence of adverse consequences figures collected from the LPRS include "having to move home". From these figures, we know approximately the proportion of people with each type of problem who may have to move home as a result of the problem (refer to Table 6). For example, the LPRS shows that 21.7 per cent of people with relationship problems who visit an advisor in person reported having to move home as a result (27.3 per cent of website users), whilst only 6.7 per cent of those with housing problems had to do so (1.4 per cent of website users).

Using the effectiveness of advice figures collected from the LPRS (for both advice provided by in-person Citizens Advice consultations and for information from websites), we can estimate how many people may have been able to avoid moving home. Finally, combining these figures with the average emissions associated with a home move, we can calculate the emissions saved as a result of advice.

Table 30, below, contains the results of this analysis. We estimate that approximately 737 tonnes CO2e were avoided as a result of advice and online information provided by the CAB network in Scotland in 2019-20. Over half of these carbon savings (465 tonnes CO2e) are the result of helping people solve their relationship problems (mostly via the website). Using the CAB client satisfaction survey advice effectiveness figures, the total avoided emissions rises to 794 tonnes CO2e (the figures change the in-person values only).

In total, in 2019-20 the advice provided in the nine advice areas may have saved up to 19,215 tonnes of carbon from being emitted, the equivalent annual emissions of 2,184 homes.

²⁶ Dowle, J. (2018) "10 ways to make your house move more eco-friendly", *House Beautiful* [online].

	Tonnes CO2e		
Area of advice / information	In-person only	Website only	Total
enefits	41	64	106
nsumer	2	22	25
ebt	29	55	83
nployment	4	19	23
ance (excluding Charitable Support)	4	-	4
using	10	15	25
ationship	14	451	465
vel, transport and holidays	2	-	2
lities and communications	4	-	4
al	110	627	737

Table 30: Carbon emissions avoided from not having to move home, by CAB advice area, 2019-20

Europe Economics analysis. Results shown correspond to LPRS advice effectiveness figures. Totals may not sum due to rounding.

7.3 The impact of CAB advice on a measure of social deprivation: SIMD

The Scottish Index of Multiple Deprivation (SIMD) is a measure of deprivation across geographical areas in Scotland. The SIMD describes the extent to which an area is deprived across seven domains: income, employment, education, health, access to services, crime and housing. It was first introduced in 2004, the 2020 edition being the sixth edition in the series.

We are able to calculate the impact of CAB services on two of the domains that together account for 56 per cent of the SIMD.²⁷ These are the employment domain and the income domain. The official SIMD 2020 calculates domain scores for each of 6,976 small geographical areas in Scotland called data zones. We calculate national scores on the basis that the CAS data are provided for Scotland as a whole.

7.3.1 The SIMD employment domain

The SIMD employment domain

The SIMD employment domain was constructed to measure "enforced exclusion from the world of work".²⁸ It concerns the proportion of working age people who want to work but due to unemployment, ill health or disability are excluded from the labour market.²⁹

For the SIMD 2020, the SIMD employment domain is constructed using three national indicators:³⁰

- Working age recipients of Jobseeker's Allowance (JSA).
- Working age recipients of Incapacity Benefit (IB), Employment and Support Allowance (ESA), or Severe Disablement Allowance (SDA).
- Working age Universal Credit (UC) claimants not in employment.

The average of each indicator's value in the four quarters of 2017 is then summed and divided by the 2017 mid-year working-age population estimate. Values for 2017 are used for consistency with the official SIMD 2020 methodology. This produces a domain score given as a percentage, with lower scores indicating lower

²⁷ Scottish Government (2020) "SIMD 2020 technical notes"; the SIMD methodology [online].

²⁸ Social Disadvantage Research Centre (2003) "Scottish Indices of Deprivation 2003" [online].

²⁹ Office of the Chief Statistician (2004) "Scottish Index of Multiple Deprivation 2004: Technical Report [online].

³⁰ Scottish Government (2020) "SIMD 2020 technical notes"; the SIMD methodology [online].

levels of deprivation. The individual datasets used to construct the domain for the data zones are not available to the public, but it is possible to reconstruct a national-level estimate.

Table 31: Summary of SIMD 2020 employment domain inputs

Indicator (2017 average)	Source
Working age recipients of: JSA; IB, ESA or SDA; UC not in	Department for Work and Pensions (DWP),
employment	Stat-Xplore (guest log-in) [<u>link]</u>
Mid-year working-age population estimate	National Records of Scotland [link]

Using these indicators, we calculate that the national 2020 SIMD employment score is 9.9 per cent.

