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:

No proprietary data has been used in preparing this review. Values used in calculations are available from the cited public reports. Additional materials are readily available from the internet. The professional opinions contained in this review are my own and have not been influenced by CRE or by any person or organization associated with CRE.

Jerry L. Coffey, Ph.D.
Mathematical Statistician

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 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. 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. 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 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 a population that accounts for about 80% of solicitations, with some margin of error (see the FRB report at p. 33).

It is well known that results from quota samples cannot be generalized in any rigorous fashion (this is elaborated in section III below), 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. While tests of statistical significance are not valid in these circumstances, this rough calculation indicates an upper bound on the practical significance of the quota sample results. 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.

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. 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.

The only thing the these studies appear to demonstrate is that the current notice strategy and the two "improved" strategies ALL perform so miserably as to defy the intent of Congress – and even that conclusion may be wrong.

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.

Information Point #1: you have the right to opt out of receiving prescreened offers

In order to assess how effectively this first Information Point was communicated to respondents via the various versions of the offer, respondents were asked:

Did the mailing say or suggest that you could ask that this and other credit card companies not send you similar offers in the mail, or did the mailing not suggest that?(Q4)

Table 1 shows the percentage (adjusted to reflect its full population impact) of respondents who responded affirmatively, and who therefore understood that they had the right to opt out of receiving prescreened offers of credit:

Table 1 (correct answers by version – full impact on card holders)

Version #1 (Current)	Version #2 (Improved)	Version #3 (Layered)
n=154	n=149	n=156
(A)	(B)	(C)
2% (1.88)	3% (2.75)	3% (3.08)

Information Point #2: you can opt out by calling or writing to a consumer reporting agency

To assess the communication of this Information Point, respondents were first asked:

Did the mailing say or suggest what you should do if you do not wish to receive similar offers from this and other credit card companies?(Q5)

Respondents who responded affirmatively were then asked the following question:

Based on what the mailing said or suggested, what should you do if you do not wish to receive similar offers from this and other credit card companies? (Q5a)

Table 2 shows the percentage (adjusted to reflect its full population impact) of respondents who correctly answered that the opt-out right could be exercised by calling a telephone number or writing to a consumer reporting agency:

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 sending you offers might be useful to you, or did the mailing not suggest that? (Q7)

Respondents who said "yes, it did" were then asked the following question:

Based on what the mailing said or suggested, how might allowing this and other companies to continue sending you offers be useful to you? (Q7a)

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 statistical information," the Commission, consistent with applicable law, regulations, orders, and policies, **shall make underlying data and methods, including, where appropriate, sources and assumptions employed, available to the public to the greatest extent feasible and appropriate in order to facilitate the reproducibility of such information, either before or after its dissemination, by qualified parties.** OMB Guidelines, para. V.3.b.ii.

X. Documentation

> A. **Where necessary or appropriate, the agency substantiates the quality of the information it has disseminated through documentation or other means appropriate to the information.** OMB Guidelines, para. III.2.

The study violates these standards because its data collection methods violate OMB standards and its claims with respect to "generalization" and "significance" are false. Not only has FTC failed to provide documentation and objective analysis to support these claims, it is impossible to do so since these claims as well as certain representations made to OMB are FALSE.

Compare the methodology used (sponsored) by FTC and its implications to the following –

B. OMB guidance

– from OMB's "THE PAPERWORK REDUCTION ACT OF 1995: IMPLEMENTING GUIDANCE" *February 1997 release*

"E. DEMONSTRATING AGENCY USE OF APPROPRIATE STATISTICAL METHODOLOGY

1. Avoidance of Unreliable Statistical Studies. If the agency is seeking to implement a statistical survey that is not designed to produce valid and reliable results that can be generalized to the universe of study, the Supporting Statement needs to explain why.[1]

This guideline intends generally to prohibit statistical surveys that do not produce reliable results for the population under study. When survey results can not be generalized, it is usually because of poor methodology or execution that introduces errors or uncertainties of such size that the data do not support needed inferences. While any substantial bias or even excessive variance can prevent needed generalization, the most common failures are nonrandom selection, coverage gaps, and nonresponse.

