THE SURVEY STATISTICIAN

Journal of the International Association of Survey Statisticians

International Statistical Institute

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CONTENTS

1.EDITORIAL

Under the dynamic impulse of our President Leslie Kish, a network of Regional Representatives has gradually been set up. This column of the present issue, which is dedicated to them, is the first of its kind. This effort should not stop here and I hope that, in the future, this column becomes one of the main ones of our journal, whose vocation is to be a forum of dialogue between all survey statisticians. By this, I mean dialogue and not only a source of information which, to me, has a one way connotation. The dialogue is up to you, readers of the Survey Statistician, and the Regional Representatives are conscious of their role as contacts between you and the entire team who leads the Association and the journal. Please transmit them your ideas, questions and difficulties as well as your successful experiences in the exercice of our interesting job. Please also transmit your comments and replies to what you have read in the journal.

Another interesting section has now disappeared : the publication of members'papers. The Council has hoped, and I quite agree to this principle, that papers seeking publication be submitted to a jury whose decision would be, of course, final. It remains, now, to organize this jury. Therefore it is not so much a question of finding (nominating ? coopting ? electing ?) members for it, as of defining its working procedures. I think that the main difficulty lies there because of the problems of distance and language which rapidly become problems of delay and if one is not careful enough, of ineffioiency. I look forward to the meetings in Amsterdam very much so that suggestions be made and, may be, decisions taken with respect to this delicate problem.

I finish this editorial here, where perhaps I should have started it. I have been responsible quite actively for several years, that is several issues, of the Survey Statistician, and President Kish was kind enough to nominate me as editor, which I am grateful for. I hope you will forgive me for not having introduced myself to you a little earlier.

Gildas Roy
Editor of the Survey Statistician

2.NEWS FROM REGIONAL REPRESENTATIVES

2.1. HOUSE OF REPRESENTATIVES

* Dr Alvaro GONZALEZ Villalobas and Lic. Clyde Charre de TRABUCHI are both representatives from Argentina. They have been active and successfull since Autumn'84 and the former writes : "Last October, Clyde and myself wrote to all IASS members (in Argentina) in order to up-date their address and to collect the membership dues from '82 to '84. In fact, everybody believed that it was impossible to send dollars out of the country. But I discovered a way through the Central Bank, and so me already collected the funds from many members, and will be sending the total amount to Paris, as soon as the Bank is ready".

* Dr. Ib THOMSEN of Norway writes "I have been a country representative for some time now. My feeling is that for a small country like Norway, it is important to work through a regional representative. We did have one before, but due to my stay in Ethiopia, I am not up to date on this issue. During 1985, I hope to meet my Scandinavian colleagues, and will let you know what we will do in order to recruite new members. The fact that IASS has no good statistical journal is a main reason for the lack of interest among my Norwegian colleages.

* Dr. Vera NYITRAI writes that she will try to recruit IASS members from Hungary and perhaps also from some neighboring countries of Eastern Europe.

* Luis Carlos SILVA from Cuba suggests that formal invitations to participate in the 1985 Amsterdam meetings be sent to Country representatives in order to facilitate office support for travel and participation. This suggestion has been made several times and we agree. They will be sent we hope soon from the IASS office to all country representatives and to officers of IASS.

* Edmundo BERUMEN Torres writes from Mexico : "The first of march 1985, I was appointed National Census Director. I am presently in transition from my previous position of Regional Director of Statistical activities in 4 states (Jalisco, Michoacan, Nayarit and Colima)". Please address future correspondence to :

Edmundo Berumen Torres
Direotor de Censos Nacionales
Insurgentes Sur # 795 12° Piso
Mexico, D.F. C.P. 03810

* Wilton de Oliveira BUSSAB writes from Brasil : "I am trying to find some way of sending the membership dues through the official banks, but they ask US $ 20 for each order. That is the reason that I am collecting the payments of each member and sending together. But, to continue doing this I will need secretariat's help in the future".

* Dr. HAYASHI writes from Japan a more technical letter.

In Japan, many sample surveys are done. From the methodological point of view, the followings are mentioned in current research.

a) Continueing study and data analysis

Cross-sectional continueing surveys are very informative, based on the same questions with new ones, although the panel survey system is not used. According to the object of study, the time span, which covers the surveys, and interval are determined. The study on Japanese National Character by the method of social survey continues over 30 years which has been done every 5 years since 1953.

This nation-wide survey is based on the three stage random sampling. The careful time series analysis of data, including age-cohort analysis, always shows a sign of "change" before it is found by other methods. Further inconsistency and change of opinion structure give useful informations. This structure is revealed by the method of quantification of response patterns which is equivalent to the correspondence analysis in French data analysis. This idea is also effective for a comparative study in many countries based on cross-cultural or -societal surveys, using the informations of individual response patterns.

b) Non-sampling errors are serious in many sample surveys. The research on the properties of non-sampling errors is done in various practical points of view. Particularly the errors due to non-response are practically estimated through a follow-up survey, using some experimental models.

