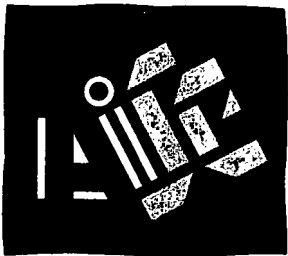


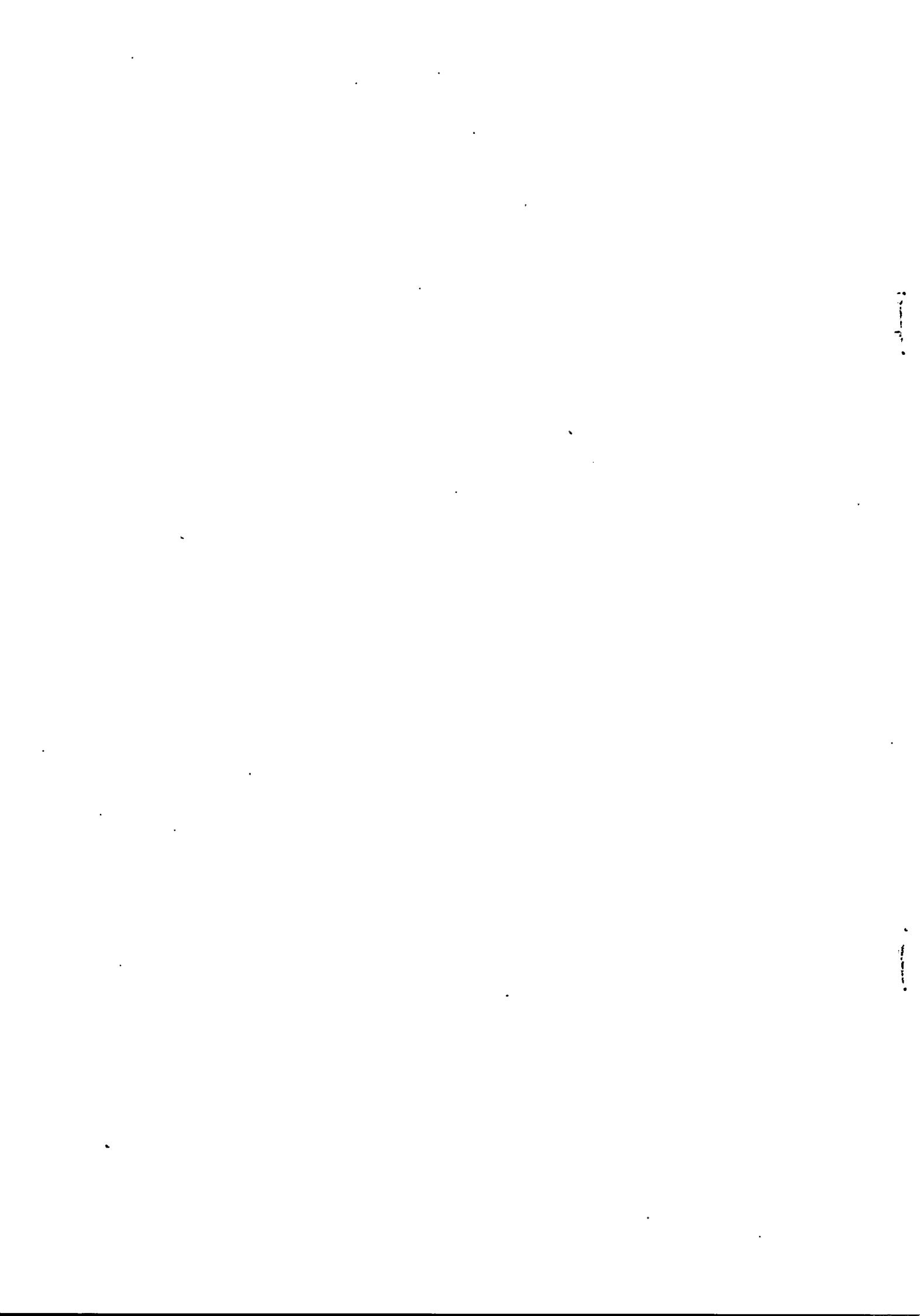
# *THE SURVEY STATISTICIAN*

INTERNATIONALE  
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DES STATISTICIENS



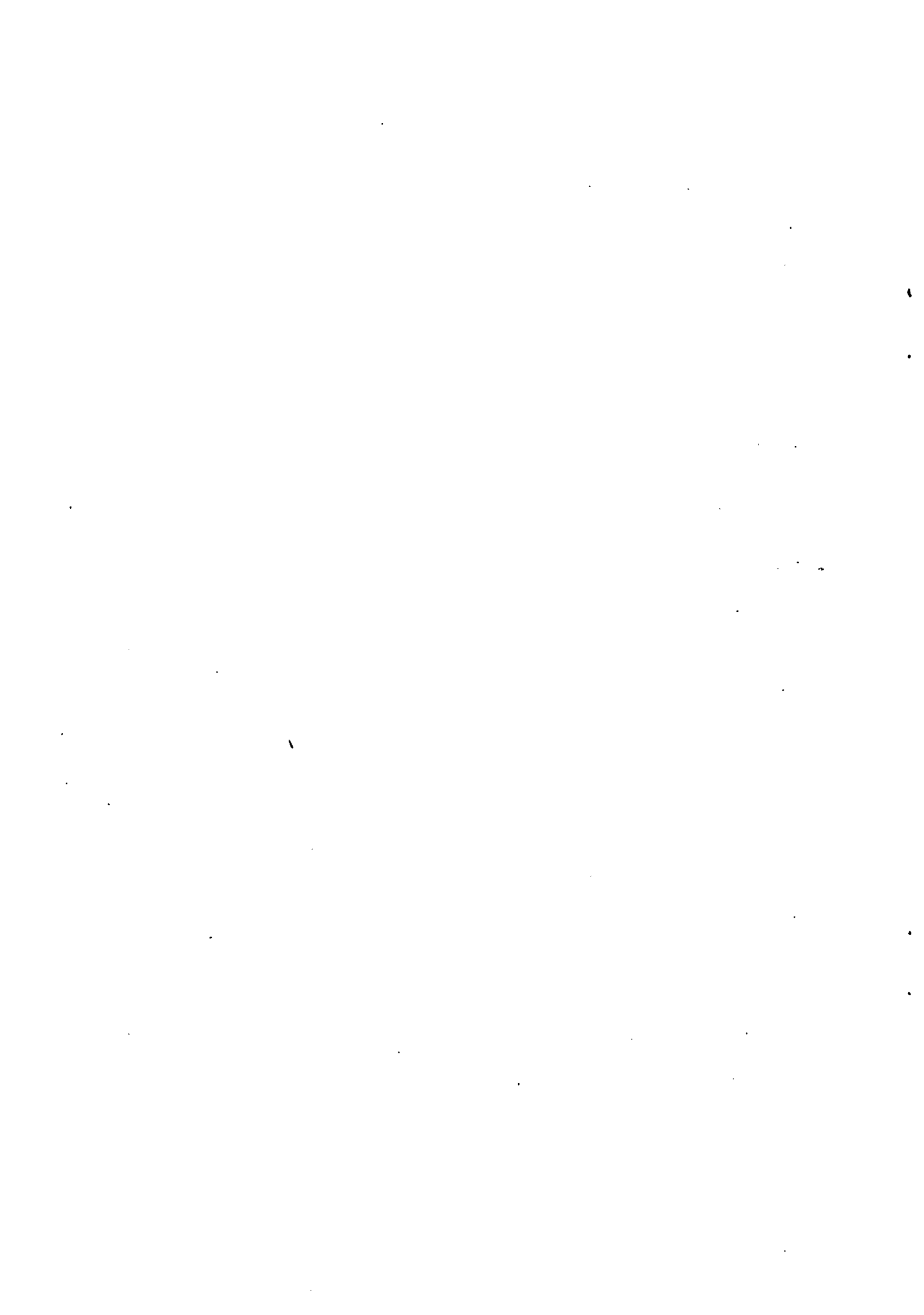
*L'Institut Internationale De Statistique*

**No. 39  
December 1998**



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## Letter From the President

Dear IASS members:

This time around, the IASS report for the ISI newsletter and my letter to *The Survey Statistician* have to be written at the same time. Since I have just sent off my report for the ISI Newsletter and since all of you get copies of it, I will not repeat what I have written there. Please read the IASS pages in the ISI Newsletter Volume 22, No. 3(66), 1998 for updates on IASS activities.

I have just come back from attending the conference in Aguascalientes and the IASS Executive Committee meetings in Paris and Libourne. I also visited our Secretariat in Libourne. At Aguascalientes I met Clyde Charre de Trabuchi our new vice-president and many other IASS members. At Paris and Libourne I met Benoit Riandey, Executive Director of the IASS, John Kovar, Scientific Secretary of the IASS, Anne-Marie Vespa, Executive Secretary and Claude Olivier, IASS Secretary. The observations in this letter are based to a large extent on my conversations with all of them.

One of the initiatives being planned to celebrate the 25th Anniversary of the IASS, which falls in 1998, is to document the history of the IASS, noting its contributions to our profession, and recognizing the role played by its founding members and other key players. Gerard Theodore, past president of the IASS (1980 - 1983), has kindly agreed to write the history of the IASS during its first ten years, 1973 - 1983, with the help of other senior members of the IASS. We are looking for someone who can document the history for the next fifteen years. Xavier Charoy (INSEE, France) has offered to put together the contributions from different members to produce a homogeneous text. We are grateful to both of them and to other contributors to this effort.

Chris Scott

The session on Sampling in Villages of the World, organized by David Fitch at the Aguascalientes conference was dedicated to the memory of Dr. Chris Scott. As Denise Lievesley said: Chris is mourned across the world as we have lost one of the best applied survey researchers, a man who dedicated his life to improving the quality and

relevance of survey data. We miss his stimulating presence at our conferences. An article on his contributions appears later in this newsletter.

## Promoting the Use of Sound Survey Methods

A major focus of the papers in the session on Sampling in Villages of the World at Aguascalientes was on using sound survey methods rather than non-probability methods. The latter continue to be used in some areas because they are viewed as easy to implement and less expensive, thus exposing those who use the survey estimates to the risk of obtaining inappropriate and wrong estimates which could result in wrong policy decisions.

I believe the IASS can help in changing this in two ways:

1. Set up a panel of expert consultants who can provide free advice on sample designs and survey procedures around the world, primarily via internet or mail.
2. Take good need-based courses in sampling methods to developing countries to increase the expertise of survey practitioners there. I have raised these ideas before in my letter to *The Survey Statistician*, but they have remained as ideas. I am hoping to devote more time in the second year of my term as IASS president to discuss and nudge these ideas forward towards implementation. Any comments on these are most welcome. Another way of promoting good survey methods in developing and transition countries, is to provide statistical organizations in those countries with the books, journals, proceedings of conferences etc., that they need, free of cost. In response to my mentioning this in an earlier letter to *The Survey Statistician* we have received a request for journals from a statistical association in Congo. We discussed this at the Executive committee meeting in Paris and believe that we will be able to meet this demand since many of our members from developed countries are willing to donate old copies of journals. In fact, John Kovar, on behalf of the IASS, has already requested and received donations of old journals from his colleagues at Statistics Canada. What we need to do now is to arrange for matching the demand with the donations and organize the logistics of delivering them.

