

# THE STATISTICAL CONSULTANT

Section on Statistical Consulting

American Statistical Association

Murray K. Clayton and Robert M. Leighty, Co-Editors

Spring 1995, Volume 12, No. 1

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## Membership Survey and Features at the 1995 Joint Statistical Meetings

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## Mission and Activities

The special interests of the Section on Statistical Consulting are statistical consulting and the training of statistical consultants. The section is broadly interested in fostering the increased and improved use of statistics through effective client/consultant interchanges. Specific activities of the section include 1) fostering the role of statistical consulting in society, 2) providing for the regular interchange of

information on statistical consulting through newsletters and other publications, 3) sponsoring sessions at meetings of the ASA that will encourage the development of statistical consulting, 4) promoting the development and use of ethical standards in statistical consulting, and 6) promoting the professional stature of consultants and statistical scientists, in general.

Currently, the section publishes a newsletter three times a year and sponsors technical sessions and continuing education at the annual meetings. We are also considering ways to recognize statisticians who have distinguished themselves in the field and the feasibility of compiling lists of statisticians who wish to have client referrals. In addition, this year the executive committee has launched an effort to broaden the section's activities and membership. We are particularly eager to serve our current membership better, to involve more members in a wider range of activities and to appeal to a larger segment of ASA members, particularly the applied and master's level statisticians.

## Membership Survey

In April, the Section on Statistical Consulting sent out a survey to its approximately 1500 members. The survey has several purposes: to identify and prioritize the activities and involvements of the Section, to identify members willing to participate in different activities, to learn more about the Section members, and to get feedback and suggestions from members. The survey included activities in the following general areas: 1) Communication among members of the section, 2) Resources for members of the section, 3) Special

programs for members of the section, 4) Activities at the Joint Statistical Meetings, and 5) Outreach and education for our customers (the non-statisticians with whom we consult and/or collaborate).

The results of the survey should be tabulated by June and will be reported in an issue of The Statistical Consultant newsletter and at the Joint Statistical Meetings in Orlando this August.

### Technical Sessions for 1995 JSM

An invited paper session on **Statistical Analysis of Growth Data** has been organized by K. Bondari. The focus of the papers in this session will be on the analysis of plant and animal growth data useful in agricultural research. This session will provide a forum for four presentations dealing with the mathematical basis of growth functions, diagnostic procedures for growth functions, various methods of analysis of plant and animal growth data and software for growth models.

Another session, organized by N. Ullman, is on **A New Paradigm for Statistical Thinking**. In this session, the paper "Statistical or Quantitative Thinking as a Fundamental Intelligence" will be presented by N. Ullman, followed by discussant comments and floor discussion. The paper will present statistical or

quantitative thinking as a new paradigm, a basic language that all of us speak but few have learned to read and write. Examples of an evolving philosophy and approach to teaching statistical concepts will be presented.

The theme of the contributed paper session is **The Evolution of Statistical Consulting**. The papers in this session will deal with issues we often face as consulting statisticians. The topics of this session include the changing role of the statistician, a statistician's approach to ethical guidelines, evaluating the needs of our clients, evolution of a statistical consulting course providing real consulting experience, and the use of computer simulation to enhance a statistical consulting course.

### Mixer and Business Meeting at 1995 JSM

At this year's annual meeting in Orlando, the section is sponsoring a mixer that will immediately follow the business meeting on Tuesday night. Be sure to look for flyers in Orlando advertising this special event. 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 Orlando!

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## Extremes in Client Types

*Editors' Note: The table on the following page was brought to our attention by Meredith Warshaw and James Ssemakula. The table originally appeared in Gerald van Belle's article "Some aspects of teaching biostatistical consulting" in Rustagi J.G. & D.A. Wolfe (eds) Teaching of Statistics and Statistical Consulting, Academic Press (pp. 343-365). In the article, van Belle prefaces the table with the following remarks: "the majority of clients are grateful for the service provided and are quite willing to work within the framework of a course in statistical consulting. In this section I want to portray some extreme types of clients. These are extremes, but the characteristics are present to a small extent in all clients. It is useful for the student to be aware of these extremes and to be able to cope with their occurrence." We wish to thank Gerald van Belle for allowing us to reprint his taxonomy of "extreme types of clients."*

