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TWO ADDRESSES ON STATISTICAL CO-OPERATION

By Petter Jakob Bjerve

TO TALAR OM STATISTISK SAMARBEID

OSLO 1976

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PREFACE

The two addresses presented in this volume were delivered when the author was President of the International Statistical Institute. The Central Bureau of Statistics of Norway is grateful to the Institute for its permission to reprint the addresses.

Central Bureau of Statistics, Oslo, 8 January 1976

Petter Jakob Bjerve

FØREORD

Dei to talane som her blir trykte på ny, vart haldne då forfattaren var president for Det Internasjonale Statistiske Institutt. Statistisk Sentralbyrå takkar Instituttet for samtykke til opptrykk.

Statistisk Sentralbyrå, Oslo, 8. januar 1976

Petter Jakob Bjerve

World Fertility Survey[1)]

The International Statistical Institute has launched a large international research project, the World Fertility Survey. This project involves planning and implementation of nationally representative and internationally comparable sample surveys on fertility in many countries, and its scope and significance is such that the World Fertility Survey may, in the long run, prove to be a major policy event in the history of the Institute. It therefore seems appropriate to take the opportunity to promote a wider interest in this important research project. I shall confine myself to general issues, mainly the background of the Survey, in particular the need for it, the factors enabling the ISI to engage in such a project, and the implications for members of the Institute.

In a number of the less developed countries, particularly in Asia, populations are growing at such a rate that, if continued, they would double every 20-30 years. If such a population explosion cannot be avoided, the existing widespread poverty in these countries may become permanent, or only a very slow improvement of per capita income and standard of living will be achievable. A drastic reduction of the population growth is likely to be an important element in facilitating development and a reduction of the income disparities between these countries and more developed regions of the world. It must be added though that a reduction of population growth is no substitute for economic and social development and does not in itself generate development.

According to the latest projection published by United Nations, world population will grow from 3.6 billions in 1970 to 6.5 billions in the year 2000. With the birth and death rates in the year 2000 assumed as a basis for this projection, world population would double in about 40 years, i.e., reach 13 billions by 2040. The usefulness of such a crude calculation is limited, but it demonstrates that environmental and resource problems, which are increasingly being recognized as a major area of world concern, may become intolerable within the time span of a few generations if the world birth and death rates follow the assumed pattern. Of course, the rapid growth of world population is only one element in the environmental problems. Equally important is the rise in the level of technology, production and consumption which expands per

1) The substantive part of the Presidential Address presented to the 39th Session of the International Statistical Institute, August 1973.

capita demand on resources and produce environmental deterioration.

Throughout the world there is a growing popular appreciation of the seriousness of the population issue. However, it would be a mistake to speak of "the population problem" as if it were one distinctive crisis to be solved once and forever. There is a growing scientific recognition that the sociobiological structure of a population and its evolution over time are interdependent with a wide range of social and economic problems. Even if zero-population growth rates could be attained soon all over the world, population problems would continue to exist. For example, with the low mortality characteristics of the more developed regions of the world, zero-population growth inevitably results in a much older population structure than has characterized society over most of history. This means relatively small new cohorts entering the labour force and relatively more older workers, with possible consequences, inter alia, for the introduction of technological innovations. It also means a much larger proportion of older retired workers, with special medical, financial and other problems.

Concern over such issues explains why in many European countries with stagnating populations, policies aim at increasing rather than at decreasing the birth rates. With reference to either kind of policy there is an urgent need for analyses of the levels and causes of change in demographic processes. This need is also urgent in countries where governments for other reasons are stimulating population growth. Irrespective of the kind of population policy to be pursued, governments need a scientific basis for it.

Population growth is not a simple function of current birth and death rates. In most countries with a history of moderate population growth it will take 60 years or so after the net reproduction rate falls to replacement levels and remains there before population growth stops. This is due to the momentum for growth implicit in the relatively large numbers of young people of reproductive age - the product of the previously higher fertility. Japan is a good case in point. Its reproduction rate has been near the replacement level since the 1950's but its population is still growing at the rate of about one million a year and is not expected to stop growing until well after the year 2000.