The impact of CAB on the SIMD employment domain

In Section 4, we showed that CAB has an impact in reducing the number of people who may lose their job as a result of their civil and legal problems. We estimated that approximately 14,730 faced the adverse consequence of the loss of employment in 2019-20, and that CAB resolved this for approximately 7,719 of them. If we assume that each job saved is a net reduction in unemployment, such that one person does not keep a job at the expense of another person remaining or becoming unemployed, then CAB would have an impact on the SIMD 2020, too.

Here, we calculate that without the advice provided by CAB, the national SIMD score may have been 10.33 per cent. The advice provided to clients through the network is estimated to reduce this score by 0.22 percentage points to 10.10 per cent. This is a small change in absolute terms, although it is a step in the right direction.

7.3.2 The SIMD income domain

The SIMD income domain

The SIMD income domain is intended to capture the extent of income deprivation in an area.³¹ It is an alternative to more standard measures of income deprivation which tend to look at proportions of households in an area that are below a certain threshold or "poverty line". The income domain is constructed using a set non-overlapping counts of people – adults and their dependants – living in families in receipt of certain means tested benefits.

The means tested benefits used in the SIMD 2020 income domain are included in five national indicators, whose values in August 2017 are summed and then divided by the total population:

- 1. The number of adults receiving Income Support (IS), income-based Employment and Support Allowance (ESA), or Jobseeker's Allowance (JSA).
- 2. The number of adults receiving guaranteed Pension Credit.
- 3. The number children (aged 0-18) dependent on a recipient of IS, JSA or ESA.
- 4. The number of people claiming Universal Credit (UC) and their dependent children (aged 0-18) (excluding those in the 'working with no requirements' conditionality group).
- 5. The number of adults and children in Tax Credit families on low incomes.

The data on benefits that are publicly available from DWP's Stat-Xplore service includes the number of dependent children only for certain benefits. For example, there is no indication of the number of dependants of ESA claimants. Moreover, it is possible that summing the child dependants of each benefit (as would be required by indicators (3) and (4), above) runs the risk of double-counting them, as a claimant of one benefit type may be claiming another alongside it.³² Therefore, we use a separate DWP dataset of children in out-

³¹ Social Disadvantage Research Centre (2003) "Scottish Indices of Deprivation 2003" [online].

³² Noting that there are mutual eligibility restrictions for claimants of Jobseeker's Allowance, Income Support and Employment and Support Allowance.

of-work benefit households,³³ which reports on the situation at May 2017, to account for the children living with claimants of the three benefit types in indicator (3) and of UC in indicator (4), as well as Incapacity Benefit and Severe Disablement Allowance (of which there was an average of only 4,606 claimants in 2017). Our reconstructed SIMD 2020 income domain is therefore an imperfect estimate, but it follows as closely as possible the original methodology.

Indicator	Period	Source
Adults receiving: IS, ESA (income-based), JSA	August 2017	DWP Stat-Xplore (guest log-in) [link]
Adults on Guaranteed Pension Credit	August 2017	DWP Stat-Xplore (guest log-in) [link]
Children in out-of-work benefit households (Includes JSA, IS, ESA, IB/SDA, Pension Credit, UC)	May 2017	DWP archive [link]
People on UC, excluding working with no requirements	August 2017	DWP Stat-Xplore (guest log-in) [link]
Adults and children in Tax Credit families	August 2017	HMRC Personal tax credits: finalised award statistics [link]
Mid-year total population estimate	Mid-2017	National Records of Scotland [link]

Table 32: Summary of SIMD 2020 income domain inputs

Lastly, to capture the impact of children living with people on benefits, we assume how many children the average UC claimant has. For this we use DWP Stat-Xplore information on the composition of UC claiming households in August 2017. Claimants are divided into single people with and without child dependants, and couples with and without child dependants. We conservatively assume that those with child dependants have just one child. The weighted average number of children per UC claimant is thus found to be 0.1.

The impact of CAB on the SIMD income domain

The reduction in potential unemployment that we calculated previously may impact the SIMD income domain as well as the employment domain. Without the support of CAB provided to clients facing the loss of employment as a result of their problems, the reconstructed SIMD income domain would stand at 20.65 per cent. The intervention of CAB advisors could bring this down marginally to 20.51 per cent.