Further, the response errors are estimated by a panel survey. In this case, some probabilistic models are verified in the data analysis and the mean response structure has been through this model.

c) Sampling surveys from a moving population are devised. The details have been reported in the Survey Statistioians No. 10, pp 19-24.

d) The characteristics (good and weak points) of surveys methods, i.e. various types of data collection and telephone survey, are discussed through their comparisons.

2.2. LOCAL AND REGIONAL REPRESENTATIVES

A first list of local and regional representatives has been published in the supplement to the Survey Statistician, n° 12. Here is a new and more complete list.

Argentina	Mrs C. Charre de Trabuchi
	M.A. Gonzales Villalobos
Belgium	M.L. Lohlé-Tart
Brazil	Mrs E. Pinho de Castro Silva
	M. Bussab
China	M. Wu Hui
Cuba	M. Silva
Denmark	M.F. Madsen
Germany (Fed. Republic)	Pr. Streeken
Hungary	M.A. Marton
India	M.J. Roy
Israël	Mrs. M. Kantorowitz
Italy	Pr. Fabbris
Japan	M.C. Hayashi
Mexico	M.E. Berumen
Netherlands	M. S.J.M. de Ree
Nigeria	M. O.O. Ajayi
Norway	M. Thomsen
Papua-New-Guinea	M.J. Shadlow
Spain	Mrs C. Arribas
Sweden	M. L. Lyberg
Syria	M. A. Malek Al Akhras
Trinidad-Tobago	M. J. Harewood
United Kingdom	Mrs. D. Lievesley
U.S.A.	M. M.R. Frankel

3.NEWS OF THE ASSOCIATION

3.1. CALENDAR OF IASS ADMINISTRATIVE MEETING DURING ISI 45th SESSION IN AMSTERDAM. 12-22 AUGUST 1985.

Scientific meetings sponsored by IASS were described in the previous issue ; the reader is referred to it. Beyond these meetings, two round table luncheons will be organised on 20 August : please refer to the end of this item. The calendar of administrative meetings is as fallows ; yet some of them were announced in March '85 ISI Information Letter.

Tuesday 13 August
- 12.00 - 14.30 Council I
- 17.30 - 19.30 Country Representatives I

Wednesday 14 August
- 12.00 - 14.30 Program Committee
- 17.00 - 19.30 Country Representatives II (if necessary)

Thursday 15 August
- 12.00 - 14.30 General Assembly

Friday 16 August
- 12.00 - 14.30 Question/Answer Workshop I

Monday 19 August
- 12.00 - 14.30 Council II

Wednesday 21 August
- 12.00 - 14.30 Question/Answer workshop II (if necessary)

As told earlier, two Round Table Luncheons will be held on 20 August, from 12.00 to 14.00.

These will be only for 8 participants each, hence conflicts of time with each other and with other sessions do not matter. There are similar round table sessions (popular, successful) run at annual meetings in the USA (statistical, sociological, etc). If the two trial sessions of '85 seem successful we may have more of them at future meetings.

The organizer of the session will chair it and direct the informal discuesion. The participants need not prepare formal presentations. But brief (less than 5 minutes) presentations and handouts are allowed. The organizer-chair has responsibility for admitting a small number (circa or maximum 8) of participants, by mail or in person in Amsterdam ; also for making the reservation for the table at the official restaurant of the sessions ; also for collecting the payments !

The two Round-Table Luncheons on 20 August 1985 will be devoted to :

Estimation Methods for Small Areas.

Organizer-chair : Griffith Feenay, Australian Bureau of Statistics, Beloonnen, ACT, 2616 Australia.

Telephone Surveys : International comparison of methods and response rates.

Organizer-chair : William M. Nicholls II, Center for Human Factors Research, Bureau of the Census, Washington, DC 20233, USA.

3.2. RABAT SEMINAR ON THE STATISTICS OF EMPLOYMENT AND ON THE NON STRUCTURED SECTOR.

This seminar, held in october 1984, was widely evocated in previous S.S. issues (nr 11 and 12).

Sessions proceedings are now available (in French). You'll receive it on simple request to the IASS Secretariat.

3.3. REPORT ON THE MEETING OF THE INFORMED "BUREAU" ON LONDON ON 4 FEBRUARY 1985.

Present were L. Kish, President, J.L. Bodin, Executive Director, C.O'Muircheartaigh, Scientific Secretary, X. Charoy, Assistant Executive Director. This was the third meeting of the informal bureau since the Madrid '83 meetings and the last until Amsterdam '85. The main agenda items were as follows :

* Administrative matters ; financial statements, plus a few minor changes in IASS statutes to make IASS practices conform to French laws and banking practices.

* Creation of a formal Bureau for IASS to conform to the practice of meetings between biennial IASS sessions. To consist of President, Executive Director, Scientific Secretary ; also, as feasible, the two Vice presidents, President Elect, Paet President, and past Scientific Secretary. Should Council members be invited also ?

