WHAT DETERMINES READERS-PER-COPY PATTERNS FOR UK MAGAZINES?

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A. Abstract

- 1. This paper investigates the patterns of magazines' readers-per-copy (rpc) that is, the relationship between circulation (ABC) and readership (as measured by the National Readership Survey). The main objective is to improve understanding of the determinants of rpc and the causes of fluctuations through time. Figures have been compiled on 170 magazines for the period 1981-1991.
- 2. There is no simple relationship between circulation and readership. There is a natural expectation that when circulation of a magazine changes its readership should move in the same direction and to a similar degree, but this is too simplified a view. So is the understandable expectation that two superficially similar magazines should have the same average rpc.
- 3. I have drawn up a list of 20 factors which can influence rpc. Three of these concern the way the NRS measures readership and the potential for random or in-built measurement errors, but the majority of the factors concern the characteristics of the magazines themselves and the nature of the competitive publications.
- 4. Looking across all 170 magazines in the full tables, there is a high incidence of statistically significant year-on-year rpc changes. 84% of the magazines have at least one rpc figure which is significantly different from the previous year's figure. Of all year-on-year rpc comparisons across all 170 magazines, about a third are significant changes. Thus for an average magazine there is a 1 in 3 chance that the latest year's rpc figure is significantly different from the year before (taking non-overlapping fieldwork periods). Only a small proportion of these differences are due to changes in the NRS technique. It means that one should recognise that in this rapidly-evolving medium the reading of magazines has a force of its own that is not totally dependent on the number of copy sales.
- 5. Monthlies and bi-monthlies are slightly more likely than weeklies to show significant year-on-year changes in rpc.
- 6. 1984 stands out as a year with an exceptionally high proportion of significant differences in rpc compared with the previous year. This is due to the introduction of the new EML grouped-title method of measuring readership. In general, the 1984 changes were in the direction of improved accuracy (e.g. title confusion was reduced). 1991 had a slightly above-average incidence of significant changes in rpc. A likely explanation is that mini-mastheads were introduced in April, leading to a further reduction in title confusion.
- 7. One of the most striking things is how varied are the rpc experiences of different magazines, and the factors behind the figures. This is a natural reflection of some of the strengths of the magazine medium as a highly personal read, a matter of individual choice, control of the timing, and so on.

B. Introduction

This paper is based on an investigation commissioned by the NRS Technical Working Party of the PPA (Periodical Publishers Association) and by NRS Ltd. It examines patterns of readers per copy (henceforth abbreviated to "rpc") for 170 consumer magazines during the period 1981-1991.

The main objective of the investigation was to improve understanding of the determinants of rpc and the causes of variations.

Two types of variation frequently raise eyebrows:

- variations through time: for instance, circulation moving in one direction while readership moves in the other direction.
- variations between publications: for example, superficially similar magazines may have very different rpc.

Rpc is of course calculated as: Readership + Circulation.

The full report included 24 tables of detailed statistics on rpc trends, significance tests, and readership profiles. To prevent this paper becoming too lengthy, I am giving two sample tables, one on rpc trends for selected general weekly magazines, the other showing the results of significance testing for those magazines. The full report also commented individually on 45 of the magazines covered by the analysis; for brevity, this paper comments on a reduced number of individual magazines.

The data to be examined

170 magasines are covered by this analysis. The tables are based 11 years of figures, running from 1981 to 1991 inclusive. This period spans the introduction of the EML grouped-title technique in 1984, and gives three years prior to EML so that pre-EML patterns can be seen on their own.

There are many gaps in the figures, and only a minority of magazines have an unbroken sequence of 11 years of both circulation and readership data. Some of the titles were launched or closed during the period. The ABC has not always published circulation figures, for a variety of reasons - changes in publication frequency or distribution methods, not supplying the necessary information to the ABC, and so on. The NRS exhibits gaps because titles have been added to or removed from the survey; results may have been suspended for a short time, for several possible reasons: because a magazine changed its publication frequency, because it was unwilling to pay the NRS fee, because for certain years it was on the survey for experimental reasons or as a "filler" title to make up an EML card, and so on.

As a result of these gaps, the number of publications to examine would be very limited if the analysis was confined to magazines with a continuous run of figures from 1981 to 1991. Instead, the criterion is a run of three consecutive annual rpc figures. For a handful of new magazines of particular importance or relevance, figures are shown for only one or two years (e.g. Take A Break).

The temptation to calculate group totals by magazine type has been resisted. The widely differing experiences of magazines in the same group mean that group averages would not be very meaningful, and the frequent gaps in the data imply that the group totals for different years would often cover different combinations of magazines.

C. 20 Factors Which Determine RPC

This section summarises twenty factors which help determine what rpc figure a publication achieves, that is, what the relationship is between circulation and readership. These factors have arisen out of the cases studied in this investigation.

Some of these factors are inter-connected: for instance, the item about reading in public places is really an expansion of one aspect of source of copy, which is listed separately.

The factors can be divided into three main groups: factors which arise from the measuring instruments (i.e. the way circulation and readership are measured); factors arising from the publications themselves - their editorial content, the way they are read, how they are used and passed on, and so forth; and demographic changes within the population.

