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Letter From the President

Dear IASS members:

Once again, a recent report on the IASS is available in the ISI Newsletter, Volume 23, No. 1 (67), 1999, that you must have received by now. Please read that for a detailed update on the activities of the IASS. In this report I will briefly highlight some important activities noted in that report and describe developments since that report.

IASS Silver Jubilee

Plans for the events to celebrate the Silver Jubilee of the IASS during the ISI meetings at Helsinki in August 1999 are going well.

1. The Cochran-Hansen prize committee is judging the submissions received for the prize.
2. Professor T.M.F. Smith will deliver a special invited lecture to commemorate the 25th anniversary of the IASS.
3. The History of the IASS is being documented by Gerard Theodore and Xavier Charoy.
4. A cocktail party is being planned for the 16th of August to celebrate the Silver Jubilee of the IASS.

I extend a warm welcome to all of you to join in this celebration.

Executive Director of the IASS, Christophe Lefranc, was appointed as the Adjoint Executive Director of the IASS on Jan 1st 1999 by INSEE. In August 2000 he will replace Benoit Riandey, who has worked very hard and very effectively in furthering the goals of the IASS since 1995, as the next Executive Director of the IASS. We welcome Christophe to the Executive Committee of IASS.

Editors for *The Survey Statistician*

Mike Brick who has done such an excellent job as editor of *The Survey Statistician* since 1995 has asked to be relieved of that responsibility in the year 2000. He will be replaced by Dr. Leyla Mohadjer of Westat, USA and by Dr. Jairo Arrow of the Central Statistical Office of South Africa, who have kindly agreed to be co-editors of *The Survey Statistician*, starting with the summer 2000 issue. They will work with Mike on the two issues for 1999 so as to familiarize themselves with the work involved. We thank both Leyla and Jairo for accepting this responsibility.

New Institutional Members

We have 10 new institutional members who have joined the IASS since 1998, increasing their number from a steady 16 in the past many years to 26. These are: the University of the 3rd of February (Argentina), INDEC (Argentina), IBGE (Brazil), Eurostat, INED (France), CICRED (France), the Statistical Centre of Iran, Statistics Sweden, Statistics New Zealand and Westat of USA. Two institutions from India that have asked to be members, the SDRD-NSSO and DPD-NSSO, are awaiting permission from the Government of India before registering as members. We welcome them all to the IASS. The drive for new institutional members will continue with the help of country representatives and council members. We hope that with their and your support we will be able to announce many more institutional members during the Silver Jubilee celebrations of the IASS in Helsinki.

The IASS Brochure

The IASS brochure that was available in English, French and Spanish in 1998 is now available in Chinese, thanks to Prof. Dong Yangmao, and in Russian, thanks to Galina M. Buckaya from Minsk, Belarus. It will soon be available in Arabic, thanks to Dr. Faisal Awartani, our new national representative in Palestine, who is translating it into Arabic. We seek volunteers from among our members to translate the brochure into any other major languages to promote the association in regions where we have poor representation. Please contact Benoit Riandey at <riandey@ined.fr> if you wish to volunteer.

The IASS Brochure for Student Members

The brochure on the introductory offer of two years student membership for the price of one year's fees is ready. A description of this offer, which has tear-off application forms, that can be put up in the Departments of Statistics is also available. Students are required to indicate the name of the University and the name of the Professor of Statistics under whom they are pursuing their studies on the application form. Copies of both the

brochure and the description are available from your national representative or from Claude Olivier of the IASS secretariat at <claude.olivier@insee.fr>.

Country Representatives

The following are new IASS Country Representatives: Walter Castillo in Bolivia, Juan Munoz in Chile, Alexis Lukaru Nzinga in the Democratic Republic of Congo, Linda Sabatini as the second representative in Italy (along with Claudio Quintano), Bechara Hanna in Lebanon, Rachel Ravelosoa in Madagascar, Miguel Cervera in Mexico, Faisal Awartani in Palestine, Daniel La Buonora in Uruguay, and Antonio Baigorri Matamala in Eurostat. We welcome them all warmly. The list of all IASS country representatives will be published in the next IASS Directory. With their permission, it will also be published in the next version of the IASS home page at http://www.cbs.nl/isi/iass.htm.

IASS Supported Conferences

The following is a list of the conferences being supported by the IASS in 1999 and 2000. An update on some of these conferences follows.

1999:

1. Conference on Enquetes et Systemes d'information (Survey methods and Informatics), in Abidjan, Cote d'ivoire, 27-30 April 1999. (French)
2. Workshop on Recent Trends in the Methodology for Business and Social Surveys, in Jyvaskyla, Finland, 5-9 August 1999. (English)
3. Satellite Conference on Small Area Estimation, in Riga, Latvia, 20-21 August 1999. (English)
4. Satellite Conference on Analysis of Survey Data, in Southampton, UK, 24-26 August 1999. (English)
5. International Conference on Survey Nonresponse, in Portland, Oregon, USA, 28-31 October 1999. (English)

2000:

1. Escola de Amostragem e Pesquisas Sociais (School on Sampling and Social Surveys) in Rio de Janeiro, Brazil, 29 May–1 June 2000. (Portugese).
2. Workshop on Enquetes sur la Force de Travail (Labor Force Surveys), in Libourne, France, June 2000. (French)
3. International Conference on Establishment Surveys, Buffalo, NY, USA, 17–21 June. (English)

Directory of Members

The next directory of IASS members will be published by INSEE in June and will be sent to all members before the Helsinki session of the ISI. It will include first names of members, a list of members by country and a list of country representatives. Please check your name and address in the 1997 directory and send any corrections you may have to your country representative or to Claude Olivier <claude.olivier@insee.fr> at the IASS Secretariat as soon as possible. The IASS directory with the names and E-mail addresses of members (those who have given permission to publish their E-mail addresses) is also available on the IASS Home Page. It can be consulted in English or in French at <http://www.cbs.nl/isi/iass.htm>. The ISI will be publishing a combined directory of members of the ISI and of its sections updated as of 31st March 1999. This will be distributed to ISI and section members in Helsinki. The ISI secretariat has decided not to include the names of members whose addresses are uncertain.

Membership Fees

As of 1 January 1999, IASS membership fees can be paid in Euros. 130 French Francs are currently equivalent to about 20 Euros and about 24 US Dollars. The facility of paying membership fees by credit cards—Visa, MasterCard, Eurocard or American Express—has been very popular.

Nominations Committee

The work of the nominations committee is completed, thanks to the efforts of Jan Kordos and his team. The election of IASS officebearers is underway. I hope you have already sent in your votes. Your participation in this process is important for the IASS.

Workshop on Recent Trends in the Methodology for Social and Business Surveys at Jyvaskyla, Finland, 5-9 August 1999

The main goal of the workshop is to provide insight into recent trends in the methodology for social and business surveys. Presentations will include invited lectures and joint lectures with the IASS short courses, as well as contributed papers from graduate, postgraduate and postdoctoral students on their own research work. For updated information please consult the home page <http://www.stat.jyu.fi/wshop99jy>.

52nd Session of the ISI at Helsinki, Finland, 11-18 August 1999

The IASS program of Invited Paper meetings for Helsinki has attracted very good papers and discussants. An array of interesting and innovative contributed papers is anticipated. The list of topics and further details are given in Bulletin 2 of the Helsinki session and on the homepage at <http://www.stat.fi/isi99>.

Conference on Analysis of Survey Data at Southampton UK, 24-26 August 1999

This three-day conference is scheduled as a 'satellite meeting' after the ISI Session in Helsinki. It will provide a forum for the discussion of recent research on statistical methodology for the analysis of sample survey data. The conference will mark the retirement of T.M.F.(Fred) Smith and provide a tribute to the work on analysis of survey data by him and by Jon Rao and Alastair Scott. There will be about 17 invited papers and 10 contributed papers. Further information is provided at <http://www.socstats.soton.ac.uk/dept/conf99.html>. Inquiries should be addressed to Rebecca Bundock, Department of Social Statistics, University of Southampton, Southampton, SO17 1BJ, U.K., fax +44-1703-593846.

IASS Sponsored Short Courses in Jyvaskyla, Finland and Riga, Latvia, August 1999

There have been many requests for information on the short courses. Applications have been received from 55 potential candidates from 35 developing countries, and they continue to come in. Recently, encouraged by the announcement that 7 of the 17 UNSTAT fellowships have been earmarked for women, there have been many applications from women candidates from developing countries. UNSTAT will be deciding on the recipients of these fellowships soon. We also expect a number of applications from transition countries (for whom we are trying to find some travel grants) as well as from developed countries.

Christophe Lefranc has kindly agreed to attend courses A1 and A2 in Jyvaskyla to help Francophone participants understand the courses better. We are actively looking for a volunteer to provide this service for the short course E and if possible for the C. The instructors for course B in Jyvaskyla, Michael Hidiroglou and David Binder, are fluent in both English and French.

Satellite Conference on Small Area Estimation at Riga, Latvia, 20–21 August 1999

The program committee has received 15 invited papers and 19 contributed papers. The deadline for contributed papers has been extended untill the end of April 1999. The program for the conference and Bulletin 2 are now in preparation and will be ready by May 1999.

International Conference on Survey Nonresponse Error at Portland, Oregon, USA, 28-31 October 1999

This conference is being co-sponsored by the Survey Research Methods Section of the American Statistical Association, the American Association for Public Opinion Research, the Council of American Survey Research Organization, the Council for Marketing and Opinion Research, and the International Association of Survey Statisticians. The conference will present the latest results in statistical and methodological research on survey nonresponse, reviewing both statistical and nonstatistical approaches to the problem. The conference will have invited and contributed papers from about 200 researchers from many countries, from academic, government, and commercial settings. A monograph containing the papers presented at the conference will be given to each participant upon its publication (expected in late 2000). The edited volume will be a description of the state of the art in social science and in statistical theory and practice in nonresponse rate reduction, nonresponse error measurement, and postsurvey compensation for nonresponse.

The IASS encourages all those interested in survey statistics to attend the conference. For further Information, please consult the home page of the Joint Program in Survey Methodology, <www.JPSM.UMD.edu>. Registration forms and hotel information are also available at that website. Specific questions can be posed to <ICSN@SURVEY.UMD.edu>. Alternatively, send a fax to 301-314-7912 or write ICSN, c/o Joint Program in Survey Methodology, 1218 Lefrak Hall, College Park, MD 20742, USA.

Escola de Amostragem e Pesquisas Sociais (School on Sampling and Social Surveys) at Rio de Janeiro, Brazil, 29 May–1 June 2000

This event is being co-sponsored by the IBGE (Brazilian Institute of Geography and Statistics), the ABE (Brazilian Statistical Association), and the IASS. It plans to attract participants not only from academia and official statistics, but also from the larger group of social science institutions carrying out sample surveys, such as election polls. The language used will be Portuguese, but some activities such as the keynote speeches and some short courses may be in English. For more information please contact Pedro Luis do Nascimento Silva at <pedrosilva@ibge.gov.br>.

International Conference on Establishment Surveys, ICES II, at Buffalo, NY, USA, June 17-21, 2000

The conference focuses on new developments in methods for surveying businesses, farms and institutions. A competition was held to choose the topics for the invited paper sessions from among the proposals that were submitted. A total of 27 invited paper sessions have been accepted, and five more have been tentatively accepted pending submission of more information. The call for contributed papers will be coming out in late May/early June, along with a call for software demonstrations. Three, one-day courses have been organized to take place before the conference. For more information please contact John Kovar, ICES II Organizing Committee Chair at 3A Coats Bldg, Statistics Canada, 120 Parkdale Ave., Ottawa K1A 0T6, Canada. E-mail: <kovar@statcan.ca>, phone: (613) 951-8615 and fax: (613) 951-5711.

Workshop on Enquetes sur le Forces de Travail (Labor Force Surveys) at Libourne, France, June 2000

This workshop is being supported jointly by IASS and CEFIL (Centre de Formation de l'INSEE a Libourne) which is the Training Centre of INSEE. The workshop will focus on the experiences with longitudinal Labor Force Surveys in the many countries that have implemented them and on the problems being addressed by the countries that are now implementing them. Ian Macredie of Statistics Canada chairs the Program Committee, assisted by Jean-Louis Faure of INSEE. Michel Peronnet of CEFIL chairs the Organizing Committee for the workshop.

Statistical Surveys in the Private Sector at Napoli, Italy, in September 2000

Benoit Riandey and Anne-Marie Vespa met Claudio Quintano and Carlo Lauro in Napoli (Naples) in February 1999, when they were there to publicize the IASS among Italian Survey Statisticians. The two departments of Statistics in Italy to which Claudio and Carlo belong plan to organize a workshop on Statistical Surveys in the Private Sector. This initiative is welcomed since this is a sector with which IASS has not had much interaction in the past, in comparison with its interactions with official Statistics and Universities.

53rd Session of the ISI at Seoul, South Korea, 2001

The IASS program committee chaired by David Binder is currently selecting the IASS sponsored invited paper topics to propose for this session. These are to be given to the ISI Program Chair in June 1999. The organizing committee will soon be looking for organizers for the sessions on these topics.

Short Courses and Satellite Conference in 2001

We would like to start planning early for the short courses and satellite conference to be held in conjunction with the 53rd session of the ISI in Seoul. It has been suggested that these could be held in or near Seoul. Benoit Riandey reports that our Chinese colleagues who have helped translate

the IASS brochure into Chinese have enthusiastically expressed their willingness to help organize some events in China, perhaps in a conveniently located city or town not too far from Seoul. If you have any ideas for topics and/or venues for the short courses as well as for the satellite conference please send them to either me, our next President, Kirk Wolter <wolter@norcmail.uchicago.edu>, or to Benoit Riandey <riandey@ined.fr>.