## Some Extremes in Client Types, Their Characteristics and the Expected Roles of the Statistical Consultant

Gerald van Belle

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Observed Client Type	Characteristic	Expected Consultant Type
1. Dempsey Dumpster	Wants to dump the whole problem into the consultant's lap.	Slave
2. Rubber Stamper	Just wants $p$ -value $< 0.05$ certified. Preferably $p < 0.01$ .	Witch Doctor
3. Type III Personality	Comes with wrong question. Does not want to consider correct answer.	Type III Statistician
4. Airport Professor	Wants analysis yesterday for tomorrow's meeting in New Zealand; leaving tonight.	Infinite Statistician
5. Dr. Northcote	Will take all available - and unavailable - time.	Dr. Parkinson
6. Kitchen Statistician	Wants statistician's approval of paper's statistical analysis, severely criticized by referee.	Full Professor
7. Dr. T. V. Savant	Has vague feeling of needing statistics for valuable dataset. Wants statistician to define the question as well as the answer and write it up. Will consider making statistician 5th author on this important paper.	Psychiatrist
8. Innocent Abroad	Does not understand $t$ -test but wants factor analysis on 20 cases with 50 variables.	Magician
9. Tom Thumb	Everything's gone wrong in the experiment but the data are still "valuable and valid".	Incurable Optimist
10. Hydra	Every answer generates 9 more (quick) questions.	Hercules
11. Wallflower	Successively more complicated (simple) explanations to save the consultant's time.	Job
12. Dr. Avis	Wants some advanced analysis that competitor used in paper on same topic. Is sure competitor didn't understand it either.	Dr. Hertz
13. Tinkerer	Just wants to make a minor change and rerun analysis that took 5 weeks.	Sisyphus
14. Encyclopedia Salesman	Just wants 5 minutes for answer to simple question. Can be handled over phone.	Gullible George
15. Scientist	Considers statistician as coworker and collaborator in the scientific enterprise.	Statistician

## Activities at the 1995 Joint Statistical Meetings

### Contributed Papers: THE EVOLUTION OF STATISTICAL CONSULTING

Sections: Consulting, Quality and Productivity, and Education

Monday, August 14, 1995, 10:30am - 12:20pm

**Organizer/Chair:** Meredith G. Warshaw, Brown University

(10:35) The Statistical Consulting Needs of a Small Liberal Arts College.  
Brian Jersky and Susan K. Herring, Sonoma State Univ.

(10:50) Recent Evolution of a Course Providing Real Consulting Experience.  
Clifford B. Pereira and Lane Eubank, Oregon State Univ.

(11:05) Enhancing Statistical Consulting Courses via Computer Simulation.  
Thomas B. Barker, Rochester Inst. of Tech.

(11:20) The Changing Role of the Statistician in the Electric/Gas Utility Environment.  
Kathleen B. Dopkin, Chiogu A. Ebede, PECO Energy

(11:35) From Projection to Insight in Statistical Consulting.  
David Jarjoura, Northwester Ohio Univ., Joan Speight, Ctr. Health and Aging.

(11:50) A Statistician's Approach to Ethical Guidelines: Selected Methodologies for Review and Evaluation.  
Turkan K. Gardenier, Pragmatica Corp.

(12:05) Floor Discussion

### Invited Papers: DAVID MEETS GO-LIATH: STATISTICS AND MASSIVE DATA SETS

Tuesday, August 15, 1995, 10:30 a.m.- 12:20 p.m.

**Organizer/Chair:** Daryl Pregibon, AT&T Bell Labs

(10:35) Massive Data Sets: Applications, Barriers, and Opportunities.  
Jon R. Kettenring, Bellcore

(11:05) Some Statistical Principles for Massive Data Problems.  
Colin L. Mallows and Daryl Pregibon, AT&T Bell Labs

(11:35) Visualization Methods for Massive Data Sets.  
Daniel B. Carr, George Mason Univ.

(12:00) Floor Discussion

### Invited Paper: A NEW PARADIGM FOR STATISTICAL THINKING

Section: Stat. Consult., Bio., ENAR-WNAR, Stat. Educ.

Section: Quality and Productivity, Teaching Stat. in Health Sci.

Wednesday, August 16, 1995, 10:30 a.m.- 12:20 p.m.

**Organizer:** Neil R. Ullman, County College of Morris

**Chair:** Jeffrey A. Witmer, Oberlin College

(10:35) Statistical or Qualitative Thinking as a Fundamental Intelligence.  
Neil R. Ullman, County Coll. of Morris

(11:05) Disc: Robert V. Hogg, U. of Iowa

(11:20) Disc: David Sylvester, U. of Tennessee

(11:35) Disc: Roger W. Hoerl, Scott Paper Co.

(11:50) Floor Discussion

## Notes From the Editors

This edition of *THE STATISTICAL CONSULTANT* has been co-edited by Robert M. Leighty and Murray K. Clayton and represents a transition as Rob leaves the position of editor and hands the reins over to Murray. Rob writes:

“This is the last issue of The Statistical Consultant for which I will be involved with the editorial work. I wish to thank members who have contributed to the newsletter these past few years. Murray Clayton of the University of Wisconsin has kindly offered to edit the newsletter this year. I appreciate having had the opportunity to participate in our Section’s newsletter.”

Murray writes:

“I think the section owes a great debt of gratitude to Rob Leighty for his efforts on this newsletter over the past years. This issue is largely the product of his efforts, and I’m thankful that he has been willing to ease me into the process. I look forward to editing the newsletter; I want the members of the section to be aware that I am eager to receive your contributions and suggestions.”

**Call for Contributions** If you would like to

contribute an article to *THE STATISTICAL CONSULTANT* please contact Murray Clayton. Among other things, contributions may include

- Consulting problems suitable for a problem corner — difficult consulting problems that we could write up with a call for comment by our readership.
- Reviews of books, tapes, software or other educational materials appropriate for those who perform statistical consulting or statistical consulting education. We would be interested in suggestions for items you would like having reviewed.
- Articles on non-statistical aspects of statistical consulting.
- Case studies suitable for presentation in classroom settings.

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