

**INTERNATIONAL STATISTICAL INSTITUTE**  
**INTERNATIONAL ASSOCIATION OF SURVEY STATISTICIANS**

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**1. EDITOR'S LETTER**

The Editor and the Editing Board regret it could not be possible to publish a Spanish version of the Survey Statistician. They hope they can do it in a next future.

They thank IASS representatives and members for information and papers they provided.

They contemplate to issue another publication including methodological papers on sampling theory and practice.

## 2. GENERAL INFORMATION

### 2.1 PROCEEDINGS OF IASS SESSION IN BUENOS AIRES, DECEMBER 1981

#### 2.1.1 PROCEEDINGS OF THE GENERAL ASSEMBLY, DECEMBER 4, 1981

The President, Mr Dalenius, recalls the agenda that is approved.

#### Committee reports

The reports, circulated during the assembly will be published in the Survey Statistician.

#### Program Committee, 1983 Madrid session

The Committee chairman, Mr O'Muircheartaigh reminds that a draft program was published in the Newsletter n°4 dated 12.4.1981. Since the program coordination committee meets at the beginning of next week, he calls for **observations** at earliest.

Follow some proposals made during the discussion : data collection, agriculture, and dwelling censuses.

#### Publication committee

The chairman underlines that publications are of better quality but a better geographical distribution of people writing for the Survey Statistician is wished. He reminds that the membership list is not quite updated and insists on members' cooperation, and particularly, regional correspondents' to improve its quality.

#### Membership committee

The chairman reminds that a great number of members do not pay membership dues.

#### Treasurer's report

The financial situation is not in a bad state but it does not allow to increase IASS activities.

#### Scientific Secretary's report

The scientific secretary could not be circulated. It deals with the following points :

- role of IASS
- committee coordination
- conference coordination (Egypt, Dakar seminar)
- meeting planned in Jerusalem in 1982
- African census evaluation
- participation in ISI Review (2 assistant editors)

#### Executive Director's report

The chairman thanks Mr Théodore and his colleagues from INSEE in general for their remarkable cooperation.

#### Terminology and Workshop committee reports

Professor Kish did not send his reports.

#### President's report

This report is a complement to the Scientific Secretary's on some issues not dealt in it :

- steps taken so that IASS be recognized as UNESCO non governmental body
- report asked to Dr Platek from Statistics Canada
- annotated bibliography of statistical methodology
- revision of English translation of papers issued in the Survey Statistician by the Bureau of the Census
- "What is a survey ?" brochure
- revision of the statutes by Mr Kalton
- representation on ISI Ethics Committee (Messrs Jowell, Rapaport)
- President's visit in China
- Contribution for Dr Yates' jubilee

#### Discussion on the reports

It deals mainly with the following problem : are IASS activities sufficient to hold its members' interest, does it actually permit a better circulation of sampling knowledge ? The question of publications is raised.

Some people think that one should not be too critical and that the situation can be improved.

As a conclusion, the General Assembly asks the Council to take into consideration the improvement of publication contents.

#### Officer and Council member elections

The results of the elections, such as communicated to members, is contrary to section 6 of the statutes since three Officers (Ms Bailar, Messrs Kish and Madow) are American.

The Nomination Committee chairman (1979-1981), Mr O'Muircheartaigh, explains this error by the fact the Committee did not know the President belonged to the Office.

Mr Dalenius indicates that the Council proposes to accept this situation while regretting it. The General Assembly agrees.

The Council asks Mr Kalton to think about a revision of the statutes so that they are more adapted to the Association.

#### Membership dues

Mr Dalenius says it seems desirable to increase membership dues for developing country members. The question is to know what the members will get in counterpart of the dues.

The General Assembly agrees that, if it is possible, to provide members with the ISI Review in conditions, that, on

the whole, would be satisfactory for the Association, in that case, it would be possible to increase membership dues as the President requires. The Council should examine the matter in that sense.

The President indicates too that the Council found it was regrettable that ISI members could be non-paying members of IASS. He suggested that the new President raises the question to ISI.

#### Miscellaneous

. Since the New Delhi session, steps have been taken to promote the use of sampling techniques in Latin America. Two meetings were held in 1978, in Mexico, in 1980 in Sao Paulo, in 1981 in Buenos Aires before the ISI Session ; it is contemplated to hold a workshop before the Madrid session.

This group should have a more formal statute. A meeting is to be held after the General Assembly. Such groups could convene too in other regions.

- . The President disapproves two facts related to relations between IASS and ISI :
  - the meeting on migration statistics in the Hague with ISI and IUSSP without consulting IASS;
  - the report, by B. Davies, on the ISI Office initiative, on ISI Survey Research Center, IASS did not hear about.

Mr Zarkovich wishes that from now on, that type of problems be solved with a better collaboration.

#### 2.1.2 REPORTS OF THE PRESIDENT, THE EXECUTIVE DIRECTOR, THE SCIENTIFIC SECRETARY. REPORTS ON PUBLICATIONS, ACTIVITIES OF THE SECRETARIAT, MEMBERSHIP AND FINANCIAL SITUATION

##### Report of the President - December 1, 1979 - November 30 1981

Section 6.4 of the statutes of the IASS reads as follows : "The President shall represent the Association on all the official occasions and shall preside over the meetings of the General Assembly and the Council and shall have general responsibility for the execution of the policies and decisions of the General Assembly and the Council. In order to insure the continuity of management of the Association, the President shall keep the President - Elect closely informed with respect to all relevant management and policy activities".

In what follows, I will briefly review some activities during the last two years, focusing on topics not discussed in the report by the Scientific Secretary, Dr A.L. Finkner. Thus, my report supplements his report.

- . IASS has taken steps to secure UNESCO acknowledgement of IASS as a non-governmental organization.
- . Dr Richard Platek, Statistics Canada, has prepared an informative report "Survey Research Training and Employment Opportunities in Canada". The report has been distributed to all members. I want to thank Dr Platek for his contribution. I hope that similar reports will be prepared for other countries - we are rather ignorant about the state of affairs with respect to survey research training and employment opportunities all over the world !
- . The National Center for Health Statistics, U.S. Department of Health and Human Services, has provided IASS with a large supply of its Annotated Bibliography of Statistical Methodology for distribution to the members. I want to thank Mrs Dorothy P. Rice, the Center's Director, for making this material available at no charge.
- . US Bureau of the Census has kindly agreed to help editing articles in English to appear in the Survey Statistician.
- . All members have received a copy of the brochure "What is a Survey?" from the American Statistical Association.
- . Mr Graham Kalton has agreed to review the present statutes taking into account that a sizeable amount of work has to be carried out between the sessions by mail.
- . The IASS is represented by two members on the ISI committee on ethics ; one of these members serves as the chairman of the committee.
- . September 27-October 26, 1981, I visited China at the invitation of Mr Li Cheng-rei, Vice President of the National Statistical Society of China and Deputy Director of the State Statistical Bureau, Beijing. The purpose of this most memorable visit was to study "survey sampling in China - problems and prospects". Those in charge of official statistics in China are making interesting uses of survey sampling and intend to intensify these uses.
- . I have contributed a paper "A Sample of Ideas for Research and Development in the Theory and Methods of Sample Surveys" to a forthcoming Festschrift in honor of Dr Frank Yates.

Now that I am stepping down from my high office, I want to convey my warmest thanks to all who have helped me in my endeavors, and hence contributed to the progress of our association. Especially, I want to express my gratitude to INSEE for its support ; our permanent office within INSEE has been and is an invaluable asset. I want to thank Mr G. Théodore and his colleagues for their whole-hearted cooperation and work. Last but not least, I want to thank Dr A.L. Finkner, the Scientific Secretary, for his great work effort.

In summary, while being the President of our Association has involved much work, it has been most rewarding thanks to the great support I have received.

Providence, R.I. November 1981  
Tore Dalenius

##### Report of the Executive Director - 1980 - 1981

The conditions of functioning of the Executive Direction of IASS have not changed much since the report presented at the Manila Session. The geographical dispersion of the members and members of the Council does not make it easy to maintain close relations. However, it has been attempted to profit by the occasional passage through Paris of some members to hold an ad hoc meeting (Paris, May 13, 1981).

