

# THE STATISTICAL CONSULTANT

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Section on Statistical Consulting  
Murray K. Clayton, Editor  
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American Statistical Association

## **Announcement of Travel Award Competition**

The Section on Statistical Consulting is soliciting ideas for Special Contributed Paper Sessions for the 1997 Joint Statistical Meetings to be held in Anaheim, California, August 10–14, 1997. A \$500 travel award will be given for the winning proposal. The proposer will be responsible for organizing the session and lining up the speakers and abstracts.

To submit a proposal, prepare a short (not more than one page) description of the Special Contributed Session. This should include a description of the theme of the session, the types of papers or discussions to be included, and the intended audience.

Proposal submission Deadline: September 1, 1996.

Send submissions to: Marcia L. Gumpertz  
Department of Statistics  
North Carolina State University  
Box 8203  
Room 203-A, Patterson Hall  
Raleigh, NC 27695-8203

## **ELSEWHERE IN THIS ISSUE**

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## Statistical Consulting Seminar at NCSU

**Marcia L. Gumpertz**

Department of Statistics

North Carolina State University

Box 8203

Room 203-A, Patterson Hall

Raleigh, NC 27695-8203

At North Carolina State University all Statistics graduate students are required to take a semester of statistical consulting. Each student is paired up with a faculty member to participate in consulting sessions. Typically, the student and faculty member meet once a week with a consulting client from another department in the university. In most cases the professor does the actual consulting and the student observes. The amount of student participation varies however, depending on the faculty member, the nature of the consulting problem, and the experience of the student. With second year or higher level students who have taken a sufficient range of applied courses, for example, I generally have the student do the consulting while I take the observer role. These sessions tend to become three-way discussions with all participants contributing substantially. In addition, the students often meet directly with the clients between sessions, helping them with computer programs or visiting their labs to get an understanding of the experimental setup.

The student writes a report for each consulting session summarizing the client's objectives, experimental design, and the particular questions or issues that brought the client to us. The student then summarizes our recommendations and provides a detailed outline of any analyses to be performed. This written report is sent to the client and to the faculty coordinator of the consulting seminar. All students participating in the consulting seminar meet once a week. The weekly seminar meetings consist of oral presentations by two to three students and general discussion of the statistical issues and the consulting process.

Last semester, in addition to the consulting session reports, the students were required to write an essay about some aspect of statistical consulting. The following essay, entitled "The Nature of Statistical Consulting" was written by one of the students in the class.

## The Nature of Statistical Consulting

**Helen Strickland**

Department of Statistics

North Carolina State University

Raleigh, NC 27695-8203

### Introduction

What is the nature of statistical consulting?  
To answer this question it is beneficial to

1. understand the objective of statistical consulting,
2. differentiate between straight consulting and collaborative consulting,
3. discuss the personal and analytical skills the statistician needs to get the job done well.

### Statistical Consulting Objective

The objective of statistical consulting is to assist the client (the scientist, the engineer, the business manager, etc.) in ascertaining the "truth." The statistician consultant does this by providing the client logic: the logic of experimentation, alias the scientific method. Robert Hooke believes that statisticians have become the custodians of the scientific method. For in his 1980 essay, in *The American Statistician*, he writes,

Good experimental statisticians are interested in the logic of experimentation; whereas, physicists are mainly interested in

physics and chemists in chemistry. While they (the scientists) believe in the scientific method, and use it, they usually believe that they are so imbued with it that they seldom need to think about it. Although some philosophers are interested in the scientific method, so few of them actually interact with the world of experimentation. So statisticians inherit the scientific method because they care about it, they write about it, and they do something about it, and no one else seems to do all these things.

In agreement with Hooke's argument, Bertram Price (1982) believes that "the statistician will ultimately be held accountable for the fundamental logic of the overall investigation," and that the statistician must accept this role or be faced with meeting the analysis objectives of the investigation with "noninformative data."

