Report on Credit Card "Opt-out" Studies and Rule

submitted to
The Center for Regulatory Effectiveness

May 2005

At the request of the Center for Regulatory Effectiveness, I have reviewed: 1) OMB docket # 3084-0130, 2) a September 2004 report submitted to the Federal Trade Commission (FTC) by Synovate, 3) a summary analysis of the Synovate results by Dr. Manoj Hastak (also dated September 2004), 4) analysis and conclusions based on these reports included in the FTC Final Rule published in the Federal Register (effective date August 1, 2005), and 5) a related report submitted to Congress by the Federal Reserve Board (FRB) in December 2004. These reports have been reviewed with respect to data quality standards published by the Office of Management and Budget (OMB), similar standards published by FTC, and accepted professional standards of statistical practice. The review is organized as follows:

I. Executive Summary

The “Credit Card Offer Study” and subsequent analyses were based on an experiment performed for the Federal Trade Commission by the market research firm Synovate at ten locations. The tests recruited a sample of subjects using “mall intercepts” with quota controls. This technique produces non-random samples sometimes called “quota samples.” Subjects were paid to examine one of three credit card offers and then answer questions about the content (the examination was equivalent to opening an envelope and reading both sides of the offer sheet inside). The experiment simulated the behavior of a consumer who received a credit card offer d of chni ad3(e)4(c)4(3(e)4on4(c)4(t)-s5(e)4(m)-2.0019250]TJ -44( )250]TJ T5(e)4(da. ot)-2(a on a)4(n e)43(e)4

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II. The Best Case

Under a contract with the Federal Trade Commission, Synovate conducted experiments at ten locations and presented their results to the FTC in a report entitled "Credit Card Offer Study" which was released on the FTC website. The tests recruited a sample of subjects using "mall intercepts" with quota controls. This technique produces non-random samples sometimes called "quota samples." Subjects were paid to examine one of three credit card offers and then answer questions about the content (the examination was equivalent to opening an envelope and reading both sides of the offer sheet inside). Subjects were specifically reminded to read both sides since some of the information addressed by the questions was on the back side of the offer sheet. The experiment simulated the behavior of a consumer who received a credit card offer in the mail, opened the envelope and examined the offer sheet front and back. This behavior was critical for the experiment since the issues of interest hinged on reading and understanding information, most of which was presented in small print on the back of the sheet.

Quota samples often present severe difficulties when attempting to generalize results to a broad population (for example consumers who receive solicitations). However, if we accept the results from the experimental group at face value, there is additional information that permits some rough inferences to a valid national sample of consumers who represent about 80% of all credit card solicitations. This helpful information comes from a survey conducted for the Federal Reserve Board and presented in their report to Congress of December 2004. Among other things this survey estimated the frequency of three different behaviors with respect to credit card solicitations among those credit card holders who receive such solicitations – 1) discarding the envelope without opening, 2) opening the envelope and glancing at the contents, and 3) opening the envelope and examining the contents. This last behavior approximates the conditions simulated in the Synovate experiment. Thus the results that occurred in the Synovate experiments can be generalized to 10.0% of this consumer population (who represent about 80% of credit card solicitations) with some margin of error (see the FRB report at p. 33).

[Note: The FTC final rule notice speculates disingenuously at footnotes 34 and 37 that some consumers who "glance" at the contents of a solicitation may be pertinent to the Synovate results. This is wishful thinking at best. The instructions are to read both sides of the offer sheet – glancing at the front side only is not consistent with the behavior required for an accurate experiment.]

Only Phase 1 of the Synovate experiments (the "single, natural exposure") has any bearing on consumer response to a mail solicitation. The conditional results of this phase are described in some detail in a report by Dr. Manoj Hastak also released on the FTC website. In the tables below, these observed frequencies are multiplied by the 10 percent of solicited consumers whose behavior makes them susceptible to the treatments contained in the Synovate experiments to estimate the proportion of the population of solicited card holders whose behavior might be influenced by the treatments proposed by the FTC.