It is to be noted, on an administrative ground, that the Association has been affiliated to the French official register of enterprises and establishments.

#### A. Life of the Association

a) The membership is stable, but the regularity of the payment of dues has not been obtained yet and, at the beginning of 1982, we will have to strike off members who will not have paid their 1980-1981 dues.

b) The treasury of the Association is still difficult. A change to 15 US\$ of the annual dues for members of developed countries will improve the situation, but the Council has been asked to consider a systematic prospecting of institutional members and to profit by the Buenos Aires session to get into touch with the directors of national statistical offices present.

c) The duality between representatives and correspondents has been suppressed and 50 members have accepted to play a role that encompasses both functions.

d) The lay-out of the Survey Statistician has been improved thanks to members' suggestions expressed end 1979 - beginning 1980. The Council has been asked whether new provisions should be planned concerning 1982 and the following years.

It must be noted that the scheme concerning a Spanish version has not yet come out. Maybe the problem could be put to the Spanish National Statistical Office ?

e) It has been suggested, so as not to overcharge the Survey Statistician, that papers or studies whose length is too important, be published in a specific booklet issued annually.

f) Contrary to what had been hoped for in Manila, no agreement has been reached as to the service of the ISI Review to IASS members who are not members of ISI.

#### B. Preparation of the Buenos Aires session

This preparation does not seem to have raised, on a technical ground, specific problems. It would be convenient that, concerning the 1983 session in Madrid, the outline of the programme relevant to the Association be known as early as March 1982.

#### C. Programme of the United Nations for the development of household surveys - ISI-UIESP survey program about migrations

The attention of the Executive Director has been drawn to the following point : some IASS members take part, in their own names, to various groups and committees of these two programmes, but the IASS is not invited as such, except as an observing member. The Council will study this problem and make whatever recommendations necessary.

#### D. Role of IASS

As had been noted in the previous report, IASS must be a place where to meet and exchange experiences concerning the methodology of surveys and censuses.

The Survey Statistician has published a number of notes, however, this effort is not yet sufficient and the Council has been asked which new ways should be explored to make the Association more efficient.

#### E. Financial problems

The Executive Director insists again so that a quota of the ISI incomes (a subsidy, not dues) be granted to the various sections, indeed, the fragility of the sections is such that emergency measures must be taken.

#### F. Link with UNESCO

A dossier was transmitted to UNESCO in view of the acknowledgement of the Association as a non-governmental office.

#### G. Seminars

The Association, either directly or through its members, has taken the initiative of participating to various seminars:

- Luxembourg - Statistical office of the Community, April 16-18, 1980
- Cairo - School of Public Health, Ain Shams University, March 9, 1981
- Canterbury - University of Kent, September 22-23, 1981
- Dakar - joint IASS-INSEE seminar, November 15-22, 1981.

G. THEODORE

### Report of the Scientific Secretary - December 1, 1979 - November 30, 1981

#### A. Role of the Scientific Secretary

##### a) Section 6.5

The Scientific Secretary shall be responsible, under the guidance of the President and the Council, for coordinating the activities involved in arranging seminars, conferences and publications as specified by Section 8.

##### b) Section 8. Seminars, conferences, publications

8.1 The Council may arrange seminars, conferences, etc. and other programmes on its own responsibility or in collaboration with the other organizations at the same time as the meetings of the General Assembly of the Association or at other times in suitable places.

8.2 At least three months notice of meetings, other than the General Assembly and of seminars, conferences, etc. shall be normally sent to all members of the Association.

8.3 The Council may take arrangements to publish an official journal of the Association or to make necessary arrangements for publishing in a suitable scientific journal the proceedings and papers presented at meetings and conferences of the Association and of its national or regional sections and news and communications relating to the work of the Association.

8.4 The Council may publish, as and when necessary, reports, pamphlets, books and other publications for the promotion of the objects of the Association.

#### B. Coordination of meetings

##### a) 43rd session of ISI, Buenos Aires, Argentina, 1981

The IASS Programme Committee, under the able leadership of J. L. Sanchez-Crespo has developed the following sessions:

12. Conceptual and Theoretical Framework for Survey Sampling - N.P. Purcell (Australia)

13. Analysis of Data Based on Complex Survey Design - G. Nathan (Israel)
14. Evaluation of the Quality of Statistical Data - B. Bailar (USA)
15. Household Sample Surveys in Developing Countries with Emphasis on Non-sampling Errors - L. Diop (Senegal)

b) 44th session of ISI, Madrid, Spain, 1983

The Scientific Secretary was designated by the President of IASS to be the principal point of contact for suggested topics and organizers until a chairman could be appointed. On 10 November 1980, C. O'Muircheartaigh, then at the London School of Economics and now at the Survey Research Center, University of Michigan agreed to serve as Chairman of the Programme Committee for the 44th session of ISI to be held in Madrid in 1983. Members of his Committee are B. Bailar (USA), B. Kiregyera (Uganda), A.L. Finkner (USA), G. Nathan (Israel), N. Purcell (Australia), J.L. Sanchez-Crespo (Spain), D. Singh (India), G. Théodore (France), and V.K. Verma (United Nations).

In connection with the development of the Centenary Volume for ISI (cf below), a number of excellent topics were suggested; colleagues working in specific areas proposed were also identified. This information was forwarded to Dr O'Muircheartaigh for his possible use.

c) Other conferences

Discussions were held concerning a number of other conferences; some of them materialized while others did not.

- . Sixth International Conference on Statistics, Computer Science and Social Research, Cairo, Egypt, March 29-April 2, 1981

IASS was invited to sponsor one or more sessions at the Cairo conference. Two sessions were suggested. One, entitled "Post Enumeration Surveys with Special Reference to Developing Countries" was organized by E. Marks but later had to be aborted primarily because travel funds could not be obtained by those who wished to participate. Reductions in the US federal budget would also have prevented Dr Marks from attending. Grant travel funds were sought from the United Nations but they were not available from that source either.

The other session was organized and chaired by Earl Bryant, Associate Director of the National Center for Health Statistics (USA). The session was held on March 29, 1981 at the School of Public Health, Ain Shams University and was entitled, "Health Surveys on Health Status and Health Care". The papers and the speakers were as follows:

- Medical Care Expenditure Surveys: Methodological Issues, D.G. Horvitz, Vice President for Statistical Sciences (who presented the paper) and R. E. Folsom Jr., Research Triangle Institute, Research Triangle Park, North Carolina.
- The Health Profile of Egypt, Ramsis A. Gomaa, First Undersecretary of State, Ministry of Health, ARE, Cairo, Egypt.
- The Present and Future Roles of National Health Surveys with Special Emphasis on Health Interview Surveys, B.G. Greenberg, Dean, School of Public Health, University of North Carolina, Chapel Hill, N.C.
- Discussant: R.A. Israel, Deputy Director, National Center for Health Statistics, Hyattsville, Md.

- . The IASS-INSEE Joint Seminar on Surveys and Censuses

This French-speaking conference is scheduled for Dakar, Senegal in November, 1981 and is jointly sponsored by IASS and INSEE. The seminar will emphasize total survey design, the necessity for faithfully implementing that survey design and the desirability of communications between the statistician and the users of the data. Nine half-day sessions are planned for about 25 participants. IASS has agreed to contribute F 11150 to help defray conference expenses. The program will be sent to the President and the Scientific Secretary for approval before it is finalized.

- . Dubrovnik Seminar on Evaluation of Census and Survey Data

This seminar was originally proposed by S.S. Zarkovich and discussed with the IASS Council in Manila at the 42nd ISI meeting. It was planned for late 1981 or early 1982. The conference was proposed to last five days with two sessions per day. Lack of financial support and the crowding of meetings and seminars planned for 1981 and 1982 resulted in abandoning the attempt to organize a seminar on that general theme and in that time frame.