## **Types of Consulting**

In their book on statistical consulting Boen and Zahn (1982) discuss two approaches to statistical consulting, straight and collaborative. In the straight consulting approach, the client is asking the consultant for a solution to a problem. The consultant may take the problem, work on it, and then provide the client with a written and/or verbal presentation of the analyses and the findings. Interaction between the consultant and the client is somewhat limited and as a result the consultant may learn very little of the scientific problem. In the collaborative consulting approach, the client is looking for ways to improve his or her research methodology and statistical operations and the emphasis is on the consultant working with the client to clarify goals; therefore, the client is willing to provide the consultant with the opportunity to learn more about the scientific problem.

Although both approaches work, the collaborative consulting method seems to come closer to the "ideal consultation" as stated by Hyams in 1971:

The 'Ideal Consultation' is not a consultation, but a working together, a voluntary meeting of minds and union of energies whose prime aim is to seek a 'truth.' In such meetings, both parties are familiar with each other's basic language. ... Meetings are stimulating and productive in thought and in product. The work forms a gestalt (where the whole is greater than the sum of its parts).

The choice of the consulting process depends on the relationship between the consultant and the client, as well as the problem to be solved. The tone of this relationship is determined by the personal attitudes and professional abilities of the both the consultant and the client. According to Hand and Everitt (1987), the sort of factors that influence this tone is, how much statistics the client knows and how much the consultant knows about the client's discipline; "whether the client is prepared to accept advice or is confident he knows the answers and is just seeking a confirmation; whether or not the consultant is a freelance statistician, a junior member of a university department" or is attached to a service unit of large organization. If the consultant recognizes and acknowledges the "symmetry" of the client/consultant relationship, the statistical consultant should be able to minimize the problems that can occur by learning how to deal with these differences.

## **Personal and Analytical Skills**

Strong interpersonal skills, such as, written and oral communication, patience, tolerance, a helpful and resourceful attitude, and a genuine interest in understanding and helping solve the

real problem, are needed when dealing with the client. As Hand and Everitt (1987) state:

The problems facing statisticians serving as consultants are varied: varied not only in the origin of the data and the research questions presented, but also in the kind of personal skills they will require the statistician to possess in order to resolve the questions successfully. Communicating with statistically and mathematically naive workers can be an exacting and, on occasion, frustrating task.

The consultant should remember that it is the client's lack of statistical knowledge, and awareness of this lack, that gives the client reason for calling upon the professional services of the statistician. Therefore, recognizing and understanding the personal needs of the client will help the consultant in getting the job done. Boen and Zahn (1982) comment on the personal needs of the client in their book on statistical consulting,

The client wants the consultant to forgive them for the many things they know they have done wrong. They want the consultant to overlook the fact that they haven't seen you before beginning the study and that they are not as good at math and statistics as they want to be. They want you to be tolerant and to not be curt with them for not understanding your explanations. They want you not to be angry when they ask you to suggest a sample size even though they can't decide on what a meaningful alternative hypotheses is or what power they want. They are not asking that you agree on all their decisions, only that you be enthusiastic about getting the job done.

In developing the most appropriate strategy for solving the client's problem, the consultant must get to know the client well enough to understand what type of solution the client can best handle and is most willing to understand and want to use, for as Hand and Everitt (1987) say "it is pointless to provide the client with something that he is afraid and unwilling to use." This does not mean that all solutions must be limited to the current understanding and knowledge of the client. For instance, clients may ask questions that they think have rather final and definitive solutions. Questions like Hooke (1980) and Price (1982) so often encounter, "I have this problem and I thought you might have a computer program to solve it," or "Can I use a *t*-test to show the equivalence of these populations?" or "What sample size is required to give statistically defensible results?" At this point it becomes necessary for the consultant to educate the client on statistical methodology in such a way as to show that a "computer solution to the wrong problem is not worth much" and that sample size determinations or the appropriateness of a specific statistical test can only be "guaranteed for a restricted set of questions — and then only under a very specific set of assumptions."