We will be discussing this further with our council members.

There is also a demand for computers and software. This, however, is far more difficult to address. Even if there are donors willing to donate computers and software, it is not easy to find the ways and means to transport and install them, teach their use and maintain them. Any comments on these thoughts are most welcome.

### Language Issues

While the conference at Aguascalientes was excellent (see Geoff Holes report on it, which appears later in this newsletter), a comment that I heard there more than once was that, since all the talks were in English, those of our Spanish colleagues whose knowledge of English is not strong found it difficult to understand the talks and to participate freely in the discussions. However, the short courses given in Aguascalientes were in Spanish and that was much appreciated. Simultaneous translation into Spanish was considered by the Organizing Committee at INEGI but I believe the costs were prohibitive.

Thus, while regional conferences are a good means of discussing and promoting new survey methods, language remains a serious problem in some cases. We ought to encourage regional conferences to be held in the major language of the region. But that invariably requires translation of the talks of international experts, which results in slowing them down and even stifling free discussions. There are no easy solutions. One that was suggested is that all the papers presented at such conferences should at least be translated into the major language of the region and be made available during the conference. At the very least the abstracts and the overheads used during the talk should be translated.

In order to encourage conferences in major languages other than English (and of course for other reasons too) the IASS is supporting the conference on Generacion de Informacion Estadistica - Calidad y Limitaciones (Production of Statistical information - Quality and Limitations), to be held in Barcelona, Spain, 30 November and 1

December 1998; the conference on Enquetes et Systemes d'information (Survey Methods and Informatics) to be held in Abidjan, Cote d'Ivoire, 27-30 April 1999, as well as a proposed workshop on Enquetes sur la Force de Travail (Labour Force Surveys) to be held in Libourne, France, June 2000. The first of these conferences will be in Spanish, and will benefit members of the Hispanic community of survey statisticians. The others will be in French and will do likewise for the Francophone community.

Our Executive Director, Benoit Riandey, has always been sensitive to the language issue. He has got the IASS brochure (which was available in English and French, the two working languages of the IASS) translated into Spanish. He is now looking for volunteers to translate the brochure into other major languages such as Chinese and Russian to promote the association in these regions where we have poor representation. Please contact Benoit Riandey at <riandey@ined.fr> if you wish to volunteer for this.

At Aguascalientes, Clyde Charre de Trabuchi and I discussed the need for translating *The Survey Statistician* into Spanish and raised the topic with Pilar Martin-Guzman, President of the National Institute of Statistics of Spain. We are delighted that Pilar has agreed to get it done in Spain and are very grateful to Pilar for organizing this and to Clyde for her efforts in this regard. Copies of *The Survey Statistician* in Spanish will be mailed to all IASS members in Spain and Latin America. As you will notice from the brochure on the IASS short courses in 1999, we will arrange for translating the introductory material on the courses into French for those who request it and register before May 1999.

At Istanbul in 1997, Benoit Riandey arranged for a participant fluent in both English and French, Philippe Brion of INSEE, to attend the IASS short courses and help Francophone participants understand the courses better. The course fees were waived for Philippe. Since that arrangement worked well we plan to do the same for the short courses in Jyväskylä and Riga in 1999. And if there are sufficient number of participants from other major language groups such as Russian who need such help, we will try to use similar means for those languages also.

## Conferences Sponsored by the IASS

The following is a list of the conferences, meetings and workshops that the IASS has sponsored in 1998 and will be sponsoring in 1999 and 2000.

1998:

1. Meeting on Household Surveys, in Buenos Aires, Argentina, 3 - 5 June
2. Conference on New Methods for Survey Research, in Southampton, UK, 21 - 22 August
3. Conference on Statistics for Economic and Social Development, in Aguascalientes, Mexico, 1-4 September
4. Conference on Generacion de Informacion Estadistica - Calidad y limitaciones, in Barcelona, Spain, 30 November and 1 December

1999:

1. Conference on Enquetes et Systemes d'information, in Abidjan, Cote d'Ivoire, 27-30 April
2. Workshop on Recent Trends in the Methodology for Business and Social Surveys, in Jyvaskyla, Finland, 5- 9 August
3. Satellite Conference on Small Area Estimation, in Riga, Latvia, 20-21 August
4. Satellite Conference on Analysis of Survey Data, in Southampton, UK, 24-26 August
5. International Conference on Survey Nonresponse, in Portland, Oregon, USA, 28 -31 October

2000:

1. Workshop on Enquetes sur la Force de Travail, in Libourne, France, June 2000.
2. International Conference on Establishment Surveys, USA (date and location to be fixed)
3. Meeting on Sampling Methods and Practices, Brazil (date and location to be fixed)

It would be very useful if we could sponsor and organize conferences such as the excellent one in Aguascalientes at least every alternate year (when there is no ISI session) in a developing or transition country, rotating perhaps between Latin America, Africa and Asia. As Benoit Riandey asserts, there

is no question that the two conferences in Buenos Aires and Aguascalientes and the dynamism of our vice-president Clyde Charre de Trabuchi is responsible for raising the profile of the IASS in Latin American countries and helping us to serve their needs better.

## IASS List of Members

Once the list of all IASS members is put up on the IASS home page, it will be easier for the IASS secretariat to keep it up-to-date. The major reason for problems in this regard is that the secretariat is not informed when members move and their addresses change. This is particularly so for members who are also members of the ISI and do not pay IASS dues. It would be very helpful if members inform the secretariat when there is a change of address, or if they know of a colleague who has passed away. Country representatives could help in keeping the lists and addresses for members in their countries up-to-date.

## New Members

We expect more members from Latin American countries because of the conferences in Buenos Aires and Aguascalientes. We are planning to get out a special brochure aimed at attracting student members, and you will be receiving copies of this brochure - probably by the time this issue of *The Survey Statistician* reaches you. Please give copies of this brochure to students of Statistics and encourage them to become members of the IASS. We thank all our country representatives who have encouraged more colleagues to join the IASS - in particular, Jan Kordos in Poland, Gervacio Selda in the Philippines, Anjeles Iztueta Azkue in Spain, Clyde Charre de Trabuchi in Argentina and Jean-Claude Deville and Benoit Riandey in France.

## New Country Representatives

New country representatives have been recruited in many countries: Walter Castillo in Bolivia, Juan Munoz in Chile, Alexis Lukanu Nzinga in the Congo Democratic Republic, Bechara Hanna in Lebanon, and Daniel La Buonora in Uruguay. We welcome them and thank Clyde Charre de Trabuchi for her

efforts in recruiting the representatives in Latin American countries.

#### Funding Issues

As you know, we are planning many initiatives to improve services to our members. These include:

1. sponsoring more international and regional conferences and getting reduced registration fees for our members at these conferences
2. a volume containing the papers and discussions at the Silver Jubilee commemorative lecture in Helsinki as well as at the commemorative session in Seoul,
3. translating the IASS brochure and *The Survey Statistician* into other major languages besides English and French,
4. facilitating easier communication between members through the IASS home page.

We are also planning other initiatives to serve the needs of our colleagues in developing and transition countries in particular:

5. the Cochran- Hansen prize for the best paper on Survey Research Methods by a young statistician from a developing/transition country,
6. bringing more participants from developing/transition countries to attend the 1999 IASS sponsored short courses and satellite conference as well as the ISI meeting in Helsinki, with financial assistance,
7. arranging to mail books and journals to colleagues in developing/transition countries who need them.

Many of these initiatives are partly or wholly funded by the IASS. While we are looking for different ways of getting additional funds to support some of these initiatives, our membership fees remain our major source of revenue. I therefore urge you to pay your membership fees on time.

And, I ask those of you who are members of both the IASS and ISI, and exercise your option of not paying the IASS dues, if you would consider paying the IASS dues also.

Increasing our membership, both individual and institutional, is another important way of increasing our revenues. This will also help in involving more of our colleagues in our activities and thus bring their concerns also to our attention. If each of you could encourage one colleague to become a member and convince the institution where you work to become an Institutional member of the IASS that would make a big difference to the membership of the IASS and allow us to support more activities to benefit all our members.

Silver Jubilee of the IASS: I hope you will turn up in large numbers to celebrate the Silver Jubilee of the IASS during the ISI session at Helsinki, August 10 - 18, 1999. Please see the IASS page in the ISI Newsletter Volume 22, No.3(66), 1998 for our plans for the celebration.

#### Important Deadlines to Note

Jan. 10, 1999: Form A in Bulletin No. 1 of the ISI session at Helsinki for preliminary registration.

Form B in the same Bulletin for authors who intend to present contributed papers at the session.

Jan. 31, 1999: Submission of abstracts for the workshop on Recent Trends in the Methodology for Business and Social Surveys at Jyvaskyla, Finland, 5 - 9 August 1999.

April 10, 1999: Submission of final manuscripts from authors of invited and contributed papers for the Helsinki session of the ISI.

May 1, 1999: Registration for the IASS sponsored short courses at Jyvaskyla and Riga in August 1999.

June 30, 1999: Submission of final papers for the workshop at Jyvaskyla.

#### Participation in the IASS

The strength of the IASS is in its members and depends on your involvement in its activities.

Please vote in the upcoming elections for IASS officers, send your suggestions for topics for the IASS invited papers at the ISI meetings in Seoul to David Binder at <binddav@statcan.ca>, encourage and support participation in the short courses and satellite conferences that the IASS is sponsoring in 1999, and advertise the activities of the IASS widely. Your opinions, comments, and ideas on any of the items in this and earlier letters, or on any other matters of interest to the IASS are important. I look forward to hearing from you.

Wish you all a joyous festive season and a happy new year. Nanjamma Chinnappa.



### **A Tribute to Chris Scott John King\***

One of the difficulties in drawing together a comprehensive picture of Chris's contributions to statistics and his applications of statistics is that these activities have spanned such a length of time that there are few who now know the full detailed story. And those activities have been spread around the world – Chris claimed to have worked in well over 100 countries – for many different clients.

Leslie Kish, himself a giant in the survey sampling world, said of Chris, "Chris was one of the earliest and best survey samplers, starting with social surveys in London, where he wrote a couple of pioneering papers and many important reports." Pioneer is an apt description of Chris and his approach to statistical work. In much of his work he was breaking new ground or driving forward the practical application of statistical theory and methodology.

Chris studied Mathematics and Psychology at Cambridge, graduating in 1948. His spell at the British Government Social Survey between 1955 and 1961 must have had a large influence on his subsequent work. In the 1950's the Social Survey was pioneering developments in the use of scientific sampling methods to replace the quota sampling methods which had been in use previously. Although Chris was not working directly in the sampling area, he would have seen the value of the

sampling methods being developed. Even more importantly, he would (like others) have been influenced by the strong empirical approach to survey work adopted by the Social Survey at that time.

The contribution to the Social Survey for which Chris is now best remembered is the review paper he prepared on postal surveys (Scott, 1961). In this paper he brought together all the work, both published and unpublished, done by Social Survey staff on mail surveys, including his own experiments and research. Chris had clearly conducted very wide research on the subject, and this is reflected in the very comprehensive review of the literature on the topic contained in the paper. The paper had a considerable influence in establishing postal surveys as a respectable method for surveys of the general public and also on the practice of survey research. More than 30 years on, this paper is still frequently quoted in papers on postal surveys.