The Survey Statistician

We plan to bring out a special issue of *The Survey Statistician* to contain a selection of the best and most influential papers on sample survey theory and practice to commemorate the Silver Jubilee of the IASS. We believe that IASS members, especially those in developing and transition countries, will find this most useful. Please suggest 2 or 3 articles that you believe merit inclusion in this special issue. The title of the article, name of the author(s) and name, number and date of journal where it was published should be sent to me <nach@blr.vsnl.net.in> or mailed to me at 326, 16th cross, RMV Extension 2nd stage, Bangalore 560094, India. You may poll your colleagues to come up with the list of papers. Once the list is finalized by an editorial group (yet to be set up), we will get the permission from the publishers of the journals to reproduce them and hope to be able to bring out the special issue in the year 2000.

The deadline for submission of news items as well as articles of interest to our members for the next (December 99) issue of *The Survey Statistician* is September 30, 1999. Members, especially those from developing and transition countries, are encouraged to submit these to Mike Brick, the editor of our newsletter <brickm1@westat.com>.

International Statistical Review

Good articles reviewing new developments in survey statistics are sought for the International Statistical Review (ISR). Authors with tentative ideas for articles are welcome to contact the IASS Associate Editor of ISR, Chris Skinner, at <cjs@soton.ac.uk>.

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As my term comes to a close, I would like to briefly review the progress, or lack of it, in the pursuit of the ideas that I noted under three broad headings in my first letter in *The Survey Statistician* No. 37 of December 1997.

1. Core Activities and Services to our Members

These have all been pursued, except for organizing a session related to Survey Research Methods during the ASA meetings in 1998. It has been suggested that this be organized only in even-numbered years when the IASS is not busy organizing its own program for the ISI meetings. The high point of our core activities was the conference in Aguascalientes in September 1998, which brought us much publicity and many new members in Central and South America.

2. Increasing our Membership

We have pursued many of the ideas noted under this heading, thanks to the vigorous efforts of Benoit Riandey and some of our country representatives. Reports on the IASS brochure, on the brochure for student members, and on new institutional members have appeared in this and earlier letters. Some countries do not yet have IASS country representatives, and we need to continue to work on this. Benoit Riandey has suggested that we nominate a member of the IASS council or any other IASS member for each region of the world to help the Executive Director of the IASS to maintain contact with the members in the region and with the IASS secretariat on their behalf, and to help with recruiting new country representatives. Clyde Charre de Trabuchi, our vice-president from Argentina is doing that very effectively for Latin America and Christophe Lefranc, our new Adjoint Executive Director is doing that for Francophone Africa. If you would like to volunteer for this for your region, please let Benoit Riandey know.

As for attracting more women to the association, please see the letter from Mary Regier, Chair, ISI Committee on Women in Statistics, that appears elsewhere in this Newsletter. Making a conscious effort to recruit women members to the IASS and encouraging them to participate in the work of the IASS will certainly help. We have found that earmarking 7 of the 17 UNSTAT fellowships for the IASS short courses has encouraged many more women to apply for the fellowships.
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3. Serving the Needs of Developing and Transition Countries

There has not been much progress on the ideas noted under this heading. As noted earlier, we have continued to encourage and support regional conferences, workshops etc., in developing and transition countries, and, on occasion, in the language of the state or region. The Cochran-Hansen prize has been established. The IASS council is discussing two of the ideas noted under this heading – an IASS Advisory Service, and organizing the supply of old journals to those who need them in developing and transition countries. As noted earlier in this letter, we are also planning a special issue of *The Survey Statistician* to include the most influential papers on sample survey theory and practice in the last 25 years. We have learned that the ISI has plans to establish new International Statistical Education Centers (like the one in Calcutta, India) in Mexico and Turkey. IASS strongly supports that initiative. A major concern remains funding to offer more opportunities to our colleagues in developing and transition countries to participate in the short courses and conferences organized by the IASS. The 17 fellowships offered by UNSTAT for August 1999 for participants from developing countries are a great help, and we are very grateful to the UN Statistics Division for this. Currently we are looking for funds for participants from transition countries for August 1999.

In short, as Lars Lyberg said in 1995, "the IASS is alive and well and forward looking". All our activities focus on the primary goal of our association – to share knowledge about the theory and methods of sample surveys throughout the world, so as to promote the use of sound survey methods and practices everywhere. I am deeply grateful for the opportunity I have been given to serve the IASS with which I am proud to be associated. I have learned a lot from this experience and hope that we have moved further on the path to our goal in these two years.

I have many, many people and some technology (E-mail of course!) to thank for helping me in my responsibilities. I will not make this letter any longer than it already is and will take the opportunity to thank them all at the IASS General Assembly in Helsinki. I welcome Kirk Wolter who will be assuming office as the President of the IASS in Helsinki this August and who will lead it into the next millenium.

With my very best wishes to all of you,

Nanjamma Chinnappa
President IASS

Invitation to Celebrate

As you are aware, the (IASS) is now 25 years young or old (depending on your perspective). We will be celebrating the Silver Jubilee of the IASS during the 52nd session of the International Statistical Institute (ISI) to be held in Helsinki, Finland, August 10-18, 1999. It is with great pleasure that I invite you to join us in our celebration at Helsinki.

Besides an excellent program of invited and contributed papers being organized by the IASS, we are planning four special events to celebrate the occasion:

1. The Cochran-Hansen Prize: The first award of this newly instituted prize for the best paper on Survey Research Methods by a young statistician from a Developing or Transition country will be made at the Helsinki session.
2. Commemorative lecture by special invitation of the ISI President: Professor T.M.F. Smith of the University of Southampton has kindly accepted the ISI President's invitation to deliver a special invited commemorative lecture at the session.
3. History of the IASS: The history of the IASS is being written to mark this occasion. Copies will be given to all IASS members as a souvenir of the IASS Silver Jubilee.
4. Celebration at Helsinki: A cocktail party is being planned on the 16th of August to celebrate the Silver Jubilee.

Let us celebrate the coming of age of our association together. I look forward to meeting you on this happy occasion in Helsinki.

Yours sincerely,

Nanjamma Chinnappa,
IASS President

Letter From Mary Regier

Dear members:

I whole-heartedly support the ideas in the following letter to me from Mary Regier, Chairperson of the ISI Committee on Women in Statistics. Please consider these in your work related to the IASS (and elsewhere!).

Nanjamma Chinnappa

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To Presidents of Sections of the ISI

Dear Mrs. Chinnappa,

I am writing to you to seek your support and assistance in our efforts to increase the participation of women in the activities of the ISI and its sections.

As you probably know, the Committee on Women in Statistics was set up in 1995 to study the problem of low representation of women in the ISI family and to seek a remedy for that situation. To that end, we have established contact with correspondents in more than 50 countries and have explored the role of women in statistics through our correspondence and in open meetings at two international conferences. Currently, a project which aims at arriving at characterizations of statisticians by gender is being conducted in several countries, and a report on the findings will be presented at a special meeting during the ISI's 52nd Session in Helsinki. We have also organized an Invited Paper meeting for Helsinki. More about the committee's activities and goals, some of which deal with needs in developing countries, are posted on the committee's web site at <http://sun.cwru.edu/isi>.

Although the low representation of women in the ISI and the sections is most noticeable in the case of developing countries, the phenomenon is true in many developed countries as well, as is evident in the membership lists. We believe that, if encouraged, many more women can become highly involved and productive members in our associations. We also believe that having more women in our membership ranks will eventually enrich our associations' programs and benefit the
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profession as a whole. This is what we ultimately aim for.

Would you help us in our efforts to accomplish this goal?

1. One way to do so would be to urge your members who are also ISI members to initiate nominations of qualified women colleagues for membership in the ISI. I'm sure that many of them know some women colleagues who are qualified but would not think of taking the initiative of nominating them if it were not brought to their attention.
2. Another way would be to encourage women members, who as members of a minority group may be somewhat reticent in volunteering their services, to join committees or work on special projects or otherwise participate more fully in the activities of the Section.
3. At the same time, some of the Section's recruitment efforts could specifically target women, and particularly those in developing countries.

I hope that, with your cooperation, we shall soon see more participation of women in the ISI.

Yours sincerely,

Mary H. Regier

Errata

We have discovered some errors in the descriptive statistics contained in the third paragraph of "The Effects of Incentives on Response Rates in Interviewer-Mediated Surveys," published in June of 1998, as well as small errors in the coefficients reported in Table 1. These errors do not alter any of the substantive conclusions reported in the paper. Copies of the corrected version of the paper are available from Eleanor Singer. Please contact singer@isr.umich.edu.

The International Crime Victim Survey
Anna Alvazzi del Frate

Victim surveys ask representative samples of the general public about selected offences they might have experienced over a given time. The resulting victimization rates constitute a better indicator of the level of crime than the numbers of crimes reported to and recorded by the police. If the research methodology used is standardized, the surveys also offer a new opportunity for the collection of crime statistics which can be used for comparative purposes. The International Crime Victim Survey (ICVS) was launched in 1989 by the Ministry of Justice of the Netherlands with this aim in mind. It was subsequently further developed with the involvement of the United Nations Interregional Crime and Justice Research Institute (UNICRI) in 1992-94 and reached its third "sweep" in 1996-98.

The project received the major financial support from the Ministries of Justice and Foreign Affairs of The Netherlands, the UK Home Office Research and Statistics Directorate and the UNDP for selected countries as well as from local funding as regards the developing countries and countries in transition, and on a self-funding basis for the majority of the participating industrialized countries.

Table 1 shows the fifty-nine countries that participated in the ICVS at least once since 1989, with an average sample ranging from 1,000 to 2,000 respondents from each participating site. This resulted in more than 130,000 people from all over the world being interviewed in approximately 40 languages about their victimization experience, contacts with law enforcement and evaluation thereof, patterns and methods of crime prevention and attitudes towards punishment.

Table 1. Countries participating in at least one of the three sweeps of the ICVS: 1989;1992-94;1996-98

Industrialized countries	Countries in transition	Developing countries
Australia	Albania	Argentina
Austria	Belarus	Bolivia
Belgium	Bulgaria	Botswana
Canada	Croatia	Brazil
England & Wales	Czech Republic	China
Finland	Estonia	Colombia
France	Federal Republic of Yugoslavia	Costa Rica
Germany	FYR of Macedonia	Egypt
Italy	Georgia	India
Japan	Hungary	Indonesia
Malta	Kyrgyzstan	Nigeria
The Netherlands	Latvia	Papua New Guinea
New Zealand	Lithuania	Paraguay
Northern Ireland	Mongolia	The Philippines
Norway	Poland	South Africa
Scotland	Romania	Tanzania
Spain	Russia	Tunisia
Sweden	Slovak Republic	Uganda
Switzerland	Slovenia	Zimbabwe
USA	Ukraine	

The ICVS is the most far-reaching program of standardized sample surveys to look at householders' experience of crime in different countries. The surveys measure crime as defined and recorded by the police but as experienced and recollected by individual citizens. Respondents can inform the researchers about what they perceive to be criminal victimization, regardless of state policies. They can also provide information about their dealings with the state agencies in relation to these experiences. It is this feature in particular which creates opportunities for critical assessment of the way local or national governmental agencies deal with the crime problem.

Three main considerations provided the background and justification for setting up the ICVS. The first was the inadequacy of offenses recorded by the police for comparing crime in different countries. The second was the absence of any alternative standardized measure. The third was

the promotion of victim surveys in countries which have no experience whatsoever with it.

Police figures are problematic for comparative purposes because the vast majority of incidents the police know about are reported by victims, and any differences in propensity to report in different countries undermines the comparability of the amount of crime counted by the police. Moreover, official police figures vary because of differences in legal definitions, recording practices, and precise rules for classifying and counting incidents. These limitations are well-established.

A number of industrialized countries have independently mounted crime or 'victimization' surveys to assess national crime problems—and the ICVS mirrors their approach. Such surveys ask representative samples about selected offenses they have experienced over a given time. They are interested in incidents whether or not reported to the police, and indeed in the reasons why people do and do not choose to notify the police. They thus provide both a more realistic count of how many people are affected by crime and—if the surveys are repeated—a measure of trends in crime unaffected by changes in victims' reporting behavior, or administrative changes in recording crime. By collecting social and demographic information on respondents questioned, crime surveys also allow analysis of how risks of crime vary for different groups, in terms of age, income levels, etc.

Questionnaire

The ICVS questionnaire includes sections on victimization, reporting to the police, reasons for not reporting, respondent's opinion of police work, fear of crime, crime prevention measures, and attitudes to punishment. Thirteen types of victimization which could have affected the respondent personally or his/her household are covered by the questionnaire. The selected crimes are obviously among those with a well identified victim and mostly belong to the sphere of "conventional" crime.

A first group of crimes deals with the vehicles owned by the respondent or his/her household:

- Theft of car
- Theft from car
- Car vandalism
- Theft of bicycle
- Theft of motorcycle

A second group refers to breaking and entering into the housing premises:

- Burglary
- Attempted burglary

A third group of crimes refers to victimization experienced by the respondent personally:

- Robbery
- Theft of personal property
- Assault/threat
- Sexual incidents (women only)

The questionnaire finally addresses two more types of crime to deal with consumers and public administration as experienced by the respondents:

- Consumer fraud
- Bribery/corruption

In developing countries and countries in transition, consumer fraud and corruption have been covered since the 1992 ICVS. Consumer fraud was asked about in industrialized countries in 1992 and 1996, and corruption in 1996.

