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FUSION

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Systems

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IMS

April 20, 1988

Tom,

Please find attached some FUSION material I picked up from Bob Hulks in London. It should provide some background information on the subject. Once Giles Santini (IMS France) completes the proposal for the IMS Canadian PMB and BBM fusion project, I'll send you a copy for information. Tied in with that proposal, there is a good chance Giles will come to New York in the not too far distant future. As soon as I learn more, I'll let you know - as I'm sure you'll want to meet him.

Hope you had a good trip home!

Best wishes

- Ron

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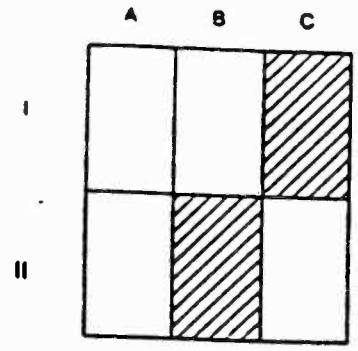
FRAME 1

Split questionnaires or parallel surveys

Questions



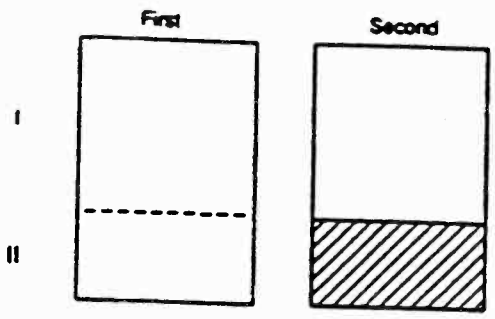
First half of the sample is interviewed on questions A and B

Second half of the sample is interviewed on questions A and C

The same situation occurs when two independent but similar samples are respectively interviewed on A + B and A + C.

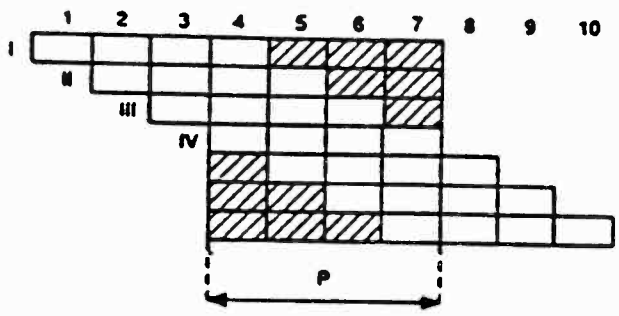
Reinterviews

Questionnaires



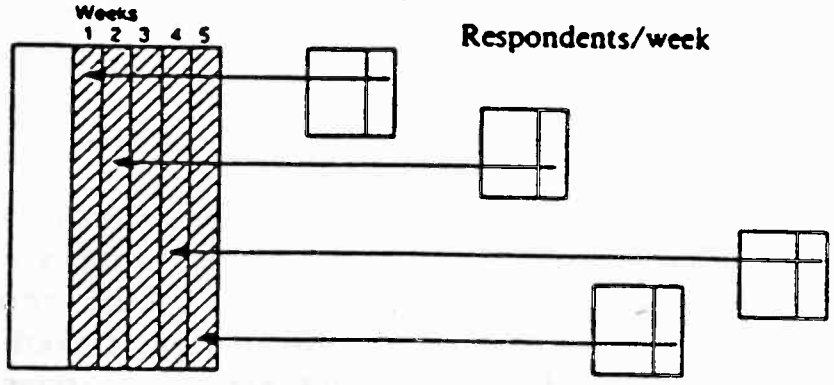
Some people do not answer the second interview

Revolving panels



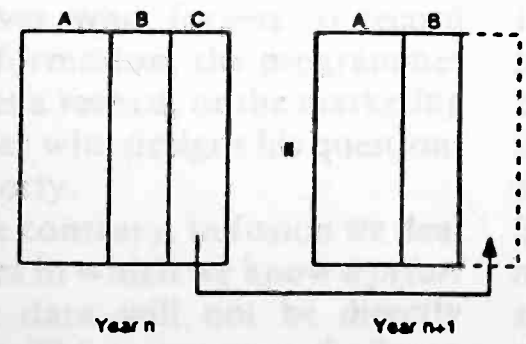
For period P, the data is not available each week for all of the subsamples

Varying respondents subsamples



The respondents subsamples vary from one week to another although the responses are needed for each week on a reference sample.

Updating



Permanent updating of a fixed sample according to a changing universe.

is it possible to match different samples which contain already existing, but different, information?

As already suggested by the examples cited in frame 1, fusion techniques are not only alternative solutions to the problems of single-source systems. There are also situations in which fusion techniques will be of great value *within* the process of a single-source system. But let us consider now how fusions are made.

3. Basic principles of fusion techniques

3.1. Probabilistic nature of the method

Today, research users demand that survey data be made available to them in a form which allows the user to employ multi-purpose data analysis software and cross-tabulating systems on the data directly. They no longer accept dependance on their survey suppliers for complementary analysis, and instead are looking for good interactive facilities to explore their data. This makes pre-processing of the responses necessary, in order to organise the data in a simple table form, with respondents as rows, questions as columns, and with no structurally missing information.

In order to meet such requirements, we have to perform the basic operation illustrated in frame 3. Such an operational design is referred to as a *canonical fusion problem*. Any problem, no matter how complex, can be broken down into several canonical sub-problems.

Although fusion, as illustrated in section 1, can be used in response to missing information, we like to think of it not as a *missing data* solution, but rather as a *parameter-free micromodeling approach* in a multi-sources context.

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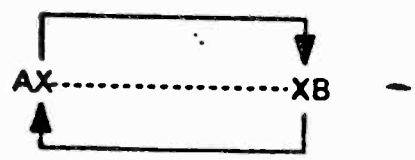
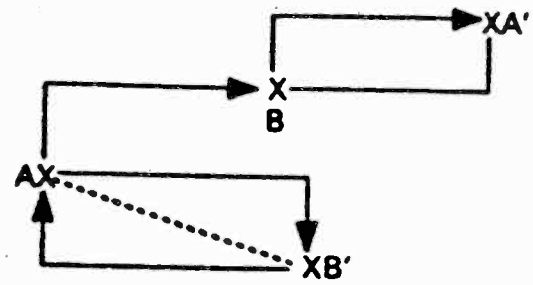
FRAME 4
TYPES OF MARRIAGES CONSIDERED IN FRF

1. Love at first sight



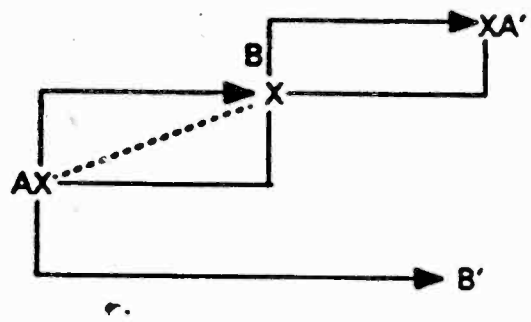
If *A* is the closest to *B* and *B* is likewise closest to *A* then there is an immediate 'marriage'.

2. Childhood sweethearts



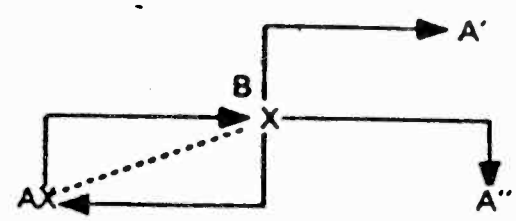
If *A* is closest to *B* but *B* is already married to *A'*, then *A* becomes married to *B'* who is not quite as close.

3. Adultery



A variation of case number 2 occurs when *B'* is too far from *A* in relation to *B*. In spite of the penalty attributed to *B* because of its first marriage, we effect a new union between *B* and *A*.

4. Attentiveness



Another case occurs when *A* wants to join with *B* who wants to be joined with *A'* already married and then *A''*, also already married, etc. ...
Finally *B* becomes united with *A*.

5. Convenience

Beyond the simple cases illustrated above, there are other marriages for which the decisions are complex and are only resolved by optimization of distances at a global level.

(We use, to perform such optimization, a method called the Hungarian method, well-known by operations research people, and which we have adapted to fit the present problem.)

6. Shotgun marriages

Finally we take care of remaining individuals; such cases are mainly due to cut-off rules in the optimization process.

the objective when we want to provide the user with a file from which he will be able to recover macro behaviour of specific target groups. So far, no fusion process is involved, and it is a rather obvious problem, even if the necessary statistical techniques may be complex.

The situation becomes less standard when there are *several sources of information*. In such cases, one has to merge estimates from distinct sources:

- at the macro level, with parametric models, this leads to a range of techniques dealing with aggregated data;
- at the micro level, with parameter-free models, this leads to fusion methods.

In the latter context, we very often do not have micro-level estimates, but *micro-level observations* instead. Such observations (obtained through the fusion process) should be considered as a random sample drawn from the underlying micro-model. For this reason, the answers ascribed to respondents in the recipient file are sometimes referred to as *'pseudo responses'*, in contrast to the *'real responses'* that would have been obtained from direct questioning. Both the set of the 'real responses' and the 'pseudo responses' should be considered as data samples from the underlying probabilities governing the population behaviour. The fact that, for a given respondent, his (unknown) real responses might be distinct from his (ascribed) pseudo responses is irrelevant, since this fact is not interesting when seen in isolation. In this context, a respondent is simply a vehicle for providing a data point in the available picture of the studied phenomena: we should only be concerned as to whether this picture reflects accurately the underlying macroscopic probabilistic structure.

3.2. Technical outline of the method

Bearing in mind the canonical form of the fusion problem, let *D* denote the *donors* file, and *R* the *recipients* file. Let *QR* be the set of the questions answered by the respondents in both files. Such information will be used as *relay information* between *R* and *D*. Let *QT* be the set of the questions answered by the respondents in file *D* but not in file *R*. Such information will be called *transferred information* when passed by the fusion process from file *D* to file *R*.

In order to transfer, at an individual level, the *QT* questions, one tries to link each recipient with a donor. The underlying paradigm for such a method is that one believes that the closer a recipient is to a donor (closer according to some kind of multivariate statistical distance), the more likely that the recipient comes from the same population group as the donor. Consequently, one can ascribe to the recipient the observations (answers) available from the donor.

Basically, the fusion process could be thought of as the *global minimisation of the average distance* between linked respondents, under the constraint that the same individual

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resolved, three analyses have been published that tend to prove that fusion processes lead to a statistically valid outcome.

In his paper presented at the Salzburg Media Symposium in 1985, *Jacques Antoine* [2] reported some data from the *CESP Media Marché 84*, which shows that:

- No significant differences were found between two parallel studies and the sample obtained by fusion, as far as products and brands were concerned.
- A good consistency was obtained between observed and simulated press and broadcast results.
- Intensive analysis of cross-tabulated data on press by broadcast listening and viewing habits, before and after fusion, exhibits only a small 10% of significant departures.

Jürgen Wiegand [10], reporting to the 1986 ESOMAR Media Seminar on combining two separately-derived data sets by two different methods, showed that the Wendt fusion delivers no major shifts between samples, and that:

- Integrated data sets deviate from single-source data by a similar amount to data sets derived from different samples.
- The distribution of exposures as derived from the original survey, and fused data, produce practically identical curves for large target groups, and only slightly different ones in special cases.

Recently, in collaboration with CESP, we performed an experiment on the French 1981 Audience Survey, which contained at that time both press and broadcast data. Although a small number of relay variables was available, we processed an FRF fusion on two random sub-samples, in which press and broadcast data respectively were hidden; we studied, at several levels, the deviation between real and fused data. Our findings can be summarised as follows:

- Fusion is not an acceptable method to project or predict specific individual behaviour.
- Fusion is an excellent method for predicting or forecasting global behaviour. Very low levels of bias are encountered on the total sample global distribution.
- Fusion is a satisfactory method for setting up a data base to be used for cross-tabulation. Statistical checks demonstrate that the level of discrepancy introduced by the fusion process is acceptable in most cases.

5. Present and future developments

Historical and bibliographical references indicate that fusion techniques are not new. They have been used for some 20 years in countries like the Federal Republic of Germany and France. Fusion is now enjoying a wave of interest in a variety of countries: experiments are under way in the UK and Belgium, while projects are being considered in countries like Finland, Spain and the United States.

The increased interest of media researchers in the fusion approach is due mainly to three factors, the first two of a technical nature:

(*a*) As mentioned previously, users require that survey data is made available to them in a standardised form, enabling them to make full use of their computer software and cross-tabulating systems.

(*b*) More general availability of efficient fusion algorithms designed to handle large data files, and better statistical insight into the technique, has led to wider use among marketing research companies.

(*c*) The third factor has to do with trends in marketing research, summarised in frame 5.

FRAME 5
TRENDS IN MARKETING RESEARCH

Trends	Corresponding need for fusion
Survey vehicles tend to become different according to media	Inter-media fusion
Some surveys are not carried out annually	Up-dating of audience media data banks
Development of audience measures through panels techniques	Processing data as if the sample were constant, which is never the case
	Permanent up-dating of a fixed sample according to a changing universe
Additional samples with partly specific questions and partly common questions with the main sample	Fusion of additional samples with main sample

6. Conclusion: A false problem?

There need be no controversy between supporters of single-source development, and those who favour fusion techniques.

(*l*) Even with the development of electronic devices which have

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(1) Socio-economic variables.
Directly available from the 29,577 interviews.

(2) Press audience variables.
Available from the press interviews, directly for 16,415 of the press sample, estimated through fusion techniques for 13,162 people from the radio-television survey.

(3) Radio-television audience variables.
Available from radio-television interviews, directly for 13,162 people from the radio-television sample, estimated through fusion techniques for the 16,415 people of the press survey.

(4) Market variables.
Available from the self-administered specific questionnaire after the second waves of both the press and the radio-television surveys. These variables, available for 79% of the interviewed people in both second waves, were estimated, either through injection (other interviews of both second waves), or through fusion (interviews of waves 1 and 3) for other interviews.

Finally, 12 operations (two injections and ten fusions, among which six vice-versa) were provided, according to the scheme shown in frame 8.

Validation of the fusion was obtained by comparing some results before and after fusion, with the help of χ^2 tests. It was found that:

(*a*) Global results such as AIR (Average Issue Readership), or similar ratios for radio and TV audiences, remained relatively unaltered by the fusion. As an example, AIR discrepancies (before and after fusion) are shown in frame 9. Another example can be seen in frames 10a and 10b. Frame 10a shows figures an general TV viewing habits: viewing every day, or nearly every day/average Monday to Friday. For the same six time periods, based on three TV channels ($6 \times 3 = 18$ time periods), the discrepancies before and after fusion are listed in frame 10b.

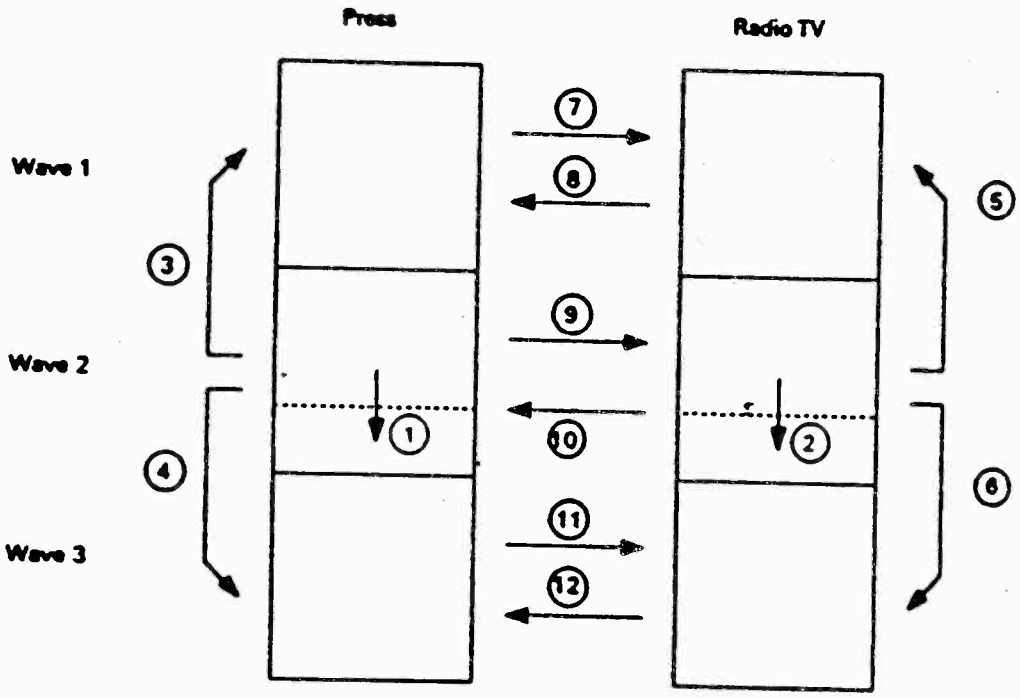
(*b*) Breakdowns of audiences according to socio-demographics were fairly well maintained after fusion.

Some cross tabulations showed significant discrepancies; these results have suggested improvements for future fusions, such as additional constraints to be provided within the fusion process.

For example, the cumulated TV audience, by demographic grouping, has been subjected, for different time-periods and various TV channels, to χ^2 tests, in order to search for significant differences: 3 channels × 9 time periods × 51 demographic sub-groups, generated 1377 χ^2 tests, of which 122, or 8.9%, were significant at a 5% level. This is illustrated in frame 11.

It was noticed that, of the 122 significant χ^2, 39 (32%), were due to

FRAME 8



(1) and (2): 'Injection' of missing data/products brands to non-respondents.

(3) and (4): Simulating missing data/products brands for people interviewed in press waves 1 and 3 (inter-wave 'fusions').

(5) and (6): Simulating missing data/products brands for people interviewed in radio-television waves 1 and 3 (inter-wave 'fusions').

(7) to (12): Simulating missing data/media for each wave and vice-versa (inter-studies 'fusions').

FRAME 9

For 39 weeklies	For 66 monthlies
0 for 12 titles	0 for 24 titles
1‰ for 11 titles	1‰ for 33 titles
2‰ for 14 titles	2‰ for 8 titles
3‰ for 2 titles	4‰ for 1 title

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fondamentaux des techniques de fusion et en donnent un schéma technique. Les auteurs parlent aussi de la validation des procédés de fusion; ils démontrent que les méthodes de source unique et les techniques de fusion peuvent être des procédés complémentaires plutôt que des alternatives. L'article se termine par une brève étude de cas.

Zusammenfassung

Jacques Antoine und Gilles Santini untersuchen in diesem Artikel die Situationen, mit denen gerade Medienforscher konfrontiert werden und die zur Anwendung von sowohl 'single-source'-Methoden als Fusionstechniken geführt haben. Sie beschreiben die Grundprinzipien der Fusionstechniken und geben einen technischen Abriß. Auch die Validität von Fusionstechniken wird erörtert. 'single-source'-Methoden und Fusionstechniken können, argumentieren die Autoren, eher sich ergänzende Prozesse als Alternativen sein. Der Artikel endet mit einer Fallstudie.

References

[1] Antoine, Jacques and Gilles Santini (1986) 'An experiment to validate fusioned files obtained by the referential factorial method', ESOMAR Seminar on New Developments in Media Research, Helsinki, April.
[2] Antoine, Jacques et al. (1985) 'Fusion techniques: Objectives, a case study, perspectives', Salzburg Media Research Symposium.
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[8] Wendt, Friedrich (1976) 'Beschreibung einer Fusion', Schriftenreihe Band 21 (Gruner + Jahr, Hamburg).
[9] Wendt, Friedrich (1983) 'The AG.MA model', Montréal Media Research Symposium.
[10] Wiegand, Jürgen (1986) 'The combining of two separately derived datasets into an integrated intermedia planning system: The German model of partnership', ESOMAR Seminar on New Developments in Media Research, Helsinki, April.

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The usual method for doing this is to match or marry each respondent on one survey, the recipient survey, to a respondent on the other survey, the donor survey, by choosing the donor who appears to be most similar in terms of the common variables: i.e those items which are covered by information that is on both the surveys. These common variables can be divided between cell and non-cell variables. Cell variables are ones like sex, which have to match exactly before a marriage is permitted. Non-cell variables do not have to match exactly; instead, they are used in combination to produce a measure of the similarity between recipient and potential donors.

Note that the essential difference between the recipient and donor surveys is that the recipients are always monogamous, whilst the donors can also be batchelors or bigamists i.e. respondents on the recipient surveys are each used exactly once, whilst respondents on the donor surveys may not be used at all, be used once or used more than once. Furthermore, if the surveys are weighted, the natural inclination will be for the fused database to use the recipient survey's weighting system. As we will see, however, this may not be an optimal choice.

The common variables can be divided between a limited number of cell variables whose boundaries are not crossed when making a fusion e.g. people are not married if they are in different sex or age groups, and non-cell variables, which are used to construct similarity scores, which determine who is to be married to whom.

REASONS FOR FUSION

The usual reason for wishing to undertake a data fusion is to enable cross-tabulations to be prepared showing the relationship between a variable which is only on the recipient survey with one which is only available on the donor survey. For example, in the German Partnership Model[1], the objective was to enable mixed media scheduling from separate surveys on readership and the consumption of broadcast media.

Whilst I have spoken of cross-tabulation, the media planner will often only be interested in a single row or column of the table i.e. a particular target group. For example, we have recently been engaged in an investigation of the feasibility of fusing the National Readership Survey (NRS)

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with a survey on financial matters conducted by Financial Research Services (FRS)*. From our point of view, the object of this exercise would be to enable the readership behaviour of particular target groups not identifiable on the National Readership Survey, such as holders of Local Authority Bonds, to be examined.

It is also tempting to use fused databases for primary data, since they require only one set of analysis protocols instead of two or more different ones. Assuming, as is the case with the NRS, that the donor survey has been properly conducted, we should not fall prey to this temptation. Bad data should not be allowed to drive out good. Fusion generally causes some loss of data quality in the donor survey. It is therefore better to use the primary databases.

The only possible exception is where the donor survey has suffered from a low response rate, or is derived from a restricted or totally different population. In these circumstances, fusion may act as a system of post-stratification which makes the donor survey more representative of the population under study. Needless to say, the National Readership Survey does not come into this category and JICNARS has decided that fused databases should not be employed to produce estimates which can be obtained directly from the NRS.

There is also a beneficial side effect from data fusion. This is that it encourages those responsible for each of the two surveys to compare their results and learn from each other. This advantage is most apparent when the two surveys have always been separately conducted by different organisations.

THE NEED TO TEST DATA FUSIONS

Over the years, market research practitioners have gained confidence in their methods. So long as they know that the methodology followed is sound, they trust in their results. (Even so, those who are prudent cross-check them against other surveys or against population data, take sampling error into account and consider the possible effects of question order or wording.)

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* In this paper, results obtained during the course of this investigation will be quoted. It is emphasized that these figures are interim. They are quoted for illustrative purposes only, and do not necessarily indicate the accuracy to be expected in the final database if a successful fusion is achieved.

