

WORKSHOP ON ORGANIZATION AND MANAGEMENT OF NATIONAL STATISTICAL OFFICES(NSOs)

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PRESENTATION ON SESSION 10:
CENSUS AND SURVEY DATA DISSEMINATION
(GETTING INFORMATION TO THE USERS)
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THE SESSION ON CENSUS AND SURVEY DATA DISSEMINATION DEALS WITH THE FOLLOWING ISSUES:-

- 1. General Dissemination Issues,
- 2. Different Forms of Dissemination,
- 3. Recovering the Cost of Publication,
- 4. Supplementing Information with Analysis,
- 5. The Statistical Yearbook, and
- 6. Conclusions.

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CENSUS AND SURVEY DATA DISSEMINATION

- *"It is probably not an exaggeration to say that in most countries the statistics available, in published and other forms, are by no means fully taken advantage of by users, partly because the statistics are not well enough known ... The fostering of a more extensive exploitation of the statistics by active promotion based on user studies is an integral part of the dissemination effort."*

1. General Dissemination Issues

- The word "Dissemination" means "making data available to the public", without restrictions and without regards for the way in which the action is carried out.
- The word "Publication" involves the action of making statistical information public in printed form or on the Internet and also includes CD-ROMs, magnetic tapes, audiocassettes, radio and TV broadcasts, as well as any other media that can meet the same objectives."

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There is a class of intermediaries in the dissemination process whose task is to seek out the users and tailor the information to suit those users' needs, while simultaneously providing useful interpretation of the data. The involvement of intermediaries can assist in the dissemination of statistical information in a number of ways:

- Their knowledge of the statistical process relieves statisticians of the difficult task of interacting with the ultimate users of information;
- By subjecting the data to thorough analysis, they provide additional constructive criticism of quality and presentation; and
- They help statisticians assess demand for various types of data.

However, potential problems also exist:

- At times, intermediaries may misinterpret data without giving statisticians a chance to set the record straight; and
- As result of their own vested interests, they may unwittingly distort the information passed on the statisticians about user needs for statistical information.

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1.1 Providing users with Information on the Properties of Statistical Data

Professional statisticians and reputable statistical institutions are obligated to describe accurately and openly the strengths and weaknesses of the data they publish and to explain how much inference the data can support. Although there is no international consensus on how this should be accomplished, the statistical agency must be sure that its audience is properly informed regarding the following:

- Where data are to be located, according to subject and time period;
- How the data were defined and compiled;
- What quality is assigned to the data; and
- What related data can be used for comparison or to provide context.

Very few agencies have invested the necessary resources to be able to provide this kind of information for all of the statistics they produce. Nevertheless, if such metadata does not accompany the creation of data, creating it after the fact will require considerable investment. To meet the standards of good statistical organization, documentation of this type should be available for the entire range of series published.

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The burden associated with metadata projects may be reduced if a specific unit within the statistical agency is made responsible for ensuring that:

- metadata is produced,
- it adheres to a standard format, and
- it is properly maintained and updated.

Advances in Computer Technology:

- These have fundamentally redefined both the demand and the supply of statistical information.
- The production and retrieval constraints that affected producers and users of data have diminished considerably.
- It enabled the statistical agency to provide the full range of data, to be stored by users, many of whom now possess the software and technological skills necessary to create their own summaries and analytical extracts.
- It has also resulted in a profusion of selfservice data warehouses that are nearly impossible to navigate without a reliable guide, making the provision of high-quality metadata all the more critical.

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1.2 Dissemination Policy

A statistical agency that lacks a well-defined dissemination policy risks losing its credibility as an independent agent. The following elements are essential to an effective dissemination policy:

- A release schedule that treats all constituencies equally, defined well in advance,
- A clear policy to identify the information that should be made available to the press and the supporting detail that can be disseminated through statistical bulletins, and
- A policy regarding the cost of accessing detailed statistical information.