Specifications provided by follow-up questions allow for further breakdown of personal crime to make distinctions as follows:

- Theft of personal property
  - pickpocketing
  - non-contact personal thefts
- Assault/threat
  - assaults with force
  - assaults without force
- Sexual incidents
  - sexual assaults
  - offensive behavior

The time-span covered by the ICVS refers to the last five years. Those who mentioned having been victims of an incident of any particular type were asked when it occurred, and if in the last year (the calendar year preceding the interview), how many times in that particular year.

Victims reporting incidents over the past five years are asked some additional questions about what happened. The complete set of follow-up questions is asked to victims of theft from car, burglary, robbery, sexual incidents and assaults, while other victims are asked less additional information.

Special attention is given to whether the crime was reported to the police, where it occurred, who was the offender and whether victim support agencies have provided any assistance.

All respondents, victims and non-victims, are also asked about their opinion of police performance in preventing and controlling crime, fear of crime, crime prevention measures adopted at the household level and attitudes to punishment.

Sampling

To keep costs in check and encourage as full participation as possible, samples in all sweeps of the ICVS have been relatively modest. In the 1996 surveys in industrialized countries, samples were usually of between 1,000 and 2,500 respondents.

In each country, a regionally well-spread sample of households was taken. Within each household, one randomly selected respondent aged 16 or more was questioned.[1] In developing countries and countries in transition, samples of 1,000 respondents were generally drawn from the population of the largest city, although in a few countries the survey covered either several cities with or without the addition of a small rural sample (Estonia, Latvia, Kyrgyzstan, Georgia, Indonesia) or a national sample (Czech Republic, Poland). Sampling generally started from the identification of administrative zones in the cities, followed by a step-by-step procedure aimed at identifying 1) areas, 2) streets, 3) blocks, 4) households, and 5) respondent (person aged 16 or more whose birthday is next). See Alvazzi del Frate (1996) for further details on the methods used in sampling.

Victimization Rates: Main Comparative Findings

The findings of the ICVS reveal that levels and effects of victimization are more pronounced in the developing countries than in the rest of the world. The overall victimization risks of citizens in developing countries are higher for all property-related types of crime, while the risk for assault with force is equal in the industrialized countries, countries in transition and the developing world.

Table 2. Aggregate victimization rates for selected crimes, one year. Cities and urban areas (>100,000 pop.)

	Industrialized countries	Countries in transition	Developing countries
Burglary	3.2	3.6	5.3
Theft of personal property	6.1	10.8	11.3
Assault with force	2.5	2.2	2.2
Robbery	1.7	2.3	4.6
Fraud	10.4	39.7	29.9
Bribery/corruption	1.0	12.8	17.6

Theft of personal property was actually the most frequent type of "conventional" victimization in all the regions, followed by burglary and robbery in developing countries and countries in transition.

The highest victimization rates for one year were observed for personal theft in developing countries and countries in transition, which almost leveled and exceeded 10 percent in both groups. Rates around 5 percent were found for personal theft in industrialized countries and burglary and robbery in developing countries. Finally, the lowest

[1] The respondent was generally selected by the Troldahl-Carter method. No substitution of the selected respondent was allowed.

victimization rates (around 2% in the all the three groups of countries) were observed for assault with force, while also burglary and robbery in countries in transition and industrialized countries did not exceed 3 percent.

Bribery of public officials is, in descending order, more diffused in the developing world, followed by countries in transition, and was negligible in the industrialized world. Similarly to corruption, consumer fraud is experienced more often in the developing world and countries in transition than in the industrialized world.

The ICVS data on victimization rates for theft of personal property, burglary and assault all reveal a negative correlation with the Human Development Index (HDI). The more developed the country, the less frequent victimization for theft ($r = -0.560$), burglary ($r = -0.422$) and, to some extent, assault ($r = -0.113$). Such findings are even more evident for consumer fraud ($r = -0.600$) and requests of bribery by public officials ($r = -0.578$).

Moreover, the lower capacity to minimize the effects of victimization (i.e. through insurance, replacement or victim support) increases the burden of crime. These findings support the hypothesis that crime indeed affects citizens in less affluent countries more heavily.

The trend observed above is found again if the analysis is limited to the group of developing countries. The correlation of the victimization rates for theft of personal property, burglary and assault from developing countries with HDI indeed shows the same direction observed at the global level. In fact, although the strength of the correlation within the group of developing countries was much weaker than that observed at the global level, again it was found that the higher ranking the country on HDI, the less frequent victimization for theft ($r = -0.252$) and burglary ($r = -0.190$), while practically no correlation was observed for assault ($r = 0.021$). It therefore appears that further analysis of these results may tell us more about the crime/development relationship.

The relationship between crime and development has been the object of many studies over the years, but no clear conclusion has ever been reached on the consequences of socio-economic growth on crime. On the one hand, a traditional belief suggested that technological progress and a more equal distribution of economic wealth would reduce the social conflict. But, other theories envisaged that socio-economic growth and modernization would necessarily involve an increase in overall crime rates, and in particular in crimes against property (Shelley, 1981). This theory was supported by the observation that developed countries generally showed higher theft rates and lower homicide rates than developing countries.[2]

However, such conclusions have usually been reached on the basis of official administrative data. The possibility for a country to produce reliable crime statistics also depends on its level of development. Lack of resources and technology may be the cause of scarce capacity and efficiency of the police in recording crimes. At the same time, victims may also be more reluctant to spend time and money in reporting crimes. "In many developing countries, victims, especially those from lower classes, want to have as little contact with the police as they can. Victims would rather suffer the loss or injury, resort to private or informal initiatives, or report only with great reluctance and fear" (Marenin, 1997). These problems in reporting are particularly likely to affect proper recording of property crime.

Official data should therefore be integrated with specific research in order to increase the amount of information available on the portion of criminality which is not reported and public appreciation of the workings of the criminal justice system. Victim surveys are particularly useful in providing information on conventional household or personal crimes.

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[2] For example, a study published in the early seventies observed that, distributing a list of countries according to a series of development indicators on a continuum, developed countries showed homicide rates lower than 6 and theft rates higher than 600 per 100,000 population. The development indicators used included urbanization, economic development, literacy, etc. Crime rates considered in the study referred to official statistics as presented by Marenin (1997) and Alvazzi del Frate (1996).

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Simplified Sampling Plans for Epidemiological Surveys in Metropolitan Areas in Brazil

Nilza Nunes da Silva

1. Introduction

1.1 Description of the Problem

Household surveys usually take the individual as the final unit of observation. The individual is typically sampled using traditional cluster sampling with various stages of sampling, as presented in the literature on probabilistic sampling methods (Cochran, 1977; Kish, 1965). These individuals are selected in successive and hierarchical spacial units such as the household, block or census sector. For example, a sample of individuals may be obtained by drawing a sample of census sectors, within which blocks are sampled, then households are sampled and finally the eligible individuals are interviewed, according to the purpose of the research project.

The probability of an individual's belonging to the sample drawn can be expressed as ($f = f_1 \times f_2 \times f_3$) where each f_i corresponds to the probability of the sample unit being drawn at each respective stage. The mathematical basis of cluster sampling demands specialized attention in the elaboration of the design and the field work, which, beyond adding considerably to the time the project, may be costly.

The EPI method was developed for the purpose of meeting these requirements while making it possible to undertake vaccination coverage studies in African countries, in particular for the monitoring of the program entitled "The Expanded Programme on Immunization" launched by the World Health Organization (WHO) in 1978. The proposed sampling procedure drew 30 Primary Sampling Units (PSU) and obtained a sample of 210 children, by means of the identification and interviewing of the first seven children located in each PSU after the process was begun with a random draw.

The main failing of the EPI method results, however, from its principal advantage. The strategy which eliminates the listing and sampling of

households in the second stage of the procedure also destroys the probabilistic structure of the method. In addition, it introduces the possibility of failures in selection which can't later be assessed by the normal practice of research projects in the health field. The results of already diminished precision (a margin of absolute error equal to 10%), are thus also threatened as to their validity. Bennett, et al. (1994), summarize the procedure and bring out the dangers associated with its indiscriminate application, especially for those projects with multiple objectives that study a large number of variables. .

The epidemiological studies undertaken in Brazilian cities run into difficulties such as the non-existence of up-to-date maps and frames, the haphazard occupation of the geographical space, and operational costs which exceed our limited financial means. The clear need for the adaptation of traditional sampling methods in accordance with the technical and financial reality of the institutions of our country encourage the development of strategies which overcome these difficulties, conserve the theoretical basis of the sampling method, and are of great utility.

A study of morbidity and the utilization of health services, in the metropolitan region of Sao Paulo county in Brazil in 1996, created such an opportunity. For this study a cluster process was adapted to the available infrastructure that demonstrated the possibility of combining simplicity and economy without introducing grave defects in the probabilistic basis of the procedure.

1.2 Literature Review

The Social and Economic Council of the UNO with the WHO launched a program of technical and financial support for developing countries to enable them to undertake household surveys for assessment of the living conditions and health status of their populations (United Nations, 1981). One such program is the EPI which offers a low cost procedure for the assessment of the vaccination coverage programs in five areas of West Africa (Henderson, et al., 1973).

The efficacy of this method in obtaining information at low cost favored its wide acceptance for use in household samples. It was accepted and used in many types of cross-sectional studies undertaken by the basic health services of various Latin American countries (Scwarcwald and Valente, 1985; Silva, 1989; Secretary of State Health of São Paulo Saúde, 1989).

The dissemination of the EPI method drew the interest of the specialists involved in probability sampling. The possibility of finding alternative solutions that guarantee a valid sample and the accuracy of the estimates also stimulated interest (Silva, 1986; Kalton, 1987; Araica, 1990). Empirical results of simulations assessed the accuracy of the estimates when the EPI method was used to appraise other characteristics of the epidemiological surveys, as well as the vaccination coverage, (Henderson and Sudaresan, 1982; Lemeshow and Robinson, 1985). Bennett, et al., 1991 presented a revised method of cluster sampling and indicated procedures for sampling and estimation that were applicable in epidemiological surveys in developing countries.

During the 49th session of the International Statistical Institute (ISI) in Firenze, a meeting on the theme "Inexpensive survey methods for developing countries" gave rise to extensive discussion on the limitations of the EPI method. The possibility of constructing simple solutions to list the elements in each PSU and to obtain knowledge of the probability of their selection in the second stage of the draw were discussed (Pember and Banda, 1994; Bennett, 1994).

More recently, in September 1998 at the Joint IASS/IAOS conference held in Aguascalientes in Mexico, sampling procedures which reconcile simplicity and a theoretical basis were presented (Hall, 1998; Amrhein and Bailey, 1998).

2. Methods

2.1 Sample Sizes

The target population consisted of 6,294 children below five years of age belonging to about 12,000 families living in two of the suburbs of Embu, a county located within the metropolitan region of São Paulo, Brazil. The epidemiological survey sought to discover the patterns of morbidity and the use of the local program of child health. In view of the specific aspects of the health status of the children below 12

months of age and of the greater dispersion of this group in the household population, it was decided to split the target population into two domains: P1, the population composed of 1,223 children below 12 months of age; and P2 consisting of 5,071 children aged between one and four years of age. The respective densities of these populations were 10.19 and 42.26 children for each 100 household.

The rate of children who fell sick in the 15 days prior to the interview (called morbidity), the percentage of children enrolled in the local child health program, and the rate of vaccination coverage were the principal estimates to be obtained from the survey. In view of the expectation that these indexes in the target population would be either below 30 percent or over 70 percent, it was estimated that the minimum of 300 children in each sample would result in absolute precision no greater than 6 percent for a confidence interval of 95 percent (Lwanga and Lemeshow, 1991).

2.2 Selection of the Samples

The sampling procedure adopted was that proposed by the EPI method: a two-stage cluster sample. In the first stage, the perimeter of the geographical area corresponding to the suburbs was drawn on a map of the county and this was subdivided into 210 primary sampling units called blocks or segments. Of these, 61 of were drawn to be the sample for the health survey.

In the second stage, different strategies were adopted to get the samples of children coming from each sampled block. The interviewers, oriented by sketch-maps giving the geographical features and other evident landmarks in the areas (Figure 1 and 2), went throughout each PSU and visited all the households in it.

All the children below 12 months of age found constituted the sample in the first domain. At the same time the interviewer filled out a list (Figure 3) with the names of the children in the second domain and used a systematic sample with an interval equal to 4 to select that sample. The information for the houses with no one present was given by neighbors and the interviewers returned later to complete these interviews, and thus avoid nonresponse.

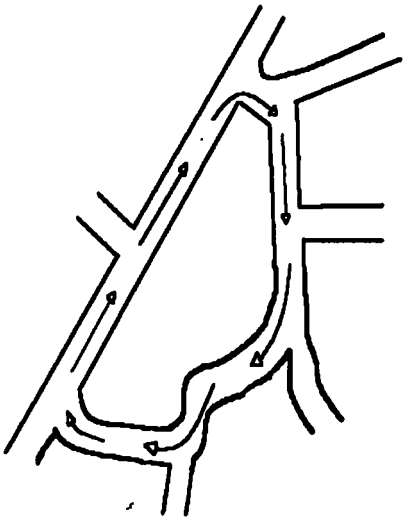

Figure 1-PSU 66

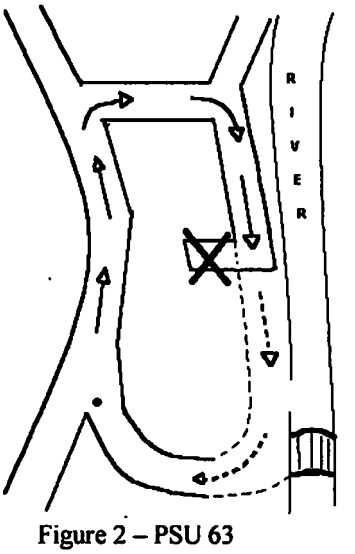

Figure 2 – PSU 63

Figure 3. List for the composition of the preselected sample of children in the second domain

PSU number ____ Interviewer: _____

N.	NAME	NUMBER	OBSERVATIONS
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			

In this procedure, the probability of the selection of a particular child below 12 months of age is equal to the probability of the selection of the PSU (61/120). The probability of the selection of a child from the second domain can be calculated by the expression (f_1 x f_2) and is equal to (61/210 x 1/4). Confidence intervals and design effects (deff) were calculated using the CSAMPLE program (EPI INFO, version 6.04b, 1994) which uses Taylor's linearized deviation methods to estimate the variance of proportions in data from complex samples.