(1) The measuring instruments

- Circulation. The ABC-audited circulation is widely regarded as a reliable measure, and it is generally treated as such in this report. There are two minor caveats. First, in the past there has sometimes been limited scope for a publisher to directly affect the figures for instance by holding back some of the returns on a sale-or-return publication so that they go into a later auditing period. Second, the circulation figure may conceal a change in the way some copies are distributed, with implications for rpc. As a hypothetical instance, a small specialised bookstand magazine with a high rpc may boost its circulation by distributing additional copies to a different type of purchaser (e.g. in a relevant club or society), but the new type of purchaser may generate fewer pass-on readers in which case readership will not increase at the same rate as circulation, and the average rpc will fall.
- Readership: sampling variation. The readership measure is an obvious potential source of instability in rpc trends. Since readership figures are derived from samples, sampling variation must be taken into account. The usual measure of this variation, the 95% confidence limits, can be relatively wide. For example, a magazine read in 1990 by 1,000,000 adults on an annual NRS sample of 26,192, would have confidence limits of ± 113,000; that is, it would be 95% certain that the 'real' readership lay within the range 887,000 to 1,113,000. If circulation was 180,000, the rpc could be anywhere between 4.9 and 6.2 (though the central 5.5 would still be the best estimate). With this range of possibilities, a variation in rpc from one year to the next of say 5.2 to 5.8 could simply be due to random sampling variation, rather than anything having changed in the real world. (Of course, a change in rpc of this size might actually have a different explanation.)
- Changes in sampling or weighting techniques. Quite distinct from random sampling variation are the effects of deliberate changes in the sampling or weighting methods. With a survey as complex as the NRS, there are many technical changes during a longish time-span which might theoretically have an impact on the readership (and therefore rpc) trends. For example, in the late 1980s the method of selecting non-electors (aged under 18) for interview was changed, to increase the yield of non-elector informants; this could potentially have an effect on the rpc trend for a youth-oriented title. Also during the late 1980s, the method of weighting the sample to gross up to population numbers was changed, with the introduction of rim-weighting; in the immediate short term this was found to produce some erratic population estimates by region (which might therefore have affected certain regionally-skewed magazines), which led to further weighting controls being imposed. As a third illustration, there used to be appreciable instability from year to year in the social grade profile of the NRS sample. This has been solved by introducing social grade 'smoothing' from October 1985, and it means that class-sensitive publications should have more stable readerships and rpc than before.
- Changes in technique for measuring readership. A major example of changed technique is the switch to the EML grouped-title method from January 1984. This was not merely a one-off change, but the period 1984-1986 was relatively unsettled as some of the finer points of EML were resolved, e.g. standardising on 6 titles per card instead of ranging from 4 to 7. Moreover titles can be moved from one EML card to another; it has been shown that in general this does not affect the readership figure, but there's little doubt that this can affect a minority of cases. In 1987 a JICNARS analysis showed that EML card changes which had been deliberately introduced in order to reduce title confusion had led to reduced rpc for 11 magazines (including several 'skin' magazines). This was to be expected; reducing title confusion implies increasing the readership of half the titles involved but reducing the readership for the other half. Another example of change is the introduction of special questions for new publications, and a "new titles adjustment procedure", which also means that when a title is a year old it comes onto the standard set of grouped-title cards (i.e. it experiences a one-off inconsistency in method).

(2) The publications themselves

Source of copy. The way in which copies are obtained, and how they subsequently move about, are key determinants of rpc. This can be summed up in terms of source of copy. In principle, copies which are first read in the home and then stay there till destroyed are likely to accrue few readers (limited by the size of the household and the number of visitors). Copies which are given away to another household have a wider pool of potential pass-on readers. And copies which are displayed in public places or circulated at work have an almost unlimited potential pool (see item 6 below). Source of copy data also have implications about 'quality of reading', with in-home reading often thought to be of more value to advertisers than public place reading - but that is a different topic.

- Reading in public places. Being made available in public places such as doctors' waiting rooms, hairdressers and public libraries can have a strong impact on rpc. In 1986 and 1987 JICNARS was responsible for small-scale studies of a number of high rpc magazines, and in all cases the NRS average issue readership estimates were vindicated, while the main explanation of the high rpc was reading that occurred in public places. For example, over half of all reading of hair magazines occurs at hairdressers; the copies in hairdressers clock up large numbers of readers; hair magazines vary considerably in the proportions of their circulation which are available in hairdressers, so there is great scope for variations in rpc between one hair magazine and another.
- Narrowness of appeal. Obviously enough, within a household a title with narrow appeal will normally attract a smaller number of readers than one with wide appeal. A general interest magazine or TV weekly programme magazine will probably be read by all household members, whereas a woman's weekly magazine is more likely to be read only by female members of the household. Thus women's weeklies tend to have lower rpc figures than general weeklies though as always other factors are also at work. As another illustration, a title which appeals especially to older people and which tends to stay within the home, rather than being widely passed round outside the home, is likely to have a relatively low rpc. This is because older people tend to live in smaller households often just one person or two so the opportunities for pass-on reading will be limited. Further, rpc is likely to fall for any title (if read mainly within the purchasing household) whose readership profile grows older over a period of time. (The true 'special interest' publications are a different case of 'narrowness of appeal'; for them, readership by visitors and passing on copies beyond the initial household are much more significant, enabling some of them to achieve very high rpc; see the next point.)
- 8 "Keep me" or "enthusiasts" editorial content. Some titles have editorial content which has lasting value and invites the purchaser or purchasing household not to throw the copy away. This may apply to reference material (e.g. recipes in a cookery magazine) or to publications catering for enthusiasts (e.g. someone mad-keen on classic cars may keep a collection of classic car monthlies). At face value this implies a low rpc, but a large stock of back issues can generate high rpc through being read by visiting enthusiasts, or given or lent outside the original owner's household. JICNARS studied three examples in small-scale studies in 1987: Do It Yourself, Car Mechanics, and Pins & Needles. For all three, the readership claims were supported as being legitimate, and most of the reading occurred outside the reader's own home especially at someone else's home or at work.
- 9 Changes in the editorial package offered. The almost imperceptible evolution of a publication from issue to issue is theoretically capable of leading to slow changes in rpc over time. More obviously, dramatic changes such as major relaunches and mergers can sometimes cause circulation and readership to move at different rates.
- Format of the publication. Several aspects of format and presentation may influence readers' decisions to retain, pass on or destroy a copy of a magazine and thus affect its rpc. A glossy square-backed format will encourage people to think "This is too good to throw away I'll keep it so visitors can see it / I'll pass it on to someone/ I'll impress someone by letting them know I read this". A high cover price may have the same effect. A quality durable format also makes it more practical to retain a copy (especially in a waiting room or hairdressers), whereas newspaper-format titles are likely to deteriorate more quickly. Country Life is a good example of a glossy durable magazine with an rpc that is high for a weekly.
- Publishing interval. Weeklies tend to have lower rpc than monthlies and bi-monthlies, through being around for a shorter period, before being superceded by a new issue, and through carrying more time-critical material.
- New titles. A newly launched publication usually has a lower initial rpc than the figure it eventually achieves after three or four years (if it survives that long). Studies I carried out in 1987 and in the 1970s confirm this. One reason is that the network of pass-on readership takes a considerable time to develop; in so far as this applies to a given title, it implies that the NRS is correctly showing a low initial rpc. Another reason (probably less important) may be that some of the new readers have not yet absorbed into their habitual thinking the fact that they now read the new title, and thus in the NRS interview they may wrongly claim not to have read the publication. In so far as this applies, the NRS is showing an under-estimate of readership.

