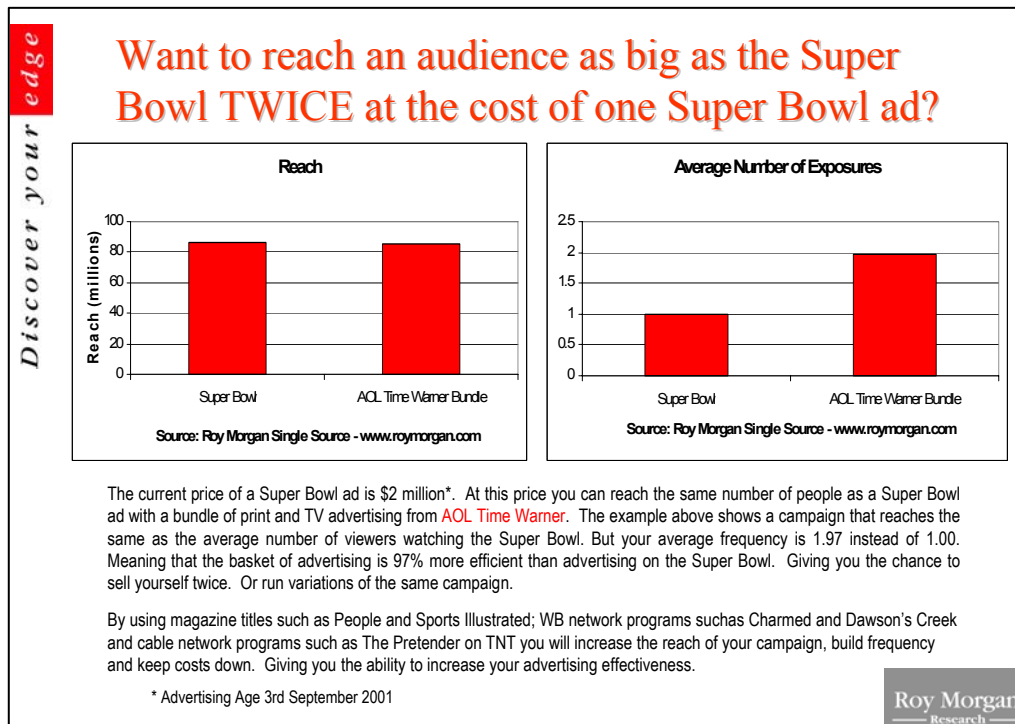


A New Method To Measure Media Casualness for Magazines and Newspapers

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This is a good story for print media.



You cannot run an ad like this unless you have:

- Sensible relativities between print and television
- Multimedia data and scheduling software – to calculate reach and frequency across print and tv.
- An estimate of turnover or **casualness** which allows print to **build** in a schedule, ie the survey data doesn't underestimate casualness.

Yesterday, we heard much about relativities between print and tv. At Roy Morgan Research we use through-the-book / specific issue as the gold standard against which all our measures are **validated**.

We also heard about multimedia. At Roy Morgan Research we use single source, and do full multimedia scheduling.

But these are topics for another day.

Today we want to introduce ‘A New Method To Measure Media Casualness (usually turnover) For Magazines and Newspapers’.

Turnover is the additional readership reach of another issue.

Casualness is a mathematically more sophisticated measure and is independent of readership. The paper is a technical paper. However I would like in the 10-15 minutes allocated to focus **not** on the detail – but on what the paper means:

- Firstly, for our understanding of readership measurement; and
- Secondly, for our clients – the publishers, the agencies and the advertisers.

There are three points:

1. Casualness matters. It is just as important an average issue readership.
2. Our new method produces more accurate measures of casualness.
3. The more accurate results are good news for magazines and newspapers.


Casualness matters – as much as ‘average issue’ readership.

If we look at the first two columns (below) where single issue reach is 25% in both cases, but casualness is 70% in the first column, and only 60% in the second column.

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The ‘Beta-binomial’ reach

| Number of issues | R = 25%, γ = 70% | R = 25%, γ = 60% | R = 30%, γ = 60% | R = 30%, γ = 50% |
|------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| 1 | 25.0 | 25.0 | 30.0 | 30.0 |
| 2 | 38.1 | 36.3 | 42.6 | 40.5 |
| 3 | 46.5 | 43.1 | 50.0 | 46.5 |
| 4 | 52.3 | 47.8 | 55.0 | 50.5 |
| 5 | 56.7 | 51.4 | 58.7 | 53.4 |
| 6 | 60.1 | 54.2 | 61.5 | 55.8 |
| 7 | 62.9 | 56.5 | 63.8 | 57.7 |
| 8 | 65.3 | 58.4 | 65.7 | 59.2 |
| 9 | 67.2 | 60.0 | 67.4 | 60.6 |
| 10 | 68.9 | 61.5 | 68.8 | 61.8 |
| 11 | 70.4 | 62.7 | 70.0 | 62.8 |
| 12 | 71.7 | 63.8 | 71.1 | 63.8 |
| 13 | 72.8 | 64.8 | 72.0 | 64.6 |
| 14 | 73.9 | 65.8 | 72.9 | 65.4 |
| 15 | 74.8 | 66.6 | 73.7 | 66.0 |