Boen and Zahn (1982) concluded that in getting the job done well it is important for the consultant and client to understand the limits and extent of the data, the statistical tools, and the amount of time available for the consultant to consider and analyze the problem. And that sometimes the consultant is faced with the responsibility of informing the client that the objectives cannot be accomplished or that a straightforward approach must be used in finding a solution to the problem instead of the optimal solution.

Ott (1982) provides a summary profile listing the attributes of an effective consulting statistician.

1. Is well trained in the theory and practice of statistics.

2. Is an effective problem solver.
3. Has good oral and written communication skills (take statistical results and present them for maximum use and acceptance by the client).
4. Can work within the constraints of the real world.
5. Knows how to use computers (pre-analysis chores such as data entry, data editing, file manipulation).
6. Is familiar with the statistical literature.
7. Understands the realities of statistical practice.
8. Has pleasing personality and is able to work with others.
9. Gets highly involved in the solution of the company problems.
10. Is able to extend and develop statistical methodology.
11. Can adapt quickly to new problems and challenges.
12. Produces high quality work in a timely fashion.

William Hill (1982) suggests that the effectiveness of an industrial statistician who has multidisciplinary training (e.g. mixed degrees of training in engineering and statistics, chemistry and statistics, biology and statistics, etc.) is enhanced because such a person has the advantage of being an authority on the data as well as the statistical methods.

## Conclusion

In examining the nature of statistical consulting, one realizes that both the consultant's

statistical abilities and interpersonal skills affect the consulting process, and although the approach to statistical consulting is multifaceted, the objective of statistical consulting is very specific and singular, and that is assisting the client in "ascertaining the truth."

## Sources

- Boen, J. and Zahn, D. (1982), *The Human Side of Statistical Consulting*, Belmont, CA: Wadsworth.
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- Hill, W. (1982) Discussion: Panel on training statisticians for employment in industry and government. In *Teaching Statistics and Statistical Consulting*, ed. J. Rustagi, and D. Wolfe, New York: Academic Press.
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## How Does Statistical Consulting Work at Your Institution?

*Editor's Note: In the last issue of the newsletter, I asked section members to write descriptions of the statistical consulting operations at their institutions. I am very grateful for the responses I've received to this request. Below are two of these. One is a short note from Chris Chatfield, which I've excerpted from a letter he wrote to me recently, the other is a longer article from Pat Dixon at the University of Texas–Austin. Look for more on this topic in our next issue.*

### Statistical Services at the UT–Austin Computation Center

#### Pat Dickson

Statistical Services, Computation Center  
University of Texas at Austin  
Austin TX 78712

I'm a member of the Statistical Services group of the Computation Center at the University of Texas at Austin. We're responsible for helping faculty, graduate students, and staff from any department (!) with statistical or statistical software problems. However, most of our users are graduate students from the softer sciences such as Nursing, Education, and Journalism. Our services are free, although that may change as the Computation Center's funding changes (and shrinks). We encourage users to make an appointment, but also take walk-ins, call-ins, and e-mail requests for help. We've found that a 30-60 minute meeting is usually optimal—after that, both the consultant and consultee are usually exhausted!

We try to help with any problem connected with statistics. Several departments actually require students to plan a study before collecting data, so in these cases we get to help with design issues such as matching hypotheses to tests and selecting an appropriate method of analysis. We're frequently asked to interpret output. Sometimes the user just wants to confirm or clarify their understanding, at other times they want us to explain what's wrong with results that don't support their hypotheses. Since the most inexperienced users often wind up with complicated repeated measures designs, we often have to try to make a match between the user's questions, the data

that's been collected, and the available software's abilities.

We spend about 30% of our work time consulting. Of that, I estimate that we only spend about 50% on such purely statistical matters as those described above; the rest is spent on helping users manage data, files, or software problems.

