

PAMCo SLA Technical Appendix 2023 Report

Introduction

Item 5.5.2 of PAMCo Service Level Agreement reporting requires Ipsos to provide a retrospective annual technical appendix report within one month of the first data release of each year.

Overview of Methodology

PAMCo – Audience Measurement for Publishers is the audience measurement currency for published media. It produces de-duplicated brand reach allowing users to carry out reach & frequency planning and also plan and trade audiences across all the platforms on which published media content is delivered – phone, tablet, desktop and print.

The PAMCo currency is platform neutral and includes the following:

- De-duplicated reach and frequency for all platforms
- A large number of brands reported across all platforms
- Data from a single source dataset to help inform duplication between print and digital
- Reporting newsbrand sections for print and digital
- Engagement data

PAMCo's world-leading methodology integrates data from two sources to provide a complete view of publisher audiences.

1. A high-quality face-to-face survey of c.15,840 participants in 2023 to collect print readership and demographic data.
2. A respondent level data file from Ipsos iris, UKOM's chosen digital audience supplier, which makes it possible to integrate fully smartphone and tablet audiences as well as PC/laptop audiences. A data integration methodology has been developed to fuse the digital estimates with the readership/enumeration survey.

This report includes the following sections:

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THE SAMPLE

The Population Sampled

The sample is designed to be representative of the adult population aged 15+ of Great Britain. The survey population for January to December 2023 is estimated to have been approximately 54,574,516 according to JICPOP's 2023 mid year projections based on 2021 census data.

The target sample size for 2023 was 16,250 and the reporting sample from the 2023 sample points is 15,840, plus 4,263 clones, sampled from the field sample, using the method described on page 34.

Overview of the PAMCo Methodology

Since September 2020, PAMCo is using a methodology known as 'online first'.

The two-phase 'online first' was conducted as follows in 2023:

- The first stage used a postal methodology. Sampled addresses were mailed and up to two household members aged 15+ were invited to complete an online (or paper) self-completion questionnaire. There were three mailings in total, in order to maximise response, with the paper questionnaire sent to all non-responders in the third mailing.
- This was followed by a field stage in which non-responsive households were visited in-person by Ipsos interviewers. Participants were invited to take part in an in-home CAPI interview and those who declined that option were invited to self-complete the survey online or on paper. The proportion of field interviews completed using CAPI in 2023 was 59% of the field stage or 30% of the total reporting sample (before clones added).
- A minimum of three calls was prescribed at the field stage for each potentially productive address, before attempts to interview could be abandoned. Interviewers were encouraged to make as many calls as possible, varying them by time of day. The in-person visits to non-responsive households are essential to obtain a representative sample.

See 'Data Collection' for further detail of the number of interviews achieved from each stage and mode of data collection.

Overview of the PAMCo Sample

PAMCo has a multi-stage disproportional pre-selected sample design.

The three stages of sampling are as follows:

- 1) Selection of sampling points (1464 points for 2023)
- 2) Selection of addresses
- 3) Selection of individuals

The sampling frame for the selection of sampling points comprises all Output Areas (OAs) in Great Britain. In 2023, two OAs were selected for all sampling points, with the exception of the most rural. The sampling frame for the selection of addresses is the Postal Address File (PAF). At the postal stage, addresses in each sample point are invited through a postal invitation and up to two household members are invited to take part.

At the field stage, interviewers are issued with all addresses that have not completed the survey at the postal stage (and have not declined the interviewer visit). At each household contacted, up to two household members aged 15+ are invited to take part.

Household definition

For PAMCo, a household is defined as:

‘One person or a group of people who have the accommodation as their only or main residence’
AND

‘For a group of people a household should have some form of common living arrangement – that is they share some of the living accommodation’

Shared living accommodation may include:

- a living room
- a dining room
- a living or dining room which is part of the kitchen
- it would still count if the living room has to be used as a bedroom

However, a group of people is not counted as a single household solely on the basis of a shared bathroom / toilet.

Selection of Sampling Points

The first stage of sampling is to select the sample points (or locations) where interviews will be carried out. Before this is done, certain ACORN areas are upweighted (and others downweighted). This is done so as to oversample areas with particularly high penetration of individuals with AB social grades, and therefore increase the number of interviews taken with AB participants.

The steps taken to select the sampling points were as follows:

- a) Sampling weights were applied to the adult populations of OAs by 7 categories of ACORN Types, as follows:

Category	ACORN Types	Weights Applied - London	Weights Applied – Rest of GB
1	1, 2, 3, 7	1.91	1.90
2	4, 5, 8, 9, 14, 15, 16	1.71	1.60
3	6, 10, 11, 17, 19, 61	1.56	1.30
4	12, 13, 18, 20, 21, 22, 24, 26, 28, 31, 32	1.10	1.10
5	23, 25, 27, 29, 33, 34, 35, 36, 37, 53, 60, 62, 63	0.80	0.90
6	30, 38, 39, 41, 42, 49, 50, 54	0.65	0.70
7	40, 43, 44, 45, 46, 47, 48, 51, 52, 55, 56, 57, 58, 59	0.60	0.60

- b) Great Britain was divided into 60 area groupings, devised for PAMCo. Ultimately these areas were individually weighted and used to piece together the Government Office Region and non-overlap ISBA TV regions.

A full list of the 60 areas can be found overleaf. For the purposes of sampling, the area groupings were further sub-divided into district groupings.

- c) The weighted adult populations of each of the 60 area groupings were calculated. The target number of sampling points for each area grouping was then set. The total number of points at this stage was 1,392 per annum.
- d) Within each area grouping, OAs were ranked in descending order by district grouping, then within district by ACORN category, and finally within ACORN category by NS-SEC.
- e) The required number of OAs within each area grouping as specified at b) was then selected with probability proportional to weighted adult populations, using random start/fixed sampling interval procedures.
- f) Any selected OA falling into a 'no-go' area was replaced with one in the sample District and same ACORN Type with population size closest to the originally selected OA.
- g) Modified procedures were applied in Scotland, where the target number of points was increased from 112 to 184, a boost of just over 60%. This is to allow for larger analysis samples for Scottish newspapers and Scottish editions of national newspapers and brought the total number of points to 1,464.

Reference and Boost Points

A division into 'reference' and 'boost' points was made for the first time in 2023. Two thirds of the selected points were assigned as 'reference' points and one third as 'boost' points. In reference points, both the postal stage and the field stage were worked, whereas in the boost stage only the postal stage was conducted, with no follow-up field stage. The two types of point were matched fully by GOR and as fully as possible by ACORN sampling band and weighting areas within GOR.

The area groupings used and the target number of Sampling Points selected were as follows:

England and Wales

Area Groupings	Government Office Region	ISBA Area	Points per year
1	South West	South West	40
2	South West	Southern	20
3	South East	Southern	38
4	South East	Southern	18
5	South East	Southern	26
6	South East	Southern	50
7	South East	London	38
8	East of England	London	50
9	Greater London	London	32
10	Greater London	London	64
11	Greater London	London	46
12	Greater London	London	46
13	East of England	East of England	32
14	East Midlands	East of England	14
15	South East	London	24
16	East of England	East of England	20
17	East of England	East of England	32
18	South East	Midlands	26
19	South West	Midlands	16
20	West Midlands	Midlands	40
21	West Midlands	Midlands	24
22	Greater London	London	28
23	West Midlands	Midlands	14
24	West Midlands	Midlands	14
25	West Midlands	Midlands	24
26	East Midlands	Midlands	22
27	East Midlands	Midlands	18
28	East Midlands	Midlands	22
29	Wales	Wales and the West	8
30	Wales	Wales and the West	22
31	Wales	Wales and the West	26
32	North West	Border	10
33	South West	Wales and the West	16
34	South West	Wales and the West	34
35	Yorkshire and the Humber	Yorkshire	44
36	Yorkshire and the Humber	Yorkshire	26
37	Yorkshire and the Humber	Yorkshire	22
38	East Midlands	Yorkshire	26
39	Wales	Lancashire	6
40	North West	Lancashire	34

41	North West	Lancashire	34
42	North West	Lancashire	14
43	North West	Lancashire	26
44	North West	Lancashire	28
45	Yorkshire and the Humber	North East	16
46	North East	North East	26
47	North East	North East	12
48	North East	North East	12

Scotland

Area Groupings	Area Names	Points per year
49	Aberdeen	10
50	Dundee	4
51	Edinburgh	24
52	Strathclyde urban	54
53	Strathclyde rural	20
54	Lothian	12
55	Central	10
56	Fife	12
57	Other Tayside	8
58	Other Grampian	12
59	Highland*	10
60	Scottish Borders	8

* Includes one sample point per year for each of the Western Isles, Orkney and Shetland.

Allocation to Month and Start Day

The selected sampling points were systematically allocated to two half year periods and sub-divided into three batches in each period, to ensure balanced samples. At the field stage, start weeks were allocated so that the number of completed interviews was as well distributed as possible across the 6 or 7 weeks of each fieldwork period.

Selection of Addresses

Within each selected pair of OAs, between 24 and 31 addresses were selected in each region, as shown below.

	Total points per year	Reference points per year	Boost points per year	Number of addresses per point
East Midlands	102	64	38	29
Eastern	134	92	42	24
London	216	152	64	30
North East	50	32	18	27
North West	146	96	50	26
Scotland*	184	124	60	27
South East	220	140	80	31
South West	126	84	42	26
Wales	62	40	22	30
West Midlands	116	80	36	30
Yorks & Humber	108	72	36	24
TOTAL	1464	976	488	Ave 27.87

Addresses are issued to the interviewer via the Electronic Contact Sheet (ECS) software on their tablet computer.

