

XI. GETTING INFORMATION TO THE USERS

“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.”⁹⁴

A. General dissemination issues

Box 15. Definitions: dissemination and publication

The words “dissemination” and “publication” play crucial roles and possess broad definitions in the text that follows. Dissemination is taken to mean “making available to the public”, without restrictions and without regard for the way in which the action is carried out. 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.

468. In part because of the condition identified in the above quotation, 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.

469. 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;
- 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;
- As result of their own vested interests, they may unwittingly distort the information passed on to statisticians about user needs for statistical information.

⁹⁴ 1980 *Handbook*, p. 25.

1. Providing users with information on the properties of statistical data

470. 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;
- What related data can be used for comparison or to provide context.

471. Very few agencies have invested the necessary resources to be able to provide this kind of information for all of the statistics they produce.⁹⁵ 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.⁹⁶

472. 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, that it adheres to a standard format, and that it is properly maintained and updated. It is important to bear in mind, however, that even if the responsibility is given to a specialized unit, the knowledge is derived almost exclusively from the substantive part of the statistical agency. It is important to differentiate between the need to produce metadata (irrespective of medium) for the entire range of statistical products, and the adoption of a system and protocol for recording the information. The latter is already a subject of lively international discussion but the former has not yet commanded such attention.

473. Advances in computer technology 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. Rather than distributing summaries of available information and allowing users to select the data for which they require supplementary details, the statistical agency can 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.

⁹⁵ One outstanding model of metadata documentation is that of the Australian Bureau of Statistics (ABS). Their data management component aims to improve client service through better catalogued, more visible and more accessible output data, integrated concepts and procedures. These goals are being approached through the development, loading and use of a corporate information “warehouse” that has facilities to store, catalogue and access all the output data produced by the ABS together with the metadata describing the underlying concepts and procedures.

⁹⁶ See appropriate references to the principles of good survey-taking in *Protocols for Official Statistics* Wellington, Statistics New Zealand, n.d., available from <http://www.stats.govt.nz>.

474. Technological advances have also resulted in a profusion of self-service data warehouses that are nearly impossible to navigate without a reliable guide, making the provision of high-quality metadata all the more critical. Therefore, the statistical agency cannot adopt a laissez-faire attitude, conferring upon the user the responsibilities of searching for, summarizing and analysing data, but must find an acceptable compromise that allows both parties to share in the work of “consuming” the data. There is no general rule for defining this relationship, but it is important to remember that users’ appetite for metadata is limited, even if there is hardware available for storage and processing. Moreover, the capacity of non-specialists to handle large bodies of data is also limited.

475. Nonetheless, steps must be taken to heighten the probability that an increasing number of users who are provided with better search tools and are more demanding in terms of quality will find what they are looking for. Even if detailed metadata goes unused, the very fact that it is compiled and made available is reassuring for those who wish to see high standards of credibility upheld.

476. The balance between what can be physically made available and what is appropriate for users to have access to in view of the likely use is a matter to which the unit in charge of dissemination should pay close attention.

2. Dissemination policy

477. 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 lease schedule that treats all constituencies equally, defined well in advance;⁹⁷
- 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;
- A policy regarding the cost of accessing detailed statistical information.⁹⁸

478. Statistical agencies have become increasingly aware of the benefits of a predefined schedule of statistical releases. It is better 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 favourable than expected, the statistical agency could be perceived as operating under political influence.

⁹⁷According to the Special Data Dissemination Standard (SDDS) established by the International Monetary Fund, “the monitorable elements of the SDDS for access, integrity, and quality emphasize transparency in the compilation and dissemination of statistics. To support ready and equal access, the SDDS prescribes (a) advance dissemination of release calendars and (b) simultaneous release to all interested parties”. Available from <http://dsbb.imf.org/overview.htm>.

⁹⁸ See chapter XI, section C.

479. For many users, the one line that encapsulates the entire measurement process (e.g., “last month the CPI continued to increase at the rate of ten per cent per annum”) is more important than the factors that explain the news. Since it is usually the media that provide such summaries, they must be made aware of the significance of the data and of the relevant metadata. From the point of view of others, including the statistical intermediaries; the explanatory factors and supporting data play an important role in their efforts to explain the underlying forces of change and to foresee future changes. Again, statistical agency should 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).

480. The growth of the Internet has blurred the edges of what used to be a fairly straightforward policy. In theory, nothing should stop a statistical agency from placing all available information on its web site and managing access through the Internet rather than in more traditional ways. By “drilling down” (moving through a succession of folders and files), users can get to the detail they find appropriate to their concerns, with the added advantage that the technology allows them to leave a trail of the items they have accessed.

481. The unit in charge of dissemination in a statistical office should be aware that technology is rapidly loosening the constraints that used to affect its activities. Tracking technological advances has become almost as important as conducting studies of user needs and satisfaction.