3. Results

3.1 The Samples Achieved

A response rate of above 95 percent was achieved, with 362 sampled children below 12 months of age in the first domain and 359 children between 1 and 4 years in the second. On average 6 children were interviewed per PSU.

3.2 Estimates, Confidence Intervals and Design Effects

Table 1 shows vaccination coverage rate and the percentage of children enrolled in the program. For the two samples, the precision was compatible with the proposal for the design. On the other hand, the confidence interval and the design effect estimated for morbidity showed there was greater intraclass homogeneity for these characteristics. That is to say, children in the same block are more alike as to their chances of falling ill than they are across the entire population. The need to increase the sample size of children and to assess the optimum average size within the primary sampling units are aspects of concern in the surveys studying morbidity.

These results were confirmed by estimates obtained in another survey undertaken later in Embu county in which the traditional cluster sampling method with probability proportional to the size of the primary sampling unit was applied (Silva, et al., 1997).

Number of children distribution in PSU, for the two age groups, P1 and P2

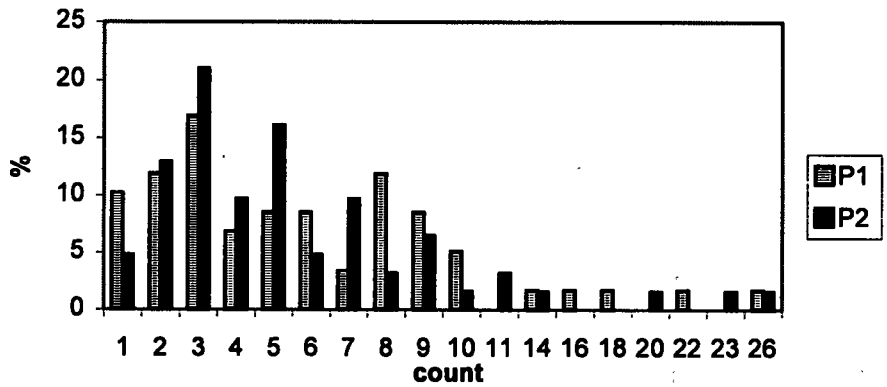

Table 1. Percentages, estimates of two samples of the studied populations

Domains	Estimates	Prevalence morbidity (%)	Vaccination coverage (%)	Registered in local program (%)
P1	Percentage	32.16	83.78	79.5
	St. error	2.83	2.23	2.42
	CI(95%)	26.62 – 37.71	79.3 – 88.3	74.40 – 83.91
	Deff	1.25	1.34	1.18
P2	Percentage	27.88	82.64	82.89
	St. error	3.12	2.18	2.26
	CI(95%)	21.76 – 33.99	78.37 – 86.90	78.47 – 87.31
	Deff	1.59	1.10	1.22

4. Conclusions

In this method, subsamples were selected within each PSU and at the same time the interviewer filled out the list, identified the children sampled and carried out the interview. This made the procedure simple and fast. It also satisfied EPI requirements and guaranteed greater levels of precision for the estimates. The construction of samples within the same PSU for the two domains on the same round of data collection may be considered to be the main contribution of the proposed design.

The ease of processing when CSAMPLE software is used to approximate the variance of the ratio estimator makes it simple to take the effect of the cluster design on the precision of the estimates into account. The variability introduced in the size of the subsamples is off-set by the maintenance of the equal probably samples and by the elimination of sources of bias.

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The MADIO Project in Madagascar: Statistical Information to Further the Democratic Discussion of Economic Policy

Rachel Ravelosoa and François Roubaud

The general mandate of the MADIO (Madagascar-Dial-Instat-Orstom) project is to contribute to macro-economic analysis by the Malagasy authorities. Created at the end of 1994, it is the product of a scientific agreement between Orstom and its Malagasy partner, Instat (Institut National de la Statistique). It is co-financed by three donor agencies: Coopération française, Orstom and the European Union. In addition to its economic analysis role, MADIO is participating in the overhaul of the Malagasy statistical system. In this capacity, it has produced some twenty statistical surveys and developed original and innovative instruments in this field. It consists of three Orstom researchers and a dozen young Malagasy statistical economists, most of them trained at Ensea in Abidjan or Cesd in Paris. MADIO reached the end of 1998 on schedule, and a second phase is being implemented. The main objective of MADIO II, financed by the same donor agencies for the next three years, is to ensure the continuity of activities undertaken in the context of the withdrawal of external technical aid, an issue over which a number of projects of this type have stumbled since the Independence period in Sub-Saharan Africa.

After four years of operation, MADIO is considered an exceptional success on more than one account. The goal of this short article is to briefly summarize the broad methodological choices that have directed its modus operandi, as well as give some of its background focusing on its statistical studies.

Methodological and Intellectual Orientations: Avoiding Putting the Cart Before the Horse

MADIO has invested heavily in the collection of statistical information. This choice -- original (and controversial) for a project whose mandate is economic analysis, specifically macro-economic analysis -- was deliberate. In most LDCs, especially in Sub-Saharan Africa, the fundamental data on which economic analysis is based is either nonexistent, seriously deficient, or of a quality that would be considered unacceptable when measured against standard international criteria in the field. The current practice is to gloss over this basic problem. But, however sophisticated the data processing techniques, the final result can never compensate for major uncertainty in the statistics collected upstream.

The "philosophy" behind this statistical investment is to provide reliable, up-to-date statistical information on key issues relating to the economic transition that is underway, especially in areas where the deficiencies are most glaring. Through the construction of time series, the preferred instrument for the analysis of change over time, a series of periodic forums have been instituted for disseminating the results of the fundamental aspects of the Malagasy economy (prices, foreign trade, employment, growth, etc.).

The second specific feature of the surveys established by MADIO is the policy of intensive dissemination and promotion of the results. This choice starts off from the observation that the decline of African national statistical institutes is in part due to the inability of statisticians to respond to the demand in the required time and with the required quality. But in the context of the extreme scarcity of resources and the limited "statistical culture" of decision makers, it is incumbent upon the statisticians to prove the fundamental value of the products they offer. In practical terms, four kinds of instruments have been used to promote MADIO surveys:

- The institution of a periodic forum entitled "Instat-Point Information," where the statisticians present the main results to the public as soon as an operation has been concluded, without waiting for publication of the definitive results, something that may take a very long time;
- The rapid and systematic publication of a modest preprint (around fifty pages), entitled Premiers résultats [preliminary results] analysing the main results of each survey, written in language that is accessible to nonprofessionals, and in an attractive medium (to avoid undigested tomes of tables of raw figures);
- The dissemination of the survey results to a small number of strategic representatives who are likely to convey them to the decision makers (authorities, economic departments, donor agencies, etc.) and above all to the public, through the media. At the same time, the publications are put on sale;
- The creation of an annual review, Economie de Madagascar [Madagascar economy], which provides a high quality resource for statisticians and economists to undertake and disseminate thematic articles that are in line with international standards in the field, promoting the data bases beyond the descriptive comments contained in Premiers résultats.

This strategy has paid off, with 20 surveys giving rise to many *Premiers résultats* and *Instat-Point Information*, the latter with an average attendance of 100 people, while the national and international press have published more than 500 articles on MADIO projects. Three hundred studies have been produced, 5,000 documents sold, and three issues of *Economie de Madagascar* have been published.

A Few Achievements of the MADIO Project: The Case of Statistical Surveys

In the huge "work in progress" that characterizes the national system of statistical information, the MADIO project has established three survey systems touching on key sectors of the Malagasy economy:

Enquête-emploi (EE) [Employment Survey] and its by-products, 1995-1998

It is paradoxical that, in a country where the battle against poverty is the government's main objective, there is no regular system of surveying households. In this context, an annual survey of employment seemed to be the best candidate to provide annual and rapid information about the situation and evolution of the labor market in Antananarivo and its surroundings, and to analyse how it operates. In addition, it could provide support for specific modules, varying according to needs, following the principle of surveys conducted in several phases (the modules being stratified sub-samples of the EE). Thus, surveys on the informal sector and on consumption were completed in 1995 and 1998, on health, education and transfers (SET97) in 1997 and on biographical trajectories (BIOMAD98) in 1998. See Table 1.

Enquête annuelle dans l'industrie (EAI) [Annual Industrial Survey], 1995-1998

The objective of the EAI is to provide annual and rapid information on the structure of the Malagasy industrial sector, including the tax-free zone. It is an indispensable instrument for assessing the response of productive supply to the reforms underway, considering the objectives of industrialization and insertion into the world economy. It is all the more indispensable since it is the only source of quantitative information on Madagascar enterprises.

Table 1. Major features of Enquête-emploi and its by-products, 1995-1998

	Enquête-emploi	Phase 2	Phase 3	SET97	BIOMAD98
Subject	Labor market	Informal sector	Consumption	Health, education, transfers	Biographic trajectory
Coverage	Antananarivo & surroundings	Antananarivo & surroundings	Antananarivo & surroundings	Antananarivo & surroundings	Antananarivo & surroundings
Frequency	Annual	Every 3 years	Every 3 years	Ad hoc	Ad hoc
Number conducted	4, panels at 1/3	2, cross sections	2, cross sections	1	1
Sample size	3,000 households, 15,000 individuals	1,000 IPU	500 households	1,000 households	2,400 individuals
Unit cost* (1,000 FF)	100	50	50	60	50

* The costs include all operations in the field, inputting and reconciliation, including the publication of "*Premiers résultats.*"

Observatoires ruraux (OR) [Rural Monitoring Stations], 1995-1998

Once more, MADIO was forced to develop an original method to monitor the impact of economic reforms on Madagascar's rural area, in the absence of an alternative source (the last agricultural census was in 1984). Although unrepresentative, four rural monitoring stations were established in 4 geographic zones, linked to four economic problems and illustrating the diversity of Malagasy agriculture (isolation, cash crops, large irrigated tracts in the process of being restructured, family rice/mixed cultivation). Each monitoring station follows a panel of 500 households every year. This panel is the focus of quantitative surveys of production, revenues, food security, etc., to which a system of tracking the prices of critical products, by month, has been added (since 1996).

The Indice des prix à la consommation (IPC) [Consumer Price Index], 1996-1998

To compensate for the outdated nature of the present consumer price index (1971 basket, obsolete methodology, survey limited to capital), MADIO developed a new *IPC*, taking its inspiration from the successful experience of the harmonized *IPC* in the countries of the EMU. The major innovations are: extension of geographic coverage to 7 principal towns, updating of weighting based on 1993-1995 data, broadening of the survey (number of products and places of purchases), modernization of the data processing sequence to ensure its quality (creation of software for calculation, monitoring and testing of consistency, etc.). The base year runs from April 1996 to March 1997. Once more, the statistical choices were influenced by priority requirements of economic policy: priority was accorded to price mechanisms in the allocation of resources and factors in the framework of adjustment and decentralization.

Ad hoc Surveys

Finally, MADIO conducted a certain number of ad hoc surveys at the request of the government or other "requestors" (donor agencies, groupings of bodies, etc.). This is especially the case with the survey *Tourisme/Visa,* whose aim was to assess the impact of administrative simplification measures for foreigners entering Madagascar, as part of the policy of promoting tourism in the country. See Table 2.

Table 2. Principal characteristics of other surveys conducted by MADIO 1995-1998

	Enquête Annuelle dans l'Industrie	Observatoires Ruraux	Indice des Prix	Enquête Tourisme/Visa
Content	Formal industrial sector	Rural world, agricultural sector	Prices	Visa, liberalization of tourism
Coverage	National	4 rural zones, non-representative	7 large urban centres	National
Frequency	Annual	Annual	Monthly	Ad hoc
Number produced	4, exhaustive on the large ones, panels	4 panels	34	1
Sample size	700 - 900 firms	2,200 households	17,000 observations monthly	1,250 individuals
Unit cost (1,000 FF)*	100	100	60 (per year)	10

* The costs include all operations in the field, processing, and publication of *Premiers résultats*.

In conclusion, the statistical operations carried out by MADIO over the course of the past 4 years have several features in common:

- First, none of the surveys were failures. On the contrary, the quality of the data obtained is exemplary. The consistency of the indicators over time is a good gage of this;
- Second, it has enabled Madagascar to situate itself on the cutting edge of progress in Sub-Saharan Africa in the field of surveys (development of new methodologies, introduction of surveys that have proven their worth in other continents, etc.);
- Third, beyond their thematic potential, the absolute uniqueness of these surveys is their role in the creation of a real information system, based on the regular repetition of operations. The issue of capitalization of technical knowledge occurs through the process of "systematization." Geographic extension is only planned at a later date, once the technical workings and management are perfectly mastered. Moreover, dealing with dynamics is its principal strength, since the field is generally in a state of atrophy in Sub-Saharan Africa;
- Last but not least, the cost of each survey is extremely reasonable, which does not exclude at the outset their being taken over nationally (by way of comparison, the costs of the EPM (enquête permanente auprès des ménages [permanent household survey], 1993) or the EDS (enquête démographique et de santé) [survey of population and health], 1997) amounted to several hundred thousand US dollars).