* Strengthening Country Representatives. (See item 2 in this SS 13).
Publish list as full as possible and recruit more. Meeting in Amsterdam. Official invitation to C.R. Regional representatives, where ?

* Preparation of Amsterdam meeting : the Scientific programme. IASS Administrative meetings Agenda for Council meetings.

* Nominations for 1985-87.

* Publications. The Survey Statistician - Report on No. 12 and plans for No.13. - The Question/Answer Column, - On "The Future of the IASS" by Zarkovich, Kish and others. - On some controversial items, - End of scientific articles in S.S. Promotion of Country reports.

* Round Table luncheon at Amsterdam.

* Question/Answer Workshop in Amsterdam.

* A proposal to IASS Zarkovich for Technical Consultation by Correspondence.

* Nominations for '84 and '85 by IASS for UNESCO Prize for Education for Peace.

* Participation by IASS in Pacific Statistical Congress in Auckland NZ, May '85.

3.4. INTERNATIONAL STATISTICAL RESEARCH CENTRE.

I rejoined the International Statistical Institute only recently to direct its new Statistical Research Centre. Here I would like to give the IASS membership my personal views of the objectives and orientation of the Centre, its potential and the services it can provide.

The need for a permanent research facility at the ISI has been long felt and discussed, but concrete steps towards establishing it could be taken only recently. In executing the World Fertility Survey, the ISI assembled a formidable professional team which provided technical assistance, advice and leadership of the highest quality to a large number of developing (and developed) countries in the area of fertility surveys over the past twelve years. The talents and experience of this team, as well as its contribution to the development of survey methodology and enhancement of national statistical capabilities, often went well beyond the formally rather limited scope of the WFS. With the conclusion of the WFS, it became imperative for the ISI to take definite steps to institutionalise a research capability and continue to provide, even if initially on a reduced scale, technical advisory and related services of the calibre provided during the WFS.

It was to be expected that some of the initial activities of ISRC should build upon the WFS. Hence over the past months, the Centre has provided consultancy services in design and analysis of fertility or closely related surveys. For instance, three ISRC consultants are assisting UNECA in an analysis workshop in Addis Ababa in November-December 1984, and three others are currently assisting in further analysis of the Ghana fertility survey.

Another major activity of ISRC has been to assist the People's Republic of China in carrying out three in-depth fertility surveys in the Provinces of Hebei, Shaanxi and Shangai. Apart from generating reliable data on fertility and related factors, the focus of this continuing collaboration with China is on enhancement of the country's indigenous survey research capability. With the participation of staff from the central and provincial statistical offices of China, the ISRC recently conducted a 8 week workshop on survey methodology, similar workshops on sampling, data processing and on data analysis are planned for the coming months.

It is well known that the WFS achieved high standards in documenting and archiving survey data. An important activity initiated by ISRC, on behalf of both the ISI and IUSSP, is the development of a "Dynamic Data Base". It incorporates the WFS data archival services, but more than that, endeavours to expand these services by adding new data sets to the base and by providing guidelines and advice towards improving country practices in documentation, archiving, analysis and utilisation of the data. Even more important, we hope to expand these services to include periodic organisation of training workshops and seminars on data processing and demographic and other statistical analysis for participants from developing countries.

Gradually the ISRC hopes to expand the scope of its research, advisory, consultancy and training activities to cover a wider range of statistical fields. We have already initiated a modest programme of advising UNICEF offices on statistical aspects of monitoring and evaluation of projects relating to child survival and development and other social concerns supported by UNICEF. Work is underway to prepare a programme for demographic and health survey research in response to an initiative announced by the Netherlands Minister for Development Co-operation at the UN Conference on Population and Development in Mexico City. We plan to develop computer software and other tools of practical statistical research, and to the extent resources permit to make these widely and freely available at least to developing country institutions. We welcome and are giving serious thought to the idea of provinding "consultancy through correspondance" proposed by S.S. Zarkovich and supported by Leslie Kish.

I am aware that the size and scope of ISRC activities is at present very modest. The Centre is fortunate to have the full administrative support of the ISI Permanent Office in The Hague. We have a full time Director, and have recently recruited four other technical staff ; but beyond that,we have had to rely on short-term consultants to accomplish what has been done so far. Yet I feel that the general direction and orientation of the Centre's activities is already becoming clear. We would like to see the ISI's Research Centre as being primarily a service agency, as far as possible a self-financing one, to the users of statistical information, to the statistical

community, to the membership of the ISI and its Sections and above all to developing countries with the primary objective of enhancing their indigenous statistical research capability. I would like to see us as focussing on those areas of research which are of practical utility in the broader development process ; as emphasizing the role of workshops and training and of development and dissemination of materials and tools for practical statistical research in all our technical advisory services, and as developing specialised skills and facilities to complement and support the broader technical assistance activities of bilateral and multilateral agencies including the United Nations. I would also like to see the Center evolve into a forum which can draw upon, absorb and reflect the wide range of knowledge and experiences of members of the ISI and its Sections, and would certainly hate to see it become an isolated and small group of researchers.