- . Jerusalem Statistics Meeting

This meeting was to be held June 15-19, 1981 in Jerusalem with two main subjects proposed:

- Analysis of Sample Survey Data
- Sequential Analysis

The Israeli Academy of Sciences and Humanities and IASS agreed to jointly sponsor the first topic. Approximately 25-30 papers were to be presented on each subject. The meeting was being organized by Gad Nathan and Joseph Yahav.

On November 11, 1980, they wrote, "Unfortunately, due to budgetary and other reasons we have been forced to postpone the meeting to June 1982". Later correspondence identified 12 members of the Programme Committee and eight members of the Organizing Committee. The seminar is now scheduled for June 14-18, 1982 at Hebrew University in Jerusalem. IASS co-sponsorship has been transferred to the new date.

- . Census Evaluation in Africa

There have been vague references to a UNFPA seminar on census evaluation in Africa to be organized by K.T. de Graft-Johnson, presumably in 1981, but no further information is available.

C. Other activities

The President of IASS assigned two additional tasks to the Scientific Secretary. One was to serve on the Advisory Panel to the editors of an ISI Centenary Volume. The second was to serve as IASS's representative on an ISI Committee to develop a membership information roster.

a) Centenary Volume

At the 42nd ISI meeting in Manila, A.C. Atkinson and S.E. Fienberg were appointed editors to produce a book of 250-450 pages in length illustrating the unity of statistics in honor of the Centennial anniversary of ISI in 1985. The editors were given full responsibility for commissioning papers, refereeing contributions, imposing deadlines and setting limits on length. They shall have a panel of advisors which shall consist of one member of each Section and two or more appointed by the Bureau. The present composition is J.H. Chambers (USA) representing IASS, A.L. Finkner (USA) representing IASS, Dr Vere-Jones (NZ) representing the Bernoulli Society and A.P. David (U.K.), I. Guttman (Canada) and R.A. Horvath (Hungary) representing the Bureau. It should be noted that the appointment of the IASS representative is by position and not by individual.

On May 22, 1980, the editors reported preliminary plans to E. Lunenberg including the scope of coverage and initial invitators. After consultation with President Dalenius, the editors were written suggesting that the number of articles on survey sampling be expanded. The editors responded requesting suggested topics in sampling along with potential authors. On July 24, 1980 letters were sent to the officers and council members of IASS soliciting their recommendations. Almost all responded with a wide array of excellent topics, so many in fact, that the selection of only five was a formidable task. The selection was made in conjunction with the President; the officers and members were then notified of the topics to be submitted to the editors. The members who responded concurred in our selection so the editors were advised of the topics chosen. Since authors had been suggested by the members, we offered to provide the names of potential contributors

if desired. Three of our five topics were accepted and invitations will be extended to potential authors of two of them. At the present time, the editors have commissioned 14 papers and invitations are being extended to eight other authors. Those involving sampling and surveys are

- History of Survey Research
- Sampling in Agriculture
- Large Scale Social Surveys and Experiments in the US
- Reflections on the World Fertility Survey and its Research Implications

b) Biographical Membership Roster of ISI and its Selection

D. R. Brillinger representing the Bernoulli Society, I. S. Francis representing IASC and A. L. Finkner representing IASS were appointed to work with ISI President Malinvaud to define and format what information should be contained in an ISI membership roster. Members of ISI often express the need for some documentation on the professional background and activities of their colleagues. Such information would enable members to identify others with particular interests for service on various committees or even activities outside of ISI. The present list of names and addresses is not adequate for this purpose.

At the same time, complete documentation on current activities of members will require so much effort to keep up to date that the cost (and perhaps time) would be prohibitive. Although the committee did not perform any formal cost/benefit type of analysis, it did attempt to provide a proper balance between the usefulness of a roster and the cost of producing and maintaining it. The information to be requested from members by means of a questionnaire will be somewhat similar to that found in the directory of the American Statistical Association.

The results of the Committee's deliberation will be reported to the membership by Dr Malinvaud.

D. Publications

a) International Statistical Review

At its meeting in Manila, the IASS General Assembly approved the Council's recommendation to replace Sankhya C by the International Statistical Review as the official organ of the Association, effective January 1, 1980. IASS members I. P. Fellegi, V. P. Godambe and Y. Lemel have been appointed Associate Editors of the Review.

b) Survey Statistician

The Committee on Terminology will report its activities through the Survey Statistician. If L. Kish cannot attend the 43rd meeting in Buenos Aires, F. Azorin or J. L. Sanchez-Crespo will chair the informal meeting there.

Members are encouraged to submit to the Survey Statistician, information on developments in statistical theory and practice. The Council and the General Assembly will discuss in Buenos Aires the possibility and feasibility of publishing a yearly booklet containing papers submitted to but not published in the Survey Statistician.

E. Acknowledgements

The Scientific Secretary wishes to acknowledge the ready and unfailing support provided by the members, officers and council of IASS and, in particular, the efforts of President Tore Dalenius.

October 15, 1981  
A. L. FINKNER

Report on IASS publications

A. IASS Newsletter

From 1974 to 1978, the IASS Newsletter has been published with a frequency of one to two issues a year. It was composed by IASS Secretariat and printed in offset by INSEE. The printing and mailing costs were taken in charge by INSEE. This Newsletter was edited in English and French. The following issues have been published:

n°1 - April 1974	n°2 - October 1974
n°3 - May 1975	n°4 - June 1976
n°5 - December 1976	n°6 - September 1977
n°7 - April 1978	n°8 - October 1978

The issue n°8 has served as a tentative issue for the Survey Statistician.

B. Survey Statistician

In 1978, the Newsletter has been replaced by the Survey Statistician. We have kept a format and lay-out similar to those of the ISI Newsletter.

The editor is J. Desabie. T. Dalenius, J. Desabie, L. Kish, G. Théodore belong to the editing board.

This journal is composed by IASS Secretariat and printed in offset by INSEE. The printing and mailing costs are taken in charge by INSEE.

The Survey Statistician is issued in two versions (English and French).

In order to get material for the journal, a network of correspondents has been set up.

The Survey Statistician includes the following items: Editor's letter, general information on the IASS (sessions, workshops,...) and on sessions and meetings liable to interest IASS members, surveys in progress and about to be realized, training, terminology, papers: summaries of technical or methodological papers on practical applications of surveys, Question/answer (editor: L. Kish), news from the Association, bibliography.

The following issues have been published:

n°0 - October 1978	n°1 - February 1979
n°2 - September 1979	n°3 - March 1980
n°4 - December 1980	n°5 - June 1981
n°6 - September 1981	

C. Sankhya C

The Indian Statistical Institute had proposed to use the Indian statistical journal, Sankhya, series C, as a support for a methodological divulgation of sampling surveys. The International Statistical Institute (ISI) and IASS were co-editors. The IASS President and Officers belonged to the edition board.

This journal included theoretical papers on sampling surveys (designs, methods, estimation, error control,...). It was scheduled to publish two issues a year. The following issues have been published:

Series C, Volume 39: part 1 - March 1977
part 3 - September 1977
Volume 40: part 1 - March 1978
part 2 - September 1978
Volume 41: part 1 - March 1979

This publication has stopped being issued.

#### D. Newsletter of the International Statistical Institute

A Newsletter common to ISI and its sections (Bernoulli Society for Mathematical Statistics and Probability, IASS, International Association for Regional and Urban Statistics) is issued by the International Statistical Institute.

The Newsletter is issued three times a year, in March, June, December. The first issue was published in March 1977. The IASS Secretariat mails to its members the copies provided by ISI. For the first two issues, written in English only, the Secretariat joined a French version. From number 3, a French version has been published by ISI and mailed a little later than the English one. IASS Secretariat is responsible for the translation and composition of this version on a special form provided by ISI. Like other sections, IASS will share in printing and publishing costs.

Mailing expenses are taken in charge by INSEE but it is tried to combine ISI Newsletter mailing with other IASS dispatchings.

#### E. Member Directory

From the member tape file, the Secretariat issues a Member Directory before each session. A first directory was published in 1975, other ones in 1977, 1979 and 1981.