Rachel Ravelosoa is an Engineer Statistician-Economist and a member of the MADIO project. François Roubaud is an economist at IRD and is in charge of the MADIO project. For all additional information on the MADIO project, contact Projet MADIO, INSTAT, Bureau 308, P.O. Box 485, Anosy, Antananarivo, 101, Madagascar. Tel.: 22-258-32/ 22-274-18/ 22-645-84; fax: 22-332-50; E-mail: roubaud@madio.ird.mg. In the coming months a special issue of the journal Stateco, Insee, France, will be devoted to the MADIO project.

Online Research Methodologies

There are currently a number of methodologies for collecting data over the Internet. The two most popular forms are E-mail and website surveys. The internet continues to grow as a tool for collecting information particularly amongst business-to-business, certain professional and special interest groups as they are often easier to reach online than on the telephone. The growth of the Internet has created a forum where people from diverse geographic locations can communicate about common interests. We can reach rockclimbers,

windsurfers, music lovers, doctors, lawyers, and many other traditionally hard-to-reach groups through E-mail and website surveys.

Listed below are the advantages, disadvantages, and limitations of the E-mail and website methodologies:

E-mail Surveys

E-mail surveys appear to be the preferable online collection method when the client has a panel of E-mail addresses. E-mail goes directly to the respondent and does not rely on the respondent to visit a website on his or her own initiative. The average E-mail survey is generally cheaper as the number of respondents is not a factor in the price, only the length of the questionnaire. Timing is also fast with development, dispatch and receipt of E-mail surveys able to be completed in a couple of days as opposed to longer periods with the more traditional collection methods. Most of the responses come back within a week and results can be seen and tabulated dynamically as the E-mail is received from respondents. Unrecruited E-mail surveys generally have a lower response rate, but recruited E-mail studies generally result in a higher response rate.

Some of the advantages of E-mail surveys include:

1. Very fast and inexpensive; quick turnaround,
2. Goes directly to the respondent,
3. Convenient; respondent can complete the questionnaire at their leisure, and
4. Not as intrusive as a phone study.

The disadvantages include:

1. Not appropriate for random sample and consumer surveys because of sampling representivity issues,
2. Cannot control input of data (like a mail survey in this respect),
3. Surveys must be short due to respondent's E-mail system limitations, and
4. Cannot handle grid type questions or skip patterns.

Website Surveys

Website, or forms-based surveys, take a little more time to program and cost a little more than E-mail surveys, but are still relatively inexpensive. This methodology allows us to administer more complex studies. We can program the same types of surveys as with a CATI survey, with just a few limitations. These surveys can be very useful in getting feedback about a client's website or products the client offers. A web survey placed on a special interest groups site can collect the opinions of that group. It could also be used in a mixed mode study to reduce phone costs and allow the respondent a more convenient data collection vehicle. Web surveys generally require a good incentive to get people to take them. The turnaround for website surveys is slightly slower than that of E-mail surveys and dynamic results are not always available.

Some of the advantages of website surveys include:

1. Inexpensive and quicker than mail, fax or phone,
2. Can reach traditionally hard-to-reach target groups, and
3. Convenient; respondents can take survey at their leisure.

The disadvantages include:

1. No control over response rates,
2. Sample representivity issue, and
3. Good incentive necessary for good response rate.

For more information on internet studies contact: Michael Sparks, Regional Director, at Taylor Nelson Sofres Telecoms; E-mail: michael.sparks@au.tnsofres.com

Stata®, Software for Statistical Analysis
William Sribney, StataCorp

A Description of Stata

Stata is a full-featured statistical software package that includes a suite of commands that are designed for the analysis of complex survey data. Before I describe Stata's survey analysis capabilities, let me first describe what Stata is like for those of you who have never used it.

Stata is designed to be an interactive command-driven language. In the Windows and Macintosh versions there is a command-edit box, and in the Unix versions there is a "dot" prompt; here you type a short one-word command followed by a list of arguments (typically names of data variables or expressions involving variables) and then, optionally, a comma followed by choices among a set of "options" (but typically no options are specified; sensible defaults are assumed). You hit "Enter", the command runs, output appears in a "Results" window if it is an analysis command; if it is a graphics command, a graph appears in a "Graph" window; or, if it is a data-management command, no output or just a brief confirmatory message appears.

For example, typing

```
. reg y x1 x2 x3
```

performs a linear regression of y on x1, x2, x3. Typing

```
. replace z = 2 if y > 0
```

changes the values of the data variable z to 2 whenever the data variable y is greater than zero. Stata's commands for survey data work similarly. Typing

```
. svyset pweight  finalwt
. svyset strata   stratid
. svyset psu      psuid
```

identifies the variable finalwt as the sampling (probability) weight, stratid as the stratum identifier, and psuid as the primary sampling unit identifier. Typing

```
. svymlog y x1 x2 x3
```

estimates a pseudo-maximum likelihood multinomial logistic regression with variance estimates adjusted for the design specified by the prior series of svyset commands.

The theme running through Stata is that commands are as simple as possible, and have, as much as possible, a consistent syntax. As a result, the software is fairly easy to learn and very easy to use once a few basics are mastered. The learning curve is hurdled as soon as one discovers the power of stringing together a set of these simple commands.

The menus of the windowed interface in the Windows and Macintosh versions of Stata are primarily for setting preferences and accessing Stata's hypertext help and search facilities. The menus have a handful of items that parallel commands in Stata (e.g., there is an "Open" on the menu that loads a data set, just as a command will do). Except for these few items, Stata commands do not appear on menus. Stata is at heart a command-driven language.

Stata's Programmability

Although the Stata language is designed to be interactive, it can also be run in batch-mode; that is, the command

```
. do filename
```

will execute the commands in the ASCII file called "filename.do". All analysis commands automatically save their results as new scalar and matrix variables, where they can be accessed if one wishes.

Stata is also fully programmable and includes its own matrix language and a generic maximum-likelihood optimizer for user-programmed likelihood functions. Stata programs are just ASCII files with the extension ".ado". The majority of the commands in Stata are, in fact, programs written in the Stata language. The rest of the commands are part of the Stata executable, which is very lean C code.

For example, a user can create an ASCII file (using their favorite text editor or Stata's built-in editor) called, say, "myprog.ado". Then typing

. myprog

(with perhaps a list of variables or other arguments) from within Stata runs the new command "myprog". Hence, users can write their own commands, which are indistinguishable from the commands that come with Stata.

Stata has a very large and active user group, and there are many user-written programs available. Some of the more polished user-written programs are distributed through the Stata Technical Bulletin (the software component is available free for download; the hard-copy journal is available for $42 per year). User-written programs are also shared on the independently operated Stata listserver (statalist@hsphsun2.harvard.edu).

The latest release of Stata, version 6.0, has the ability to receive programs and data sets over the Internet. Users can automatically update Stata (i.e., get new StataCorp programs, bugs fixes, etc.) across the Internet by running the "update" command.

Stata Commands for the Analysis of Survey Data

The vast majority of Stata users are academics and researchers. Biostatisticians, epidemiologists, medical researchers, economists, sociologists, political scientists, psychologists, and other social scientists comprise the largest groups of Stata's users. As these researchers have become aware over the last several years of the need to properly account for survey design features in their analyses, so has Stata added the ability to properly handle them.

In version 3.0 (released in 1992), Stata added a handful of commands that implemented variance estimation using the Taylor-series linearization estimator to produce "robust" variance estimates (for simple random samples) and to handle weights and cluster sampling or correlated data. These commands were all model estimators such as linear and logistic regression.

Midway through the 4.0 release in 1996, preliminary versions (written in Stata's programming language) of commands for estimation of means, ratios, totals, and proportions with complex survey data were distributed to users. These commands handled sampling weights, stratification, multistage cluster sampling (under an ultimate cluster sample selection model), computed design and misspecification effects, and could optionally compute a finite population correction. Also released were commands for linear regression, logistic regression, and probit models with similar abilities to handle complex survey data. In the 5.0 release, the core computational parts of these commands were coded in C as part of the Stata executable.

In Stata 6.0 (released in January 1999), several more model estimators were added to the suite of commands for survey data. A command for two-way contingency tables was also added. A complete list of the Stata commands for analyzing survey data appears below.

Model estimators:

svyreg	linear regression
svyivreg	instrumental variables regression
svyintrg	censored (tobit) and interval regression
svylogit	logistic regression
svyprobt	probit models
svymlog	multinomial logistic regression
svyolog	ordered logistic regression (proportional odds model)
svyoprob	ordered probit models
svypois	Poisson regression

Means, proportions, ratios, totals:

svymean	population and subpopulation means
svyprop	population and subpopulation proportions
svyratio	population and subpopulation ratios
svytotal	population and subpopulation totals

Two-way tables:

svytab	two-way tables with tests of independence (Rao and Scott correction)

Auxiliary commands:

svylc	estimate linear contrasts after any svy estimator
svytest	multidimensional hypotheses tests after any svy estimator

svyset specify design variables
svydes tabulate strata and PSUs

Programmer's command:

_robust computational driver for the linearization variance estimator

Brief Details About Stata's svy Commands

The only method of variance estimation currently implemented is the Taylor series linearization estimator. Multistage designs are handled by the ultimate cluster sample selection paradigm. A finite-population correction can be requested for appropriate without-replacement designs. The commands for means, proportions, ratios, totals can produce estimates for multiple subpopulations. All of the model estimators can optionally compute estimates for a single subpopulation.

All estimators can compute design effects. When estimates are produced for subpopulations, there is an option for computing design effects in one of two ways: the estimate for the simple-random-sampling variance can be computing assuming the sample was drawn from the entire population or drawn from just the subpopulation of interest.

The svylc command produces point estimates, standard error estimates, confidence intervals, p-values, and design effects for linear contrasts after any svy estimator. For example, it can compute confidence intervals for differences of subpopulation means after estimation with the svymean command. The svytest command computes adjusted Wald tests for multidimensional hypotheses; it can optionally display bonferroni tests.

The svytab command displays two-way contingency tables with tests of independence. The command can optionally compute several test statistics for the test of independence. Based on simulations performed at StataCorp, a variant of the Rao and Scott correction for Pearson's statistic was chosen as the default statistic.

The svyset command "sets" the survey design identifiers: the variables containing the sampling weights, stratum identifier, PSU identifier, and PSU sampling rate or population PSU totals for the computation of a finite-population correction. Any or all of these can be set. Once set they are remembered and saved with the data in Stata's data format, so they never have to be specified again. They can be easily changed or cleared at any time.

The _robust command is the driver program that computes the linearization variance estimator and design effects for the model estimators. Stata contains a suite of commands (the ml commands) to assist users in programming their own maximum-likelihood estimation commands. Using the _robust command in conjunction with the ml commands, users can produce linearization variance estimates for complex survey designs based on a likelihood function they have programmed (the likelihood must be nominally i.i.d. to use _robust).

Future Commands

Stata presently has about 60 other (i.e., non-svy) model estimation commands that estimate models other than the ones currently in the svy suite (e.g., negative binomial regression, Heckman selection model, etc.). Of these commands, 27 can produce linearization variance estimates for sampling weights and clustering. Many of these 27 are candidates for inclusion in the svy family of commands and given the ability to handle the same survey design characteristics as the present svy commands. Thus, the svy family of model estimation commands will likely have about 10-20 additions over the next year.

Most notably, Stata has extensive capabilities to perform survival analysis. In the near future, svy versions of the these commands (e.g., Cox regression, Weibull regression) will be released.

More specialized procedures for survey analysis are also anticipated in the future.

General Information About Stata

Stata is available for stand-alone Windows NT/98/95/3.1 machines, and a version for Windows NT servers is also available. Stata is available for the Macintosh and several Unix platforms: DEC Alpha, HP-9000, IBM RS/6000, Linux, and Sun

SPARC; custom compiles for other Unix platforms are also possible.

Stata can read essentially any ASCII-format data set. Stata loads the complete data set into RAM; hence, physical RAM should be larger than data set size. (It is, however, possible to read in only a portion of a large data set.) Stata saves data to disk in its own format, which can be transferred across platforms without translation. Third-party translation software is available for translation of other statistical software data formats (e.g., SAS, SPSS) into Stata's data set format. For more information, see our website: www.stata.com.

Stata comes with a 150-page "Getting Started" manual and a 6-volume (3000 pages) reference manual set. The Stata software has comprehensive on-line help and search facilities, with information on every Stata command. Stata offers technical support to all registered users: toll-free telephone (in the U.S. and Canada), E-mail, or fax. Turn-around time on E-mail technical support averages less than one day.

Several courses for learning Stata, from basic data management to advanced programming, are given over the Internet at various times throughout the year. These "NetCourses" have been extremely popular among our users. Again, see our website: www.stata.com for details.

Stata software can be purchased outright or leased. Academic pricing, volume discounts, and special student pricing for bulk purchase are available. Send E-mail to sales@stata.com for detailed pricing information.

For more information, contact

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Our website is the best place to start to learn more about Stata.