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It is tempting to carry this confidence over into data fusion and have as much confidence in the fused database as in its two component parts. This, however, is a mistake. This is not just because fusion methodology is both more novel and less often employed than conventional survey research. Far more important is the fact that there is no way of knowing in advance whether or not the common variables, those used to link the donor and recipient samples, are adequate.

Discussions about fusion are, perhaps, too often concentrated on which particular matching technique should be employed and too little on whether or not the common variables are adequate. This is probably because the statistician conducting the matching has been brought in to match two already existing surveys and does not have an opportunity to influence the choice of common variables. Nonetheless, bricks made with insufficient straw fall apart and fusions based upon inadequate common variables cannot hope to succeed. If the only common variables are colour of hair and age, there is little chance of estimating the relationship between social class, derived from one survey, with income, derived from another.

ADEQUACY OF COMMON VARIABLES

What do we mean when we demand that the common variables be adequate? In essence, it is that, once allowance is made for the common variables, there should be no residual relationship between the donor and recipient survey variables. This is the requirement of conditional independence*. Here is a simplified example to show why conditional independence is important.

Suppose we are interested in discovering the relationship between reading newspaper A in the past year and viewing television programme B, using as a common variable the weight of television viewing. To keep the arithmetic simple, let us assume that our surveys show the following results:-

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* A possible alternative to the requirement of conditional independence is that the relationship should be close to some assumed value.

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TABLE 1

	Readership Survey: Reads A:- Yes	Readership Survey: Reads A:- No		Viewership Survey: Views B:- Yes	Viewership Survey: Views B:- No	
Heavy Viewer: Yes	40	10	50	40	10	50
Heavy Viewer: No	10	40	50	10	40	50
	50	50	100	50	50	100

i.e. half the population reads A, half views B and half are heavy viewers. Furthermore, heavy viewers are very prone to read A and to view B.

We now wish to use this information to estimate the relationship between reading A and viewing B. This is done by rearranging the information as follows:-

TABLE 2

	Heavy Viewers: Reads A:- Yes	Heavy Viewers: Reads A:- No		Light Viewers: Reads A:- Yes	Light Viewers: Reads A:- No		TOTAL: Reads A:- Yes	TOTAL: Reads A:- No	
Views B:- Yes			40			10			50
Views B:- No			10			40			50
	40	10	50	10	40	50	50	50	100

We now have to find a way of filling in the blank squares for Heavy and Light Viewers, so that the results can be added together to give the total table at the right.

The standard fusion procedure assumes that within the sub-groups of heavy and light viewers, there is no association between readership and viewership; in other

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words, the numbers in each cell are exactly those which would be expected on a chance basis. On this basis, we have:-

TABLE 3

		Heavy Viewers Reads A:-			Light Viewers Reads A:-			TOTAL Reads A:-		
		Yes	No		Yes	No		Yes	No	
Views B:-	Yes	32	8	40	2	8	10	34	16	50
	No	8	2	10	8	32	40	16	34	50
		40	10	50	10	40	50	50	50	100

This leads to the conclusion that 68% of readers of A view B, and so on.

Of course, we have no way of knowing that this is really the case. All we can say for sure is that the numbers are not less than zero.

At one extreme, we could have the following pattern:-

TABLE 4

		Heavy Viewers Reads A:-			Light Viewers Reads A:-			TOTAL Reads A:-		
		Yes	No		Yes	No		Yes	No	
Views B:-	Yes	30	10	40	0	10	10	30	20	50
	No	10	0	10	10	30	40	20	30	50
		40	10	50	10	40	50	50	50	100

Here, instead of 68% of readers of A viewing B, the proportion is only 60%, so the true relationship is weaker than that suggested by the fusion.

On the other hand, the true relationship could be much stronger. The pattern for the opposite extreme is:-

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TABLE 5

		Heavy Viewers			Light Viewers			TOTAL		
		Reads A:-			Reads A:-			Reads A:-		
		Yes	No		Yes	No		Yes	No	
Views B:-	Yes	40	0	40	10	0	10	50	0	50
	No	0	10	10	0	40	40	0	50	50
		40	10	50	10	40	50	50	50	100

In other words, there is, in fact, nothing in the arithmetic to stop 100% of readers of A viewing B.

In this example, then, we have an estimated figure of 68% with a possible range of 60% to 100%.

Fusion practitioners hope that, as more and more common variables are taken into account, the likelihood of achieving conditional independence in the cells is increased. Furthermore, even if conditional independence is not achieved, they hope that in some cases, the correlation between readership and viewership will be negative as in Table 4, and in other cases, it will be positive as in Table 5, so the effects will cancel each other out.

These hopes may not be unreasonable, but no amount of care or complication in the computer procedures will guarantee them. For this reason, it is necessary to check the quality of Data Fusion.

Even before this stage, other checks are needed.

FUSION IN REAL LIFE

The previous example was both simplified and idealised. It was simplified because, in actuality, marriage is based upon a multiplicity of common variables which can exist, not at just two levels, such as 'yes' or 'no', but at several. In these circumstances, marriage is not a question of choosing a partner at random from a number all of which match exactly, but of choosing the one which appears to match most closely. Real life fusion, like real life marriage, is a matter of compromise.

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The example is idealised because, in this instance, we have assumed that the number of donor and recipient respondents are identical, and that the distributions of the common variables are identical. This enables our model to reflect the puritanical ideal of each donor being married once and once only.

In real life, the number of donors will differ from the number of recipients. Furthermore, the donor and recipient surveys may define the common variables differently or may represent slightly different populations. In these circumstances, there can be significant differences between them in the distribution of the common variables.

CHECKING THE COMMON VARIABLES

The first step in checking a data fusion is to make sure that there are no significant differences between the two surveys in terms of their common variables. Ideally, of course, this step should be undertaken before the fusion starts, so that discrepancies can be resolved.

Differences can arise for a number of different reasons. These need to be resolved in different ways:-

(a) Population Differences

The two surveys may represent different populations. For example, the weighted estimate of the population aged under 24 on the NRS is different to that on the FRS, since the NRS covers the population aged 15 and over, whilst the FRS only covers that aged 16 and over. Fortunately, the NRS codes respondents' ages exactly, so this discrepancy could be handled by removing the 15 year-olds from the NRS sample.

(b) Weighting Procedure Differences

A comparison of the sex ratio by age within class showed that on the NRS, this is constant across the social classes, although of course it increases with age. In the case of the FRS, on the other hand, although the ratio increased as it should with age, it also was slightly higher for young ABC1s than young C2DEs, but lower for older ABC1s than for older C2DEs. The differences are shown in the following table.

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TABLE 6

EXCESS OF WOMEN OVER MEN - %

Ages:-	15/16-44		45+	
	NRS	FRS	NRS	FRS
ABC1	-1%	+3%	+20%	+17%
C2DE	-2%	-6%	+23%	+23%
Difference	+1%	+9%	-3%	-6%

This difference seems to be related to the fact that, whilst both surveys are rim-weighted, the NRS sets its rims separately for men and women, whilst the FRS's rim totals are set for the two sexes combined. Young male ABC1s are one of the hardest groups to contact, and they usually need to be upweighted to compensate for non-response. If separate rims are not set for men and women, then young male ABC1s are unlikely to be upweighted as fully as they should. If it is thought to be serious, a problem such as this can, if it is identified, be solved by using a suitable form of weighting. This would seem to be an example of the way in which fusion can produce a side benefit through encouraging a closer comparison of the two participant surveys.

(c) Differing Non-response Patterns

There can be non-response effects not compensated for by the weighting scheme. Here, it is necessary to decide whether it is the donor or the recipient survey which is most likely to be in error, this can sometimes be done by comparison with known population statistics. In other cases, we have to consider overall levels of response or the types of non-response to which the two surveys are most likely to be prone. If it is concluded that the recipient survey is less likely to be at fault than the donor survey, then no action need be taken. If, on the other hand, it is thought that the recipient survey is more likely to be at fault, it may be better to reweight the recipient survey to match the donor survey totals.

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(d) Differences in Definition

There can be differences in definition between the two surveys. These can arise if coders in the two survey organisations are given different instructions on, for example, how to code social class, or because the questions used differ. For example, an initial comparison of the FRS with the NRS showed that the percentage of the population holding unit trusts according to the NRS was 25%, more than the FRS figure. Further investigation revealed that this was due to the fact that the FRS estimate did not include those who purchased unit trusts through a life insurance policy. This was correctable. However, the fact that the FRS has rather more C2 and fewer E class individuals (29.8% v 27.8% and 12.2% v 14.6%) than the NRS reflects a difference in definition that cannot be corrected so easily. Where differences of this nature are found, either the common variable should not be used for matching purposes or consideration should be given to recategorising some respondents so that the distributions match more closely. For example, if one survey's ABs are, in fact, more upmarket than another's, it would be inappropriate simply to match them, and a preferable step would be to upgrade some C1s to be ABs.

In the upshot, a comparison of a number of items between the two surveys showed that there was close agreement between them:-

	NRS	FRS
Ownership of:-	%	%
Any current account	64.6	67.4
Visa, etc, cards	22.5	20.9
Access, etc, cards	16.7	16.0
Stocks & shares	15.9	14.3
Unit trusts	3.6	3.3
British Telecom shares	3.7	4.4
TSB shares	4.3	4.8

The sample sizes used on the NRS and FRS are large. Consequently, even though the comparison is quite close, differences such as those for stocks and shares are statistically significant. This is probably because of factors such as those already described.

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It was not thought necessary to correct for these differences before marrying donors to recipients.

CHECKING THE TYPES OF MARRIAGE

Antoine and Santini ('Fusion Techniques: Alternative to Single-Source Methods')[2] list the types of marriage used in their fusion procedure. These can be described as follows:-

TYPES OF MARRIAGE

(1) Love at first sight. The donor and recipient respondents are each closer to the other than they are to anyone else.

(2) Childhood sweethearts. The recipient respondent cannot be married to the closest donor, because he/she 'loves', i.e. is closer to, someone else, so the recipient 'marries' someone else who is suitable but not quite so well-matched.

(3) Adultery. A variant of case 2. Where there is no suitable 'childhood sweetheart', the donor respondent is allowed to marry two recipients.

(4) Attentiveness. When, because of their previous commitments, a donor cannot be married either to its ideal mate or to a 'childhood sweetheart', it can marry a third- or fourth-best choice recipient, provided from the recipient's point of view, the match is a good one.

(5) Convenience. Where none of the previous rules can be applied and marriages are performed according to an optimisation procedure.

(6) Shot-gun marriages. These are cases where the last remaining recipients are married off by the use of cut-off rules in the optimisation procedure.

A copy of the diagram used to explain these different types of marriage by Antoine and Santini is attached as an Appendix to this paper.

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An examination of the frequency distribution of the different types of marriage may give some indication of the likely quality of the fusion. In the following table, the marriage profile of the FRS/NRS data fusion is compared with that for the CESP[3] fusion :-

TABLE 7

MARRIAGE PROFILES

		NRS	CESP
(1)	Love at first sight.	23%	29%
(2)	Childhood sweethearts.	3%	2%
(3)	Adultery.	10%	6%
(4)	Attentiveness.	2%	4%
(5)	Convenience.	45%	51%
(6)	Shot-gun marriages.	17%	7%

The FRS/NRS fusion showed fewer cases of love at first sight and more shot-gun marriages than the CESP fusion, which Antoine and Santini reported was reasonably successful. It would be interesting to know how the FRS/NRS distribution compared with other fusions. It should, however, be remembered that the distribution will depend, not only upon the suitability of the fusion, but also upon the numbers of donor and recipient respondents and the density with which they are clustered.

Nonetheless, even though I do not spend much time reading romantic novels, I would feel happier if there were more cases of love at first sight and fewer shot-gun marriages. The high proportion of marriages of convenience may also be a cause for concern.

It would be very helpful if, when tests of fusion are conducted using common data sets from which some variables have been deleted, as in the CESP study quoted and the AGMA Studies (Wiegand, Op. Cit.), the results could be analysed by marriage type.

Even in other cases, it is worth testing the effect of marriage type on fusion by examining cross-tabulations of donor against recipient variables within the different types.

THE FREQUENCY DISTRIBUTION OF MULTIPLE MARRIAGES

Donors can not only commit bigamy or, to use Antoine and Santini's term, 'adultery', they can also remain batchelors.

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If some donors are not used at all, whilst others are used an above average number of times, the accuracy of the donated data will be reduced.

On theoretical grounds, the expected reduction in accuracy will be equivalent to a reduction in the effective size of the sample of (1 + RV), where RV is the relative variance of the distribution* of the number of times each donor was used.

In the case of the FRS/NRS data fusion, the frequency distribution of the extent to which donors were used was as follows:-

TABLE 8

HOW OFTEN DONORS WERE USED

Number of times a donor is used	Percentage of donors
0	11%
1	21%
2	32%
3	23%
4	8%
5	3%
6+	2%
Mean	2.21
Standard deviation	1.92
Variance	3.69

This implies that the effective size of the donor sample will be reduced by a factor of 1.76 to 57% of its original value.

An examination of the frequency distribution shows that a few donors have been used a very large number of times. If these heavily used donors are atypical in their reading behaviour, then they can have a considerable effect on the apparent readership of individual target groups. I am no more a moralist than I am a romantic, but I cannot resist pointing out that, as in life, so in fusion, a few highly promiscuous people can cause a lot of problems.

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* i.e. The variance of the frequency distribution divided by the square of its mean.

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CHECKING FUSED AGAINST UNFUSED DATA

We can see the combined effect of variations in the number of times donors are used and of differences in the targets to which the surveys are weighted by checking the extent to which the donor sample is distorted by the fusion process.

It must be remembered that this is not a check of the crucial questions of the adequacy of the common variables and the efficiency of the fusion algorithms. Indeed, regardless of these factors, the donated variables would be totally undistorted by the fusion if the donor and recipient samples had the same non-response rates and patterns, and had been weighted in the same way to represent the same population, and each donor was used the same number of times.

For this reason, comparisons such as the following only set an upper limit to the likely accuracy of a fusion. They should not be considered as providing a rigorous test.

A comparison of average issue readership estimates from the NRS with those from the fused database showed a good level of agreement in many cases. (Estimates for the *Financial Times* were 1.8% in both cases; for the *Daily Mirror* 20.1% on the NRS, 20.2% fused; for the *Daily Mail* 9.9% and 10.3%.)

On the other hand, there were some cases which were far less satisfactory e.g.:-

TABLE 9

EXAMPLES OF INEXACT FUSION ESTIMATES

Publication	Unfused	Fused
A	2.2%	1.1%
B	0.9%	0.5%
C	0.4%	1.0%
D	1.1%	1.9%
E	0.7%	1.2%
F	1.8%	2.5%

Admittedly, none of these were publications of great financial interest. Furthermore, cases A and B were quickly resolved when it was found that these were publications which had had a special weight attached because they had only been on the NRS for half the study period. Unfortunately, this weight had not been carried across into the fused database. This reflects not only how

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important it is to make sure that the analysis protocols are correct but also to cross-check the results as the analysis proceeds.

Discrepancies between the fused and unfused estimates are best compared by calculating a statistic similar to the chi-squared statistic i.e. $(f-u)^2/u$, where f is the fused percentage readership estimate and u the unfused one. This can then be converted to give the effective sample size by dividing this statistic into 100. This calculation can be performed either for individual publications or by taking the average of the statistic across a number of publications, on the assumption that the deviations will be independent of each other.

This analysis yields the following results:-

TABLE 10

Effective Sample Sizes - Total Sample

	Effective Sample	% of Actual (14,258)
National Dailies	4207	30%
" Sundays	7754	54%
Sunday Supplements	6709	47%
Regional Dailies	1165	8%
" Sundays	1751	12%
General Weeklies	7681	54%
Women's Weeklies	8081	57%
Fortnightlies	3535	25%
General Monthlies	1960	14%
Women's Monthlies	4497	32%
Bi-Monthlies	17075	>100%
All Publications	3030	21%

It will be seen that, overall, the effective sample size in this case averages out at only 3030 i.e 21% of the actual NRS sample, but results for some types of publication, such as Sunday newspapers, were close to their theoretical levels*. As we will see, the reduction in the effective sample size is concentrated on certain sections of the population.

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* It is not surprising that bi-monthlies exceeded the theoretical limits since they are few in number. For the reasons stated earlier, there is no reason why the effective sample size should not appear to be greater than the actual one.

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The analysis was produced after correcting for the two publications whose readership was inadvertently halved, but not making any other changes. Subsequently, IMS carried out a further adjustment. This reallocated respondents as readers or non-readers so as to bring the fused readership levels within specified demographic groups more closely into line with the NRS. It is, however, not clear that this improvement would carry over into FRS target groups not identified by the NRS.

A further possible cause for the reduced effective sample size, apart from the effect due to the unequal distribution of the number of times donors were used, might be that the FRS sample is weighted in a different way to the NRS. Investigations in this area suggested that the benefit from re-weighting would be slight.

The overall effective sample size was reduced quite substantially by a poor performance on a few titles, such as those quoted earlier. The reason for this is not known, but the low sample sizes for regional publications could be because marriages were not confined within circulation areas.

It is also worth analysing how close the fused estimates are to the NRS within different sub-sections of the population. This is shown in the following table.

TABLE 11

		Effective Sample	Actual NRS Sample*	Effective/ Actual %
Male ABC1	16-44	1660	1451	>100
	45+	1508	1092	>100
Female ABC1	16-44	2084	1765	>100
	45+	1586	1395	>100
Male C2DE	16-44	634	2102	30
	45+	1886	1796	>100
Female C2DE	16-44	172	2388	7
	45+	2236	2269	99

It will be seen that the problems are concentrated amongst 16-44 year old C2DEs, and particularly amongst the women. This section was the one showing the highest degree of variation in the extent of donor use i.e. the highest proportions of batchelors and adulterers.

* Pro-rated from NRS Age within Class Tabulations July 1986-June 1987.

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COMPARISON FOR TWELVE-ISSUE PENETRATIONS

The NRS is used to analyse schedules by means of a modelling approach. Consequently, there is a need to see how this model stands up to the fusion process. One test is to compare how the twelve-issue cumulative penetration for different publications compares between the fused and unfused database. This comparison was made following the adjustment referred to earlier, and was confined to National Dailies and Sundays, Sunday Supplements, the two programme mmagazines and the *Reader's Digest*. The

adjustment increased the effective sample size beyond the actual sample size at the one-issue level, but in spite of this, effective sample sizes for twelve-issue coverage were much lower . Results are shown in the first two columns of the following table:-

TABLE 12

EFFECTIVE SAMPLE SIZE FOR TWELVE-ISSUE COVERAGE

	Initial		After Bias Correction	
	Effective Sample	% of Actual+	Effective Sample	% of Actual+
National Dailies	853	6	3360	24
National Sundays	1326	9	8395	59
Sunday Supplements	2047	14	5704	40
2 Programme Magazines & *Reader's Digest*	908	6	27521	>100
All the Above Publications	1113	8	5197	36

+14,258

One of the reasons why discrepancies were so much worse for twelve-issue coverage was that coverage estimates for the fused database were generally higher than those for the NRS. Of the 28 publications studies, only 2 had lower coverages in the fused database than on the NRS, and on average, fused database coverages were over 5% higher than unfused ones. Once this bias was removed, the effective sample sizes improved considerably. This is shown in the second two columns of Table 12.

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However, in view of the double correction, the results are still disappointing compared to the uncorrected figures for the single issue penetration. The explanation for the poorer performance is probably that, in this case, estimates will be affected if the fusion process distorts either the frequency of reading pattern or readership levels within the different reading frequency groups.

This demonstrates that complex estimates are likely to be more severely distorted than simple ones.

TESTS OF THE CONDITIONAL INDEPENDENCE ASSUMPTION

Although these tests set an upper limit to the accuracy of a fusion, they only skirt round the real problem, which is to what extent will readership estimates for a particular target group correspond with their true values, if these were available (i.e. with the estimates which would be obtained if the same respondents could be interviewed using both questionnaires).

This in effect amounts to a test of the conditional independence assumption. The ideal way of testing this would be to re-interview the recipients to see whether discrepancies between their actual and predicted characteristics are distributed at random, so the results for any given target group will be unbiased.

Of course, it would also be encouraging if the number or extent of such discrepancies were small, but the key requirement is that there should be no correlation with target group characteristics. Providing this requirement is met and the sample sizes are adequate, random discrepancies will cancel each other out.

Unfortunately, it is usually too expensive to re-interview respondents, so we have to use indirect methods. In the following sections of this paper, we discuss the indirect methods which are available.

These tests are, in effect, tests of the accuracy with which the fused database measures the selectivity of different media for a target group. It is therefore worth discussing how we might expect selectivity* to be affected by fusion.

---

* By 'selectivity' I mean the extent to which the penetration of a publication in a target group differs from that amongst the population as a whole.

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It will have been seen from our initial example that, if the objective of conditional independence is not met, losses or gains in selectivity are both possible.

This is because the actual association between two variables such as readership and membership of a target group will, in effect, be the sum of the association predicted using the common variables and an amount proportional to the residual association conditional on these common variables.

The predicted association will therefore be lower than its true value if the residual association has the same sign as the predicted one, and higher if the signs are opposite. In the first case, apparent selectivity is reduced by the fusion; in the second, it is increased.

An analogy with stepwise regression suggests that a loss in selectivity may be more likely than an increase. Normal experience with stepwise regression is that, as independent variables which are correlated with those already there, are added, then the size of the earlier coefficients is more likely to be reduced than increased.

In stepwise regression, the initial value of the coefficient is equivalent to the actual level of selectivity. The final value is the residual association, so this experience is consistent with a loss in selectivity being more likely than a gain.

Part of the reason why this is likely to happen is that, when we are dealing with frequencies, the range of possible values for the residual association can, as it was in our first sample, be assymetrical.

Obviously, tests of selectivity cannot be made directly without a single source database. A number of indirect tests are, however, possible.

(a) The non-cell common variables attached to the donors will, in general, not match exactly those attached to the recipients.

We can therefore compare the true association between donor and non-cell common variables with that shown by the matched data set, and use this, not only to determine whether there has been a loss or gain of selectivity, but to estimate a maximum figure for the effective sample size of the fused database.

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(b) In the previous test, the effective sample size will be overestimated because the common variables also played a role in the matching process. If, however, one is prepared to accept a possible loss in efficiency, one or more of the common variables could be held back from the matching process. By this means, a more realistic estimate of sample size could be obtained.

(c) Alternatively, the common variables can be viewed as representing a sample of the full population of variables which would be used in an ideal matching procedure. This idea can be extended by carrying out a number of separate fusions eliminating one or more of the common variables in turn, and testing the effect of dropping a variable on the directions of the fused relationship, as well as making effective sample size estimates as in (b) above.

This test depends on the idea that, unless the set of common variables has been carefully constructed, it is unlikely to be just sufficient for the fusion. Providing the set of common variables is not insufficient for conditional independence to be achieved, there will be a redundancy of information, and variables can be dropped without having any substantial effect on estimates from the fused database.