In terms of software, most of our users struggle with SAS, but SPSS is a close second choice (we also support a few other packages). We probably spend another 40% of our time supporting users by helping them help themselves. This kind of thing changes from year to year but includes managing software and software vendors, maintaining a FAQ database, and producing self-paced tutorials and usage notes. The remaining 30% of our time is spent on short-term projects (like moving all SPSS VMS users to UNIX), and administrative matters.

As part of the Computation Center, we benefit from the labors of other professional staff whose duties include maintaining the time-sharing systems. However, this also requires us to deal with many problems that are only remotely connected to statistics or even statistical software. For instance, we often help users move files from one platform to another (including the Macintosh OS, DOS, all the Windows, VMS, and UNIX in its many flavors and shells). Most of our software is available on all of these platforms, and we also help users install this software on their own machines.

We've seen a lot of changes in the last five years. In 1991, the large majority of our users worked on the IBM VM; now many work on their own machines or networked UNIX

Xterms. Five years ago our staff included 4.5 full-time-equivalents (FTEs); now we're struggling with 2.5 FTEs (we've had to cut daily consulting hours from a total of 7 to 4). Back then, we were the source of help people turned to first, now there is a helpdesk staff with many FTEs to help people become computer-literate.

At our current skeletal staffing level, we do not do analyses for users. Back when we had enough people to indulge in this, we had to do it formally, under a written contract approved by upper management on both sides. Negotiating the contract often took more time than completing the project! At that time we charged \$30 an hour, plus computing expenses. Much of this money was "funny" money — a transfer of University funds from a department to the Computation Center.

In terms of professional training, two of us

have Ph.Ds in psychology, the half-time person has an MS in mathematical statistics and an MA in psychology. We have relatively little formal training in working with computers and software; we are mostly self-taught in this regard. This is partly due to the rapid and frequent changes in computing (after all, five years ago many of our users didn't know how to use e-mail, now they're publishing on the web!).

I've often wished for closer contact between university statistical consultants. I'll be glad to hear from any of you out there; my e-mail address is [patd@mail.utexas.edu](mailto:patd@mail.utexas.edu). Some of this information, and much more besides, is available in our web pages. Start at: <http://www.utexas.edu/cc/stats> but don't miss: <http://www.utexas.edu/cc/stats/packs/packlinks.html>.

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## Statistical Consulting at the University of Bath

**Chris Chatfield**

School of Mathematical Sciences  
University of Bath  
Bath, BA2 7AY, UK

Responding to your Notes on page 10 [of the Winter 1995/Spring 1996 issue], I can report that there is no formal consulting set-up here at the University of Bath. Individual members of staff do consulting on an occasional ad hoc basis. Consulting is generally free within the university, but if it takes a non-trivial amount of time, then we start to look for a joint authorship or some such recompense.

For outside the university, I give 20 minutes or so free, but then charge a standard rate of around £50 per hour or £400 per day. I may charge less if the project looks interesting and possibly leading to some research results, or if it is a charity organization. I do most of the consulting myself but involve postgraduate students whenever possible.

I agree that "collaboration" is preferable to consulting — see page 105 of my book on "Problem Solving," 2nd edition, Chapman and Hall — in the chapter on Effective Statistical Consulting. However, there are many occasions where true collaboration does not or cannot occur and then Client/Consultant seems a good nomenclature to me. When someone is paying, they *are* a client.

## Activities at the 1996 Joint Statistical Meetings

### Mixer and Business Meeting

At this year's annual meeting in Chicago, the Consulting Section is sponsoring a mixer to immediately follow the business meeting. All members and prospective members are welcome at both the business meeting and the mixer. Be sure to look for flyers in Chicago announcing the time and place. Last year's mixer was very successful, giving us all a chance to

meet other members of the section. We especially welcome the applied statisticians within ASA who are looking for a section that fits their particular needs. Please join us for food and drink and to meet fellow consultants and applied statisticians with similar interests. See you in Chicago!