B. Different forms of dissemination

1. Traditional means

482. 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 (see section E, “The statistical yearbook”), a monthly or quarterly 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.

483. The organization required to support this form of data dissemination was equally straightforward. Each substantive unit 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. Each unit was responsible for the accuracy of its data and for the relevance, consistency and form of the accompanying footnotes. The unit would also be available to answer specialized queries that could not be handled by the editors of the publication.

484. At the 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 and handling distribution and subscriptions. This unit would also be responsible for interacting with the subject-matter organizations to ensure that they complied with the overall schedule of dissemination.

485. A number of large offices had their own printing presses; in several countries, the facilities available to the statistical office were among the largest and most sophisticated in the public sector. This form of organization is still viable, although modern forms of dissemination, in particular the use of the Internet, have opened up new possibilities.

2. Multimedia

486. Perhaps the most important change brought about by technological advances is the significantly diminished need to control large printing facilities. 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.

487. Twenty years ago, the alternative to paper publications was to disseminate information using computer tapes, but this option was only open to the very small set of users who had access to a mainframe computer. Over the last two decades, access 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-ROM 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 analyse raw data than any means of dissemination previously available.

3. The Internet

488. 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.

489. 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. Each substantive unit 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. A central unit would be in charge of releasing information to the press and would also have the power and the expertise to define (subject to higher approval) a "code of good behaviour" with regard to the contents and appearance of material posted on the agency's web site. The central unit would also be in charge of convening meetings to determine how users as a community were reacting to the range of outputs produced by the agency.

490. Another important organizational consequence is that 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.

491. The delivery of time-sensitive statistics to users has been greatly enhanced by the Internet. The time lag between data collection and data dissemination by a traditional print media office is greatly reduced when these data are disseminated via Internet. In practice, 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.

492. Many statistical agencies are finding that the Internet is ideal for releasing market-sensitive statistics. 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. In the past, facsimile transmissions have been used for this purpose, but users have been critical of this method.

493. 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.

494. 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.

495. The Internet enables statistical agencies to provide greater access to statistics and statistical metadata. In particular, the amount of detail that can be provided is not limited, as in print media, by the size of the page. 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.

496. Web browser technology is very sophisticated, which allows agencies to provide users with ready access to databases and Internet-based statistics dissemination systems. Web browsers now come with the functionality to recognize the file type and allow users to download statistics directly to their computers in comma-separated variable format (CSV), spreadsheet or other common formats.

497. The Internet has provided statistical agencies with a very useful way to test various ways of presenting statistics or tracking the popularity of its releases, as well as to

invite comments and get feedback on the adequacy of its data and metadata. In the developmental stage of a new database for the Internet, users can test the database interface for the statistical agency and respond to the designers in real time on such items as the layout of the interface, functionality, response time of the Internet connections to the database and general usability. This is very valuable to the statistical agency in pretesting the “product” before release. Once a service has been released, the statistical agency has the opportunity to keep in close contact with the users by including a feedback e-mail address on the web site. By providing this function, the statistical agency can get very useful suggestions on ways to better serve their clients.

498. The agency can also use the Internet to collect statistics and related metadata via HyperText Markup Language (html) forms, direct access to remote databases, File Transfer Protocol (FTP) to remote servers or e-mail submission. These methods are now commonly used, and the choice of method depends on the complexity of the task, the security required and the frequency of submission, among other requirements. Most recently, statistics agencies have been investigating the use of Extensible Markup Language (XML) to transfer statistics and metadata between statistics agencies and data suppliers and users. XML potentially offers substantial gains in efficiencies to both the statistics provider and user, as it allows standard transfers of structured data and metadata. The important point here is not to promote the use of XML - in fact, by the time the reader sees this book, XML may have been replaced - but rather that agencies will have new tools at their disposal, allowing them to collect and disseminate data and metadata more easily.

C. Recovering the cost of publication

499. 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. In the Australian Bureau of Statistics, for example, the aims of the user pay policy are to encourage users to identify and address their real needs for statistics, to enable the demand for ABS products to function as an indicator of how the resources of the Bureau should be used, and to offset the cost of production of the statistics. In its view, the ABS has “public interest” obligations to ensure that at least basic statistics are both readily available and affordable; thus, it has been able to fund the ABS Library Extension Program, which comprises 529 libraries across Australia, providing them with free ABS publications to meet the needs of their communities.⁹⁹

500. The issue is whether one should treat statistical publications in much the same way as a general government service (e.g., police force and national defence) or as a government service that users pay for each time it is utilized (e.g., toll roads, parks and museums). 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:

⁹⁹ *Annual Report 1996-1997* (Canberra, Australian Bureau of Statistics 1997).

- 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 honour. 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;
- 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), on the shoulders of the entire community of taxpayers;
- 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.

