

## Data processing and outline

Editing and coding, data input and tabulations are carried out by Ipsos MORI.

### **Weighting**

For 2018, the following weights are applied.

- a) Pre-weights to correct for disproportional sample selection by ACORN Type category.
- b) Pre-weights for household size.
- c) Pre-weights for 60 area groupings
- d) Social grade smoothing to produce exponentially smoothed estimates of target proportions for social grade within sex. The factors applied to the current quarter's figures/previous estimates are 0.25/0.75.
- e) Rim-weighting by sex within age group, sex within area grouping and sex within social grade. At this weighting stage the 15-24 age group was split into 15-17 and 18-24 age groups.

Further details of the weighting procedures are available from Ipsos MORI.

### **Ascription Procedure for Daily Newspaper**

Commencing in July 1994 an ascription procedure has been applied to Daily Newspapers. With effect from April 2012, the procedure has been extended to include 4 Scottish newspapers and the Yorkshire Post.

The tables show results for three AIR measures as follows:

Monday-Friday average issue readership (5 day AIR)

Saturday issue readership (Saturday AIR)

Monday-Saturday average readership (6 day AIR)

*Monday-Friday average issue readership (5 day 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 ascribed.

*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)*

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

The ascription procedure was modified in April 2014, so that the aforementioned 5 day and 6 day adjustments were applied to the AIR in Government Office Region Scotland separately from the AIR for the rest of Great Britain, for 4 national daily newspapers (5 from January 2017). These are newspapers which have a different masthead for their Scottish editions: Daily Express, Daily Mail, Daily Star, The Sun (and The Times from January 2017).

## **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.

Details of the current adjustment procedures, which have been applied since January 1988, can be obtained from Ipsos MORI.

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. The completeness and accuracy of these data is thus beyond PAMCo Ltd's direct control.

## **24 Month Base Procedure**

The 24 month base procedure allows smaller titles to have PAMCo published estimates. The procedure is applied to titles falling below the annual threshold of 100 unweighted average issue readers (AIR) required for publication of estimates, but achieving an unweighted AIR of 100 or more over a 24 month period.

The procedure combines data from 24 continuous months of data, including the current quarter, to calculate the combined penetration of each of the recent reading and frequency of reading claims in the total population. These penetrations are then applied to the total population for the current quarter to set targets for adjustment. This may have the effect of adjusting read past year (RPY) as well as AIR.

A summary of the procedure for adjustment is as follows:

- 1) On an annual basis, identify and specify publications that qualify for this procedure.
- 2) Combine audiences for the most recent quarter and the preceding 7 quarters (21 months) of data.
- 3) Calculate new AIR and RPY targets from the combined population penetrations for frequency and recent reading.
- 4) Adjust weighted data for the current quarter, according to the targets. Randomly select participants to add from the 'non-reader' population, or to remove from the reading population. Selection is based on a target demographic profile, created from the combined quarters' data.

## **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 to denote that the estimates are calculated using data collected from more than one publication frequency.