For most of the 1960's (1961 to 1970), Chris was based in Addis Ababa as a Regional Adviser on Sample Surveys at the UN Economic Commission for Africa. So, it was appropriate that there was a moment's silence for Chris at the start of a recent meeting held in Addis Ababa of the Coordinating Committee for African Statistical Development. In 1970 he returned to UNESCO in Paris, where he was responsible for a technical assistance program in statistics and for Office of Statistics activities in relation to statistics teaching and demography. While there, he completed a manual (with John Blacker; started while they were both in ECA) on demographic household surveys in Africa. This is probably the first manual of its kind for Africa.

His Ph.D. was awarded by the University of Ghana at Legon in 1971, for his research on the methodology of household budget (income and expenditure) surveys. The insights he gained in preparing this thesis (particularly in relation to adjustments needed for recall error in household budget surveys) proved invaluable to the World Bank in the late 80's and 90's, as these types of surveys were increasingly being used to provide information on poverty.

From 1973 to 1983, he worked as a staff member and from 1975 as Deputy Director and chief technical adviser, of the massive World Fertility Survey - probably the largest ever worldwide

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\* Compiled by John King with input from many of Chris' friends and colleagues.

program of surveys. This was another pioneering activity for Chris with world-wide significance. To this important post he brought a superb breadth of experience, in terms of both subject matter and countries, and the people and the contacts. This must have had a major effect on ensuring the success of the WFS. A well-quoted publication from this period was O'Muircheartaigh and Verma (1980).

When the WFS ended in the mid 80's, Chris chose to take up work as an independent consultant. Not surprisingly, his services were in very high demand, not least from the World Bank which lacked its own in-house skills in practical sampling methods. He made numerous country visits for the Bank in connection with their Living Standards Measurement Study (LSMS) and the follow-up Social Dimensions of Adjustment (SDA) program, and he wrote most of their documentation on sampling. More recently, Chris was working and innovating in Ghana, again, helping to test and develop the Core Welfare Indicators Questionnaire. This included developing a 'light' questionnaire and more qualitative techniques.

Chris worked with other agencies too, particularly Britain's Department for International Development (formerly the Overseas Development Administration). Trying to recruit Chris for an assignment was sometimes a frustrating experience. One's phone call was answered with, "Chris is away at the moment," or "Chris will be back next week," or "Chris won't be back for a month." When one did speak to him there would sometimes be the scheduling problem of fitting into a busy and wide-flung itinerary. But he was always helpful, charming and professional with the desire to tackle problems and help others.

An interesting example of the kind of pioneering work he did can be seen in a paper he wrote with Ben Amenuvegbe of Ghana (Amenuvegbe and Scott, 1991). The problem was one well known to sampling practitioners: What can be done when you select villages with probability proportional to size (PPS) but then get out in the field and find from your listing exercise that the size of the village has changed. If you continue with a fixed 'take' from each selected village, the selection probabilities will be wrong, and you will have to introduce weights at the analysis stage to compensate for these differences. Alternatively, you could vary the

workload to compensate for the changes in size, but this introduces difficulties in the allocation of fieldwork. In his paper Chris proposed a third approach, involving a redrawing of the village sample from among the villages already selected, but with probability proportional to the ratio of the new village size to the old one. In this way, a few of the selected villages will get selected more than once, because they have grown in size, while other villages which have shrunk in size may not be selected. This novel approach maintains the fixed interviewer quota of interviews, while also keeping the sample self-weighting.

His work on a Household Budget Survey in Zambia in 1993 developed both longitudinal and cross sectional samples covering income, expenditure and business activities. This was an idea he had had for some time, but had hitherto not found others "foolish enough" to try it. As always with Chris, this became part delivering results and part research into the technique and its wider application.

He was always keen to share his interests and findings with others. The range of these can be seen from contributions to *Inter-Stat*, a journal aimed at sharing knowledge about the applications of statistics in developing countries. His articles ranged from the advantages and disadvantages of Master Samples; through modeling and analyses of recall periods and testing memory loss (using data from Ghana); and a thought-provoking note on the sensitivity of CPIs to the weights used. These illustrate Chris's strong interest in developing practical, innovative solutions to problems in developing countries while recognizing the need for statistics to be reliable and credible.

Chris published widely and his list of publications is long. But much of his work is contained in unsung mission reports, in documentation prepared and left during a visit, in project proposals and in official publications and reports.

Through the way he worked, Chris provided leadership and guidance to young statisticians. He always listened to the ideas of junior staff, he never patronized and he was an encouraging teacher. He always took time to ensure that survey staff at all levels understood the rationale for his decisions and that they would be in a better position to make such decisions for themselves in the future. His attitude was that he had succeeded in a country if he was

no longer needed as a consultant there. His patience with those willing to learn was matched by his irritation with those who were lazy or who misused resources or power.

Even when Chris knew he was dying (he was very open about it), he was still helping others: using E-mail to discuss a sampling problem in Burundi; encouraging his co-authors to complete a paper on "Estimating Annual Income from Monthly Data" based on the Zambia longitudinal sample.

Chris Scott's particular strengths and contributions came from his questioning and open approach, his thorough grasp of the principles of survey sampling, his vast experience of survey work in a wide range of countries, and his ability to communicate and work with others and to enthuse them. He believed very strongly that whilst survey designs must be theoretically sound it was also critical that they could be implemented easily and unambiguously. He did not think it was necessary to compromise in terms of either the theoretical or the practical aspects of survey design and he was prepared to work hard to produce designs which met his exacting standards. He never forgot the importance of the interviewer in the survey process, and that the quality of survey data depends critically on the abilities of the interviewers to collect the data. And his facility in French did much to break down the divide between the empirical anglophone approach to survey work and the more theoretical francophone approach.

As well as being a thorough professional, Chris also had a great sense of fun: he was no dry statistician! He loved life and was full of wonderful stories.

Tim Marchant of the World Bank, with whom Chris worked on many occasions in many countries of Africa, commented, "Wherever I go in Africa – francophone or anglophone – there is someone who has benefited from his tutelage and who will speak with reverence about "le fameux M. Scott." I can't think of anyone who can have had more influence across a whole continent on the way in which surveys are done and samples are taken. His influence has lasted over so many years and been so profound. I know he had similar 'hits' in

other parts of the world too, but somehow I think Africa has to be special. He was without any doubt the 'Mzee' of Statistics in Africa."

Finally, Chris's whole approach to sampling is well summed up in the four guiding points he listed in the introduction to the sampling manual he prepared for the Demographic and Health Surveys (Scott, 1987). These points may seem obvious to us, but it is all too easy for them to be ignored!

### **Chris Scott's Sampling Policy**

- Scientific probability sampling must be used
- Samples should be self-weighting unless there is good reason to depart from the principle in specific cases
- If an adequate pre-existing sample or sampling frame is available, it should be used
- The sample design should be as simple and straightforward as possible, to facilitate accurate implementation.

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**WesVar Complex Samples Software  
Mary Nixon, Westat**

**Background**

The conduct and analysis of large scale sample surveys generally combines the use of a complex sample design to obtain a sample of the population, coupled with an estimation procedure that reflects variations in the selection probabilities of the sample units, and often various adjustments to reduce nonsampling biases and sampling variance. The presence of these features means that in many cases inappropriate population inferences are obtained if one conducts analyses using statistical software that applies standard methods without incorporating the effects of these design and estimation features.

In recent years a variety of statistical software packages explicitly designed to handle complex samples has become available. The December 1996 *Survey Statistician* provided an overview of different software available for complex survey data. This article will discuss in more detail the WesVar software, which utilizes replication techniques for variance estimation.

WesVar began in the early 1980s as a set of mainframe SAS procedures developed at Westat. As computing shifted to the PC environment, a PC version of the software that did not involve any SAS procedures for its clients was developed, and first made available to the general public in 1994. The PC version took advantage of the Windows environment, allowing users to analyze survey data by selecting choices from pull-down menus or by clicking on buttons to accept or cancel requests. Over the next few years, the capabilities of WesVar were expanded, as users gave feedback and requested new features.

There are two version of WesVar currently available. WesVar Complex Samples Version 3 was released in June of 1998, and is distributed by SPSS, Inc. Details may be found at [www.spss.com/software/wesvar](http://www.spss.com/software/wesvar). An earlier incarnation of the software, WesVarPC Version 2.1, may be downloaded free of charge from Westat's web site, [www.westat.com](http://www.westat.com). Since Version 3 is the version currently supported by SPSS and Westat, and contains many improvements over earlier

versions, its capabilities will be the focus of this article.

**Replication Methods**

A class of techniques called replication methods provides a way to estimate variances for the types of complex sample designs and weighting procedures usually encountered in practice. Replication is able to handle complex sampling designs, complex estimates, and complex weighting schemes even when other methods are not easily applied. Replication also has some advantages even when other methods can be applied (Brick and Morganstein, 1997). Shao (1996) and Wolter (1985) provide detailed discussions of methods used for variance estimation from sample surveys including replication, Taylor series approximation, and analytic methods.

The basic idea behind replication is to select subsamples repeatedly from the whole sample, calculate the statistic of interest for each subsample, and then use the variability among these subsample or replicate statistics to estimate the variance of the full sample statistic. Different ways of creating subsamples from the full sample result in different replication methods. The subsamples are called replicates and the statistics calculated from these replicates are called replicate estimates.

One of the main advantages of replication is its ease of use at the analysis stage. The same estimation procedure is used for the full sample and for each replicate. The variance estimates are then readily computed by a simple procedure. Furthermore, the same procedure is applicable to most statistics such as means, percentages, ratios, correlations, and so forth (Efron, 1982). These estimates can also be calculated for analytic groups or subpopulations. It is not even necessary that you understand the sampling or estimation methods if the replicate weights are included with the data.

Another important advantage of replication is that it provides a simple way to account for adjustments that are made in weighting. Frequently sampling weights are adjusted for nonresponse, poststratification, or raking to control totals. By separately computing the weighting adjustments for

each replicate, the effects of weight adjustments are reflected in the estimates of variance.

A disadvantage of replication is that it is computer intensive. Powerful personal computers have largely eliminated this problem, but it is still possible that for very large data sets with a very large number of replicates, the computations will exceed the capacity of the machine or take a long time. However, this situation is unlikely, and can be handled by restricting the number of variables or replicates.

Another problem with replication is that forming the replicates is not always straightforward. Flaws in replicate-based estimation are often the result of improper design of the replicates. If the design of the replicates does not mimic the full sample design, then the variance estimates from the procedure are subject to bias. Knowledge of replication theory is valuable to set up the replicates efficiently.

Another concern is that replication techniques are not necessarily appropriate for all sample statistics of interest. Special care is needed when trying to estimate medians, quartiles, or other quantiles, and this continues to be an active area of research.

## **Features**

WesVar computes estimates and replicate variance estimates for data collected using complex sampling and estimation procedures. It can create replicate weights for certain sample designs, produce estimates and standard errors in a tabular format, and construct linear and logistic regression models.