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### Presentations Sponsored by the Statistical Consulting Section

#### Invited Papers: BUILDING A COLLABORATION, DEVELOPING A RESEARCH PROTOCOL

Sunday, August 4, 4:00 p.m. – 5:50 p.m.

**Organizer:** Ralph O'Brien

**Chair:** Keith Muller

- (4:05) Forging Collaboration.  
Thomas Louis, U of Minnesota
- (4:35) Creating the Analysis Plan, Assessing Sample Sizes.  
Ralph O'Brien, Cleveland Clinic
- (5:05) Planning for Data Management  
Michael Conlon, U of Florida
- (5:35) Disc: Robert F. Woolson, U of Iowa

#### Invited Papers: CONSULTING PROBLEMS WITH CATEGORICAL DATA

Monday, August 5, 10:30 a.m. – 12:20 p.m.

**Chair/Organizer:** John Dixon

- (10:35) Order-Restricted Tests for Contingency Tables.  
Alan Agresti, U of Florida
- (11:00) Smoothing-Based Modeling of Contingency Tables.  
Jeffrey Simonoff, New York U
- (11:25) Categorical Data Analysis Strategies for a Cardiovascular Study With Repeated Measures.  
Gary Koch, Gheorghe Luta, U of North Carolina

(11:50) Disc: Richard Landis, Pennsylvania State U

#### POSTER SESSIONS

Monday, August 5, 12:00 p.m. – 2:00 p.m.

- FF. A Bootstrap Procedure for Identification of the Predictors of Outcome in a Logistic Regression Model.  
Charles Oprian, Western Illinois U, William Henderson, VA Hospital
- GG. A Test for Goodness of Fit to a GAMMA Distribution.  
Barbara Nemesure, SUNY-Stony Brook, Qimei He, SUNY-Stony Brook, Nancy Mendell, SUNY-Stony Brook
- HH. Comparison of the Precision of the MLE to Missing Data Deleted Estimates.  
Nora Galambos, SUNY-Stony Brook, Nancy Mendell, SUNY-Stony Brook
- II. What Sample Size Do I Need? Estimating Variability From Limited Information—Applications to Study Planning.  
Janet Elashoff, U of California—Los Angeles
- JJ. A Model For Integrated Statistical Computing Support in Medical Research.  
Toyoko Yamashita, Snehal Desai, Val Petran, Case Western Reserve U

## ROUNDTABLE DISCUSSION GROUPS

Tuesday, August 6, 8:30 a.m. – 10:20 a.m.

**Organizer:** Barry Moser, Louisiana State U

Interpersonal Issues in Statistical Consulting.

Patricia Wozniak, Abbott Labs

Statistical Consulting for the Social Sciences.

Deborah Rumsey, Kansas State U

## Special Contributed Papers **WHAT METHOD SHOULD I USE? COMPARISONS OF APPROACHES TO ANALYZING BIOMEDICAL DATA, WITH EMPHASIS ON PRACTICAL APPLICATIONS**

Tuesday, August 6, 10:30 a.m. – 12:20 p.m.

**Organizers:** Meredith Warshaw, Brown U, David Miller, Cleveland Clinic Foundation

**Chair:** David Miller, Cleveland Clinic Foundation

(10:35) A Comparison Between the Proportional Odds and Continuation Model for Analyzing Ordinal Outcomes.

Frank Harrell, U of Virginia

(10:55) Building Local Binary Regression Models That Fit Globally.

Christopher Schmid, Tufts U, John Griffith, Tufts U, Douglas Cory, Tufts U, William Long, MIT, Ralph D'Agostino, Boston U, Harry Selker, Tufts U

(11:15) Building Local Binary Predictive Models That Fit Globally.