7.4 Conclusions on non-monetary benefits

This section has investigated and quantified the non-monetary benefits of the advice and information provided by the CAB network in Scotland. It has shown that some of the benefits of advice that were previously used to estimate monetary savings can have knock-on benefits for the environment. It has shown that the network can also have marginal impacts on measures of social deprivation.

³³ DWP (2019) "Children in out-of-work benefit households: 31 May 2017" [online].

Part 2: The value of advice provided in Scotland during Q2 2020

8 Summary of the value of advice provided in Q2 2020

Table 33: The value of advice calculated using the existing quantitative approach and its extensions to new advice areas, Q2 2020

Advice area / type	Approach	Unit	Q2 2020
All advice areas except for Legal Proceedings	Existing quantitative approach	£m	15.30 – 22.93 ¹
Legal Proceedings	Revealed value	£m	1.97
Client Financial Gain		£m	35.47
Employment supported	Input-output model	jobs	333
Wage income supported	Input-output model	£m	10.55
Economic impacts of CAS and CAB			
Employment supported	Input-output model	jobs	209 ²
Wage income supported	Input-output model	£m	2.11 ²

Notes: I: Lower total when LPRS advice effectiveness figures used; higher total when CAB survey figures used. 2: Impact of CAS expenditure only. Source: Europe Economics analysis.

9 The value of advice provided in Scotland during Q2 2020

9.1 Introduction

In this section, we investigate the benefit of advice provided by the CAB network in Scotland during a period in which the country was being gripped by the COVID-19 pandemic. This involves applying the existing quantitative approach and the input-output model to the activities of CAS and CAB in during this period. The second quarter of 2020 (Q2 2020) has been chosen for this analysis, as it covers the first 'spike' in recorded cases in Scotland as well as the ensuing national lockdown.

Claims made for Universal Credit in the at the beginning of Q2 2020 reached heights far in excess of typical levels recorded since the roll-out of Universal Credit for new claims was completed in December 2018 (see Figure 4). This reflected the financial difficulties associated with the pandemic and the many people who were requiring financial support for the first time.³⁴ During this period, the Scottish Government and the Citizens Advice network partnered to launch a campaign to raise awareness of the financial support available to people. The CAB network in Scotland was therefore a crucial source of information in this unprecedented period.

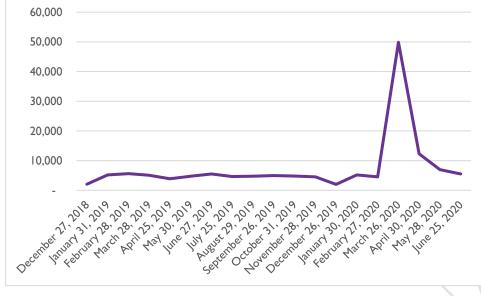


Figure 4: Claims made to Universal Credit (UC) in Scottish postal areas since December 2018

Source: DWP Stat X-Plore.

The analysis contained in the following pages investigates the value of advice provided by the CAB network in Scotland in Q2 2020. It does so by accounting for the changes in the volume of advice provided and by adjusting the cost of GP consultations in line with the shift to remote consultations. However, COVID-19 may have had other impacts on the benefits of advice estimations but on which we do not have data. It may have affected the prevalence adverse consequences for those with a problem, the costs associated with those

³⁴ Scottish Government (2020) "More than 110,000 Universal Credit claims since coronavirus outbreak" [online].

problems, and the likelihood of problems being resolved by advice. Furthermore, we have not estimated website benefits for this quarter.

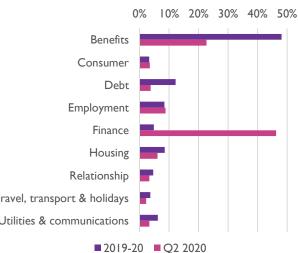
9.2 Applying the existing quantitative approach to Q2 2020

The existing quantitative approach is applied to the available data for Q2 2020. To recapitulate, this approach involves using LPRS data to estimate the number of CAB clients who may have experienced a number of "adverse consequences" as a result of the problems they brought to CAB advisors. LPRS information is then used to estimate the number of clients whose problems were resolved with the help of advice.