## **Replicate Weights and Data File Manipulation**

WesVar will calculate replicate weights for a variety of replication methods, specifically:

- Balanced Repeated Replication (BRR).
- Fay's BRR variant (FAY).
- Jackknife method 1 (JK1—random groups).
- Jackknife method 2 (JK2—paired stratified).
- Jackknife method 3 (JKn—general stratified).

To create replicate weights, the user specifies the variance strata and PSU variables, and WesVar divides the sample into subsample replicates that mirror the original sample design. Weights are calculated for each replicate, using the same procedures used for the full sample weight. WesVar currently does not support general nonresponse adjustments, but does support poststratification and raking adjustments. User developed replicate weights that include nonresponse adjustments for each replicate can be handled by WesVar.

WesVar also allows users to recode variables, create labels for variables and values, and subset data. All these changes, along with the replicate weights, are saved on the WesVar data file. The complete WesVar data file can be exported and used for other purposes. For example, if the replicate weights are created in WesVar, you might want to export those weights and include them with the original imported data file.

## **Tables**

Creating estimates and their standard errors is largely controlled in WesVar by specifying Table Request options such as Analysis Variables, Table Variables, Computed Statistics, and Cell Function Statistics. All of the specifications are done by pointing and clicking in a Windows 95 format, with no need to learn a command language structure.

A Table Request allows you to produce statistics such as totals, ratio means, proportions, general ratios, or other functions of totals. The Table Request is used to specify which statistics are to be produced and their formats.

The Analysis Variables option in a Table Request specifies the numeric variables for which population aggregates are to be estimated (such as income). The Computed Statistics option creates estimates that are functions of estimated totals (for example, the pupil-teacher ratio is the estimated number of pupils divided by the estimated number of teachers). Estimates of medians, geometric means, and standardized rates may also be created.

Frequently statistics are needed for subgroups of the population and the analysis often requires the

use of crosstabulations. The Tables option of a Table Request can be used to specify the subgroups defined by a single categorical variable, as well as subgroups defined by up to 8 categorical variables.

Within a table, Cell Function Statistics can be used to create estimates that are functions of the estimated totals in 2 or more cells of a table (for example, the difference between the mean incomes in the West and the Northeast regions).

The output from a table request is saved in tab-delimited text files, with separate files created for the table, function, standardized rates, and chi-squared statistics. You may opt to export the output to a single file. Table output on the screen is easily copied and pasted into other applications, such as Excel. An output file of the complete set of replicate estimates for each statistic may also be produced.

### **Regression**

WesVar's regression requests fit both linear and logistic regression models to data from surveys employing complex sample designs. A Regression Request is used to define a regression model, to estimate the model parameters, to test the fit of the overall model, and to test the significance of linear combinations of the independent variables in the model. You specify linear or logistic models by clicking on options in the workbook tree. Selecting the dependent and independent variables of the model and specifying tests are also done by clicking options.

Output from regression requests is saved into separate files for each model in the request. A file of regression coefficients for each replicate can be requested, as well as an auxiliary ASCII file of diagnostic information pertaining to the singularity of the cross-product matrix.

### **Requirements for Use**

Minimum system requirements for WesVar are the following:

486 processor or better  
6 MB RAM or better

Windows 95 or Windows NT 4.0  
10 MB hard disk space

A WesVar data file must be created for each input file that you want to use. The following types of files may be imported: SPSS for Windows, SAS version 6.04, SAS transport, ASCII files, and WesVarPC Version 2.1 or later data files. The file must contain either replicate weights, or stratum and PSU identifiers if the replicate weights are to be created in WesVar.

### **Applications**

WesVar is being used around the world for a variety of applications. Current users work in government, private industry, and academia. One such application is the 1994-1996 National Immunization Provider Record Check Study (Nixon et al., 1996). WesVar was used for all analyses for the study. The survey is a record check study based on the Immunization Supplement to the National Health Interview Survey, and produces vaccination coverage estimates, as well as an analysis of household vaccination reporting errors. Cell Function Statistics in WesVar were used to estimate the percentage of erroneous household reports and the net response bias, with appropriate standard errors. Reporting errors by the household were modeled using logistic regression requests in WesVar, as was the probability that a child was up-to-date on his or her vaccinations.

Another application is the Third International Math and Science Study (TIMSS), a survey that measures the educational achievement of students throughout the world (Gonzalez and Smith, 1997). WesVar was used to compute confidence intervals on national assessment results, and to test hypotheses of differences between countries, sexes, and grade levels. International participants in the study and potential users of TIMSS data have received training in the use of WesVar for analysis. The TIMSS datasets contain replicate weights, so that analysts may use WesVar with a minimal knowledge of the sampling design for the study.

The School Readiness component (Zill et al., 1995) of the 1993 National Household Education Survey (NHES) used WesVar's regression capabilities extensively. The study examined accomplishments such as emerging literacy and difficulties with

speech and motor skills in children who had not yet started kindergarten. Logistic regression models were used to examine the relationship between risk factors such as family poverty level and the accomplishments and difficulties of the preschoolers, while controlling for related child and family characteristics.

### Planned Development

Future plans for WesVar include usability enhancements, and added statistical features such as nonresponse adjustments to replicate weights. Many of the features currently available in WesVar are based on users' feedback to earlier versions, and comments on the program are requested.

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### Question/Answer

The Question/Answer section for this issue could not be completed, but will resume with the next issue. As always, we welcome any questions or comments. Please send questions and observations to:

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### Country Reports

#### BASQUE COUNTRY - SPAIN (from Anjeles Iztueta)

EUSTAT has been taking part in the European project SODAS as a benchmark. This project has been promoted by EUROSTAT and is important to statistical offices, universities, research centers and businesses in the European Union.

The aim of the project is to develop software for the processing of symbolic objects useful in official statistics. This software runs **statistical analysis of relational database queries**, and therefore it could process individual or aggregate data. This project could be applied to the following fields: statistical analysis of interval data (e.g. confidence intervals or intervals published to protect confidentiality); data integration; statistical data analysis of distributions and groups.

In May 1998, EUSTAT organized the IX JECAS (Conference on Statistics in the Autonomous Regions) in San Sebastian with the title "**Communication of Statistical Information**".

These conferences have served since 1984 as a common ground for sharing analysis, methodologies, production, dissemination and responsibilities in the field of official statistics. All of the Autonomous Regions, the National Institute of Statistics (INE) and EUROSTAT attended the conference along with the participation of prestigious experts from the United Kingdom, Australia, Canada, Sweden, France, Portugal, Germany and Switzerland.

For more information, please contact Anjeles Izutueta at: [Anjeles\\_Izutueta@eustat.es](mailto:Anjeles_Izutueta@eustat.es). Further information about JECAS can be found in the recently released EUSTAT web site whose address is <http://www.eustat.es>.

#### **CAMEROON (from Régine Zebaze)**

**Demographic and Health Survey:** This study is a series of surveys, based on a nationally representative sample, and is organized by the Department of Economics and Finance of Cameroon, and Macro-International Inc., as part of the Demographic and Health Surveys global program. The second survey is in the field with a sample of 6,500 women, aged from 15 to 49, and 3,000 men, aged from 15 to 59. The purpose of this survey is to collect data on fertility, the knowledge and use of family planning methods, children's health, marriage and sexual activity, preferences related to fertility, sexually transmitted diseases (STDs) and AIDS among men and women, and maternal mortality. Studying sexual activity, AIDS, and STDs will help determine the number of sexual partners per person and measure the risk of contracting AIDS. The links between STDs and AIDS, on the one hand, and infertility, on the other hand, will help to forecast and reduce the infertility rate in high risk areas. The maternal mortality component will help in identifying the level and associated factors nationwide.

For more information, please contact Mr. Médard Fotso, Technical Project Manager, BUCREP, MINEFI. Tel.: 237-203021.

**STDs and Health Study in African cities, City of Yaoundé:** This survey is conducted among the general adult population and is part of a large multicenter study developed and conducted by an international research team. The sample is

comprised of about 2,500 men and women aged from 15 to 49. The purpose of this study is to measure the main factors of the rapid propagation of HIV, which causes AIDS, the types of sexual behavior, including the number of sexual partners, and the prevalence of other sexually transmitted diseases (STDs).

For more information, please contact Mr. Evina Akame, IFORD, P.O. Box 1556, Yaoundé, Cameroon, Tel.: 237-222471.

**Survey of urban migration:** Since cities in general, and large cities in particular, are expanding very rapidly in Africa, it is necessary to measure the role of the rural exodus on urban growth rates, as well as the resulting socio-economic transformations and new development profiles. For more information, please contact Mr. Ngwe Emmanuel, IFORD, P.O. Box 1556, Yaoundé, Cameroon, Tel.: 237-222471.

#### **CANADA (from Gordon Brackstone)**

**The Canadian Monthly Survey of Manufacturing (MSM)** is currently undergoing a full re-design. The frame for the new survey will be the Business Register, which is a list frame used by the major business surveys at Statistics Canada. Because the Business Register is maintained on an ongoing basis using administrative data and survey feedback, it will provide a more up-to-date monthly frame than the previous frame, which was based on the Annual Survey of Manufactures. The new survey will also be based on the North American Industrial Classification System (NAICS), replacing the 1980 Standard Industrial Classification System.

The new sample design uses stratification by province, industry and size. The sample size will remain approximately the same as the old survey, but estimates are expected to be more reliable due to the better frame and more up-to-date stratification. To reduce response burden, the take-some portion of the sample will now be rotated on a monthly basis, with an in-sample period of three years. A re-stratification to reflect changes in classification and size measures on the frame will take place annually. The new MSM will make extensive use of Statistics Canada's suite of generalized systems for sampling and estimation.

Data will continue to be collected using Computer Assisted Telephone Interviewing. Once the data are returned to Head Office, both micro-level and macro-level editing will occur. The latter will be faster and easier thanks to a new interactive software package known as CAVEAT, which allows the analyst to graphically identify potential outliers and to visualize the aggregate effect of changes to the micro-data.

The new survey is scheduled to begin in October 1998 and will run in parallel with the old survey for six months. During this period, the new design will be tested and fine-tuned. The first set of survey estimates is expected to be available in the summer of 1999. For further information, please contact Ritu Kaushal, Business Surveys Methods Division, Statistics Canada, Ottawa K1A 0T6. Tel: (613) 951-0887 E-mail: KAUSRIT@STATCAN.CA.

In 1994, Statistics Canada launched the **National Longitudinal Survey of Children and Youth (NLSCY)**. This survey seeks to determine the factors that influence children's development by measuring various aspects of their physical, social and cognitive development. The first panel, drawn in 1994, consists of 23,000 children aged 0 to 11, selected from 13,500 households. Once children are selected, the NLSCY must survey them every two years until age 25. In each wave a new panel of 5,000 children aged 0 to 23 months is added. The second data cycle was released in October 1998.

The NLSCY poses many operational and methodological challenges. First, the content must be constantly revised, since a new age group is added in each collection cycle. The survey must also develop knowledge tests and work out the calibration of psychometric scales with the growing participation of methodologists.

The survey includes up to four types of respondents: school-age children, their parents, some of their teachers and their school principal. This poses a particular problem with respect to the confidentiality of microdata. The implementation of a remote access service has done much to preserve respondents' confidentiality while maintaining the analytical quality of the data.