It is only in the last few decades that scientists have understood the way in which age-structures of a population interact with its vital processes of birth and death. For example, while declines in mortality mean that in absolute terms there are more old people, the percentage distribution of the population by age, as a rule, changes

very little before life expectancy reaches 65 or 70 years. Changes in fertility, however, may have a substantial effect on age distribution, irrespective of the level of mortality. Furthermore, changes in mortality do have a major effect on population growth rates while life expectancy increases from primitive levels of 25 or so to the modern 70. However, once this modern level is attained, population growth is negligibly affected by further declines in mortality, while the variations in fertility continue to have their effect. In most developed countries the attainment of immortality for all would have less effect on long term population growth rates than a 15 pct. increase in fertility rates!

Since fertility is the essential factor influencing age-structure and population growth everywhere, its measurement and the understanding of its causes and consequences are of profound importance for population policy. Trying to understand the complex biosocial system that determines fertility involves measuring not only the birth rate and the number and timing of births, but also the use of various methods of birth control, marrige rates, attitudes to the number of children desired, lactation and breastfeeding, to mention only some elements of the system. The World Fertility Survey represents an effort to make major steps forward in developing comparative data on fertility and its correlates in as many countries as possible.

At present, such data are insufficient not to say lacking both in countries with exploding populations and in the countries where populations are stagnating. Policy-makers aiming at influencing population growth are acting more or less in the dark. In some less developed countries not even the size of the population or the approximate magnitude of population growth is known. Part of the numerical information available is of such a low quality that it may be more harmful than useful for purposes of population policy. Even in more developed countries, where in fact quite a few measures affecting population growth are being taken, not enough is known about their effects.

Thus, there is a vast need for improvement in the quantitative information necessary for population policy generation. Providing a better factual basis for population policies appears to be one of today's most challenging tasks for the statistician.

The launching of the World Fertility Survey is based upon the belief that the International Statistical Institute has a role to play in this field. Being the unifying world association of statisticians, the Institute has highly qualified members in all regions of the world and in

most countries. National directors of statistics, directors of national and international research institutes, chairmen of quite a few national statistical associations, and heads of interested international bodies are either personal members or ex officio members of the Institute. Additional ISI members are employed in international organizations, in governments, at universities and research institutes, as well as in private industry, and they represent a wide spectrum of professional expertise. The ISI has an affiliated organization of specialists in demography, viz., the International Union for the Scientific Study of Population (IUSSP). I am happy to say that with the collaboration of the United Nations the World Fertility Survey is undertaken by the ISI in co-operation with the IUSSP. The new association of survey statisticians has also an important role to play. Last, but not the least important, the Institute has an efficient permanent office with a long tradition and considerable experience in handling international matters. The Institute, thus, is well suited to engage in this international programme of population research. These factors were, I believe, rather decisive for the main donors, viz., the United Nations Fund for Population Activities and the United States Agency for International Development, when they entrusted ISI with planning and implementing the World Fertility Survey. To date, these donors have granted $ 1.5 million for planning purposes. It is anticipated that they will make additional and much larger grants as needed in the three-year implementation period 1974-1977, provided that the ISI, by the end of the development period, has succeeded in developing workable plans and ensuring sufficient participation. In addition, the Institute hopes to obtain grants from other governments.

Hopefully, the World Fertility Survey will enable each participating country to describe and explain its human fertility and, as far as possible, to compare fertility and the factors which influence it in different regions of the world. Moreover, it will enable countries to develop survey techniques and the organizational capacity for demographic and other social science research. In these ways the World Fertility Survey may significantly improve the information base needed for an active population policy. Improved data on human fertility will clearly facilitate national efforts in economic, social, and health development.

Above all, the World Fertility Survey will strive for national survey results of high quality. It is hoped that, in all participating countries, the World Fertility Survey will be a model of scientific

excellence and provide a standard against which subsequent surveys may be compared. Thus, the World Fertility Survey is conceived as an ambitious project, and you may well wonder how its goals are to be achieved.

Since this will be dealt with in detail tomorrow, I shall now limit my answer to predicting with confidence that under the leadership of our well known and outstanding ISI-member Dr. Maurice Kendall, all preparations will be completed by the time of the World Population Conference in 1974, so that the project will then be ready for implementation. Thus, the World Fertility Survey can be considered as a major contribution to the World Population Year.