John Griffith, Tufts U, Christopher Schmid, Tufts U, Douglas Cory, Tufts U, William Long, MIT, Ralph D'Agostino, Boston U

(11:35) Sudden Infant Death Syndrome: Identifying Misclassification Using Cluster Analysis and Mixture Distribution Techniques.

Lynn A. Sleeper, New England Research Inst., Susan Assmann, New England Research Inst., Hannah Kinney, Children's Hosp., Boston

(11:55) Disc: Meredith Warshaw, Brown U

## Invited Papers: **LINEAR MODELS WITH MULTIPLE EXPERIMENTS**

Wednesday, August 7, 8:30 a.m. – 10:20 a.m.

**Chair/Organizer:** Thomas Loughin, Kansas State U

(8:35) Issues in the Use of Linear Models for Combining Multi-Location Agricultural Experiments.

Carol Gotway, U of Nebraska, Walter Stroup, U of Nebraska

(9:00) A Practical Guide to Mixed Effects Models for Combining Experiments.

Marcia Gumpertz, North Carolina State U

(9:25) Multiple Sites, Multiple Studies: On the Art of Using Linear Models to Combine and Analyze Data From Multiple Clinical Trials. Ronald Helms, U of North Carolina, Lloyd Edwards, U of North Carolina

(9:50) Disc: Dallas Johnson, Kansas State U

(10:00) Disc: Paul Hinz, Iowa State U

## Special Contributed Panel: **CONSULTANTS' FORUM: LOGISTIC REGRESSION**

Wednesday, August 7, 10:30 a.m. – 12:20 p.m.

**Chair:** Linda Young, U of Nebraska

**Organizer:** Marcia Gumpertz, North Carolina State U

**Panel:** David Hosmer, U of Mass-Amherst

George McCabe, Purdue U

Peter Imrey, U of Illinois

## Contributed Papers: **STATISTICAL CONSULTING PRACTICES**

Thursday, August 8, 8:30 a.m. – 10:20 a.m.

**Chair:** Robert Anderson, U of Illinois-Chicago

(8:35) Statistical Research by Collaboration.

S. Nadaraha, U of Sheffield, Borko Jovanovic, U of Illinois-Chicago

(8:50) Statistics Collaboration in Family Medicine.

Barbara Mann, Wright State U

(9:05) Sample Size Determination for Correlation Coefficient Inference: Practical Problems and Practical Solutions.

Stephen Looney, U of Louisville

(9:20) The Power of Measuring the Association Between Genotypes and Continuous Variables in Subsamples of Available Specimens. Jeffrey Dawson, U of Iowa

(9:35) Career Self-Reliance for Statisticians in Industry.

C. Ray Crain, C. Ray Crain Consulting

(9:50) Multiple Forms of Statistical Ethics.

John S. Gardenier, NCHS

## Announcing a New Listserver for the Statistical Consulting Section

**Marcia L. Gumpertz**

Department of Statistics  
North Carolina State University  
Box 8203  
Room 203-A, Patterson Hall  
Raleigh, NC 27695-8203

We are in the process of setting up and testing a new list server for the Statistical Consulting Section. The listserver should be up and running by the time this newsletter appears. This list is intended to be a convenient forum for discussing Consulting Section business and for discussing issues of interest to consulting statisticians. Possible topics include, but are not limited to: teaching statistical consulting; business aspects of consulting; consulting tips; consulting in different organizational settings; and information about statistical methods most used in consulting. Note that this list is a separate list from the `asacnslt-nonphd` list, which addresses issues of special interest to non-PhD and/or non-academic statisticians.

The first use I'd like to make of the list is

for advertising the upcoming Consultants' Forum at the annual ASA meeting in Chicago August 4-8. The Consultants' forum will consist of a panel on Logistic Regression. The presenters are: George McCabe, David Hosmer, and Peter Imrey. We would like to hear questions that members have about logistic regression, and issues that come up in applying logistic regression in consulting and applied settings. That is to say, we'd like to get a forum going on-line to complement the forum that will take place in Chicago in August.