In the near future, the team will have to fine-tune the survey, in particular for aspects such as the

definition and treatment of partial non-response, the design and use of psychometric scales and the generalization of confidentiality concepts. In addition, because of clients' growing interest in school readiness, there will be an increase in the sample for children aged one, three and five. Methodologists will have to develop a survey design to cover this subpopulation. For further information, contact Sylvie Michaud, Assistant Director, Special Surveys Division and manager of the NLSCY, at michsylv@statcan.ca.

## **CHINA (from Langhui Huang)**

In order to keep pace with economic reform and development, the reform of the Chinese statistical system continues to progress successfully in 1998.

**New Statistical Standards.** China has formulated new regulations for classifying ownerships; for estimating the percentage of ownerships in each category; for classifying enterprises by registration type; and for the definition and delineation of city, township, and rural areas.

**Sample Surveys.** The annual sample survey of small-sized enterprises in the mining, manufacturing, and water supply and electricity industries has been tested. The survey used a two-stage cluster sampling method, selecting 170,000 units in more than 400 sampled counties in rural areas or administrative zones in urban areas.

The monthly sample survey of small-sized enterprise in the wholesale, retail and catering industries has also made progress. More and more provinces are using sample-based data in place of data derived from complete enumeration.

**Census.** The fifth national census of population, to be concluded as of October 31, 2000, was approved by The State Council of P.R. China and preparations are going well.

For more detailed information, please contact Mr. Langhui Huang, Director, Enterprise survey organization, State Statistical Bureau, P.R. China, Beijing 100826, Tel. 86-10-63401425, FAX: 86-10-68576354

## **FRANCE (from Benoît Riandey)**

**Disability Incapacity Dependency Survey (1998-2001):** After much difficulty, French statisticians have recently launched their first national survey on the prevalence and evolution of physical disabilities. The need for this survey was established long ago, but the sensitive nature of the topic has been an ongoing obstacle, and more recent financial restrictions made it more difficult.

The heterogeneity and incompleteness of administrative records for social institutions and geographic areas have created an indecipherable tangle of statistics on disabilities. In France, the notion of creating a register of persons with disabilities would likely be considered unconstitutional, for such personal information deserves the highest possible protection. Even a general register of the population is currently unwelcome in the country. A sample survey thus proves to be the most suitable approach in the French context. However, the country's 22 regions and 100 departments need to base their statistics on a national sampling of 20,000, which would make the sample too sparse in some domains. Regional extensions of the sample will facilitate establishing these local statistics, but the readers of *The Survey Statistician* reacted unanimously to this approach: this survey would be a perfect example to submit to the composite estimators at the conference that Jan Kordos and colleagues will lead at Riga on the topic of estimations on small areas.

Our French colleagues have learned a considerable amount from work done in Canada, the United States and Australia. Where registers do not exist, a two-stage survey approach is necessary for determining the sample of this small subpopulation of persons with a physical, intellectual or mental disability. Canadian statisticians have tested the limits of a single screening question inserted in the short version of their census (1/5th sampling). They had to set up a remedial sampling for those who answered the screening question incorrectly. Pierre Mormiche (INSEE) accordingly developed a first-stage questionnaire, but for a reduced sample size: the first-stage of the survey will be based on an areal 1/150th district sampling in the March 1999 census, covering approximately 400,000 persons, using a three-page questionnaire (18 basic questions). In the fall of 1999, 20,000 persons with

disabilities will be sampled to answer the detailed second-stage questionnaire.

A first-phase telephone sample had been planned for 1997, but budget restrictions led us to wait for the economy of scale built into the 1999 census; this screening questionnaire will be added to the census forms delivered in 150 office main residences.

Persons with disabilities often reside in specialized institutions. Accordingly, beginning in the fall of 1998, 15,000 residents in 2,000 institutions will be surveyed using two-stage sampling techniques.

The objective of the survey is not limited to determining the prevalence of disabilities or to measuring life expectancy without a disability. Observations on the evolution of the health condition of persons with disabilities will be especially useful, for we do not even know which disabilities reduce life expectancy. Also, in a more general sense, the issue is related to the future financial burden of a physically dependent population, especially since the French population is aging. A longitudinal survey is needed, but the survey is currently limited to two waves: each (surviving) respondent will have the pleasure of meeting with the census taker two years after the first survey.

Two-stage survey, estimation for small areas, longitudinal survey: methodologists couldn't be happier!

For additional information, please contact Benoît Riandey, Institut national d'études démographiques, 133 boulevard Davout, 75980 Paris, Cedex 20. Telephone: 33 0 1 56 06 20 00.

## **INDIA (from Arijit Chaudhuri)**

UNICEF and ISI (Indian Statistical Institute) have recently undertaken a joint project to study the phenomenon of child mortality in a specified rural area near Calcutta. This required interviewing households to be selected from those served by a kind of primary health center (PHC) or a second kind of bigger centers (called BPHC's) to each of which a varying number of PHC's are attached. A traditional sampling approach is to treat each BPHC together with the PHC's attached to it as a cluster

and adopt a usual two stage cluster sampling. But because the cluster size as well as the number of clusters is too small we find it useful to adopt the following design. We first choose a sample of PHC's and add to each selected cluster the corresponding BPHC as many times as a cluster appears in the initial sample. This ensures a desirably wide geographical coverage and permits a large choice of alternative unbiased estimators for the total of variables defined on all the PHC's and the BPHC's contained in the region of interest. Also several competitive variance estimators are feasible. As an additional advantage, we have a unistage rather than a two-stage sample, thus, reducing a source of error. We found it convenient to choose from several alternative "estimator-variance estimator" pairs.

For more information, contact Arijit Chaudhuri or Sanghamitra Pal, Indian Statistical Institute, Calcutta, India. (E-mail: [achau@www.isical.ac.in](mailto:achau@www.isical.ac.in))

#### ITALY (from Claudio Quintano)

**DATAMED - A Research Project Aiming at Using Innovative Technologies in order to Collect Statistical Data on Very Small Enterprises: Starting September 1<sup>st</sup>, 1997, a consortium made up of the National Statistical Institutes of Italy, Greece and Portugal, a "technological" partner (Olivetti Research) and a University (the University of Patras) are working on a three-year research project financed by the European Community within the fourth framework program in the Information Technologies sector.**

Such a project, called DATAMED (DATA capturing in MEDiterranean countries), aims at creating a system prototype applying the most advanced techniques to the innovation of the statistical data collection process in the Mediterranean countries, where surveys are still heavily affected by the manual pre-compilation of forms.

These data capturing activities within the DATAMED project represent the methodological and technological operating requirements in order to achieve a deep knowledge of the very small enterprise phenomenon, which is the basis of the economy in the Mediterranean area (and not only there!)

Very small enterprises often involve persons belonging to the entrepreneur's household; in such case households and enterprises are strictly connected. Traditional survey tools do not always allow collection of data on such a complex entity, therefore surveying this sector means finding huge conceptual, methodological, technological and organizational difficulties. Measurements are in fact linked to the strong dynamism in this component of the socio-economic system, where the producing household covers a wide area of micro activities placed between enterprise and family business. Such activities are often either confused in the shadow world of nonofficial activities, when not in that of illegality, or their activity is organized in the most varied forms (temporary work, irregular work, black-market work, etc.).

In order to improve survey methods, the DATAMED project will be based on a different approach aimed at integrating already existing information sources (administrative archives and registers, information deriving from pre-existing surveys, databases of eventual information intermediaries such as Centres for Tax Assistance (Italian CAF), Chambers of Commerce, Trade Associations, etc.) with the results of those surveys carried out making use of the new techniques developed within the project.

The project is characterized by a strong effort towards innovation. Each partner will experiment with different techniques within the framework of a single overall view, exploiting the same basic infrastructures. In particular, there will be an attempt to introduce internet technologies and to use WEB-TV - a future technological tool in households and very small enterprises integrating telephone, PC and TV on a large scale.

The project's innovation will concern not only technology, but also the whole methodological path according to a scheme still to be defined.

As far as the collection of data is concerned, the objective is to obtain important results regarding:

- timeliness in collecting data
- higher efficiency and organizational simplification in data imputing practices
- improvement in the quality of the data gathered

- reduction in the respondent burden
- some reduction in costs.

This is a particularly tough challenge and its success depends on factors that are not always controllable (legal, institutional aspects, etc.). The various partners are, however, particularly interested and committed to facing such a challenge. Various statistical institutes in these countries outside the Mediterranean area are looking at this project with curiosity and interest as well.

For further information, visit the ISTAT web site: [www.istat.it/datamed/datamed.htm](http://www.istat.it/datamed/datamed.htm).

### **LATVIA (from Janis Lapins)**

Since 1994 the Central Statistical Bureau (CSB) of Latvia has used probability sample surveys on a regular basis for producing official statistics. These surveys have included various business surveys, the Household Budget Survey (*The Survey Statistician*, No. 34), the Labor Force Survey, the Agricultural Survey, and the Travelers' Border Survey. The experience obtained during this 5 year period shows that the main difficulties of organizing new sample surveys and producing high quality statistics from them are related to a lack of:

- high quality registers as sampling frames;
- experience in organizing sample surveys;
- specialists familiar with the methodology used in sample surveys in developed countries;
- suitable sources of auxiliary information for sampling and/or estimation purposes (some of the existing administrative registers are not computerized, some of them do not contain variables needed to identify units and to merge these registers with the survey data files).

It seems that many countries in transition, and probably some developing countries too, have similar problems. Due to restricted financial resources, it is impossible to solve them in a short time.

The main register used as the sampling frame for business surveys is the Business Register of the

CSB (for more details see *Statistics in Transition*, Vol. 3, No. 2, Dec. 1997, 281 - 292). For surveys of persons and households, two registers are used - the Population Register (covering the population of the whole country) and the Register of households living in rural areas. In some surveys other registers are used, for example, two registers of the Road Traffic Safety Directory are used to obtain a sample of transport vehicles in the survey of transportation of goods by roads - the Register of motor transport, and the Register of the annual technical inspection of motor transport. At the moment there does not exist any farm register. Therefore it is difficult to have good quality agricultural surveys. In 1998 the CSB, together with the Joint Council for Economic Studies in the Food Sector of Sweden, is carrying out a Pilot study to build up a farm register in Latvia. It is planned to continue this cooperation and carry out the main project of building up the farm register in 1999.

We try to overcome the lack of experience in organizing sample surveys by studying and following as closely as possible the methodology successfully applied in similar surveys in other European countries. When possible the help of experts from EU countries is used.

In order to develop a modern statistical system, it is necessary not only to master and to apply new methods of collecting and processing statistical information according to the standards of Western Europe, but also to reform teaching and research in statistics in the universities. Each of the three Baltic countries needs a teaching and research capacity in survey sampling, and to train a large number of survey statisticians. Therefore cooperative program between the Department of Mathematical Statistics of the University of Umeå in Sweden and universities of the three Baltic countries, that was initiated by Prof. Gunnar Kulldorff and started in the first half of 1990's, is of great importance for Latvia.