Statistical agencies have become increasingly aware of the benefits of a predefined schedule of statistical releases. Thus:

- It is better for statistical agency to work according to a timetable with conservative deadlines than to work too fast and be perceived as unpredictable. Alternatively, if news is released later than usual and is more favorable than expected, the statistical agency could be perceived as operating under political influence.
- Statistical agency should also have a clear policy regarding the selection of data for distribution to the press for mass consumption and the body of data that, because it is more detailed and results from a finer cross-classification, appears some time later in a statistical bulletin (in electronic or conventional form).

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2. Different Forms of Dissemination

2.1 Traditional Means

Although there are many options today for disseminating information, such standard forms as bulletins, digests, abstracts and yearbooks are still in use. Throughout most of the last half century, most established statistical offices adhered to the pattern of producing:

- a yearbook,
- a monthly or quarterly statistical digest, and
- the occasional specialized publication if its readership could be readily identified (foreign trade statistics, for example).

Both the yearbook and the digest covered virtually every activity in which the statistical agency was engaged.

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The organization required to support this form of data dissemination was equally straightforward. That is, each substantive unit in a statistical agency:

- looked after the compilation of a special branch of statistics (e.g., price statistics) that would be featured in the "digest" and the "yearbook", respectively,
- would be responsible for the accuracy of its data and for the relevance, consistency and form of the accompanying footnotes, and
- would also be available to answer specialized queries that could not be handled by the editors of the publication.

At the statistical agency level there would be a unit in charge of dissemination, including such activities as:

- identifying readers,
- defining the form of the publication,
- providing timetables to contributors,
- ensuring that the printing process worked according to schedule,
- handling distribution and subscriptions, and
- interacting with the subject-matter organizations to ensure that they complied with the overall schedule of dissemination.

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2.2 Multimedia

- Statistical agencies now have the means to lie out their own publications and, for small printing runs, the tools to print everything in-house. In addition, technology has eliminated the need to print large volumes of statistical tables (typically those related to the censuses of population and to foreign trade statistics) by making it possible to provide the information in other ways.

- Over the last two decades, access to computers has become far more widespread with the proliferation of personal computers and floppy disks.

- In the last five to ten years, the practice of disseminating massive bodies of data via CD-ROMs has been almost universally adopted. CD-ROMs allow information to be conveyed in a more imaginative way – mixed with sound and accompanied by processing software – and actually invite a greater effort to analyze raw data than any means of dissemination previously available.

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2.3 The Internet

The advent of the Internet has opened up an increasingly large number of possibilities for both the providers and the users of statistics. Its main advantages are that it offers interactivity, versatility, speed and cost efficiencies, therefore enabling the statistical agency to greatly enhance the service provided to users.

The organizational implications of intensive use of the Internet for dissemination purposes are substantial. For example:

- the traditional two-tiered approach to publishing referred to above could be modified, and
- it will facilitate that each substantive unit in a statistical agency would be equipped to set up its own web page on the agency's web site as well as handle the interactive aspect of dissemination.

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- The electronic file/database used to prepare the print dissemination could be used for the Internet version of the same publication.
- Close integration of content and presentation for electronic and conventional publications could also bring about substantial savings in the dissemination process. This means that an office is not necessarily tied to print media, as it may be suitable to offer only electronic versions of its publications whether they are on the Internet or on CD-ROM.

a. Delivery Time of Data to Users Using the Internet:-

The delivery of time-sensitive statistics to users has been greatly enhanced by the Internet. That is:

- the time lag between data collection and data dissemination by a traditional print media office is greatly reduced when these data are disseminated via the Internet.
- Internet dissemination is usually possible around the same time as the print version has been finalized and sent off for reproduction and distribution. This will often allow users to have access to the statistics disseminated via Internet a number of weeks before they would normally receive the print version.
- The Internet allows the agency to release the statistics in an orderly fashion; that is, one that allows equal access to the statistics for all users at the same time.