- Launch of close competitor. A successful new title appearing on the scene can have an impact on the rpc of the existing titles, by affecting either their circulations or readerships or both. If the new arrival is especially appealing, the marginal pass-on readers (in particular) of the existing titles might readily be tempted to read the new magazine and not bother with the old one, thus reducing the latter's rpc.
- Changes in competitive publications. Quite apart from the arrival of new competitors, an existing title may change editorially in a sufficiently fundamental way to affect the readership or circulation of its competitors. A change of frequency would also come under this heading. An extreme change would be a closure, and the displaced readers may then take up an alternative magazine.
- Increases in circulation tend to reduce rpc, while falling circulation tends to raise rpc. Someone who starts regularly buying a publication will generally bring fewer pass-on readers for her/his copies (at first) than the average for that publication, because the full network of pass-on readers takes time to develop. Moreover the new purchaser may well have been a pass-on reader of someone else's copy; that copy therefore loses a pass-on reader, so the publication's average pass-on readership is reduced. Both these factors mean that, in principle, rising circulation tends to mean falling rpc. Conversely, it can be argued (perhaps less convincingly) that falling circulation tends to raise rpc. If someone stops regularly buying a publication it is probable that that copy had a below-average number of pass-on readers, so readership does not fall proportionately as much as circulation. Moreover all the pass-on readers of the copy are available to become pass-on readers of someone else's copy; consequently readership may not fall as steeply as circulation.
- Lagged readership. If readership changes lag behind circulation changes (but otherwise follow the movements in circulation) the rpc trend will be affected. In the short term there may be the phenomenon of circulation rising while readership falls or stays level (in which case the publisher may query the readership figures), or conversely circulation falling while readership rises or remains steady (less likely to elicit complaints, except from rivals). Apart from any memory defects surrounding a newly-taken-up activity, the reason for lags is that magazines can continue generating readers long after the publication date. For example, suppose circulation falls sharply during July-December compared with the preceding January-June. If some copies of the magazine remain in circulation for many months (e.g. in waiting rooms), the readership generated during July-December will be influenced by the larger number of copies bought during January-June. Reduced readership will not fully show through until later say January-June of the following year. This is obviously more likely to affect publications with a long active life than those whose life is emphemeral. Thus it tends to affect monthlies more than weeklies, and "waiting room" magazines more than others.
- Using it destroys it. If the first reader of a puzzle magazine fills in all the puzzles there is little attraction in it to a pass-on reader. While the NRS does not cover any out-and-out puzzle magazines, it does cover a few where puzzles are an important part of the content. Take A Break has a low rpc among women of 2.0, which is probably partly due to it being a new title, but the explanation may partly be the importance of puzzles. Another type of destruction is where there is a lot of cut-out-and-keep material, leaving a magazine with chunks cut out and not looking fit to be passed on.
- Other factors. A variety of other factors have been suggested from time to time, as having a potential influence on rpc some of them more plausible than others. Examples include the number of pages per issue and the descriptiveness of the publication's title.
- (3) Demographics of the population
- Household size. Publications which tend to be confined within households and not passed-on outside the purchasing home, and which do not attract much reading by visitors, have their rpc strongly influenced by household size. Moreover such publications are likely to have experienced declining rpc over recent years, because the average household size has been falling throughout the 1980s, with the fall accelerating to about 1% per year since the mid-1980s. This is no doubt part of the explanation of the gradual fall in national daily newspapers' rpc observed between 1985 and 1991.

- Composition of the adult population. There are appreciable trends modifying the make-up of the population, of which the most important for this study are:
 - (a) Declining numbers of young adults, which naturally has an impact on youth titles. The NRS estimated a drop of 12% in the number of 15-17 year olds from 1988 to 1991, and a drop of 10% in the number of 18-24s. Thus a magazine targetted on this age group could expect a 1988 rpc of 5.0 to fall to about 4.5 for this reason alone.
 - (b) Growing numbers of old people. NRS figures show 1991 with 8.8% more in the 65+ age group than in 1981 (though the number of 55-64s has gone down).

These factors reflect improved health and longevity, and the effects of the baby booms. A baby born in the mid-1940s boom has now moved into the 45-54 age group, and his/her children are likely to be moving out of their teens and probably into the 25-34 group.

This list does not claim to be exhaustive! Some of the items are related to others rather than being fully independent factors.

Many items on this list are very difficult or impossible to quantify. Moreover the way the factors combine in respect of a given title cannot be reliably measured. Accordingly it is impractical to build a mathematical model which predicts the rpc for a given publication with useful accuracy.

Nevertheless two basic points should be made:

- Publications which superficially appear similar can legitimately vary widely in their number of readers per copy
- A publication's rpc can legitimately vary through time

D. RPC Trends, 1981-1991

Having reviewed in the previous section the factors which determine what rpc figure a publication achieves, it is time to look at some actual data. This section looks at changes in rpc through time. Section E then looks at a selection of magazines whose absolute levels of rpc are surprising or have been queried by the PPA Working Party.