Question/Answer

As always, we welcome alternative views on the issues raised, comments on the answers provided, and especially *other good and practical questions.* Please send questions and observations to:

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Q40.1 The National Family Health Survey in India is designed to provide estimates for urban and rural domains in each State, and also for regions within certain large states. Within each domain, a 2-stage self-weighting sample of households was selected systematically, with PSU's selected with PPS from a single list arranged by explicit strata (defined in terms of 3 categorical variables), and within each explicit stratum, by a continuous variable (female literacy rate). In rural areas, generally villages formed the PSU's, with the following main exceptions: (i) small villages were linked together to form PSU's of a certain minimum size; (ii) large sample villages were segmented, and 2 segments selected per village. In urban areas, (iii) wards were selected first, and then one census enumeration block was selected per ward. And in either sector, (iv) minimum and maximum limits were put on the number of households which could be selected – as $b/2$ and $2 \cdot b$ respectively, where b is the target average number to be selected according to the design. How should the sample weights be adjusted to take (iv) into account? More generally, how can sampling errors be estimated for this complex design?

(T.K. Roy, India).

Firstly, in relation to your point (iv). Variations in the "sample-takes" per cluster arise from inaccuracies in the measures of size used for the selection of PSU's, and it is common and correct to put practical limits on the number of households to be selected from any PSU. Ideally, one would like to minimize departures from the intended self-weighting design, and tolerate variations in the sample-takes, as far as possible without serious effect on fieldwork logistics and operational costs. Generally, a wider range of variation in sample-takes can be tolerated in simpler and lighter surveys (such as a labor force survey), but a narrower range (even a fixed value) is necessary in the case of heavier and complex surveys (such as a household income and expenditure survey).

When the measures of size are very inaccurate, alternatives to the standard "PPS design" may be considered (please see Q/A31.1 for discussion).

The next issue, in a situation where limits have been imposed on the sample-take per cluster, is whether or not the data should be weighted for the resulting departures from self-weighting. The answer would depend on how many units are affected and by how much. This can be assessed by comparing, cluster-by-cluster, (a) the number of households which has been actually selected, with (b) the number which should have been selected according to the self-weighting design. If the departures in the two directions roughly balance out, and only a small proportion (say within 5% on either side) of the PSU's are affected, I would consider it unnecessary to introduce correctional weights. Note however that the above must be checked separately for each reporting domain, and not simply for the total sample only.

If the departures between (a) and (b) are unbalanced and/or are more substantial than the above, then it would be prudent to introduce weights to compensate for the variations introduced in the household selection probabilities. But even here, it is desirable to put limits on the maximum and minimum values of the weights applied – albeit broader than the limits on the variation in sample-takes imposed at the enumeration stage.

Computing Sampling Error

The basic requirement is to appropriately define PSU's and strata for the purpose of computing sampling errors.

Practical computational methods involve certain weighted quantities only at the PSU level, without

explicit reference to any details of the sub-sampling within the PSU's. The set of small villages in your (i), selected as a single unit, forms a single PSU; the same applies to the pair of clusters selected from a segmented village, in your (ii). In urban areas, census enumeration blocks form the effective PSU's, since a ward is merely an 'address' to the CEB's, only one of which is selected per ward.

The requirement in relation to stratification is that the computational strata are defined such that each contains at least two sample PSU's, which can be assumed to have been selected independently with replacement. While these requirements are not met strictly in a systematic sample, the common and accepted procedure is to pair, generally group, PSU's in the order in which they were selected to form computational strata (an alternative is to consider all pairs of successive units). The important point in your design is that the computational units so formed *are allowed to cut across the boundaries of the explicit strata* in the design, since, apart from providing ordering of the units for selection, those strata were disregarded in the actual selection from a single list.

Q40.2 A very large district-level survey (Reproductive and Child Health Rapid Household Survey) is being conducted in India, covering one half of the districts each year, hence the whole country over 2 years. The sample size is around 1,000 households per district, giving a total of 250,000 per year. Diverse ratio estimates at the district level are produced. State and All-India estimates are produced as weighted averages of district-level estimates, the weights being in proportion to the relevant population-base for each statistic. This is rather cumbersome, as it involves separate factors for practically every tabulation cell. Is this procedure correct? Can it be simplified?

(Sulabha Parsuraman, India)

As I understand, you put together district (d) level estimates for a ratio (r) to produce State and All-India levels estimates as

$$r_s = \Sigma_d P_{sd}^{(r)} . r_{sd} \; ; \; r = \Sigma_s P_s^{(r)} . r_s .$$

The weights, P, are proportional to the population base for r (e.g. total population for statistics such as the crude birth rate, the number of children for immunization coverage, the number of women in the child-bearing ages for fertility and contraceptive use, and the numbers in particular sub-categories of the above for a host of other health indicators). The total district population size P_{sd} is available from population projections, while the size of numerous other sub-populations of interest have to be estimated from the sample itself – generally in the form $P_{sd}^{(r)} = p_{sd}^{(r)} . P_{sd}$, where $p^{(r)}$ is the proportion in the sub-population, estimated from the sample. Clearly, with many variables and population bases involved, this form of aggregating the district level estimates is tedious.

A much easier (and statistically better) procedure is as follows. Let w_{sdj} be the sample weight of unit (person) j in district d, State s, as used in the production of district level estimates. For ratios and other such statistics, these weights can be scaled arbitrarily. For producing district level estimates and aggregating them to State and All-India levels, all we need is to scale the weights such that their *sum over the district is proportional to the district population*, and *sum over the State is proportional to the State population*. For instance:

$$w'_{sdj} = k . \left(\frac{P_s}{P_{s(i)}} \right) \left(\frac{P_{sd}}{w_{sd}} \right) w_{sdj}$$

where $w_{sd} = \Sigma w_{sdj}$, summed over sample cases in the district; P_{sd} = population of district d; $P_{s(i)}$ = population of districts in the sample for year i, i =1,2; k = an arbitrary constant, such as 10^{-3}. The quantities P_{sd} are normally available from an external source, such as population projections. In principle, no further adjustment is required to the weights for different types of statistics (r), in so far as the sample itself ensures (within the margins of sampling error) that a correct proportion (p_{sd}) of cases relevant for the statistic concerned appears in the above estimate. Where the required external information is available, it is possible (and preferable) to use a different set of P_{sd} values for each major sub-population for which the survey results are required, such as the total number of persons, the number of children, the number of eligible women, etc., in your case.

Where no external information is available on the population sizes P_{sd}, correct (but generally less precise) estimates and aggregates are produced simply by taking the weights w_{sdj} as *equal* (rather than merely proportional) to the inverse of the actual selection probabilities of the units.

A More Serious Problem in Producing State and All-India Level Estimates

Let me comment on a more serious problem arising from the sample design you have chosen. In India, districts are very large units (average population 2 million), with only a small number per State (from a minimum of 2 in Goa to a maximum of 65 in UP). Furthermore, they are very heterogeneous in size and characteristics. Hence a 1-in-2 equal probability sample hardly provide a good representation of the whole State. (Imagine a sample excluding Mumbai from Maharastra or Calcutta from West Bengal!). This is the real difficulty in using a single year sample to provide annual State and All-India estimates. Of course, pooling the sample over 2 years covers all districts and hence provides a full representation for the State – but with two important limitations: (i) State-level estimates can be produced only over a two-year period; and (ii) even for the two-year period, the sample is not well-distributed over time.

In my view, a much better approach would be to *survey all districts each year* (rather than only half of them), halving the sample number of clusters and households in each district to keep the same sample size. (If necessary, the sample size can be marginally reduced to compensate for any increased cost of covering more districts.) Even with the reduced sample, some selected statistics can be produced at the district level annually, and the full set from data aggregated over two years. The major advantage will be that the same time period is covered uniformly in all districts – *making district level comparisons more valid.* And of course at the State and All-India levels, valid annual estimates will be produced.

Country Reports

ARGENTINA (from Clyde Trabuchi)

Technological and methodological innovations in 2000 Census in Argentina: Argentina is preparing the 2000 Population, Households and Housing Census. The National Institute of Statistics and Censuses (INDEC) is planning to introduce technological and methodological innovations in order to improve the speed of information processing and to provide information on important social and economic changes of the nineties.

As well as the traditional OMR, this Census will incorporate an OCR System to read information from the questionnaires. This system, combined with new computer coding, will help to accelerate the data processing. The Census schedule calls for final results derived from all variables to be ready in less than two years.

Also, INDEC has addressed the need for valid information about important changes that occurred since the 1991 Census. New methodology to measure complex phenomena has been developed. These phenomena include spatial mobility (commuting), economic activity (especially irregular, informal and low qualified activities), and poverty.

Traditional ways of measuring economic activity and occupational category have been modified to attain a deeper knowledge of economic activity. This will particularly affect the collection of data about irregular, precarious and informal activities.

The 2000 Population Census of Argentina will also identify vulnerable groups within the population (disabled, aborigines, migrants) as a basis for post-census household surveys that will provide more accurate knowledge of these groups.

Argentina will not use samples (as used since 1980) because there is an interest in producing local information for the Georeferencial Information System (GIS) which is planned for inclusion in 2000.

For additional information, please contact Alejandro Giusti, Direccion Nacional de Estadisticas Sociales y de Poblacion, INDEC, Julio A. Roca 615 (CP 1067) Buenos Aires, Argentina. E-mail: agius@indec.mecon.ar.

AUSTRALIA (from Susan Linacre)

Commonwealth Register of Surveys of Businesses: Two issues for those planning a survey are (i) does an adequate data source already exist; and (ii) are there similar surveys which can provide guidance and assistance in designing their survey. The Australian Bureau of Statistics (ABS) Statistical Clearing House (SCH) reviews business surveys undertaken by Australian Commonwealth agencies that involve 50 or more businesses. The primary purposes of the SCH are to ensure the respondent load imposed by business surveys is justified and to promote and encourage best practice survey methodology in business surveys.

An important component of this SCH process is the dissemination of the survey metadata relating to the surveys it reviews through the Commonwealth Register of Surveys of Businesses (www.abs.sch.gov.au). This metadata is comprehensive and covers general survey information, survey objectives, alternate sources of data, data outputs, questionnaire design, data collection, respondent load, population frames, sample design, data processing, estimation and analysis.

For further information on the SCH or the Commonwealth Register of Surveys of Businesses, please contact the Director, SCH on (02) 6252 6812 or e-mail: sch@abs.gov.au.

The **Survey of Employment Arrangements and Superannuation** is a new ABS household survey, to be run in the first half of 2000, to improve understanding of the structure of the labor market and of people's superannuation arrangements given the emergence of more non-standard working arrangements. Given that government policy in many fields, including superannuation, is underpinned by people being in 'standard' employment, it is critical for government to understand the extent, if any, to which this situation has changed and what new arrangements are emerging. The survey will describe the nature of the population's employment arrangements, in particular the extent of, characteristics of, and reasons for, different types of working arrangements and the degree of 'standardness' and 'precariousness' associated with the employment. It will also describe the population's superannuation

arrangements, with particular emphasis on how these vary according to different employment arrangements.

Results from the survey are expected to become available in April 2001.

For more information, please contact: Mel Butler, ABS, telephone: 61 6 252 5936, fax 61 6 252 8013, E-mail mel.butler@abs.gov.au

The **Survey of Business Expectations** has been conducted by the ABS since December 1993 and is the only expectations survey in Australia which provides both a qualitative indicator of business confidence (a weighted net balance) and a quantitative measure of expected change (a weighted aggregate) in both the short term (next three months) and the medium term (the current quarter of the following year) for a range of business performance indicators.

It is a quarterly survey covering approximately 3000 businesses across all industries except agriculture, forestry and fishing; general government; and private households. Data items included are operating income, selling prices, profit, capital expenditure, inventories, employment, wage and salary expenses, other 'labor' expenses and other expenses. Data is usually published the week before the quarter to which it relates and is classified by industry, business size and State or Territory.

For more information, please contact: Sheridan Pritchard, ABS, telephone 61 2 6252 5521.

CANADA (from Gordon Brackstone)

The **National Population Health Survey** (NPHS) is designed to collect information related to the health of the Canadian population. The NPHS target population includes household residents in all provinces and territories, except persons living on Indian Reserves, Canadian Forces Bases and in some remote areas. An institutional component of the survey covers long-term residents of hospitals and residential care facilities. As well as cross-sectional information, the survey collects data from a panel of individuals at two-year intervals. Panel respondents (one per selected dwelling) constitute the longitudinal sample that will be surveyed for up to twenty years. The second wave of data collection covered residents in the households of panel members. Three provincial ministries of health provided extra funding for supplemental Random Digit Dialing samples to allow subprovincial estimates. An RDD sample design taking into account the subprovincial requirements was completed, and a weighting strategy incorporating the core and RDD samples was developed.

The questionnaire includes components on health status, use of health services, risk factors and demographic and socioeconomic variables including age, sex, education, ethnicity, household income and labor force status. The special focus of the second wave was access to services and alcohol dependency. Data collection was carried out in four periods: June, August and November 1996 and March 1997, with a special follow-up of nonrespondents in June 1997. RDD collection started in June 1996 and ended in August 1997. From the 17,276 eligible longitudinal panel members from 1994-95 who were followed up in 1996-97, a response rate of 94% was achieved. A public-use microdata file was released in the format of a CD ROM in October 1998. Provincial sharing files were produced in September. Customized tabulations will also be made available.

The third wave of data collection commenced in June 1998. The special focus of this wave is self-care and family history. Additional sample has been taken to include recent immigrants and newborns in the cross-sectional target population. There is also a special supplement to the core survey on Food Insecurity. For more information, contact Gary Catlin (613-951-8571, e-mail: catlgar@statcan.ca), Health Statistics Division or Johane Dufour (613-951-0088 or dufourj@statcan.ca), Household Survey Methods Division, Statistics Canada, Ottawa, Ont., K1A 0T6.