To make the Survey a major event in the history of the Institute, the collaboration of as many members as possible is not only desirable but necessary. Therefore, the Bureau hopes that a large number of members, not least the ex officio members, will support and take an active part in the development and implementation of the Survey, each in the way he feels that he can best contribute. Many members, I am convinced, can make important scientific contributions, and the meeting tomorrow is included in the programme partly for this purpose. Others can provide invaluable assistance in enlisting participating countries. Directors of statistics and research institutes, and also other members, can help in obtaining support from governments in the form of either direct grants or contributions in kind. All members can help by disseminating information about the World Fertility Survey.

Many have already made substantial contributions. The ISI has received invaluable assistance from various bodies of the United Nations. The United States Bureau of the Census has made several experts available for periodic work on the World Fertility Survey. The International Union for Scientific Study of the Population has, as an organization and by way of its members, proved to be a very active and valuable collaborator. The project has gained immensely by these contributions and also by the generous assistance provided by individual ISI members and by several others. The small staff of the Institute has worked enthusiastically under severe pressure on the World Fertility Survey in addition to the regular programme. However, at the same time as I express the most sincere gratitude for this support, I wish to invite further assistance from members as well as from national statistical offices and other institutes or organizations who undoubtedly can play an important role in the development and implementation of the World Fertility Survey.

The World Fertility Survey is a large task, not only technically, but also administratively in terms of recruiting highly qualified personnel, ensuring participation of a sufficiently large number of countries, and assuring the desired co-ordination and progress of implementation. Admittedly, the Bureau has accepted a great responsibility engaging the ISI in this project, and serious problems may still arise. Fortunately, the financial prospects seem satisfactory, but this does not reduce the burden of responsibility for an efficient use of resources allocated and for the successful attainment of our goals. I trust that this responsibility will be felt not only by the staff engaged in the Hague, London and elsewhere, and by each of the Bureau members, but also by other members of the Institute. If members are willing to assist such as envisaged by the Bureau and the donors, I am convinced that the World Fertility Survey will be highly successful and that the ISI will thereby play an important role in improving the factual basis of population policy at the national and international levels.

If we succeed, and we will succeed, we shall have come far in following up the recommendation made by the Re-Appraisal Committee to increase the scale of our activity in order that the Institute should fulfill its role as the leading international statistical organization. The World Fertility Survey may be considered as the first international research programme of its kind. Similar projects may follow, for instance in the fields of environment, food, and energy. There is a great need for international research programmes in such fields, and the factors qualifying the ISI to undertake the World Fertility Survey are relevant for these fields as well. We should keep in mind that organization of large, international research programmes may become a major function of the Institute in the future.

Co-operation among Statisticians[1)]

This year the International Statistical Institute celebrates its 90th anniversary. On this occasion, it seems appropriate to focus on important policy issues. I shall briefly describe the present trends of rapid growth of the Institute and the expansion of its operational activities. These developments have in several ways strengthened our association. Then, I shall discuss at greater length the well known professional gap existing between major groups of statisticians. This gap, which is a hazard to the development and utilization of statistics, ought to be a special concern to the ISI.

As an association, the Institute is now growing quite fast. The ISI family at large is expanding even faster, as a result of the development of the Institute's sections.

The International Association of Survey Statisticians, the youngest section of the ISI, is being firmly established. I wish to mention with gratitude that the National Institute of Statistics (INSEE) in France has made a generous contribution to the Association by offering to operate and to finance its secretariat in Paris.

Another section of the ISI, the International Association for Statistics in Physical Sciences, has recently completed an important reorganization and has been renamed as: The Bernoulli Society for Mathematical Statistics and Probability. Its future programme will be strengthened as two bodies have agreed to carry on their activities within the framework of the Bernoulli Society, namely the Committee for Conferences on Stochastic Processes and the Committee for the European Meetings of Statisticians.

These two sections have played a large role in the organization of the programme of the present Session which has resulted in a very interesting and diversified, although rather crowded, programme of scientific meetings. I wish to express great appreciation for this.

The third section of the ISI is not lagging behind. The International Association of Municipal Statisticians, which had so far only assembled a limited number of members, has submitted to the Bureau plans for a reorganization aiming at a broadening of their programme to

1) The substantive part of the Presidential Address presented to the 40th Session of the International Statistical Institute, September 1975.

cover the fields of regional and urban statistics. The Bureau has favourably reacted to this plan and is of the opinion that the reorganized Association could intensify its activities in new and interesting fields of research.