A method of assessing the data

Table 1 illustrates the basic circulation, readership and rpc data. This table covers the first group of general weekly magazines. It will be noted that there are many gaps in the available information. Other tables (not shown in this paper) covered other general weeklies, women's weeklies, general monthlies, women's monthlies and women's bi-monthlies - a total of 170 titles in all.

Faced with this large and confusing collection of statistics, a method of assessing the variations in each magazine's rpc is required. That is, it is necessary to establish what is the 'normal' or 'expected' range of variation in the rpc trends, in order to be able to identify the apparent anomalies that lie outside this range.

A good method, in theory, would be to calculate a 5-year moving average of rpc for each title in turn (to represent the underlying trend). The 95% confidence limits around the 5-year moving average rpc figure centred on a given year would then indicate the range in which the actual rpc for that year would be expected to fall. If the actual rpc fell outside this range, this would be considered to be an apparent anomaly which requires further investigation.

Unfortunately the fragmented data available in the tables is not suitable for this form of analysis. For one thing, the longest run of continuous data is for 11 consecutive periods, which would only yield seven moving average figures, with no figures for the first two or last two years (the latter containing most of the situations causing current concern). Moreover most magazines do not have an 11-year run of figures. A considerable number of titles only have three years data, and even a moving average reduced to three years would only yield a single figure, which gives no indication of the trend. Other magazines have four, five, six or more years' data, but sometimes there are breaks in the sequence where a particular year had no circulation or readership figure published for one reason or another.

A more practical method has been adopted. For every magazine individually, each year's data have been compared with the previous year's data (where available), in the following way.

On the hypothesis that readership should move exactly in line with circulation (i.e. maintaining a constant rpc), one can easily work out what readership to expect for a given magazine in any year by seeing what it recorded in the previous year and adjusting for the circulation changes. For example, if circulations (in '000) were 300 in 1981 and 350 in 1982, and readership (in '000) was 1500 in 1981, then we would project readership in 1982 to be:

 $1500 \times (350+300) = 1750$ (in '000)

The 95% confidence limits can be calculated for this answer. If the actual readership published for 1982 does not fall within the range represented by the confidence limits, it can be regarded as an exception which requires further investigation.

This procedure means that even a three-year series of figures can be made use of. And the most recent year's figures can be compared with expectations (which is not possible when using a moving average).

Table 2 shows the results of the significance testing described above, for the general weeklies covered by Table 1. For each magazine in any year, if the actual NRS-reported readership lies within the confidence limits of the projected figure, the table shows "OK". It also says "OK" if the actual readership lies outside the confidence limits but the rpc is only 0.1 or 0.2 different from the previous year's rpc; this occurred in only a few cases. Where the actual readership was outside the confidence limits of the projected figure (and the rpc difference exceeded 0.2) the table shows "Explain". This word is carefully chosen as a neutral word which does not carry any implication that the NRS has produced a 'wrong' figure.

Findings

1. High frequency of statistically significant rpc changes

The first striking thing about Table 1 and the equivalent tables for the other 152 magazines is the high proportion of magazines which have at least one year's figures which lie outside the 95% confidence limits (after allowance for changes in circulation): 142 of the 170 magazines (84%). As already remarked, this does not imply that anything is necessarily 'wrong' with the readership estimates; instead it emphasises how common are changes in rpc.

For most of the 142 magazines with at least one rpc change beyond the range of the confidence limits, the majority of years nonetheless show no statistically significant change in rpc from the previous year.

Taking all the year-on-year comparisons (i.e. the total number of "OKs" and "Explains"), 708 of the 1082 show no significant change (65%), while the other 374 (35%) are statistically significant changes (and in excess of 0.2 rpc). In other words, of all the entries in the full set of tables, "OK" accounts for 65% and "Explain" accounts for 35%, and therefore for an average magazine, in about 1 in 3 years we should expect rpc to make a 'real' change (i.e. statistically significant and in excess of 0.2 rpc).

By Type of Magazine

Examining these figures by type of magazine, there is little difference between general weeklies and women's weeklies, or between general monthlies/bi-monthlies and women's monthlies/bi-monthlies. But there is a small difference between all weeklies and all monthlies/bi-monthlies. For weeklies, 30% of year-on-year comparisons show "Explain" while for monthlies/bi-monthlies the proportion is a little higher at 37%.

By Year

Is there any year which has produced an abnormally high proportion of "Explains"? In particular did 1984 do so, when EML was introduced? Yes, 1984 stands out among the following column of figures:

	% of year-on-year comparisons which are
Year	outside 95% confidence limits & exceed 0.2 rpc
1982	31%
1983	33%
1984	64%
1985	35%
1986	33%
1987	31%
1988	37%
1989	26%
1990	27%
1991	40%
Average, 1982-1991	35%
Average, 1985-1991	33%

All years are within $\pm 9\%$ of the overall average of 35%, with the sole exception of 1984. For no less than 64% of magazines, the rpc comparisons of 1984 with 1983 were outside the 95% confidence limits (and exceeded 0.2 rpc).

It is possible to make a very crude estimate of how much of the 64% was due to the change to the EML grouped-title method. For each of the two years before 1984 and the two years after 1984, the percentages in the table above are $33\% \pm 2\%$. Therefore without EML the figure for 1984 would probably also have been around 33%, which means that the effect of introducing EML added the remaining 31% or so to the 1984 figure. In addition EML may have increased the margin by which some of the assumed 33% of titles were beyond the confidence limits.

One can say that in general those changes in 1984 that were due to EML were in the direction of greater accuracy. In particular, title confusion was much reduced, by showing prompts for the most confusable titles simultaneously. The confusion between Homes & Gardens and House & Garden is a classic example, well documented at the time of introducing EML.