In May 1999 Statistics Canada will collect data for the **Survey of Financial Security (SFS)**. The main objectives of the survey are: to gather information on wealth distribution among Canadian population; to develop a profile of the people holding different types of assets and debts, and to evaluate the changes in asset holdings over the past few decades. The last time Statistics Canada conducted a survey on assets and debts was 1984. This time the survey design is improved by the use

of a high-income sample to better estimate the high end of the wealth distribution. The content is also improved by valuing employer pensions and examining the dynamics of indebtedness.

The survey makes use of a two-frame design. A sample of 21,000 households is selected from an area frame and another 2,000 are drawn from an address register to improve coverage of high-income households. Although the latter sample is drawn from a list frame, address eligibility is based on proportion of high-income households within a given area. Consequently, the sample design is similar to one using two area frames; income calibration will be required to improve reliability of the estimates.

Data collection is done by face-to-face interviews. Because this is a voluntary survey, every effort is made to ensure a good response rate. The Interviewer Manual contains a "questions and answers" section to assist them in convincing respondents of the need for the information. Prior to the interview, selected households are sent an information package which includes an introductory letter and a brochure that provides information on survey objectives, data uses, and the confidentiality of the information collected. In addition, response burden is reduced by offering the respondents the option of granting Statistics Canada permission to retrieve tax and pension information from administrative sources. This will eliminate the need to ask a series of income questions. For more information, contact Michel Latouche, Social Surveys Methods Division, Statistics Canada, Jean Talon Building, 5th floor, section D8, Ottawa, Ontario, Canada, K1A 0T6 or latomic@statcan.ca.

CENTRAL AMERICA AND PANAMA (from David J. Fitch)

Perhaps I could continue to try to give members some feel for the situation in a developing country that depends to a great extent on financial support from donor and lending organizations in order to carry out survey work. The Bank of Guatemala decided it was important to have information on the incomes and expenditures of the people of the country. The government was able to obtain a loan of one million US dollars from the Interamerican Development Bank (IDB), which is headquartered in Washington, DC. They appropriated an equal amount and a large survey was carried out over calendar year 1998. Analysis plans are currently being developed.

As far as I have been able to determine the IDB does not have experts in survey sampling—their people, as well as those at the World Bank (WB), being mainly economists and not much into sampling—but rather they depend on consultants that they employ to advise on, or direct, surveys which they finance. In this case they engaged a sampling statistician from the statistical services of a small South American country. As a member of the advisory committee and friend of our statistical services here, INE, I have followed things a bit. The consultant—my guess the best sampling statistician in his country—works hard and is much interested in sampling theory. A problem is that, apparently, the best he has available to him is Cochran, 1977. Although he seems to have correctly showed them how to calculate weights, he was having INE estimate variances as if the denominator in the ratio mean was a fixed quantity. He has been able to turn them around on a grave error they were about to make. They were going to analyze the data as if they were from a simple random sample. He and I are working together and things may turn out all right. But, at least as I see it, there is a need, in order to waste less money and to give developing world people examples of efficient survey work, for organizations such as the WHO, USAID, WB, and IDB to have competent sampling statisticians on their staffs, and enough of them to be able to help with the surveys they finance and promote. Our President, Nanjamma Chinnappa, has suggested that perhaps we of the IASS should try to find a way of offering our help.

My address for anyone wishing to think about these things is: Instituto de Nutrition de Centro America y Panama, Apartado Postal 1188, Guatemala, Central America, E-mail: dfitch@incap.org.gt. Or perhaps we can get together in Helsinki where my paper will pertain to these things.

FRANCE (from Benoit Riandey)

The new French census: In March 1999, INSEE (Institut National de la Statistique et des Etudes Economiques - National Institute of Statistics and Economic Studies) conducted the 33rd general census of the population, probably the last in

France in its current form. The countries of northern Europe have abandoned the expensive data collection of a census and replaced it using a general registry of the population. Is France getting ready to follow this EUROSTAT recommendation? Not at all, as the State and the communes are not authorized to create either a general or local registry of their populations. In fact, the French are fairly favourably inclined towards their census but postponing the census from 1997 to 1999 for financial reasons convinced INSEE of the need for change.

The new procedure aims at improving the freshness and quality of the data distributed. To do this, information from data collection spread over five years, data gathered previously and a Répertoire d'Immeubles Localisés (Registry of Buildings by Location), which will be created in the large communes, will be used. A census will be held every five years in the small communes and there will be a survey every year in one out of every five buildings in the large communes. Thus, every year, survey statisticians would have a new micro-census of one fifth of the population to build their survey samples. Such a survey frame, always up-to-date and with such a wealth of information, would have been Neyman's dream!

On the other hand, the census will no longer be operated "as a census". The enumeration of the population will be based on complex statistics. However, Parliament, where statisticians are few and far between, is still to be convinced and the experience in the United States reminds us that they are not always easily persuaded.

This project should not let us forget the current census. Distributing and retrieving the forms is done by census takers, not by mail. The individual forms and the accommodation sheet will remain in their usual format (A4 and A3 respectively in back-to-back format) and provide great continuity with those of previous censuses (1982 and 1990). Some supplementary questions should be noted on the level of education of all young people, from kindergarten to university, the means of transportation between the home and the place of work as well as more detail on housing accommodations. Incomes, religion and ethnic origins are not part of French censuses. For the first time, the forms will be processed using optical capture and the word answers will be analyzed using automatic coding software.

Two non-mandatory area surveys will be linked to the census: the Daily Life and Health survey, conducted in one district out of 200, will constitute the first phase for our first national survey on handicaps (described in issue number 39). The survey on family history will be conducted in one district out of 50. For the first time, this retrospective survey on nuptiality and fertility is to be answered by men as well as by women. In certain districts, all men of legal age will fill out a complementary four-page questionnaire. In others, it is the women who fill them out. This questionnaire, completed immediately after the census form, describes current or past unions (common-law or marriage), children, including adopted children and those of the spouse, family origins, languages spoken within the family and their transfer from one generation to the next. Completed questionnaires are addressed directly to INSEE. The demographers (laurent.toulemon@insee.fr) expect great things from this ground-breaking questionnaire.

As you see, this "last" census deserves your interest and an exchange with Michel Jacod (michel.jacod@insee.fr), Chantal Madinier, Michel Isnard, Francois Héran and Laurent Toulemon, but only after the excitement of the data collection is past.

ITALY (from Claudio Quintano)

An information system, named SIDI, is being implemented by ISTAT in order to document the survey production process and to support the quality control activity. Potential users of SIDI are the final users of statistical information, the survey designers and the survey managers. SIDI can be regarded both as a meta-information management system and as a tool for monitoring the survey production process. It will provide the survey manager with a generalized software environment for the evaluation of quality indicators. The meta-information managed in the system concerns: the planning of the survey, i.e. the information content, definitions and classifications, pre-testing of procedures; the survey methodology and the survey operation, such as the survey design, the data collection technique, the data capture, the edit

and imputation procedures; the specification of input and output data repositories related to each operation; the planning and implementation of quality control procedures for monitoring each operation. The set of standard quality indicators has been defined in order to represent differences in data quality taking into account as much as possible the different features of ISTAT surveys.

For further information, please contact Marina Signore, Servizio SME, ISTAT, via Cesare Balbo 16, 00100 Roma, tel. +39 06 46733194, fax: +39 06 46733221.

JAPAN (from Chikio Hayashi)

In Japan, the image of both nuclear power and nuclear power generation is bad. A survey by C. Hayashi in 1993 was conducted to elucidate the attitude toward nuclear power in the Kansai area, a region located in the western part of Japan. Hayashi's survey proved that the bad image is the result of the influence of the atomic bombs dropped on Japan. However the survey showed also that there are a great number of people who think that it is a realistic option to use nuclear power generation, with a small number of people having a clear opinion (positive or negative) about the use of nuclear power generation. This corresponds to the Japanese actual attitude toward nuclear power generation. Therefore, it can be expected that troubles related to nuclear power generation would strongly affect their attitudes.

In 1995 and 1997, two incidents took place at two different nuclear facilities in Japan. These incidents were widely covered by the mass media. Following the second incident, the Institute of Nuclear Safety System (INSS) conducted a panel survey, using the same subjects N=1138 as those in the 1993 survey. The aim was to examine the changes in the public's attitude toward nuclear power generation. A total of 578 questionnaires (50.8%) were completed. The homogeneity of the respondents and non-respondent groups was confirmed, comparing their responses to the main items of the questionnaire used in the first survey.

The results showed that (1) anxiety about nuclear incidents tended to increase, and (2) the proportion of respondents whose anxiety about nuclear incidents decreased was smaller than the proportion of respondents whose anxiety about other kinds of incidents (e.g., traffic accidents) decreased. However, there were no significant changes in the tendency to think that it is a realistic choice to use nuclear power generation. That is, 60% of the respondents were found to support (with or without conditions) the use of this kind of power generation.

At the same time, another survey using probability sampling was also conducted in the Kansai area to test the validity of the results obtained in the panel survey. The results did not reveal significant differences between the two surveys.

Based on the results of the panel survey and the new survey, we can conclude that the two incidents did not have such a great influence on the public's attitudes towards the use of nuclear power generation.

For additional information, please contact Toshihiro Matsuda, Institute of Nuclear Safety System, 64 Sata, Mihama-cho, Mikata-gun, Fukui 919-1205. E-mail: matsuda@inss.co.jp

New Zealand (from Robert Templeton)

The Time Use Survey interviewing began as scheduled on 4 July 1998 and half of the year-long data collection phase has now been completed. Up to two people are interviewed in each selected household. Statistics New Zealand has had a very positive response to the survey achieving a response rate of 75% for the first 6 months of the survey. The supplementary sample of Maori respondents has achieved a slightly lower response rate of 67%. The first output from the survey, based on 6 months of data, is due to be provided to the Ministry of Women's Affairs by the 31st of May 1999.

The New Zealand Childcare Survey was administered as a supplement to the Household Labor Force Survey (HLFS) in the September 1998 quarter. Information was collected about the care and educational arrangements of children. The response rate to the HLFS in the September 1998 quarter was 91%. Of those people who belonged to fully responding HLFS households, and who were eligible to participate in the Childcare Survey, 95%

provided a full response, this is referred to as the supplement co-operation rate.

The 1999 Gaming Survey was carried out using telephone interviewing during the March 1999 quarter. Statistics New Zealand took several steps to ensure that a high response rate was achieved, and the quality of the survey results were maintained. One technique trialed in the field test was to send pre-notification letters to survey participants, informing them that an SNZ interviewer would soon be contacting them. This appeared to improve the overall response rate and was used in the actual survey where the response rate achieved was 75%.

SNZ has also obtained funding from MoRST (the Ministry of Research, Science and Technology) to develop and test the methodology for a new Longitudinal Survey of Income Dynamics. The purpose of the survey will be to provide information on the changes New Zealanders experience over time in income, labor market activity, family situation and wealth, and the factors affecting those changes. This will be used to inform government policy in such areas as taxation, income support, employment and provision for retirement.

The survey being developed is a single panel of people who will be interviewed every 12 months over a period of six to eight years. The panel members will be obtained by taking all household members from a national probability sample of households. The households will be selected using a stratified cluster design at the first wave of the survey. In subsequent waves data will be collected not only from the panel members, but also from any other individuals currently living in their household.

Work is currently progressing on the development of the collection methodology that will be tested in a two-wave pilot survey, beginning in July 1999. For the first time in SNZ an electronic questionnaire is being developed. This will be administered in the field by interviewers running BLAISE software on laptop computers. Work is also progressing on sample design issues and weighting methods.

For the 2001 Census we are in the first stages of finding out more about what the possibilities for alpha recognition are. We conducted one test by asking employees from SNZ to fill out a one page A4 questionnaire. This showed that in 25% of the answers the recognised answer had more characters than the true answer. Analysing the other 75% showed that overall the system recognises 90% of the letters accurately. We will analyse the 25% further. We are also working on our second test questionnaire, which will be filled out by wider groups of the community. We plan to test alpha recognition in combination with automatic coding in this test.

Numeric recognition was used in 1996 and we will again be incorporating this in the 2001 Census. The results of this study were recently published in the report: 'Numeric Recognition Study', 1998, Research Report #4 available from our website http:\\www.stats.govt.nz.

In the area of economic statistics we have commenced work on developing a Quarterly Financial Account survey to collect information on New Zealand's investment stocks and flows and the associated income flows with non-residents. This work is part of a larger project to publish Balance of Payments and International Investment Position statistics using the latest BoP Manual from the International Monetary Fund—the fifth edition. BoP data is quite skewed in that there are a small number of companies that contribute significantly to the totals and a lot of smaller companies that contribute small insignificant amounts. For this reason, we have decided on a small partial coverage survey, which will focus on getting quality data from those companies that are significant in terms of their BoP transactions. At this stage we are planning to supplement the quarterly with an annual survey of the smaller companies so that we can adjust for the undercoverage of the quarterly. We will also have a Census every 3 years to check the validity of the quarterly sample and to redesign the annual.

The survey previously known as the Annual Enterprise Survey (AES) has a new name. It has become the Annual Financial Accounts Survey (AFAS). The survey is currently in the second phase of a redevelopment to allow National Accounts to construct more detailed sector account estimates. Greater emphasis is also being placed on managing respondent load, with greater use of administrative data, new improved questionnaires, and changes to the sample design which sees the survey being split into three components. The survey has also been extended to include industries

not previously covered. The redevelopment also sees the survey moving to a Lotus Notes based survey processing system, known as SProceT. This is a recent in-house development of Statistics New Zealand.

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.)