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b. Cost and Efficiency of Establishing an Internet:-

- The set-up cost of establishing an Internet service in a statistical agency has fallen dramatically in the past few years. This can be attributed to reductions in the cost of both hardware and software as well as to the availability of "off-the-shelf" software that can be used for a basic but very satisfactorily performing Internet site.
- The cost efficiencies produced by disseminating statistics and statistical metadata via Internet are substantial when the Internet dissemination replaces established print or other physical products such as magnetic tapes or CD-ROMs.

c. Accessing the Statistics and Statistical Metadata to Users through the Internet:-

The Internet enables statistical agencies to provide greater access to statistics and statistical metadata. That is:

- In particular, the amount of detail that can be provided is not limited, as in print media, by the size or number of the pages. Extensive statistical metadata can now also be provided as a matter of course to the user.
- Statistics and statistical metadata that has been archived by the statistics agency can now be made readily available to users.
- In addition, out-of-print statistics publications can also be made available to users of the Internet by providing scanned or other formats that preserve the document structure and layout.

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3. Recovering the Cost of Publication

Consistent with government "user-pay" policies, offices in some countries charge market rates for at least some of their products and services, whether or not the users are in the Government or in the private sector.

The issue is whether one should treat statistical publications in much the same way as a general government service (e.g., police force, national defense,...etc) or as a government service that users pay for each time it is utilized (e.g., toll roads, parks, museums,...etc). Furthermore, in the case of the latter, what is the appropriate price? The arguments vary according to government communications and social policies. The positions in the debate over user-pay policies include the following:

- If a Government needs information to pursue its own ends – making better decisions, showing the electorate whether or not it has delivered on its pre-electoral promises – it will request the production of statistical information. The cost will be borne by all taxpayers and is part of the burden of providing good Government,
- The availability of information about the social and economic progress of a society is something to which any citizen in an open society is entitled and a responsibility that good Government must honor. Since it is not possible to legislate on how much information should be provided free of charge nor on the price to be charged for it, the only practical policy is not to charge at all,

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- Since information has to be produced anyway to meet government needs, the most that should be charged to the user is the marginal cost of delivering information in a requested form and by a given date,
- It is manifestly unfair to place the burden of financing the production of highly specialized information, which gratifies the objectives of the few (e.g., researchers, historians, professional statisticians,...etc), on the shoulders of the entire community of taxpayers, and
- It would be nearly impossible to base a fee structure on marginal cost. Accordingly, the average costs of delivery should be charged to all users, regardless of what sector they come from. There is no other equitable way to manage a cost recovery policy.

These issues have been the subject of lively discussion for some time, but no international consensus has emerged. Perhaps what can be said at this stage is that for those agencies in developing countries, where the major challenge is to get citizens to recognize the existence and usefulness of statistical information, the most pressing issue is not whether and how to obtain maximum revenue from statistical publications.

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3.1 Commercial Policies

A commercial policy requires several elements and, above all, a record of costs that could justify the prices attached to each publication if they were subjected to scrutiny on the presumption of monopolistic unfairness. The elements of such a policy are as follows:

- An algorithm to price special tabulations and a policy regarding subsequent requests for the same information by another user,
- An algorithm to price custom-designed surveys or additional questionnaires drafted to accompany existing survey questionnaires,
- An explicit and justifiable objective (e.g., recovering all costs associated with the production of camera-ready copy, printing and distribution, in the case of hard copy products, and a comparable set of costs for distribution via the Internet),
- A marketing plan including customer identification and needs,
- For larger offices, a separate marketing unit may have to be created or identified, and
- A catalogue of all publications with their respective price.

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3.2 Using Third Parties for Dissemination

In a number of countries, third parties (in some instances private sector firms) have been contracted to take over the marketing of all or part of the statistical agency dissemination programme. This measure :

- Upholds the objective of gauging signals from the market for agency publications, and
- eliminates the need to staff a marketing unit and releases the statistical office from the obligation to explain its pricing policies in the context of broad social goals.

Naturally, such a programme only makes sense in an environment where there is an active market.