It is also interesting to note that 1991 has a relatively high percentage in the table above, at 40% compared with the two previous years which were in the mid/high twenties. 1991 is the year in which mini-mastheads were introduced for all titles on the NRS, from April. Mini-mastheads were a further step towards reduction of title confusion, and the 40% is probably a one-off high, like the 64% in 1984.

As 1984 was such an exceptional year, it is better for current guidance to recalculate the proportion of year-on-year comparisons that are beyond the confidence limits (and exceed 0.2 rpc), by excluding 1984 and the previous non-EML years. As the final row in the table above indicates, the 1985-1991 average is 33%.

The next question is: what creates that 33%? Is it due to changes in the NRS (e.g. altering the composition of the grouped-title cards, introducing a new method of handling new magazines, etc)? Or is it due to changes in the magazine concerned, and/or its competitors? No single answer serves for all the magazines. Each must be examined individually.

2. Examining individual magazines

This sub-section looks at a small sample of the magazines which have experienced significant rpc changes (i.e. changes that lie beyond the 95% confidence limits and exceed 0.2 rpc). The full investigation commented on a much larger number of magazines. One thing which stands out from the comments is that variations in rpc depend very heavily on specific combinations of factors that are peculiar to individual magazines. There is no standard explanation of rpc changes. Each case must be assessed on its own circumstances.

TV Times and Radio Times

In Table 2 the first two instances to explain are cases where the change in rpc was only just outside the definition of 'significant': rpc changed by only 0.3 or 0.4. These cases were in 1984 when readerships moved notably upwards while circulations fell slightly. This might reasonably be put down to the EML effect noted already. More important are the changes in 1991, affecting both titles. These are closely connected with the big changes in the market for TV programme weeklies, with the duopoly of advance programme information ending in February. This meant not only that new rivals were launched but also that TV Times began to carry BBC programme listings, and Radio Times carried commercial TV listings. Thus the old

situation where the two weeklies were being treated as a joint single magazine (about 85% of the readers of one title also read the other) was transformed at a stroke. This was bound to have an effect on the rpc relationship. For example, household members or visitors who might previously have just looked up either the BBC or the commercial TV programmes (i.e. looked at only one of the two publications and therefore didn't contribute to the rpc of the other) could now look them up in a single magazine and would thus boost the average rpc of that title. In the event, circulation dived, readership fell sharply but not to quite the same extent, and therefore rpc rose. There was also a technical change in measurement. At first the new TV weeklies, What's On TV and TV Quick, were asked about only on the new titles prompt card after the main readership questions, but from October 1991 all the TV listings titles were measured on the same prompt

Weekend

The first 'Explain' for Weekend was in 1984, and as the rpc change was essentially brought about through a marked change in readership (rather than circulation), and the new lower level of rpc persisted during the remaining EML years, this can probably be put down to the introduction of EML. The other two instances requiring explanation occurred when Weekend was plunging into its terminal decline, with unavailing editorial revamps, and one can expect rpc changes in these circumstances.

The Music Weeklies

The music weeklies form a market that has been unusually turbulent editorially, and which has seen launches and closures, changes of frequency, reduced gross circulations and readership, and the emergence of new types of rival (e.g. the glossy music monthlies such as Q, Select and Vox, and fortnightlies such as Smash Hits). In these circumstances it should not be surprising if the relationship between circulation and readership sometimes fluctuated. Comments are given below on one of the market leaders in this group.

NME (New Musical Express)

NME's rpc has remained within the range 6.0-7.8 throughout the period 1981-1991, which is relatively stable in the circumstances of the market, though five of the year-on-year comparisons are statistically significant changes. At times NME's editorial policy was controversial, allegedly turning left-wing and political, and its current editor is reported as saying "We lost our way in the mid-1980s"; by 1988 sales and readership were only 50% of the 1981 level, though both have risen since then. Understandably these dramatic circumstances might well have disturbed at the margin the patterns of pass-on readership, and thus the rpc. As to the specific years in which the rpc change was statistically significant, the following notes are relevant. 1984: circulation was moving smoothly downwards but readership took a very sharp drop in 1984; this might be an initial EML effect. 1985: readership recovered upwards in 1985 even though circulation was still moving downwards. Two things are notable about 1985 - the publication changed its name from New Musical Express to NME/New Musical Express from April and the EML cards immediately reflected this change; and the EML card went from six titles in 1984 to five titles in 1985. It became established later that a smaller number of titles on a card tends to give an advantage to the titles left on the card, hence the current standardisation on six magazines per card. In 1985 this may have helped NME. The card went back to six titles from July 1986. There were no card changes to account for the rpc changes in 1990 or 1991. As far as 1991 is concerned, the likely explanation of the significant rpc increase is that both RM and Sounds closed in April 1991, and some of their unduplicated readers probably borrowed friends' copies of NME.

Auto Express

The upward climb of rpc, from 3.2 to 4.8 and then 6.2, is a classic example of the way rpc normally grows for a successful new publication. There are two main reasons. One is that a proportion of readers may fail to claim their new reading until it has become a familiar habit; in so far as this is true, it means NRS is underestimating the true readership at the time of measurement. The other reason (and in my judgement probably the more important one) is that the network of pass-on readers takes time (up to three or four years) to develop fully; this means that NRS is correctly recording contemporary reading, but is not a good predictor of future readership levels.

Best, Me

These are also good examples of new titles which generate increasing rpc during the first three or four years. Best's rpc sequence is 2.2, 2.8, 3.4 and 3.6. For Me the sequence is 1.8, 2.2 and 2.4.