A minimum of three calls was prescribed for each potentially productive address, before attempts to interview could be abandoned. Interviewers were encouraged to make as many calls as possible, varying them by time of day.

DATA COLLECTION AND RESPONSE RATES

Data Collection

The results on the following page are for the 2023 sample points and are based on fieldwork completed between 15th November 2022 and 1st January 2024.

As described in the introduction to this document, the PAMCo methodology consists of a two-stage (postal/field) approach.

During the postal stage invitation letters are sent out to sampled addresses inviting up to two people per household to take part via an online survey. The invitation letter is followed by up to two reminder letters, each sent a week apart. A paper questionnaire is included with the 2nd reminder letter. The postal stage is followed by a field stage.

A summary of the dates relating to the 2023 fieldwork is shown below:

Reporting half year	Sample points worked	Postal stage start date	Postal stage end date	Field stage start date	Field stage end date
H1 2023	732	15/11/22	26/04/23	03/01/23	02/07/23
H2 2023	732	02/05/23	25/10/23	03/07/23	01/01/24

The table below summarises the composition of the 2023 sample by stage and by mode for each half year period. The sample sizes below do not include the clones.

STAGE	MODE	H1 REF	H1 BOOST	H2 REF	H2 BOOST	TOTAL REF	TOTAL BOOST	TOTAL 2023	Total sample Profile
TOTAL	TOTAL	6,632	1,316	6,550	1,342	13,182	2,658	15,840	100%
TOTAL	PAPER	528	185	519	182	1,047	367	1,414	8.9%
TOTAL	ONLINE	3,696	1,131	3,749	1,160	7,445	2,291	9,736	61.5%
TOTAL	CAPI	2,408	n/a	2,282	n/a	4,690	n/a	4,690	29.6%
POSTAL	TOTAL	2,516	1,316	2,769	1,342	5,285	2,658	7,943	100%
POSTAL	PAPER	377	185	413	182	790	367	1,157	14.6%
POSTAL	ONLINE	2,139	1,131	2,356	1,160	4,495	2,291	6,786	85.4%
FIELD	TOTAL	4,116	n/a	3,781	n/a	7,897	n/a	7,897	100%
FIELD	PAPER	151	n/a	106	n/a	257	n/a	257	3.3%
FIELD	ONLINE	1,557	n/a	1,393	n/a	2,950	n/a	2,950	37.4%
FIELD	CAPI	2,408	n/a	2,282	n/a	4,690	n/a	4,690	59.4%

Participant incentives

All participants in the 2023 PAMCo study received a £20 incentive, either an Amazon e-voucher, Love2Shop e-voucher, Love2Shop giftcard (field stage only) or could opt for Ipsos to donate this sum to one of three designated charities on their behalf (NHS Charities Together, British Red Cross or Age UK).

Response rates

Overall response rate is calculated based on the total number of addresses in the sample excluding any addresses that were ineligible. Ineligible addresses include those that are; non-residential, where the address is occupied but not main residence, address that are demolished, derelict or under construction and those that are vacant/empty.

RESPONSE RATES - HOUSEHOLD LEVEL		2023
Total number of addresses		40,796
Total number of REFERENCE sample addresses		27,193
Ineligible addresses in field stage		1,304
Total number of REFERENCE sample addresses (excluding ineligibles)		25,889
Total REFERENCE sample households (>0 complete) any stage		9,959
Total REFERENCE sample households (>0 complete) postal stage		3,967
Total REFERENCE sample households (>0 complete) field stage		5,993
Total number of POSTAL ONLY BOOST addresses		13,603
Total POSTAL ONLY BOOST households (>0 complete) postal stage		1,965
RESPONSE RATES (% of total number of addresses (excluding ineligibles))		
Total REFERENCE sample household response rate		37.6%
REFERENCE sample - Postal stage household response rate		15.0%
REFERENCE sample - Field stage household response rate		22.6%
Total POSTAL ONLY BOOST household response rate (includes ineligibles as these cannot be determined)		14.4%
REFERENCE SAMPLE FIELD STAGE OUTCOMES - HOUSEHOLD LEVEL		2023
Total number of eligible REFERENCE sample addresses		25,889
Total households (>0 complete) postal stage (A)		3,967
Opt out address prior to field stage (B)		160
Total number of eligible substitute addresses activated (C)		627
Final eligible REFERENCE sample field addresses (total minus A+B, plus C)		21,762
% Field addresses with at least 1 complete		26.6%
% Field addresses AGREED but didn't complete		13.6%
% REFUSED without Person Selection		30.4%
% NO CONTACT		27.8%
% OTHER		1.5%

During the postal and field stages, the invitation is for up to any two participants (aged 15+) per household.

Average number of completes per HH (based on total HH with at least 1 complete)	2023
TOTAL	1.32
POSTAL STAGE	1.33
FIELD STAGE	1.32

Of contacted individuals, 52.4% agreed to complete the survey, of whom 56.5% actually went on to complete. While CAPI agreement leads to high levels of actual completion, only one third of those agreeing to complete the survey online actually did so.

RESPONSE RATES – FIELD STAGE OUTCOMES - PERSON LEVEL	2023
Number of addresses where contact was made with 2nd person	10,908
% of HH made contact with 2nd person	48.7%
TOTAL NUMBER OF PERSONS CONTACTED AT FIELD STAGE	26,481
Agree but didn't complete - ALL (% of all contacted persons)	22.8%
Complete - ALL (% of all contacted persons)	29.6%
Refusal ALL (% of all contacted persons)	45.1%
Direct refusal (% of all contacted persons)	34.0%
Proxy refusal (% of all contacted persons)	11.1%
Other - ALL (% of all contacted persons)	2.5%
Other - Physically or mentally unable/ incompetent	0.5%
Other - Language difficulties	0.4%
Other - Away or in hospital throughout survey period	0.6%
Other - Ill at home during field period	0.4%
Other - other	0.6%

RESPONSE RATES – PERSON LEVEL - % of those who agree to take part	56.5%
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The response rates include as completes not only the reportable sample but also those completes that were subsequently rejected at the editing stage. The main reason for rejection was where there were more than two questionnaires per household.

Only 0.3% of completes were rejected overall, 0.2% at the field stage vs. 0.5% at the postal stage.

THE INTERVIEW

This section provides details of the PAMCo interview that has been deployed throughout the 2023 fieldwork. Key points regarding the interview are summarised below.

The online survey is device agnostic and therefore displays in a way that is most suited to the device used. When the CAPI mode is used, the interviewer uses a single screen tablet and shares the screen with the participant at the points in the interview where it is important for the participant to see the prompts.

The paper questionnaire incorporates almost all of the content from the online survey, with the exception of sections and supplements, and preserves the order of the content as far as is possible. For source of copy, time spent and attitudes to magazine brands, these questions are asked once about the most recent magazine read in each frequency category, with responses ascribed to individual magazines in that category.

PAMCo is a brand-first interview. In the online and CAPI script publisher brands are initially shown in groups of six (or five for national newspapers) and the participant needs to establish whether they have looked at or read any one or more from the group in the past 12 months. Then the individual brands that have been seen in the past 12 months are established before confirming whether the brand is read in print or on a screen, or in both formats. This is then followed by more detailed questions about reading on print and digital platforms respectively.

PAMCo uses full colour masthead prompts for the readership questions, including non-date specific front covers for the magazines and newspaper supplements.

PAMCo asks specific questions about weekday and Saturday newspapers, showing separate weekday and Saturday paper front covers.

The PAMCo interview adapts the frequency scales used to the different types of publication:

Magazines	Almost Always (3 or 4 copies out of 4)
	Quite Often (2 copies out of 4)
	Occasionally (1 copy out of 4)
	Less often
Weekday newspapers	Almost Always (4 or 5 copies a week)
	Quite Often (2 or 3 copies a week)
	Occasionally (1 copy a week)
	Less often
Saturday and Sunday newspapers	Almost Always (3 or 4 copies a month)
	Quite Often (2 copies a month)
	Occasionally (1 copy a month)
	Less often

Average Issue Readership

The principle of measuring print 'readership' is to attempt to establish at each interview whether or not the person interviewed has looked at any copy of the publication in question during a period back from the day of interview equal to the interval at which the publication appears. (Reading on the actual day of interview is not included). Thus, for each daily newspaper claimed to have been read in print in the past 12 months, the interview attempts to establish whether or not the person interviewed looked at a copy of it 'yesterday', the day before the interview. For newspapers that are published on 6 days a week, the 'Monday to Friday' and 'Saturday' edition are asked separately. For interviews conducted on Sunday or Monday, the equivalent of yesterday for the Monday to Friday edition is 'Friday'.

For each Saturday/Sunday newspaper or weekly magazine read in the past 12 months, the interview establishes whether or not the participant has looked at a copy of it in the past seven days, and for each monthly magazine, whether or not he or she has looked at a copy of it during the past four weeks. Other publication frequencies include fortnightly, bi-monthly and quarterly magazines.