This directory includes the names and addresses of members classified by residence country. It is mailed to all the members of the Association.

#### F. Summary booklet

After each session, the Secretariat issues a summary booklet containing summaries of invited papers and the list of contributed papers presented at the session.

In 1976, 1978 and 1980, a summary booklet was published after the Warsaw, New Delhi and Manila sessions.

This book is written in English and French. The translation of papers and the composition of the book have been realized by the Secretariat. Printing and mailing costs are taken in charge by INSEE to a large extent.

### Report on activities of IASS Secretariat

#### A. History

The Institut National de la Statistique et des Etudes Economiques (INSEE) in France has taken in charge IASS Secretariat since January 1, 1974.

#### B. Secretariat composition

The Secretariat consists of an administrative secretariat under the direction of Mr Damiani, Administrator at INSEE, Administrative Officer and Miss Dutrech, a bilingual secretary, chargée de mission at INSEE.

The Secretariat is helped in its task by a part-time, bilingual assistant secretary, paid by IASS.

The Secretariat profits by INSEE services for the file maintenance of IASS members, the printing and mailing of publications.

Mr Desabie, General Inspector at INSEE is presently the editor of the Survey Statistician.

Mr Théodore, General Inspector at INSEE, is the IASS Treasurer and Executive Director.

#### C. Secretariat activities

The Secretariat follows the guidelines given by the President and the Executive Director of the Association and the Director of the Permanent Office of the International Statistical Institute (ISI) as well.

Correspondence is made in English and French.

The tasks assumed by the Secretariat are as follows :

- correspondence with members : application forms and questionnaires for new members, answers to letters asking for information,
- gathering of membership dues : letters of call for dues, reminders, book-keeping
- file maintenance : there is a card index and a tape file on which appear the names and addresses of members together with their situation concerning the payment of dues. From the latter, it is possible to get self-adhesive address labels with the names and addresses of the members
- election of Officers and Council members (every two years): mailing and counting of voting papers
- IASS sessions (every two years, jointly with ISI sessions) : the Secretariat helps to prepare those sessions, records minutes of the meetings of the General Assembly and of the Council,
- ISI Newsletter (three issues a year since 1977) : the Secretariat translates the ISI Newsletter in French and mails the French and English version to the members of the Association,
- publication : the Secretariat is responsible for the composition, printing and circulation to IASS members of the following publications :
  - Newsletter (8 issues published from 1974 to 1978) replaced in 1978 by the Survey Statistician. After a tentative issue was realized in October 1978, two issues were published in 1979, 2 in 1980 and 2 in 1981. This publication includes general information, information on surveys in progress or about to be realized, sections (training, terminology, question/answer), papers on practical applications of surveys
  - Summary booklet of the papers presented during the sessions. A book was issued after the 1975 session, the 1977 and 1979 ones
  - Member directory issued every two years on the occasion of sessions. Directories were published in 1975, 1977, 1979 and 1981

#### D. Setting up a network of representatives

The Secretariat set up a network of representatives in several countries. Their role will be to act as intermediaries between members of the concerned countries and the Secretariat, especially to collect membership dues, to update members' addresses. They publicize the Association in their country and help to get new members.

They provide the editor of the journal with interesting information and papers : information on surveys in progress, papers and proceedings of studies.

### Report on membership and financial state of IASS ( 1980-1981)

#### A. IASS membership

Table A gives the evolution of IASS membership since January 1, 1975. Table 2 shows the numbers of new members and struck members (resigned or struck for having not paid for the last three years) of the Association, year by year, from 1974.

It is to be noted that, in 1977 and 1978, we have been led, after the decisions of the Council, to strike off the members who had not paid the dues corresponding to the 3 previous years, and that this delay has been brought down to 2 years since 1979 on.

The number of members on October 1, 1981 amounts to 1292.

**B. IASS Financial state**

Table 3 shows IASS financial state from January 1, 1979 to October 1, 1981.

**a) Incomes**

Incomes consist in membership dues of members. The yearly dues have amounted since 1974 to 10 US \$ (or its equivalent in other currencies) for individual members. This amount has been brought down to 5 US \$ for members from developing countries. For some countries, dues can be paid through UNESCO coupons.

For members belonging to the International Statistical Institute (ISI), there are special rules : ISI members who enroll in one section of ISI only, do not have to pay dues for this section. If they enroll in two sections of ISI, they have to pay for one section only, which they choose. It is to be noted that an important part of ISI members enrolled in IASS pay dues voluntarily.

Institutional members pay yearly dues amounting to 250 US \$ for industrialized countries and 100 US \$ for developing countries.

Membership dues are collected by the Secretariat and put down to the account that IASS has with the Banque Nationale de Paris, in French francs.

To collect membership dues, the Secretariat is helped by the network of representatives.

The amount of collected dues amounted to US 4,995 in 1979. It amounted to US \$ 3,536 in 1980. A dues reminder was sent at the end of November 1980 and the dues collected after this reminder have been credited for 1981.

**b) Expenses**

The costs of staff, office management, maintenance of member tape file, printing and mailing of publications are taken in charge by INSEE.

IASS takes in charge the following expenditures :

- some expenditures made by the Secretariat and the Officers (payment of a part-time secretary, equipment, publishing, travelling, entertainment, temporary translation...)
- the amount of the subscription to Sankhya, i.e. 3 US\$ each year for each member, from 1977 to 1980
- participation to printing and mailing charges of the ISI Newsletter
- purchase of other publications to be distributed to members : to this effect, US\$ 340 have been spent in 1981 for "What is a survey ?", leaflet published by the American Statistical Association.
- expenses have amounted to US\$ 7,003 in 1979 and 6,227 in 1980. From January 1 to October 1981, they already amount to US\$ 4,779.

On October 1, 1981, the credit balance is approximately US\$ 5,597.

Table 1 - Evolution of IASS membership

Situation  on	Category			
	Ordinary members		ISI members	Total
	paid-up	delinquent		
January 1, 1975	437	711	72	1220
January 1, 1976	460	808	97	1365
January 1, 1977	453	834	100	1417
January 1, 1978	414	644	115	1173
January 1, 1979	428	663	132	1223
January 1, 1980	459	476	144	1079
January 1, 1981	282	867	158	1307
October 1, 1981	420	713	159	1292

Table 2 - Changes in IASS membership

Period	New members	Struck members	
		Resigned deceased	struck off (1)
1974	168	-	-
1975	150	5	-
1976	54	2	-
1977	101	2	343
1978	121	3	68
1979	120	5	259
1980	244	16	-
1981	183	19	179
from Jan. 1 to October 1			

(1) For not having paid the dues for the last 3 or 2 years including not forwardable members

Table 3 - IASS financial state in US \$  
from January 1, 1979 to October 1, 1981; 1US\$ =5,61 FF

	1979	1980	1981 Jan. 1 to Oct. 1
<u>Credit balance on Jan. 1</u>	8,497	6,489	3,798
<u>Incomes</u>	4,995	3,536*	6,578
<u>Expenditures</u>	7,003	6,227	4,779
. made by the Secretariat	2,986	3,575	3,162
. made by Officers	78	865	369
. travelling and mission expenses for sessions	2,351	-	400
. Sankhya	665	522	-
. ISI newsletter	923	1,265	508
. other publications	-	-	340
<u>Credit balance on Dec. 31 (1)</u>	6,489	3,798	5,597

(1) Credit balance on Oct. 1 for 1981

\* The dues reminder having been sent at the end of November 1980, the dues collected after this reminder have been credited to 1981.

### 2.1.3 MEETING OF THE PROGRAM COMMITTEE : PROPOSALS FOR THE MADRID SESSION

The program committee met in Buenos Aires and proposed the following meetings for the Madrid session. The titles of those meetings are not definitive : They have to be submitted to the Chairman of the ISI program committee, Dr Horvitz.

