The conference fees are Birr 20 for nationals, Birr 100 for participants from developing countries (approx. USD 16) and USD 100 for participants from developed countries and international organizations. For each of the two workshops, there will be an additional registration fee of Birr 100. All enquiries may be directed to either of two persons mentioned above.

The importance of the African Conference

The organizers of the Addis Ababa Conference have done their utmost to plan for an interesting meeting of high quality and a programme of solid statistical content with the view of providing a forum for rewarding discussions on methodology and practice in the context of official statistics in the developing world. It is their sincere hope that this event will arouse the interest of many IAOS and ISI members as well as others interested in official statistics and/or economic and social development and lead to their participation. There is ample evidence that the Conference has already aroused much interest and is being much welcomed by the African statistical community. It is clear, however, that the success of the Conference will not only depend on the participation of African statisticians but also on the attendence of statisticians from the developed world. The IAOS Executive Committee would therefore like to encourage individual IAOS and ISI members as well as institutional members to participate in the Conference and thus to contribute to the cooperation among statisticians from the developed and the developing world.

PLANS FOR A SATELLITE CONFERENCE IN AUGUST ABANDONED

The investigations mentioned in the last Newsletter of holding an IAOS satellite conference in conjunction with the Beijing session in August did not prove fruitful. This was the result of a number of factors; meeting schedules proved to be very tight, it was difficult to find conveniently located organizers who were able to undertake such a venture and that it turned out to be problematic to fit such a meeting in with the main travelling plans for participants in the Beijing meeting. Hence, plans for such a satellite conference have been abandoned.

FIFTH INDEPENDENT CONFERENCE IN REYKJAVIK IN JULY 1996

As mentioned in the last Newsletter, the fifth independent conference of the IAOS will be held in Reykjavik, Iceland. The conference will be hosted by Statistics Iceland and be organized by a local organizing committee headed by its Director-General, the incumbent but by that time former President of the IAOS, Hallgrimur Snørrason. The organizers have now fixed the conference dates in the first week of July 1996. Of the main subjects of the conference, mention can be made of reducing the response load of businesses through increased use of their information systems, the concomitant increased utilization of registers for the generation of official statistics and marketing and dissemination of official statistics. The organizers would welcome any suggestions for topics under these or related headings as well as for organizers and speakers.

INTERNATIONAL ASSOCIATION FOR STATISTICAL EDUCATION

NEWS AND ANNOUNCEMENTS

IASE Executive Committee.

The Nominating Committee will very shortly be announcing nominations for the next president-elect and vice-presidents of IASE. Members of the new Executive Committee will take office in August 1995.

Special Education Issue of the *International Statistical Review*.

The first 1995 issue of this ISI flagship journal, which all IASE members receive, includes a special part-issue on statistical education edited by IASE president David Moore. The articles are; *How Students Learn Statistics*, by Joan Garfield, *The Coming of Age of Statistical Education*, by David Vere-Jones, *Continuous Quality Improvement in Higher Education*, by Robert V. & Mary C. Hogg, *Continuous Improvement of Teaching: A Case Study in a Large Statistics Course*, by C. J. Wild.

Membership concessions.

IASE has introduced special subscription rates for institutions in developing and transition countries. Institutes taking advantage of this offer will also be able to select one of the recent IASE publications, paying only a fraction of the normal price. *Contact ISI Permanent Office for further details and please take every opportunity to bring this innovation to the attention of personnel from institutions that might be eligible.*

ICOTS-5.

Plans are in progress for holding the next International Conference on Teaching Statistics in Singapore, during the summer of 1998.

50th Session of the International Statistical Institute, Beijing, 21-29 August 1995.