Sections of the Interview

The PAMCo interview is divided into five main sections which are presented to the participant as follows:

1. Readership – including topics of interest, internet usage, readership
2. Classification – including household composition, identification of a Chief Income Earner, occupational details required for social grading, income, ethnicity, education level, ethnicity, sexual orientation and disability.
3. Shopping – including shopping in person and online and items browsed and purchased online in the last 12 months.
4. Internet Devices – covering the devices used by the participant that can connect to the internet
5. General Lifestyle – including future plans, motoring, holidays, travel and commuting, cinema, radio and television.

The following outlines the content of each section.

SECTION 1 - Introduction and Readership

The topic interest question appears at the start of the interview and presents the participant with 30 topics. The screen has the following prompt:

"The first question is about the topics that you read or look at in newspapers or magazines, whether in print, on a computer, on a tablet or on a mobile phone."

Two of the topics prompt further questions: 'News', which goes on to establish whether the participant reads or looks at national, local or regional news, and 'Sport' which prompts a further screen establishing which sports a participant reads or looks at.

This section also asks the participant about internet usage.

The readership section

The readership section, which uses a brand-first methodology, establishes which publications the participant has read in the past 12 months, whether in print or on screen, followed by more detailed questions on those that have been read in the past 12 months. Readership could be in the form of printed newspapers or magazines, or newspaper or magazine websites/apps that have been looked at on a PC, tablet or smartphone, including through links on social media. Publisher brands are initially shown in groups of six (or five for national newspapers) and the participant determines whether they have read or looked at or any one or more from the group in the past 12 months. For the groups that are selected, the participant will be shown those groups again later and asked which individual brand(s) from the group they have read in the past 12 months.

The interview uses media list rotations to prompt brands as fairly as possible across the media list. The rotations for displaying publisher brands in groups of six are as follows:

Forward: Daily Newsbrands, Regional Daily Newsbrands, Magazines, Sunday Newsbrands
 Reverse: Sunday Newsbrands, Magazines (in reverse order), Daily Newsbrands, Regional Daily Newsbrands

The order in which brands are displayed on-screen in groups is also rotated randomly, again to be fair to all brands. For a full summary of the media list rotations see page 22.

The interview then goes on to ask the participant whether the magazines or newspapers were read as a printed copy or on-screen via a website or app, or in both formats.

Example screenshots from the interview are below, to show how the questions appear on screen.

- Publisher brands (groups)



- Yes or No for each brand in groups selected

▶ Please answer YES or NO to tell us whether you have read EACH of these in the past 12 months IN PRINT OR ON SCREEN.

The Sun		<input checked="" type="radio"/> YES	<input type="radio"/> NO
The Guardian		<input checked="" type="radio"/> YES	<input type="radio"/> NO
i		<input type="radio"/> YES	<input checked="" type="radio"/> NO
Evening Standard		<input type="radio"/> YES	<input checked="" type="radio"/> NO
The Scotsman		<input type="radio"/> YES	<input checked="" type="radio"/> NO

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- Print or On screen for each brand selected

The Sun

▶ How have you read The Sun in the past 12 months? Please select one answer.

- Both in print and on screen →
- In print only →
- On screen only →

The readership section also establishes whether the participant has looked at websites or apps where there is no equivalent printed magazine, or the printed magazine does not have the same name as the website or app.

Given that the objective of PAMCo is to provide estimates for readership in print and on screen, the frequency of looking at the publication on-screen is asked first (if the brand has been claimed as looked at on screen in the past 12 months), before moving on to ask about when the publication was last read in print and then how often it is read in print. There is evidence from NRS (the predecessor to PAMCo) that some claims for print readership are in fact for on-screen readership, so by asking about on-screen readership before print readership we are aiming to minimise incorrect claims.

If both magazines and newspapers have been claimed as read in the past 12 months, magazines are asked about first before asking about newspapers.

Magazines

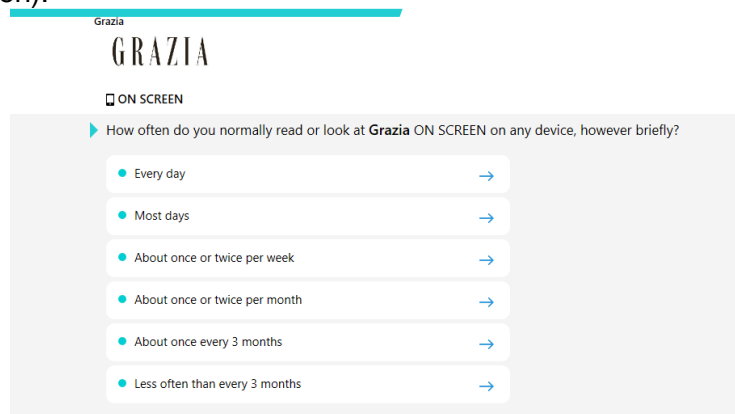
The recency ('when last') and frequency ('how often') questions are prompted on a brand-by-brand basis in the example sequence shown below for the fortnightly magazine Grazia.

Grazia - On Screen (how often)

Grazia - In Print (when last)

Grazia - In Print (how often)

On Screen (how often):



Grazia

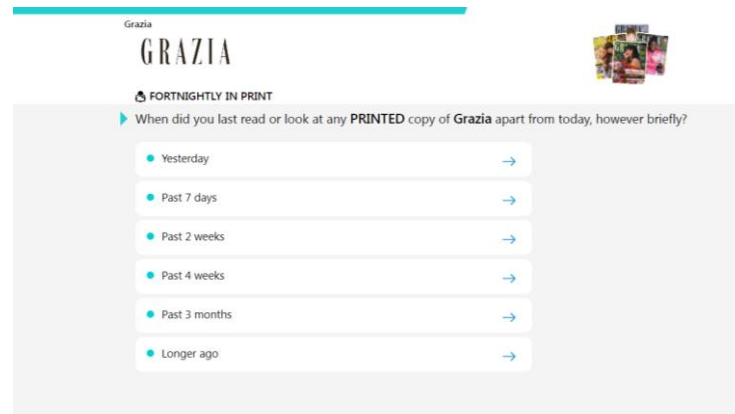
GRAZIA

ON SCREEN

▶ How often do you normally read or look at **Grazia** ON SCREEN on any device, however briefly?

- Every day →
- Most days →
- About once or twice per week →
- About once or twice per month →
- About once every 3 months →
- Less often than every 3 months →

In Print (when last):



Grazia

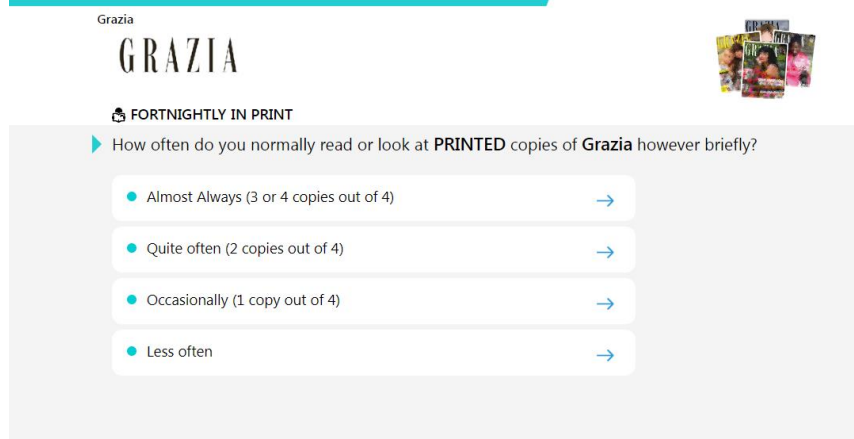
GRAZIA

FORTNIGHTLY IN PRINT

▶ When did you last read or look at any **PRINTED** copy of **Grazia** apart from today, however briefly?

- Yesterday →
- Past 7 days →
- Past 2 weeks →
- Past 4 weeks →
- Past 3 months →
- Longer ago →

In Print (how often):



Grazia

GRAZIA

FORTNIGHTLY IN PRINT

▶ How often do you normally read or look at **PRINTED** copies of **Grazia** however briefly?

- Almost Always (3 or 4 copies out of 4) →
- Quite often (2 copies out of 4) →
- Occasionally (1 copy out of 4) →
- Less often →

Newspapers

For newspapers, the different issues or editions are prompted consecutively, with the supplement and in-paper sections prompted for each edition. An example of the sequence for a participant who claims to have read both the weekday, Saturday and Sunday editions of The Times newspaper in the past 12 months, and The Times on screen, is shown below.