- . 12 Integrated programs of household surveys in developing countries
- . 13 The 1980s round of population censuses
- . 14 Design and analysis of surveys of establishments
- . 15 Design and evaluation of survey questionnaires
- . 16 Implications of non-sampling errors for survey design and analysis
- . 17 Estimating current population and its components, including small area breakdowns
- . 18 Software facilities for sample surveys (jointly with IASC)

C. O'MUIRCHEARTAIGH

### 2.1.4 PROJECT OF COOPERATION BETWEEN IASS AND ITALIAN STATISTICAL ORGANIZATIONS

During the Buenos Aires session, contacts were established between Council members and delegates of Italian statistical organizations to increase the cooperation with IASS.

Once back in Rome, Mr Zarkovich went on meeting the organizations and Italian universities in order to organize possible expert consultations and joint seminars.

### 2.2 SEMINAR ON SURVEYS AND CENSUSES, DAKAR, SENEGAL, NOVEMBER 15-22, 1981

The joint IASS - INSEE seminar on methodological problems of surveys and censuses that was announced in the Survey Statistician n°5, dated June 1981, took place, as planned, on November 16-20, 1981 in Dakar.

23 participants from 13 African French-speaking countries and Madagascar (1) attended the seminar. Participated too France, co-sponsor of the seminar, Spain and various international organizations (United Nations Food and Agriculture Organization, Economic Commission for Africa, World Fertility Survey). The practical organization was very efficiently handled by the Statistical Direction of the Republic of Senegal.

The seminar scheduled 10 meetings dealing with the 8 following topics :

- . census methodology : objectives, design, preparation, implementation ; the necessity that the census kept simple contents was underlined
- . census editing : purposes, implementation problems
- . survey design and preparation : needs and purposes, populations under study, concepts and definitions to consider, pilot surveys, psychological preparation
- . sampling frames and designs : different types of frames, updating of frames, application problems of theoretical principles
- . data collecting difficulties : questionnaires, translation problems, interviewer's training, field problems, documentation
- . working population : employment and underemployment concepts and application in developing countries, employment through census and household surveys
- . sub-populations : problems of identification and difficulties of sub-population definition within a wider population, methods used in various experiences, specially in migrant population
- . user's point of view : who are the users, what are their needs, time required to get the results available according to their elaboration degree, publications.

(1) Benin, Burundi, Cameroon, Congo, Guinea, Madagascar, Mali, Morocco, Mauritania, Niger, Senegal, Tunisia, Zaire

This list shows that the seminar was original by the fact that the topics were, for most of them, common to various operations while, in general, they deal with a given operation, in the programs of international conferences and seminars. For each meeting, there were a chairman and an organizer who led the discussions ; a rapporteur was in charge of summarizing them.

Most participants had written one or more papers, which allowed to discuss from sound bases.

The discussions were quite open, direct, without any excessive formalism or systematism, based on practical experience more than theoretical speculation ; therefore, the points of view exchanged were very rich.

The seminar was the opportunity for the participants, from countries whose experience in surveys and censuses was variable and whose statistical means were very different, to compare their problems and difficulties and exchange oral or written information.

The Dakar seminar ended on the wish that similar sessions be organized in the future in the same conditions and gather French-speaking statisticians willing to exchange their knowledge on possible topics such as :

- data computer processing
- methodology to study an informal sector
- methodology of household census and survey
- the use of statistics by planning and development organizations
- methodology of the operations meant to know employment

### 2.3 EDINBURGH SURVEY METHODOLOGY GROUP - S.S.R.C. SURVEY METHODS SEMINARS

#### MEETING ON POPULATION CENSUS AND SAMPLE SURVEYS - MAY 28, 1981

A one-day meeting on population census and sample surveys was held in the University of Edinburgh on 28th May 1981. Attendance was principally by academic survey statisticians, government statisticians, and social and medical survey research workers.

The first talk was given by Mr. R.A. de Mellow of the General Register Office for Scotland on "Changes in census definitions". Attention was concentrated on the major changes in the previous decade. Until 1981 the tabulated population was always the enumerated population. In the 1981 Census information on absent household members would allow most tables to be based on usual population as well. The term "head of household" was omitted from the 1981 census form ; the first person listed on the form is treated as the head of household provided that person is usually resident at that address and is over 16 years of age. Although there is a formal census definition of household, in practice households identify themselves. Complications occur with the residents of small hotels and guest houses. The ability to transfer absent household members in 1981 will give more realistic tabulations of household by composition. A new concept introduced in 1981 is that of the de facto spouse. Information on Housing amenities was reduced in 1981 to availability of a WC and a bath. The industry and occupation classifications used in 1981 are intended to allow correspondence with the 1971 classification and with later, more detailed, classification developed by major users.

Mrs D.A. Lievesley of the Office of Population Censuses and Surveys followed with a talk on the "Use of Census Data in the Design and Validation of Samples for Social Surveys". She first described ways in which the Census enumeration forms and enumeration books might be used within OPCS to construct frames. The enumeration forms allow the economical construction of a sampling frame for minority populations, but they suffer from differential undercounting and other inaccuracies. Enumeration books are mostly used for the initial construction of a sampling frame of institutions. The post-enumeration survey has been used to check the adequacy of other sampling frames frequently used. Outsiders may use published census data in various ways ; e.g. to construct sampling frames of initial-stage units in multi-stage designs and to construct strata for such units. The aging of Census data may be a problem here. A master directory of postcodes is being constructed from the 1981 census data which may be used via the ACORN classification to construct multivariate strata. The use of census data for PPS selection, and to determine sample size in sifting a population to achieve a given sample size in a minority population, were also discussed. The use of census data to validate a sample was affected by the aging of census data and differences of definition between census and sample. The potential of raw census data to give correction factors to allow for non response bias was mentioned, together with the obstacles to this use of confidential information.

Professor T. Dalenius of Brown and Stockholm Universities gave the last talk on "Missing Data in Censuses and Surveys". He indicated that concern with non-sampling errors has latterly developed into an interest in total survey design to balance the effect of sampling and non-sampling errors. Three problems were recognized. The first was lack of agreement on the definition of non-response, etc. The second was how to reduce the rate of missing data. Various options were mentioned including : choice of method of collecting data, training interviewers to avoid non-response, sensible design of contact schedule and use of special measurement devices. The third problem was how to estimate in the presence of non-response. Two basic approaches were to sub-sample the non-respondents and to adjust the data to allow for non-response. One method of adjustment is the imputation of values for those that are missing which is possible when partial information is available on the respondents with missing values. One mode of imputation uses an updating procedure for respondents with the donor of the imputed value matched on all available variable values of the recipient. An alternative imputation procedure would be to use regression techniques. A second method of adjustment would use a system of weights for each cell in a sub-division of the sample to allow for the non-response rate in the cell. With too many cells this could lead to overadjustment. A final method of adjustment would use a model of the mechanism underlying the response. This last approach would allow simulation experiments to determine the likely consequences of alternative methods of adjustment. The need to report the degree and likely consequences of non-response should be reported for all surveys. The lack of agreement on the definition of non-response makes such reporting as occurs difficult to interpret.

A more extensive summary of these three talks may be obtained from Mr P.R. Fisk, Department of Statistics, University of Edinburgh, the King's Buildings, Edinburgh EH9 3JZ, Scotland.

#### OTHER SEMINARS IN 1981

22nd October 1981 : Reliability of Retrospective Data in Case Control Studies, by Dr R. Elton, University of Edinburgh (Edinburgh Survey Methodology Group), Conference Room, David Hume Tower, 2.30 p.m.

17th November 1981 : Variance Component Approach in Social Survey Analysis, by Professor M. Aitkin, University of Lancaster (Edinburgh Survey Methodology Group), Conference Room, David Hume Tower, 2.30 p.m.

17th December 1981 : The Measurement of Attitudes, by Professor M. Fishbein, University of Illinois, Dr A. McKennell, University of Southampton, and Dr M. Abrams, Age Concern (Edinburgh Survey Methodology Group), Chaplaincy Centre, 11 a.m. to 5 p.m.