By the time we have scheduled 15 insertions, the total reach is 74.8% in the case of casualness of 70%, but only 66.6% in the case of turnover of 60% - a big difference – casualness matters.

This makes a big difference to cost per thousand. Casualness matters as much as average issue reach.

The challenge was to calculate casualness from a single interview – in our case a single self-completion interview.

Typically, this has been done using a frequency question. The next chart (below) shows a comparison of ‘Casualness’ estimates based on the ‘gold standard’ reinterview in Column 1 and a ‘frequency out of four’ question, ie how many of four issues 0, 1, 2, 3 or 4 (see Column 2).

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Comparison of ‘Casualness’ estimates (Apr-Dec 1998)

| | 'Re-interview' ('Establishment' survey and 'diary') | 'Old' single interview (only 'diary': freq 0.4) | Difference |
|-----------------------------|---|---|------------|
| Australian Women's Weekly | 62.5 | 65.9 | -3.4 |
| BRW | 66.3 | 48.3 | 18.0 |
| Bulletin | 74.5 | 58.7 | 15.8 |
| Cleo | 65.4 | 56.8 | 8.6 |
| Cosmopolitan | 62.0 | 59.2 | 2.8 |
| For Me | 49.2 | 41.8 | 7.4 |
| Good Weekend | 41.5 | 26.5 | 15.0 |
| Home Beautiful | 75.1 | 60.9 | 14.2 |
| National Geographic | 57.6 | 46.9 | 10.7 |
| New Idea | 53.8 | 55.2 | -1.4 |
| New Weekly | 58.2 | 52 | 6.2 |
| People | 58.7 | 44.7 | 14.0 |
| Reader's Digest | 47.4 | 39.1 | 8.3 |
| She | 70.3 | 62.3 | 8.0 |
| Sunday Life | 48.0 | 24.5 | 23.5 |
| Sunday Magazine | 48.4 | 26.4 | 22.0 |
| That's Life | 35.7 | 30.6 | 5.1 |
| The Australian Magazine | 36.1 | 26.6 | 9.5 |
| TIME | 63.9 | 42.5 | 21.4 |
| TV Week | 53.7 | 29.2 | 24.5 |
| Vogue Australia | 79.3 | 63.7 | 15.6 |
| Who Weekly | 56.9 | 51.5 | 5.4 |
| Woman's Day | 51.2 | 53.8 | -2.6 |
| Average difference | | | 10.8 |
| Average absolute difference | | | 11.5 |

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It is clear that in most instances, the ‘frequency out of four’ gives a lower casualness – estimate. On average 10.8 points lower.

And we’ve seen the impact this will have on reach over several insertions.

Our new frequency measurement is based on **two** rather than **four** issues (how many of two issues, 0, 1, 2).

The chart below shows that the casualness estimates closely approximate those obtained by reinterview. The average difference being less than 1.

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Comparison of 'Casualness' estimates (Oct 1999 - Mar 2000)

| | 'Re-interview' ('Establishment' survey and 'diary') | 'New' single interview (only 'diary': freq 0.2) | Difference |
|-----------------------------|---|---|------------|
| Australian Women's Weekly | 63.5 | 63.9 | -0.4 |
| BRW | 66.3 | 64.0 | 2.3 |
| Bulletin | 72.5 | 70.6 | 1.9 |
| Cleo | 56.3 | 63.3 | -7.0 |
| Cosmopolitan | 54.9 | 62.0 | -7.1 |
| For Me | 56.8 | 56.6 | 0.2 |
| Good Weekend | 45.2 | 41.4 | 3.8 |
| Home Beautiful | 72.9 | 65.4 | 7.5 |
| National Geographic | 54.7 | 47.1 | 7.6 |
| New Idea | 50.8 | 64.7 | -13.9 |
| New Weekly | 56.9 | 58.4 | -1.5 |
| People | 64.7 | 63.1 | 1.6 |
| Reader's Digest | 44.1 | 41.5 | 2.6 |
| She | 71.8 | 66.3 | 5.5 |
| Sunday Life | 44.1 | 37.4 | 6.7 |
| Sunday Magazine | 46.8 | 52.0 | -5.2 |
| That's Life | 36.7 | 41.9 | -5.2 |
| The Australian Magazine | 36.2 | 37.8 | -1.6 |
| TIME | 63.8 | 51.8 | 12.0 |
| TV Week | 53.3 | 43.0 | 10.3 |
| Vogue Australia | 73.7 | 68.8 | 4.9 |
| Who Weekly | 55.5 | 55.2 | 0.3 |
| Woman's Day | 50.2 | 56.9 | -6.7 |
| Average difference | | | 0.8 |
| Average absolute difference | | | 5.0 |