“Generalized” Results

Estimates are presented for each of four information points included in the experiments. Because of the unknown error in these results, they are rounded to the nearest whole percent.

Table 2 (correct answers by version – full impact on card holders)

Version #1 (Current) n=154 (A)	Version #2 (Improved) n=149 (B)	Version #3 (Layered) n=156 (C)
1% (0.84)	1% (1.07)	2% (2.12)

Information Point #3: Opting out of prescreened solicitations will not stop all solicitations

To measure their comprehension of the information that opting out of prescreened solicitations will not stop all solicitations, respondents were asked:

Based on what the mailing said or suggested, if you asked that this and other credit card companies not send you similar offers, would you:
(1) receive no credit card offers in the future, or
(2) continue to receive some credit card offers, or
(3) something else?(Q6)

Table 3 shows the percentage (adjusted to reflect its full population impact) of respondents who correctly answered "continue to receive some credit card offers":

Table 3 (correct answers by version – full impact on card holders)

Version #1 (Current) n=154 (A)	Version #2 (Improved) n=149 (B)	Version #3 (Layered) n=156 (C)
1% (0.84)	1% (1.34)	1% (1.41)

Information Point #4: There may be benefits to receiving prescreened offers

To determine whether respondents understood from the offers that there may be benefits to receiving prescreened offers, respondents were first asked:

Did the mailing say or suggest that allowing this and other credit card companies to continue

Table 4 shows the percentage of respondents that gave the correct answer, i.e., that the offer communicated that continuing to receive prescreened offers might be useful for comparison shopping and/or to get the best rates and terms:

Table 4 (correct answers by version – full impact on card holders)

Version #1 (Current) n=154 (A)	Version #2 (Improved) n=149 (B)	Version #3 (Layered) n=156 (C)
1% (1.17)	1% (1.48)	1% (0.90)

Note that "neither the improved version nor the layered version (which contained this information item) communicated the idea that there might be benefits to continuing to receive credit card offers better than the current version (***which did not contain this information item***)." [emphasis added] Thus it appears that the expanded notices that contained the information at issue perform no better than guessing without benefit of a specific notice item! Another interpretation might be that about 1% of consumers already know this information and the reminder provided by the enhanced notices makes little difference.

III. Data Quality Standards

A. Federal Trade Commission Published Standards

In August 2002, the FTC published Information Quality Guidelines as required by Pub. L. No. 106-554. Sections of the FTC guidelines are quoted below. Emphasis has been added where, in the opinion of this reviewer, the guidelines have been explicitly or implicitly violated by the Opt-Out study.

V. Definitions

F. "Objectivity" involves two distinct elements, presentation and substance.

1. "Objectivity" includes whether disseminated information is being presented in an accurate, clear, complete, and unbiased manner, including whether the information is presented within a proper context and identifying the source of the disseminated information to the extent possible in light of confidentiality protections, if any. In a scientific, financial, or statistical context, the FTC may make supporting data and models publicly available so the public can assess for itself whether there may be some reason to question the objectivity of the sources. Where appropriate, **data should have full, accurate, transparent documentation, and error sources affecting data quality should be identified and disclosed to users,** subject to legal or other restrictions on disclosure.

2. "Objectivity" also involves a focus on ensuring accurate, reliable, and unbiased information. In a scientific, financial, or statistical context, **original and supporting data are normally generated, and the analytic results are normally developed, using sound statistical and research methods.**

3. To ensure "objectivity" in cases, if any, where the FTC is responsible for disseminating "influential scientific, financial, or statistical information," the FTC shall **provide the highest practicable degree of transparency about data and methods to facilitate the reproducibility of such information by qualified third parties**, consistent with legal restrictions or limitations on disclosure. See OMB Guidelines, para. V.3.b.ii.A, B & C, and paras. V.I. (reproducibility) & VIII. (transparency) of these guidelines below.