2.4 3RD MEETING OF THE "COMITE IBEROAMERICANO DE MUESTRO" - BUENOS AIRES, ARGENTINA, NOVEMBER 27-28, 1981

The CIM held its 3rd meeting on November 27-28, 1981, in Buenos Aires, Argentina, with the support of the National Commission for the 43rd session of the International Statistical Institute, the Instituto Nacional de Estadística y Censos, and the Banco Central de la República Argentina. The local organizers were M. Blanco de Dieguez and C. Charre de Trabuchi.

The previous meetings were held in Mexico City (1978) and Sao Paolo (1980). Unlike these two meetings, this session had no formal presentation of papers since there would be abundance of them within the ISI presentations and thus it was structured as a workshop to discuss practical problems encountered in the practice of survey sampling.

There were 65 participants from Argentina, Brasil, Chile, Mexico, Peru and Venezuela. They came from the academic, government and private sector. The topics discussed were varied within the areas of : demography, agriculture, livestock, health, economics, urbanism, the teaching of sampling courses, and a special session on the Argentinian experience in the 1980 census of population and households.

The proceedings will be printed early next year and interested parties should address themselves to the local organizers or the president of CIM.

It is planned to have another session in connection with the 44th ISI meeting in Spain 1983, and the possibility of having another towards the end of 1982 in some Latinamerican country.

E. Berumen  
Comite Iberoamericano de Muestro

**3. PAPERS**

3.1 OPTIMIZATION IN THE DESIGN OF A LARGE-SCALE STATE SAMPLE

S.H. SCHWARTZ, C.D. COWAN, K.R. SAUSMAN, US BUREAU OF THE CENSUS

Abstract

In this paper the authors describe the mathematical optimization used in the construction of a survey designed at the US Bureau of the Census to estimate the undercoverage rate (percentage of persons missed) of the recent 1980 census.

The authors precede the theoretical discussions with a brief explanation of the role of the optimization in the design of the survey, and a brief explanation of the optimization itself. The optimization consisted of determining for over 100 separate geographic areas, optimal values of number of enumerators, number of blocks canvassed by each enumerator, and number of housing units to be interviewed per sampled block. The resulting figures would be optimal in the sense that they would minimize cost while satisfying the constraint of a fixed value on the variance of the undercoverage estimate. The authors present two possible sampling shemes (termed "one-stage" and two-stage" designs) ; the optimization needed to be performed for each design within each geographic area of interest. The choice between the two designs was based primarily upon which scheme would yield the lowest cost.

The cost and variance models for both the one-and two-stage designs are then presented in some details. Factors entering into the cost model of both sampling schemes were "start-up" costs (including training and administration), travel costs, interviewing costs, and listing costs. Although somewhat different, the variance models for both designs reflected such factors as intraclass correlation of households within blocks with respect to containing a missed person, and the correlated component of variance between households within blocks with respect to containing a missed person.

The authors note that, for both sampling schemes, the method of Lagrangian multipliers was used to find optimal values for the variables of interest. The formulae which produce the optimal values are presented along with descriptions of iteration techniques required to calculate the actual values.

Assuming a set of preliminary estimates concerning the values of constants appearing in the cost and variance models, the authors describe how the results of the optimization presented various difficulties with respect to their practical application. These difficulties included (in part) the average workload (in number of households) for one enumerator occasionally being in excess of what was felt reasonable, given the limited time for interviewing, and the administratively undesirable result of widely varying values of the "optimal" number of housing units interviewed per sampled block, which would force the sampling rates of housing units in blocks to vary greatly.

As a result of these difficulties, some modifications were required to the original models. These reforms included two additional restrictions on the optimization, and refinement of some of the estimates of values of constants. With these modifications, the method of Lagrangian multipliers was again used and the resulting modified formulae for calculating the desired optimal values are presented along with the respective iteration methods used to calculate the actual values.

The authors report that, when these reforms were made to the original models, the resulting output proved to be satisfactory for practical use.

As a closing remark, the authors note that after the optimization portion of the survey had been completed and other stages of the survey were being conducted, the effect of federal budget cuts and some timing problems necessitated the cancellation of the survey in the form presented. Nevertheless, the authors conclude that the theoretical exercise of the optimization was valuable as it showed the inherent potential for conflicts between theoretical optimal results of a survey design and the practical application of these results, as well as showing that the resolution of these practical difficulties within the assumed theoretical models can be quite difficult.

3.2 TWO-STAGE SAMPLING WITH COMPOSITE-LIKE SELECTION OF SECOND STAGE UNITS

I.P. DAVID, ASIAN DEVELOPMENT BANK

A. Introduction - Two Unusual Sampling Schemes

Consulting survey statisticians occasionally come across non-textbook sampling schemes requiring derivation of

new estimation methods. Described here are two surveys spaced ten years apart and conducted in different countries, which used similar but unusual sampling schemes. In both cases, the author thinks that the proponents were under the impression that run-of-the mill multi-stage sampling was used and would have analyzed the results under such assumption.

a. The smallest administrative unit in the Philippines in 1971 was the barrio (village), a group of which comprised a town and a group of towns comprised a province. In the 1971-1976 quarterly National Survey of Households of the then Bureau of the Census and Statistics, the provinces were treated as independent domains of study although a common sampling scheme was used for all. Sample towns were drawn systematically with probability proportional to 1970 population. Denote  $M_1, \dots, M_n$  the number of barrios (roughly equivalent to what were called enumeration districts at that time) in the  $n$  sample towns. Instead of drawing sample barrios in each sample town (as in two-stage sampling), the  $\sum M_i$  barrios were classified into two strata, urban and rural, and independent simple random samples without replacement (srswor) were drawn from each stratum. To complete the scheme, srswor was used to draw households from each sample barrio (BCS, 1971).

b. The Asian Development Bank requires the undertaking of project benefit monitoring and evaluation (PBME) studies in some of the projects it helps finance. Most of these PBME studies rely on a series of sample surveys for collecting field information. An example is the Tulungagung Drainage Project in East Java, Indonesia covering an area of 1,209 census blocks (an artificial sampling segment of about 100 households). In the 1980 PBME benchmark survey, resources and time constraints did not allow a complete listing of households (which would have been an ideal frame for all ensuing surveys); instead, 600 census blocks were chosen using srswor and all households in them were listed and asked whether or not they had experienced flooding in the past. The 41,544 listed households were classified into flooded (12,497) and non-flooded (29,047) after which srswor was used to draw 600 and 50 from these two classes, respectively (Soeradji, 1981).

In (a), it was probable (indeed it happened) that some sample town would not be represented in the final sample if no sample barrio was drawn from it at the second stage. Likewise, in (b), some census blocks drawn in the first stage of sampling did not have any households among the 650 total sample households. Such events, which have zero probability in usual multi-stage sampling, introduce complications in variance estimation. (Of course, the use of first-stage systematic sampling in (a) already precludes simple and valid estimation of the sampling variance).

The procedure is somewhat akin to but not quite like composite sampling, as in mixing several soil or plan juice samples and drawing subsamples from the resulting composite.

**B. Theoretical frame**

To illustrate the need for a new estimation theory for the scheme, consider sampling from a population of  $N$  primary sampling units (psus) each of size  $M$  secondary sampling units (ssus). In two-stage sampling of  $n$  psus and  $m$  ssus per psu and srswor at both stages the mean  $\bar{y} = \sum \sum y_{ij} / nm$  is unbiased for the population mean  $\mu = \sum \sum y_{ij} / NM$  and has sampling variance (Sukhatme and Sukhatme, 1970, p. 263)

$$V(\bar{y}) = (1 - f_1) S_b^2 / n + (1 - f_2) \bar{S}_w^2 / nm$$

where  $f_1 = n/N$ ,  $f_2 = m/M$ ,  $S_b^2$  is the between psu means variance and  $\bar{S}_w^2$  is the average within psu variance.