[1] 5 CFR 1320.5(d)(2)(v); Specific Instruction A.7..

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 substantially incomplete frame, or which suffer from significant nonresponse cannot support valid statistical inferences.

The agency's explanation should be based on more than simple assertions or ad hoc demonstrations of generalizability. Plans that purport to compensate for unmeasured errors with published caveats or adjustments based on untested assumptions do not satisfy this guideline. A variance from this guideline is warranted for pilot studies, case studies associated with generalizable collections, or tests to determine the need for or gather design information for a generalizable survey.

For a more complete discussion of this issue, see Appendix C, "Frequently Asked Statistical Questions."

– and from Appendix C, the technical appendix referred to above:

"Surveys that use quotas at some stage have provided indications of the large distributional distortions that may occur. In these cases, the quota scheme encourages a degree of the self-selection, a characteristic similar to low response surveys, but it is nearly impossible to estimate the equivalent level of non-response. The 1995 experience of BLS with their Current Employment Statistics (CES) program indicates the errors that occur with self-selection (in this case quota samples of businesses[2].)

> "The CES is a quota sample whose inception over 50 years ago predates the introduction of probability sampling as the internationally recognized standard for sample surveys. Quota samples are known to be at risk for potentially significant biases, and recently completed BLS research suggests that, despite the large CES sample size, employment estimates based upon that sample at times diverge substantially from those that a more representative sample would have been expected to produce."[3]

While standard measures of variance and bias are not valid for quota samples, BLS had used a sophisticated bias adjustment for the CES and regularly tracked the small amount of error identified by the periodic benchmark process. The small size of these typical adjustments created a false sense of security and failed to prepare users for the size of the error when the system inevitably blew up. Such behavior is common when the distribution observed in the sample is distorted due to inappropriate selection processes or low response rates."

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[2] This is one of the rare exceptions to OMB's general policy of requiring probability samples for quantitative surveys, which policy has been pursued for over two decades -- see Statistical Policy Directive # 1.

[3] June 2, 1995 press release from BLS announcing plans to convert to a probability sample.

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

> [R]espondents in a quota sample are not randomly selected ... Because random sampling is not employed, it is not possible to apply inferential statistics and generalise the findings to a wider population.

– from a Florida State University statistics course*: http://edf5400-1.sp02.fsu.edu/Guide9.html*

> ***ONLY* PROBABILITY SAMPLES [with good response rates] ALLOW YOU TO CONSTRUCT CONFIDENCE INTERVALS, MAKE STATEMENTS ABOUT SAMPLING ERROR, OR LEGITIMATELY USE TESTS OF "STATISTICAL SIGNIFICANCE".**

-- from a North Carolina State University statistics course:

http;//www2.chass.ncsu.edu/garson/pa765/sampling.htm

> Significance testing is not appropriate for non-random samples . . . We would like to make similar inferences for non-random samples, but that is impossible.
>
> . . .
>
> **Significance testing is only appropriate for random samples.**
> Random sampling is assumed for inferential statistics (significance testing). "Inferential" refers to the fact that conclusions are drawn about relationships in the data based on inference from knowledge of the sampling distribution. Significance tests are based on a sampling theory which requires that every case have a chance of being selected known in advance of sample selection

-- from a UCCS (University of Colorado at Colorado Springs) Political Science Course:

http://www.uccs.edu/~pkeilbac/courses/methods/lectures/week14.html

> **TESTS OF STATISTICAL SIGNIFICANCE**
>
> – Tests are based on probability theory and must be used for analysis only when the data are from a probability sample
>
> – Not appropriate to use on haphazard or quota samples