The fusion of sizeable data sets still places a heavy burden on computer time. It is therefore unreasonable to expect a number of separate fusions to be undertaken with different sets of common variables, simply in order to estimate accuracy.

There is, however, no reason why sub-samples of donors and recipients should not be selected, and the quality of the fusion tested on these.

(d) In the previous example, it could be argued that it would be unreasonable to test the effect of dropping certain variables because it is well recognized that they are crucial to the fusion. On the other hand, if only the most irrelevant common variables are dropped, then a false illusion of security could be created when it was found that these had no effect.

One way of overcoming this problem would be to ask a number of suitably qualified people, who do not know what is covered in the data sets, to list all the variables they could possibly want to see included in a fusion, and rank them in order of importance. (Conditional statements along the lines of 'A is

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important, unless B is present', or 'C is only important if D is also included' might also need to be allowed.)

This ideal list can then be treated as the full population of common variables, and the actual set of common variables as a sample drawn from it. Any variable whose importance was ranked higher than all those not common to the two sets could then be treated as crucial and protected from being dropped. This idea can be extended to indicate the probability with which variables should be retained or dropped when carrying out the fusion tests.

(e) If fusions are produced using different sets of common variables, then each recipient involved can be thought of as having a different set of donated variables attached for each of the fusions. Consequently, tabulations of the relationship between recipient and donor variables can be prepared, not just once, but several times. The variability between the results produced by the different tabulations can then be used to estimate the likely degree of error associated with the fusion process.

This is the essence of the multiple imputation technique proposed by Rubin[5] i.e. to each recipient there should be imputed not just one but several sets of values of the donor variables, so that estimation errors can be investigated.

Rubin, however, takes the argument a stage further, and proposes that the imputations should be made not only under the assumption of conditional independence, but after assuming other values than zero for the residual degree of association i.e. account should be taken not just of the common variables, but also of the values of the recipient and donor variables when deciding whether or not a marriage should take place in any particular fusion.

At present, this procedure, if it is feasible at all, could only be applied to sub-samples of the large data sets used in media research. This would still help considerably in checking the sensitivity of the fusion to the choice of common variables and to deviations from the conditional independence hypothesis. In the future, however, we may hope to see whole fusions conducted, not just once, but several times.

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To the sceptic, this may seem like a means of producing even larger quantities of data garbage. However, remember that, if you see an object in isolation, it may be impossible to tell whether it is a piece of garbage or a work of art, but if you look at a large number of such objects, it is easy to see whether you are in an art gallery or a junk-yard.

IS VALIDATION OF FUSION WORTHWHILE?

Finally, it may be worth saying something about the quality of results that should be achieved before a fused database can be considered to be acceptable.

If a single-source database is not available, then media planners are, in effect, forced into estimating the media consumption of a desired target group by indirect means. Normally they do this implicitly by choosing a target group that is fairly similar to the desired one but which is on the database e.g. owners of stocks and shares, which is on the NRS, may be used as a surrogate for owners of Local Authority Bonds.

This, in effect, amounts to the assumption that there is a perfect correlation between the two. A more careful media planner might seek out another survey such as the FRS, and check whether or not this assumption held good. In fact, of course, it will not.

The media planner, then, has to estimate the relationship between readership and the target group indirectly. For example, one might assume that the relationship is the same as that for owners of stocks and shares, even though the two measures are not perfectly correlated.

One criterion for the acceptability of a fusion is that it should be more accurate than such judgemental estimates. One could perhaps (although I would prefer not to) go even further and argue that the convenience and objectivity of a fused database are advantages which would make it preferable, even if it was slightly less accurate than a media planner's judgement.

An alternative approach would be to consider the relative cost of using the fused database and of obtaining a single source estimate from a sample having the same effective sample size. When making this comparison, it should be remembered that the single source survey may also suffer a reduction in effective sample size and selectivity, as a result of the additional weighting that is required to offset the increase in non-response due to the additional

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respondent burden, and the greater likelihood of respondent error through fatigue. Furthermore, the media planner has to use what is at hand today. Even if it is thought to be more efficient, it may be harder to organise support for a single source database than to fuse two surveys which are already in existence.

Nonetheless, calculations of effective sample size, such as those contained in this paper, can assist those who have to plan future media research strategy, besides providing a convenient summary of the effectiveness of a fusion exercise.

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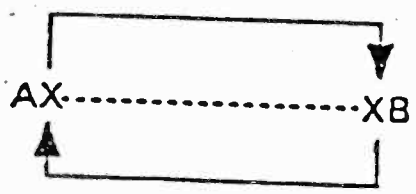
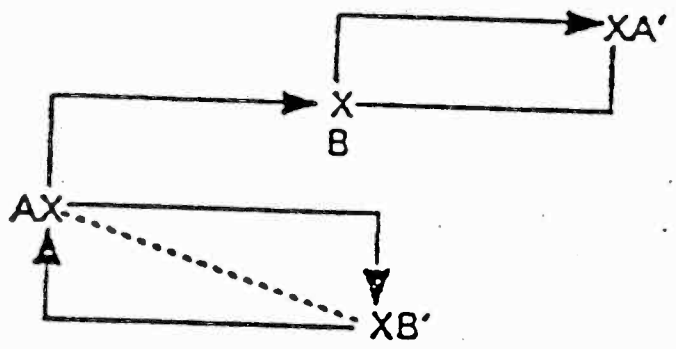
FRAME 4
TYPES OF MARRIAGES CONSIDERED IN FRF

1. Love at first sight



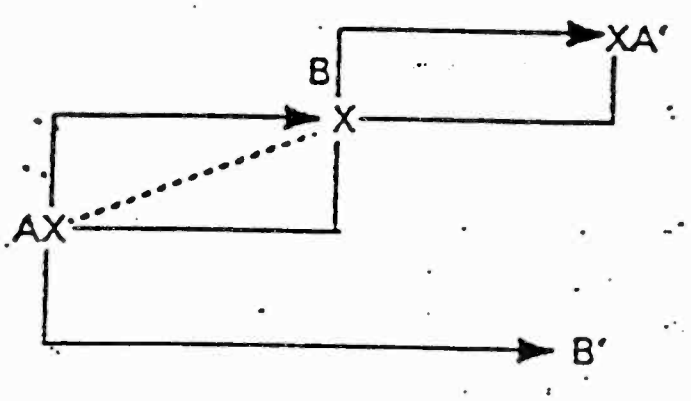
If *A* is the closest to *B* and *B* is likewise closest to *A* then there is an immediate 'marriage'.

2. Childhood sweethearts



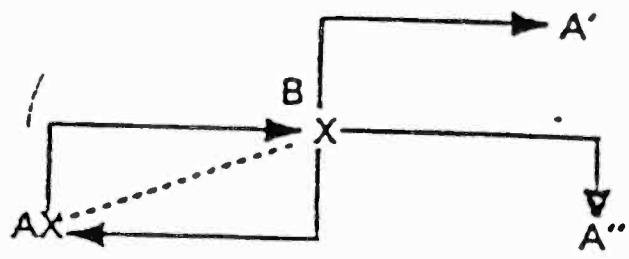
If *A* is closest to *B* but *B* is already married to A', then *A* becomes married to *B'* who is not quite as close.

3. Adultery



A variation of case number 2 occurs when *B'* is too far from *A* in relation to *B*. In spite of the penalty attributed to *B* because of its first marriage, we effect a new union between *B* and *A*.

4. Attentiveness



Another case occurs when *A* wants to join with *B* who wants to be joined with *A'* already married and then *A''*, also already married, etc. ...
Finally *B* becomes united with *A*.

5. Convenience

Beyond the simple cases illustrated above, there are other marriages for which the decisions are complex and are only resolved by optimization of distances at a global level.

(We use, to perform such optimization, a method called the Hungarian method, well-known by operations research people, and which we have adapted to fit the present problem.)

6. Shotgun marriages

Finally we take care of remaining individuals; such cases are mainly due to cut-off rules in the optimization process.

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MARKET SYSTEMS

IMS

F R A N C E

FUSION

THE NRS - FRS EXPERIENCE

LONDON SEPTEMBER 16 TH, 1987

INTERACTIVE MARKET SYSTEMS France Inc - 306 South State Street - DOVER, DELAWARE 19901, USA - RCS PARIS B 33 1143073

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1 THE SURVEYS

FRS is a financial behaviour survey, which covers all sectors of the financial market. 34 000 respondents were interviewed from april to september 1986.

NRS collects all year long readership data, about 7 000 respondents are interviewed every three months.

The idea was to merge the two sets of data, adding to FRS information the detailed readership collected in NRS, in order to allow a more efficient matching up of media opportunities with financial prospects.

The survey period selected for fusion was april-september 1986, corresponding to the six months NRS survey; because of the dynamics of readership, it was thought preferable to choose the same time period for both surveys.

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FRS

APRIL - SEPTEMBER 1986

34 105 RESPONDENTS

SOCIAL DEMOGRAPHICS

MEDIA EXPOSURE
READERSHIP
TV VIEWING

FINANCIAL PRODUCTS

NRS

APRIL - JUNE 1986
JULY - SEPTEMBER 1986

7020 + 6996 = 14 016 RESPONDENTS

SOCIAL DEMOGRAPHICS

MEDIA EXPOSURE
READERSHIP
TV VIEWING

FINANCIAL PRODUCTS

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2 THE FUSION PROCESS

STAGE 1 ANALYSIS OF CORRESPONDANCES (AFC)

Analysis of correspondances was achieved on the april-september NRS respondents file; then, all FRS respondents were projected in that factorial referential.

Because AFC is

- non sensitive to redundancy between variables,
- robust against outliers among respondents,
- scale effect free,

all common variables between the two surveys were selected to define the factorial referential.

They fell into three categories :

- social demographics,
- media exposure level,
- financial products.

Category 1 includes age, sex, marital status, informant status (head of household), terminal education age, social grade of head of household, occupationnal status, household tenure, telephone ownership, number of people in household, presence of children, car ownership, household income, region, "Acorn" neighbourhood type.

Category 2 contains media exposure according to FRS questionnaire.
TV viewing : number of days per week viewed and hours viewed per day,for total TV, ITV and Channel 4.

Readership : regular readers

of daily newspapers :

Today
Daily Mirror
The Star
The Sun
Daily Record
Daily Mail
The Scotsman
The Times
The Financial Times

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The Guardian
The Daily Telegraph

of sunday newspapers :

Sunday Mirror
Sunday People
News of the World
Observer
Sunday Express
Sunday Telegraph
Sunday Times
Sunday Post
The Mail on Sunday
Sunday Mail

of weekend colour supplements :

Sunday Times Colour Magazine
Observer Colour Magazine
Telegraph Sunday Magazine
Sunday Express Magazine
Sunday (News of the World)
You (the Mail of Sunday)

and of two program publications :

Radio Times
T.V. Times

Category 3 concerns financial products :

Possession of a check book, ownership of British Telecom shares, ownership of others stocks and shares, ownership of unit trusts, possession of credit cards : Barclays (Trustcard, Visa) Access, Diner's Club, American Express, American Express Gold, Barclays Premier.

These common variables lead to a total number of 236 modalities.

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STAGE 2 DEFINITION OF CELLS FOR DATA MARRIAGE

Cells were based on combinations of the following criteria :

- Sex (3 breaks : men, women, housewives, women not housewives),
- Age (6 breaks : 15-24, 25-34, 35-44, 45-54, 55-64, 65 and more),
- Terminal education age (2 breaks : less than 19 ,19 and more),
- Social grade of informant (5 breaks : A+B, C1, C2, D, E).

78 cells were constituted, one example is :

Men, 15-34, TEA 19+, A+B

STAGE 3 FUSION IN EACH CELL

Between NRS donors and FRS recipients.

Within each cell, every FRS respondent receives all readership information from his closest NRS respondent (donor) on the basis of the distance calculated in the factorial referential.

The tabulation of results by cell shows the relative importance of the different types of marriages :

Love at first sight	16,5 %
Childhood sweethearts	2,6 %
Adultery	6,3 %
Attentiveness	1,6 %
Convenience	52,0 %
Shotgun marriages	21,0 %

On average, each donor has been used 2,17 times, 24 % of respondents in the donor file having not been used.

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3 THE FRS FUSIONED FILE

Every FRS respondent has added the whole readership information from the NRS questionnaire : 12 cards of additional media data.

The fusioned file is accessible through cross-tabulation, cost-ranking, interactive reach and frequency and schedule evaluation.

Some examples will be found here after.

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THE FRS FUSIONED FILE

34 105
RESPONDENTS

FRS QUESTIONNAIRE

- SOCIAL - DEMOGRAPHICS
- MEDIA EXPOSURE
- FINANCIAL PRODUCTS

READERSHIP ACCORDING TO NRS QUESTIONNAIRE

12 CARDS OF ADDITIONAL
MEDIA DATA

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THE OCTOBER 1986 - MARCH 1987
MRS/FRS FUSION

PETER CHANNELL

13TH APRIL 1988

www.americanradiohistory.com

Introduction

This paper is not intended as a complete 'Guide to Fusion'. It assumes the reader knows what fusion is, why one may be performed, and has a fair knowledge of certain terms used in fusion literature eg. AFC (Analysis of Correspondence), 'childhood sweetheart' marriages etc. This paper then does not deal with fusion techniques per se, but is a detailed account of the application of those techniques to the October 86 - March 87 NRS/FRS fusion.

This was the second such fusion between the NRS and FRS and was a considerable improvement over the first (April - September 86). Differences in input to the various stages between the two fusions are highlighted throughout. These differences are almost certainly the reasons for the improved results.

Some basic sample statistics are in order before going further:

	Unweighted		Ave no of donations
	NRS	FRS	per NRS respondent
16+	14258	31576	2.21

Note the FRS does not sample 15 year olds. In order to match the FRS sample, 15 year olds were REMOVED from the NRS before the fusion began.

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Common Variable Selection

The first stage in any fusion is the selection of the common variables. This requires a careful examination of both questionnaires. But perhaps more importantly each proposed variable should be run off against each survey and the unweighted %s compared in order to highlight any dramatic sampling differences. Table 1 shows this information for each common variable. The codes in brackets after each variable name are used later in the AFC.

There were several differences between this list and that used for the first fusion. The most important was the omission of regular readers of each of the FRS titles. The NRS 'equivalents' were taken to be the 'almost always'/quite often' readers before. FRS levels were almost always significantly lower than those of the NRS and it is thought that this may have had the effect of lowering the fused readership levels. These readership variables represented in fact a quarter of the common variable information. Other differences were:

i) Income was redefined on the NRS such that estimated refusals were treated solely as refused's (as per the FRS which does not estimate income) and therefore not double counted. Income groups were also collapsed, achieving 5 broadly comparable net (NRS) vs gross (FRS) bands.

ii) Acorn was collapsed from the 40 types to the 12 families, thus smoothing out any large sampling variations.

iii) Hours out of 10 C4 watched was dropped since, in fact, the questions are not the same on both surveys.

iv) Ownership of TSB shares and Midland Gold Card were added.

v) The important financial segmentor FINPIN was also added.

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The AFC

Correspondence analysis scales the rows and columns of a rectangular data matrix in corresponding units so that each can be displayed in the same low-dimensional space. Here the data matrix is the 14258 16+ NRS respondents by each of the 146 common variables. The data in this matrix are unweighted. FRS respondents are then projected passively into the space. Table 2 shows part of the AFC for axes 1-7.

Familiarity with interpretation is assumed, but to help build up a mental picture of what each axis measures, the 'high' (30+) contributors are listed below, split according to whether their co-ordinates are positive or negative.

HIGH CONTRIBUTORS

Axis	Co-ordinate +ve	Co-ordinate -ve
1.	65+ widowed etc female head of household TEA 13-14 social grade E rents from council lives alone no car no cheque book low income	mortgage
2.	65+ widowed etc TEA 13-14 part time <8 own outright lives alone	16-24 female non housewife single still studying unemployed
3.	16-24 female non housewife single still studying unemployed DT10 AD11	married with children

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4.	with children FTV1 FTV8 DT10 AD11	
5.	female housewife widowed etc female head of household	male male head of h'hold full time lives with one other
6.	female housewife not head of household lives alone	male male head of household
7.	not head of household social grade A Scotland ACORN 7 FINPIN 10 high income	rent from someone else ACORN 3 FINPIN 8

The lists provide bare outlines only. A less stringent contribution criterion, say 20+, and a close look at correlations would aid interpretation, although it can still be difficult to describe each axis concretely.

It was decided to use the first 15 axes as the space for subsequent marriages. Fewer axes were deemed not to explain enough variance.

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Definition of the Marriage Cells

In order to prevent marriages between respondents with basic demographic differences, the sample was divided into 74 cells and a separate fusion performed on each. These cells were interlacings of age, sex, class, and TEA. Table 3 shows the sample within each cell for both surveys. An index is also shown which, when divided by 100, can of course be interpreted as the average number of donations per NRS respondent in that cell. Several of the TEA 19+ cells had to be collapsed in order to acheive sufficient donors.

The following is a summary of the information in Table 3.

No of donors	No of cells
1-49	4
50-99	11
100-149	14
150-199	13
200-249	14
250-299	9
300-349	3
350-399	4
400+	2

Ave no of donations	No of cells
- 1.49	2
1.50 - 1.74	3
1.75 - 1.99	14
2.00 - 2.24	21
2.25 - 2.49	23
2.50 - 2.74	8
2.75+	3

These statistics were an improvement on those for the first fusion which had 12 (out of 78) cells with less than 50 donors, and some fairly high average numbers of donations as a result.

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Marriages and Region Restrictions

The marriage process was improved upon that used last time by imposing four regional constraints. Donors from one region were not allowed to marry recipients from another. The regions were London and South East, North/North West/North East, the rest of England, and Scotland. The net effect of this was that donor readership of regional titles was only transferred to recipients in the same region. Thus the situation that existed on the last fusion, eg 59% of the Scotsman's readers living outside Scotland, could never arise here. This of course was the main reason for adding the contraints.

Nearest neighbour techniques (Antoine & Santini) were used as per the previous fusion to marry donors to recipients. The distribution of marriages by type showed improvements. (April-September 1986 fusion figures in brackets).

MARRIAGES BY TYPE

	%
Love at first sight	23 (16)
Childhood sweethearts	3 (3)
Adultery	10 (6)
Attentiveness	2 (2)
Convenience	45 (52)
Shotgun	17 (21)

Convenience and shotgun marriages had fallen whilst love at first sights had increased. More marriages were achieved at the local level as a whole than before.

The distribution of the number of times donors were used was also an improvement.

HOW OFTEN DONORS USED

0	11 (24)
1	21 (19)
2	32 (20)
3	23 (18)
4	8 (10)
5	3 (4)
6+	2 (5)

The number of donors not used had fallen significantly, and there were fewer 4+ marriages.

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First Results

These were very encouraging and much improved compared with the earlier fusion. Overall readerships were close to NRS levels as shown in the first two columns of Table 4.

Several magazines, viz Photography, Sporting Gun, The Field, Saga Magazine, and Under Five only had three months worth of data on the NRS. This explains why their fused readership %s were much lower than their NRS %s, which, in the table, have already been multiplied by 2.

Sample duplications and cumes also compared well with the NRS. These behaved as well as, and in some cases better than, TGI figures, whose a.i.r.s are controlled to NRS levels.

Adjustments

It was decided to fine tune the readerships and in more detail than before. Each publication was controlled to give the NRS % in each of eight age within class within sex groups.

The method by which this was done involves switching readership on (for groups where the NRS level was higher than the fused level) and off (in the reverse case) for a certain number of respondents, at random within each group. Thus, for each publication, certain respondents gain the a.i.r. punch, whilst others loose it.

The technique is an iterative one since respondents have different weights, and achieving a desired increase/decrease in readership is to some extent trial and error. The process is bound to disturb duplications and cumes, but not, it was observed, unduly.

Table 4 shows NRS and 'before and after' fused readership %s for 16+ adults and each of the eight control groups.

The adjustment process has difficulty bringing Saga Magazine into line with the NRS because the initial readership was much too low, for reasons mentioned earlier. Otherwise the process works fairly well.

It will be noticed that the overall NRS and fused readership levels of a publication controlled exactly within each group may differ. This is because the NRS & FRS have slightly different age, sex and class profiles.