The Times – On screen (how often)

The Times (Monday-Friday) – In Print (when last)

The Times (Monday-Friday) – In Print (how often)

The Times (Saturday) – In Print (when last)

The Times (Saturday) – In Print (how often)

The Times (Saturday supplements) – when last

The Times (Saturday in-paper sections) – when last

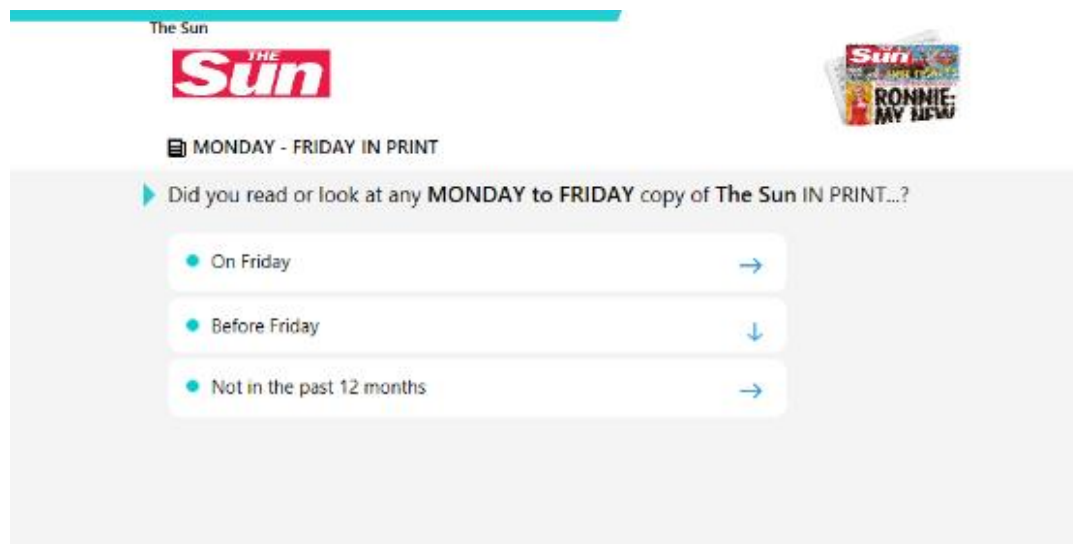
The Sunday Times – In Print (when last)

The Sunday Times – In Print (how often)

The Sunday Times (Sunday supplements) – when last

The Sunday Times (Sunday in-paper sections) – when last

The Monday-Friday 'when last' question offers answers from 'Yesterday' to 'Not in the past 12 months' as shown in the images below, with 'On Friday' appearing instead of 'Yesterday' when the interview takes place on a Sunday or Monday, as in the example below.



If the informant selects 'Before yesterday' (or 'Before Friday') on the first screen above, that option is subsequently expanded into four possible options, as shown below.

Past 7 days

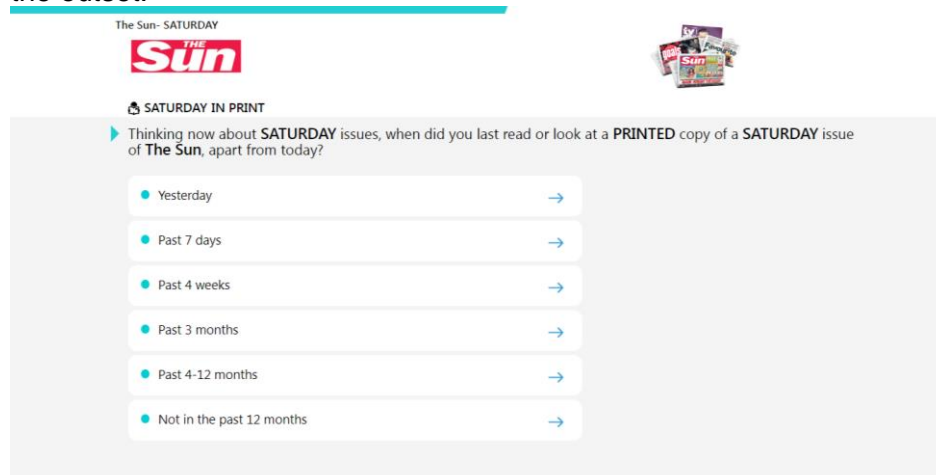
Past 4 weeks

Past 3 months

Past 4-12 months

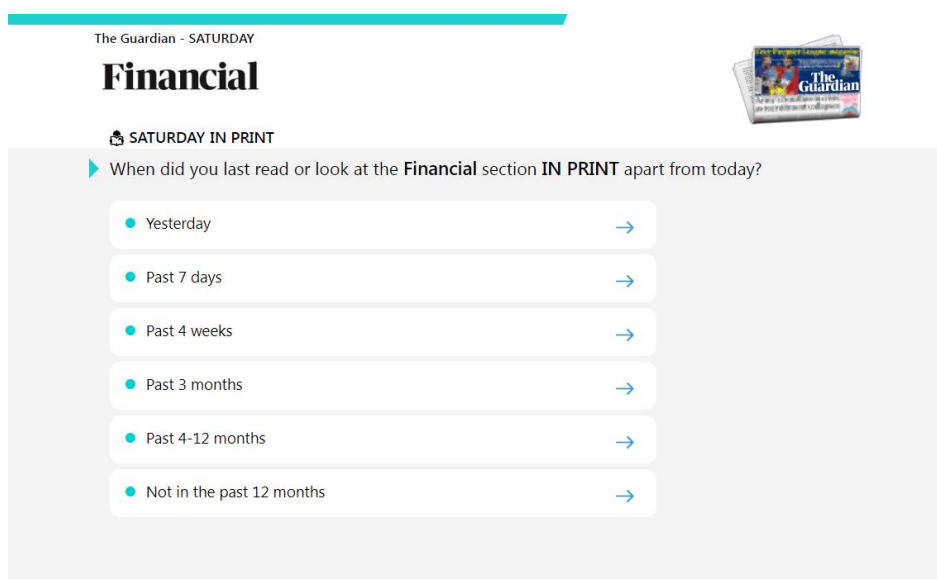
This format was changed in the last sample wave of H2 2023 to display all recency codes from the outset for Monday to Friday newspapers. The changed format applied to all online and CAPI interviews in about one sixth of the total 2023 sample.

Recency of reading Saturday editions is asked as follows, displaying the full set of codes from the outset:



Throughout the readership questions the words ON SCREEN and IN PRINT are emphasised to help the participant consider the different platforms separately. The wording for the different newspaper issues (Monday-Friday/Saturday/Sunday) are emphasised for the same reason. Some wording and icon changes were made at beginning of H2 2023 to further emphasise the distinction between printed copies and online content.

As well as asking about readership of printed newspaper supplements i.e. stand-alone magazines or other separate sections that come with a newspaper, in-paper sections for some newspapers are also prompted i.e. sections that are part of the main newspaper itself. An example screenshot is shown here:



Local Weekly Newspapers

If the sample point is in a postcode where local weekly newspapers are measured, questions are asked in the interview about print readership in the past 12 months, 'when last read' and how 'often read' for these local weekly papers. These data are not published by PAMCo but are supplied to JICREG as an input for their modelling procedures.

Engagement questions

There are 3 different engagement questions in the interview, which are:

- Source of Copy
- Time Spent Reading
- Attitude Statements

These engagement questions are asked as a block within the survey and rotated through for one brand at a time. This section is asked for brands in the order that they appear for the recency and frequency questions.

Source of Copy

A source of copy question is asked following completion of the recency and frequency questions for all titles and is asked for print average issue readers only.

Participants are asked “Thinking of the last copy of [brand] you read or looked at IN PRINT, whose copy was it?”, and given a list of precoded statements to respond with:

- My copy
- Someone else in my household’s copy
- Someone from outside of my household’s copy
- Work or office copy
- Copy seen elsewhere

The participant is then asked follow-up questions which vary depending on the publication’s distribution method (paid/free, paid only and free only).

The questions are as follows:

Was this copy of [brand]...?

- Paid for
- Free
- Don’t Know

(For paid titles) – How was the last copy obtained?

- Bought at newsagent or shop
- Delivered by newsagent
- Delivered with online shopping
- Subscription delivered to home (newspapers only)
- I/someone else in my household subscribe to it (magazines only)
- Picked up on bus, train or tube
- Picked up on a plane or at airport
- Picked up in a shop
- Other
- Don’t Know

(For free titles) – How was the copy obtained?

- On street or at a station
- Picked up on a bus, train or tube
- Picked up in a shop
- At a recreation outlet (gym, club, etc.)
- At a student campus

Other
Don't Know

Time Spent Reading

A 'time spent reading' question is asked after the source of copy question for print average issue readers only. Participants are shown a list of precoded options and asked "*Roughly how long do you usually spend in total with an issue of [Brand], including all the times you look at it and all the parts and supplements?*"

The participant's answer is coded into one of the following codes:

- Less than 5 minutes
- About 5 minutes
- About 10 minutes
- About 20 minutes
- About 30 minutes
- About 45 minutes
- About 1 hour
- About 2 hours
- About 3 hours or longer

For daily newspapers, time spent reading is recorded separately for the weekday and Saturday issues, with an instruction to include readership of all the sections of the newspaper.

Attitude Statements

If a magazine has AIR in print or digital frequency of at least once a month, participants are asked to react to four statements about their readership of that magazine brand.

Participants are asked the question, "How much do you agree or disagree with the following statements?" and given the below statements to respond to:

- Reading or looking at it is time well spent
- Its advertising is relevant to me
- It gives me something I can't get elsewhere
- I trust what I see in it

Participants are given 5 response options: 'agree strongly', 'agree a little', 'neither agree nor disagree', 'disagree a little', and 'disagree a lot'.

Participants are asked to consider print and on screen exposure to the brand when responding.

For newspapers, the same 4 statements and 5-level agreement scale are prompted, but with reference to newspapers in general, rather than individual brands.

Media list rotations

The following table summarises the order of questions for newsbrands and magazine brands and the rotations applied in order to treat all brands as fairly as possible.