Within this program nine one or two months' study and research visits at the University of Umeå have been already organized for lecturers and research students from Latvia. The library of the University of Latvia has received books covering different problems of survey sampling that make possible effective study and research work by students. Since 1995 students of the University of Latvia have been able to take a lecture course in survey sampling theory and then apply in practice this

theoretical knowledge in survey sampling by doing their research work based on data collected in different sample surveys carried out by the CSB.

One of the most significant events within the cooperative program was the Summer School on Survey Sampling Theory, Methodology and Practice organized in Tartu, Estonia on June 26 – July 2, 1997 (*The Survey Statistician*, No. 37). The experience of the Summer School showed that such an event greatly stimulates research activities of students and young researchers in survey sampling. Therefore a Workshop for the Baltic Countries on Survey Sampling Theory and Methodology was organized in Jurmala, Latvia on May 24 – 27, 1998. The organizers of the Workshop were the same as those of the Summer School with the addition of Dr. Danute Krapavickaite from the Institute of Mathematics and Informatics, Lithuanian Academy of Sciences.

The Workshop program consisted of invited lectures given by Prof. Jan Wretman from the University of Stockholm in Sweden, additional lectures given by the organizers, and presentations made by the other participants on their current research work followed by discussion. A Round Table meeting devoted to education and research issues in survey sampling was also organized. Altogether there were 29 participants - 22 from universities and central statistical offices of all three Baltic countries and 2 professors and 5 research students from Sweden and Finland.

For more information, please contact Janis Lapins, CSB of Latvia, Lacplesa 1, LV1301, Riga, Latvia; E-mail: lapins@latnet.lv Fax: 371-78 30137.

#### **LITHUANIA** (from Danutė Krapavickaite)

The **7th Vilnius Conference on Probability Theory and Mathematical Statistics and 22nd European Meeting of Statisticians** was held in Vilnius on August 12-18, 1998. There were about 400 participants from 37 countries, specialists in probability theory, mathematical and applied statistics. The Lithuanian Institute of Mathematics and Informatics was the main organizer of the conference.

Since 1973 the traditional Vilnius conference has been the most important international meeting

organized by Lithuanian mathematicians. It may be said that Vilnius conferences are a continuation of the famous Berkeley symposiums. In 1969, during the last 6th Berkeley symposium, the famous statistician, J.Neyman, suggested transferring the symposium to Vilnius. This year the conference was amalgamated with the 22nd European Meeting of Statisticians.

About 350 presentations were made at this conference. Among these were one hundred invited lectures and 5 special invited lectures. The conference covered a range of topics which may be interesting for survey statisticians such as statistical aspects of model choice, income distributions and other statistical problems in economics, inferential approaches to the analysis of longitudinal data, missing data in longitudinal studies, and bootstrapping time series. The proceedings of the conference will be published.

For further information, please contact the organizing committee: Institute of Mathematics and Informatics, 4 Akademijos str, Vilnius, Lithuania. E-mail: <conf@kti.mii.lt>.

#### **NEW ZEALAND** (from Robert Templeton)

Work commenced on the development of a national **Gaming Survey**. The main purpose of the survey is to update national information on the nature and prevalence of problem and pathological gambling in New Zealand. Statistics New Zealand is undertaking the survey as a member of a consortium for the Department of Internal Affairs. The survey is to be based on interviews obtained from cold calling of randomly selected telephone numbers of households to achieve consistency with the methodology used in a previous survey. This is the first time Statistics New Zealand has used this method and it is facing the challenge of obtaining sufficiently high response rates.

Development work for a **Childcare Survey** was completed. The survey has been commissioned by the Department of Labour and is being conducted as a supplement to the Household Labour Force Survey in the September 1998 quarter. The supplement is being asked of all households in the Household Labour Force Survey with at least 1 child aged under 14 years and this is expected to include about 4,000 households. The objective of

the survey is to provide a base data on childcare use and demand, the interaction between childcare use and labor force participation, assess the extent to which barriers to childcare use exist in New Zealand, and measure the current situation in terms of access.

Interviewing has begun for a **Time Use Survey** starting in July 1998 and running for 12 months, results are due beginning December 1999. The survey will provide statistics on the time commitments of New Zealanders - both men and women. It will identify the time spent on unpaid productive activities, such as household work, caring for family members and other people, and voluntary work in the community. In addition, the statistics will cover participation in paid work, education and training, leisure and personal care. These time use statistics will be used to improve public sector policy making and program development in the health, employment and welfare sectors, and for population-based policy advice - for example, women, Maori and youth. Statistics New Zealand will use the data for improvements to the national accounts. About 8,500 people aged 12 and over will be included in the survey. Each respondent will be asked to complete a 48-hour time diary. The survey will over-sample Maori in order to provide reliable time use statistics for Maori as well as for the general population.

**Tax Database Developments:** A new and enhanced database is in the process of being developed in order to facilitate the use of information from the Inland Revenue Department as a replacement for data directly surveyed from respondents. This database is due to be completed in the 1998/99 program year. The new database is considered to be a key system in Statistics New Zealand's ongoing process of reducing survey compliance costs on businesses.

During the year, work commenced on the **redesign of the Annual Enterprise Survey (AES)**. This has a number of goals which include the extension of the industry coverage, cost efficiencies and a reduction in business compliance costs. The industry coverage will be extended to include Agriculture and Commercial Property Operators and Developers in AES 1998. In addition, the mail-out set for 7 August, will see a reduction in the number of enterprises in the survey sample from the 30,000 in AES 1997 to 20,000 in AES 1998.

This compliance cost reduction has been made possible by the utilization of administrative data from the Inland Revenue Department which will provide business financial report information for some small to medium sized enterprises in place of the AES survey questionnaire. Further information on the design of these surveys can be obtained from Robert Templeton, Chief Methodologist, Statistics New Zealand, P.O. box 2922, Wellington, New Zealand (E-mail: Robert\_Templeton@stats.govt.nz, tel. 64-4-495-4836, Fax 64-4-495-4757).

#### **PHILIPPINES (from Gervacio G. Selda, Jr.)**

A new sampling design was recently adopted for the Coconut Production Survey by the Bureau of Agricultural Statistics (BAS), the agency that handles agricultural statistics in the country. The redesigned survey considers the province as its domain. All coconut producing municipalities in the province are enumerated and classified based on the following coconut land classifications: (a) coastal flat or an area with sandy or usually light soils (coarse to medium textured) found within 2 kilometers of the coastline, (b) coastal upland or an area with residual or predominantly light soils found within 2 kilometers of the coastline, (c) inland flat or an area with alluvial soils (developed from soil materials that came from higher elevation through erosions or water flow) found more than 2 kilometers from the coastline, and (d) inland upland or an area with residual or usually deep soils that developed in place, found more than 2 kilometers from the coastline. In addition, the barangay, the smallest geographic unit in the country, serves as the primary sampling unit. The barangays in each municipality are grouped according to the above-defined classifications. Two to four top coconut producing barangays in each municipality are selected - two barangays with the largest coconut area for municipalities falling under one classification only; two to four barangays (one barangay from each grouping) for municipalities with more than one classification. The secondary sampling unit is the coconut farmer, which is defined as one with at least 50 trees planted in a solid patch irrespective of area. Two sample farmers are selected from each sample barangay. Using simple random sampling, samples are drawn from a list of coconut farmers residing in the barangay and operating farms inside the barangay.

which is to be prepared using the key informant approach. In preparing the list of farmers, the sources of information are the barangay chairman, the barangay council, the coconut development officer, agricultural technicians and coconut traders. The sample farmer may operate one or more parcels of coconut land and from these only one parcel is selected and ten permanent sample trees are identified. The selection of ten sample trees depends on the configuration or shape of the parcel. As a general rule, however, sample trees should lie along the assumed longest diagonal line bisecting the parcel. All the bearing trees lying along the diagonal line are counted and with the help of a table of random numbers, any number from 2 up to the last number of bearing trees is drawn. The tree identified by the random number plus nine other bearing trees nearest to the random start make up the 10 sample trees of the parcel. For more information, contact Mr. Romeo S. Recide, Director, BAS, Fax No. (632) 371-2086 or E-mail address: rsrecide@mozcom.com.

The Food and Nutrition Research Institute (FNRI), has adopted a modified sample selection for its 1998 National Nutrition Survey (NNS). Considering the objectives of the survey and the data requirements, the methodology was revised so that individuals instead of households became the secondary sampling units. In the previous surveys the barangays were the primary sampling units and the households were the secondary sampling units. The 1998 NNS is made up of three components, namely: (a) anthropometric survey, (b) clinical nutrition survey, and (c) biochemical nutrition survey. The anthropometric survey involves measurement of weight and height of children and adults while the clinical nutrition survey assesses the prevalence of diet-related diseases among adults through blood samples and structured questionnaires. The biochemical survey, on the other hand, involves collection of blood samples by the finger prick method to determine hemoglobin and Vitamin A levels among specific population groups, and urine samples to assess the prevalence of iodine deficiency among school children. The survey covers all the provinces and selected highly urbanized cities in the country using a two-stage stratified sampling design. The barangays were selected using systematic sampling with the number varying per province depending on the total household population. For each of the selected barangays, a complete

enumeration of all individuals of the households in the area was obtained. All the individuals listed in the barangay census were classified according to the following categories: pregnant, lactating, 0-11 months old, 1-5 years old, 6-10 years old, 11-12 years old, 13-19 years old, 20-39 years old, 40-59 years old, and more than 60 years old. The individuals within the same category were numbered consecutively from 1 to N, where N is the total number of individuals in the category. Using systematic sampling, n individuals per category were selected in the list. Equal allocation of the subjects was followed per barangay. For more details, contact Ms. Grace M. Villavieja, Chief Research Nutritional Assessment and Monitoring Division, FNRI, Fax No. (632) 837-2934 or E-mail address: gmv@fnri.dost.gov.ph

Related to the Annual Poverty Indicator Survey (APIS) which was reported in the June 1998 country report, the National Statistics Office (NSO) is undertaking the Minimum Basic Need-Community Based Information System (MBN-CBIS) which supports the thrust of the government to alleviate the condition of poor families. The MBN is an approach to identify the priority needs of the local government units (LGUs) based on 33 MBN indicators. The MBN framework was formulated by the Technical Working Group co-chaired by the Presidential Commission to Fight Poverty and the Department of Social Welfare and Development. The MBN-CBIS covers all 5<sup>th</sup> and 6<sup>th</sup> class municipalities in the country, using community volunteer monitors as data collectors. It may provide data at the community, municipality, and provincial levels. Enhancement of the data collection instruments, procedures, concepts and definition was spearheaded by the NSO under a UNDP-funded project called Community-based Poverty Information Monitoring System (CBPIMS). The CBPIMS can be linked with the APIS since the poverty indicators have been included in the APIS. For more details, contact Mr. Tomas P. Africa, Administrator, NSO, Fax Nos. (632) 713-7074 and 715-6502 or E-mail address: T.Africa@mail.census.gov.ph

It should be noted that the above surveys have been granted clearance by the National Statistical Coordination Board through its Statistical Survey Review Clearance System (SSRCS) upon the recommendation of the Technical Committee on Survey Design. The committee is a pool of experts

on survey design which was created for purposes of evaluating new surveys and new/modified methodologies of existing surveys. The SSRCS covers all surveys conducted or sponsored by government.