Data provided by CAS show the number of people who received advice from CAB advisors in Q2 2020 (see Figure 5, left panel). The largest number of people seen by CAB advisors in Q2 2020 were those with finance-related issues, representing the largest single share of clients in the advice areas considered (see right panel). This contrasts with the period 2019-20, during which people with benefits-related issues accounted for the largest share. A slightly larger proportion of clients came to CAB advisors with employment-related issues in Q2 2020.

Figure 5: Numbers of clients seen in Q2, 2020 (left panel) and comparison of proportions of total clients seen in Q2 2020 and 2019-20 (right panel), by advice area

CAB Advice Area	Total clients (Q2 2020)
Benefits	15,220
Consumer	2,351
Debt	2,530
Employment	5,912
Finance (excluding Charitable Support)	31,046
Housing	4,083
Legal Proceedings	2,850
Relationship	2,228
Travel, transport and holidays	1,495
Utilities and communications	2,232
ourse: Citizons Advise Scotland	



Source: Citizens Advice Scotland.

Adjustments to reflect "the COVID world"

The pandemic and lockdown brought changes to the way life and business is conducted. A mass shift to people working from home has increased the uptake of online services to facilitate communication between friends, business partners, relatives and support networks.

The approach to estimating the value of advice in section 4 used estimates of costs drawn from the literature. These are chosen to be representative of the types of costs that could be incurred as a result of the adverse consequences being studied. However, the shift to online and remote ways of working has meant that one of these estimates is no longer representative of the period Q2 2020: the costs of a GP consultation. According to NHS England data, 47.2 per cent of appointments in general practice were conducted face-to-

Europe Economics analysis.

face in the first week of April 2020; in the same period in 2019, 79.7 per cent were.³⁵ The remaining appointments in Q2 2020 were conducted largely by telephone and video conference.

The implication of this change is that the cost of a GP consultation used in the previous analysis (£39.23), which reflects the cost of travel to clinics and the heating of clinics (among other things), is not suitable for consultations conducted remotely. Therefore, we use the costs of online appointments (£13.20) and telephone consultations (£8) reported in the PSSRU publication,³⁶ weighted by the respective proportions of appointments according to NHS England data, to arrive at a weighted average cost of remote consultations: £8.05. This is used in the estimation of health costs savings.

9.2.1 Health cost savings

Using the updated GP consultation cost, an estimated total of $\pounds 1.58m$ to $\pounds 2.37m$ was saved from the avoidance of consultations and prescriptions for stress-related illnesses in Q2 2020 (using LPRS and CAB survey advice effectiveness figures, respectively). This is shown in Table 34, below.

Problem category	Number affected clients	Additional health expenditure (£m)	Clients with resolved problems (LPRS data)	Savings from advice (£m) (LPRS data)	Clients with resolved problems (CAB survey)	Savings from advice (£m) (CAB survey)
Benefits	5,112	0.90	2,143	0.38	4,110	0.73
Debt	864	0.15	780	0.14	600	0.11
Employment	I,646	0.29	784	0.14	1,358	0.24
Housing	910	0.16	438	0.08	721	0.13
Relationship	929	0.16	358	0.06	731	0.13
Total	9,460	1.67	4,503	0.80	7,521	1.33
Consumer	363	0.06	243	0.04	330	0.06
Finance (excluding Charitable Support)	6,316	1.12	3,830	0.68	5,166	0.91
Travel, transport and holidays	222	0.04	149	0.03	157	0.03
Utilities and communications	306	0.05	206	0.04	217	0.04
Total	7,207	1.27	4,428	0.78	5,871	1.04
Grand Total	16,667	2.95	8,93 I	1.58	13,391	2.37

Table 34: Stress-related illness healthcare cost savings, Q2 2020

Europe Economics analysis. Totals may not sum due to rounding.

With CAB clients also being able to avoid developing physical ill health as a result of their problems, we estimate that $\pounds 0.76m$ to $\pounds 1.13m$ in healthcare expenditure was saved in Q2 2020 (using LPRS and CAB survey advice effectiveness figures, respectively) (see Table 35).

³⁵ NHS England (2020), "Appointments in General Practice- Weekly MI, Table 1: Summary of appointments, by week, England" [online].

³⁶ PSSRU Unit Costs of Health and Social Care 2019, p.122. [online].