Question	Forward Rotation	Reverse Rotation
Q5C: Brands in Groups of six or five for national newspapers (any in past 12 months, whether print and/or on-screen). Random rotation of position of each brand on the screen.	Daily Newsbrands Regional Daily Newsbrands Magazines Sunday Newsbrands	Sunday Newsbrands Magazines (in reverse order) Daily Newsbrands Regional Daily Newsbrands
Q6A: Digital only (any in past 12 months)	Digital only brands	Digital only brands
Q5E: RPY of Individual brands seen in past 12 months, from groups selected at Q5C	The order selected at Q5C	The order selected at Q5C
Q6B: Digital only RPY of individual brands seen in past 12 months from groups selected at Q6A	Digital only brands	Digital only brands
Q5G: Platform (print/on-screen) for brands selected at RPY	Titles within publication types in the order selected at Q5G. Daily Newsbrands Regional Daily Newsbrands Sunday Newsbrands Magazines	Titles within publication types in the order selected at Q5G. Magazines Sunday Newsbrands Daily Newsbrands Regional Daily Newsbrands
Individual brand questions (recency and frequency), magazines followed by newsbrands for both rotations.	Magazines (in order selected at Q5G): Q7A/C: on-screen frequency Q8A: magazine print recency Q8B: magazine print frequency Newsbrands (in order selected at Q5G). When both a daily and a Sunday edition of the same brand are selected at Q5G (Platforms), the brand will appear in the order of whichever of its editions were prompted first at Q5G, while still maintaining the question order below	Magazines (in order selected at Q5G): Q7A/C: on-screen frequency Q8A: magazine print recency Q8B: magazine print frequency Newsbrands (in order selected at Q5G). When both a daily and a Sunday edition of the same brand are selected at Q5G (Platforms), the brand will appear in the order of whichever of its editions were prompted first at Q5G, while still maintaining the question order below

	<p>Q9A: On-screen frequency Q10C: Print recency (Mon-Fri) Q14: Print frequency (Mon-Fri) Q10E: Print recency (Sat) Q13: Print frequency (Sat) Q11A: Print recency (Saturday supplements) Q12A: Print recency (Saturday in-paper sections) Q15A: Print recency (Sun) Q18A: Print frequency (Sun) Q16A: Print recency (Sunday supplements) Q17A: Print recency (Sunday in-paper sections)</p>	<p>Q9A: On-screen frequency Q10C: Print recency (Mon-Fri) Q14: Print frequency (Mon-Fri) Q10E: Print recency (Sat) Q13: Print frequency (Sat) Q11A: Print recency (Saturday supplements) Q12A: Print recency (Saturday in-paper sections) Q15A: Print recency (Sun) Q18A: Print frequency (Sun) Q16A: Print recency (Sunday supplements) Q17A: Print recency (Sunday in-paper sections)</p>
Q19B, Q19C: Local weekly newsbrands recency/frequency	Print title prompted by postcode on a sample point basis.	Print title prompted by postcode on a sample point basis.
Q7B Frequency/recency of digital only brands		
Engagement Questions – each question asked for all brands before moving to next question. Titles within publication types in the order selected at recency and frequency questions. If AIR of both a daily and Sunday edition of a newsbrand have been selected, they appear consecutively.	<p>Q20A: Source of Copy (Print AIR) Q20F: Time Spent Reading (Print AIR) Q21A: Attitude Statements (Print AIR or digital at least once a month)</p>	<p>Q20A: Source of Copy (Print AIR) Q20F: Time Spent Reading (Print AIR) Q21A: Attitude Statements (Print AIR or digital at least once a month)</p>
Q20A: Source of Copy (Print AIR).	<p>Daily Newsbrands Sunday Newsbrands Magazines</p>	<p>Magazines Daily Newsbrands Sunday Newsbrands</p>
Q20F: Time Spent Reading (Print AIR).	<p>Daily newsbrands (Mon-Fri/Sat) Daily newsbrands (Mon-Fri only) Daily newsbrands (Sat only) Sunday newsbrands Magazines</p>	<p>Magazines Daily newsbrands (Mon-Fri/Sat) Daily newsbrands (Mon-Fri only) Daily newsbrands (Sat only) Sunday newsbrands</p>
Q21A: Attitude Statements (Print AIR or digital at least once a month). Titles within magazine types in the order prompted at Q5G Platforms.	<p>Magazines: Print/Digital are prompted for each publication after Q20A and Q20F Digital only</p>	<p>Magazines: Print/Digital are prompted for each publication after Q20A and Q20F Digital only</p>

<p>Q21A: Attitude Statements (Print AIR or digital at least once a month). All newsbrands are considered together with generic response statement options.</p>	<p>Newsbrands: after Q20C/Q20F and Q21A have been asked for each magazines, generic attitude statements are given, and participants asked to consider all newsbrands selected when responding</p>	<p>Newsbrands: after Q20C/Q20F and Q21A have been asked for each magazines, generic attitude statements are given, and participants asked to consider all newsbrands selected when responding</p>
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SECTION 2 - Classification

This section covers the participants' household composition, identification of a Chief Income Earner, and demographic information.

The section begins with questions including those about the composition of the household, ages of the household members and of the respondent, marital status and gender.

The gender question in the script was changed in 2023 and is as follows:
 "Which of the following best describes your gender?"

Informants aged 16+ see the options below:

- Man
- Woman
- Non-binary
- My gender is not listed
- Prefer not to say

Informants aged 15 see the options below:

- Boy
- Girl
- Non-binary
- My gender is not listed
- Prefer not to say

Next more detailed information about the participants' working status, and the occupations of the Chief Income Earner and participant (if different) are collected. The occupational details are required for social grading purposes.

The Chief Income Earner (CIE)

The Chief Income Earner (CIE) is determined by asking the following question:

"Who in your household would you say is the MAIN INCOME EARNER, that is the person with the largest income?"

The Chief Income Earner must be related to the participant. The Social Grade of unrelated people living in the same household is based on their own individual occupations. Couples living as married/co-habiting are treated as 'married' and therefore 'related' for classification purposes. Widows receiving maintenance, with no higher grade occupations, are graded on their late

partner's occupation. If two or more people in the household have equal incomes, then social grade is coded for the older person.

Retired participant or Chief Income Earner

If the CIE is retired, additional questions are asked to help code social grade accurately.

There is a question on whether they have a private or company pension. Someone receiving a private pension, however small, is coded as having a private or company pension.

When talking about their occupation, if retired then they are asked about their main or highest earning occupation. If it has already been established that they have a private pension, then this is the occupation which they are classified on.

If the pension is from a late partner's occupation, then this is the occupation that is used for grading.

The interviewer confirms if the CIE has benefits only or also has another form of income. This other form of income may include, but is not restricted to, a company pension, a widow's pension, and monies from savings or investments. If the CIE is retired and has no other income apart from a State pension then the social grade is E.

If the CIE is retired and has any form of income over and above state benefits, the social grade is based on their former occupation.

The classification section concludes with questions on income (of participant and Chief Income Earner), education and household tenure.

Social Grade

Once all of the relevant details to enable social grading have been recorded by the interviewer, a summary of the information is shown on screen for the interviewer to code social grade. All social grade coding is checked once fieldwork has concluded by experienced coders at Ipsos.

If the CIE is unemployed i.e. he/she doesn't have a paid job but is actively seeking, or is available for, employment at the time of interview, then the following rules are used for social grading purposes:

If, at the time of interview, the unemployed person is dependent on state benefit only, the social grade is based on their previous occupation if they have been unemployed for less than six months.

If the unemployed person who is dependent on state benefit only has been unemployed for over six months at the time of interview, their social grade will be E.

If the unemployed person has income exceeding state benefit level, the social grade will be based on their previous occupation regardless of the length of unemployment.

Demographics

The classification section concludes with questions about the informant relating to income, education, ethnicity, sexual orientation and disability.

The qualifications question in the script is as follows:

“Which best describes the highest qualification you have obtained up to now?”

GCSEs/O levels / CSEs or equivalent

Vocational qualifications, including NVQ levels 1 and 2

A levels, T levels, or equivalent, including NVQ level 3

Degree level or above, including HND, HNC, NVQ level 4 and 5

Apprenticeship

Any other qualification (equivalent unknown)

No qualifications

Prefer not to say

The sexual orientation question in the script is as follows:

“Which of the following best describes your sexual orientation?”

Heterosexual/Straight

Gay/Lesbian

Bisexual

Prefer to self-describe

Prefer not to say

SECTION 3 - Shopping

This section covers the main shopper definition, spend on groceries, supermarkets and online shopping sites used and items browsed and purchased online in the last 12 months.

SECTION 4 - Internet devices used to access the internet

This section covers the different types of devices that can connect to the internet. The participant is asked how many of each types of device they have used to access the internet in the past 30 days and about shared usage of tablets and pcs/laptops.