The Philippines hosted the **3rd Conference on Statistical Computing of the Asian Regional Section (ARS) of the International Association for Statistical Computing**. The conference was held simultaneously with the **7th National Convention on Statistics (NCS)** on December 2-4, 1998 in Manila. The joint event provided a forum for foreign and local statisticians to exchange ideas, experiences, and recent developments in various applications of statistical methods and statistical computing.

The 3rd ARS Conference featured 60 invited and contributed papers on the following topics: 1) Multivariate Statistical Modeling and Data Analysis; 2) Statistical Software for Education; 3) Computer Intensive Methods in Statistics Modeling; 4) Application in Policy Analysis; 5) Statistical Method for Large Complex Data Sets; 6) Biostatistics and Clinical Trials; 7) Remote Sensing and the Environment; 8) Statistical Process Control; 9) Experimental Designs; 10) Graphical Models; 11) Environmental Statistics; 12) Demographic and Health Statistics; 13) Geographic Information System (GIS) Applications; 14) Exploratory Data Analysis; 15) On-line Statistical Data Bases; and 16) Micro Data Analysis.

In the 7th NCS, 60 papers were presented. The papers covered a wide range of topics as follows: 1) Dissemination of Statistics; 2) Local Development Planning Statistics; 3) Environment Statistics; 4) National Accounts; 5) Application of Information Technology in Statistics; 6) Education Statistics; 7) Population and Migration Statistics; 8) Poverty and Welfare Statistics; 9) Labor and Employment Statistics; 10) Agricultural Statistics; 11) Statistical Quality Control; 12) Statistical Theory and Methodology; 13) Health and Nutrition Statistics; 14) Science and Technology Statistics; 15) Money and Banking Statistics; 16) Small Area Statistics; 17) Market Surveys; 18) Centennial Related Statistics; 19) Gender Statistics; 20) Geographic Information System; 21) Industrial Statistics; 22) Statistical Education and Training; 23) Data Collection, Analysis and Interpretation; and 24) Technical Cooperation Among Developing Countries in Statistics.

Several countries including China, India, Indonesia, Italy, Japan, Korea, Malaysia, Taiwan, Thailand and the USA were represented in the 3rd ARS Conference. A total of 89 delegates mostly coming from different universities attended the conference. Meanwhile, 679 participants attended the 7th NCS. The support extended by regional line agencies and local government units was very well recognized as regional participation accounted for 43% of the total number of participants.

The National Statistical Coordination Board (NSCB) served as secretariat to the Joint Conference. For more information, contact Dr. Romulo A. Virola of NSCB by e-mail: info@nscb.gov.ph

The **National Health Accounts (NHA)** were developed by the University of the Philippines Economic (UPECON) Foundation and are being institutionalized in the NSCB. As a satellite account of the Philippine System of National Accounts (PSNA), the NHA matrix shows the total health care expenditures on goods and services and sources of financing in a given year for the country as a whole. Specifically, it presents (a) how much was spent for health care in the Philippines, (b) who paid for health care (sources of funds), and (c) what was paid for (uses of funds). For more details, contact Dr. Romulo A. Virola of NSCB by e-mail: info@nscb.gov.ph

In order to provide quick, more consistent and reliable information on business performance, the two major industrial surveys of the Philippine government, namely, the DTI-MIS Industry Survey of the Department of Trade and Industry (DTI) and the Survey of the Key Establishments in Manufacturing (SKEM) of the National Statistics Office (NSO) have been integrated to form the **Monthly Integrated Survey on Selected Industries (MISSI)**. This joint government and

private sector undertaking was made possible through the signing of a Memorandum of Understanding (MOU) on February 25, 1998 by DTI, NSO, NSCB, Federation of Philippine Industries (FPI) and Philippine Chamber of Commerce and Industries (PCCI). A special Technical Working Group (TWG) composed of representatives from these agencies was created to take care of the technical details of the design, operations, analysis and information dissemination of the MISSI.

The MISSI questionnaire was pre-tested to ensure the success of the integration of the two surveys. The new MISSI questionnaire was used starting in August 1998.

The MISSI is expected to reduce the response burden and maximize the use of government resources. It has an expanded and improved sample distribution resulting from the integration of the two surveys. The NSO is now responsible for the collection and processing of the MISSI questionnaire and for preparing the press release within 45 days after the reference month. To reconcile the data requirements and classification systems being used by both NSO and DTI, a conversion matrix was conceptualized by the TWG. The computer program for the conversion matrix is being developed by the NSO.

For more information, contact Administrator Tomas P. Africa of NSO by E-mail: Africa@mail.census.gov.ph

SPAIN (from Carlos Ballano)

The data collection for the 1999 **Fertility Survey** was started in November 1998. The corresponding fieldwork was finished in February this year. The objective of the survey was to collect information on variables concerning women's fertility and breeding capacity. It contains the United Nations questions as well as some referring exclusively to national matters. It allows comparability with the surveys carried out in 1985 and 1977, and will analyse household data.

The survey is made up of the following questionnaires: one for household data, one for women aged 50 and over, the main one for women in the fertile years (from 15 to 49), and the last one for the latter's cohabitants.

The survey size is 14,000 households and the interviews are personal with the help of hand-held computers.

The results will be published by the end of 1999; estimates will be made at the national level and for autonomous communities (NUTS II).

The **Labor Force Survey** (LFS), whose objective is the measurement of the Spanish labor market characteristics, was modified in January 1999. The modification was introduced in order to include the items of the latest European Union Labor Force Survey questionnaire and to harmonize the schedules of the EU and Spanish surveys.

The LFS comprises a system of ad hoc modules for the second quarter and a fixed module, concerned with labor conditions, for the first quarter. The 1999 ad hoc module will tackle *Occupational Accidents and Diseases;* that of the year 2000 will look at the *Transition from Schooling to Occupational Activity.*

Further questions have been introduced for the evaluation of underemployment due to too few working hours.

Emphasis should be laid on new information elements that are interesting from the national point of view: the measurement of employment supplied through enterprises on a temporary basis, the addition of questions which make it possible to compare LFS data with those from other sources and to calculate approximately underemployment that is not accounted for by too few working hours.

The new LFS's first results, referring to this year's first quarter, will be published on May 19, 1999.

TURKEY (from Oztas Ayhan)

In this issue, I would like to give you information about two important sample surveys which were recently conducted in Turkey.

Turkish International Migration Survey. For the 1998 Turkish International Migration Survey, the first design issue was to determine the universe of the survey from which a sample would be selected.

The second issue was to stratify the population into four regions. These are not the conventional regions used in previous surveys. They are artificially constructed taking into account the migration status of the areas. The geographical proximity of areas was not a constraint in forming regions.

Another stratification variable used was based on the proportion of migrating persons within the region. This was achieved by dividing the localities into high or low migration status groups. The fieldwork was completed in two stages. The first stage consisted of screening of large blocks in selected areas for possible migration status. The second stage involved selection of fixed sized clusters (b=12) from these blocks and enumerating them as compact segments.

The Turkish International Migration Survey fieldwork was conducted during the spring of 1998. The budgetary constraints limited the conduct of interviews to only 1800 households. The survey results are weighted using a standardization procedure that went down as far as the block level within each strata. The adjustment weighting procedure sequentially took into account the unequal selection probability, unequal migration status (between screening and survey), household unit nonresponse, and individual non-response components.

For more information, please contact Professor Aykut Toros, Director, *Institute of Population Studies, Hacettepe University,* Ankara, Turkey. fax: + 90 312 311 8141.

Demographic and Health Survey 1998. In Turkey, cross-sectional demographic surveys have been conducted every 5 years since 1968. The latest survey in this series was conducted during the autumn of 1998 and the draft report of findings was released in December 1998.

The sample design was based on a stratified multistage weighted cluster sample approach. For national representation, a sample size of n = 10000 households was selected. Preliminary results indicated a household response rate of 94% and an individual response rate of 91% for the total sample. The personal interview questionnaire also contained all standard fertility survey questions as well as some basic questions on health status indicators. The final survey report is under preparation and expected to be relased in mid 1999.

For more information, please contact Professor Aykut Toros, Director, *Institute of Population Studies, Hacettepe University,* Ankara, Turkey. fax: + 90 312 311 8141.

UNITED STATES (from Daniel Kasprzyk)

The U.S. National Center for Education Statistics (NCES) of the U.S. Department of Education will undertake several national data collection activities associated with cooperative international projects over the next few years. This year NCES is undertaking a partial replication of the Third International Mathematics and Science Study (TIMSS), a comparative study of student achievement in mathematics and science involving 45 countries, three student populations and five grade levels. The study replication, known as **TIMSS-R**, will provide an opportunity for nations that participated in the first administration of TIMSS to monitor trends in mathematics and science achievement of 8th grade students.

TIMSS-R will use the same administrative procedures, quality control measures, and apply the same technical standards as TIMSS. The assessment framework, sampling design, data collection, and reporting procedures will also be the same as those used in TIMSS. Clusters of secured assessment items from TIMSS will be used, along with newly developed items that parallel the range of topics and skills and are developed to the same subject specifications found in TIMSS. TIMSS-R also includes student, teacher, and school questionnaires to collect contextual information about instruction and learning.

In conjunction with TIMSS-R, NCES is planning a replication of the Videotape Classroom Study **(TIMSS-R Video)**. This study will expand on the design and methodology of the prior TIMSS Videotape Classroom Study by including eighth-grade science classrooms as well as mathematics classrooms in a greater number of participating nations. The primary goal of TIMSS-R Video is to provide a source of information regarding instructional practices in eighth-grade mathematics and science classrooms in the U.S. and other

nations. The current plan calls for collecting randomly selected videotaped lessons from 200 classrooms—100 mathematics and 100 science lessons. Once collected, the videotape data will be digitized, transcribed, translated, and coded using state-of-the-art computer software developed specifically for this purpose.

During the 1999 school year, the **International Association for the Evaluation of Educational Achievement (IEA) Civics Education Study** (CES) will examine the meaning of effective citizenship in twenty-seven participating nations, including the status of civic education, and the role of the school and teachers in this process. The focus will be on three domains of civic education—democracy, national identity, and social cohesion and diversity. The study will include a test assessing the civic-related knowledge of students and a survey on students' attitudes toward an understanding of institutions, issues, groups, actions, and practices, as well as documenting their previous participation in or interest in civic activities. Teacher and school questionnaires will also be included.

Finally, NCES, Statistics Canada, and the OECD are collaborating to conduct the International Life Skills Study (**ILSS**). In 2000, ILSS will measure the skills of adults aged 16 to 65 in as many as seven areas—prose literacy, document literacy, numeracy, problem-solving, team-work, practical cognition, and computer familiarity. Adults in up to ten countries will be given background questionnaires as well as an assessment. More information about the NCES' international studies program may be obtained by calling the TIMSS information line at 202-219-1333 or by e-mail: TIMSS@ed.gov

Two reports designed primarily for users of data developed and collected by the U.S. National Center for Education Statistics (NCES) have wider applicability to survey methodologists. The first report will emphasize descriptions of imputation procedures used by each data collection program of NCES, and will include as well a brief study description, the sample size, mode of data collection, unit and item nonresponse rates. The report will be available in the winter of 1999. The second report, "National Center for Education Statistics Handbook of Methods," is under development. The report will provide descriptions of some 33 NCES data collections and will include summaries of the survey design and methodology for each data collection. Each chapter will include an overview of the survey, a discussion of key concepts, survey design, data quality and comparability, uses and availability of the data, and a list of references for additional information. For more information about these reports, contact Marilyn McMillen at 202-219-1781 or e-mail: marilyn_mcmillen@ed.gov.

The Second International Conference on Establishment Surveys

The Second International Conference on Establishment Surveys (ICES-II) will be held June 17-21, 2000, in Buffalo, New York. Since the first ICES was held in 1993, many new techniques have been implemented by practitioners around the globe. With the new millennium upon us, it is time for a forward look at methods for surveying businesses, farms, and institutions. ICES-II will contain invited and contributed paper sessions, software demonstrations, and short courses. The preliminary program can now be seen on our website. A hardcover volume of the invited papers—as well as CD-ROMs of the invited and contributed papers—will be produced after the conference.

A competition soliciting proposals for invited paper sessions drew a healthy response. From the submissions about 30 sessions were selected, representing authors in the statistical and economic communities from around the globe and a correspondingly wide range of topics. Among the themes to be presented are the use of cognitive methods in establishment surveys, statistical graphics, Poisson sampling, coordinating sampling between and within surveys, strategies for editing and imputation, trend estimation, generalized systems for processing and for estimation, linking longitudinal business and household data, E-mail and web-based data collection, outliers, business registers, variance estimation with imputed data, seasonal adjustment, coverage in school sampling frames, business metadata, the use of administrative records, and the measurement of commodity flows.

At this time, the organizing committee is soliciting abstracts for contributed papers. The focus of all papers must be on surveys of businesses, farms, or institutions--such as schools, prisons, hospitals, and nursing homes--or issues related to their products. Individuals are encouraged to organize special contributed paper sessions. Potential topics include those in the following general areas: registers and frames; survey design, sampling, and estimation; data collection and processing; data dissemination; and the analysis of economic data. More specifically, conference organizers hope to elicit presentations describing research and experiences in survey coordination, the use of administrative records, issues with multiple frames, electronic reporting, respondent burden, web publishing, international comparisons, the effects of survey errors on economic indicators, and other cutting-edge issues.

Abstracts for contributed papers and software demonstrations must be received by December 1, 1999. Information on the conference, submitting abstracts, special contributed paper sessions, and registration can be obtained on our website at www.eia.doe.gov/ices2/index.html. General questions about the conference can be addressed to John G. Kovar at kovar@statcan.ca.

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