

Professor Uncovers New Methods for Reducing Survey Research Costs \$300,000,000+

Jeff Savitz, Professor of Statistical Science at Temple University and CEO of SavitzConsulting, LLC has uncovered new methods for reducing sample sizes in survey research 33% leading to a potential saving of over \$300,000,000.

The Central Limit Theorem in Statistics dictates the margins of error in predicting population characteristics. For example, with a random sample of 400, with 95% confidence, all percentage estimates of the U.S. population will be within 4.9% of their true values while with a sample of 1,000 the margin of error is only 3.1%.

Professor Savitz has developed new methods for identifying “Inliers” within the sample that have predicting error rates only two thirds that of a random sample. According to Savitz, “these Inliers are uniformly present in most all demographic and psychographic groups making them useful for estimating population parameters for virtually any consumer target.”

Savitz interviewed over seven hundred randomly selected consumers from the Toluna national online panel and asked them to rate 30 different popular brands. Differences between averages given for the entire random sample and the Savitz “Inliers” averaged only 2.4% with a maximum of 4.1% for McDonalds.

	Coke soft drinks	Minute Maid orange juice	Jimmy Dean Sausage	Birdseye Frozen Foods	Wrigley's Gum	Jiffy Peanut Butter	7 up Soda	Campbell's Soup	Tide detergent	Lysol disinfectant
Avg. Inlier	4.22	4.30	4.13	4.22	4.03	4.23	4.05	4.34	4.39	4.37
Avg. Random	4.07	4.21	4.02	4.12	3.89	4.14	3.94	4.27	4.29	4.34
Difference	0.15	0.08	0.11	0.10	0.14	0.09	0.12	0.08	0.09	0.03
% Difference	3.59	1.99	2.73	2.36	3.53	2.14	3.01	1.76	2.17	0.63
	Levi's Jeans	Timex watches	Ford cars	Dial Soap	Crest Toothpaste	Bayer aspirin	Viagra Medicine	Verizon mobile phone service	Apple iPhone	Sony TV
Avg. Inlier	4.34	4.03	3.93	4.19	4.48	4.11	3.24	3.80	3.99	4.13
Avg. Random	4.27	3.95	3.81	4.09	4.36	4.05	3.15	3.74	3.90	4.08
Difference	0.08	0.07	0.12	0.11	0.11	0.06	0.09	0.06	0.09	0.05
% Difference	1.81	1.85	3.16	2.63	2.56	1.52	2.87	1.48	2.25	1.13
	Microsoft Software	7-Eleven convenience stores	JCPenney Department Stores	Walmart	McDonalds	TGI Friday's	MasterCard	Bank of America	American Airlines	New York Yankees
Avg. Inlier	4.33	3.64	3.89	4.09	3.94	3.85	4.14	3.57	3.69	3.64
Avg. Random	4.26	3.59	3.79	3.93	3.79	3.77	4.06	3.41	3.64	3.54
Difference	0.06	0.05	0.10	0.15	0.16	0.09	0.08	0.16	0.05	0.10
% Difference	1.47	1.26	2.58	3.90	4.09	2.31	1.95	4.61	1.28	2.72

“This is exactly the kind of fresh thinking that marketers need as brands manage more fragmented buyers and look for more laser-focused intelligence on how to be relevant to the most valuable consumer segments.” Adam Gargani, Planning Director at Ogilvy, and Foote, Cone and Belding.

The Council of American Survey Research Organizations estimates that U.S. researchers spend one billion dollars annually on sample for surveys. Since only two thirds as many of the Savitz Inliers are

necessary to achieve the same margins of error, this could translate to a cost savings of upwards of \$300,000,000 annually in the U.S. alone.

“The savings on sample acquisition is only the tip of the iceberg. Inlier samples mean fewer interviews, fewer incentives, and efficiencies in data processing, potentially freeing up millions of additional research dollars. There’s a compounded multiplier effect to this innovation in research thinking” Dr. Mike Morgan, former professor at Cornell University and Senior Marketing Research Consultant in the technology and telecommunications categories.

Professor Savitz will be presenting his paper at the University of Manchester and at the 28th European Conference on Operational Research in Europe in early July. He can be contacted at jsavitz@savitzresearch.com.