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So we have shown the new method is **more accurate**.

And because more accurate is **higher** it allows magazines to build.

We now turn to newspapers.

It is essential to distinguish between two different types of casualness for newspapers.

‘Between weeks’ – between days from different weeks.

‘Within week’ – between days from one week.

Until now most syndicated newspaper readership surveys throughout the world produce only ‘within week’ casualness for input into media schedules.

The next chart shows ‘between weeks’ casualness estimates for 12 Australian newspapers based on a reinterview – average casualness of 34.8%.

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‘Between-weeks’ casualness for daily newspapers

| | Average issue |
|---------------------------|---------------|
| The Australian | 51.4 |
| Financial Review | 51.5 |
| The Sydney Morning Herald | 38 |
| The Daily Telegraph | 37.3 |
| The Courier Mail | 33.4 |
| The West Australian | 40.9 |
| Herald Sun | 36.9 |
| The Age | 39.3 |
| The Adelaide Advertiser | 34.3 |
| The Hobart Mercury | 24.1 |
| The Examiner | 17.2 |
| The Advocate | 13.5 |
| Average casualness | 34.8 |

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Then the next chart shows ‘within-week’ casualness.

It is much lower – average 18.5%.

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‘Within-week’ casualness for daily newspapers

| | Average issue |
|---------------------------|---------------|
| The Australian | 27.3 |
| Financial Review | 23.1 |
| The Sydney Morning Herald | 19.9 |
| The Daily Telegraph | 17.3 |
| The Courier Mail | 19.0 |
| The West Australian | 21.5 |
| Herald Sun | 20.3 |
| The Age | 22.8 |
| The Adelaide Advertiser | 19.2 |
| The Hobart Mercury | 14.3 |
| The Examiner | 9.7 |
| The Advocate | 7.8 |
| Average casualness | 18.5 |

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But let’s look at the impact on some US titles.

The next chart shows reach is dramatically higher when ‘between-weeks’ casualness is used.

‘Beta-binomial’ reach for multiple issues (%)

| | Number of issues | Reach based on 'within-weeks' casualness | Reach based on 'between-weeks' casualness |
|--------------------------|------------------|--|---|
| USA Today | 2 | 6.7 | 8.0 |
| average issue | 5 | 9.3 | 13.8 |
| readership = 4.8% | 10 | 11.2 | 19.0 |
| | 20 | 13.2 | 24.5 |
| Wall Street Journal | 2 | 3.2 | 3.8 |
| average issue | 5 | 4.4 | 6.3 |
| readership = 2.4% | 10 | 5.2 | 8.4 |
| | 20 | 6.1 | 10.7 |
| Investors Business Daily | 2 | 0.8 | 0.9 |
| average issue | 5 | 1.0 | 1.5 |
| readership = 0.6% | 10 | 1.2 | 2.0 |
| | 20 | 1.4 | 2.5 |
| New York Times | 2 | 3.1 | 3.5 |
| average issue | 5 | 4.1 | 5.4 |
| readership = 2.3% | 10 | 5.9 | 7.0 |
| | 20 | 5.7 | 8.6 |
| Los Angeles Times | 2 | 2.4 | 3.0 |
| average issue | 5 | 3.0 | 4.5 |
| readership = 2.0% | 10 | 3.4 | 5.8 |
| | 20 | 3.8 | 7.0 |
| Washington Post | 2 | 1.6 | 1.9 |
| average issue | 5 | 2.0 | 2.8 |
| readership = 1.3% | 10 | 2.3 | 3.5 |
| | 20 | 2.5 | 4.3 |

Finally, consistency is important.

Roy Morgan readership and casualness estimates are now available in the USA, Australia and New Zealand (and soon the UK).

We’ve found when a consistent measurement is used for the same magazines in different markets, similar readership patterns emerge across markets – for readership and casualness.