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TABLE 1

16+

		NRS	FRS
AGE			
15-24 (AGE1)			
	UNWGT %	17.3	19.5
25-34 (AGE2)			
	UNWGT %	18.2	18.4
35-44 (AGE3)			
	UNWGT %	17.4	17.4
45-54 (AGE4)			
	UNWGT %	14.3	13.2
55-64 (AGE5)			
	UNWGT %	13.6	13.5
65+ (AGE6)			
	UNWGT %	19.3	18.0
SEX			
Male (HOMM)			
	UNWGT %	45.1	45.5
Female h'wife (FMEN)			
	UNWGT %	7.0	8.2
Female non-h'wife (FNME)			
	UNWGT %	47.8	46.3
MARITAL STATUS			
Married (STA1)			
	UNWGT %	63.7	61.9
Single (STA2)			
	UNWGT %	22.4	24.3

SOURCE: UK NRS OCTOBER 1986-MARCH 1987 , UK FRS OCTOBER 1986 - MARCH 1987

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TABLE 1

16+

		NRS	FRS
Widowed etc (STA3)			
	UNWGT %	13.9	13.8
H'HOLD STATUS Male head of h'hold (MEN1)			
	UNWGT %	36.4	35.2
Female head of h'hold (MEN2)			
	UNWGT %	14.0	12.4
Not head of h'hold (MEN3)			
	UNWGT %	49.6	52.5
T.E.A. 13-14 (AFE1)			
	UNWGT %	24.3	24.5
15 (AFE2)			
	UNWGT %	24.2	24.4
16 (AFE3)			
	UNWGT %	25.7	27.6
17-18 (AFE4)			
	UNWGT %	11.3	11.5
19+ (AFE5)			
	UNWGT %	9.0	7.9
Still studying (AFE6)			
	UNWGT %	3.9	4.2

SOURCE: UK NRS OCTOBER 1986-MARCH 1987 , UK FRS OCTOBER 1986 - MARCH 1987

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TABLE 1

16+

		NRS	FRS
Not stated (AFE7)	UNWGT %	1.6	0.0
SOCIAL GRADE A (CSC1)	UNWGT %	2.7	2.3
B (CSC2)	UNWGT %	14.2	12.3
C1 (CSC3)	UNWGT %	22.8	22.8
C2 (CSC4)	UNWGT %	27.5	28.6
D (CSC5)	UNWGT %	18.1	18.1
E (CSC6)	UNWGT %	14.7	15.9
WORK STATUS Full time (ACT1)	UNWGT %	41.2	40.5
Part time 8-29 (ACT2)	UNWGT %	10.7	11.4
Part time <8 (ACT3)	UNWGT %	37.9	36.3

SOURCE: UK NRS OCTOBER 1986-MARCH 1987 , UK FRS OCTOBER 1986 - MARCH 1987

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TABLE 1

16+

		NRS	FRS
Unemployed (ACT4)			
	UNWGT %	10.2	9.9
Not stated (ACT5)			
	UNWGT %	0.1	0.0
TENURE Mortgage (LOG1)			
	UNWGT %	38.7	33.0
Own outright (LOG2)			
	UNWGT %	23.9	18.0
Rent from council (LOG3)			
	UNWGT %	27.1	23.9
Rent from someone else (LOG4)			
	UNWGT %	7.5	4.5
Other (LOG5)			
	UNWGT %	2.3	1.5
Not stated (LOG6)			
	UNWGT %	0.5	19.1
TELEPHONE Yes (TEL1)			
	UNWGT %	82.9	83.1

SOURCE: UK NRS OCTOBER 1986-MARCH 1987 , UK FRS OCTOBER 1986 - MARCH 1987

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TABLE 1

16+

		NRS	FRS
No (TEL2)	UNWGT %	16.7	16.9
Not stated (TEL3)	UNWGT %	0.4	0.0
H'HOLD SIZE 1 (FOY1)	UNWGT %	13.7	11.4
2 (FOY2)	UNWGT %	30.8	29.9
3 (FOY3)	UNWGT %	20.8	20.3
4 (FOY4)	UNWGT %	21.5	24.0
5+ (FOY5)	UNWGT %	13.1	14.4
CHILDREN 0-5 (EN10)	UNWGT %	13.0	15.9
5-10 (EN20)	UNWGT %	13.8	12.0
11-15 (EN30)	UNWGT %	12.2	16.5
0-15 (EN40)	UNWGT %	28.6	33.1

SOURCE: UK NRS OCTOBER 1986-MARCH 1987 , UK FRS OCTOBER 1986 - MARCH 1987

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TABLE 1

16+

		NRS	FRS
CAR Yes (AUT1)	UNWGT %	68.5	67.4
CAR No (AUT2)	UNWGT %	31.5	32.6
STANDARD REGION North (REG1)	UNWGT %	5.8	8.4
Yorkshire & Humberside (REG2)	UNWGT %	9.3	10.1
East Midlands (REG3)	UNWGT %	7.0	6.7
East Anglia (REG4)	UNWGT %	3.5	3.0
South West (REG5)	UNWGT %	7.8	8.5
West Midlands (REG6)	UNWGT %	9.5	11.0
North West (REG7)	UNWGT %	11.5	10.3

SOURCE: UK NRS OCTOBER 1986-MARCH 1987 , UK FRS OCTOBER 1986 - MARCH 1987

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TABLE 1

16+

		NRS	FRS
Wales (REG8)			
	UNWGT %	5.8	6.4
Scotland (REG9)			
	UNWGT %	13.5	9.5
GLC (RG10)			
	UNWGT %	9.9	8.4
South East ex GLC (RG11)			
	UNWGT %	16.3	17.7
ACORN			
1 (AC01)			
	UNWGT %	3.4	1.9
2 (AC02)			
	UNWGT %	15.4	17.3
3 (AC03)			
	UNWGT %	17.2	17.0
4 (AC04)			
	UNWGT %	4.1	3.8
5 (AC05)			
	UNWGT %	13.1	14.3
6 (AC06)			
	UNWGT %	10.2	10.6
7 (AC07)			
	UNWGT %	7.1	7.6

SOURCE: UK NRS OCTOBER 1986-MARCH 1987 , UK FRS OCTOBER 1986 - MARCH 1987

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TABLE 1

16+

		NRS	FRS
8 (AC08)			
	UNWGT %	3.4	3.1
9 (AC09)			
	UNWGT %	3.5	2.7
10 (AC10)			
	UNWGT %	15.0	14.1
11 (AC11)			
	UNWGT %	4.1	3.8
Unclassified (AC12)			
	UNWGT %	3.5	4.0
DAYS A WEEK TV WATCHED			
Never (FTV1)			
	UNWGT %	0.4	1.6
<=1 (FTV2)			
	UNWGT %	0.3	0.3
1-2 (FTV3)			
	UNWGT %	2.0	2.6
3-4 (FTV4)			
	UNWGT %	3.3	4.9
5 (FTV5)			
	UNWGT %	2.3	2.3
6 (FTV6)			
	UNWGT %	1.1	0.9

SOURCE: UK NRS OCTOBER 1986-MARCH 1987 , UK FRS OCTOBER 1986 - MARCH 1987

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TABLE 1

16+

		NRS	FRS
7 (FTV7)			
	UNWGT %	89.2	87.4
Not stated (FTV8)			
	UNWGT %	1.4	0.0
HOURS A DAY TV WATCHED			
<=1 (DTV1)			
	UNWGT %	8.7	4.1
2 (DTV2)			
	UNWGT %	21.3	18.6
3 (DTV3)			
	UNWGT %	20.0	23.3
4 (DTV4)			
	UNWGT %	17.5	20.0
5 (DTV5)			
	UNWGT %	12.7	14.1
6 (DTV6)			
	UNWGT %	7.7	8.3
7 (DTV7)			
	UNWGT %	3.2	3.9
8 (DTV8)			
	UNWGT %	2.5	2.2
9+ (DTV9)			
	UNWGT %	4.4	3.6

SOURCE: UK NRS OCTOBER 1986-MARCH 1987 , UK FRS OCTOBER 1986 - MARCH 1987

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TABLE 1

16+

		NRS	FRS
Not stated (DT10)			
	UNWGT %	1.8	1.9
HOURS OUT OF 10 ITV/C4 WATCHED			
None (ADV1)			
	UNWGT %	0.5	2.7
<=1 (ADV2)			
	UNWGT %	3.9	2.9
2 (ADV3)			
	UNWGT %	5.9	5.9
3 (ADV4)			
	UNWGT %	8.0	9.1
4 (ADV5)			
	UNWGT %	7.0	9.6
5 (ADV6)			
	UNWGT %	40.9	31.1
6 (ADV7)			
	UNWGT %	8.8	12.7
7 (ADV8)			
	UNWGT %	10.7	11.0
8 (ADV9)			
	UNWGT %	8.6	10.2
9+ (AD10)			
	UNWGT %	3.3	3.7

SOURCE: UK NRS OCTOBER 1986-MARCH 1987 , UK FRS OCTOBER 1986 - MARCH 1987

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TABLE 1

164

		NRS	FRS
Not stated (AD11)			
	UNWGT %	2.3	1.2
CHEQUE BOOK Yes (CB01)			
	UNWGT %	63.1	64.6
No (CB02)			
	UNWGT %	35.4	34.9
Not stated (CB03)			
	UNWGT %	1.5	0.5
BT SHARES Yes (TAC1)			
	UNWGT %	3.5	4.0
No (TC12)			
	UNWGT %	96.5	96.0
TSB SHARES Yes (TSB1)			
	UNWGT %	4.1	4.5
No (TSB2)			
	UNWGT %	95.9	95.5
OTHER STOCKS & SHARES Yes (TAC3)			
	UNWGT %	9.7	5.4
No (TC32)			
	UNWGT %	90.3	94.6

SOURCE: UK NRS OCTOBER 1986-MARCH 1987 ; UK FRS OCTOBER 1986 - MARCH 1987

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TABLE 1

164

		NRS	FRS
UNIT TRUSTS			
Yes (TAC5)			
	UNWGT %	3.5	3.1
No (TC52)			
	UNWGT %	96.5	96.9
BARCLAYCARD/ TRUSTCARD/VISA			
Yes (CCR1)			
	UNWGT %	21.8	19.6
No (CR12)			
	UNWGT %	78.2	80.4
ACCESS			
Yes (CCR2)			
	UNWGT %	16.0	14.6
No (CR22)			
	UNWGT %	84.0	85.4
DINERS CLUB			
Yes (CCR3)			
	UNWGT %	0.4	0.2
No (CR32)			
	UNWGT %	99.6	99.8
AMEX GREEN			
Yes (CCR4)			
	UNWGT %	1.5	0.9
No (CR42)			
	UNWGT %	98.5	99.1

SOURCE: UK NRS OCTOBER 1986-MARCH 1987 , UK FRS OCTOBER 1986 - MARCH 1987

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TABLE 1

164

		NRS	FRS
AMEX GOLD			
Yes (CCR5)			
	UNWGT %	0.2	0.1
No (CR52)			
	UNWGT %	99.8	99.9
B'CLAYS PREMIER			
Yes (CCR6)			
	UNWGT %	0.2	0.1
No (CR62)			
	UNWGT %	99.8	99.9
MIDLAND GOLD			
Yes (MID1)			
	UNWGT %	0.3	0.1
No (MID2)			
	UNWGT %	99.7	99.9
FINPIN			
1 (FI01)			
	UNWGT %	11.9	10.8
2 (FI02)			
	UNWGT %	7.2	8.3
3 (FI03)			
	UNWGT %	10.1	8.4
4 (FI04)			
	UNWGT %	7.2	7.2
5 (FI05)			
	UNWGT %	6.7	7.3

SOURCE: UK NRS OCTOBER 1986-MARCH 1987 , UK FRS OCTOBER 1986 - MARCH 1987

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TABLE 1

16+

		NRS	FRS
6 (FI06)	UNWGT %	9.3	9.8
7 (FI07)	UNWGT %	3.2	2.7
8 (FI08)	UNWGT %	10.8	10.2
9 (FI09)	UNWGT %	15.0	16.6
10 (FI10)	UNWGT %	13.2	13.4
Unclassified (FI11)	UNWGT %	5.4	5.2
INCOME			
NRS (net) -4767 FRS (grs) -6499	UNWGT %	20.4	24.5
NRS 4768-7447 FRS 6500-11499	UNWGT %	13.1	14.7
NRS 7448-11648 FRS 11500-15499	UNWGT %	10.8	7.4
NRS 11649+ FRS 15500+	UNWGT %	6.9	2.6

SOURCE: UK NRS OCTOBER 1986-MARCH 1987 , UK FRS OCTOBER 1986 - MARCH 1987

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TABLE 1

164

		NRS	FRS
Refused etc			
	UNWGT %	48.8	50.8

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SOURCE: UK NRS OCTOBER 1986-MARCH 1987 , UK FRS OCTOBER 1986 - MARCH 1987

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TABLE 1

164

		NRS	FRS
Refused etc			
	UNWGT %	48.8	50.8

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SOURCE: UK NRS OCTOBER 1986-MARCH 1987 , UK
FRS OCTOBER 1986 - MARCH 1987

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	JI	QLT	POID	INR	1=F	COR	CTR	2=F	COR	CTR	3=F	COR	CTR	4=F	COR	CTR	5=F	COR	CTR	6=F	COR	CTR	7=F	COR	CTR
1	AGE1	671	6	7	79	1	0	-1259	323	74	1243	317	82	-354	26	7	110	2	1	-108	2	1	3	0	0
2	AGE2	207	6	7	-423	41	6	-278	18	4	-375	36	9	415	39	11	286	19	6	-285	19	7	-391	36	15
3	AGE3	254	6	7	-644	90	13	-151	5	1	-611	81	20	459	46	13	362	29	10	-119	3	1	39	0	0
4	AGE4	62	5	7	-298	15	2	122	2	1	-203	7	2	38	0	0	-416	29	11	145	3	1	191	6	3
5	AGE5	206	4	8	254	10	2	618	59	14	14	0	0	-374	22	6	-684	72	27	434	29	11	299	14	6
6	AGE6	518	6	7	1012	238	35	1044	253	57	54	1	0	-321	24	7	37	0	0	86	2	1	-13	0	0
7	HOMM	754	15	5	-164	22	2	-5	0	0	112	10	2	107	9	2	-794	516	122	-419	143	35	-257	54	16
8	FMEN	730	16	4	162	24	2	225	47	7	-303	85	13	-39	1	0	655	396	88	389	139	32	203	38	10
9	FNME	386	2	8	123	1	0	-1365	138	36	1629	196	57	-611	28	9	472	16	7	119	1	0	289	6	3
10	STA1	672	21	3	-298	159	10	101	18	2	-407	298	32	55	5	1	-220	87	13	209	79	12	119	26	5
11	STA2	681	7	7	159	7	1	-837	197	43	1248	438	107	-220	14	4	69	1	0	-273	21	7	-106	3	1
12	STA3	533	5	8	1191	226	35	951	144	34	1	0	0	6	0	0	812	105	39	-480	37	14	-364	21	10
13	MEN1	792	12	6	-195	22	2	267	41	7	-120	8	2	226	29	6	-916	481	131	-508	148	42	-331	63	21
14	MEN2	611	5	8	1154	215	33	792	101	24	196	6	2	-8	0	0	1192	229	85	-483	38	15	-370	22	10
15	MEN3	706	16	4	-160	25	2	-401	158	22	73	5	1	-190	36	6	311	95	21	520	266	60	351	121	32
16	AFE1	906	0	7	919	264	36	711	158	34	-117	4	1	-300	28	7	-355	39	13	205	13	5	10	0	0
17	AFE2	147	8	6	-53	1	0	-210	14	3	-578	108	25	185	11	3	-137	6	2	150	7	2	-3	0	0
18	AFE3	107	8	6	-193	13	2	-492	84	17	59	1	0	-1	0	0	60	1	0	-26	0	0	-155	8	3
19	AFE4	84	4	8	-594	45	7	121	2	0	337	15	4	16	0	0	400	21	8	-65	1	0	-19	0	0
20	AFE5	249	3	8	-971	94	15	721	52	13	347	12	3	294	9	3	318	10	4	-747	56	22	405	16	8
21	AFE6	309	1	9	181	1	0	-1754	121	33	2479	242	73	-472	9	3	418	7	3	-426	7	3	238	2	1
22	AFE7	27	1	9	-48	0	0	212	1	0	491	4	1	330	2	1	138	0	0	1094	19	8	-221	1	0
23	CSC1	161	1	0	-1044	30	5	1003	20	7	645	12	3	-26	0	0	458	6	2	-727	15	6	1595	70	36
24	CSC2	250	5	7	-838	116	17	373	35	13	323	17	5	-48	0	0	252	11	4	-232	9	3	302	42	19
25	CSC3	103	7	7	-299	26	4	137	7	2	349	36	9	-58	1	0	161	8	3	58	1	0	-205	24	10
26	CSC4	163	9	6	-138	7	1	-309	36	7	-223	19	4	-32	0	0	-298	34	10	336	43	14	-254	24	9
27	CSC5	102	6	7	321	23	3	-425	40	9	-196	8	2	-81	1	0	-316	22	8	185	8	3	37	0	0
28	CSC6	428	5	7	1406	339	51	183	6	1	-177	5	1	212	8	2	291	15	5	-553	53	20	104	2	1
29	ACT1	488	13	5	-556	217	22	-146	15	2	129	12	2	92	6	1	-409	117	30	-253	45	12	-330	76	24
30	ACT2	228	3	8	-373	17	3	-209	5	1	-638	49	13	97	1	0	789	75	28	705	60	24	420	21	10
31	ACT3	547	12	5	600	217	24	572	197	34	-214	28	5	-162	16	3	215	28	8	254	39	11	189	22	7
32	ACT4	397	3	8	526	31	5	-1235	171	42	1131	143	40	-4	0	0	-96	1	0	-630	45	18	223	6	3
33	ACT5	15	0	9	297	0	0	1097	1	0	880	1	0	-19	0	0	1296	1	1	3384	10	4	-1714	2	1
34	LOG1	380	13	5	-707	321	34	-184	22	4	-49	2	0	101	6	1	154	15	4	-19	0	0	-148	14	4
35	LOG2	337	8	7	25	0	0	748	172	36	368	41	10	-428	56	15	-144	6	2	435	58	20	111	4	2
36	LOG3	535	9	6	892	295	38	-403	60	12	-407	61	14	79	2	1	-261	25	8	-267	26	9	422	66	26
37	LOG4	161	2	8	484	19	3	140	2	0	608	30	9	330	9	3	365	11	4	-515	21	9	-928	69	34
38	LOG5	14	1	9	2	0	0	-57	0	0	508	6	2	41	0	0	312	2	1	334	3	1	-330	3	1
39	LOG6	37	0	9	284	0	0	332	1	0	802	3	1	558	2	1	-171	0	0	2313	28	12	-812	3	2
40	TEL1	283	27	1	-180	155	3	76	28	1	45	10	1	-101	49	3	0	0	0	91	39	3	22	2	0
41	TEL2	288	5	7	956	184	27	-332	22	5	-121	3	1	407	33	9	-70	1	0	-467	44	16	-69	1	0
42	TEL3	31	0	9	239	0	0	380	1	0	744	2	1	648	2	1	88	0	0	2205	19	8	-1315	7	4
43	FOY1	618	4	8	1162	210	33	954	141	34	489	37	10	186	5	2	651	66	25	-809	102	40	-608	57	27
44	FOY2	393	10	6	115	6	1	531	122	24	32	0	0	-328	47	11	-563	137	42	386	65	20	191	16	6
45	FOY3	39	7	7	-190	9	1	-271	19	4	4	0	0	-59	1	0	-136	5	2	143	5	2	39	0	0
46	FOY4	200	7	7	-514	75	10	-531	80	17	-233	15	4	192	10	3	268	20	7	-32	0	0	-20	0	0
47	FOY5	168	4	7	-253	10	1	-876	119	27	-58	1	0	256	10	3	329	17	6	-194	6	2	172	5	2
48	EN10	297	4	7	-401	26	4	-490	38	9	-815	106	27	608	59	16	525	44	15	-341	19	7	-179	5	2
49	EN20	422	4	7	-600	62	9	-413	29	6	-980	166	41	651	73	20	664	76	26	-290	14	5	-112	2	1
50	EN30	284	4	7	-591	52	8	-361	19	4	-948	134	34	568	48	13	435	28	10	-126	2	1	87	1	0

Table 2.

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	J1	QLT	POID	NBR	1=F	COR	CTR	2=F	COR	CTR	3=F	COR	CTR	4=F	COR	CTR	5=F	COR	CTR	6=F	COR	CTR	7=F	COR	CTR
51	EN40	744	9	6	-514	114	13	-091	66	12	-850	312	63	552	132	30	476	98	28	-213	20	6	-72	2	1
52	AUT1	504	22	3	-439	420	23	-11	0	0	66	10	1	-78	13	1	-51	6	1	159	55	8	12	0	0
53	AUT2	509	10	6	991	447	54	52	1	0	-81	3	1	128	7	2	73	2	1	-328	49	15	-21	0	0
54	REG1	13	2	8	253	4	1	-209	3	1	-276	5	1	9	0	0	-117	1	0	-55	0	0	-19	0	0
55	REG2	12	3	8	275	8	1	-98	1	0	-103	1	0	-9	0	0	-95	1	0	24	0	0	-76	1	0
56	REG3	14	2	8	-80	0	0	125	1	0	14	0	0	-151	2	1	-17	0	0	272	6	2	-253	5	2
57	REG4	3	1	8	-94	0	0	188	1	0	91	0	0	17	0	0	79	0	0	159	1	0	-168	1	1
58	REG5	37	3	8	-250	5	1	309	8	2	128	1	0	-190	3	1	82	1	0	327	9	4	-339	10	5
59	REG6	9	3	8	54	0	0	-115	1	0	-32	0	0	-14	0	0	-108	1	0	120	2	1	-209	5	2
60	REG7	5	4	8	119	2	0	-56	0	0	64	1	0	11	0	0	-59	0	0	-95	1	0	-98	1	1
61	REG8	12	2	8	69	0	0	28	0	0	-8	0	0	-139	1	0	32	0	0	306	6	2	-291	5	3
62	REG9	159	4	8	343	18	3	-373	22	5	-234	9	2	11	0	0	-208	7	3	-210	7	3	782	96	44
63	RG10	64	3	0	-77	1	0	170	3	1	365	15	4	274	8	3	152	3	1	-499	27	11	244	7	3
64	RG11	55	5	7	-379	28	4	246	12	3	141	4	1	-53	1	0	148	4	2	98	2	1	-137	4	2
65	AC01	17	1	8	-306	3	1	195	1	0	62	0	0	-89	0	0	-3	0	0	319	9	4	-319	4	2
66	AC02	84	5	7	-567	39	9	80	1	0	-20	0	0	-58	1	0	171	5	2	263	13	5	-166	5	2
67	AC03	120	6	7	3	0	0	149	5	1	5	0	0	-85	2	0	-13	0	0	355	26	10	-648	87	38
68	AC04	46	1	8	436	8	1	-90	0	0	1	0	0	152	1	0	-150	1	0	-39	0	0	-918	36	18
69	AC05	77	4	8	296	13	2	-418	26	6	-310	14	4	-6	0	0	-360	20	7	50	0	0	205	6	3
70	AC06	172	3	0	784	69	11	-358	14	4	-412	19	5	-4	0	0	-488	27	10	-232	6	2	569	37	17
71	AC07	222	2	8	819	52	8	-790	48	12	-461	16	5	245	5	1	-213	3	1	-640	32	13	923	66	32
72	AC08	31	1	8	292	3	1	-198	1	0	378	5	1	569	11	4	-6	0	0	-550	11	5	-119	0	0
73	AC09	67	1	8	9	0	0	258	2	1	933	31	9	553	11	4	430	7	3	-653	15	7	-264	3	1
74	AC10	183	5	7	-587	61	9	461	38	9	380	26	7	-247	11	3	260	12	4	-8	0	0	443	35	16
75	AC11	52	1	8	-186	1	0	813	28	7	548	13	4	-246	3	1	268	3	1	-164	1	0	244	3	1
76	AC12	37	1	8	2	0	0	307	3	1	291	3	1	-6	0	0	497	9	4	-8	0	0	-773	22	11
77	FTV1	184	0	9	1081	4	1	935	3	1	2400	21	6	6077	134	46	-665	2	1	2107	16	7	1020	4	2
78	FTV2	2	0	9	46	0	0	278	0	0	594	1	0	-7	0	0	502	1	0	-271	0	0	-120	0	0
79	FTV3	22	1	9	-463	4	1	-133	0	0	621	8	2	-1	0	0	439	4	2	-470	5	2	-176	1	0
80	FTV4	47	1	8	-327	4	1	-244	2	1	684	16	5	-85	0	0	464	7	3	-653	15	6	-287	3	1
81	FTV5	23	1	8	-537	7	1	45	0	0	479	5	2	-52	0	0	300	2	1	-607	9	4	-11	0	0
82	FTV6	13	0	9	-583	4	1	170	0	0	715	6	2	-179	0	0	-68	0	0	-490	3	1	-154	0	0
83	FTV7	241	29	1	36	10	0	0	0	0	-90	67	2	-135	148	6	-36	11	0	25	5	0	4	0	0
84	FTV8	760	0	9	1056	16	3	907	12	3	2512	91	28	6342	579	196	-622	6	2	1866	50	22	670	6	3
85	DTV1	79	3	8	-518	25	4	96	1	0	494	23	6	-67	0	0	309	9	4	-462	20	8	87	1	0
86	DTV2	76	7	7	-455	56	8	43	0	0	186	9	2	-87	2	1	78	2	1	-160	7	2	-27	0	0
87	DTV3	23	7	7	-224	13	2	-3	0	0	63	1	0	-128	4	1	-16	0	0	17	0	0	-139	5	2
88	DTV4	17	6	7	28	0	0	-51	1	0	-75	1	0	-169	6	2	-144	4	2	117	3	1	-108	2	1
89	DTV5	41	4	8	326	15	2	-3	0	0	-243	9	2	-197	6	2	-162	4	1	204	6	2	-59	1	0
90	DTV6	41	3	8	558	26	4	18	0	0	-338	10	3	-176	3	1	-56	0	0	123	1	1	101	1	0
91	DTV7	25	1	8	710	17	3	104	0	0	-451	7	2	-181	1	0	97	0	0	115	0	0	51	0	0
92	DTV8	24	1	8	724	14	2	-149	1	0	-512	7	2	-107	0	0	146	1	0	71	0	0	232	1	1
93	DTV9	99	1	8	1106	56	9	-363	6	2	-516	12	4	-27	0	0	60	0	0	-462	10	4	565	15	7
94	DT10	950	1	9	1056	21	4	905	15	4	2438	112	34	6181	718	242	-604	7	3	1887	67	29	745	10	5
95	ADV1	4	0	9	-267	0	0	482	1	0	106	0	0	-199	0	0	796	3	1	177	0	0	157	0	0
96	ADV2	29	1	8	-540	12	2	489	10	3	147	1	0	-83	0	0	311	4	2	-233	2	1	96	0	0
97	ADV3	19	2	8	-374	9	1	197	2	1	214	3	1	-144	1	0	167	2	1	-170	2	1	43	0	0
98	ADV4	32	3	8	-448	18	3	178	3	1	201	4	1	-94	1	0	59	0	0	-272	6	3	-45	0	0
99	ADV5	13	2	8	-335	8	1	84	1	0	142	2	0	-109	1	0	11	0	0	-134	1	1	-72	0	0
100	ADV6	27	13	5	-62	3	0	12	0	0	43	1	0	-172	20	4	-71	3	1	0	0	0	-14	0	0