VII. Development of Quality Information and Data

B. **Under the Paperwork Reduction Act, drafting agency information collections so that such information will be collected, maintained, and used in a manner consistent with the OMB and agency information quality standards reflected in these guidelines.**

VIII. Transparency of Underlying Data and Methods

A. In cases where the Commission may disseminate "influential scientific, financial, or

The statistical laws that permit inference from a sample to a population assume complete coverage, complete response, and random selection. If any of these conditions are not met, then inferences cannot be demonstrated to be valid. Thus, for example, “quota samples” cannot produce results that can be generalized to the universe of study. Likewise, samples drawn from a

C. Equivalent Standards from Medical Research, Statistics, Political Science, government and private Market Research

While some OMB standards are uniquely tailored to assure the integrity of important public policies, in this case OMB is not alone in its judgement of quota sampling. Here are some results from a brief search of the internet –

-- from a British medical research group [Trent Focus]:
http://www.trentfocus.org.uk/Resources/Sampling.pdf

-- from Chapter 7 of "Market Research and Information Systems", a textbook by the Food and Agriculture Organization of the United Nations:
http://www.fao.org/docrep/W3241E/w3241e08.htm

Some practitioners hold the quota sample method to be so unreliable and prone to bias as to be almost worthless. Others think that although it is clearly less sound theoretically than probability

-- finally from Thomas Gschwend's amusing April 2005 paper on getting your quota samples past the peer reviewers, specifically his discussion of the theoretical weakness of quota sampling – French Politcs 2005,3(88-91) www.palgrave-journals.com/fp

> In general it is neither clear according to statistical theory how to compute a standard deviation, nor how to estimate standard errors or whether there is any other way to systematically assess the expected variability in quota sampling. Significance testing is only appropriate in probability samples.

IV. Conclusions

Results from quota samples cannot be generalized in any rigorous fashion, but the additional information provided by the FRB survey permits a rough estimate of the experimental treatment effects generalized to the full population of consumers. If the experimental results can be taken at face value, they imply that improvements to the offer notices would improve message penetration among consumers by less than 1% . In the best case, a difference of slightly more than 1% is observed, but in the worst case the additional information has almost exactly the same effect as if no such information were provided. In five of the eight comparisons with the base case (Version 1), the difference is closer to zero than to one percent.

There are references in some documents (on which the FTC apparently relied) to significant differences in the quota sample results. Any such claims are spurious, arbitrary, and/or capricious. The validity of significance calculations is based on statistical theory that requires probability sampling. The non-random sampling performed in this study does not meet that requirement. [Calls to FTC staff to discover any documentation for these claims was fruitless – no documentation was known, and FTC had no qualified statistician available to examine or discuss these claims.]

Realistically, rounding the calculations in Section II to the nearest whole percent entails a generous assumption, it is quite likely that the total of bias and other error in the quota sample results may substantially exceed the magnitude of the estimated effect (for example, the true size of an effect estimated at 20% by a quota sample might well be 60%, three times as large). The FRB survey results suggest some sources of bias in the Synovate methodology. For example, FRB found major differences in opt-out awareness depending on credit card ownership and usage patterns – one might question whether shopping malls reflect the actual national cross-section of these patterns. But even a laundry list of potentially correctable biases cannot salvage the generalizability of these quota sample results nor the spurious claims of statistical significance.

These limitations on the inferences that can be made from quota samples are known and reflected widely in academic and professional literature. Significantly even research papers endorsed by Synovate acknowledge the problems with quota sampling. Since Synovate was well aware of these issues, it appears likely that FTC bears full responsibility for the misrepresentations that appear in documents submitted to OMB and in the text of their rule.

The only thing the Synovate study appears to demonstrate is that the current notice

Appendix: CV of the author

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From 1981 until his retirement from the Executive Branch in 1997, Dr. Jerry Coffey was employed in the Office of Management and Budget where he served as the senior mathematical statistician (GS-15) in the Executive Office of the President of the United States (EOP). At OMB his responsibilities included

associated with substantial hidden revenue losses.