-- 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 sampling, it can be used safely in certain circumstances. ... statisticians criticise the method for its theoretical weakness while market researchers defend it for its cheapness and administrative convenience. ... It is not possible to estimate sampling errors with quota sampling because of the absence of randomness.

and later when discussing significance testing –

> The data we collect often requires to be compared and when comparisons have to be made, we must take into account the fact that our data is collected from a sample of the population and is subject to sampling and other errors. The remainder of this paper is concerned with the ***statistical testing of sample data. One assumption which is made is that the survey results are based on random probability samples.*** [emphasis added]

-- from a series of research papers presented on the website of Synovate, the market research firm that performed the Opt-Out study for FTC: www.synovate.com:

> ***From paper #37*** – "some non-random sampling plans can yield biased estimates of population characteristics. A biased estimate is one that converges to a value other than the true population value as the sample size increases. For example a quota sample contains equal numbers of owners of various brands when, in fact, the true brand shares differ widely, then total sample estimates of population means, proportions, etc., are biased estimates of the true values. Increasing the sample size in this situation does not remove the bias; it simply provides increasingly precise estimates of the incorrect (biased) values. (Weighting the samples may make the weighted total-sample estimates appear more 'reasonable,' but one can't be sure that similar results would have been obtained from a more representative sample, one unconstrained by quotas.)"
>
> ***From paper #59*** – (discussing mail panels built on quota sampling) "researchers weaned on probability sampling methods are understandably skeptical about using mail panel samples, and distrust conclusions from panel surveys because they typically violate the fundamental premise of statistical inference, i.e., knowing the probability of selection of sample elements. Others resist mail panel surveys because the level of non-cooperation at the recruitment stage is generally high."
> … "Aside from criticisms grounded in statistical theory, suspicions persist that persons who join and participate in multi-purpose panels are different: that mail panel samples are unrepresentative of more general samples."

-- 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 strategy and the two “improved” strategies ALL perform so miserably as to defy the intent of Congress – and even that conclusion may be wrong.

Appendix: CV of the author

Jerry L. Coffey, Ph.D. Mathematical Statistician
9119 Tetterton Ave Vienna, VA 22182
(703) 938-1217 drjerrycoffey@cox.net

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 oversight of statistical methodology throughout the Federal Government. Dr. Coffey served as statistical consultant to various units in the EOP and as confidential statistical advisor to the White House in five Administrations.

Education:

Dr. Coffey attended Indian Springs School (Helena, Alabama) on a Woodward Scholarship, graduating in 1960. He attended the University of Virginia on a Dupont Scholarship and while there was elected to Phi Eta Sigma and Phi Beta Kappa, receiving his B.A. in Mathematics (with High Distinction) in 1964. He earned his Ph.D. in Mathematical Statistics from the George Washington University in 1971 (at GWU his research was supported by a NASA Pre-Doctoral Traineeship).

Experience:

Internal Revenue Service, Mathematician and Mathematical Statistician, Statistics Division, 1964-74; US Postal Service, Principal Mathematical Statistician, Office of Statistical Policy and Standards, 1974-77; Department of Commerce, Statistical Policy Analyst, Office of Federal Statistical Policy and Standards, 1977-81; Office of Management and Budget, Statistical Policy Analyst, Statistical Policy Office, Office of Information and Regulatory Affairs, 1981-1997; Some teaching at UVA, GWU, and OMB (statistical training for OMB staff); US House of Representatives, Consultant to Chairman of a subcommittee, 2000-2001.

Professional:

American Statistical Association (ASA): Life member of ASA and charter member of the ASA Committee on Statistics and the Environment; served one term on the ASA Board of Directors. Featured speaker for the National Performance Review and professional associations ranging from the American Economic Association to the American Society of Access Professionals.