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	J1	QLT	POID	INR	1=F	COR	CTR	2=F	COR	CTR	3=F	COR	CTR	4=F	COR	CTR	5=F	COR	CTR	6=F	COR	CTR	7=F	COR	CTR
101	ADV7	11	3	8	209	4	1	-157	2	1	-159	2	1	-150	2	1	-57	0	0	68	0	0	-125	1	1
102	ADV8	33	4	8	369	16	3	-218	6	1	-274	9	2	-127	2	1	-33	0	0	54	0	0	-10	0	0
103	ADV9	47	3	8	517	25	4	-240	5	1	-383	14	4	-118	1	0	51	0	0	122	1	1	113	1	1
104	AD10	20	1	8	520	9	2	-280	3	1	-443	7	2	14	0	0	43	0	0	-177	1	0	-104	0	0
105	AD11	888	1	9	940	20	4	804	15	4	2149	106	32	5374	664	223	-500	6	2	1706	67	29	646	10	5
106	CB01	424	21	3	-422	306	20	227	88	9	61	6	1	-9	0	0	-3	0	0	-28	1	0	-117	23	5
107	CB02	446	12	6	776	327	37	-399	86	15	-74	3	1	-36	1	0	-21	0	0	-18	0	0	233	29	10
108	CB03	70	1	9	240	1	0	471	3	1	519	4	1	327	2	1	-132	0	0	1918	57	25	-446	3	2
109	TAC1	142	1	8	-980	35	6	1159	49	13	331	4	1	-149	1	0	-329	4	2	-529	10	4	1032	39	20
110	TC12	145	31	0	48	61	0	-33	29	0	9	2	0	-8	2	0	0	0	0	25	16	0	-36	35	1
111	TSB1	120	1	8	-900	35	6	856	32	8	303	4	1	-74	0	0	-332	5	2	-444	8	4	916	36	18
112	TSB2	126	31	0	51	59	0	-27	17	0	8	1	0	-11	3	0	2	0	0	25	14	0	-38	32	1
113	TAC3	213	3	8	-859	79	13	737	58	14	297	9	3	-10	0	0	-304	10	4	-553	33	13	474	24	12
114	TC32	214	29	1	105	102	2	-69	44	1	-10	1	0	-14	2	0	20	4	0	65	39	2	-49	22	1
115	TAC5	141	1	8	-922	31	5	1143	48	13	312	4	1	-148	1	0	-342	4	2	-593	13	6	1047	40	21
116	TC52	144	31	0	46	56	0	-32	28	0	9	2	0	-8	2	0	0	0	0	27	20	0	-37	36	1
117	CCR1	218	7	7	-739	152	21	438	53	11	40	0	0	37	0	0	-10	0	0	-210	12	4	69	1	1
118	CR12	237	26	2	220	173	7	-110	43	3	14	1	0	-27	3	0	-12	1	0	65	15	1	-17	1	0
119	CCR2	242	5	7	-912	159	23	527	53	12	50	0	0	92	2	0	-47	0	0	-372	26	10	90	2	1
120	CR22	262	27	1	188	182	5	-89	41	2	14	1	0	-33	6	0	-5	0	0	77	31	2	-15	1	0
121	CCR3	90	0	9	-1848	14	2	1656	11	3	473	1	0	208	0	0	-229	0	0	-2841	34	15	2689	30	16
122	CR32	260	32	0	20	70	0	2	1	0	18	60	0	-14	37	0	-11	21	0	17	54	0	-10	17	0
123	CCR4	169	0	8	-1645	42	7	1187	22	6	309	1	0	203	1	0	-153	0	0	-2071	66	29	1551	37	19
124	CR42	236	32	0	37	83	0	-9	5	0	16	15	0	-17	16	0	-9	5	0	37	83	1	-22	29	0
125	CCR5	71	0	9	-1886	8	1	1757	7	2	572	1	0	426	0	0	-446	0	0	-3571	27	12	3637	28	15
126	CR52	341	33	0	16	74	0	6	9	0	19	105	0	-14	59	0	-11	34	0	13	49	0	-6	11	0
127	CCR6	31	0	9	-1101	3	0	1241	3	1	512	1	0	503	1	0	-126	0	0	-1708	6	3	2754	17	9
128	CR62	303	33	0	14	59	0	7	12	0	19	104	0	-14	60	0	-11	38	0	9	24	0	-4	6	0
129	MID1	3	0	9	-805	2	0	567	1	0	-42	0	0	-96	0	0	-399	0	0	-76	0	0	-349	0	0
130	MID2	234	33	0	14	48	0	8	14	0	20	97	0	-13	40	0	-10	26	0	6	7	0	3	2	0
131	FI01	87	4	8	-716	69	11	227	7	2	45	0	0	-63	1	0	216	6	2	77	1	0	146	3	1
132	FI02	39	2	8	-358	10	2	302	7	2	310	7	2	-242	5	1	155	2	1	314	8	3	-67	0	0
133	FI03	146	3	8	-481	26	4	592	39	10	522	30	8	-277	9	3	301	10	4	-67	1	0	526	31	15
134	FI04	38	2	8	-340	9	1	121	1	0	56	0	0	-126	1	0	26	0	0	490	19	8	-330	8	4
135	FI05	25	2	8	-15	0	0	300	6	2	134	1	0	13	0	0	148	2	1	40	0	0	-481	16	8
136	FI06	18	3	8	-80	1	0	40	0	0	132	2	1	186	4	1	144	2	1	14	0	0	-303	9	5
137	FI07	8	1	8	80	0	0	-420	6	2	-103	0	0	215	2	1	-62	0	0	9	0	0	34	0	0
138	FI08	102	4	8	283	10	2	4	0	0	-100	1	0	-70	1	0	-209	5	2	214	6	2	-810	79	38
139	FI09	86	5	7	461	38	6	-330	19	4	-138	3	1	165	5	1	-260	12	4	-220	9	3	50	0	0
140	FI10	396	4	8	769	90	14	-624	39	14	-502	38	10	37	0	0	-482	35	13	-333	17	7	1016	157	72
141	FI11	44	2	8	6	0	0	246	3	1	286	5	1	28	0	0	433	11	4	-97	1	0	-658	24	12
142	REV1	423	7	7	1128	322	45	367	34	7	-213	11	3	104	3	1	59	1	0	-439	49	17	-101	3	1
143	REV2	151	4	7	-323	16	2	-110	2	0	-490	36	10	161	4	1	-483	36	13	26	0	0	-610	57	26
144	REV3	142	4	8	-845	88	14	215	6	1	-336	14	4	272	9	3	-139	2	1	-153	3	1	-400	20	9
145	REV4	311	2	8	-1324	131	21	776	45	11	-75	0	0	223	4	1	299	7	3	-849	54	22	965	70	34
146	REV5	356	16	4	14	0	0	-261	64	9	346	113	18	-205	40	7	70	5	1	340	109	25	162	25	7
		437383	0	1000			1000			1000			1000			1000			1000			1000			1000

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TABLE 3

		AB, not TEA 19+			C1, not TEA 19+			C2, not TEA 19+			D, not TEA 19+			E, not TEA 19+		
		NRS	FRS	INDEX	NRS	FRS	INDEX	NRS	FRS	INDEX	NRS	FRS	INDEX	NRS	FRS	INDEX
MEN																
16-24	UNWGT	118	315	267	279	656	235	364	986	271	205	667	234	96	237	247
25-34	UNWGT	72	148	206	213	467	219	372	834	224	204	467	229	93	226	243
35-44	UNWGT	130	229	176	217	513	236	353	790	224	137	380	277	93	202	217
45-54	UNWGT	102	233	228	173	360	208	317	624	197	179	360	201	86	153	178
55-64	UNWGT	100	219	219	161	437	271	249	567	228	183	394	215	121	323	267
65+	UNWGT	146	262	179	222	432	195	254	564	222	182	360	198	282	683	242
WOMEN																
16-24	UNWGT	132	312	236	293	698	238	336	958	285	288	654	227	168	379	226
25-34	UNWGT	132	238	180	318	673	212	397	941	237	223	520	233	165	443	268
35-44	UNWGT	193	430	223	299	722	241	413	867	210	209	508	243	92	223	242
45-54	UNWGT	156	310	199	229	516	225	293	637	217	237	473	200	91	206	226
55-64	UNWGT	147	257	175	246	466	189	237	539	227	216	462	214	159	419	264
65+	UNWGT	177	295	167	278	539	194	244	489	200	201	380	189	623	1453	233

SOURCE: UK NRS OCTOBER 1986-MARCH 1987 , UK FRS OCTOBER 1986 - MARCH 1987

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TABLE 3

		AB TEA 194			C1 TEA 194			C2DE TEA 194		
		NRS	FRS	INDEX	NRS	FRS	INDEX	NRS	FRS	INDEX
MEN										
16-34	UNWGT	142	272	192	62	190	306	45	117	260
35-54	UNWGT	195	331	170	51	104	204	19	46	242
55+	UNWGT	113	160	142	13	33	254	11	21	191
WOMEN										
16-34	UNWGT	109	226	207	100	209	209	49	131	267
35-54	UNWGT	167	269	161	55	115	209	26	64	246
55+	UNWGT	78	109	140	37	65	176	11	19	173

70 150 214

24 54 225

92 180 196

37 83 224.

SOURCE: UK NRS OCTOBER 1986-MARCH 1987 , UK FRS OCTOBER 1986 - MARCH 1987

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		16+			Men ABC1 16-44			Men ABC1 45+			Men C2DE 16-44			Men C2DE 45+		
		HRS	UNADJ FUSED	ADJ FUSED	HRS	UNADJ FUSED	ADJ FUSED	HRS	UNADJ FUSED	ADJ FUSED	HRS	UNADJ FUSED	ADJ FUSED	HRS	UNADJ FUSED	ADJ FUSED
NATIONAL DAILIES																
Daily Express	WGTD %	9.6	9.3	9.4	11.6	10.7	11.3	16.0	16.1	16.0	7.9	7.1	7.8	9.2	9.7	9.2
Daily Mail	WGTD %	9.9	10.3	9.8	13.7	13.5	13.5	16.0	16.2	16.0	7.0	8.8	7.0	8.7	8.9	8.7
Daily Mirror	WGTD %	20.1	20.2	20.1	14.9	15.9	14.9	11.8	12.4	11.8	28.9	27.4	28.3	30.7	30.9	30.7
Daily Record	WGTD %	5.0	4.9	4.9	4.2	3.7	4.0	2.0	2.0	2.0	8.0	7.0	7.8	5.2	6.9	5.2
Daily Telegraph	WGTD %	6.4	5.9	6.1	10.7	11.2	10.7	19.2	15.6	16.8	1.8	1.7	1.8	2.4	2.2	2.4
Financial Times	WGTD %	1.8	1.8	1.6	5.6	4.9	5.2	5.3	4.3	4.8	0.7	0.5	0.7	0.4	0.3	0.4
The Guardian	WGTD %	3.5	3.1	3.3	10.2	9.0	9.7	6.2	6.2	6.2	2.0	1.4	1.9	1.2	1.2	1.2
The Independent	WGTD %	1.7	1.4	1.6	5.5	4.3	5.1	3.4	3.2	3.4	1.3	0.9	1.3	0.4	0.6	0.4
Sporting Life	WGTD %	0.8	0.7	0.8	1.1	1.0	1.1	0.9	0.7	0.9	1.7	1.7	1.7	1.7	1.4	1.7
The Star	WGTD %	8.9	9.3	9.0	7.3	7.7	7.3	3.8	3.9	3.8	17.8	17.5	17.8	11.1	11.2	11.1
The Sun	WGTD %	25.0	25.6	24.9	18.9	20.6	18.9	12.7	13.0	12.7	41.0	38.2	39.8	28.6	28.2	28.5
The Times	WGTD %	2.7	2.3	2.6	7.0	6.5	6.8	7.0	6.5	7.4	1.3	1.2	1.3	0.7	0.7	0.7

SOURCE: UK NRS OCTOBER 1986-MARCH 1987 , OCTOBER 1986
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- MARCH 1987 NRS/FRS FUSION (ADJUSTED)

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TAL...

		16+			Men ABC1 16-44			Men ABC1 45+			Men C2DE 16-44			Men C2DE 45+		
		NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED
Today																
	WGTD %	2.3	2.6	2.3	4.3	4.5	4.3	2.0	2.2	2.0	3.8	3.1	3.7	1.6	1.8	1.6
REGIONAL DAILIES																
Aberdeen Press & Journal																
	WGTD %	0.6	0.8	0.6	0.7	0.7	0.7	0.9	1.0	0.9	0.5	0.7	0.5	0.7	1.0	0.7
Birmingham Daily News																
	WGTD %	1.3	1.3	1.3	0.8	0.9	0.8	1.1	1.3	1.1	1.4	1.4	1.4	1.7	1.6	1.7
Birmingham Mail/Post																
	WGTD %	1.6	1.6	1.6	1.6	1.5	1.6	1.8	2.2	1.8	1.6	1.7	1.6	2.0	2.1	2.0
Dundee Courier & Advertiser																
	WGTD %	0.7	0.9	0.7	0.5	0.7	0.5	0.5	0.9	0.5	0.7	0.8	0.7	0.7	1.1	0.7
Edinburgh Evening News																
	WGTD %	0.6	0.6	0.6	0.5	0.4	0.5	0.7	0.5	0.7	0.8	0.8	0.8	0.5	0.7	0.5
Glasgow Herald																
	WGTD %	0.8	0.5	0.7	2.0	1.0	1.6	1.9	1.1	1.5	0.7	0.4	0.7	0.3	0.4	0.3
Glasgow Evening Times																
	WGTD %	1.2	0.9	1.2	1.2	1.0	1.2	0.9	0.5	0.7	2.2	1.4	2.1	0.9	0.7	0.9
Leeds Yorkshire Evening Post																
	WGTD %	0.8	0.9	0.8	0.7	1.1	0.7	0.8	0.9	0.8	0.9	0.8	0.9	0.9	0.8	0.8

SOURCE: UK NRS OCTOBER 1986-MARCH 1987 , OCTOBER 1986
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- MARCH 1987 NRS/FRS FUSION (ADJUSTED)

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		16+			Men ABC1 16-44			Men ABC1 45+			Men C2DE 16-44			Men C2DE 45+		
		MRS	UNADJ FUSED	ADJ FUSED	MRS	UNADJ FUSED	ADJ FUSED	MRS	UNADJ FUSED	ADJ FUSED	MRS	UNADJ FUSED	ADJ FUSED	MRS	UNADJ FUSED	ADJ FUSED
Sunday Mail	WGTD %	5.4	5.4	5.3	3.9	3.7	3.8	2.7	2.5	2.7	8.2	7.2	8.0	4.9	6.7	4.9
Sunday Mirror	WGTD %	20.9	21.5	20.9	16.2	17.0	16.2	14.0	14.3	14.0	27.1	28.8	27.1	28.2	28.5	28.2
Sunday People	WGTD %	18.5	18.7	18.5	13.0	13.4	13.0	12.7	13.3	12.7	24.0	22.1	23.5	26.3	25.7	26.1
Sunday Telegraph	WGTD %	5.1	4.8	4.9	9.6	8.8	9.4	12.7	11.5	12.1	1.9	1.7	1.9	2.1	2.1	2.1
Mail on Sunday	WGTD %	10.7	10.1	10.5	19.2	19.8	19.2	13.5	13.7	13.5	9.2	7.9	8.9	6.0	6.0	6.0
Observer	WGTD %	5.2	5.0	5.1	12.4	12.6	12.4	9.2	9.1	9.2	2.7	2.1	2.6	2.2	2.3	2.2
Sunday Post	WGTD %	8.3	8.6	8.4	5.0	5.7	5.0	6.1	6.6	6.1	8.5	8.3	8.5	10.6	12.6	10.6
Sunday Times	WGTD %	7.4	6.9	7.2	17.9	16.5	17.2	13.2	13.0	13.1	3.6	3.4	3.6	2.9	3.0	2.9
Sunday Today	WGTD %	1.2	1.2	1.1	2.8	3.4	2.8	1.2	2.1	1.2	1.2	1.2	1.2	0.7	0.7	0.7
REGIONAL SUNDAYS																
Any Regional Sunday	WGTD %	2.2	2.7	2.2	2.6	2.6	2.6	1.4	2.0	1.4	2.8	3.1	2.8	3.0	2.8	3.0
Sunday Mercury	WGTD %	0.9	1.4	0.9	0.8	0.8	0.8	0.7	1.1	0.7	1.0	1.1	1.0	1.6	1.6	1.6

SOURCE: UK NRS OCTOBER 1986-MARCH 1987 , OCTOBER 1986
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- MARCH 1987 NRS/FRS FUSION (ADJUSTED)

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TABLE 4

		16+			Men ABC1 16-44			Men ABC1 45+			Men C2DE 16-44			Men C2DE 45+		
		NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED
Sunday Sun																
	WGTD %	1.0	0.9	1.0	1.3	1.3	1.3	0.5	0.7	0.5	1.2	1.2	1.2	1.2	1.0	1.2
SUNDAY SUPPLEMENTS																
Observer Magazine																
	WGTD %	5.4	5.3	5.3	12.3	12.8	12.3	9.5	9.6	9.5	2.9	2.5	2.9	2.2	2.1	2.2
Sunday Express Magazine																
	WGTD %	12.8	12.8	12.6	15.1	14.4	14.8	24.1	24.0	24.1	7.7	7.0	7.6	10.6	10.7	10.6
Sunday Times Magazine																
	WGTD %	7.7	7.3	7.4	18.1	16.9	17.6	13.2	13.4	13.2	4.0	4.0	4.0	2.9	2.8	2.9
Sunday																
	WGTD %	26.2	25.9	26.0	20.2	20.8	20.2	13.4	13.6	13.4	36.9	33.8	35.5	30.4	29.9	30.2
Telegraph Sunday Mag.																
	WGTD %	5.0	4.7	4.9	9.5	8.7	9.2	12.2	11.4	11.9	2.1	1.7	2.0	1.7	1.7	1.7
You																
	WGTD %	10.8	10.1	10.5	19.2	19.6	19.2	12.8	12.9	12.8	8.9	7.3	8.6	5.8	6.0	5.8
GENERAL WEEKLIES																
Amateur Gardening																
	WGTD %	0.9	0.9	0.9	0.5	0.3	0.5	1.6	1.6	1.6	0.4	0.4	0.4	1.9	2.0	1.9
Amateur Photographer																
	WGTD %	1.2	1.2	1.2	2.8	3.1	2.8	2.2	1.7	2.0	1.9	1.6	1.9	1.0	0.8	1.0

SOURCE: UK NRS OCTOBER 1986-MARCH 1987 , OCTOBER 1986
- MARCH 1987 NRS/FRS FUSION (UNADJUSTED) , OCTOBER 1986
- MARCH 1987 NRS/FRS FUSION (ADJUSTED)

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		16+			Men ABC1 16-44			Men ABC1 45+			Men C2DE 16-44			Men C2DE 45+		
		NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED
Angler's Mail	WGTD %	0.7	0.7	0.7	1.4	1.7	1.4	0.3	0.2	0.3	1.9	1.6	1.9	0.6	0.6	0.6
Angling Times	WGTD %	1.4	1.4	1.4	2.1	2.5	2.1	1.2	1.2	1.2	3.9	3.7	3.9	1.5	1.5	1.5
Autocar	WGTD %	1.2	1.1	1.2	3.4	3.5	3.4	1.6	1.6	1.6	2.8	2.2	2.7	1.0	1.0	1.0
Autosport	WGTD %	0.5	0.5	0.5	1.9	1.6	1.8	0.2	0.3	0.2	1.3	0.9	1.2	0.3	0.3	0.3
Camera Weekly	WGTD %	0.7	0.7	0.7	1.6	1.8	1.6	1.1	1.0	1.1	1.4	1.4	1.4	0.4	0.5	0.4
Celebrity	WGTD %	0.5	0.5	0.5	0.1	0.2	0.1	0.3	0.2	0.2	0.8	0.6	0.8	0.1	0.3	0.1
Country Life	WGTD %	1.2	1.1	1.1	1.5	1.8	1.5	2.2	2.0	2.1	0.8	0.9	0.8	0.6	0.7	0.6
Exchange & Mart	WGTD %	3.9	3.9	3.8	7.9	8.4	7.9	2.8	3.7	2.8	7.9	6.8	7.5	4.1	4.2	4.1
Garden News	WGTD %	0.9	0.9	0.9	0.3	0.3	0.3	1.4	1.2	1.4	0.6	0.5	0.6	2.1	2.4	2.1
Horse & Hound	WGTD %	0.8	0.7	0.7	1.5	0.8	1.3	0.6	0.7	0.6	0.6	0.3	0.6	0.4	0.5	0.4
Investor's Chronicle	WGTD %	0.4	0.3	0.3	1.6	1.0	1.2	1.0	1.2	1.0	0.0	0.0	0.0	0.2	0.1	0.2
Melody Maker	WGTD %	0.9	0.7	0.9	2.4	2.5	2.4	0.4	0.4	0.4	2.0	1.2	1.9	0.2	0.2	0.2

