

SAMPLE SOURCE AUDITORS™
A DIVISION OF **Mktg.**
Incorporated

Consistency Testing of Online Research Panels

Is your data measuring opinion or a change in the sampling frame?

Consistency of online samples is the core issue for market researchers. The ARF has said it, intuitively we all know it and recent studies, including those of Mktg, Inc. have proven it.

After all, much of the value we provide is in the tracking studies we perform; even one-time studies should relate to some reference and not float in a sea of variability between panels. If your data changes, it is essential to know if the changes are real or the inadvertent product of sample inconsistency.

Where once research was well grounded in a probabilistic framework supported by an underlying census of the population, online market research has moved into a new era, from a probabilistic framework to “working without a net.” In the absence of a probabilistic net to anchor samples, non-probabilistic samples can drift without our knowing.

One, now historic, example of this happening was presented by Ron Gailey (IIR 2008), now of Coca Cola, previously of Washington Mutual, who disclosed how 29 studies representing 40,000 online interviews had gone astray due to panel inconsistency. The lingering question, now that WaMu is gone, is how the tainted research impacted on critical business decisions.

Hidden in all of this, is the concept of *consistency*. After all, if we measure bias and can’t anticipate its shifts over time, then we will not understand which changes are coming from our data or from background noise in the sample. Thus, as the ARF announced in June of 2009, the issue of consistency is the most important area of concern. We must learn to measure not only what the constituent elements of our data sources are but also how they change over time. In other words, we have to enter a new world of *consistency analysis*.

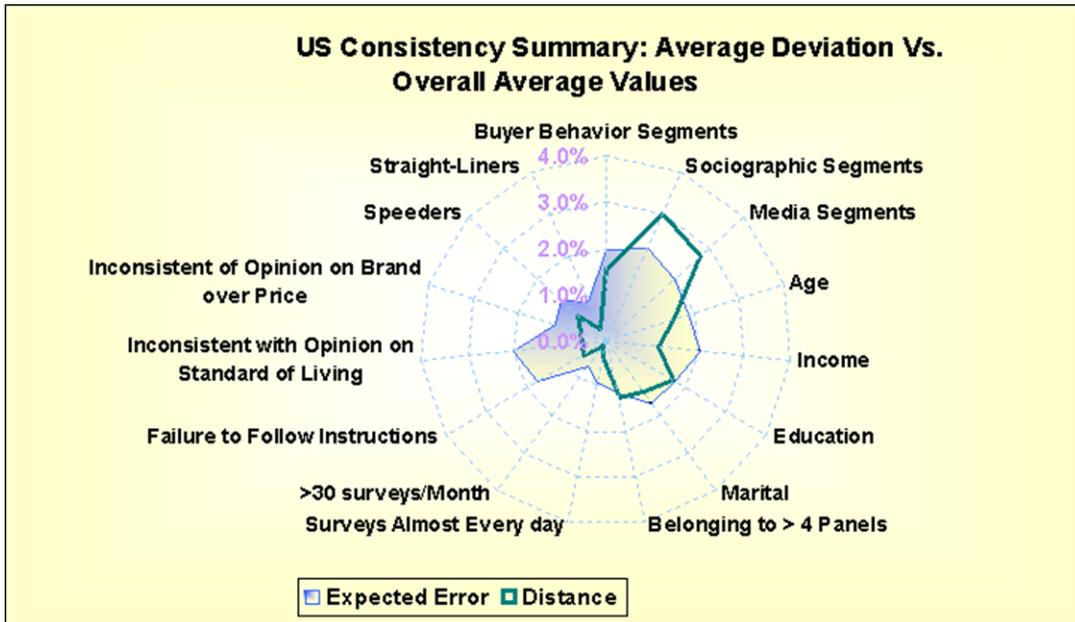
Mktg, Inc. has moved onward from its initial study of the American markets and has expanded its research to include over 200 panels in 35 nations. In each, a standard instrument is used in a tracking study that includes a diversity of measures but mostly focuses on buying behavior segmentations. By conducting repeat waves of this consistency study, a local *Grand Mean* is calculated for each market. In addition, using standard quality control techniques, an analysis of the consistency of each panel is conducted.

The *Grand Mean* is an aggregate statistic. It is a measurement of consistency that should be reliable and yield a sense of predictable change. No panel represents the universe as well as the sum of many panels together. Think of the *Grand Mean* as a group of indices that are measured from the sample of each panel over and over again: tracking panel quality through time and then merged to create a composite reference of the online universe.

We test panels regularly for consistency: each participates in at least four waves of audit per year. As the panel companies can share this data with as many customers as they chose, this provides end users with assurances regarding the stability of panel output. Their combined consistency data is compiled to generate a *Grand Mean* within a market as a new metric to anchor panels and tracking studies alike. The composite data provides rich insights into shifting in the sample universe and inconsistencies within individual panels. If needed, source blending using optimization modeling serves to correct drift. The *Grand Mean* metric itself is anchored to a battery of outside benchmarks (we have collected data on over thirty such measures).

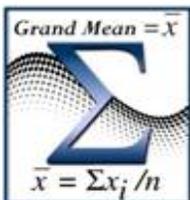
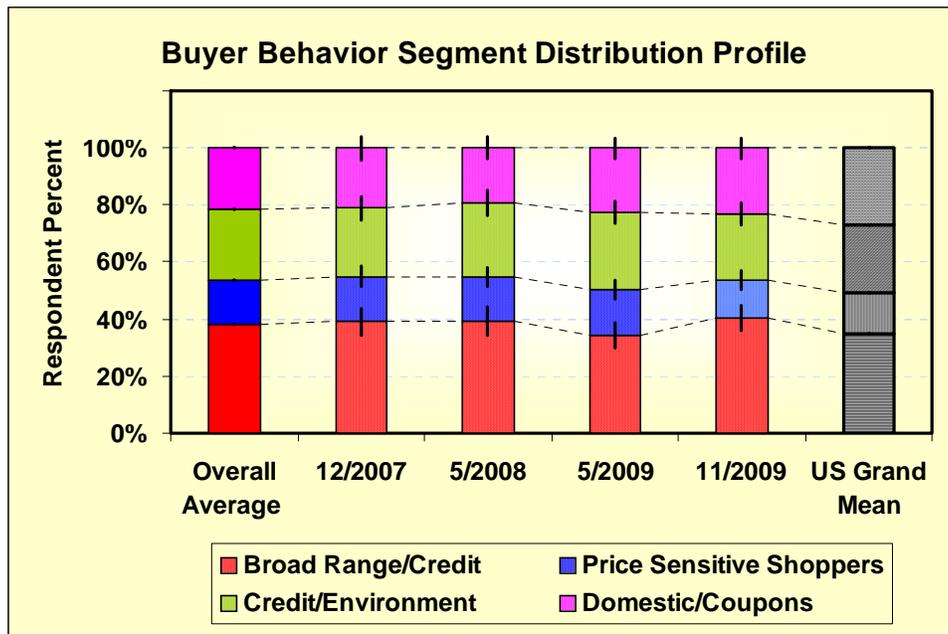
Are changes in data real or sample shifts?

This “radar” plot summarizes changes over time in a multiple wave consistency analysis. Also shown is the expected sampling error. Values greater than the expected error are viewed as potential important issues of inconsistency.



Buying behavior: our most important measure.

Changes in the panel population are measured by the distribution of structural segments including as here, buyer behavior segments. This segmentation scheme captures the overall effective changes in over 30 variables.



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