The present trend of sectionalization will bring many more statisticians within the ISI family and associate more persons with the Institute's programme. This will have repercussions for the sessions and other activities. New procedures may be established for the organization of the programmes and participation in the sessions.

The objects of the Institute, as they are stated in our Statutes, require a broad range of activities.

At its meeting during the London Session in 1969, the ISI General Assembly confirmed the recommendations of a Re-Appraisal Committee that the Institute ought to expand its operational activities, in particular, by establishing a programme of appropriate international research projects. On the basis of this decision, the Institute has assumed the responsibility for the World Fertility Survey which is already in its fourth year and is making good progress. Members of the Institute have been kept informed about this, inter alia, through the WFS Newsletters.

The World Fertility Survey is a large and an extremely important international research programme. While realizing that it involves a heavy responsibility for the ISI, I am happy that the Institute has proved to be able to undertake useful work in large-scale research operations. Consequently, the Institute can also be of assistance in other respects in international efforts to serve the welfare of mankind. The ISI, jointly with its sections, assembles a very large number of experts whose combined know-how is invaluable and can be made available in an organized fashion. The ISI is ready to meet the demands that may be placed before it by the United Nations and other international organizations.

The Bureau is aware that it is time to think of future projects which will have to be started when the World Fertility Survey will be completed. Several discussions have already taken place, while the advice of consultants has been invited to assist the Bureau in formulating proposals for appropriate future activities. Further study and consultation is still needed - especially consultation with the United Nations - before it can be decided which activities are particularly desirable and feasible to be undertaken by the ISI. I also should like to appeal to the members of the Institute to reflect on these questions and to submit

to the Bureau their views on the future tasks of the ISI.

I now turn to the professional gap previously mentioned.

Broadly speaking, members of the International Statistical Institute are engaged in the development and dissemination of statistical theory, in production and dissemination of statistical data, and, in application of subject-matter theory, statistical theory and data for analysis of subject-matter problems. Although perhaps all of us have experience in more than one of these three fields, most members specialize to such a degree that they can be categorized as either statistical theorists, statistical data-specialists, or subject-matter analysts. Nevertheless, all catergories of members have a common final object, viz., to promote knowledge on subject-matter. Therefore, statistical theorists and data specialists not directly engaged in subject-matter analysis are no less interested in seeing their contributions put to practical use than are subject-matter analysts. Analysis of subject-matter is the goal of statistical theorists and data experts also, and they want the results of their work, i.e., their products, to be utilized by subject-matter analysts.

Today, subject-matter analysts frequently base their work on available data and existing theory. Some analysts may have to - or prefer to - produce data themselves. A few analysts even develop new statistical theory, but most of them benefit from more or less applying the existing body of theory. In this sense, subject-matter analysts have become more and more dependent upon the products of the theorists and often also on availability of statistical data. Similarly, statistical data-specialists benefit from existing statistical theory and may take advantage of further theoretical advance.

Thus, it seems clear that statisticians working in different fields have the same ultimate object and are also dependent upon one another. Consequently, they can obtain benefit from mutual communication and co-operation both at the national and the international level.

An obstacle to co-operation between statisticians is the fact that they deal with subjects of so many kinds and of such a diverse nature that the range of technical skills needed is extremely wide. In small countries a statistical expert cannot carry specialization very far without finding himself short of competent colleagues with whom he can discuss his problems. This is a major reason why statisticians are struggling to find appropriate forms of co-operation both at home and across borders. Obviously, to achieve the common goal organizational

measures are required.

The problems of communication and co-operation are particularly serious between the two categories of statisticians to which most ISI-members belong, viz., the statistical theorists and the statistical data specialists. Generally speaking, these groups of specialists have at present minimal insight into each others fields. To a considerable degree the employment structure entailing the specialization is responsible for this situation. Division of labour and specialization have gradually turned most statisticians employed at universities and other academic institutions into pure theorists and most statisticians employed in official statistical agencies into pure data specialists. As a consequence, within the ISI, the statistical theorists are largely academic statisticians and the statistical data specialists are largely official statisticians. I point at this because the organizational bodies employing most ISI-members, the universities and the statistical agencies, are in the position to establish such communication lines and such co-operation schemes as seem fit to improve the situation and, in addition, to benefit individual statisticians. The ISI can also no doubt make important contributions to this effect.