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		16+			Men ABC1 16-44			Men ABC1 45+			Men C2DE 16-44			Men C2DE 45+		
		MRS	UNADJ FUSED	ADJ FUSED	MRS	UNADJ FUSED	ADJ FUSED	MRS	UNADJ FUSED	ADJ FUSED	MRS	UNADJ FUSED	ADJ FUSED	MRS	UNADJ FUSED	ADJ FUSED
Midweek	WGTD %	0.5	0.4	0.5	0.9	0.6	0.8	0.1	0.2	0.1	0.3	0.2	0.3	0.1	0.1	0.1
Motor	WGTD %	0.8	1.1	0.8	2.8	2.7	2.8	1.5	1.4	1.5	1.3	1.1	1.3	0.4	0.4	0.4
Motorcycle News	WGTD %	1.6	1.6	1.6	3.8	4.4	3.8	0.3	0.3	0.4	4.7	4.2	4.6	1.8	2.0	1.8
Motoring News	WGTD %	1.0	0.9	1.0	2.6	2.7	2.6	0.6	0.6	0.6	2.0	1.7	2.0	0.9	1.0	0.9
New Musical Express	WGTD %	1.3	1.1	1.2	4.0	4.6	4.0	0.3	0.3	0.3	2.8	1.8	2.5	0.1	0.2	0.1
New Scientist	WGTD %	1.1	0.9	1.0	4.4	3.3	4.1	2.3	1.7	2.1	0.7	0.6	0.7	0.1	0.2	0.1
New Society	WGTD %	0.3	0.2	0.3	0.8	0.9	0.8	0.6	0.3	0.5	0.1	0.1	0.1	0.0	0.0	0.0
New Statesman	WGTD %	0.4	0.3	0.4	1.5	1.1	1.4	0.7	0.5	0.6	0.1	0.0	0.1	0.0	0.0	0.0
No. 1	WGTD %	0.8	0.7	0.8	0.9	1.0	0.9	0.2	0.3	0.2	1.4	0.9	1.3	0.1	0.1	0.1
Punch	WGTD %	1.1	1.1	1.1	3.8	3.7	3.8	2.1	2.1	2.1	0.9	0.5	0.8	0.3	0.3	0.3
RM/New Record Mirror	WGTD %	0.5	0.4	0.5	1.1	1.1	1.1	0.3	0.4	0.3	1.3	0.9	1.2	0.1	0.1	0.1
Radio Times	WGTD %	20.7	20.7	20.4	25.3	27.3	25.3	22.5	21.3	21.8	19.7	18.0	19.0	13.8	14.5	13.8

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		16+			Men ABC1 16-44			Men ABC1 45+			Men C2DE 16-44			Men C2DE 45+		
		NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED
Girl about Town	WGTD %	0.5	0.5	0.5	0.4	0.5	0.4	0.1	0.2	0.1	0.3	0.2	0.3	0.0	0.0	0.0
Jackie	WGTD %	1.3	1.2	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.7	0.8	0.3	0.3	0.3
Just Seventeen	WGTD %	1.7	1.8	1.7	0.8	1.0	0.8	0.1	0.1	0.1	0.8	0.6	0.8	0.2	0.3	0.2
Loving Weekly	WGTD %	0.3	0.2	0.3	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Ms London	WGTD %	0.7	0.6	0.6	0.7	0.7	0.7	0.2	0.2	0.2	0.3	0.3	0.3	0.0	0.0	0.0
My Guy	WGTD %	0.7	0.7	0.7	0.2	0.2	0.2	0.0	0.0	0.0	0.4	0.3	0.4	0.0	0.1	0.0
My Weekly	WGTD %	4.6	4.9	4.6	0.6	0.6	0.6	1.2	1.1	1.2	0.8	0.8	0.8	1.4	1.6	1.4
Patches	WGTD %	0.5	0.4	0.5	0.2	0.2	0.2	0.0	0.0	0.0	0.3	0.2	0.3	0.0	0.1	0.0
The Lady	WGTD %	0.6	0.5	0.6	0.0	0.0	0.0	0.6	0.7	0.6	0.1	0.1	0.1	0.0	0.0	0.0
People's Friend	WGTD %	4.1	4.1	4.1	0.6	0.7	0.8	1.0	1.2	1.0	0.5	0.5	0.5	2.2	2.5	2.2
Woman's Own	WGTD %	11.6	11.3	11.4	4.5	4.4	4.5	4.3	4.1	4.3	3.4	3.0	3.3	2.9	3.0	2.9
Woman's Realm	WGTD %	5.0	5.3	5.0	1.2	0.8	1.0	1.4	1.4	1.4	1.0	0.8	0.9	1.6	1.8	1.6

SOURCE: UK NRS OCTOBER 1986-MARCH 1987 , OCTOBER 1986
- MARCH 1987 NRS/FRS FUSION (UNADJUSTED) , OCTOBER 1986
- MARCH 1987 NRS/FRS FUSION (ADJUSTED)

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		16+			Men ABC1 16-44			Men ABC1 45+			Men C2DE 16-44			Men C2DE 45+		
		NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED
Woman's Weekly																
	WGTD %	7.6	7.9	7.5	1.4	1.2	1.4	2.7	2.6	2.6	1.4	1.1	1.4	2.5	2.7	2.5
Woman																
	WGTD %	8.8	8.5	8.7	3.3	3.4	3.3	2.6	2.7	2.6	2.2	1.7	2.1	2.0	1.9	2.0
GENERAL FORTNIGHTLIES																
Golf Illustrated																
	WGTD %	0.4	0.3	0.4	1.3	1.0	1.3	1.5	1.4	1.5	0.3	0.2	0.3	0.1	0.1	0.1
Horse & Pony																
	WGTD %	0.8	1.1	0.7	0.8	0.8	0.8	0.4	0.3	0.4	0.4	0.3	0.4	0.3	0.3	0.3
Kerrang																
	WGTD %	0.7	0.6	0.6	1.6	1.6	1.6	0.2	0.1	0.2	1.7	1.1	1.6	0.1	0.1	0.1
Mizz																
	WGTD %	0.8	0.7	0.8	0.3	0.5	0.3	0.0	0.0	0.0	0.3	0.3	0.3	0.0	0.0	0.0
Private Eye																
	WGTD %	3.1	3.0	3.1	11.7	11.7	11.7	4.9	4.8	4.9	2.7	2.3	2.7	0.6	0.5	0.6
Smash Hits																
	WGTD %	4.5	4.4	4.4	5.5	6.4	5.5	0.8	0.7	0.8	7.6	5.0	6.9	0.2	0.3	0.2

SOURCE: UK NRS OCTOBER 1986-MARCH 1987 , OCTOBER 1986
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- MARCH 1987 NRS/FRS FUSION (ADJUSTED)

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		16+			Men ABC1 16-44			Men ABC1 45+			Men C2DE 16-44			Men C2DE 45+		
		NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED
GENERAL MONTHLIES																
BBC Wild Life																
	WGTD %	1.2	1.2	1.2	1.5	1.3	1.5	1.0	1.5	1.0	1.1	1.5	1.1	1.8	1.7	1.7
Bike																
	WGTD %	1.0	1.1	1.0	2.8	3.3	2.8	0.4	0.4	0.4	2.7	2.9	2.7	0.5	0.7	0.5
Blitz																
	WGTD %	0.4	0.4	0.4	1.1	1.6	1.1	0.1	0.2	0.1	0.5	0.2	0.4	0.0	0.0	0.0
Car Mechanics																
	WGTD %	2.1	2.2	2.1	3.8	4.6	3.8	2.1	2.1	2.1	5.6	5.6	5.6	3.2	2.9	3.1
Car																
	WGTD %	2.1	1.9	2.0	5.8	5.7	5.7	2.0	1.9	2.0	4.1	3.4	3.9	1.6	1.8	1.6
Cars & Car Conversions																
	WGTD %	0.7	0.7	0.7	2.8	3.1	2.8	0.2	0.2	0.2	2.0	1.5	1.9	0.2	0.2	0.2
Choice																
	WGTD %	0.3	0.3	0.3	0.2	0.3	0.2	0.5	0.7	0.5	0.2	0.2	0.2	0.2	0.2	0.2
Classic and Sportscar																
	WGTD %	1.2	1.1	1.1	4.2	4.6	4.2	0.4	0.6	0.4	2.8	2.1	2.7	0.6	0.6	0.6
Classic Cars																
	WGTD %	1.6	1.5	1.6	5.0	5.0	5.0	1.2	1.2	1.2	3.8	3.3	3.7	0.7	0.8	0.7
Club International																
	WGTD %	0.8	0.8	0.8	1.5	1.8	1.5	0.4	0.3	0.4	3.2	3.4	3.2	0.4	0.4	0.4
Custom Car																
	WGTD %	2.3	2.3	2.3	5.2	6.0	5.2	1.7	1.9	1.7	7.4	6.7	7.2	1.6	1.6	1.6

SOURCE: UK NRS OCTOBER 1986-MARCH 1987 , OCTOBER 1986
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- MARCH 1987 NRS/FRS FUSION (ADJUSTED)

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TABLE 4

		16+			Men ABC1 16-44			Men ABC1 45+			Men C2DE 16-44			Men C2DE 45+		
		NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED
Do-It-Yourself	WGTD %	2.3	2.3	2.3	2.2	2.2	2.2	2.6	2.5	2.6	4.0	3.4	3.8	3.7	3.8	3.7
Escort	WGTD %	1.2	1.1	1.1	2.3	2.4	2.3	0.5	0.5	0.5	4.6	4.0	4.5	0.6	0.7	0.6
Fast Lane	WGTD %	0.7	0.6	0.7	2.6	2.5	2.6	0.3	0.3	0.3	2.1	1.5	2.0	0.2	0.2	0.2
Fiesta	WGTD %	1.6	1.6	1.6	3.6	3.7	3.6	0.5	0.6	0.5	5.5	5.4	5.5	1.1	1.0	1.1
Garden Answers	WGTD %	0.4	0.4	0.4	0.2	0.2	0.2	0.7	0.9	0.7	0.3	0.3	0.3	0.7	0.8	0.7
Geographical Magazine	WGTD %	1.0	0.9	0.9	1.3	1.3	1.3	2.2	2.3	2.2	0.7	0.4	0.7	0.8	1.1	0.8
Golf Monthly	WGTD %	1.6	1.5	1.6	4.5	4.6	4.5	4.6	4.1	4.3	1.7	1.1	1.6	0.7	0.9	0.7
Golf World	WGTD %	1.1	1.1	1.1	2.7	2.9	2.7	3.1	3.1	3.1	1.1	0.9	1.1	0.8	0.8	0.8
Gramophone	WGTD %	0.4	0.4	0.4	1.3	1.4	1.3	1.5	1.3	1.5	0.4	0.2	0.4	0.3	0.4	0.3
Hi-Fi Answers	WGTD %	0.5	0.4	0.5	1.8	1.8	1.8	0.9	0.8	0.9	0.9	0.7	0.9	0.0	0.0	0.0
Hi-Fi News & Record Review	WGTD %	0.7	0.6	0.7	2.4	2.6	2.4	0.8	0.7	0.8	1.4	0.9	1.3	0.3	0.6	0.3
Illustrated London News	WGTD %	0.5	0.4	0.5	1.1	1.0	1.1	1.3	1.1	1.3	0.0	0.0	0.0	0.3	0.3	0.3

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		16+			Men ABC1 16-44			Men ABC1 45+			Men C2DE 16-44			Men C2DE 45+		
		NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED
Knave	WGTD %	1.1	1.1	1.1	1.8	1.7	1.8	0.4	0.3	0.4	4.2	4.7	4.2	0.9	0.9	0.9
Management Today	WGTD %	0.8	0.7	0.8	2.8	2.6	2.7	3.1	2.9	3.1	0.3	0.3	0.3	0.2	0.2	0.2
Mayfair	WGTD %	1.6	1.5	1.6	3.5	3.2	3.3	0.9	0.9	0.9	5.1	5.2	5.1	1.4	1.4	1.4
Men Only	WGTD %	1.4	1.4	1.4	3.8	3.4	3.7	1.0	1.0	1.0	4.6	4.7	4.6	1.0	1.0	1.0
Motor Boat & Yachting	WGTD %	0.6	0.5	0.6	1.1	0.9	1.1	1.1	0.9	1.0	1.0	0.9	1.0	0.9	0.8	0.9
Which Bike	WGTD %	0.4	1.0	0.4	1.2	1.5	1.2	0.2	0.1	0.2	1.2	4.9	1.2	0.1	0.2	0.1
Motorsport	WGTD %	1.8	2.5	1.9	4.3	4.7	4.3	1.9	2.4	1.9	4.4	7.6	4.5	2.1	1.7	2.1
National Geographic	WGTD %	2.8	2.7	2.7	6.4	6.1	6.3	6.0	5.0	5.6	1.5	1.2	1.5	1.6	1.8	1.6
New Hi-Fi Sound	WGTD %	0.5	0.5	0.5	1.4	1.6	1.4	0.4	0.4	0.4	1.4	1.1	1.3	0.1	0.0	0.1
Penthouse	WGTD %	1.5	1.5	1.5	2.8	3.3	2.8	0.9	0.7	0.8	4.9	4.7	4.9	1.6	1.7	1.6
Performance Bikes	WGTD %	0.8	1.0	0.8	1.9	2.7	1.9	0.3	0.3	0.3	2.9	3.3	2.9	0.3	0.3	0.3

SOURCE: UK NRS OCTOBER 1986-MARCH 1987 , OCTOBER 1986
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		16+			Men ABC1 16-44			Men ABC1 45+			Men C2DE 16-44			Men C2DE 45+		
		NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED
Running	WGTD %	0.5	0.5	0.5	1.3	1.3	1.3	0.3	0.2	0.3	1.1	0.9	1.1	0.2	0.1	0.2
SLR Photography	WGTD %	0.6	0.5	0.6	1.7	1.5	1.7	1.0	0.6	0.9	1.2	1.1	1.2	0.4	0.3	0.4
Sporting Gun	WGTD %	0.9	0.5	0.8	1.7	1.4	1.5	0.5	0.2	0.5	2.4	1.3	2.3	0.9	0.4	0.8
Street Machine	WGTD %	1.3	1.4	1.3	3.6	4.2	3.6	0.2	0.1	0.2	4.3	4.6	4.3	0.3	0.4	0.3
Superbike	WGTD %	1.1	1.9	1.2	2.0	2.7	2.0	0.5	0.7	0.5	4.2	8.2	4.2	0.4	0.4	0.4
The Face	WGTD %	0.7	0.8	0.7	2.6	3.4	2.6	0.3	0.5	0.3	0.9	0.7	0.9	0.0	0.0	0.0
The Field	WGTD %	1.0	0.6	0.8	1.3	0.7	1.0	3.8	2.0	2.7	0.6	0.4	0.6	0.5	0.5	0.5
The Garden	WGTD %	0.5	0.5	0.5	0.5	0.5	0.5	1.0	0.9	1.0	0.3	0.2	0.3	0.3	0.3	0.3
The Scot's Magazine	WGTD %	0.8	0.8	0.8	0.5	0.4	0.5	1.9	2.0	1.9	0.7	0.5	0.7	0.8	1.2	0.8
The Scotsman Magazine	WGTD %	0.5	0.6	0.5	1.3	1.2	1.3	1.2	1.3	1.2	0.5	0.5	0.5	0.2	0.3	0.2
Titbits Magazine	WGTD %	2.0	2.0	2.0	1.4	1.2	1.3	0.9	1.1	0.9	1.7	1.8	1.7	1.9	2.2	1.9

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		16+			Men ABC1 16-44			Men ABC1 45+			Men C2DE 16-44			Men C2DE 45+		
		NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED
Annabel	WGTD %	1.4	1.3	1.4	0.2	0.2	0.2	0.3	0.4	0.3	0.2	0.1	0.2	0.1	0.1	0.1
Company	WGTD %	1.2	1.1	1.2	1.4	1.3	1.4	0.3	0.1	0.2	0.3	0.1	0.3	0.0	0.0	0.0
Cosmopolitan	WGTD %	4.3	3.9	4.1	5.1	5.5	5.1	1.7	1.6	1.6	2.0	1.5	1.9	0.1	0.2	0.1
Country Homes & Interiors	WGTD %	1.2	1.2	1.2	1.3	1.2	1.3	0.7	1.3	0.7	0.7	0.5	0.7	0.9	0.8	0.9
Country Living	WGTD %	1.3	1.2	1.3	2.1	1.6	2.0	1.0	1.5	1.0	0.9	1.1	0.9	0.7	0.5	0.7
Elle	WGTD %	1.7	1.5	1.6	1.5	1.1	1.2	0.5	0.5	0.5	0.4	0.2	0.3	0.0	0.0	0.0
Family Circle	WGTD %	6.4	6.2	6.3	3.9	3.1	3.6	2.0	2.3	2.0	1.6	1.1	1.5	0.8	0.7	0.8
Fitness	WGTD %	1.2	1.1	1.1	1.3	1.6	1.3	0.3	0.3	0.3	1.6	1.3	1.5	0.4	0.5	0.4
Good Housekeeping	WGTD %	5.6	5.4	5.5	4.3	4.2	4.3	2.7	3.3	2.7	1.0	0.9	1.0	1.0	1.2	1.0
Hair Flair	WGTD %	1.3	1.2	1.3	0.4	0.4	0.4	0.0	0.0	0.0	0.5	0.5	0.5	0.1	0.2	0.1
Harpers & Queen	WGTD %	1.4	1.3	1.4	1.3	0.9	1.2	0.5	0.4	0.5	0.2	0.1	0.2	0.0	0.1	0.0
Here's Health	WGTD %	0.8	0.7	0.8	0.5	0.5	0.5	0.7	0.5	0.7	0.1	0.1	0.1	0.3	0.2	0.3

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		16+			Men ABC1 16-44			Men ABC1 45+			Men C2DE 16-44			Men C2DE 45+		
		'000s	UNADJ FUSED '000s	ADJ FUSED '000s	'000s	UNADJ FUSED '000s	ADJ FUSED '000s	'000s	UNADJ FUSED '000s	ADJ FUSED '000s	'000s	UNADJ FUSED '000s	ADJ FUSED '000s	'000s	UNADJ FUSED '000s	ADJ FUSED '000s
Parents	WGTD %	1.5	1.7	1.4	1.0	1.1	1.0	0.0	0.1	0.0	0.8	0.5	0.8	0.0	0.0	0.0
Pins & Needles	WGTD %	1.0	1.1	1.0	0.2	0.4	0.2	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.1
Prima	WGTD %	3.3	3.7	3.2	1.6	1.7	1.6	0.5	0.6	0.4	0.8	0.6	0.8	0.4	0.3	0.4
She	WGTD %	2.4	2.4	2.4	1.7	2.1	1.7	1.5	1.7	1.5	0.6	0.5	0.6	0.4	0.4	0.4
The Tatler	WGTD %	0.7	0.6	0.6	1.2	0.7	1.1	0.6	0.9	0.6	0.1	0.1	0.1	0.1	0.1	0.1
True Romances	WGTD %	2.5	2.5	2.5	0.1	0.1	0.1	0.1	0.1	0.1	0.5	0.5	0.5	0.2	0.2	0.2
True Story	WGTD %	2.0	1.9	2.0	0.1	0.1	0.1	0.3	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.2
Vogue	WGTD %	4.3	4.5	4.2	3.7	3.5	3.7	0.9	1.4	1.0	1.6	1.2	1.5	0.2	0.3	0.2
Woman & Home	WGTD %	5.4	5.5	5.4	0.9	0.7	0.8	1.5	1.7	1.5	0.6	0.7	0.6	0.6	0.8	0.6
Woman's Journal	WGTD %	2.2	2.0	2.1	0.4	0.4	0.4	1.3	1.2	1.3	0.2	0.3	0.2	0.1	0.2	0.1
Woman's Story	WGTD %	0.9	0.8	0.9	0.0	0.0	0.0	0.2	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.2
Woman's World	WGTD %	2.0	2.0	2.0	0.8	0.8	0.8	0.5	0.4	0.5	1.0	0.7	1.0	0.4	0.5	0.4

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		16+			Men ABC1 16-44			Men ABC1 45+			Men C2DE 16-44			Men C2DE 45+		
		NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED
Working Woman	WGTD %	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.0	0.1
World of Interiors	WGTD %	0.4	0.4	0.4	0.3	0.2	0.3	0.1	0.4	0.1	0.2	0.2	0.2	0.0	0.0	0.0
WOMEN'S BIMONTHLIES																
Brides	WGTD %	0.5	0.5	0.5	0.3	0.1	0.3	0.2	0.4	0.2	0.3	0.2	0.3	0.1	0.2	0.1
Hair and Good Looks Book	WGTD %	1.1	1.1	1.1	0.4	0.3	0.4	0.0	0.1	0.0	0.3	0.2	0.3	0.1	0.2	0.1
Sasa Magazine	WGTD %	2.2	1.1	1.7	0.0	0.0	0.0	5.0	2.3	3.4	0.0	0.0	0.0	2.8	1.6	2.4
Slimmer	WGTD %	0.9	0.8	0.9	0.2	0.2	0.2	0.1	0.0	0.1	0.3	0.3	0.3	0.2	0.2	0.2
Slimming	WGTD %	2.3	2.3	2.2	0.6	0.6	0.6	0.4	0.4	0.4	0.8	0.7	0.8	0.2	0.3	0.2
Successful Slimming	WGTD %	1.0	1.1	1.0	0.0	0.1	0.0	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.3	0.2
Taste	WGTD %	0.4	0.4	0.4	0.7	0.3	0.7	0.1	0.3	0.1	0.0	0.1	0.0	0.0	0.0	0.0
Under Five	WGTD %	0.8	0.8	0.7	0.4	0.3	0.4	0.0	0.0	0.0	0.5	0.3	0.4	0.0	0.0	0.0
Weight Watchers	WGTD %	2.4	2.5	2.4	0.7	0.8	0.7	0.6	0.6	0.6	1.1	0.7	1.0	0.8	1.0	0.8

SOURCE: UK NRS OCTOBER 1986-MARCH 1987 , OCTOBER 1986
- MARCH 1987 NRS/FRS FUSION (UNADJUSTED) , OCTOBER 1986
- MARCH 1987 NRS/FRS FUSION (ADJUSTED)

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		16+			Men ABC1 16-44			Men ABC1 45+			Men C2DE 16-44			Men C2DE 45+		
		NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED
What Diet?																
	WGTD %	0.5	0.5	0.5	0.1	0.0	0.1	0.2	0.2	0.2	0.3	0.1	0.3	0.4	0.4	0.4
QUARTERLIES																
Birds																
	WGTD %	1.6	1.4	1.6	2.0	1.6	1.9	3.8	3.6	3.8	1.5	1.0	1.4	1.4	1.5	1.4
Hair																
	WGTD %	4.5	4.2	4.3	2.2	2.1	2.1	0.0	0.0	0.0	2.1	1.7	2.0	0.2	0.3	0.2