Perhaps the Survey Statistician will become an active channel through which IASS members communicate their views, suggestions and criticisms of the Centre's activities and orientation, and through which we keep them properly informed of the status of our work.

Vijay Verma
ISRC Director

4.QUESTION/ANSWER

Conducted by Leslie Kish. Please send Questions to him (ISR - The U of Michigan, Ann Arbor, 48106, USA), or to IASS, Paris. Please indicate whether or not you want your name given with the question. Please consider this as an open forum, and we shall gladly print (after refereeing) additions, modifications,discussions of past published answers. Contributors to answers will be acknowledged.

4.1. QUESTION : In characterizing probability sampling don't you want to include the requirement of known probabilities for each possible sample, not just the probability P_i of selection for each population element ? Surely, the joint distributions of the observations are important, when these typically are not independent.

ANSWER : Known nonzero (positive) probabilities P_i for all population elements (i=1,2...n) is the accepted definition for probability sampling. It is also easy to understand, also relatively easy to operationalize in the selection process. Furthermore weights $1/P_i$ on tapes yield simple expansions ($\Sigma y_i/P_i$) for totals ("Horvitz-Thompson estimates") ; weights proportional to $1/P_i$ are adequate for means and most estimates.

However, you point out correctly that the joint (pairwise) distributions of elements are also important in survey sampling, where observations are typically not independent. In simple random sampling with replacement (IDD) the observations would be independent, and the joint probabilities of all pairs of elements would be $P_{ij} = P_iP_j$. In cluster sampling the joint probabilities for pairs of elements within the same clusters are increased $P_{ij} > P_iP_j$; for pairs from complete clusters we find an extreme $P_{ij} = P_i = P_j$. On the other hand stratification decreases the joint probabilities for some pairs from the same strata, so that $P_{ij} < P_iP_j$; and for single selections from strata we find another extreme $P_{ij} = 0$.

The joint probabilities are important because the variances of estimates (means, ratios, etc.) depend on them. This can be seen theoretically in the famous Yates-Grundy expression for the variance estimators that may be found in several textbooks (Murthy 1967, p. 211 ; Kendall, Stuart, Vol 3, 39.6) :

$$\text{var}(Y) = \sum_{i \neq j} (P_iP_j/P_{ij} - 1)(y_i/P_i - y_i/P_j)^2.$$

Let us define measurable samples as samples for which the selection probability P_{ij} for all pairs of elements in the population is nonzero (positive) and known (or theoretically knowable). I prefer the weaker "knowable" because actually computing all P_{ij} would be too demanding a task for most of us, and only for the sample cases when feasible. But such a procedure based on all P_{ij} in the sample was proposed by Rao and Vijayan (1977).

"Measurability denotes designs which allow the computation, from the sample itself, of valid estimates or approximations of its sampling variability" (Kish, 1965, p.23). (This is proposed there as one of several "criteria of sample design," along with goal orientation, practicality, and economy). In practice measurability requires (a) two or more selections from each stratum ; and (b) actual identification of the strata and of the sampling units for the first stage of selection at least. This may be seen in practical methods for computing variances which are all of the form $\sum_h dz_h^2$, where the dz_h^2 measure squared deviations among (two or more) sampling units within strata (Kish, 1965, 6.5).

Important examples of probability selections that are not strictly measurable are :

1. selection of a single cluster with P_i from the population such as a single city or a single alphabetical cluster ;

2. selection of a single cluster from each stratum, a common method for selecting primary sampling units with probability proportional to size measures ;

3. systematic selection of units after a single random start.

On the contrary, replicated samples permit the computation of variances even if they are not probability samples :

4. k replicated (interpenetrating) samples are conceivable without probability sampling ;

5. quota samples with k replications have been proposed, but not practiced ;

6. samples of experimental designs have been treated as randomized (measurable ?) in the Fisherian sense.

7. We may also note an equal probability sample that is not a probability sample : select a sample of fixed size n (perhaps with srs) from a frame with population size N unknown, due to blanks and foreign elements. The sampling fraction n/N is not known ; the mean $\bar{y} = \sum_i y_i/n$ is good, but the total $\hat{y} = N\bar{y}$ cannot be produced from the sample above. Variance of the mean is measurable, but neither the variance nor the estimate of the total. Incidentally, k replications would be an example of (4) above.

The examples above are all practical, which one may encounter. Most survey samplers would dislike example 1, but there are good reasons for the prevalence of 2 and 3. For these the variances are computed from "collapsed" strata, to which there are references in textbooks on survey sampling. Wolter (1984) presents recent investigations for systematic samples.