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3.3 Copyright and Royalties

An important objective for an effective statistical agency is to disseminate the information it compiles as widely as possible and to make all possible efforts to get Government, business, researchers and the community at large to use that information. It therefore seems irrelevant or even contradictory to raise the matter of copyright and royalties in connection with official statistics. In fact, what is envisaged is:

- To ensure by moral persuasion that intermediary users cite the source of the statistical information and include the caveats to which it is subject.
- Moreover, for those offices that market their information commercially, copyright is a measure designed to prevent users of statistical information from deriving personal profit from an undertaking that was collectively funded by the taxpayers.
- A number of statistical agencies make use of the copyright mark and instruct all users to properly attribute statistical information.

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4. Supplementing Information with Analysis

4.1 Should a National Statistical Office Perform Analysis?

No international consensus exists on how far a statistical agency should go in commenting on the meaning of the current figures and even less on how a set of figures recently compiled may relate to another set of figures compiled independently. To a certain extent:

- There is a convergence of opinion in the social and demographic fields, and several agencies prepare monographs on demography and various social issues.
- However, there is considerable hesitation about doing something similar with economic statistics.

Arguably:

- Nothing moves very fast demographically and, therefore, the commentators need not worry that what he/she says will change population trends.
- However, in the case of economic data, some ill-chosen turn of phrase could affect behavior in the financial markets, raise serious questions about an economic policy adopted by the Government, and altogether bring about what a statistical office sets out never to do – to affect the real world with its apparent opinions rather than with objectively estimated figures.

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4.2 Facts and Interpretation

a) There is not much controversy around the fact that, at a minimum, a statistical agency should comment on salient facts and use its inside knowledge to influence the impression created by aggregate figures if that impression is not supported by fact. For example:

- the hours worked in a given industry fell precipitously in one of the summer months when it was not habitual for this to occur. It turned out that the dominant firm in the industry decided to close down its plants earlier than usual for some technical reason and to send its workers on paid holiday. In a case like this, it is proper for the statistical agency to remove the alarm from the aggregates by commenting – without divulging who was responsible – on what caused the precipitous fall.

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b) It is improper for a statistical agency to make normative judgments. For example:

- In commenting on recent measures of income distribution, a responsible statistical agency should not attach editorial comments about the latest changes in the tax structure and their regressive effect on the shape of the distribution curve.
- Nor would it be proper to couch the normative judgments in controversial assumptions or offer shaky evidence of causality.
- However, readers would probably benefit greatly if the statistical agency, in reviewing the condition of the housing market, for example, were to remind readers that the number of starts had fallen and that this fall coincided with a dramatic rise in interest rates, including mortgage rates. These examples are not prescriptive; rather they illustrate the posture of a statistical agency that is consistent with its position of objectivity and neutrality.

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4.3 Analytical Functions and Information

If the chief statistician decides:

- Routinely to add analytical comment to the release of figures – social or economic – some unit within the agency must be put in charge. If the efforts of the agency are at all effective, the media will get into the habit of reproducing the official comments and keep them separate from evaluations of the figures produced by other makers of public opinion. In order to ensure that they are in a position to explain what the agency comments mean, media representatives are likely to seek a contact within the agency.
- Not to take on the additional burden of being the regular interlocutor with the media (although in smaller offices this might be advisable) he/she should designate very clearly the official spokesperson. This will prevent any confusion that might result from different opinions being given by various professionals within the same agency.
- In offices with more analytical activity – perhaps resulting from deep examination and review of a survey or related bodies of data – responsibility might be assigned not to one person but to an entire analytical unit.

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4.4 Review of Publications

In spite of precautions and training administered to the official spokespersons, errors in judgment may occur. In order to avoid embarrassment, the statistical agency should take additional precautions such as for:

- A release that requires swift publication to be useful, a process of collective review that engages the more senior officials of the organization and fosters cross – subject review and criticism should be put in place.
- A release of statistics on employment and unemployment can be effectively reviewed, for example, by those responsible for industry and trade statistics or the national accountants. Although performed on a regular basis, review of this type should not demand an excessive amount of time.