In srswor of  $n$  from  $N$  psus, followed by srswor of  $nm$  from the  $nM$  ssus from the sample psus, the same unweighted mean (but call it  $\bar{y}_c$  for distinction) remains unbiased;

$$\begin{aligned} E(\bar{y}_c) &= E_1 [ E_2(\bar{y}_c | n) ] = E_1 [ \frac{1}{nm} \sum \sum y_{ij} ] \\ &= E_1 [ \frac{1}{n} \sum \mu_i ] = \mu \end{aligned}$$

However, the variance

$$V(\bar{y}_c) = V_1 [ E_2(\bar{y}_c | n) ] + E_1 [ V_2(\bar{y}_c | n) ]$$

will be different, although the first term

$$V_1 [ E_2(\bar{y}_c | n) ] = V_1 [ \frac{1}{n} \sum \mu_i ] = (1 - f_1) S_b^2 / n$$

is the same first component in  $V(\bar{y})$ . For the second term, take the conditional variance

$$V_2(\bar{y}_c | n) = \left( \frac{1}{nm} - \frac{1}{nM} \right) \sum \sum (y_{ij} - \bar{\mu}_n)^2 / (nm - 1)$$

where  $\bar{\mu}_n$  is the average of the  $n$  sample psu means. Replace  $y_{ij} - \bar{\mu}_n$  by  $y_{ij} - \mu_i + \mu_i - \bar{\mu}_n$ , expand and simplify to get

$$V_2(\bar{y}_c | n) = \frac{1 - f_2}{nm(nM - 1)} \sum [ (M-1) S_i^2 + M(\mu_i - \bar{\mu}_n)^2 ]$$

The mean of this last expression with respect to the first stage of sampling is

$$E_1 [ V_2(\bar{y}_c | n) ] = \frac{1 - f_2}{nm(nM - 1)} [ n(M-1) \bar{S}_w^2 + M(n-1) S_b^2 ]$$

which when appended to  $(1 - f_1) S_b^2 / n$  gives the exact  $V(\bar{y}_c)$ .

As a check, it is easy to verify that  $V(\bar{y}_c)$  reduces to the cluster sampling variance  $(1 - f_1) S_b^2 / n$  when  $m = M$  and to the srswor variance  $(1 - f_2) S^2 / nm$  when  $n = N$ , where  $S^2$  is the ssu population variance.

The difference in precision of the two schemes can be seen from

$$(1 - f_2)^{-1} nm(nM - 1) [ V(\bar{y}_c) - V(\bar{y}) ] = (n-1)(M S_b^2 - \bar{S}_w^2)$$

which implies that  $\bar{y}_c$  will be more precise than  $\bar{y}$  if and only if  $\bar{S}_w^2 > M S_b^2$ . In terms of the analysis of variance of the population, the inequality is equivalent to mean square within psus exceeding mean square between psus which is not the usual case with real-world populations. However, the comparison is based on equal  $n$  for both schemes which may not be realistic since the appeal of the second scheme is when the sample first stage units are too many to subsample individually.

C. Topics for further research

The gap in the estimation theory when psus are of varying sizes and/or when these are drawn with unequal probabilities needs to be filled ; the same can be said of the problem of estimating  $S_y^2$  and  $\bar{S}_w^2$  when some of the subsample sizes  $m_i$  are zero or one. Lastly, it may be worth investigating the potential advantage that unrestricted sampling from all available units at the second stage may offer relative to cluster or two-stage sampling in so far as "analytic" surveys are concerned.

References

Bureau of the Census and Statistics (1971). Survey of Households Bulletin. Series No 20. Philippines  
Soeradji, Budi (1981) Personal Communication. Central Bureau of Statistics, Indonesia  
Sukhatme, P.V. and B.V. Sukhatme (1970). Sampling Theory of Surveys and its Applications. Second Edition. Iowa State University Press, Ames, Iowa.

**4. QUESTION/ANSWER**

MEETING WITH STATISTICIANS FROM LATIN AMERICA, AT THE BUENOS AIRES SESSION

Sampling experts in IASS conducted a "Question and Answer" session with statisticians from Latin American countries at the ISI meeting in Buenos Aires. The experts included S. Zarkovic, T. Dalenius, I.P. Fellegi, C. O'Muircheartaigh, N. Purcell, G. Kalton and B. Bailar.

Several interesting and difficult questions were raised. One question was about the design of an industrial survey with the objective of measuring the use of energy. There are lists of industries which are somewhat out of date, but no measures of variability. A long discussion took place on this question with emphasis given to stratifying the industries by size. Dr Fellegi contributed much to the discussion of this question.

A second question was raised about a transportation problem in Venezuela. It is the aim to measure the number of trips made between a given traffic area and all other traffic areas within the same district by type of transport. The data are needed in 1982. A pilot test gave a high nonresponse rate, of about 30 percent, concentrated in that group of persons who are most active. What is a good design to collect the information ? A lively discussion followed.

A question was raised about the measurement of certain types of stocks and crops in Argentina. It is better to select more replicates with fewer elements or fewer replicates with more elements ? Which design represents the population best ?

Another question from Argentina was about the number of heads of cattle in different segments of the country, when the segments cut across different farms. The owners do not know how many animals are within the parts of farms within the segments.

From Peru came a question about designing a survey to estimate television program listenership. No one at the session was familiar with audience measurement, but the questioner was referred to two IASS members at the meeting who have done work in this area.

Altogether the "Question and Answer" session was stimulating and provoked lively discussions. It would be useful to schedule other meetings in future meetings of ISI.

B. BAILAR

**5. NEWS OF THE ASSOCIATION**

5.1 RESIGNATION OF S.S. ZARKOVICH AS PRESIDENT OF IASS

Professor S.S. Zarkovich , the President of IASS used the opportunity of Buenos Aires Session of ISI to inform the members of the Council of his decision to resign as the President. In this connection Zarkovich stated : "Presidents are normally granted all the regular office facilities that are needed in the current work of a President. As I found myself in the position of an independent consultant and no office support of any kind, I realized that I would not be able to carry out satisfactorily the work expected from me. Therefore, the interest of IASS obliged me to resign".

However, Zarkovich added : "I shall continue keeping myself available to IASS for any service that the future Presidents and Councils might wish to ask me to do as an independent individual member".

Professor Zarkovich participated in the very first contacts between survey statisticians that led subsequently to the establishment of IASS. He also participated in all the major activities of IASS. This is why he wants to use this opportunity to thank the members for cooperation and the pleasure he had by seeing IASS growing.

According to the Statutes of IASS, the new President is to be elected by the Council from among three candidates, viz. the President Elect, Prof. L. Kish, and the Vice-Presidents, W. Madow and G. Théodore.

5.2 MR THEODORE'S ELECTION AS PRESIDENT OF THE IASS

Mr Zarkovich announced that he would not be able to assume his functions as President of IASS for lack of office facilities and resigned.

According to section 6.5 of the statutes, Council members were called to vote.

On February 12, 1982, Mr Théodore was elected as President, until the 1983 Madrid session.

5.3 IASS COMMITTEES

Program committee :

Chairman : C.O' Muircheartaigh. The composition of the committee is given in the Survey Statistician n°6.

Publication committee :  
Were proposed to belong to this committee : L. Frankel, T.V. Hanurav, G. Roy, G. Théodore.

Nomination committee :  
G. Kalton was trusted with the composition of the committee.

Terminology committee :  
B.A. Bailar is responsible for the composition of the committee. Mr Sanchez-Créspe will be on it.

Workshop committee :  
Mr Zarkovich is in charge of its composition.

#### 5.4 MODIFICATIONS TO THE 1981 MEMBER DIRECTORY

The members who wish to bring modifications to the 1981 member directory are requested, if they have not already done it, to mail to the IASS Secretariat the slip in the middle of the page, duly filled in.

#### 5.5 PAYMENT OF MEMBERSHIP DUES THROUGH BANKS

When membership dues are paid through banks, it often happens that the check does not show the payer's name. Consequently, the Secretariat does not know who sent the check.

To avoid it, members who pay that way are requested to ask banks or treasurers of their company to write their personal names on checks or check notice and to let the Secretariat know about it.