There is also a need to strengthen relations between subject-matter analysts and official statisticians, whereas the relations between subject-matter analysts and statistical theorists in general seem to be good. However, I shall confine myself to the need for improved communication and co-operation between statistical theorists and statistical data specialists. In particular, I shall focus on the need for closer relations between academic statisticians and official statisticians - on a personal as well as an institutional basis.

During the last few decades official statistics have made remarkable progress. In developed countries a comprehensive and quite extensively integrated system of such data plays an indispensable and important role as a basis for economic and social planning and for execution of government policy, both at the central and the local level. Official statistics are also being more and more utilized for market research and other objectives by enterprises and business organizations and for public information in general by mass media and otherwise. Finally, they provide perhaps the major part of the data used in research in the economic and social field and is extensively utilized by international organizations who - to carry out their functions - need comparable data on a large scale.

Parallel with this development, a very rapid expansion and improvement of statistical theory has taken place at academic institutions and elsewhere. Whereas before the last World War theoretical statistics applicable in economics and other social sciences focused on description, statistical theory has now become an important tool for the explanation of economic and social phenomena. Thus, today there ought to be better possibilities than ever before of utilizing statistical theory for the benefit of both analysis and the production of official statistics. However, although modern sampling methods have enabled statistical agencies to improve immensely their methods of collecting raw data, these agencies have not by any means succeeded in taking similar advantage of statistical theory within other areas. Very few agencies have, for instance, been able to apply available methods of quality control, modern theories on robustness, methods for detection of outliers, contingency table analyses, and analyses of regression and variance. In principle, theory of statistics is applicable to a variety of problems arising in a statistical agency in the various stages of work between data collection and the ultimate presentation of results. In practice, however, little has so far been achieved.

Thus our feeling of satisfaction with the progress made in both fields is mixed with worries about the wide gap existing between official statisticians and academic statisticians. Professionally, these two groups of statisticians seem to be living in two different worlds without communication in between. Individually, even if they are personal friends, little or no professional contact exists between them. At the national level, directors of statistics and professors of statistics seldom or never meet, they may not even know each others' names. Some have, fortunately, happened to get acquainted at ISI sessions. However, even when official and academic statisticians are brought together in national or international associations they do not attend each others' meetings, presumably because, often, presentations made by academic statisticians are incomprehensible for official statisticians and because papers presented by official statisticians are found boring by academic statisticians.

The existence of this wide mental gap between two main groups of ISI members ought to be a matter of considerable concern. Of course, in statistics, as much as in other scientific fields, specialization must continue. But this implies that the mental gap will widen unless strong efforts are made to build bridges across the gap. As already indicated,

such efforts are mainly the responsibility of statistical agencies, of academic institutions, and - above all - of the International Statistical Institute.

The best way in which statistical agencies can contribute is, in my opinion, by strengthening their own methodological work. To do this they need some staff members who are well qualified in statistical theory and able to communicate professionally with statistical theorists. These professionals should concentrate mainly on the application of available methods and on the adaptation of existing theory so as to obtain better solutions to concrete problems in the production of statistics. They should in general not feel much responsibility for developing new statistical theory, but mainly aim at applying existing theory to the advantage of official statistics. To recruit statisticians who can become highly qualified members of such a staff, statistical agencies need to provide professionally stimulating work and satisfactory working conditions as compared with those of academic statisticians. Those recruited should be stimulated to maintain contact with the academic statisticians, e.g., by attending advanced courses in statistical theory. Having highly qualified theoretical statisticians on their own staff, statistical agencies can also take advantage of them in providing systematic education and training of other staff members.

Statistical agencies can invite statistical theorists from outside to assist in education and training, but guest lecturers can hardly do the job alone, inter alia, because they will as a rule not have the same opportunities as a staff member of explaining how theory can be applied in actual work performed at the agency. Theorists can also be invited as consultants for statistical agencies to assist staff members who need advice, take active part in adaptation of theory to concrete problems, promote the use of available statistical tools, and in general stimulate interest in methodology.

In the future, perhaps the most important contribution to bridge-building which statistical agencies can make, will be to engage in the building of models designed for analysis in the economic or social field. Such model-building includes estimation of numerical structural parameters and requires in addition to data competence, a thorough knowledge of both statistical and subject-matter theory. Engagement in model-building would stimulate official statisticians to co-operate with both statistical theorists and subject-matter theorists. Perhaps, as a preliminary stage to model-building, statistical agencies could make a

contribution by engaging more than today in less sophisticated statistical analysis of problems related to the subject-matter fields for which they collect data. Thereby, their ability to communicate with subject-matter analysts might be further strengthened, and also their competence in applying data and theory to explore relationship might be improved.