Devices of most interest are:

1: Smartphone

Apple iPhone

Android Phone

Other/Type not known

2: Tablet

Apple iPad

Android Tablet

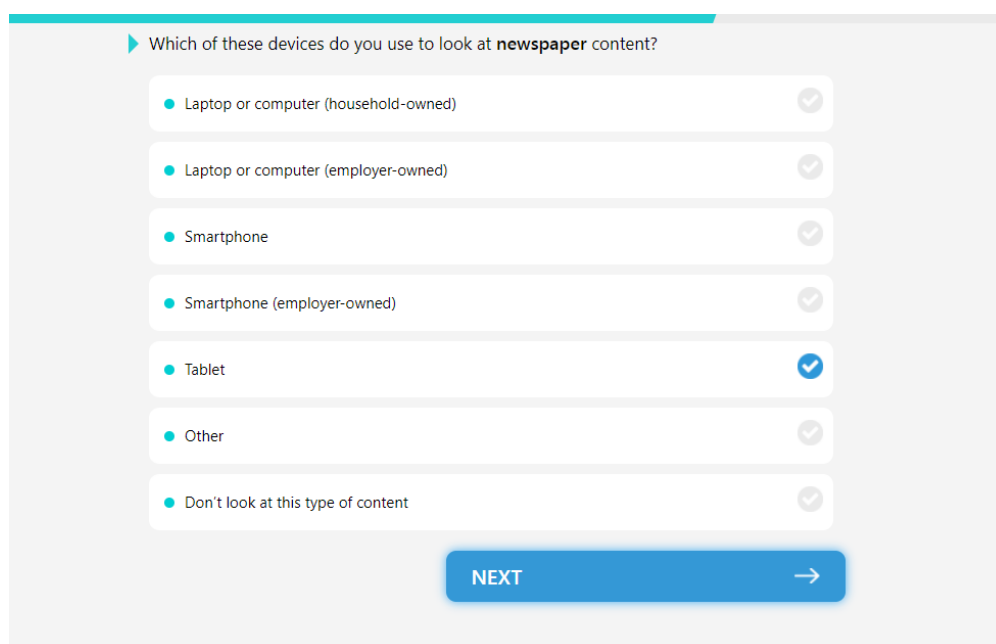
Other/Type not known

3: PC

PC/Laptop – Household owned
 PC/Laptop – Owned by work or other

If there is a child aged 4-14 in the household, the participant is asked to answer about the device ownership and usage of a randomly selected child in the household within this age range.

Participants are asked to identify the recency of their use for each selected device (including those owned by places of work/education), which of the devices they use to read/look at published content via apps or the Internet, and the frequency of their use of each selected device for this purpose. An example of this type of question is included in the screenshot below.



Which of these devices do you use to look at newspaper content?

- Laptop or computer (household-owned)
- Laptop or computer (employer-owned)
- Smartphone
- Smartphone (employer-owned)
- Tablet
- Other
- Don't look at this type of content

NEXT →

SECTION 5 - General Lifestyle

There follows a lifestyle section covering participants' future plans (including financial) for the following 12 months, motoring, holidays/travel and commuting. Finally, there are questions about other media, covering cinema, radio and television.

Some attitudinal questions were added at the end of the survey in 2023 in order to better understand the differences between informants who respond at the postal and field stages, and with the potential to be used in integrating postal boosts into the main sample. In the event, they did not prove useful for this purpose. Statements were as follows and responses used a 7 point agreement / disagreement scale.

1. My life feels too busy at the moment

2. I wouldn't want to be without the newspapers that I read
3. I don't usually take part in surveys
4. I like to support charities or community groups
5. I wouldn't want to be without the magazines that I read
6. I am very careful when dealing with people or organisations I don't know
7. I prefer to do everything online if I can
8. It's important to keep learning new things throughout your life
9. I love to read

WEIGHTING

For the 2023 data, the following rim weights were applied to the data.

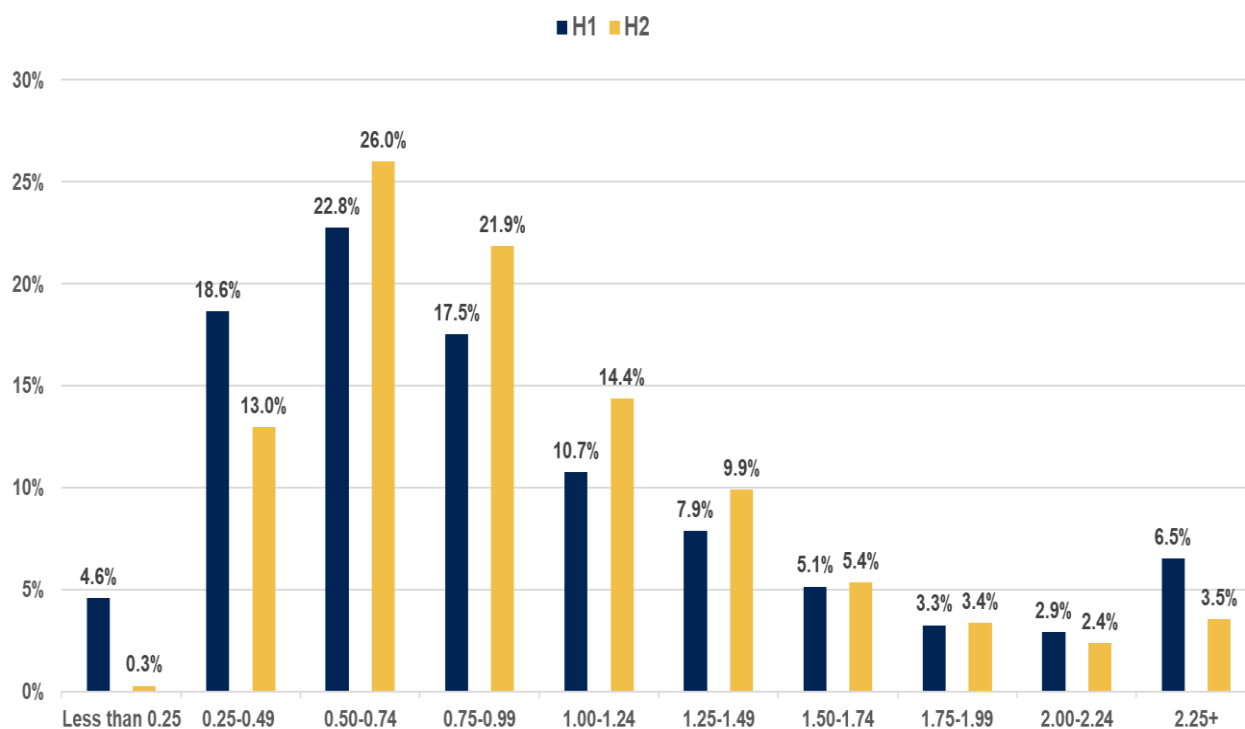
- a) Sex within 8 age groups (15-24 split into 15-17 and 18-24) at GB level
- b) Sex within 7 age breaks within 7 survey regions (grouped GOR)
- c) 60 weighting areas
- d) ACORN sampling band within GOR groupings
- e) Household Size (with targets derived from BARB Establishment Survey)
- f) Terminal Education Age (with targets derived from historic PAMCo data)

The sample was grossed to JICPOPS mid 2023 estimates (2021 census based), a total of 54,574,516.

The rim weighting efficiency and highest/lowest weights are shown below.

	H1 2023	H2 2023
Rim weighting efficiency	65.7%	76.6%
Highest weight	6.363	4.826
Lowest weight	0.068	0.161

The chart below illustrates the distribution of weights in the two reporting periods of 2023.



MODELLING AND ANALYSIS

Modelling Procedure for Daily Newspapers

A modelling procedure was applied to data for daily newspapers.

The PAMCo data show results for three AIR measures as follows:

Monday-Friday average issue readership (weekday AIR)

Saturday issue readership (Saturday AIR)

Monday-Saturday average readership (6 day AIR)

Monday-Friday average issue readership (weekday AIR)

The PAMCo interview asks about Monday-Friday readership of daily newspapers and Monday-Friday AIR is captured directly from the interview data and not modelled.

Saturday issue readership (Saturday AIR)

These are obtained from a specific question on the readership of Saturday issues of national daily newspapers.

Monday-Saturday average readership (6 day AIR) and read past year (6 day RPY)

AIR targets are calculated from 1/6 of the Saturday ('Yesterday' or 'Past 7 days') and 5/6 of the Monday-Friday ('Yesterday') AIR.

6 day Monday-Saturday Read Past Year (RPY) readership needs to be calculated for reporting purposes and this is done by creating nets of the weekday and Saturday editions for both recency and frequency data.

When netting recency, the more recent of the Monday-Friday and Saturday intervals is chosen where a participant is a reader of both editions. For example, if a participant claimed last 7 days recency for the Monday-Friday edition and last 4 weeks for Saturday edition, then the participant is assigned the 'last 7 days' recency for the Monday-Saturday newspaper.

There is no obvious choice for how the frequency net should be calculated. However, considering that the Monday - Friday edition is 5 out of 6 issues of Monday-Saturday, it is logical that if a person is a reader of the Monday-Friday edition, the Monday-Friday is used, without regard to Saturday frequency. If a person is not a reader of the Monday-Friday edition, a frequency of "Occasionally" or "Less Often" is given ("Less Often" for every first and second occurrence and "Occasionally" for every third occurrence).

The AIR modelling procedure described above was applied to the AIR in Government Office Region Scotland separately from the AIR for the rest of Great Britain for 5 national daily newspapers. These are newspapers that have a different masthead for their Scottish editions: Daily Express, Daily Mail, Daily Star, The Sun and The Times.

Probabilities

PAMCo readership data are collected and processed in a binary format. Each participant is either a reader (1) or not a reader (0) of a publication. In order for PAMCo readership data to be used by the data bureaux in reach and frequency planning tools it is preferable that PAMCo binary data are converted to probabilities. Probabilities give each participant claiming to have read a

publication in the past year (RPY) a score of between 0 and 1 of being an Average Issue Reader (AIR) of the publication. Probabilities are derived using a CHAID segmentation technique which is based on demographic and other variables available from the interview data.

Probability of Reading for Newspaper Supplements and In-Paper Sections Print Data

In the PAMCo interview, there is no frequency data collected for newspaper supplements and in-paper sections, only recency data. To allow the calculation of cumulative readerships and of schedules, an alternative method of calculating probabilities has been derived.