SOURCE: UK NRS OCTOBER 1986-MARCH 1987 , OCTOBER 1986
- MARCH 1987 NRS/FRS FUSION (UNADJUSTED) , OCTOBER 1986
- MARCH 1987 NRS/FRS FUSION (ADJUSTED)

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TABLE 4

		Women ABC1 16-44			Women ABC1 45+			Women C2DE 16-44			Women C2DE 45+		
		NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED
NATIONAL DAILIES													
Daily Express	WGTD %	8.7	8.5	8.7	14.7	14.2	14.6	5.3	5.9	5.3	8.4	7.4	8.1
Daily Mail	WGTD %	12.5	12.4	12.5	13.6	13.6	13.6	6.5	7.7	6.5	7.1	6.9	7.1
Daily Mirror	WGTD %	12.5	12.4	12.5	8.7	9.2	8.7	20.9	19.8	20.6	22.5	23.1	22.5
Daily Record	WGTD %	3.5	3.1	3.5	2.0	1.8	2.0	6.4	6.9	6.4	5.4	4.8	5.2
Daily Telegraph	WGTD %	8.3	8.6	8.3	16.5	15.4	16.1	1.3	1.1	1.3	2.1	1.7	2.0
Financial Times	WGTD %	2.2	1.9	2.1	1.5	1.5	1.5	0.7	3.2	0.7	0.2	0.2	0.2
The Guardian	WGTD %	6.5	5.8	6.2	3.9	4.0	3.9	1.1	1.1	1.1	0.4	0.3	0.4
The Independent	WGTD %	2.7	2.4	2.6	1.6	1.8	1.6	0.3	0.3	0.3	0.1	0.2	0.2
Sporting Life	WGTD %	0.3	0.2	0.3	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.0	0.1
The Star	WGTD %	4.0	4.5	4.0	2.1	2.4	2.1	11.5	13.1	11.5	7.0	7.2	7.0
The Sun	WGTD %	15.5	15.7	15.5	10.0	9.7	9.8	34.8	38.3	34.8	23.2	24.7	23.2
The Times	WGTD %	4.9	3.9	4.4	3.1	2.8	3.0	0.6	0.7	0.6	0.5	0.3	0.5

SOURCE: UK NRS OCTOBER 1986-MARCH 1987 , OCTOBER 1986
- MARCH 1987 NRS/FRS FUSION (UNADJUSTED) , OCTOBER 1986
- MARCH 1987 NRS/FRS FUSION (ADJUSTED)

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		Women ABC1 16-44			Women ABC1 45+			Women C2DE 16-44			Women C2DE 45+		
		HRS	UNADJ FUSED	ADJ FUSED	HRS	UNADJ FUSED	ADJ FUSED	HRS	UNADJ FUSED	ADJ FUSED	HRS	UNADJ FUSED	ADJ FUSED
Today	WGTD %	1.8	2.0	1.8	1.5	1.4	1.5	2.3	4.1	2.3	1.3	1.1	1.3
REGIONAL DAILIES													
Aberdeen Press & Journal	WGTD %	0.6	1.1	0.6	0.4	0.6	0.4	0.4	0.3	0.4	0.8	0.9	0.8
Birmingham Daily News	WGTD %	1.4	1.4	1.4	1.1	1.1	1.1	1.4	1.3	1.4	1.2	1.2	1.2
Birmingham Mail/Post	WGTD %	1.8	2.0	1.8	0.7	0.9	0.7	1.5	1.0	1.4	1.5	1.5	1.5
Dundee Courier & Advertiser	WGTD %	0.6	0.8	0.6	0.5	0.8	0.5	0.3	0.5	0.3	1.2	1.6	1.2
Edinburgh Evening News	WGTD %	0.5	0.5	0.5	0.7	0.7	0.7	0.5	0.4	0.5	0.6	1.0	0.6
Glasgow Herald	WGTD %	1.2	1.0	1.2	1.1	0.3	0.7	0.3	0.2	0.3	0.3	0.1	0.3
Glasgow Evening Times	WGTD %	0.8	0.7	0.8	0.5	0.4	0.5	1.6	1.2	1.5	1.2	0.9	1.2
Leeds Yorkshire Evening Post	WGTD %	0.7	1.0	0.7	1.1	1.0	1.1	0.8	0.8	0.8	0.7	0.8	0.7

SOURCE: UK MRS OCTOBER 1986-MARCH 1987 , OCTOBER 1986
- MARCH 1987 MRS/FRS FUSION (UNADJUSTED) , OCTOBER 1986
- MARCH 1987 MRS/FRS FUSION (ADJUSTED)

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		Women ABC1 16-44			Women ABC1 45+			Women C2DE 16-44			Women C2DE 45+		
		NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED
Liverpool Echo	WGTD %	1.1	0.9	1.1	0.5	0.5	0.5	1.3	1.6	1.3	1.2	0.9	1.2
Manchester Evening News	WGTD %	1.3	1.4	1.3	1.7	1.5	1.6	2.0	2.5	2.0	1.8	1.8	1.8
The Standard	WGTD %	3.8	3.8	3.8	2.0	2.1	2.0	1.2	1.3	1.2	1.2	1.2	1.2
The Scotsman	WGTD %	0.8	0.9	0.8	0.7	0.9	0.7	0.1	0.1	0.1	0.1	0.1	0.1
Wolverh'ton Exp & Shropshr Star	WGTD %	1.2	1.1	1.2	1.4	1.3	1.4	2.4	2.1	2.4	1.8	1.9	1.8
Yorkshire Post	WGTD %	0.8	1.0	0.8	1.1	1.1	1.1	0.3	0.7	0.3	0.3	0.2	0.3
Aberdeen Evening Exp.	WGTD %	0.3	0.9	0.3	0.3	0.6	0.3	0.2	1.4	0.2	0.6	1.0	0.6
Dundee Evening Telegraph	WGTD %	0.1	0.2	0.1	0.1	0.3	0.1	0.4	0.6	0.4	0.2	0.5	0.2
NATIONAL SUNDAYS													
News of the World	WGTD %	19.0	20.3	19.0	13.9	13.9	13.9	38.8	37.1	38.2	28.2	29.5	28.2
Sunday Express	WGTD %	12.9	13.5	12.9	27.4	27.6	27.4	6.6	9.0	6.6	9.3	8.4	9.0

SOURCE: UK NRS OCTOBER 1986-MARCH 1987 , OCTOBER 1986
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- MARCH 1987 NRS/FRS FUSION (ADJUSTED)

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TABLE 4

		Women ABC1 16-44			Women ABC1 45+			Women C2DE 16-44			Women C2DE 45+		
		NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED
Sunday Mail	WGTD %	4.4	4.2	4.3	2.6	2.4	2.5	7.1	7.5	7.1	6.0	5.7	6.0
Sunday Mirror	WGTD %	15.9	16.3	15.9	10.7	11.0	10.7	24.7	23.9	24.5	21.6	22.5	21.6
Sunday People	WGTD %	11.4	11.4	11.4	10.4	10.5	10.4	19.8	20.8	19.8	22.0	23.4	22.0
Sunday Telegraph	WGTD %	6.6	7.0	6.6	11.0	11.0	11.0	1.8	1.4	1.8	1.9	1.9	1.9
Mail on Sunday	WGTD %	18.5	18.3	18.5	10.5	10.4	10.5	8.5	6.6	8.1	5.5	5.4	5.5
Observer	WGTD %	10.4	11.0	10.4	6.9	6.7	6.9	2.0	1.6	1.9	1.5	1.4	1.5
Sunday Post	WGTD %	5.6	5.6	5.6	7.2	6.9	7.2	8.1	7.7	8.1	12.7	12.5	12.7
Sunday Times	WGTD %	14.7	13.9	14.4	10.4	10.1	10.2	2.8	2.7	2.8	2.3	1.9	2.2
Sunday Today	WGTD %	1.2	1.3	1.2	0.7	0.7	0.7	1.1	0.9	1.1	0.6	0.5	0.6
REGIONAL SUNDAYS Any Regional Sunday	WGTD %	1.9	2.2	1.9	1.2	1.3	1.2	2.0	4.8	2.0	2.1	2.0	2.1
Sunday Mercury	WGTD %	0.8	0.8	0.8	0.6	0.6	0.6	0.8	3.6	0.8	0.9	0.8	0.9

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		Women ABC1 16-44			Women ABC1 45+			Women C2DE 16-44			Women C2DE 45+		
		HRS	UNADJ FUSED	ADJ FUSED	HRS	UNADJ FUSED	ADJ FUSED	HRS	UNADJ FUSED	ADJ FUSED	HRS	UNADJ FUSED	ADJ FUSED
Sunday Sun	WGTD %	0.8	0.7	0.8	0.3	0.4	0.3	1.0	1.0	1.0	1.0	1.0	1.0
SUNDAY SUPPLEMENTS													
Observer Magazine	WGTD %	11.0	11.7	11.0	7.0	6.8	7.0	2.2	1.8	2.2	1.6	1.4	1.6
Sunday Express Magazine	WGTD %	13.6	14.0	13.6	26.6	27.0	26.6	6.7	9.2	6.7	8.8	8.0	8.7
Sunday Times Magazine	WGTD %	15.2	14.8	14.9	10.1	10.0	10.1	3.7	3.4	3.7	2.2	1.8	2.1
Sunday	WGTD %	18.8	20.0	18.8	13.0	12.9	13.0	36.6	35.0	36.1	26.0	27.1	26.0
Telegraph Sunday Mag.	WGTD %	7.0	7.3	7.0	11.0	11.3	11.0	1.8	1.3	1.8	1.8	1.9	1.8
You	WGTD %	19.2	19.1	19.2	10.6	10.5	10.6	9.1	6.7	8.4	5.5	5.5	5.5
GENERAL WEEKLIES													
Amateur Gardening	WGTD %	0.2	0.3	0.2	1.6	1.6	1.6	0.3	0.2	0.3	1.1	1.1	1.1
Amateur Photographer	WGTD %	0.6	0.9	0.6	0.9	1.0	0.9	0.7	0.8	0.7	0.3	0.3	0.3

SOURCE: UK NRS OCTOBER 1986-MARCH 1987 , OCTOBER 1986
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		Women ABC1 16-44			Women ABC1 45+			Women C2DE 16-44			Women C2DE 45+		
		NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED
Angler's Mail	WGTD %	0.2	0.2	0.2	0.1	0.1	0.1	0.6	0.7	0.6	0.0	0.1	0.0
Anglins Times	WGTD %	0.5	0.4	0.5	0.2	0.3	0.2	0.8	1.0	0.8	0.3	0.3	0.3
Autocar	WGTD %	0.3	0.3	0.3	0.5	0.6	0.5	0.4	0.5	0.4	0.0	0.0	0.0
Autosport	WGTD %	0.3	0.3	0.3	0.1	0.5	0.1	0.1	0.3	0.1	0.0	0.0	0.0
Camera Weekly	WGTD %	0.3	0.5	0.3	0.4	0.4	0.4	0.6	0.4	0.6	0.1	0.1	0.1
Celebrity	WGTD %	0.8	1.1	0.8	0.3	0.3	0.3	1.2	1.0	1.2	0.2	0.2	0.2
Country Life	WGTD %	2.1	1.8	2.0	2.1	1.8	2.0	0.8	0.6	0.8	0.4	0.4	0.4
Exchange & Mart	WGTD %	2.8	3.0	2.8	0.8	1.1	0.8	2.8	3.3	2.8	1.1	1.0	1.1
Garden News	WGTD %	0.6	0.5	0.6	0.7	0.8	0.7	0.4	0.3	0.4	1.2	1.2	1.2
Horse & Hound	WGTD %	1.0	1.2	1.0	0.8	0.5	0.6	0.8	0.8	0.8	0.5	0.5	0.5
Investor's Chronicle	WGTD %	0.2	0.3	0.2	0.4	0.4	0.4	0.1	0.0	0.1	0.0	0.0	0.0
Melody Maker	WGTD %	0.9	0.9	0.9	0.1	0.1	0.1	1.2	0.6	1.1	0.1	0.1	0.1

SOURCE: UK NRS OCTOBER 1986-MARCH 1987 , OCTOBER 1986
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TABLE 4

		Women ABC1 16-44			Women ABC1 45+			Women C2DE 16-44			Women C2DE 45+		
		NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED
Midweek	WGTD %	1.3	1.3	1.3	0.3	0.4	0.3	0.6	0.6	0.6	0.2	0.1	0.2
Motor	WGTD %	0.4	0.4	0.4	0.4	0.4	0.4	0.1	2.6	0.1	0.1	0.1	0.1
Motorcycle News	WGTD %	0.4	0.4	0.4	0.2	0.2	0.2	0.8	0.6	0.8	0.2	0.3	0.2
Motoring News	WGTD %	0.6	0.5	0.6	0.2	0.4	0.2	0.5	0.5	0.5	0.3	0.3	0.3
New Musical Express	WGTD %	1.2	1.2	1.2	0.2	0.1	0.2	1.3	0.8	1.2	0.2	0.3	0.2
New Scientist	WGTD %	1.6	1.3	1.6	0.5	0.6	0.5	0.4	0.4	0.4	0.0	0.1	0.0
New Society	WGTD %	0.7	0.3	0.6	0.2	0.5	0.2	0.3	0.2	0.3	0.0	0.0	0.0
New Statesman	WGTD %	0.6	0.5	0.6	0.7	0.9	0.7	0.1	0.1	0.1	0.0	0.0	0.0
No. 1	WGTD %	1.2	1.0	1.2	0.1	0.1	0.1	2.2	1.8	2.2	0.1	0.1	0.1
Punch	WGTD %	1.5	1.5	1.5	1.2	0.8	1.1	0.5	0.6	0.5	0.2	0.2	0.2
RM/New Record Mirror	WGTD %	0.5	0.4	0.5	0.0	0.0	0.0	0.7	0.6	0.7	0.1	0.1	0.1
Radio Times	WGTD %	26.0	25.4	25.8	25.4	26.1	25.4	21.4	22.4	21.4	16.0	16.3	16.0

SOURCE: UK NRS OCTOBER 1985-MARCH 1987 , OCTOBER 1986
- MARCH 1987 NRS/FRS FUSION (UNADJUSTED) , OCTOBER 1986
- MARCH 1987 NRS/FRS FUSION (ADJUSTED)

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TABLE 4

		Women ABC1 16-44			Women ABC1 45+			Women C2DE 16-44			Women C2DE 45+		
		NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED
Shoot	WGTD %	0.2	0.4	0.2	0.1	0.2	0.1	0.5	0.4	0.5	0.1	0.1	0.1
Sounds	WGTD %	0.4	0.5	0.4	0.1	0.0	0.0	0.5	0.4	0.5	0.0	0.0	0.0
TV Times	WGTD %	25.2	25.4	25.2	21.4	21.7	21.4	24.9	25.4	24.9	17.5	17.7	17.5
The Economist	WGTD %	1.6	1.3	1.6	0.5	0.6	0.5	0.2	0.3	0.2	0.0	0.0	0.0
The Listener	WGTD %	0.7	0.7	0.7	0.7	0.8	0.6	0.3	0.1	0.3	0.0	0.1	0.0
The Spectator	WGTD %	0.3	0.3	0.3	0.4	0.5	0.4	0.0	0.0	0.0	0.0	0.0	0.0
Time Out	WGTD %	1.9	1.5	1.9	0.1	0.2	0.1	0.5	0.3	0.5	0.0	0.0	0.0
Weekend	WGTD %	1.7	1.5	1.7	1.4	1.4	1.4	2.1	2.1	2.1	1.5	1.4	1.5
Weekly News	WGTD %	1.7	2.1	1.7	3.7	3.8	3.7	4.7	4.4	4.7	6.7	6.8	6.7
WOMEN'S WEEKLIES													
Blue Jeans	WGTD %	1.4	1.6	1.4	0.1	0.4	0.1	2.8	2.2	2.8	0.4	0.4	0.4
Chat	WGTD %	4.1	4.5	4.1	2.5	2.6	2.5	9.0	8.0	8.7	3.6	4.3	3.6
Cook's Weekly	WGTD %	0.4	0.4	0.4	0.4	0.3	0.4	0.7	0.5	0.7	0.4	0.4	0.4

SOURCE: UK NRS OCTOBER 1986-MARCH 1987 , OCTOBER 1986
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TABLE 4

		Women ABC1 16-44			Women ABC1 45+			Women C2DE 16-44			Women C2DE 45+		
		NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED
Girl about Town	WGTD %	2.3	1.8	2.1	0.2	0.4	0.2	0.6	0.6	0.6	0.3	0.2	0.3
Jackie	WGTD %	2.3	2.4	2.3	0.3	0.5	0.3	5.0	4.4	4.9	0.7	0.7	0.7
Just Seventeen	WGTD %	5.2	5.5	5.2	0.6	1.0	0.6	5.3	5.2	5.3	0.3	0.3	0.3
Loving Weekly	WGTD %	0.4	0.6	0.4	0.0	0.0	0.0	1.5	0.9	1.4	0.1	0.1	0.1
Ms London	WGTD %	2.8	2.3	2.7	0.4	0.6	0.4	0.8	0.8	0.8	0.3	0.2	0.3
My Guy	WGTD %	1.1	0.9	1.1	0.0	0.1	0.0	2.9	2.8	2.9	0.2	0.2	0.2
My Weekly	WGTD %	4.9	4.9	4.9	7.4	7.8	7.4	7.3	9.2	7.3	10.9	10.7	10.9
Patches	WGTD %	0.7	0.7	0.7	0.0	0.2	0.0	2.1	1.4	2.0	0.2	0.2	0.2
The Lady	WGTD %	1.1	0.8	1.1	1.8	1.8	1.8	1.0	0.8	1.0	0.5	0.3	0.5
People's Friend	WGTD %	3.1	3.4	3.1	7.0	6.5	6.8	4.3	3.8	4.2	12.1	11.9	12.1
Woman's Own	WGTD %	21.2	20.9	21.1	15.9	16.2	15.9	23.2	21.9	22.9	14.8	14.9	14.8
Woman's Realm	WGTD %	7.0	6.5	6.9	9.0	9.6	9.0	7.5	9.8	7.5	10.0	9.7	10.0

SOURCE: UK NRS OCTOBER 1986-MARCH 1987 , OCTOBER 1986
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- MARCH 1987 NRS/FRS FUSION (ADJUSTED)

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TABLE 4

		Women ABC1 16-44			Women ABC1 45+			Women C2DE 16-44			Women C2DE 45+		
		NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED
Woman's Weekly													
	WGTD %	10.7	9.5	10.3	15.7	15.5	15.6	10.3	12.5	10.3	15.0	15.9	15.0
Woman													
	WGTD %	18.1	17.6	18.0	12.6	13.0	12.6	17.5	16.5	17.2	10.9	10.9	10.9
GENERAL FORTNIGHTLIES													
Golf Illustrated													
	WGTD %	0.1	0.1	0.1	0.3	0.3	0.3	0.1	0.2	0.1	0.0	0.0	0.0
Horse & Pony													
	WGTD %	1.9	1.8	1.9	0.3	0.5	0.3	1.3	3.7	1.3	0.5	0.5	0.5
Kerrang													
	WGTD %	0.3	0.5	0.3	0.2	0.3	0.2	0.8	0.8	0.8	0.0	0.0	0.0
Mizz													
	WGTD %	2.4	2.0	2.4	0.3	0.5	0.3	2.8	2.3	2.8	0.1	0.1	0.1
Private Eye													
	WGTD %	4.8	4.7	4.8	2.0	2.2	2.0	1.1	0.8	1.1	0.3	0.4	0.3
Smash Hits													
	WGTD %	8.0	7.8	8.0	0.7	0.5	0.6	10.3	12.2	10.3	0.5	0.5	0.5

SOURCE: UK NRS OCTOBER 1986-MARCH 1987 , OCTOBER 1986
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- MARCH 1987 NRS/FRS FUSION (ADJUSTED)

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TABLE 4

		Women ABC1 16-44			Women ABC1 45+			Women C2DE 16-44			Women C2DE 45+		
		HRS	UNADJ FUSED	ADJ FUSED	HRS	UNADJ FUSED	ADJ FUSED	HRS	UNADJ FUSED	ADJ FUSED	HRS	UNADJ FUSED	ADJ FUSED
Do-It-Yourself	WGTD %	1.2	1.2	1.2	1.5	2.0	1.5	2.0	1.8	2.0	0.9	1.1	0.9
Escort	WGTD %	0.1	0.1	0.1	0.0	0.0	0.0	0.3	0.3	0.3	0.0	0.0	0.0
Fast Lane	WGTD %	0.2	0.3	0.2	0.0	0.0	0.0	0.2	0.2	0.2	0.0	0.0	0.0
Fiesta	WGTD %	0.4	0.1	0.4	0.1	0.1	0.1	0.7	0.7	0.7	0.1	0.2	0.1
Garden Answers	WGTD %	0.2	0.2	0.2	0.7	0.6	0.7	0.3	0.2	0.3	0.2	0.2	0.2
Geographical Magazine	WGTD %	2.0	1.6	1.9	1.4	1.7	1.4	0.1	0.1	0.1	0.1	0.1	0.1
Golf Monthly	WGTD %	1.4	1.2	1.4	1.3	1.3	1.3	0.4	0.5	0.4	0.3	0.2	0.3
Golf World	WGTD %	0.8	0.8	0.8	0.7	0.8	0.7	0.4	0.4	0.4	0.2	0.1	0.2
Gramophone	WGTD %	0.3	0.2	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1
Hi-Fi Answers	WGTD %	0.3	0.2	0.3	0.0	0.1	0.0	0.3	0.2	0.3	0.0	0.0	0.0
Hi-Fi News & Record Review	WGTD %	0.2	0.2	0.2	0.1	0.1	0.1	0.3	0.2	0.3	0.2	0.2	0.2
Illustrated London News	WGTD %	0.6	0.9	0.6	1.0	0.9	1.0	0.1	0.0	0.1	0.2	0.2	0.2

SOURCE: UK NRS OCTOBER 1986-MARCH 1987 , OCTOBER 1986
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TAB__