Turning then to the academic institutions, it is implied by what I have said earlier, that one contribution to bridge-building which they could make would be to make available for statistical agencies consultants on and perhaps teachers of statistical theory. They could make an even more important contribution by creating interest among their students for work and application of statistical theory in the field of official statistics. To enable statistical agencies to recruit graduates in statistical theory, high enough status must be attached to work on official statistics. Academic institutions could ensure this, for instance, by giving credit to students for focusing on statistical logic and by stimulating students to write theses on problems requiring the use of official statistics. Furthermore, they could contribute by arranging postgraduate training courses suitable for official statisticians, supplying courses aimed at application of the statistical theory taught in other courses, and ensuring that among the statistical staff there is always somebody who takes an active interest in applied statistics. In such ways, teaching could be an important unifying element between the two groups, and universities could better produce the sort of people needed by statistical agencies. Finally, individual academic statisticians could make a contribution by engaging in methodological work of particular interest to statistical agencies by carrying out some statistical analysis themselves on the basis of real data, and by engaging in the building of numerical models requiring data from official statistics. Naturally, academic statisticians who have experience from working as methodological consultant in statistical agencies would have the special advantage of being able to transfer impulses from this experience to their own institutional environments. Thus, there might be a two way traffic in the sense that research results could be transmitted from academic statisticians to official statisticians, and in return official statisticians could inspire academic statisticians to new research.

The International Statistical Institute, the only international association with members from all fields of statistics, can in several ways build important bridges between official statisticians and academic

statisticians. For the first fifty years of its existence the interest of its members conformed mainly with those of official statisticians. For the last thirty years statistical theory has been brought into focus in concurrence with the progress made and in conformity with the professional interests of the theorists. In the years to come the ISI ought to focus on common interests of both member groups and to emphasize activities which most efficiently promote achievement of the common goal, which stimulate communication and yield the greatest advantage of co-operation and, finally, which take appropriately into account the overlaps of professional interests still existing among statisticians.

The implication of such a policy for the programme of our biennial sessions would be a choice of theoretical topics which are of particular interest to statisticians working on methodology in statistical agencies, e.g., theory of quality control and contingency tables. It would be a choice of such statistical data topics which involve problems that are crying out the most for theoretical clarification and development of new theory, e.g., automatic editing and the combined use of complete enumeration and sample surveys. The last but not the least important implication, would be an invitation of papers on experience from application of new methodological tools to data from official statistics for clarification of specific problems, in particular by means of numerical models. Such a programme would to some extent require invitation of papers from non-members which would not be a new practice, and it would, I believe, require more long-term planning of the topics to be adopted in the ISI-Session programmes.

The experience already obtained with the World Fertility Survey suggests that this project is a particularly efficient means in promoting co-operation between different groups of statisticians to the mutual professional benefit of all. This large-scale co-operation project between demographers, data specialists and theoretical statisticians will, as a byproduct, yield fruitful results in the form of tests of methodology, manuals on procedures in the production of statistics, and cost benefit analyses on new statistical projects. Therefore, continuation of the World Fertility Survey for some years ahead and engagement in similar projects would seem to be strongly desirable.

The ISI might also consider acting as a kind of labour exchange for consultants on methodology, preparing educational material for statistical agencies, arranging seminars for employees of statistical agencies, etc., all on a full-cost-covering basis. The policy of bridge-

building has implications for other activities of the Institute as well, such as the choice of papers to be published in the International Statistical Review, the nomination procedures, and our policy of sectionalization, but dealing with these aspects would take us too far afield.

The fact that my presentation has focused on the relation between statistical theorists and data specialists, and particularly on the building of bridges between official statisticians and academic statisticians does not, of course, imply that the interests of other members of the International Statistical Institute should be neglected, either by statistical agencies and academic institutions or by the ISI as an association. One justification for this limitation of the subject is that a solution of the communication and co-operation problems between official and academic statisticians would indirectly benefit all statisticians. Another is that unless we find such a solution, the survival of our Institute may be questioned.

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