Problem category	Number o affected clients	f Additional health expenditure (£m)	Clients with resolved problems (LPRS data)	Savings from advice (£m) (LPRS data)	Clients with resolved problems (CAB survey)	Savings from advice (£m) (CAB survey)
Benefits	2,450	0.43	1,027	0.18	1,970	0.35
Debt	370	0.07	334	0.06	257	0.05
Employment	870	0.15	414	0.07	717	0.13
Housing	362	0.06	174	0.03	287	0.05
Relationship	352	0.06	136	0.02	277	0.05
Total	4,404	0.78	2,086	0.37	3,509	0.62
Consumer	163	0.03	109	0.02	148	0.03
Finance (excluding Charitable Support)	3,082	0.54	1,869	0.33	2,521	0.45
Travel, transport and holidays	172	0.03	116	0.02	122	0.02
Utilities and communications	164	0.03	110	0.02	117	0.02
Total	3,581	0.63	2,204	0.39	2,908	0.51
Grand Total	7,985	1.41	4,290	0.76	6,416	1.13

Table 35: Physical ill health healthcare cost savings, Q2 2020

Europe Economics analysis. Totals may not sum due to rounding.

9.2.2 Unemployment cost savings

Advice provided by the CAB network in Scotland resulted in estimated savings of approximately $\pounds 4.93$ m to $\pounds 7.39$ m that would have otherwise been spent by the state to provide Universal Credit (using LPRS and CAB survey advice effectiveness figures, respectively). Note that this assumes that the probability of clients losing employment as a result of their problem does not change in Q2 2020 (when perhaps, due to pandemic-related restrictions, it might have), as this continues to be driven by the prevalence of adverse consequences as found in the LPRS. The table below, Table 36, provides the full results for unemployment cost savings.

Problem category	Number o affected clients	f Potential expenditure on UC (£m)	Clients with resolved problems (LPRS data)	Savings from advice (£m) (LPRS data)	Clients with resolved problems (CAB survey)	Savings from advice (£m) (CAB survey)
Benefits	938	1.93	393	0.81	754	I.55
Debt	199	0.41	180	0.37	138	0.29
Employment	1,128	2.32	537	1.11	930	1.91
Housing	71	0.15	34	0.07	56	0.12
Relationship	212	0.44	82	0.17	154	0.32
Total	2,548	5.24	1,226	2.52	2,033	4.18
Consumer	69	0.14	46	0.09	62	0.13
Finance (excluding Charitable Support)	1,706	3.51	1,035	2.13	1,396	2.87
Travel, transport and holidays	90	0.18	60	0.12	64	0.13
Utilities and communications	53	0.11	35	0.07	37	0.08
Total	1,917	3.95	1,176	2.42	1,559	3.21
Grand Total	4,448	9.16	2,396	4.93	3,592	7.39

Table 36: Unemployment benefit expenditure savings, Q2 2020

Europe Economics analysis. Totals may not sum due to rounding.

9.2.3 Output loss savings

The ability to maintain employment also results in the continued production of goods and services valued at ± 8.03 m to ± 12.04 m in Q2 2020, depending on the advice effectiveness figures used (LPRS or CAB client satisfaction survey). This is shown in Table 37.

Table 37: Output loss savings, Q2 2020

Problem category	Number of affected clients	Potential output loss (£m)	Clients with resolved problems (LPRS data)	Savings from advice (£m) (LPRS data)	Clients with resolved problems (CAB survey)	Savings from advice (£m) (CAB survey)
Benefits	938	3.14	393	1.32	754	2.53
Debt	199	0.67	180	0.60	138	0.46
Employment	1,128	3.78	537	I.80	930	3.12
Housing	71	0.24	34	0.11	56	0.19
Relationship	196	0.66	75	0.25	154	0.52
Total	2,53 I	8.48	1,220	4.09	2,033	6.81
Consumer	69	0.23	46	0.15	62	0.21
Finance (excluding Charitable Support)	1,706	5.72	1,035	3.47	1,396	4.68
Travel, transport and holidays	90	0.30	60	0.20	64	0.21
Utilities and communications	53	0.18	35	0.12	37	0.13
Total	1,917	6.43	1,176	3.94	1,559	5.23
Grand Total	4,448	4.9	2,396	8.03	3,592	12.04

Europe Economics analysis. Totals may not sum due to rounding.