#### **UNITED STATES (Daniel Kasprzyk)**

The Census Bureau recently completed data collection operations on the **National Survey of Homeless Assistance Providers and Clients (NSHAPC)**. The survey used methods developed for a 1987 national survey by the Urban Institute, and improved by work at the Research Triangle Institute for a 1992 survey of drug use in the Washington, D.C. area.

The first part of the NSHAPC was a national establishment survey of locations that provide assistance to homeless people. This included shelters and soup kitchens as well as a variety of other services such as health programs. The frame of providers was constructed by merging available lists, and supplemented by asking the providers on the original frame to add other organizations they knew about to the list.

The second part was a survey of clients of these service providers. The client survey used two main frames: homeless shelters and food providers. The food providers included soup kitchens in urban areas and food pantries in rural areas. This was the U.S. government's first such survey that included rural areas.

In order to cover clients who were only occasional users of the services, the interviews took place over a full month, with the date or dates of interview for clients of each sample provider being chosen at random. The questionnaire collected information to adjust for multiple chances of selection, including whether and how often the respondent used shelter or food services. This allows estimates of both the average number of people using services on a given day and the average number using services at any time during a week or at any time during a month.

The survey collected information on each client's personal situation, including factors that may contribute to homelessness as well as the person's need for services and what services the person

does receive. The survey collects information about the housing available to each client, but lets the user of the data decide which of many possible definitions of "homeless" to use. For further information contact Chip Alexander (U.S. Bureau of the Census) at the following e-mail address [charles\\_h\\_alexander\\_jr@ccMail.Census.GOV](mailto:charles_h_alexander_jr@ccMail.Census.GOV)

A split-sample test compared the traditional "person-based" automated questionnaire for the **American Community Survey (ACS)** with an experimental "topic-based" instrument. The ACS collects general demographic, social, and housing characteristics similar to what is on the decennial census long form. The traditional approach is to ask all the questions for person 1, followed by all the questions for person 2; etc. The "topic-based" approach is to ask about a particular topic, for example educational attainment, for everyone in the household and then proceed to other topics. Both questionnaire versions were conducted by computer assisted telephone interviews.

Based on the results of the test, the new approach was found to be extremely promising. The interviews with the topic-based instrument were shorter than for the traditional instrument, and this format was generally preferred by both interviewers and respondents. A small but significant difference in response rate favoured the topic-based approach, as did most item non-response differences. Further research on a "topic-based" ACS instrument is expected. Some results on the experiment can be found in "Questionnaire Design Effects on Interview Outcomes," by J. Moore and L. Moyer in the 1998 Proceedings of the Section on Survey Research Methods, American Statistical Association. For further information contact Jeff Moore at 301-457-4719.



#### **Joint IASS/IAOS Conference 1-4 September 1998, Aguascalientes, Mexico Statistics for Economic and Social Development**

#### **Report on the Conference**

Now we can look back on the conference on "Statistics for Economic and Social Development", which was jointly sponsored by the International Association of Survey Statisticians (IASS) and the International Association for Official Statistics

(IAOS) in Aguascalientes, Mexico, 1 - 4 September 1998. The conference was hosted by the National Institute of Statistics, Geography and Informatics (INEGI) at their headquarters in Aguascalientes and was attended by approximately 337 people, 300 participants and 37 accompanying persons, from more than 70 countries. Three international courses/workshops were also held in Spanish with some 40 students. Many commented on the excellence of the Scientific Program. The venue, the logistics and the hospitality were superb. Dr. Carlos M. Jarque, President of INEGI, Mario Palma, Pilar Garcia and her team and all the other INEGI staff involved set an impressive standard for local arrangements which are unlikely to be surpassed. Social functions, a reception with mariachi band and the Charreada, rodeo Mexican style, provided excellent opportunities to sample Mexican culture and other opportunities to meet old friends and make new ones.

Dr. Carlos M. Jarque, President of INEGI and of the United Nations Statistical Commission led off the conference by welcoming all participants to Mexico and INEGI. Dr. Jarque then presented the first keynote address entitled "Statistical Developments in Mexico." Following this address, Dr. Ivan P. Fellegi presented the second keynote address with the subject "Statistical Services - Preparing for the Future." The scientific program itself consisted of some 13 Invited Papers sessions, 13 Special Organized Papers sessions, and 11 Contributed Papers sessions. There were also two open meetings on the topics: "The Future of International Cooperation in International Statistics," and "The Role of Women in Statistics - Challenges for the ISI and its Sections." The Conference wrapped up with a roundtable entitled "The Future of International Statistics." More information on the program, short courses and social events can be found on the following Internet sites, which include abstracts for most of the Invited and Special Organized papers:

English: <http://www.statcan.ca/english/Conferences/mexico98/>

Français: <http://www.statcan.ca/francais/Conferences/mexico98/>

We seemed to be in the best of all possible worlds for the Joint IASS/IAOS Conference on Statistics for Economic and Social Development: Statistics Canada taking the lead for the scientific program

and INEGI organizing so superbly the local arrangements.

Many said it was one of the best organized international conferences they had ever attended. Conference attendees were as one in their compliments. One said it was a "Best practices conference"; another said "You could wander into the wrong room for a session and stay to enjoy excellent and fascinating presentations."

One of the strokes of genius was to supplement Pilar Garcia's International Relations Staff with English speaking staff from elsewhere in INEGI and from Aguascalientes' Autonomous University to be conference hosts and hostesses. They were all so charming and a delight to work with. And they worked well and for long hours. All helped set the "sunny" and "good humored" tone for all participants at the conference.

Soon INEGI will have CD-ROM and printed versions of the conference Proceedings. In addition, INEGI will be posting all keynote addresses, invited, special organized, and contributed papers on their conference web site:

<http://www.inegi.gob.mx/homepara/eventos/conferencia98/esp/archivo2.html>

One Special Organized Session (# 6, Harmonizing data for cross - border analysis in North America) unfortunately had to be cancelled. A number of people were disappointed as they were interested in participating in this experimental session with a workshop format. Millicent Cox's paper will however be included in the Proceedings. Those interested can also see her paper at the following URL:

<http://www.electriciti.com/mcox/midi.html>

For the future many commented that they would like to have similar conferences in Latin America and to increase Latin American involvement and participation. One way of doing this is to give a greater sense of ownership by having sponsorship or joint sponsorship by a Latin American Association or agency such as ECLAC. Also for the future I should like to encourage you to send your comments about this Joint IASS/IAOS Conference and, in addition, any suggestions you may have for future statistical conferences, to the Presidents of

IASS and IAOS, Nanjamma Chinnappa <nach@blr.vsnl.net.in> and Willem de Vries <wvrs@cbs.nl>.

### **Thanks from the Program Chair**

As Program Chair there are many people to whom I owe thanks and who I must thank.

First my thanks to Denise Lievesley and Dennis Trewin, then Presidents of IAOS and IASS, for honoring me with the invitation to be the Program Chair. I should like to thank their successors, Nanjamma Chinnappa and Willem de Vries, for their unstinting support. Also I thank Daniel Bertze of the ISI office who came to Aguascalientes two weeks before the conference to assist the INEGI Organizers with the final conference preparations.

Thanks to the Program Committee for their help in devising a framework for the scientific program, and to them and my friends (I hope they are still my friends!) for helping to identify organizers of invited paper sessions.

Thanks to the many who responded to the invitation and who came forward with papers at an early stage so that they might be considered for inclusion in invited and special organized sessions, and especially to those who agreed to organize special organized sessions. Thanks to Enrique Ordaz and his staff for organizing the contributed paper sessions.

Thanks to the United Nations Statistical Office for lending financial support to enable students to attend the short courses and the conference. They, with the Presidents of IASS and IAOS, also provided funding to support travel of invited speakers from developing countries who otherwise would not have been able to participate.

Thanks to Dr. Carlos M. Jarque, President of INEGI, for hosting this Aguascalientes conference: the venue, the logistics and the hospitality were superb. Thanks also to the Local Organizing Committee for the incredible efforts they went to in order to ensure that this be an exceptionally successful conference. I hope to have the pleasure of working with all the INEGI staff I met in other ways on future occasions.

Thanks to Statistics Canada for the exceptional support they have given me. I should particularly like to thank Dr. Ivan Fellegi, Chief Statistician of Canada; Gordon Brackstone, Assistant Chief Statistician, Informatics and Methodology and members of the Statistics Canada Policy Committee; and, especially, all the Statistics Canada participants in this conference: authors and presenters of invited papers and the two who conducted the workshop on generalized systems, sampling and estimation, that was part of the short course on Sample Surveys Design.

I am indebted to and thank the members of my team at Statistics Canada: Carole Stuart, Web Content Consultant; Ghislain Ouellete, Local Area Network Manager; and Judith Clarke, my Secretary.

Finally, I should like to thank my wife, Anna, for her support and advice.

I feel I was very lucky with all who played a role in the program of this conference, and I should like to thank again all who contributed: the local organizing committee and all involved at INEGI; the program committee, organizers, chairs, authors, presenters, discussants; and all the participants. I feel I made lots of new friends, and I hope you will all remain my friends.

**!Viva Aguascalientes!**

Geoffrey Hole  
Chair, Scientific Program, <holegjc@statcan.ca>



### **History of the IASS**

One of the initiatives being planned to celebrate the Silver Jubilee of the IASS in Helsinki in 1999 is to document its history, noting its contributions to our profession and recognizing the role played by its founding members and other key players. Gerard Theodore, past president and first Executive Director of the Association has kindly agreed to write the history for the period 1975-1983 with the help of some of the early presidents of the association. Xavier Charoy (INSEE, France), past Executive Director, has volunteered to coordinate the whole publication (in English and in French) so as to produce a homogeneous text.

The booklet on the History of the IASS will be distributed at Helsinki during the Silver Jubilee reception. Every participant at the Helsinki and Riga conferences will receive a copy. The IASS secretariat at Libourne will send a copy to all IASS members in September 1999.

Spanish speaking members who would like to participate in the translation of this text into Spanish are kindly asked to inform our vice-president, Clyde Trabucchi (ctrab@indec.mecon.ar). Members who would like to participate in translating this text into another language (Arabic, Chinese, Russian....) are invited to contact the Executive Director, Benoit Riandey (riandey@ined.fr) and their country representative.

Xavier Charoy and Gerard Theodore warmly thank Ivan Fellegi and Colm O'Muircheartaigh, past presidents of the IASS, for their enthusiastic participation in this effort by offering to write the history of the association during the periods of their presidency.

They ask that any member who remembers items of interest to the history of the IASS write to Xavier Charoy. Information relating to the years 1973 -74, prior to the installation of the secretariat at INSEE in France, would be particularly useful. It was in that period that the major goals and directions of the IASS were defined, especially support to our colleagues in developing countries. And it is against those goals that we should evaluate the services offered by the association today. Nanjamma Chinnappa and Dennis Trewin have suggested that contributions to this effort from the founding members who joined the IASS in its first year would be particularly useful.

Xavier Charoy's fax telephone number is: +33 1 41 17 66 44. His E-mail address is: xavier.charoy@dg75-D301.insee.atlas.fr (Please note that the symbol following 75 in his E-mail address is a hyphen ( - ) and not an underscore ( \_ ). Accidental interchange of these symbols can lead to your message not being delivered, with no warning message to you!)