Hello

Hello has been a rather extreme example of new-title rpc growth. Launched in May 1988, its initial short-term rpc figures were unbelievably low, at less than one adult reader per copy. The first full-year figure was 1.2 women rpc (1989), also very low. The JICNARS Technical Subcommittee debated Hello's low rpc figures repeatedly and at length, yet no firm conclusion was reached. My feeling is that at first the name 'Hello' created a blind spot in some people's minds, because the word is one that is frequently used in day to day conversation in a totally different context and is not easily mentally attached to a magazine until one gets used to it. (Living and Company are other magazines whose names are single words whose ordinary meaning is divorced from the world of magazines, and which also have relatively low rpc; but there are also magazines which are exceptions to this idea.) In 1990 and 1991 Hello's rpc has climbed from 1.2 to 1.8 and 2.4. From the nature of Hello's editorial content, presentation and format I would expect its eventual settle-down rpc to be higher still.

Woman's Own, Woman, Woman's Realm, Woman's Weekly

These four titles were affected by the change-over to the EML grouped-title technique in January 1984. It is now known that the number of titles on an EML card influences the readership levels marginally; the card on which these four titles appeared was one of the principal cards which brought this home. The card contained seven women's weeklies throughout 1984, and this was accompanied by a fall in readership for all six of the titles which had been on the survey before 1984. For Woman, Woman's Realm and Woman's Weekly the fall was statistically significant after allowing for circulation changes. Throughout 1985 the card contained only five titles (these four plus My Weekly), and this explains the jump in readership achieved by all of these titles except Woman, in spite of circulations falling for all magazines except Woman's Realm. Rpc rose for all five magazines. Thus the rpc changes up to the end of 1985 appear to be due mainly to the way these magazines were measured by the NRS in the EML change-over, rather than to factors concerning the titles individually.

Woman's Own

Four of the five year-on-year comparisons show statistically significant changes in rpc. As the publication with the largest readership among the established women's weeklies, Woman's Own may have been the most vulnerable to the attack represented by the launch of Best in August 1987 and Bella in October 1987 - it had the most to lose. 1987 onwards has been a period of substantial editorial change in response to Best and Bella - the contents, the page design, the paper quality, and indeed all editorial aspects have been reviewed and many have been modified, sometimes radically. Since Woman, Woman's Realm and Woman's Weekly were also revamping energetically, and Best and Bella were presenting a new style of women's weekly, it is not really surprising that the marginal pass-on readers were slipping away from or coming back to Woman's Own in a rather erratic way. There were no material changes to the EML cards from 1987, and my feeling is that it was the dramatic evolution (revolution?) in the competing editorial packages on offer during these four or five years that accounted for the rpc variations.

BBC Wildlife

BBC Wildlife has a high but variable rpc, ranging erratically from 13.1 to 5.2 two years later. Many of the year-on-year changes are statistically significant. The largest change was in 1986/1987 when a 1986 rpc of 13.1 fell to 7.2 in 1987. Circulation had doubled in 1987 but readership only grew by 14%. Looking at the longer-term pattern, BBC Wildlife has seen both circulation and readership grow year after year, without exception. But whereas circulation grew steeply during 1986-1988 and thereafter grew more moderately, readership grew steadily and consistently until showing a spurt in 1991. Thus rpc fell while circulation was growing faster than readership (1986-1988), and rpc rose again when the circulation growth rate had slowed down and was less than the growth rate of readership (1989-1991). The implication is that the early growth in sales was too rapid for the recruitment of new pass-on readers to be able to keep up. Later, pass-on patterns had been established and rpc began to grow, just like most newish publications.

Prima

Prima's rpc has climbed progressively in the expected way during the first four complete years of its life, from a 1987 figure of 1.8 to a 1990 figure of 3.4. The 'new titles effect' typically wears off after about four years, and this was true for Prima, where the fifth year saw a figure of 3.2, slightly down on 1990's 3.4. In view of the practical nature of much of Prima's editorial content, a settle-down rpc among women in the region of 3.0-4.0 would not surprise me. It is noteworthy that Prima's growing rpc during 1988-1990 was brought about by readership holding fairly steady while circulation fell away - a clear indication of the building up of the network of pass-on readers.

Family Circle

Family Circle has a string of significant year-on-year differences in rpc. The first was in 1984 where the introduction of EML lifted the readership estimates. Rpc then fell year by year from 5.2 in 1984 to 3.3 in 1988, with the sharpest falls in 1986 when Prima was launched with such astonishing impact, and 1987 and 1988 when Prima was becoming fully established. In my opinion Prima is the most likely principal single explanation of this rpc drift, with some of Family Circle's marginal pass-on readers giving up the magazine in favour of the newcomer. Family Circle was the market leader in the type of niche which Prima was attacking, and therefore stood to lose the most from the arrival of Prima. Family Circle began rapidly evolving editorially under the spur of Prima's success and the immediate success of Essentials, and this would be capable of accounting for the revival of rpc in 1989-1991. The 1991 rpc of 4.4 is back to the 1983 figure, immediately prior to the EML boost.

Ideal Home

Ideal Home's circulation remained solidly level at around 200,000 from 1981 to 1986, but then took off in 1987 and 1988 to reach 285,000 before falling back in 1990 and 1991. By contrast, readership maintained a general decline throughout the period 1981-1991 at an average rate of about 4.3% per annum, apart from a one-off leap upwards in 1984 as a result of introducing EML; the new trend line was parallel to the old but at a higher level. Rpc therefore changed significantly when EML was introduced and when readership failed to reflect the 1987/88 surge in sales. The latter is hard to explain with any conviction. I do not see anything about the NRS technique which points to inaccurate measurement. Perhaps the most plausible explanation is connected with the launch of two powerful competitors: Country Living was launched in 1985 and went monthly in 1986, while Country Homes & Interiors was launched in 1986. Their arrival could have siphoned off the 6th, 7th and 8th readers who would otherwise have read Ideal Home.

E. Absolute Levels of RPC

While Section D examined rpc trends through time, and concentrated on examples of magazines which had experienced significant changes from one year to the next, this section looks at absolute levels of rpc, and in particular examples where it has been suggested that the absolute levels are too low or too high.