9.3 Legal Proceedings

We can also update our analysis of the Legal Proceedings advice provided by CAB. Again, we categorise the CAB client numbers in the Legal Proceedings advice area into the broad problem categories used in the LPRS. This mapping exercise enables us to estimate the value of the advice received by these clients using the stated values paid by recipients of paid advice services. Doing so results in the estimated figures presented in Table 38, below. This shows that approximately 235 CAB clients received advice for their employment issues, 216 for health issues, 168 for benefits issues, 124 for housing issues and 2,828 for various other issues.

Table 38: CAB clients seeking	advice in Legal	Proceedings advice area.	by LPRS problem	category
			-/	

Problem category	Number in Q2 2020
Employment	235
Health	216
Benefits	168
Housing	124
Other (not an LPRS category)	2,828

Europe Economics analysis of CAS data.

Applying the same method and assumptions as those used to calculate the benefit of Legal Proceedings advice in 2019-20 produces the figures in Table 39. In Q2 2020, clients receiving Legal Proceedings advice from CAB, free of charge, benefited from this advice to the tune of approximately £1.97m. The majority of this benefit stems from CAB support in the issues that could not be mapped into LPRS problem categories.

Table 39: The value of Legal Proceedings advice, Q2 2020

Legal proceedings issue dealt with by CAB	Value of CAB advice (£m)
Employment issues	0.03
Health issues	0.01
Benefits issues	0.10
Housing issues	0.11
Other issues	1.66
Total	1.97

Europe Economics analysis of CAS data. Totals may not add due to rounding.

9.4 Direct and indirect impacts of CAS and CAB in Q2 2020

Client Financial Gain

During the second quarter of 2020, advice provided by CAB led to some £35.47m of financial gain for clients. Our input-output model (described in section 5.1) estimates that this injection into Scotland's economy supported 333 jobs and £10.55m in wages (see Table 40).

Table 40: Additional employment and wages in Scotland supported by client financial gain, Q2 2020

Indirect and induced impacts					
Client Financial Gain (£m)	35.47				
Employment supported	333				
Wages supported (£m)	10.55				

Europe Economics analysis of CAS and ONS data. Totals may not add due to rounding.

The economic impacts of the wage and supplier expenditure of CAS

For 2019-20, we were able to estimate the additional employment and wages supported by the supplier expenditure of CAS and by the wage income of CAS and CAB paid employees. Due to data limitations, for Q2 2020 this analysis is only possible for the wage and supplier expenditure of CAS.

In Q2 2020, CAS employed an average of 170 people who gained income and spending power as a result. It also spent $\pounds 1.15$ m on suppliers. These expenditures were put through the input-output model described in section 5.2 to estimate the additional employment and wage income they supported in Q2 2020.

As shown in Table 41, the model calculates that the wage and supplier expenditure of CAS supported 39 jobs in addition to the 170 it provided directly to its employees. Table 42 shows that these additional jobs provided approximately £0.55m in additional wage income.

Table 41: Employment impacts of CAS, Q2 2020

	Employment (persons)
CAS (but not CAB)	170
Additional employment	39
Total	209

Europe Economics analysis of CAS and ONS data. Totals may not add due to rounding.

Table 42: Wage income impacts of CAS and CAB, Q2 2020

	Wages (£m)
CAS (but not CAB)	1.6
Additional employment	0.55
Total	2.11

Europe Economics analysis of CAS and ONS data. Totals may not add due to rounding.

Appendix 1: LPRS dataset

For this work, we have investigated the prevalence of adverse consequences amongst people with a variety of problems and the extent to which these problems may have been resolved by Citizens Advice. This analysis relied on LPRS conducted in 2014-15 and published by the UK Data Service in 2017. The LPRS measures people's experiences of everyday problems that may have a legal solution through the civil court or tribunal system.

The effectiveness of advice

To calculate the effectiveness of advice sought from Citizens Advice specifically, we identify the problems that were actually dealt with by Citizens Advice. This is because some respondents reported having more than one problem, so the problems they describe will not necessarily be the one about which the effectiveness of advice is being asked. The problem description variable (D3a) of the LPRS questionnaire identifies the type of problem experienced by the respondent, which is then the subject of further questions about the effectiveness of the advice sought.

The survey questions about the effectiveness of advice in the LPRS are asked with the following structure:³⁷

- \rightarrow D3a Problem Description (PD).
- \rightarrow EI7 The adviser contacted last about PD.
- \rightarrow E21 Whether the last-contacted adviser helped resolve the problem, made no difference, or made it worse.