Readership currency ‘reader-per-copy’ estimates across countries

| Magazine | Australia Roy Morgan (18+) | New Zealand Nielsen (20+) | USA MRI (18+) |
|--------------------------------|-------------------------------|------------------------------|------------------|
| People/Who ³ | 4.3 | 8.5 | 9.8 |
| Reader’s Digest | 2.4 | 3.9 | 3.4 |
| Cosmopolitan | 3.0 | N/a | 6.1 |
| TIME | 3.4 | 5.7 | 5.1 |
| Newsweek/Bulletin ⁴ | 4.0 | N/a | 6.1 |

³ In Australia and New Zealand, People is Who

⁴ In Australia, Newsweek is included in The Bulletin

Source:

Australia: Roy Morgan Research Jan-Dec 2000, 49,589 (18+)
Circulation: Jul-Dec 2000
New Zealand: Roy Morgan Research Jan-Dec 2000, 14,454 (18+)
Nielsen Jul 99-Jun 00, 11,097 (15+), 10,299 (20+)
Circulation: Jul-Dec 2000
United States: Roy Morgan Research Jul-Nov 2000, 5,238 (18+)
MRI Fall 2000
Circulation: Jul-Dec 2000

If we look at the readers-per-copy of two well-known magazines in three markets – using the local readership currency – we would believe that magazines are “passed-on” to a lot more people in the USA and NZ than Australia. For instance, an average copy of People is read by 9.8 people aged 18+ in the USA, and the same magazine (called Who in Australia and New Zealand) is read by 8.5 people aged 20+ in New Zealand, but only 4.3 people aged 18+ in Australia.

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Roy Morgan Research ‘readers-per-copy’ (18+) estimates across countries

| Magazine | Australia | New Zealand | USA ⁵ |
|--------------------------------|-----------|---------------|------------------|
| People/Who ³ | 4.3 | 4.7 | 4.4 |
| Reader’s Digest | 2.4 | 2.5 | 2.9 |
| Cosmopolitan | 3.0 | 3.5 | 3.4 |
| TIME | 3.4 | 3.7 | 4.3 |
| Newsweek/Bulletin ⁴ | 4.0 | Not published | 5.1 |

³ In Australia and New Zealand, People is Who
⁴ In Australia, Newsweek is included in The Bulletin
⁵ Based on a final USA sample of 5,238 respondents aged 18+. Total USA sample 14+: 5,544

Source:
Australia: Roy Morgan Research Jan-Dec 2000, 49,589 (18+)
Circulation: Jul-Dec 2000
New Zealand: Roy Morgan Research Jan-Dec 2000, 14,454 (18+)
Nielsen Jul 99-Jun 00, 11,097 (15+), 10,299 (20+)
Circulation: Jul-Dec 2000
United States: Roy Morgan Research Jul-Nov 2000, 5,238 (18+)
MRI Fall 2000
Circulation: Jul-Dec 2000

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The next table shows when we apply a consistent methodology the differences all but disappear.

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‘Casualness’ estimates (%) across countries

| Magazine | Country | | |
|--------------------------------|---------|-----------|---------------|
| | USA | Australia | New Zealand |
| Better Homes & Gardens | 54.8 | 61.7 | 54.7 |
| Cosmopolitan | 47.4 | 61.5 | 61.9 |
| Family Circle | 49.6 | 59.5 | 62.7 |
| Marie Claire | 68.8 | 62.1 | 60.9 |
| National Geographic | 39.1 | 44.5 | 41.9 |
| New Woman | 60.2 | 66.0 | Not available |
| Newsweek/Bulletin ⁶ | 52.2 | 75.2 | 63.6 |
| People/Who ⁷ | 61.0 | 57.7 | 49.1 |
| Reader’s Digest | 44.9 | 41.2 | 42.8 |
| TIME | 55.7 | 54.7 | 39.5 |
| TV Week/TV Guide ⁸ | 42.1 | 43.6 | 36.6 |
| Vogue ⁹ | 52.5 | 69.7 | 68.6 |

⁶ In Australia, Newsweek is included in The Bulletin
⁷ In Australia and New Zealand, People is Who
⁸ TV Week in Australia and TV Guide in the USA and New Zealand
⁹ Australian edition of Vogue in New Zealand

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Similar publications also tend to have similar casualness estimates across countries. Where there are differences they are understandable in terms of subscription - % local vs international context.

More accurate measure of turnover or casualness.

The next chart shows a comparison between the ‘empirical’ data from the Politz 1950 and 1953 studies compared with applying a single reinterview using the casualness measured from the ‘two-issue’ reach. Using a reinterview (to measure casualness) and the beta-binomial formula we can replicate the ‘empirical’ readership reach of more than two issues.