Benoit Riandey,  
Executive Director, IASS



#### **New E-Mail Address for Claude Olivier at the IASS Secretariat**

Some E-mails sent to Claude Olivier at the IASS Secretariat did not reach her because of her very complicated electronic address, and the senders did not get a message to say that the E-mails could not be delivered. Please note that she now has a simpler E-mail address <claudie.olivier@insee.fr>, which should make electronic communication with her trouble free.



#### **Cochran-Hansen Prize**

**Competition for Young Statisticians  
from Developing and Transition Countries  
1999**

In celebration of its 25th anniversary, the *International Association of Survey Statisticians* (IASS) has established the Cochran-Hansen Prize to be awarded to the best paper on **survey research methods** submitted by a young statistician from a Developing or Transition Country.

The paper will be presented at the 52nd Session of the International Statistical Institute, to be held in Helsinki, Finland, from August 10-18, 1999.

Participation in the competition for the Cochran-Hansen Prize is open to nationals of Developing or Transition Countries who are living in such countries and who were *born in 1967 or later*. Winners of an ISI Jan Tinbergen Award are not eligible for the competition.

Papers submitted must be unpublished original works. They may include materials from the participants' university thesis. They should be in either English or French. The papers should be submitted to Graham Kalton at the address below, to arrive by February 28, 1999. Each submission should be accompanied by a cover letter that gives the participant's year of birth, nationality, and country of residence.

The papers submitted will be examined by the Cochran-Hansen Prize Committee. The decision of the Committee is final.

The author of the winning paper will receive the Cochran-Hansen Prize in the form of books and journal subscriptions to the value of about 500 EUROS and will be invited to present the paper at the Helsinki Session of the ISI with all expenses paid (i.e., round trip airfare between place of residence and Helsinki and a lump sum to cover living expenses).

For further information, please write to:

Graham Kalton  
Westat  
1650 Research Boulevard  
Rockville, Maryland 20850-3129  
U.S.A.

Fax: (1) 301 294 2034  
E-mail: Kaltong1@Westat.com



The International Association of Survey Statisticians (IASS) is sponsoring a program of short courses to take place before and after the 52<sup>nd</sup> Session of the International Statistical Institute which will be held in Helsinki, Finland, August 11-18, 1999. The courses will be led by international experts in their fields and will offer practitioners, researchers and students in statistics and survey methodology the opportunity to improve their skills and to discuss issues of common interest. All courses will be presented in English and participants should have the ability to work in this language. On request, for any participant who registers before May 1999, the course introductory material will be translated into French, the other official language of the ISI. For more information please contact J. Kovar (kovar@statcan.ca).

Courses A.1 and A.2 are aimed especially at statisticians working with surveys in developing countries although past experience has shown that the courses are also appreciated by participants from developed countries. Course B targets a more experienced audience that wishes to learn about the unique aspects of business surveys. These three courses will be held at Jyväskylä University, Finland.

Course C is intended for those planning to attend the IASS Satellite Conference on Small Area

Estimation and who wish or need to prepare themselves to understand its proceedings better. Courses D and E should be of interest to participants from all countries. These three courses will be held in Riga, before and after the Satellite Conference.

Courses offered before the Helsinki Session in conjunction with the "Workshop on the Recent Trends in the Methodology of Business and Social Surveys" to be held at the Jyväskylä University, Finland, August 5-10, 1999.

**A.1** *Workshop on Survey Sampling in Developing Countries*  
August 7 - 8, 1999. Presented by  
**Graham Kalton**, Westat, Rockville, Maryland, U.S.A.  
**Colm O'Muircheartaigh**, National Opinion Research Center, Chicago, Illinois, U.S.A.

**A.2** *Variance Estimation in Complex Surveys*  
August 9 - 10, 1999. Presented by  
**Wayne Fuller**, Iowa State University, Ames, Iowa, U.S.A.  
**Kirk Wolter**, National Opinion Research Center, Chicago, U.S.A.  
**F. Jay Breidt**, Iowa State University, Ames, Iowa, U.S.A.

**B.** *Methods for Designing Business Surveys*  
August 7 - 8, 1999. Presented by  
**Michael Hidioglou**, Statistics Canada, Ottawa, Canada  
**David Binder**, Statistics Canada, Ottawa, Canada

Courses offered after the Helsinki Session in conjunction with the IASS Satellite Conference on Small Area Estimation to be held in Riga, Latvia, August 20-21, 1999.

**C.** *Introduction to Small Area Estimation*  
August 19, 1999. Presented by  
**Jon N.K. Rao**, Carleton University, Ottawa, Canada.

**D.** *Continuous Quality Improvement (CQI) in Statistical Agencies.*  
August 22-23, 1999. Presented by  
**David Marker**, Westat, Rockville, Maryland, U.S.A.  
**David Morganstein**, Westat, Rockville, Maryland, U.S.A.

- E. *Analysis of Complex Survey Data*  
August 22 – 23, 1999. Presented by  
**Risto Lehtonen**, Statistics Finland,  
Helsinki, Finland  
**Kari Djerf**, Statistics Finland, Helsinki,  
Finland



### **SRMS Cosponsors an International Conference on Survey Nonresponse**

On October 28-31, 1999, at the Portland Hilton, Portland, Oregon, the Survey Research Methods Section will sponsor the International Conference on Survey Nonresponse. The conference currently has as cosponsoring organizations, the American Association for Public Opinion Research, the Council of American Survey Research Organizations, and the Council for Marketing and Opinion Research.

#### **Rationale for the Conference**

The last major overview of the field of nonresponse in surveys was the National Research Council's Panel on Incomplete and Missing Data, which yielded the three volume National Research Council panel report, *Incomplete and Missing Data in Surveys*, (Madow, Nisselson, Olkin, Rubin, 1983). At this writing 13 years have passed since that activity. The field has changed in important ways since that time:

- the techniques and properties of multiple imputation were discovered and use of the method has become more common;
- theories of survey participation have been forwarded, identifying principles underlying nonresponse;
- the experimental literature examining the role of interviewers, mode of data collection, and survey task burden on cooperation has expanded;
- the practices of the field with regard to the use of incentives, refusal conversion, mixed mode designs, and other mechanisms to reduce nonresponse have changed;

- more sophisticated adjustment procedures for ignorable nonresponse mechanisms have been explored; and
- advances in the specification of adjustment and estimation procedures in the presence of nonignorable nonresponse have been made.

Much has changed; the field is a vibrant one within survey statistics and methodology.

#### **Goals**

The activities have the following goals:

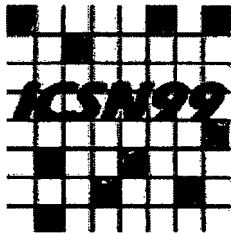
- the conference will gather together large numbers of active researchers in survey nonresponse and missing data issues.
- the conference will stimulate the assembly of documentation of state of the art practice
- the conference will stimulate the writing of papers suitable for publication in a special issue of a survey journal
- the edited volume will be designed to be a description of the state of the art in social science and statistical theory and practice in nonresponse rate reduction, nonresponse error measurement, and postsurvey compensation for nonresponse.
- the volume will be designed to be suitable for university use; that is, it will not be a proceedings volume, but an integrated treatment of the field.

The conference will last three and one half days with invited and contributed paper sessions from participants throughout the world.

#### **For Further Information**

The conference has established a web page on the home page of the Joint Program in Survey Methodology, [www.bsos.umd.edu/jpsm](http://www.bsos.umd.edu/jpsm). Abstracts for conference papers will be solicited via the webpage. Specific questions can be posed to [ICSN@SURVEY.UMD.EDU](mailto:ICSN@SURVEY.UMD.EDU).





**International Conference  
on Survey Nonresponse**

**October 28-31, 1999  
Portland, Oregon, USA**

**Call for Abstracts for Contributed Papers**

**Place:** Portland Hilton

**Deadline for abstracts for contributed papers:**  
February 1, 1999

**Background and Goals:** The International Conference on Survey Nonresponse will be the first international gathering totally devoted to nonresponse phenomena in sample surveys since the meetings of the National Academy of Sciences panel in 1983. Since that time there have been important new developments both in statistical estimation in the presence of missing data and data collection procedures to reduce nonresponse. An edited volume containing a description of state of the art research findings in the area will be written related to the conference.

**Type of Papers You are Encouraged to Submit:** Nonresponse is a major concern for all types of surveys: traditional modes such as face-to-face, telephone, mail and emerging modes, such as WEB, E-mail, fax, IVR (inbound calls for which answers are entered by pressing touch tone numbers), and mixed-mode surveys. The goal of this conference is to assemble people and papers that represent the best current thinking from throughout the world on factors influencing nonresponse across all modes, and how to deal with it.

All papers are expected to focus on some aspect of nonresponse, ranging from how to prevent it to how to adjust for it. Papers that address the intersection between nonresponse error, and other types of error, for example coverage and measurement are also encouraged. Papers about theories of nonresponse, techniques for reducing nonresponse, editing and imputation as a tool to address missing data that apply across modes are

strongly encouraged, as well as papers that focus on only one mode population or survey situation.

We hope to assemble papers across the breadth of research issues in survey nonresponse, including:

- Unit nonresponse vs. item nonresponse
- Design vs. estimation (including variance estimation)
- Methods to reduce nonresponse and methods to measure the effects of nonresponse
- Theory (both social science and statistical) vs. practice
- One time vs. longitudinal surveys
- Surveys of persons, households, establishments
- Item missing data on objective and subjective measurements
- Relationships between nonresponse error and other survey errors
- Procedures for reducing nonresponse when using E-mail, WEB and IVR technologies
- How nonresponse issues differ for interview and self-administered surveys

**How to Submit Abstracts:** An abstract of 500 words should be submitted via the web at [www.jpsm.umd.edu/icsn99/](http://www.jpsm.umd.edu/icsn99/). Questions about submissions can also be sent to [ICSN@survey.umd.edu](mailto:ICSN@survey.umd.edu), or queries can be posed to Robert M. Groves, chair of the editorial committee, at 301-314-7911.

**Sponsoring Organizations:** The American Statistical Association, Survey Research Methods Section, and the American Association for Public Opinion Research, Council of American Survey Research Organizations, Council for Marketing and Opinion Research.

**Access Our Webpage At:** [www.jpsm.umd.edu/icsn99/](http://www.jpsm.umd.edu/icsn99/)



INTERNATIONAL ASSOCIATION  
OF SURVEY STATISTICIANS



*The*  
**Survey  
Statistician**

No. 39  
December 1998

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*The Survey Statistician* is published twice a year in French and English by the International Association of Survey Statisticians and distributed to all its members. Information for membership in the Association or change of address for current members should be addressed to:

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Rockville, MD 20850 USA



## In Other Journals

### Journal of Official Statistics

An International Review Published by Statistics Sweden

JOS is a scholarly quarterly that specializes in statistical methodology and applications. Survey methodology and other issues pertinent to the production of statistics at national offices and other statistical organizations are emphasized. All manuscripts are rigorously reviewed by independent referees and members of the Editorial Board.

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A Journal Published by Statistics Canada

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