First, we find the Problem Description from the answers to Question D3a. The descriptions match the types of questions asked under each problem category heading in questions DIa_a to DIn_f. This enables us to group the problem descriptions under the problem category headings. For example:

Table 43: Example of problem description categorisation

Problem description (The options given to respondents to describe problem in question D3a)	D3a (coded answer)	Problem category (implied by D1)
Being behind with and unable to pay credit cards, store cards or personal loans excluding mortgages	29	
Being behind with and unable to pay hire purchase or on credit purchases	30	Debt
Being behind with and unable to pay council tax or income tax	31	
Source: LPRS Europe Economics analysis		

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Second, we reduce the sample to only those respondents who reported that Citizens Advice was the last (or only) adviser contacted about the problem using responses to question E17. We can then determine the number of respondents who received support from Citizens Advice broken down by problem category. This provides the results in the table below.

³⁷ LPRS, 2014-15 (2017), Appendix A – Questionnaire. https://beta.ukdataservice.ac.uk/datacatalogue/studies/study?id=8169#!/documentation

Problem on which advice was sought	Frequency	
Consumer problems	10	
Employment problems	14	
Antisocial problems	4	
Owning property problems	6	
Renting problems	16	
Debt problems	20	
Money problems	19	
Benefits problems	24	
Relationship problems	10	
Education problems	3	
Health problems	4	

Table 44: The number of problems on which advice was sought from Citizens Advice (unweighted)

Source: LPRS, Europe Economics analysis.

Third, we can then observe the extent to which respondents felt that their problems were resolved by Citizens Advice. This uses the responses to question E21. In this step, the results are weighted according to each individual respondent's weighting calculated by the designers of the LPRS. This provides the proportions of respondents who felt that the advice they received from Citizens Advice resolved or reduced the problem, made no difference to it, or that they did not know how to answer. There are no responses stating that Citizens Advice advisers made the problem worse. The following table presents the proportions.

Table 45: The effectiveness of advice from Citizens Advice, by problem type (proportion of respondents, weighted)

Problem on which advice was sought	Resolved or reduced the problem	Made no difference	Don't know	
Consumer problems	67%	33%	0%	
Employment problems	48%	52%	0%	
Antisocial problems	54%	46%	0%	
Owning property problems	41%	59%	0%	
Renting problems	50%	50%	0%	
Debt problems	90%	10%	0%	
Money problems	61%	37%	2%	
Benefits problems	42%	50%	8%	
Relationship problems	39%	61%	0%	
Education problems	100%	0%	0%	
Health problems	78%	22%	0%	

Source: LPRS, Europe Economics analysis.

Appendix 2: CAB client satisfaction survey

CAS provided Europe Economics with source of advice effectiveness data which could be used as an alternative to the data retrieved from the LPRS to estimate the benefits of in-person advice. This data is referred to as the "CAB client satisfaction survey" or "CAB survey" data in the main report. Below, we provide the full survey data table for the relevant advice areas as it was provided to us.

Table 46: Results from the most recent CAB client satisfaction survey produced for CAS. Results given as percentage of respondents in each advice area. Frequencies are shown below each result.

	Overall, to what extent did CAB help to resolve your issue(s)?					
Advice area	I Not at all	2 Partially	3 Almost completely	4 Completely	5 Don't know/can't remember	Total
Benefits	9.6%	8.7%	7.4%	73.0%	1.3%	100%
	22	20	17	168	3	230
Consumer	0.0%	9.1%	9.1%	81.8%	0.0%	100%
	0	4	4	36	0	44
Debt	11.6%	17.9%	6.3%	63.2%	1.1%	100%
	11	17	6	60	I	95
Employment	4.2%	11.9%	9.8%	72.7%	1.4%	100%
. ,	6	17	14	104	2	143
Finance and Charitable	4.5%	13.6%	18.2%	63.6%	0.0%	100%
Support	1	3	4	14	0	22
Housing	8.6%	10.3%	12.1%	67.2%	1.7%	100%
	5	6	7	39	I	58
Relationship	8.5%	12.8%	14.9%	63.8%	0.0%	100%
	4	6	7	30	0	47
Travel, transport and	8.3%	20.8%	4.2%	66.7%	0.0%	100%
holidays	2	5		16	0	24
Utilities and	16.1%	9.7%	6.5%	64.5%	3.2%	100%
communications	5	3	2	20	I	31

Source: CAS.