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SLIP TO BE RETURNED TO THE IASS SECRETARIAT, 18 BOULEVARD A. PINARD, 75675 PARIS, FRANCE  
c/o INSEE  
Modification to the 1981 IASS Member Directory

Name, First name :	Address :
previous spelling :	old one :
correct spelling :	new one :

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## 6. ANNONCEMENT OF MEETINGS

### 6.1 SEMINAIRE DE MATHÉMATIQUES SUPÉRIEURES - NATO ADVANCED STUDY INSTITUTE - Université de Montréal, July 26 - August 13, 1982

#### Data Analysis

Seminar held with the support of NATO, the Ministry of Education of Québec, the Natural Sciences and Engineering Research Council Canada, and the Université de Montréal.

#### Principal speakers :

Y. Escoufier (Univ. des Sciences et Techniques du Languedoc) : "Les méthodes de l'analyse des données et leur aspect géométrique"

J.C. Gower (Rothamsted Experimental Stn) : "Ordination and Classification"

D.C. Hoaglin (Harvard University) : "Exploratory Data Analysis"

G.G. Kock (University of North Carolina) : "Analysis of Categorical Data"

G. Méléard (Université Libre de Bruxelles) : "Analyse de données chronologiques"

C.E. Sarndal (Université de Montréal) : "Inférence statistique et analyse des données sous des plans d'échantillonnage complexes"

Partial financial support is available to selected participants, in particular citizens of NATO countries. For further information write to : G. David, Secretary, Séminaire de Mathématiques supérieures, Université de Montréal, C.P. 6128, succ. A, Montréal, H3C 3J7, Canada.

### 6.2 INTERNATIONAL MEETING ON ANALYSIS OF SAMPLE SURVEY DATA AND SEQUENTIAL ANALYSIS - Jerusalem, June 14-June 18, 1982

The international meeting on Analysis of Sample Survey Data and Sequential Analysis will be held at the Hebrew University in Jerusalem from Monday June 14 to Friday June 18, 1982.

The object of the meeting is to present and discuss the latest research developments in the two areas of "Analysis of Sample Survey Data" and "Sequential Analysis". The main topics to be covered in the "Analysis of Sample Survey Data" are :

- Theoretical foundations of inference from complex samples
- Methods of analysis of data from complex sample survey designs
- Applications of analysis of survey data in economic, demographic, social public opinion and consumer surveys
- Analysis of survey data for improving descriptive and analytical survey design and the design of analytical surveys

The program committee consists in : S.E. Fienberg (USA), S.G. Gupta (USA), H.S. Konijn (Israel), A. Madansky (USA), C. Manski (Israel), I. Meilijson (Israel), G. Nathan (Israel), E. Samuel-Cahn (Israel), T.M.F. Smith (England), J. Yahav (Israel), S. Zacks (USA).

The meeting is organized by the Israel Statistical Association under the guidance of a local organizing committee of representatives from universities and research organizations. The following have so far agreed to co-sponsor the meeting : Israel Academy of Sciences and Humanities, the Hebrew University, the Central Bureau of Statistics, the International Association of Survey Statisticians. For further information, contact : International meeting, Israel statistical Association, Department of statistics, The Hebrew University, Jerusalem, Israel 91905.

6.3 6TH AUSTRALIAN STATISTICAL CONFERENCE - University of Melbourne, Melbourne, Victoria, August 23-27, 1982

It is organized in conjunction with Bernoulli Society for Mathematical Statistics and Probability, East Asian and Pacific Region Biometric Society, Australasian Region, CSIRO Division of Mathematics and Statistics.

This conference, while providing a potential coverage of all areas of statistical theory and applications, will focus particularly on issues of topical interest included in the broad themes of Resource Development and Medical Research. A further theme of special interest will be Modern Approaches to Probability Theory. For further information, contact : I.R. Gordon, Conference secretary, Department of Statistics, University of Melbourne, Parkville, Victoria 3052, Australia.

## 7. BIBLIOGRAPHY

CASLEY, D.J. and LURY, D.A. - Data Collection in developing countries - Clarendon Press, Oxford University Press, 1981, 244 pages, price 15 £ net

The book contains the following chapters : Introduction, the Introduction of Sampling, Deciding what data to collect, Censuses, Sample Surveys, The Case Studies, Some aspects of Survey Design, the Questionnaire, the Team, the Collection of the Data, Data Preparation and Processing, the Presentation and Release of the Data, Surveys of Households and Household Members, Data on Agricultural Holdings, Monitoring, Evaluation, Surveillance, and Forecasting.

This list of chapters included shows what kind of book the authors have written. The book is not an attempt at recommending any particular methodological approaches to any survey problem. In fact, the book is the gist of experience that its authors collected as a result of their long involvement in the statistical development of the less developed countries. The book is a discussion of general principles, approaches and attitudes that the authors consider useful for all those who are doing survey work in the less developed countries. The discussion of these principles as related to specific survey problems shows the real difference between the survey work in the developed countries and the data collection in the less developed countries. It is expected that this book will be found on the desk of all those who are dealing with statistical problems of the less developed countries in the international organizations, then the experts of the international technical assistance, economists and planners who frequently have to evaluate data, etc.

S.S. Zarkovich

GRUPE DE DEMOGRAPHIE AFRICAINE - African Censuses - 3 volumes

The multiplication of sampling surveys and, in the specific field of demography, the developments achieved in the interpretation of "imperfect statistics", or more generally, the resort to pre-established models (of population, mortality, etc) tend to make the prime interest of exhaustive censuses be overlooked.

To our mind, it can never be emphasized enough that no matter how accurate a design is, it must rely on high-quality statistical data. As for samples, no matter how sophisticated they are, it seems to us unreasonable to imagine that they can entirely replace exhaustive surveys : need for frame line data, correction problems and obviously survey designs make a reference necessary.

Often rather poor in statistical data in the demographic field (incomplete registry office, partial and irregular censuses, very punctual surveys), a great number of African countries have carried out population censuses in the seventies. Being neither strictly simultaneous, nor a fortiori homogeneous, these operations have considerably enriched the knowledge of the African population. The Group of African Demography, an organization that gathers staff belonging to various French organizations (IDP, INED, INSEE, Ministère de la Coopération, ORSTOM), in more or less close connection with statistical services of African countries, has just published a methodological book on these censuses. Published in three volumes, this book contains in fact two distinct parts : the first two volumes contain monographs by country, each country having generally drafted a technical report on the census, according to a common plan, and under the responsibility of its statistical service, while the third volume appears as a "methodological synthesis", where the authors have tried to point out for each problem (organization, cartography, execution, handling, questionnaires, etc.) the positive and the negative sides of this series of censuses.

As such, this book is obviously imperfect but it should help those who in a position or another, are interested in African demography. The fact that there are practically no results, due to the methodological turn of the book, should not discourage the reader but, to the contrary, incite him to get deeper into the matter.

F. Pradel de Lamaze

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- Survey Maintenance, Philosophy and Practice, F. Mayda, P. Timmons
- Imputation in Surveys : Coping with Reality, I.G. Sande
- Redesigning Continuous Surveys in a Changing Environment, M.P. Singh, J.D. Drew
- For-hire Trucking Survey : Survey Design, R. Lussier
- Construction of Working Probabilities and Joint Selection Probabilities for Fellegi's PPS Sampling Scheme, G.H. Choudhry

SURVEY METHODS NEWSLETTER - SCPF (Social and Community Planning Research), autumn 1981, London  
The use of open questions in survey research - Report of the May seminar

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The International Association of Survey Statisticians (IASS) was created in 1973. The IASS is a section of the International Statistical Institute.

The objectives of the Association shall be to promote the study and development of the theory and practice of statistical censuses and surveys and associated subjects and to foster interest in these subjects among statisticians, organizations, institutions, governments and the general public in different countries of the world.

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THE SURVEY STATISTICIAN

The Survey Statistician has replaced the IASS Newsletter. It is published periodically by INSEE, in English and French. It contains practical information in sampling surveys : general information (proceedings of session and surveys, surveys in progress), papers (survey results, sampling technology), terminology, question/answer, education, news of the Association, bibliography.

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