Four other practical points are worth noting.

a. Not only should both P_i and P_{ij} be nonzero ; they should not be allowed to be too smaller than most others (e.g., to reduce samples for inconvenient strata), the estimates $\sum_i y_i/P_i$ may become too unstable. If some P_{ij} are much smaller than most others, the estimates of the variance can become too unstable and even negative.

b. Estimates of the variance are also unstable if the numbers of replicates (or degrees of freeedom) are too small for estimates of the sample or of subsamples (domains). Usable estimates of the variance should have neither bad biases nor extreme instability. This last consideration is the reason why simple replications are not good designs for practical clustered samples (Kish 1965, 4.4 ; Wolter 1984).

c. Values of the weights $1/P_i$ must be readily available (on tapes) for all elements in the sample, unless they were selected with equal probabilities.

d. Even today variance computations are not feasible for most multistage probability samples, because the needed identification of strata and primary selection numbers are lacking from computer tapes. "All of the WFS samples from less developed countries have and will have measurability : their sampling errors can be and are being computed. But none of the parallel fertility surveys from the developed countries of Europe have yet computed sampling errors, and perhaps cannot do so now" (Verma, Scott, and O'Muircheartaigh, 1980, discussion p. 464).

Because of their distinct requirements I propose we keep the definitions of probability samples and measurable samples as two distinct criteria. How important is measurability ? Second only to having probability samples, I propose. But that high rank is not often granted in practice, alas, as the above remark illustrates - whatever is said in theory. Perhaps probability and measurable sampling should both be included in the definition of representative sampling when this term is used. I believe that definitions should not be our masters but our servants. But they should be public servants not domestic, private servants.

REFERENCES

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Murthy, MN (1967), Sampling Theory and Methods, Calcutta : Statistical Publishing Society.

Rao, JNK and Vijayan, K (1977), "On estimating the variance, etc," JASA, 72, 579-84.

Verma V, Scott C and O'Muircheartaigh C (1980), "Sample designs and sampling errors for the World Fertility Survey," JRSS,A, 143, 431-73.

Wolter, K (1984), "An investigation of some estimators of variance for systematic sampling," JASA, 79, 781-90.

4.2. QUESTION

"What are the differences between longitudinal, panel and follow-up surveys ?"

ANSWER

The confusion of terms in this field covers confusion in concepts also. There is a growth of longitudinal studies, which has been widely used as a general term to cover all kinds of studies over time and I avoid using it for specific designs. The term follow up I avoid because it has been used widely and confusingly for different purposes : overlapping surveys ; also for quality checks ; also for call-backs for nonresponses.

My aim is practical rather than pedantic : to make the diverse terms commonly used in this field serve us better, by having clearer distinctions between them. To strive for one-to-one correspondance between terms and uses, instead of multiple uses for the same term and multiple terms

for the same use. I was guided partly by current usage (which is not uniform), partly by connotations of words, and partly by the diverse needs of the field.

Repeated surveys denote "similar" observations on the "same" population, but without specifying designs for overlapping coverage of the same set of units. Periodic surveys refer to surveys repeated at specified regular periods over a longer interval of time. The "same" population needs identification because populations change over time both in extent and in content : e.g., cities and countries change boundaries ; for complex units (families, organizations) changes can be frequent as units (persons, adults) are born, die, and migrate. "Similar" observations must also be defined, operationalized and collected.

Overlapping designs refer to covering the same sampling units in repeated periods. The overlapping units may be defined as the elements of analysis (individuals, persons), or they may be larger units, such as area segments. Units such as families, households, composed of distinct elements, present problems of frequent and complex changes. Designs may require either complete or partial overlapping ; the latter permits gradual changes of the sampling units. In nonoverlapping designs the units are changed deliberately for each period.

Panel surveys refer to overlapping studies with repeated observations on the same elements. Panels face problems of learning, fatigue and losses from mortality and mobility ; of moving and high locating costs ; and of identification for complex units, like families ; but they are needed for detecting the (micro) cross chances of individuals (though these get confounded with errors of measurement). On the other hand, for measuring (macro) net changes of averages it may be easier and clearer to overlap simpler units of sampling (such as area segments) and still retain much of the gains in the variances from correlations. These gains are also retained proportionately in partial overlaps. (Some studies have done both : retain segments for clear net changes, and follow moving individuals for gross changes).

A third use for overlapping and panel studies is for obtaining incidence of new events between two (or more) dates (periods), in contrast to measuring prevalence of all events at one time. These are called multi-round surveys by some (e.g. demographers) ; or prospective studies by others (e.g., health scientists), in contrast to retrospective studies that depend on memories or records for past data ; these should have panels for measuring individual changes, but can be nonoverlapping for net changes. The collection of data on new events is sometimes aided with records (diaries, budgets) kept by respondents, or by others, or by machines, etc.

To avoid confusion we need to distinguish three kinds of periods concerning any survey : a collection period during which data are collected ; reference periods that may differ greatly for diverse statistics ; and reporting periods which can consist of one or more periods. For example, the U.S. Census is collected for weeks in April, the reference is April 1 for current data, but the preceding calendar year for economic data, etc. In multiround and cumulated surveys the reporting periods are pooled from reference periods. Reference periods may be as short as a single day or even a minute (in time studies), or a week (for employment) or month, or as long as a year (for income).