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Persuading members of the academic profession to take part in the process would be of added benefit. The mission of the review process would be exclusively to judge whether the:

- statements made are fully supported by evidence,
- most important inferences on the basis of the new data available were taken into account, and
- methods used stand up to scrutiny in the face of current knowledge.

There is, however, a component of this review that should not be overlooked. This consists in making certain that nothing improper is said in the analysis, given the statistical agency's political and legal context.

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5. The Statistical Yearbook

For many decades,

- the statistical picture of a single country has been available from its yearbook, and
- the corresponding picture of the nations of the world has been available from the set of United Nations yearbooks.

If one wishes to learn all that is important about a country in a quantitative sense, one can consult these yearbooks, the value of which lies in the breadth of information and variety of perspectives presented.

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Leaving aside the matter of whether the statistical agency publishes a volume of statistics called the "yearbook" or creates a well-designed web site in which all relevant information describing the country can be found, the merits of producing a yearbook include the following:

- It provides an occasion for a review of the relevant information that describes a country,
- It clarifies the need for integration in the statistics that will be selected for the yearbook,
- It reveals gaps in the available information, thereby suggesting the new initiatives that should be taken to complete the description of the country's social and economic fabric,
- In the case of decentralized systems, it is yet another means of promoting coordination among statistical units in different government departments, and
- It is an ideal pedagogical device to introduce children to the physical, political and human geography of their country.

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Opposing these considerations are the fears that the yearbook will become an end in itself, of little value to the constituency for whom it is intended, and that its contents will be excessive for those in a hurry and insufficient for those who wish to deepen their knowledge of a particular subject. To a great extent, the development of the Internet has changed the basis for many of these fears. That is:

- The economics of producing a yearbook (the most daunting aspect of the initiative for many years) have changed radically. The greatest innovation is that in many instances it is no longer necessary to print the yearbook, or it can be printed on demand,
- Other considerations are almost as important, is that the pages of the yearbook can be updated much more quickly, and
- The yearbook can easily be produced in a number of modes depending on how much coverage and detail are required, as in the case of the better-known dictionaries.

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6. Conclusions

A statistical agency must strike a balance on two matters of relevance to its dissemination policy: (i) how much interpretation and analysis should be left to intermediaries; and (ii) how much metadata it is important to publish. However, there should be no compromise with the obligation to treat all users equally by giving them simultaneous access to data. It greatly strengthens the hand of a statistical agency if it issues and adheres to schedule of publication release dates. In addition, a dissemination policy should define the cost of accessing detailed statistical information.

a) Recovering the Cost of Publication:

A statistical agency must strike a balance between an increasingly general policy on the part of Government that calls for users to pay for certain classes of services and its duty to make official statistics as accessible to the community as the budget permits. It is possible to sub-contract some or many of the functions associated with marketing, but this still leaves open the matter of sales versus free distribution. There is no international consensus on where the boundary should be drawn.

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b) Interpretation and Analysis

The dissemination activity is not complete if it is not underpinned by an examination of "what the figures mean." This examination must be conducted in the most neutral and objective way possible but should not degenerate into a mechanical summary of facts. At a basic level, the statistical agency can bring to bear its knowledge of unique events that affect publishable aggregates. At a higher level, it can use its cross-subject knowledge to show the interdependencies among data and social processes. In doing so, particularly in the economic field, a statistical agency will take some risks. These risks consist in trespassing on the turf of other sectors of Government that are better equipped to comment on current developments but at the same time may be somewhat less neutral. To avoid adverse consequences, review processes should be put in place, involving the chief statistician if necessary.

c) The Yearbook

The publication of a yearbook – in conventional or electronic form – is the best method for selecting the most important statistics required to describe a country and its economy, society and environment. A yearbook is also helpful in examining existing gaps in available information.

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