

Ask Dr. Ed

If Arbitron doesn't collect enough diaries in my core demo, doesn't that mean I'll have bad numbers?

We hear more complaints about proportionality in the marketplace, so it's definitely worth talking about.

Proportionality is easy to calculate. For any demo, take the unweighted in-tab percentage and divide it into the population percentage for that same demo. Multiply by 100 and you have a proportionality index. In an ideal world, we would hit 100 on all of the age, sex, race and ethnicity cells that we weight for, every time and all the time. Of course, the real world doesn't work like that, but we get close.

Quota samples are one way we could reach 100. If you're not familiar with quota sampling, it is simply setting a quota for a subgroup to match the percentage of that subgroup in the population. This is a method commonly used in the custom research industry for things like music callouts, auditorium tests and perceptual studies.

For large-scale studies of the whole population like the ones

Arbitron does, all of the hallowed survey research texts say that you cannot project a sample to a population with a quota sample. Yet the goal of the Arbitron service is to estimate how many people in a market are listening to each radio station. The infamous 1948 "Dewey Defeats Truman" prediction was based on

quota sampling, and is an excellent example of why it's not considered a legitimate form of surveying today. Since we can't use quota sampling, Arbitron weights the in-tab sample to reflect the size of the population. Unlike quota sampling, this method is blessed by the survey research gods, most notably the late W. Edwards Deming, the man who wrote the book on sampling.

So, if your index is 85 in Men 25-34, are you hurt or helped by weighting? All other things being equal (and remember that Arbitron weights for geography, race, and ethnicity, depending on the market), weighting gives those guys' diaries more value on a per-diary basis than the diaries of a demo that is overrepresented, such as teen girls.

In this situation, if the Men 25-34 are spending a lot of time with your station, you'll do very well. The lower index and the higher Persons-Per-Diary Value (PPDV) will combine to give you strong numbers in that group. If they don't listen to you much, then you won't do so well.

If low proportionality can work in your favor, then why do people complain about it? Because of the one continuing negative factor: the dreaded "bounce." Higher PPDVs mean that your estimates will show more variance from survey to survey. Unlike the popular static remover, survey bounce drives station management nuts. How can we reduce bounce? Simple: better proportionality. That's why Arbitron is continually testing and implementing new methods to improve proportionality. ●



Dr. Ed Cohen is director of Domestic Radio Research for Arbitron. A media industry veteran, he most recently worked as VP of Research for Clear Channel Communications before joining Arbitron in 1999.

Dr. Ed is pictured here with his dog Cume.