Further descriptions of these terms will appear in Chapter 6 of my Statistical Design for Social Research, to be published in 1985 hopefully by John Wiley and Sons. Most of these terms also seem to agree with those of C.G. Janson's chapter in Schulsinger, Mednick and Knop (1981), Longitudinal Research. See also Goldstein (1979) Design and Analysis of Longitudinal Studies.

5.TRIBUNE

A LETTER FROM TORE DALENIUS (18.04.85)

I am writing thie letter to suggest that a different format be used for the "ballot papers". Let me elaborate.

The problem :

The names proposed for the council are not on the same line as the response box, where we are to place the tick marking our choice. In fact, 8 out of the 11 names are "misplaced".

A solution :

I suggest the following format. The names are listed alphabetically as now, and numbered :

1. Banda, J.P. (Zambia)
2. Bethlehem, J.G. (Netherlands)

etc. The members would then vote for a name by placing a ring around the corresponding number :

(1.) Banda, J.P. (Zambia)

etc.

What I have discussed here is, of course, a minor problem. But I feel that it is of special importance that the survey section sets a good example when it comes to forms !

With best wishes,
Sincerely yours Tore Dalenins

Response of the Secretariat :

Unhappily, Tore is right ! The Secretariat apologizes to membership for this bad format used for the ballot papers ; it was discovered only after printing 1 500 bulletins. We shall try to do better next time, in 1987 !

6.ANNOUNCEMENTS

6.1. COMPSTAT 1986 7th SYMPOSIUM ON COMPUTATIONAL STATISTICS.

A Congress of the International Association for Statistical Computing, a section of the International Statistical Institute, with support of :

Società Italiana di Statistica (SIS)
Istituto Centrale di Statistica (ISTAT)
Dipartimento di Statistica, Probabilità e Statistiche Applicate, Università La Sapienza, Roma

Scientific Programme Committee :

D. Edwards (Denmark)
Y. Escoufier (France)
A. Gale (USA)
T. Havranek (Cecoslovakia)
H. Lauter (GDR)
N. Lauro (Italy), Secretary
G. Leti (Italy)
A. Mineo (Italy)
K. Momirovic (Yugoslavia)
J. Nelder (Great Britain)
A. Rizzi (Italy), Chaiman
V. Siesto (Italy)
P. Sint (Australia)
A. Verbeek (The Netherlands)
N. Zagoruiko (URSS)

Organising Committee :

A. Rizzi (Universià La Sapienza, Roma) Chairman
N. Lauro (Università di Napoli) Seoretary
F. De Antoni (Università La Sapienza, Roma)

The COMPSTAT 1986 Symposium will include the presentation of papers on computational statistics, including numerical and algorithmic aspects of statistical methods and their applications and relevant new techniques in computer science.

Special sessions are envisaged for the introduction and demonstration of statistical sofware packages, including the use of interactive terminals, desktop computers and micro computer systems. There will be posters illustrating recent developments in statistical software and a display of current documentation. Panels will be organized on topics suggested by participants.

Scientific Programme :

The scientific programme might include :

Information Science and Statistics
Probabilistic models in exploratory data analysis
Computational approach of influence
Numerical aspects of statistical computations
Three mode data matrices
Cluster analysis methods and algorithms
Robustness in multivariate analysis
Computer graphics and data presentation
Microcomputers and networks
Expert systems
Confidentiality in statistical data base
Statistical packages : proposed standards and interfaces
Data handling and computational methods of clinical trials
Econometric computing
Data base management systems and statistical software
Teaching of computational statistics

Intending authors must submit an abstract in English to the COMPSTAT address not later than 15 december 1985.

Each abstract must be so written that it enables the Programme Committee to judge the relevance of the paper, and to select those most suitable for the programme.It must include author(s) address, up to 5 key words, subject, main results, statistical and computing relevance, main references.

A lenght of about one typewritten page is advised.

The programme Committee will notify authors of its decisions on acceptance of papers within two months, and detailed instructions for the preparation of the paper will then be given. The deadline for the submission of the complete papers - in reproducible form and in ENGLISH only - will be 30 may 1986.

Papers should not have been published previously, and the copyright of the Proceedings will rest with Phisica-Verlag.

Correspondence should be addressed to :

COMPSTAT 1986
Dipartimento di Statistica, Probabilità e Statistiche Applicate
Università degli Studi di Roma "La Sapienza"
Piazzale Aldo Moro, 5
00185 Roma (Italy)

6.2. ECONOMICS AND ARTIFICIAL INTELLIGENCE : NEW METHODS IN ECONOMIC MANAGEMENT AND ORGANISATIONAL STUDIES BY THE DEVELOPMENT OF INTELLIGENT INFORMATION SYSTEMS.

Conference of the International Federation of Automatic and Control.

Organizer : Association Française pour la Cybernétique Economique et Technique.

September 1986, Aix-en-Provence, France

. Aims and Scope

The conference will be devoted to methods and applications in the areas of Economics, Management science and Organizational Studies involving the new methods developed within Artificial Intelligence, Intelligent Information Systems and related disciplines : Pattern Recognition, Expert Systems, Problem Solving Methods, Automatic Reasoning, Computer Assisted Modeling and Design.