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‘Empirical’ versus ‘Beta-binomial’ reach

| Audience reached by | 1950 Study | | 1953 Study | |
|---------------------|---------------------------|-----------------------------|---------------------------|-----------------------------|
| | ‘empirical’ reach (index) | beta-binomial reach (index) | ‘empirical’ reach (index) | beta-binomial reach (index) |
| One issue | 1.00 | 1.00 | 1.00 | 1.00 |
| Two issues | 1.44 | 1.44 | 1.47 | 1.47 |
| Three issues | 1.72 | 1.72 | 1.77 | 1.78 |
| Four issues | 1.92 | 1.93 | 1.99 | 2.00 |
| Five issues | 2.07 | 2.09 | 2.16 | 2.18 |
| Six issues | 2.20 | 2.23 | 2.29 | 2.33 |

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Empirical v Beta-binomial

The first column of the next chart shows ‘empirical’ reach from the 1953 Politz study – (actually LIFE magazine). Each respondent in the sample was interviewed six times in the survey period – the ‘empirical’ data was then modelled to estimate reach up to 13 issues.

The second column – ‘beta binomial’ reach – is based on two data points and then uses a beta binomial distribution to estimate reach for up to 13 issues.

They are very similar.

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‘Empirical’ reach versus ‘Beta-binomial’ reach

| Audience reached by | ‘empirical’ reach (%) | beta-binomial reach (%) |
|---------------------|-----------------------|-------------------------|
| One issue | 22.1 | 22.1 |
| Two issues | 32.4 | 32.4 |
| Three issues | 39.1 | 38.8 |
| Four issues | 44.0 | 43.3 |
| Five issues | 47.7 | 46.7 |
| Six issues | 50.6 | 49.4 |
| Seven issues | 53.0 | 51.6 |
| Eight issues | 54.9 | 53.5 |
| Nine issues | 56.6 | 55.1 |
| Ten issues | 57.9 | 56.5 |
| Eleven issues | 59.1 | 57.8 |
| Twelve issues | 60.2 | 58.9 |
| Thirteen issues | 61.1 | 59.9 |

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Similarly, the following chart compares the *repeat* ‘empirical’ audiences of LIFE with the corresponding beta-binomial simulations using the casualness estimate from a reinterview. They are very similar.

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‘Empirical’ versus ‘Beta-binomial’ distribution (6 issues)

| Number of issues read out of six issues | ‘empirical’ reach (%) | beta-binomial reach (%) |
|---|-----------------------|-------------------------|
| One or two | 29.1 | 26.7 |
| Three or four | 12.7 | 14.0 |
| Five or six | 8.8 | 8.7 |

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‘Reinterview’ is the gold standard – but it is costly.

If we look at USA Today and consider 20 insertions, based on ‘within-week’ casualness, we would estimate 13.2% reach. Based on ‘between-weeks’ casualness, 24.5% would be reached. The story is the same for each newspaper. (See previous chart “ ‘Beta-binomial’ reach for multiple issues (%)”.)

It is critical for newspapers to have a reinterview survey to calculate ‘between-weeks’ casualness.

The cost per thousand readers reached is obviously very different depending on a newspaper’s average issue readership and which casualness is used – using a ‘within-week’ casualness significantly underestimates the reach of newspapers!

Armed with these better casualness estimates – which enable multiple insertions to provide higher reach – print publishers can compete and combine with tv.

This is good news.

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‘Average issue’ casualness (%)*

| | ‘Between-weeks’ | ‘Within-weeks’ | Difference |
|--------------------------|-----------------|----------------|------------|
| USA Today | 70.2 | 40.6 | 29.6 |
| Wall Street Journal | 61.6 | 35.6 | 26.0 |
| Investors Business Daily | 56.9 | 31.7 | 25.2 |
| New York Times | 53.4 | 34.6 | 18.8 |
| Los Angeles Times | 50.3 | 22.8 | 27.5 |
| Washington Post | 46.6 | 23.6 | 23.0 |
| Average | 56.5 | 31.5 | 25.0 |

*The ‘between-weeks’ casualness estimates have been calculated by Roy Morgan Research proprietary software ASTEROID.

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It is good news for advertisers because they can target specific groups, and put together ‘the balanced diet’ Erwin Ephron called for.

Agencies want truth – so it’s good for them too.

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Want to reach an audience as big as the Super Bowl TWICE at the cost of one Super Bowl ad?

| Metric | Super Bowl | ACL Time Warner Bundle |
|-----------------------------|------------|------------------------|
| Reach (millions) | ~85 | ~85 |
| Average Number of Exposures | ~1 | ~2 |

Source: Roy Morgan Single Source - www.roymorgan.com

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