Do It Yourself

Do It Yourself has a relatively high rpc - so much so that it was the subject of a small-scale experimental telephone study by JICNARS in 1987, when the latest available rpc figure was about 22. The study endorsed the NRS average issue readership figures as being accurate. Only a small proportion of readers were reading a copy bought personally. A minority were reading copies in their own home that had been bought by someone else. The majority were reading copies outside their own home - mainly at work or at a friend's house, but also a few at a newsagent's. The magazine's rpc has been falling overall, though with ups and downs, from a high of 27 in 1984 (EML appears superficially to have given DIY a boost) to the current 15.9. The fall has been erratic, and every single year-on-year comparison from 1981 to 1991 shows a difference in rpc that is statistically significant. I conclude that a magazine which is so exceptionally dependent on pass-on out-of-own-home readers has an inherently unstable level of pass-on readership.

Motoring Monthlies

The rich collection of motoring monthlies covered by the NRS are bound to show differing rpc figures to some degree because they have such a varied set of characteristics. One basic distinction is between the practical how-to magazines (e.g. Car Mechanics, Practical Classics) and the magazines for fantasising about dream cars. Another distinction is between coverage of whatever is happening in the motoring world including ordinary cars like Fiestas and Astras, and coverage of a specialised niche such as classic cars. These and other distinctions mean that magazines are liable to be acquired, used and passed round in different ways, with different rpc figures emerging. The 1991 rpc figures range from a low of 5.0 to a high of 19.2, a range which should not surprise us. There are magazines experiencing erosion of rpc and others whose rpc have steadily climbed. The introduction of EML in 1984 had a substantial effect in this market segment, because more motoring magazines could be covered.

Car Mechanics

The high rpc of Car Mechanics is inherently unstable because it depends so much on non-purchasing readers who read a copy outside their own home and have limited control over when they read a copy. This is another magazine whose high rpc was, for the most part, validated by JICNARS in 1987. There was a small element of only claiming readership of copies that had already been read more than a month earlier (i.e. "replicated readership") but the great majority of informants claiming to have read a copy in the last month were reading a copy for the first time. Most of the reading took place outside the respondent's home, mainly at someone else's home or at work, though there was some reading at other places, including at a newsagent.

Choice, Saga

Both these publications have relatively low rpc figures: 2.3 for Choice and 1.7 for Saga. Both are written for the retirement and pre-retirement market, which itself suggests that low rpc are likely. The typical home containing someone over 50 is smaller than the average household size; very often there is just the retired or pre-retirement couple ('empty nesters'), and there is a relatively high proportion of single-person households. This puts a restraint on the potential rpc; anything above about 1.5 rpc must be created by visitors reading a copy in the primary household, or copies going outside this household. But the nature of the editorial content confines the appeal of these magazines to other older people - yet it is not an "enthusiasts" magazine comparable to the hi-fi, fishing, boating or motoring magazines, all of which can generate high rpc. In the case of Choice, 90% of sales are direct subscriptions to subscribers' homes, which immediately reinforces the link with household size. For Saga, about half of the copies are subscriptions but the other half are unpaid. These unpaid copies are mailed free to everyone who takes a Saga Holiday. The free mailing continues for several months, to encourage the recipient to take out a subscription. It is quite plausible that these unrequested copies may attract a smaller number of readers on average than the subscription copies, which would account for Saga having a lower rpc than Choice. As far as the EML cards are concerned, Choice and Saga have had a somewhat varied set of card-companions over the years, but none of the combinations have produced high rpc. It might be argued that older people may be less accurate at recalling what they had read. This was raised with JICNARS in 1988, and evidence was examined from the Meaning of Reading study and from data on new titles added to the NRS in 1987. Unfortunately the evidence was not sufficiently robust and the investigation was inconclusive. A proper examination of this point would require tailor-made research. My overall belief is that magazines for older people which go straight into their homes will naturally have low rpc.

Vogue

Vogue was another magazine covered by JICNARS' 1987 small-scale telephone validation studies of high-rpc magazines. The study fully confirmed Vogue's average issue readership figures and the then rpc of about 11 women rpc. There was high readership by other household members; it appealed to everyone. When the household had finished with the copy it was often given to a friend, whose whole household may then read it. There was also a good deal of readership at out-of-home locations, including at work and at public places such as waiting rooms and hairdressers. More than half the copies read were not the current issue when first read by the NRS informant.

Pins & Needles

Pins & Needles was also covered by the 1987 high rpc validation studies. Again the high rpc was vindicated. Most of the reading events took place outside the purchaser's home - particularly at other people's homes or at work, and a small proportion were at newsagents to see if there was anything in particular in the magazine to justify a purchase. As remarked earlier, although the NRS claims were confirmed, the value to the advertiser of some of the reading events (especially in the newsagents) is a source of debate.

Slimming bi-Monthlies

Slimming bi-monthlies vary to some extent in their rpc levels. Three magazines can be grouped together (Slimming, Slimmer, and What Diet) as they currently have from 3.1 to 3.5 women rpc, but a fourth - Weight Watchers - has substantially more, at 6.7 rpc (which has itself fallen from a previous level of 8-10 rpc). Most of Weight Watchers' circulation is through the news trade and a small proportion of sales are through subscriptions, but another portion comes through the Weight Watchers classes. Copies of the magazine are available to be read and/or bought at the classes, and it is very possible that these copies attract exceptionally high numbers of readers (just as hairdresser copies have been proved to clock up very high numbers of readers of hair magazines), sufficient to make the overall rpc twice as great as for the other three slimming bi-monthlies.