The aim of the conference is to present and discuss new methods to highlight the repid evolution in the field and to explore the most promising areas in Artificial Intelligence applied to Economics Management and Organizational studies.

. Topics

Contributed papers are welcome on the following and related topics :

1. GENERAL CONSIDERATIONS

About the cross fertilisation of the two schools :

- Economic and management modeling
- Artificial Intelligence modeling.

2. METHODS AND EXPERIMENTATIONS

2.1. Developing new modeling methods

- Knowledge representations
- Automatic reasoning
- Network modeling.

2.2 Expert-Systems design

- In financial analysis
- For industrial applications and studies.

2.3 Computer assisted modeling

- Intelligent System design
- Friendly models, statistical software
- Special tools for economic applications.

2.4 Specific hardware development

- New generation computers for economic applications
- Data base computers
- Graphic interfaces
- Interactive and display systems.

2.5. Intelligent Information Systems for economics studies

- Understanding economic languages
- Economic and organizational pattern recognition
- Knowledge Bases.

2.6. Economic documents handling

- Automatic translation for economic texts
- Adressing and retrieval techniques for economic files.

3. AREAS OF APPLICATIONS

3.1. Decision support system (D.S.S.) for management

- Intelligent Information Systems and Computer Assisted Decision
- Validation procedures for D.S.S.
- Specific problems in connecting Data Base System and D.S.S.
- Formal versus information (soft and hard knowledge)

3.2. Economic analysis and forecasting models

- Intelligent models for macro and micro economic studies
- Intelligent econometric systems.

3.3. Financial analysis and risk assessment

- Intelligent partfolio managers
- Analysis of stock markets and risks.

3.4. Production and Distribution studies

- Job shop scheduling
- Market studies.

3.5. Games and training

- Business Games
- Strategy and planning games.

3.6. Large system modeling

- Regional and urban planning
- Technology assessment
- Environmental resources management
- National health organization
- Transportation and communication.

. Call for papers

Contributions are invited in the topics mentioned above. Four copies of the complete paper in English or French up to 5.00 words will be received not later than december 1, 1985 by : Secretariat of first conference C.E.A.I., c/o GRASCE (ERA CNRS 640), Faculté d'Economie Appliquée, 5, av. Victor Hugo, 13100 Aix-en-Provence, France. The authors should state precisely to which topics mentioned above his paper belongs to. The authors must be present in person at the conference.

. Publications

Preprints of papers will be distributed among participants at the beginning of the Conference. The proceedings of selected paper, in English only, will be published by Pergamon Press. Only unpublished papers may be submitted. IFAC holds the copyright for publication of all papers. Accepted papers are considered to have been submitted for possible publication in IFAC's journal Automatica. The paper is automatically released for publication elsewhere if three months after the Conference the authors have not been notified that the paper is beeing reviewed for possible publication in Automatica.

6.3. INTERNATIONAL SYMPOSIUM ON PROBABILITY AND BAYESIAN STATISTICS.

Innobruck, Austria, September 23-26, 1986.

The Symposium in Honour of Bruno de Finetti's 80th birthday is planned at a nice place near Innsbruck, the capital of Tirol in the center of the Austrian Alps.

It is of interest to anyone open to progress in stochastics.

. Program :

The program will consist of long and short presentations and poster sessions.

Subjects to be conssidered are :

Foundations of Probability and Statistics
Probability Models
Recent Work in Bayesian Stochastics
Statistics and Information
Reliability
Regional Statistics
All interesting Applications
Other topics can be proposed.

Accepted papers are planned to be published in a Symposium volume.

The official language will be English.

. Contributed Papers :

Prospective authors should submit two copies of the proposed paper.

Deadline : December 1, 1985.

The Symposium will be sponsored by Governmental and other persons.

. Information :

To receive further information, please write to :

Professor R. VIERTE
Institut für Statistik und Wahrscheinlichkeitstheorie
Technische Universität Wien
A - 1040 Wien, Austria
Telephone : (0222) 5601/5425.

7.BIBLIOGRAPHY

7.1. WORLD FERTILITY SURVEY : MAIN FINDINGS AND IMPLICATIONS

It's a synthetical report, presented in a non-technical way, to ensure the widest possible dissemination of the information it contains. A complete bibliography of WFS publications is given.

Add. : WFS, 35-37 Grosvenor Gardens. London. SW1W OB5. (U.K.)

7.2. RIVISTA DI STATISTICA APPLICATA

The connection between the development of information and statistical research progress has become so close that the Scientific Committee has decided to open a special section on Computational Statistics in the Rivista di Statistica Applicata.

The aim of this section is to spread an stimulate research concerning Computational Statistics with particular reference to :

- algorithms for implementing statiscal methods on computer, and relative programs
- statistical languages
- evaluation of statistical software
- critical reviews of software for methodological specialized areas
- statistical data bases
- use and role of microinformatics
- computer graphics
- expert systems
- teaching of computational statistics.