Statistical Education sessions include: The Relative Roles of Universities and Employers in Training Professional Statisticians; Net-working Innovations and Resources - the Internet as Toolbox; Teaching Statistics in Asia; Teaching Statistics in Geographical Courses - Links with GIS (Geographical Information Systems); Statistics at School Level; Training Statistical Staff and Continuing Education in Developing Countries; Statistical Literacy in Educational Programmes; Statistics Service Courses at Higher Education level. *Contact; Executive Secretariat of the 50th ISI Session, c/o State Statistical Bureau, No.38 Yuetan Nanjie, Sanlihe, Beijing 100826, Republic of China [Tel +86-1-38-10965/10051 Fax +86-1-3810035; E-mail: wangjl@bepc2.ihep.ac.cn]*

IASE Round-table, 23-26 July 1996, Granada, Spain.

Research into the Role of Technology in Teaching and Learning Statistics. *Contact Joan Garfield, General College, University of Minnesota, 140 Appleby Hall, 128 Pleasant St S E, Minneapolis, MN 55455 [E-mail: jbg@vx.cis.umn.edu].*

There will also be Statistical Education sessions at **ICME-8**, (International Congress on Mathematical Education) **Summer 1996, Seville, Spain.**

FREE!! Proceedings of 1st Scientific Meeting of IASE, Perugia 1993. *Contact ISI Permanent Office.*

Journal of Statistics Education. Volume 2(2) now available.

To retrieve a list of contents and instructions for retrieving articles, send one-line e-mail message to archive@jse.stat.ncsu.edu;

send jse/v2n2/contents

Two versions of the JSE are now maintained - one in electronic plain text with graphics available as separate files (this is so people with e-mail access only are not locked out of information access). The other version is the live-linked world-wide-web version, complete with searching, inline graphics, animations, etc. The journal's changes are already becoming apparent - an article on software has live 'buttons' in the document itself so readers can automatically download the package. The next issue will have a simple animation as one of its figures. Soon, also, the journal will be searchable as an archive of articles (i.e. issue-independent searches).

Newsletter of the American Statistical Association Statistical Education Section.

The first issue of this newsletter was recently published. It is intended that two issues will be

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produced during the first year containing; short descriptions and references to resources where section members can learn about new ideas on how to teach or how people learn statistics, news items about current happenings in the teaching of statistics that are of interest to teachers of statistics but are not directly applicable to classroom practice, and actual descriptions of teaching ideas. *Contact: Tom Moore, Department of Mathematics and Computer Science, Grinnell College, Grinnell, IA 50112 [Tel: (515) 269-4206, Fax: (515) 269-4285, mooret@ac.grin.edu]*

ISI-TES Joint Seminar.

The International Statistical Institute and Training of European Statisticians (TES) are holding a joint "Briefing Seminar on International Statistics for Chief Statisticians of National Statistical Institutes" in the ISI premises in Voorburg from October 16-18, 1995. The seminar is aimed at relatively newly appointed Chief Statisticians and/or their deputies and aims to provide them with an inside look at the complex system of international statistical organisations and arrangements. (See page 9 of this Newsletter for more information)

HANDS-ON & PROJECT BASED TEACHING

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One area of statistics education that generated a lot of discussion at ICOTS-3 centred on activities that could be taken into the classroom. This enthusiasm carried forward to ICOTS-4. Three sessions were scheduled for discussions on hands-on and project based teaching. All were well attended. The audiences were very enthusiastic, and the presentations were well received.

Some talks dealt with innovative ways in which activities could be included in the educational process, and specific statistical concepts introduced in the classroom settings by creative projects. Other examples where hands-on activity were used included participation of undergradu-ate statistics students on original consulting projects, and teaching an introductory data course centred on a term-long analysis of a single real data set. In addition, status reports were given on several projects that are under way to develop hands-on materials for introductory courses. Those present felt they benefited from hearing the variety of approaches being used. Individual projects that were presented gave them materials they could incorporate into their own courses. A paper discussing incorporation of projects in third world countries made evident the need to be sensitive to cultural differences in setting project requirements. Resource requirements, including financial, must be considered. Faculty need to educate their administrations that statistics is becoming a laboratory course, and as such requires support that is not traditional.