All participants who claimed to read the supplement or in-paper section in the past 12 months are segmented according to their propensity to be Average Issue Readers of the supplement or section. Segmentation is conducted using CHAID. Once segmentations are complete, the terminal nodes of the segmentation are split according to frequency of reading. As there are no frequency data for the supplements and sections, the frequency of reading the parent newspaper is used as a proxy, and an AIR probability is calculated for each frequency node.

Each participant has, for each supplement or section, an individual 5-digit probability code ranging from 0 to 1 e.g. 0.4828. These probabilities do not correspond to the standard frequency codes of other publications.

Summary codes of the probabilities are provided and are defined as follows:

High	0.6667-1.0000
Medium	0.3334-0.6666
Low	0.0001-0.3333

Publications with Frequency Changes

The published readership estimates for titles that change their publication frequency are calculated in the following way:

The average issue readership comprising qualifying recency codes from the new frequency are added to the average issue readership comprising qualifying recency codes from the old frequency.

Publications that have changed their publication frequencies are given the publication symbol F in certain PAMCo data tables to denote that the estimates are calculated using data collected from more than one publication frequency.

Adjustment for Circulation Loss

In addition to the demographic weighting, results are adjusted for the effects of circulation loss where there has been interruption of normal publication. The adjustment procedure involves changing the codes of some participants from 'non-reader' to 'reader' for a relevant title.

Estimates of circulation loss are based on data reported to the NMA or PPA by each publisher together with ABC information concerning National Newspapers. Non-members of the NMA and PPA report directly to Ipsos MORI.

Adjustments made for missing data in the paper questionnaire

The paper questionnaire is unable to accommodate the complex filtering that is an essential aspect of the online survey. In particular, it does not include the following data:

- Sections and supplements – no data is collected for these
- Digital frequency – only ‘at least monthly’ and ‘less often’ are collected, rather than the full frequency scale
- Fortnightly and bi-monthly titles – ‘past 2 weeks’ and ‘past 2 months’ codes are not included
- Source of copy and time spent reading are only asked at category level (weekly magazine, monthly magazine, weekday newspaper, Saturday newspaper, Sunday newspaper)
- Attitudes to magazines are only asked about magazines in general

Each of these elements requires some modelling as described below:

Sections and Supplements

In the 2023 data, the relationship between the main newspaper and its sections and supplements in the online/CAPI data has been used to model the readership of the sections in the paper data.

For each point on the recency scale that falls within the filter for sections and supplements (past 3 months), a propensity to have read each section or supplement at each point on its recency scale (up to past 12 months) is calculated, and gender is also taken into account.

For example, if 30% of males with past 7 day reading of the main paper have read Section X in the past 7 days in the online/CAPI data, that propensity will be applied to the males who have read the main paper in the past 7 days in the paper data, to create a target audience.

The same will apply at each point in the recency scale to create a matrix of weighted targets (recency of main paper x recency of section or supplement) for each of males and females.

Paper records within the required gender and recency cell for the main paper will be randomly selected to meet the target audience and the model will iterate multiple times in order to achieve the best match with the calculated target audience.

Digital Frequency

The code ‘At least once a month’ for digital frequency in the paper questionnaire is converted into a more detailed frequency with reference to the data from the questions ‘*How often do you look at newspaper / magazine content on each of the following devices?*’ (separate question for newspapers vs magazines).

The scale in this generic question matches the digital frequency scale in the online/CAPI data so that it is straightforward to assign a digital frequency to each brand for which there is a code ‘at least once a month’ in the paper questionnaire.

If there is no code within the ‘at least once a month’ bracket in the generic data for that category, the code ‘about once a month’ is assigned, but if the generic question indicates ‘about once a week’, for example, that frequency will be assigned to each brand within the category (newspapers or magazines) where ‘at least once a month’ has been coded.

Fortnightly and Bi-monthly titles

In the paper questionnaire the use of a standard recency grid for all magazines does not make it practical to include 'Past 2 weeks' or 'Past 2 months' on the recency scale. This is to the disadvantage of the PAMCo titles that have a fortnightly or bi-monthly publication interval, as there is a risk that average issue readers may under-state their recency by opting for the code that is less recent rather than more recent than the publication interval.

In order to correct this effect, we look at the frequency x recency matrix for these titles in the online/CAPI data and use the propensities we see there to create targets for the paper data.

For example, if in the online/CAPI data we see that 50% of the 'almost always' readers of Grazia who have read the title in the past 4 weeks (cumulatively) have read it within the past 2 weeks, we will ensure that this relationship exists in the paper data and will set a target to make sure that this is the case. Paper records will then have their data changed as needed, with some records having their recency changed from 'Past 4 weeks' to 'Past 2 weeks' (or from 'Past 3 months' to 'Past 2 months' for bi-monthlies). AIR claims are never removed in the paper data but may be added as per the rules above where it seems likely that the absence of the relevant recency code may have caused some informants to choose the less recent code (e.g. past 4 weeks where the past 2 weeks code was missing). Where there are no 'Past 4 weeks' claims (for fortnightlies) or 'Past 3 months' claims for (bi-monthlies) in the paper data, no changes are made.

Source of Copy and Time Spent Reading

The paper questionnaire can only ask generic questions at category level (weekly magazine, monthly magazine, weekday newspaper, Saturday newspaper, Sunday newspaper) for these variables and the generic data is therefore ascribed at brand level for all titles with AIR that match that category.

Magazine Attitudes

Magazine attitudes are asked only generically in the paper questionnaire and the responses are ascribed at brand level for all magazine titles that have AIR in print and/or digital frequency 'at least once a month', to match the online/CAPI filter.

Adjustments made for missing social grade

With the inclusion of self-completed interviews in our sample, a small proportion of informants do not provide sufficient information about the occupation of the Chief Income Earner to allow accurate coding of social grade. A predictive (CHAID) model was therefore developed to estimate social grade in these cases, and does so with reference to the following variables:

- Income of Chief Income Earner
- Working status of CIE
- NS-SEC flag (an indication in the sample of the incidence of professional and managerial occupations in that small area)
- Terminal Education Age of CIE
- Household Tenure
- ACORN Sampling Band
- Whether retired people have a private pension
- If CIE is the informant, highest qualification obtained

In the H2 2023 sample 5.0% of informants had insufficient information for the office coders to be able to assign an accurate social grade.

The accuracy of the model can be measured in terms of the closeness of the match between predicted and actual social grade for those records whose social grade was not missing. The table below indicates what proportion of those who were coded as each social grade were assigned the same social grade through prediction based on other variables. This shows that the model is best at predicting Es and C1s correctly.

However, we see a general tendency to over-predict C1s (particularly among C2s), which we should bear in mind when considering the predictions for the 5% of the sample whose prediction constitutes their final social grade in the dataset. The poor match for As and the fact that over 90% of As are actually predicted as Bs and C1s demonstrates the difficulty of distinguishing between As, Bs and C1s and may be contributing to an under-representation of As in the final profile.

Predicted Social Grade	Coded Social Grade						TOTAL
	A	B	C1	C2	D	E	
	367	2060	2584	1243	787	454	7495
A	8.2%	6.9%	3.0%	1.4%	0.3%	0.0%	3.6%
B	50.1%	28.9%	15.9%	6.7%	3.2%	2.4%	17.5%
C1	40.3%	59.3%	65.8%	62.3%	45.5%	12.1%	56.8%
C2	0.3%	2.1%	7.9%	17.5%	27.4%	7.0%	9.5%
D	0.8%	1.7%	3.6%	8.7%	19.2%	11.7%	5.9%
E	0.3%	0.9%	3.9%	3.5%	4.4%	66.7%	6.7%

The table below shows the social grade profile in H2 2023, before and after the ascription.

H2 2023	Coded	Ascribed	TOTAL
Base	7,495	397	7,892
A	4.9%	1.8%	4.7%
B	27.5%	24.9%	27.4%
C1	34.5%	42.1%	34.9%
C2	16.6%	9.6%	16.2%
D	10.5%	4.5%	10.2%
E	6.1%	17.1%	6.6%

DATA INTEGRATION – THE INTEGRATION OF THE BOOST AND REFERENCE SAMPLES

The postal boost samples are not sufficiently representative of the total population to be integrated into the sample without adjustment. We know that, even if we weight them independently with our standard weighting scheme (by region, age, gender, sampling band and education level) the profile is more upmarket in terms of social grade and that, across all types of informant (from the AB to the DE social grades and from the highest to the lowest level of educational attainment, for example), the readership of newspapers and magazines tends to be higher. This is largely because informants at the postal stage are more self-selecting than those who require interviewer persuasion at the field stage, and that much of their motivation to take part at the postal stage has been the relevance of the survey topic.

In order to benefit from the additional postal sample, without the disadvantage of its skewed profile, we use data ascription to create the 'missing' part of the sample, the part we would have interviewed had we sent field interviewers out to make contact at the addresses from the postal boost addresses that did not respond at the postal stage.

To set a target profile for the field interviews we would have achieved had the boost points been worked at the field stage, we stratified our sample by GOR and sampling band (77 cells in total). In H1 2023 we used the field:postal ratios in the reference part of the sample within these bands to determine how many 'missing' field informants should be added in each cell, applying the ratio to the number of postal boost interviews obtained in that cell.

Real field informants from the reference sample were used as the basis of the ascription. The number of these available in each of the 77 cells and the number calculated as the target were used to calculate a sampling interval within the real field sample. The field sample we were selecting from was stratified by GOR, sampling band, gender, age, social grade and terminal education age and a random start point was selected in each of the 77 cells.