Career Highlights:

IRS: Developed the first protocols for using randomly sampled data to establish tax liabilities and in auditing very large corporations. Corrected catastrophic errors in the analysis of the original Discriminant Function Audit Test -- the corrected results demonstrated the effectiveness of this powerful statistical methodology for selecting returns for audit. Provided mathematical support for IRS efforts to automate tax return processing – extending certain binary error detection codes (a type of cyclic redundancy code -- CRC) to protect decimal numbers and alphabetic characters (results of this research were presented at an international conference by the Commissioner of Internal Revenue) and ultimately developed the much simpler error detection algorithm still in use for tax return processing today.

USPS: Managed the seven month crash project (including four months of data collection) to develop an accurate nationwide data base needed to support the USPS changeover to degressive postage rates. While personally manning the hot-line for data collection operations in four time zones, Dr. Coffey reverse-engineered a computer algorithm for deriving postal zones from latitude and longitude. Performed a confidential time-series analysis for the Asst. Postmaster General for Finance that detected "signatures"

associated with substantial hidden revenue losses. Investigation of the events that produced these signatures allowed USPS to avert the bankruptcy predicted to occur in 1979.

OMB: When Dr. Coffey joined the Statistical Policy staff at OMB, he was the first Ph.D. Mathematical Statistician to occupy that position since Dr. W. Edwards Deming. While at OMB, Dr. Coffey received numerous awards for outstanding performance and was author or coauthor of every significant OMB guidance document on statistical methodology and statistical confidentiality – including:

Statistical documentation required for OMB review (Section B of OMB form SF-83).
Pertinent sections of the Paperwork Rule (5 C.F.R. 1320) and amendments (1983-1995).
Guidelines for Federal Statistical Activities (Federal Register, January 20, 1988, Part II).
OMB's 1993 Resource Manual for Customer Surveys (originator, principal author and editor).
Federal Statistical Confidentiality Order (Federal Register, June 27, 1997, Part VIII).
Current OMB standards for statistical methodology (principal author of Appendix C of The Paperwork Reduction Act of 1995: Implementing Guidance, released in draft, Feb. 1997).

Other OMB responsibilities included --
Consultant to all PRA Desk Officers on issues of statistical methodology.
PRA Desk Officer for Census Bureau data collections (1982-1997).
Primary responsibility for oversight of data collection and analytical methodology for energy, environment, and natural resource agencies -- including the Department of Energy, the Environmental Protection Agency, the Department of Agriculture, and the Department of the Interior.

U. S. Congress:

From January 2000 to January 2001, Dr. Coffey served as a regular statistical consultant to the Staff of the Subcommittee on the Census and its Chairman, Mr. Miller of Florida. His responsibilities included tracking the Census Bureau's methodology as it developed and the review of those methods by the National Academy of Sciences. This engagement included frequent analytical notes or briefings on statistical issues for the Chairman, Subcommittee staff and, upon request, GAO. Upon completion of this work, Dr. Coffey was named to a volunteer panel of experts who continued to review the work of the Census Bureau to resolve inconsistent error measures and their potential adverse affects on Census 2000 data.

Private Consultant:

Direct (frequently confidential) statistical consultant to litigants in Federal Court (including the Supreme Court of the United States), Members of Congress, private international organizations, trade associations, and major hydrologic engineering and consulting firms.

Volunteer Activities:

Dr. Coffey served on the Fairfax County Complete Count Committee, a group established by the Fairfax County Board of Supervisors to work with the Census Bureau to increase response to the 2000 Census. Former Census Director Prewitt credited Fairfax County with achieving one of the highest mail response rates of any large jurisdiction in the country.

Dr. Coffey also serves on the Hydrologic Frequency Analysis Work Group, a group that is reviewing methods for predicting the size, frequency and effect of large floods. The technical evaluations developed by this group will be provided to agencies concerned with issues ranging from water resource management to flood insurance.

Dr. Coffey has served as an informal (pro bono) advisor and consultant to Congressional members and staff of the U. S. Census Monitoring Board and has provided occasional pro bono service to former clients.