General Weeklies (1st group)

ipv

		TV	Radio	Weekly	Exch	Dalton's	Week-		Country	The	New	Econ-	Time	The	Investrs	New	Amateur	Horse &	Shootic
		Times	Times	News	& Mart	Weekly	end	Punch	Life	Field	Scientst	omist		Listener	Chron	Statmn	Photog	Hound	Tim
irculation	1981	3259	3468		202		547			[1]									
00	1982	3219	3383		303		517	71	44			71	75						
700	1983	3199	3288		272		442	67	41			72	58						
	1984	3164	3252	000	253		389	67	40			73	66						
	1985	3095	3141	929 892	241		364	61	42	16	61	77	71	28	34	24	87	70	
	1986	3094	3157	_	231		307	59	42	16	60	81	74	31	37	24		69	
	1987	3093	3124	812	217		270	49	42	25	59	84	71	32	49	22	78	67	
	1988	3033		740	215	44	232	48	44		65	85	76	28	67	23	79	68	
	1989		3119	655	203	50	163	43	48		70	88	86	25	55	34	75	70	
	1990	2885 2748	2996	565	192	44		33	48		71	91	88	21	51	33	70	75	
			2829	497	165	36		25	45		72	97	84		47			78	
-	1991	1597	1759	458	140	33		27	41		69	98	87		43		49	78	
\dult	1981	9678	9730	3171	2500		2412	847	1033		604	521	368	_		-			
Readership	1982	8986	9256	3016	2406		1916	827	1020		540	528	233						
000	1983	9246	9037	2966	2285		1758	744	862		513	453	280						
	1984	10340	9846	2415	1856		1259	684	627	150	429	455 471	255	221		149	735	387	
	1985	10218	9905	2259	1987		1036	707	593	149	490	433	332	185	132	149	703		
	1986	9487	9127	1974	1991		706	558	590	128	465	381	330	186	165	129		335	
	1987	9177	8946	1772	1674	236	566	497	473	, 20	488	366	327	190	173	138	567 562	331 312	
	1988	9104	9009	1490	1559	246	585	331	517		473	429	353	172	166	148	562 547		
	1989	9064	9031	1396	1491	240		314	532		499	343	487	122	137	147	347 464	283	1
	1990	8388	8496	1198	1505	206		287	429		445	468	457	122	168	147	376	325	2
	1991	6350	6326	1145	1629	221		295	607		406	459	454		138		401	297 380	2
duit Rpc	1981	3.0	2.8		8.3		4.7	11,9	23.5			7.4				·			
•	1982	2.8	2.7		8.8		4.3	12.3	24.9				4.9						
	1983	2.9	2.7		9.0		4.5	11.1				7.4	4.0						
	1984	3.3	3.0	2.6	7.7		3.5	11.2	21.6		7.0	6.2	4.2						
	1985	3.3	3.2	2.5	8.6		3.4	12.0	14.9	9.4	7.0	6.1	3.6	7.9		6.2	8.4	5.5	
	1986	3.1	2.9	2.4	9.2		2.6		14.1	9.3	8.2	5.3	4.5	6.0	3.6	5.9		4.9	
	1987	3.0	2.9	2.4	7.8	5.4	2.6	11.4 10.4	14.0 10.8	5.1	7.9 7.5	4.5	4.6	5.8	3.4	5.9	7.3	4.9	
	1988	3.0	2.9	2.3	7.7	4.9	3.6	7.8				4.3	4.3	6.8	2.6	6.0	7.1	4.6	
	1989	3.1	3.0	2.5	7.7 7.8	4.9 5.5	3.0	7.8 9.5	10.8		6.8	4.9	4.1	6.9	3.0	4.4	7.3	4.0	
	1990	3.1	3.0	2.4	9.1	5.5 5.7			11.1		7.0	3.8	5.5	5.8	2.7	4.5	6.6	4.3	
	1991	4.0	3.6	2.5	11.6	5. <i>1</i> 6.8		11.5	9.5		6.2	4.8	5.4		3.6			3.8	:
			0.0	2.5	11.0	0.0		11.1	14.8		5.9	4.7	5.2		3.2		8.2	4.9	(
	Sc	ources: AB	C, NRS (J	anuary-De	cember)				[1]	Change	of frequency	y							
																		Tab	

General Weeklies (1st group)

Significance testing

	TV Times	Radio Times	Weekly News	Exch & Mart		Week- end	Punch	Country Life	The Field	New Scientst	Econ- omist	Time Out	The Listener	Investrs Chron	New Statmn	Amateur Photog	Horse & Hound	-
	0 14	014		Fueleie		ОК	ОК	ОК			ок	ок						
1982	OK	OK		Explain				_				OK						
1983	OK	OK		ОК		OK	OK	Explain			Explain							
1984	Explain	Explain		Explain		Explain	OK	Explain			OK	OK						
1985	ОК	ОК	ОК	Explain		ОК	ОК	OK	OK	ОК	OK	Explain	Explain		OK		OK	
1986	OK	Explain	OK	ОК		Explain	ОК	OK	Explain	ОК	ОК	ОК	ОК	ОК	OK		OK	
		•	OK			OK	OK.	Explain		OK	OK	ОК	OK	Explain	OK	OK	OK	
1967	ОK	Ж		Explain							ОК	OK	ОК	OK	Explain	OK	OK	
1988	OK	ОК	ОК	OK	ОК	Explain	Explain	OK		OK								
1989	ОК	ОК	ОК	OK	OK		Explain	ОК		ОК	Explain	Explain	OK	OK	OK	ОК	OK	
1990	OK	OK	OK	Explain	ОК		ОК	OK		ОК	Explain	ОК		Explain			OK	OK
1991	Explain	Explain	ок	Explain			ОК	Explain		OK	ок	ОК		OK			Explain	ОК

Definitions:

OK Readership reported by NRS lies within 95% confidence limits of projected figure (estimated by taking previous year's readership and adjusting it for circulation change); &/or the year-on-year difference in rpc is 0.2 or less.

Explain NRS readership is outside those confidence limits, and year-on-year difference in rpc exceeds 0.2. The difference requires explaining.

Table 2