The programme selected field sample by applying the calculated sampling interval to the start point. Field interviews selected were copied as a complete record and were ascribed on to the postal boost sample.

Three iterations were run and the best solution was selected based on best match between the AIR incidences between the postal boost (including clones) and the reference part of the sample.

In H2 2023 the procedure was slightly modified so that the target number of field interviews to clone from each of the 77 cells was calculated based on response rates from the field interviewing, using the one year of response rate data to ensure that these were as robust as possible. This was deemed to be a better method than the one used in H1 as it created more consistency of sampling intervals across the 77 cells and better reflected the ways in which the postal boost sample was different from the postal reference sample. In other respects, the H2 procedure was the same as that used in H1.

In H1 2023, 2,353 field interviews were cloned from a total field sample of 4,116.

In H2 2023, 1,910 field interviews were cloned from a total field sample of 3,781.

DATA INTEGRATION – THE FUSION BETWEEN PAMCo AND IPSOS IRIS DATA

A new fusion is carried out for each data release using a respondent level file from a single month of the Ipsos iris industry-approved digital audience estimates.

The Ipsos iris month for each PAMCo release using survey data collected in 2023 was as follows:

PAMCo 2 2023 – June 2023
PAMCo 1 2024 – November 2023

The following describes the fusion for the PAMCo 1 2024 release, in which records from the PAMCo survey data and Ipsos iris are fused into a single dataset containing both print and digital audiences.

The data inputs are as follows:

- **PAMCo Print Survey:** December 2021 to December 2023 (n=43,676 of which 39,547 Internet users in past 30 days)
- **Ipsos iris monthly data:** November 2023 – a synthetic dataset consisting of 951,050 unique ids, created from over 10,000 reporting panellists and a sample of devices taken from full census data.

1. Summary of Fusion Process

The fusion is a row-wise constrained fusion, in which the PAMCo survey sample are the donors and the Ipsos iris dataset the recipients.

The following process is followed in running the fusion:

1. Ipsos iris data preparation – Exclude ids from Northern Ireland and select digital entities required for PAMCo.
2. Match Ipsos iris entities to digital claims in PAMCo survey data
3. Transform other matching variables required format for distance / similarity calculation
4. Add Page Views to apps and parent brands
5. Run the Fusion to identify best matches from the PAMCo dataset for each Ipsos iris id
6. Calibrate the survey data so that original weights are preserved

The survey data is entirely preserved through a calibration process, in which the digital dataset is then slightly distorted. Age and Gender and a grouping of Government Office Regions are critical cells for the fusion.

Table 1.1 – Critical cells that must be matched in the fusion process

Age Group	Government Office Region
15-24	North East / Yorks & Humber
25-34	South West / Wales
35-44	E. Midlands / W. Midlands
45-54	South East / East
55-64	North West
65+	London
Gender	Scotland
Male	
Female	

Where demographic variables are present in both datasets, the information in the PAMCo survey dataset is used in the fused data.

Variables used for matching are:

- Claimed digital behaviour for individual brands
- Social Grade
- Working status
- Household Size
- Presence of Children
- Internet usage frequency
- Ethnicity

Universe definition

Both Ipsos iris and PAMCo universes are defined as internet users of computers, smartphones or tablets in the last 30 days.

Table 1.2 lists the Ipsos iris internet using population by gender and age for November 2023 compared to the PAMCo internet user population for the PAMCo H1 2024 release.

The Ipsos iris population includes Northern Ireland while the PAMCo universe is GB only.

Table 1.2 – Universe Comparison PAMCo Vs. Ipsos iris

	Ipsos iris Nov '23 (000s)	PAMCo H1 2024 (000s)	INDEX PAMCo H1 2024 vs iris Nov '23
TOTAL	48322	48864	101.1
Males 15-24	3731	3793	101.7
Males 25-34	4131	4202	101.7
Males 35-44	4024	4060	100.9
Males 45-54	3868	3908	101.0
Males 55-64	3798	3854	101.5
Males 65+	4323	4297	99.4
Females 15-24	3594	3623	100.8
Females 25-34	4148	4238	102.2
Females 35-44	4184	4246	101.5
Females 45-54	4025	4078	101.3
Females 55-64	3962	3982	100.5
Females 65+	4534	4583	101.1

The final PAMCo H1 2024 dataset contains 955,180 records, with every Ipsos iris id and every non internet user from the PAMCo survey used once.

The 39,547 PAMCo survey internet users were used an average of 24.0 times each, with the following distribution. A cap was imposed so that a PAMCo survey id could only be used a maximum of 102 times.

Number of times used		Number of times used	
1-5	11.0%	26-30	7.9%
6-10	17.0%	31-50	16.1%
11-15	15.3%	51-75	6.2%
16-20	12.6%	76-100	3.6%
21-25	10.0%	101+	0.3%

2. Quality control

The fusion can be evaluated according to the following criteria:

- PAMCo survey results should be preserved exactly at all levels.
- The results from Ipsos iris should be distorted as little as possible (with target of +/- 5% at total digital level for monthly reach for total digital audiences of 50,000+)
- Duplications between print and digital audiences should demonstrate higher propensity to see the brand on screen among print readers than non-readers in print.

2.1 Matching PAMCo Print Currency

Detailed checks of the fusion outputs verify that the Print readership data (and all survey weights) are completely preserved in the fusion process.

2.2 Matching Ipsos iris digital Currency

In Table 2.2, the number of entities with audiences of 50,000+ falling within +/-3% and +/-5% of the Ipsos iris target for total monthly digital audience is shown by category.

Table 2.2 – Difference between fused and Ipsos iris currency for monthly reach by category - for all entities with an audience of 50,000+

Category	PAMCo Entities	No. within range +/- 3.0%	No. within range +/- 3.0-5.0%	No. outside of range +/- 5.0%	% outside of range +/- 5.0%
Magazine websites	66	1	27	38	57.6%
Magazine apps	1	1	0	0	0.0%
Magazine distributed content	37	21	16	0	0.0%
Magazine total brands	66	12	34	20	30.3%
Newsbrand websites	31	16	14	1	3.2%
Newsbrand sections	234	30	162	42	17.9%
Newsbrand apps	12	9	3	0	0.0%
Newsbrand distributed content	12	11	1	0	0.3%
Newsbrand total brands	13	11	2	0	0.0%
Non-publishers	330	294	35	1	0.3%
Total	802	406	294	102	12.7%

Table 2.3 – Entities (with audience 50,000+) with largest difference between fused and target audience by category

Category	Largest positive difference			Largest negative difference		
	Name	Ipsos iris Audience ('000)	% diff	Name	Ipsos iris Audience ('000)	% diff
Magazine websites	bellamagazine.co.uk	104	+9.9%	N/A		
Magazine distributed content	N/A			GQ	367	-3.5%
Magazine total brands	Bella Magazine	104	+9.9%	Closer	197	-2.1%
Newsbrand websites	themirror.com	317	+5.5%	thesunvegas.co.uk	61	-3.2%
Newsbrand sections	Daily Star - Lifestyle	158	+8.6%	Mail Travel - Homepage	98	-0.4%
Newsbrand apps	The Sun Mobile – Daily News	239	+3.5%	Mail+	277	-0.9%
Newsbrand distributed content	N/A			Daily Express	459	-3.0%
Newsbrand total brands	Daily Star	7314	+3.5%	N/A		
Non-publishers	Complex	82	+6.0	Femalefirst	240	-3.0%

Table 2.4 summarises the % of published entities that fall within the ranges +/-3% and +/-5% in total and by platform for monthly reach. In this analysis, all PAMCo entities are included, regardless of audience size.

Table 2.4 – Matching to Ipsos iris estimates by platform

	% of published entities within +/-3%	% of published entities within +/-5%
Monthly reach – TOTAL	47.4%	82.6%
Monthly reach – PC	39.3%	70.1%
Monthly reach – phone	47.4%	81.1%
Monthly reach – tablet	41.5%	72.8%

3. Duplication between print and digital

The duplications between print and digital are the product of the fusion, with no additional calibration or smoothing.

For newsbrands, print readers are 1.5 times more likely on average to see the brand on screen than those who do not read it in print.

Table 3.1 – Duplications for newsbrands – Monthly Reach

Newsbrand	% of print readers with digital	% of non print readers with digital	Ratio Print Readers vs non-readers
The Telegraph	36.1%	23.6%	1.53
The Times	29.3%	17.9%	1.64
The Guardian	52.3%	35.0%	1.49
I	20.9%	12.6%	1.65
Express	28.4%	22.0%	1.29
Mail	46.6%	37.9%	1.23
Mirror	43.3%	37.2%	1.16
Daily Record	32.4%	17.4%	1.86
Daily Star	19.3%	13.4%	1.44
Sun	43.6%	38.2%	1.14
Evening Standard	34.5%	17.4%	1.98
Metro	30.9%	23.2%	1.33

For magazine brands, the average ratio between print readers and non-readers is much higher at 4.2, with a distribution as shown in Table 3.2 below.

Table 3.2 – Duplications for magazines – Monthly Reach

Ratio between print readers and non-readers for likelihood to see same brand on screen	
<1.99	26.6%
2-2.99	21.9%
3-3.99	25.0%
4-4.99	7.8%
5-5.99	9.4%
6-9.99	4.7%
10+	4.7%