		Women ABC1 16-44			Women ABC1 45+			Women C2DE 16-44			Women C2DE 45+		
		HRS	UNADJ FUSED	ADJ FUSED	HRS	UNADJ FUSED	ADJ FUSED	HRS	UNADJ FUSED	ADJ FUSED	HRS	UNADJ FUSED	ADJ FUSED
Knave	WGTD %	0.2	0.1	0.2	0.0	0.1	0.0	0.2	0.2	0.2	0.0	0.0	0.0
Management Today	WGTD %	0.9	0.7	0.8	0.5	0.5	0.5	0.2	0.0	0.2	0.0	0.0	0.0
Mayfair	WGTD %	0.5	0.4	0.5	0.1	0.1	0.1	0.4	0.3	0.4	0.1	0.0	0.1
Men Only	WGTD %	0.2	0.1	0.2	0.1	0.0	0.1	0.4	0.4	0.4	0.0	0.1	0.0
Motor Boat & Yachting	WGTD %	0.2	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.0	0.1
Which Bike	WGTD %	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.0	0.0	0.0
Motorsport	WGTD %	0.9	1.0	0.9	0.4	0.4	0.4	0.6	0.8	0.6	0.1	0.2	0.1
National Geographic	WGTD %	4.5	4.5	4.5	4.1	4.3	4.1	1.1	1.0	1.1	0.6	0.9	0.6
New Hi-Fi Sound	WGTD %	0.1	0.1	0.1	0.0	0.0	0.0	0.3	0.5	0.3	0.2	0.2	0.2
Penthouse	WGTD %	0.4	0.4	0.4	0.0	0.1	0.0	0.5	0.4	0.5	0.2	0.2	0.2
Performance Bikes	WGTD %	0.1	0.1	0.1	0.0	0.0	0.0	0.3	0.3	0.3	0.0	0.1	0.0

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- MARCH 1987 NRS/FRS FUSION (UNADJUSTED) , OCTOBER 1986
- MARCH 1987 NRS/FRS FUSION (ADJUSTED)

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		Women ABC1 16-44			Women ABC1 45+			Women C2DE 16-44			Women C2DE 45+		
		NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED
Performance Car													
	WGTD %	0.3	0.2	0.3	0.2	0.2	0.2	0.4	0.6	0.4	0.1	0.1	0.1
Photography													
	WGTD %	0.5	0.2	0.4	0.4	0.2	0.3	0.9	0.4	0.8	0.2	0.0	0.2
Practical Photography													
	WGTD %	1.0	1.0	1.0	0.4	0.3	0.4	0.7	0.7	0.7	0.2	0.3	0.2
Practical Boat Owner													
	WGTD %	0.6	0.4	0.6	0.5	0.3	0.4	0.3	0.3	0.3	0.3	0.2	0.3
Practical Gardening													
	WGTD %	1.2	1.3	1.2	3.0	3.3	3.0	1.2	1.2	1.2	1.9	2.1	1.9
Practical Householder													
	WGTD %	0.9	1.1	0.9	1.1	1.3	1.1	0.7	0.9	0.7	0.5	0.7	0.5
Practical Motorist													
	WGTD %	0.3	0.3	0.3	0.2	0.1	0.1	0.3	0.2	0.3	0.2	0.1	0.2
Practical Woodworking													
	WGTD %	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.5	0.5	0.5	0.5
Reader's Digest													
	WGTD %	17.0	17.0	17.0	21.4	22.0	21.4	10.3	9.2	10.1	11.3	11.2	11.3
Riding													
	WGTD %	0.7	0.8	0.7	0.2	0.3	0.2	0.8	0.7	0.8	0.2	0.2	0.2

SOURCE: UK NRS OCTOBER 1986-MARCH 1987 , OCTOBER 1986
- MARCH 1987 NRS/FRS FUSION (UNADJUSTED) , OCTOBER 1986
- MARCH 1987 NRS/FRS FUSION (ADJUSTED)

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TABLE 3

		Women ABC1 16-44			Women ABC1 45+			Women C2DE 16-44			Women C2DE 45+		
		HRS	UNADJ FUSED	ADJ FUSED	HRS	UNADJ FUSED	ADJ FUSED	HRS	UNADJ FUSED	ADJ FUSED	HRS	UNADJ FUSED	ADJ FUSED
Running	WGTD %	0.8	0.5	0.7	0.1	0.2	0.1	0.3	0.3	0.3	0.1	0.2	0.1
SLR Photography	WGTD %	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.1
Sporting Gun	WGTD %	0.7	0.4	0.6	0.1	0.1	0.1	0.3	0.1	0.4	0.2	0.1	0.2
Street Machine	WGTD %	0.4	0.3	0.4	0.1	0.1	0.1	0.7	0.8	0.7	0.1	0.2	0.1
Superbike	WGTD %	0.7	0.7	0.7	0.1	0.2	0.1	0.5	0.3	0.5	0.0	0.0	0.0
The Face	WGTD %	1.3	1.2	1.3	0.1	0.2	0.1	0.7	0.8	0.7	0.0	0.0	0.0
The Field	WGTD %	1.3	0.9	1.3	1.9	1.0	1.4	0.2	0.1	0.2	0.3	0.3	0.3
The Garden	WGTD %	0.5	0.4	0.5	1.4	1.7	1.4	0.1	0.1	0.1	0.3	0.2	0.3
The Scot's Magazine	WGTD %	0.4	0.5	0.4	1.6	1.3	1.6	0.3	0.3	0.3	0.7	0.6	0.7
The Scotsman Magazine	WGTD %	0.6	0.5	0.6	0.6	0.6	0.6	0.4	0.4	0.4	0.1	0.1	0.1
Titbits Magazine	WGTD %	2.0	2.2	2.0	1.3	1.1	1.2	3.7	3.3	3.6	2.2	2.2	2.2

SOURCE: UK NRS OCTOBER 1986-MARCH 1987 , OCTOBER 1986
- MARCH 1987 NRS/FRS FUSION (UNADJUSTED) , OCTOBER 1986
- MARCH 1987 NRS/FRS FUSION (ADJUSTED)

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		Women ABC1 16-44			Women ABC1 45+			Women C2DE 16-44			Women C2DE 45+		
		NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED
Today's Runner	WGTD %	0.6	0.4	0.6	0.1	0.0	0.1	0.2	0.1	0.2	0.0	0.0	0.0
Trout Fisherman	WGTD %	0.2	0.0	0.2	0.1	0.2	0.1	0.4	0.3	0.4	0.0	0.0	0.0
Trout & Salmon	WGTD %	0.4	0.4	0.4	0.5	0.5	0.5	0.1	0.1	0.1	0.1	0.2	0.1
What Car?	WGTD %	2.9	2.6	2.8	1.2	1.0	1.1	1.0	1.0	1.0	0.4	0.5	0.4
What Hi-Fi?	WGTD %	0.7	0.6	0.7	0.1	0.2	0.1	0.6	0.4	0.6	0.0	0.1	0.0
Which Compact Disc	WGTD %	0.7	0.5	0.7	0.2	0.4	0.2	0.7	0.7	0.7	0.0	0.0	0.0
Yachting Monthly	WGTD %	0.8	0.7	0.8	0.7	0.6	0.7	0.3	0.2	0.3	0.1	0.1	0.1
Yachting World	WGTD %	0.4	0.3	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.0	0.1
Your Horse	WGTD %	0.9	0.9	0.9	0.2	0.2	0.2	0.8	3.1	0.8	0.1	0.1	0.1
WOMEN'S MONTHLIES '19'	WGTD %	4.3	4.4	4.3	0.4	0.7	0.4	4.9	4.3	4.8	0.3	0.4	0.3
A la Carte	WGTD %	1.9	1.9	1.9	0.7	0.8	0.7	0.3	0.3	0.3	0.1	0.1	0.1

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- MARCH 1987 NRS/FRS FUSION (ADJUSTED)

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TABLE 4

		Women ABC1 16-44			Women ABC1 45+			Women C2DE 16-44			Women C2DE 45+		
		NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED
Home & Freezer Digest													
	WGTD %	6.1	5.2	5.8	4.7	5.5	4.7	4.1	6.5	4.1	2.7	2.7	2.7
Home & Country													
	WGTD %	1.4	1.2	1.4	2.1	2.2	2.1	0.8	1.1	0.8	1.0	0.7	1.0
Homes & Gardens													
	WGTD %	7.0	7.1	7.0	9.8	9.3	9.4	1.9	1.7	1.9	2.9	3.2	2.9
House & Garden													
	WGTD %	5.6	5.5	5.6	5.4	5.2	5.3	2.0	2.0	2.0	1.7	1.6	1.7
Ideal Home													
	WGTD %	11.2	11.6	11.2	8.2	8.8	8.2	6.3	5.6	6.2	2.9	2.4	2.8
Living Magazine													
	WGTD %	8.1	7.8	8.1	4.7	6.2	4.7	4.1	4.0	4.1	1.8	1.4	1.8
Look Now													
	WGTD %	3.1	3.0	3.1	0.3	0.3	0.3	2.3	2.4	2.3	0.2	0.2	0.2
Looks													
	WGTD %	2.5	2.0	2.3	0.3	0.4	0.3	1.8	1.1	1.7	0.1	0.1	0.1
Mother & Baby													
	WGTD %	5.2	4.8	5.2	1.4	1.4	1.4	7.5	9.7	7.5	1.0	1.1	1.0
Mother													
	WGTD %	2.1	2.2	2.1	0.3	0.5	0.3	2.4	5.0	2.4	0.2	0.3	0.2
Options													
	WGTD %	6.3	6.5	6.3	3.0	2.7	2.9	3.8	3.3	3.7	0.5	0.6	0.5
Over 21													
	WGTD %	5.2	5.6	5.2	0.4	0.6	0.4	4.4	3.5	4.2	0.4	0.4	0.4

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TA

		Women ABC1 16-44			Women ABC1 45+			Women C2DE 16-44			Women C2DE 45+		
		NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED
Annabel	WGTD %	2.8	3.1	2.8	3.5	3.1	3.2	2.1	1.7	2.1	2.1	1.9	2.1
Company	WGTD %	5.0	4.8	5.0	1.0	0.9	1.0	2.1	1.7	2.1	0.1	0.3	0.1
Cosmopolitan	WGTD %	13.7	12.7	13.4	4.8	4.7	4.8	7.1	5.9	6.7	1.3	1.4	1.3
Country Homes & Interiors	WGTD %	2.8	2.3	2.7	2.2	2.6	2.2	0.9	1.0	0.9	0.7	0.8	0.7
Country Living	WGTD %	3.5	2.7	3.3	2.3	2.7	2.3	0.9	0.7	0.9	0.3	0.4	0.3
Elle	WGTD %	6.6	6.6	6.6	2.2	2.2	2.2	2.7	2.1	2.6	0.2	0.3	0.2
Family Circle	WGTD %	14.7	14.3	14.6	11.0	12.3	11.0	11.6	11.4	11.6	6.3	5.9	6.2
Fitness	WGTD %	2.2	2.3	2.2	0.7	0.8	0.7	1.8	1.4	1.7	0.6	0.6	0.6
Good Housekeeping	WGTD %	14.9	13.8	14.5	12.6	12.7	12.6	6.8	6.3	6.7	4.5	4.5	4.5
Hair Flair	WGTD %	3.7	4.1	3.7	0.7	0.6	0.7	3.5	2.7	3.4	0.8	0.8	0.8
Harpers & Queen	WGTD %	4.4	4.6	4.4	4.1	4.3	4.1	1.5	1.2	1.5	0.6	0.4	0.6
Here's Health	WGTD %	1.9	1.6	1.8	1.7	1.6	1.6	1.1	0.8	1.1	0.6	0.4	0.6

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		Women ABC1 16-44			Women ABC1 45+			Women C2DE 16-44			Women C2DE 45+		
		NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED	NRS	UNADJ FUSED	ADJ FUSED
Parents	WGTD %	3.5	3.3	3.5	0.4	0.5	0.4	4.9	6.9	4.9	0.3	0.4	0.3
Pins & Needles	WGTD %	1.7	2.0	1.7	2.2	2.4	2.2	1.7	1.9	1.7	1.6	1.9	1.6
Prima	WGTD %	9.4	9.0	9.3	4.0	5.1	4.0	7.3	9.8	7.3	2.2	2.6	2.2
She	WGTD %	6.2	6.1	6.2	4.2	4.2	4.2	4.0	3.7	3.9	1.7	1.4	1.7
The Tatler	WGTD %	2.0	2.0	2.0	1.6	1.1	1.4	0.4	0.4	0.4	0.1	0.1	0.1
True Romances	WGTD %	3.4	3.9	3.4	1.4	1.6	1.4	8.6	8.1	8.5	3.6	3.5	3.6
True Story	WGTD %	2.1	2.3	2.1	1.3	1.2	1.3	6.7	6.5	6.7	3.2	3.0	3.2
Vogue	WGTD %	11.7	12.0	11.7	7.7	7.8	7.7	7.9	9.4	7.9	1.7	1.7	1.7
Woman & Home	WGTD %	9.3	10.3	9.3	16.6	17.5	16.6	6.3	5.9	6.2	8.7	8.7	8.7
Woman's Journal	WGTD %	5.8	6.3	5.8	6.3	5.4	5.7	2.4	2.3	2.4	2.3	1.8	2.2
Woman's Story	WGTD %	1.1	1.1	1.1	0.5	0.5	0.5	3.2	2.8	3.1	1.1	1.0	1.1
Woman's World	WGTD %	4.4	4.9	4.4	2.1	2.1	2.1	4.0	4.1	4.0	2.2	2.3	2.2

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- MARCH 1987 NRS/FRS FUSION (UNADJUSTED) , OCTOBER 1986
- MARCH 1987 NRS/FRS FUSION (ADJUSTED)

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		Women ABC1 16-44			Women ABC1 45+			Women C2DE 16-44			Women C2DE 45+		
		HRS	UNADJ FUSED	ADJ FUSED	HRS	UNADJ FUSED	ADJ FUSED	HRS	UNADJ FUSED	ADJ FUSED	HRS	UNADJ FUSED	ADJ FUSED
What Diet?	WGTD %	0.6	0.5	0.6	1.1	1.1	1.1	0.9	1.0	0.9	0.4	0.4	0.4
QUARTERLIES Birds	WGTD %	0.9	1.1	0.9	2.8	2.5	2.5	0.6	0.5	0.6	1.2	1.0	1.2
Hair	WGTD %	12.3	11.6	12.1	2.5	3.0	2.5	13.1	12.2	13.0	1.5	1.5	1.5

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Akron, OH PMSA
Akron, OH TSA
Albany/Schenectady/Troy, NY MSA
Albuquerque, NM BDM*
Alexandria, LA MSA
Allentown/Bethlehem, PA-NJ MSA
Amarillo, TX MSA
Anchorage, AK MSA
Ann Arbor, MI PMSA
Appleton/Oshkosh/Neenah, WI MSA
Atlanta, GA MSA
Augusta, GA-SC MSA
Austin, TX MSA
Bakersfield, CA MSA
Baltimore, MD MSA
Bangor, ME BDM*
Baton Rouge, LA MSA
Beaumont/Port Arthur, TX MSA
Benton Harbor, MI MSA
Billings, MT MSA
Biloxi/Gulfport/Pascagoula, MS BDM*
Binghamton, NY MSA
Birmingham, AL MSA
Boise, ID BDM*
Boston, MA BDM*
Boston ADI
Brattleboro, VT BDM*
Breckenridge/Vail, CO BDM*
Bridgeport, CT BDM*
Bridgeport/Milford, CT PMSA
Buffalo/Niagara Falls, NY CMSA
Burlington, VT BDM*
Camden/Miller/Morgan, MO BDM*
Cape Cod, MA BDM*
Cedar Rapids, IA MSA
Central Upper Michigan BDM*
Charleston, SC MSA
Charleston, WV MSA
Charlotte/Gastonia/Rock Hill, NC-SC MSA
Charlottesville, VA MSA
Chattanooga, TN-GA MSA
Cheshire County, NH BDM*
Chicago/Gary/Lake, IL-IN-WI CMSA
Chico, CA MSA
Cincinnati, OH-KY-IN PMSA
Cleveland, OH BDM*
Colorado Springs, CO MSA
Columbia, SC MSA
Columbus, GA-AL MSA
Columbus, OH MSA
Corning/Elmira, NY BDM*
Corpus Christi, TX MSA
Dallas/Fort Worth, TX BDM*
Davenport/Rock Island/Moline, IA-IL MSA
Dayton/Springfield, OH MSA
Denver/Boulder, CO CMSA
Des Moines, IA MSA
Detroit, MI PMSA
Dothan, AL BDM*
Dubuque, IA MSA
Duluth, MN/Superior, WI BDM*
Eastern Long Island, NY BDM*
Elkhart/Goshen, IN MSA
El Paso, TX MSA
Erie, PA MSA
Eugene/Springfield, OR MSA
Evansville, IN-KY MSA
Fairbanks, AK BDM*
Fayetteville, NC BDM*
Flint, MI MSA
Florence, AL MSA
Florence, SC MSA
Fond Du Lac, WI BDM*
Ft Collins/Greeley/Loveland, CO BDM*
Ft Laud/Hollywood/Pompano Beach, FL PMSA
Ft Myers/Cape Coral, FL MSA
Fort Walton Beach, FL MSA
Fresno, CA MSA
Fresno, CA TSA
Gainesville, FL BDM*
Glens Falls, NY BDM*
Grand Rapids, MI MSA
Green Bay, WI MSA
Greensboro/Winston-Salem/High Point, NC MSA
Greenville-Spartanburg, SC MSA
Hagerstown/Chambersburg/Waynesboro, MD-PA BDM*
Harrisonburg, VA BDM*
Harrisburg, PA BDM*
Hartford/New Britain/Middletown, CT BDM*
Hartford-New Haven ADI
Hattiesburg, MS BDM*
Houston/Galveston/Brazoria, TX CMSA
Huntington/Ashland, WV-KY-OH MSA
Huntsville, AL BDM*
Indianapolis, IN MSA
Iowa City, IA MSA
Ithaca, NY BDM*
Jackson, MS MSA
Jacksonville, FL BDM*
Jefferson City, MO BDM*
Johnson City/Kingsport/Bristol, TN-VA MSA
Joplin, MO MSA
Kalamazoo, MI MSA
Kansas City, MO-KS MSA
Killeen/Temple, TX MSA
Knoxville, TN MSA
Lancaster, PA MSA
Lansing/East Lansing, MI MSA
Laredo, TX MSA
Las Cruces, NM BDM*
Las Vegas, NV MSA
Lebanon, NH BDM*
Lexington/Fayette, KY MSA
Lima, OH MSA
Little Rock/North Little Rock, AR MSA
Longview/Kelso, WA BDM*
Longview/Marshall, TX MSA
Los Angeles/Orange County, CA BDM*
Louisville, KY-IN MSA
Lubbock, TX MSA
Lynchburg, VA BDM*
Madison, WI MSA
Madison, WI TSA
Manchester, NH MSA
Mecosta County, MI BDM*
Medford, OR MSA
Memphis, TN-AR-MS MSA
Miami/Ft Lauderdale, FL CMSA
Miami/Hialeah, FL PMSA
Milwaukee/Racine, WI CMSA
Minneapolis/St Paul, MN-WI MSA
Mobile, AL MSA
Modesto, CA MSA
Monmouth/Ocean, NJ PMSA
Monroe, LA MSA
Montgomery, AL MSA
Morgantown/Clarksburg/Fairmont, WV-PA BDM*
Muskegon, MI MSA
Nashville, TN MSA
Nassau/Suffolk, NY PMSA
New Bedford/Fall River, MA BDM*
New Haven/Meriden, CT MSA
New Orleans, LA MSA
New York/N NJ/Long Isl, NY-NJ-CT CMSA
Norfolk/Virginia Beach/Newport News, VA MSA
Northern East Michigan BDM*
Northern Lower Michigan BDM*
North Shore Lake Tahoe, NV BDM*
Odessa/Midland, TX BDM*
Oklahoma City, OK MSA
Omaha, NE-IA MSA
Orlando, FL MSA
Oxnard/Ventura, CA BDM*
Paducah, KY BDM*
Panama City, FL MSA
Pensacola, FL MSA
Peoria, IL MSA
Philadelphia, PA-NJ PMSA
Phoenix, AZ MSA
Pittsburgh/Beaver Valley, PA CMSA
Plymouth/Norfolk/Barnstable/Bristol, MA BDM*
Plymouth, MA BDM*
Plymouth/Norfolk, MA BDM*
Plymouth/Barnstable, MA BDM*
Portland/Lewiston/Auburn, ME BDM*
Portland/Vancouver, OR-WA BDM*
Portsmouth/Dover/Rochester, NH BDM*
Providence, RI BDM*
Raleigh/Durham, NC MSA
Reading, PA MSA
Reno, NV MSA
Richland/Kennewick/Pasco, WA MSA
Richmond/Petersburg, VA MSA
Riverside/San Bernardino, CA BDM*
Roanoke, VA MSA
Rochester, MN MSA
Rochester, NY MSA
Rockford, IL MSA
Rome, GA BDM*
Russellville/Bowling Green/Hopkinsville/Clarksville, KY-TN BDM*
Sacramento, CA MSA
Saginaw/Bay City/Midland, MI MSA
St Clair County, MI BDM*
St Joseph, MO BDM*
St Louis, MO-IL MSA
Salem, OR MSA
Salina, KS BDM*
Salinas/Seaside/Monterey, CA BDM*
Salisbury/Ocean City, MD BDM*
Salt Lake City/Provo/Ogden, UT BDM*
San Angelo, TX MSA
San Antonio, TX MSA
San Benito County, CA BDM*
San Diego, CA MSA
San Francisco/Oakland/San Jose, CA CMSA
San Jose, CA PMSA
San Luis Obispo, CA BDM*
Santa Maria/Lompoc, CA BDM*
Savannah/Beaufort/Hilton Head, GA-SC BDM*
Scranton/Wilkes-Barre, PA MSA
Seattle/Tacoma, WA BDM
Shreveport, LA BDM*
Shreveport, LA TSA
Sierra Vista, AZ BDM*
South Bend/Mishawaka, IN MSA
South Shore Lake Tahoe, CA-NV BDM*
Spokane, WA BDM*
Springfield, MA BDM*
Springfield, MO MSA
Springfield, MO TSA
Staunton/Waynesboro, VA BDM*
Steuben County, IN BDM*
Steubenville/Weirton, OH-WV MSA
Stockton, CA MSA
Sumter, SC BDM*
Syracuse, NY MSA
Tallahassee, FL MSA
Tampa/St Petersburg/Clearwater, FL MSA
Taney/Stone Counties, MO BDM*
Terre Haute, IN MSA
Texarkana, TX/Texarkana, AR MSA
Toledo, OH MSA
Topeka, KS MSA
Toronto C.M.A., Ontario
Traverse City/Cadillac, MI BDM*
Tulsa, OK BDM*
Tuscaloosa, AL MSA
Tyler, TX MSA
Utica/Rome, NY MSA
Valdosta (Lowndes County), GA BDM*
Washington, DC-MD-VA MSA
Waterloo/Cedar Falls, IA MSA
Wausau, WI MSA
Wausau/Rhinelander, WI BDM*
W Palm Bch/Boca Raton/Delray Bch, FL MSA
Wichita, KS MSA
Wichita, KS TSA
Wichita Falls, TX MSA
Williamsport, PA MSA
Winchester, VA BDM*
Worcester, MA MSA
Yakima, WA MSA
York, PA MSA
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