To subscribe to the list send mail to: `majordomo@stat.lsu.edu` and in the body of the mail message (subject is ignored) put the command `subscribe asacnslt yournamehere <youremailaddresshere>`.

If you have a signature or anything appended to the end of your mail, follow the above command with an "end" on the next line.

After subscribing, you can send mail to the list by mailing to: `asacnslt@stat.lsu.edu`

Many thanks are due to two people who are heavily involved in this project: Barry Moser, the owner of the list, and Susan Spruill, the moderator.

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## Letter to the Editor

### Extremes in Consultant Types

**Chris Chatfield**

School of Mathematical Sciences  
University of Bath  
Bath, BA2 7AY, UK

The Spring 1995 issue of *The Statistical Consultant* reprinted a table due to G. van Belle illustrating 15 extreme types of Client. Ronald Snee followed this up in the Winter 95/Spring 96 issue with two further tables il-

lustrating more balanced ways in which Client and Statistician may interact, and these tables are very helpful.

While very amusing, van Belle's table does rather give the impression that when the Client/Statistician relationship breaks down, it is always the fault of the Client. In my experience statisticians are often as much, if not more, to blame. I therefore have used a modified/expanded version of van Belle's table in my lectures on consulting to make clear that the fault sometimes lies closer to home. Some additional instructive entries are as follows (other examples could readily be given):

Client Type	Characteristic of Statistician	Consultant Type
1. Eager Beaver	Can't find time to answer problem	Airport Professor
2. Ordinary Client	Uses lots of statistical jargon and complicated mathematics, OR Answers wrong question because right question has no analytic solution	Mathematical Statistician
3. Disappearing Client	Insists on a Bayesian solution which is not appropriate or which the client doesn't understand	Unreconstructed Bayesian

## Notes from the Editor

- As I was typing in Chris Chatfield's Letter to the Editor I began to reflect on the role of Bayesian methods in consulting. I personally have not used Bayesian methods very much in consulting, but I have sympathy for that approach and have seen some impressive consulting work involving those tools. I certainly think that you could substitute "Frequentist" for "Bayesian" and come up with a fourth category for his table — I've seen some approaches to consulting that stuck so rigidly to certain frequentist principles that the net result was practically useless for the client. In the end, I think it's important to emphasize, as Chris has in his letter above, as well as in his other writings, that the goal in consulting should be to use a solution that the client can understand, and that is appropriate to the situation at hand. In my view, that might involve something as simple as a carefully constructed graph, a  $t$ -test, or something more elaborate, like a proportional hazards modeling of censored survival data, or the use of Markov chain Monte Carlo simulation in a hierarchical Bayesian model. It all depends on the needs of the client.
- In the last issue I noted that I was hoping to get *The Statistical Consultant* up on our World Wide Web

server. I'm happy to report that you can now find the current issue, as well as the last issue, at the URL: <http://www.stat.wisc.edu/statistics/consult/newsletter>. Many thanks to Brian Yandell for his help with this.

- Are you getting your copy of *The Statistical Consultant*? I ask because my copy apparently got lost in the mail and I've heard of similar things happening to other members of our section. If you haven't received your copy, contact the people in the ASA membership department at [memdept@amstat.org](mailto:memdept@amstat.org).
- I was recently talking to someone who is planning to leave their current position to begin consulting privately. They were wondering how to go about finding new clients. They have a few projects lined up, but are hoping to expand. Any suggestions for them? If so, please drop me a note.

As always, you can reach me via e-mail at:

[clayton@stat.wisc.edu](mailto:clayton@stat.wisc.edu)

and by US mail at:

Department of Statistics  
University of Wisconsin—Madison  
1210 W. Dayton St.  
Madison, Wisconsin 53706-1685

*THE STATISTICAL CONSULTANT*  
Murray K. Clayton, Editor  
c/o American Statistical Association  
1429 Duke St.  
Alexandria, VA 22314-3402