In the same way the new editorial policy intends proposing to the reader of the journal, information regarding the news of hardware, statistical packages, data banks, specialized publications.

For informations and advertising conditions write to :

Ettore Marubini
Rivista di Statistica Applicata
Istituto di Biometria.
Via Venezian, 1
20133 Milano - Italy.

7.3. EUROPEAN JOURNAL OF POPULATION : NEW REVIEW ; ASK FOR A FREE SPECIMEN COPY.

Published under the auspices of the European Association for Population Studies, the Journal aims to improve understanding of population processes and their correlates, more particularly with respect to issues of scientific and policy concern in Europe. It seeks to bring out similarities and contrasts in demographic experience, in theoretical explanations, in research strategies and in policy implications and formulation both within Europe as a region and between Europe and other regions.

The journal addresses a broad public of researchers and policy-makers concerned with population and related issues. Recognizing the interrelations between demographic and other factors and the multidisciplinary nature of population studies, it is explicitly multidisciplinary, drawing on the paradigms and methods of a broad range of disciplines.

Authors of articles (in English or French) which fit the scope of the EUROPEAN JOURNAL OF POPULATION / REVUE EUROPEENNE DE DEMOGRAPHIE are invited to send three copies to any of the editors. The author of each full length paper accepted will receive the following benefits :

1. A complimentary one-year subscription to the Journal.
2. 25 Free reprints to the principal author of each published article.
3. Every author is entitled to supply a list of colleagues and professional associates to whom he would like a complimentary copy of his contribution to be sent. North-Holland will send these copies free of charge.
4. As author of a published paper you are entitled to a one-time 25 % preferential discount on all books published by North-Holland.

Subscription price for volume I (4 issues in 1985) : Dfl. 167/US $ 62.

Add. 1 : European Journal of Population
Editorial Office
1 Place Montesquieu, boîte 22
B-1348 Louvain-la-Neuve - Belgium

Add. 2 : (for customers in the USA and Canada)
Elsevier Science Publishers
Attn : Journal Information Center
52, Vanderbilt Avenue, New-York, NY 10017 - USA.

7.4. SCPR

. Survey Methods Newsletter - Winter 1984/1985

Report of the October Seminar : the Analysis of Qualitative Research Data.

. Publications list in 1985

Add : Social Community and Planning Research
35, Northampton Square, London EC1V OAX, U.K.

7.5. REPORT ON COGNITIVE ASPECTS OF SURVEY METHODOLOGY.

In the S.S. issue nr 11 you were informed that a seminar had been held on Cognitive Aspects of Survey Methodology. The complete report is now available, you will find below a presentation of it.

In the spring of 1983, the Committee on National Statistics (CNSTAT) held an Advanced Research Seminar on Cognitive Aspects of Survey Methodology (CASM), aimed at creating a dialogue between cognitive scientists and survey researchers and at developing proposals for cross-disciplinary research. Participants in the seminar, which was chaired by CNSTAT member Judith Tanur, included cognitive scientists, survey researchers, applied statisticians, and staff of the Bureau of the Census, of the National Center for Health Statistics, and of CNSTAT. Discussions dealt broadly with the effects of problems in comprehension, retrieval, and judgment on survey responses. Special attention was given to cognitive aspects of respondent reports on illnesses, health care utilization, and activity restrictions in the National Health Interview Survey.

The report of the CASM project, Cognitive Aspects of Survey Methodology : Building a Bridge Between Disciplines, is now available. The report includes background papers prepared for the seminar, a summary of seminar discussions, and descriptions of research activities and proposals developed by participants following the seminar. For a copy of the report, write to : Committee on National Statistics, National Academy of Sciences, 2101 Constitution Avenue, N.W., Washington, D.C. 20418 or telephone (202) 334-3096.

The Committee on National Statistics is part of the commission on Behavioral and Social Sciences and Education. The Commission is one of the major program units of the National Research Council, the principal operating agency of the National Academy of Sciences and the National Academy of Engineering.

7.6. LA CORRESPONDANCE DE BLAISE PASCAL ET DE PIERRE DE FERMAT : LA GEOMETRIE DU HASARD OU LE DEBUT DU CALCUL DES PROBABILITES

by P.J. Abont and M. Boy.

This critical edition of the direct and indirect correspondence between B. Pascal

and P. de Fermat aims at understanding how these authors have drawn out of to prehistorical stage the "geometry of random", thanks to the necessary elaboration of new concepts and news procedures. To this end, we have collected all the known texts, tried to fill their gaps and ellipses by referring to the two correspondents' approach without resorting to modern algotithms.

Thus, the two Pascalian approaches appear (particularly the detail and logic of the second one), as well as the difficulties deriving from resorting to combinatorial analysis, the emergence of the infinite and the absence of the concept of limit.

Les Cahier de Fontenay are available from :

E.N.S. de Fontenay-Aux-Roses
5, rue Boucicaut - 92 320 Fontenay-Aux-Roses
Tel. : 702.60.50. - extension 422

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