One major challenge needs to be addressed in the future. While all in attendance were enthusiastic and knowledgeable about incorporating activities into the introductory statistics courses, the sessions were "preaching to the converted". Also in many cases, statistics is being taught by persons not trained in statistics, and not familiar with data or activities. The challenge is to bring those people without training into the fold. One method that is being tested is conducting summer workshops for mathematicians who are teaching introductory statistics. Other suggestions include developing textbooks with activities which have sufficient instructions for the faculty to feel comfortable using the activities.

As the need to develop activities seemed to be a high priority at ICOTS-3, and good progress on this line was reported at ICOTS-4, we can look forward to ICOTS-5 for the report on how hands-on experiences are being implemented across the curriculum.

REVIEWS

Understanding Probability & Statistics: A Book of Problems.

R Falk. Wellesley, Massachusetts: A. K. Peters, 1993, pp.xiii+239, #28.33, ISBN 1-56881-018-0

Readership: Undergraduate students, high school and college statistics educators. This book presents a collection of problems of a wide range of difficulty: from high-school level to that of introductory college courses in probability and statistics. The aim is to build up the student's understanding of the basic concepts in the field.

About 70 problems are devoted to descriptive statistics; these are aimed at illustrating the very meaning of summary statistics (mean, median, standard deviation, etc.) and of regression and correlation. Often the approach consists in pointing out the impact that a modification in the statistical distribution has on the value of the summary statistics. Data are not generally taken from real applications, but the situations presented are always not trivial.

The problems dedicated to probability and inference are about 120; the most part is on probability calculations in the discrete case. Some exercises are taken from the history of probability, some other from the literature; all of them stem from realistic and often challenging questions.

It is to be noted that answers are provided to all the problems in Part II (which are presented in a multiple choice form) and to a large number of the problems of Part I. For most problems of this Part the method of solution is explained; for some of them an extensive discussion is also given.

This book is an important resource for statistics educators; it can be used as a supplement to any course or textbook dealing with basic probability and statistics.

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Chance Encounters: Probability in Education

Following its review by Margaret Rangecroft [Issue 17 no. 3(51)] the editors of this book have provided the following elaboration on its contents.

This book provides a summary of several approaches towards a didactics of mathematics in the last twenty years. The fundamental ideas within the mathematics of probability and its historical development are presented, focusing on philosophical controversies and tracing the emergence of the great ideas of probability.

Existing empirical research on individuals' probabilistic understanding is re-evaluated. Many investigations into probabilistic understanding are limited because subjects' answers to probability questions are too quickly attributed to pre-defined underlying concepts. The interpretation of subjects' answers using a microanalysis of potential strategies is advocated.

A curriculum is described giving a realistic view of what can be taught at secondary level, emphasising that ideas rather than techniques must be learned. Some energy in teaching has to be devoted to convincing students that probability is an important heuristic for exploring reality, so that students will learn the mathematics which they can later apply to their own decision-making.

A "proof" of the theoretical nature of probability is given from a classroom perspective, with suggestions on how to respect this in teaching by using a concrete task system.

The challenging aspects of incorporating computers in probability education are reviewed, and the potential of this new medium is explored. Computers relieve the burden of calculation, but at the same time make much of probability theory superfluous. This raises questions about what structuring ideas might remain after the computer is introduced into the teaching process.

Research on probabilistic understanding is reviewed from a psychological perspective. Key ideas on cognitive strategies are outlined and a new theory of stochastic thinking is derived. It is suggested that behaviour in probabilistic situations can be modelled by an information processing system involving different modes of intuitive and analytic thought.

To sum up, the editors concur with the original reviewer that the book holds rich rewards for its readers. They believe that "it is vital reading for all involved in mathematical education both because of the ideas discussed as well as the general approach adopted" as is stated on the back cover of the book.
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