501. 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. In more advanced statistical agencies, where certain users have unique (and costly) specialized requests, there is a trend in favour of charging more than nominal costs for some information products. However, the implementation of a fee policy differs greatly from one agency to another.¹⁰⁰

1. Commercial policies

502. In agencies that have embarked upon a dissemination programme with commercial overtones, either heavily dominated by the sale of a particular service or relying on the complete set of publications, the creation of a special unit involved with marketing and related activities is warranted. However, in other agencies research has shown that the commercial potential of statistical publications is limited and, therefore,

¹⁰⁰ See Report of the Forty-Fifth Plenary Session of the Conference of European Statisticians, 10-12 June 1997 (Geneva, Economic Commission for Europe, ECE/CES/52).

the creation of a special unit is not called for.¹⁰¹ Of course, even when the commercial potential is limited or absent or when there is no special marketing unit, agencies still have the responsibility to investigate how they can increase the audience for their products.

503. 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;
- A catalogue of all publications with their respective prices.

504. The unit in charge of marketing publications must fully comprehend these elements and objectives and be ready to deal with criticism from the sectors of the community that are the most affected by any set of commercially calculated prices.

2. Using third parties for dissemination

505. 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, 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.¹⁰²

¹⁰¹ In fairness to those agencies that have embarked on a commercial programme, their aim is not exclusively commercial. For example, charging commercial prices for print and electronic publications provides valuable market feedback to the statistical agency.

¹⁰² Where alliances with private sector firms are tolerated or even encouraged, there must be a proper procedure to allow book dealers and publishers to take part in the process, and short-term contracts should be the norm so that the arrangements do not become obsolete with the passage of time and the availability of new technologies.

506. Before adopting solutions of this kind, however, senior officers in statistical agencies should be mindful that even the best of statistical publications do not have mass appeal and that many users will be quite content to share copies or to access them via libraries or other public collections. Experience suggests that the few publications with greater appeal include those on foreign trade statistics and those derived from the census of population.

3. Copyright and royalties

507. 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.

508. A number of statistical agencies make use of the copyright mark and instruct all users to properly attribute statistical information.¹⁰³ It is not likely that any agency has taken legal measures to address improper use or attribution. Moral suasion is usually effective enough.

509. In the cases where it is obvious that intermediaries also frequently buy statistical compilations in order to support studies and analytical exercises, attribution may be insufficient and the payment of royalties may be in order.

D. Supplementing information with analysis

1. Should a national statistical office perform analysis?

510. 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 behaviour 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.

¹⁰³ A standard note to this effect reads: "...No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form..." (Statistics Canada).

2. Facts and interpretation

511. 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.

512. 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.¹⁰⁴

3. Analytical functions and information

513. 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. If the chief statistician decides 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.

4. Review of publications

514. In spite of precautions and training administered to the official spokespersons, errors in judgement may occur. In order to avoid embarrassment, the statistical agency should take additional precautions. For releases that require swift publication to be useful,

¹⁰⁴ See chapter IX, section A for additional remarks on the nature and functions of analysis in a statistical agency.

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.

515. A second process would be reserved for longer-lived efforts - for example, those connected with the series of analyses generated by a new survey of family incomes and expenditure, a new economic census or a new census of population. Given the time scales used for such exercises, it is appropriate to institute a formal process of review. 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; whether the most important inferences on the basis of the new data available were taken into account; and whether the 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. This latter qualification is important. For example, some statistical offices are responsible both for the compilation of statistics and for economic studies (or analytical exercises). Other offices do not have this extended responsibility. It follows that what would constitute administrative "trespassing" of responsibilities in one country would be the expected duty of the organization in another. The judgement concerning what can be said is one that must rest squarely with the chief statistician or someone directly delegated by him/her.

E. The statistical yearbook

"In view of the approaching [creation of a great many new provinces], and the prospect of their extending their commercial relations with each other and with foreign parts, a hand-book of common information respecting them seems to be required".¹⁰⁵

516. The physical entity called a yearbook may turn out to be a relic of the past, made obsolete by the possibilities opened up by modern computer and telecommunications technology. However, 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.¹⁰⁶ 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. An alternate point of view is that the activity of a statistical office should be to provide relevant answers to specific questions.

517. 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

¹⁰⁵ Arthur Harvey, ed., *Year-Book and Almanac of British North America for 1867* (Montreal 1867).

¹⁰⁶ For example, the *Demographic Yearbook*, *Energy Statistics Yearbook*, *Industrial Commodity Statistics Yearbook*, *International Trade Statistics Yearbook*, and *Yearbook of the National Accounts Statistics*.

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;
- It is an ideal pedagogical device to introduce children to the physical, political and human geography of their country.

518. 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.

519. To a great extent, the development of the Internet has changed the basis for many of these fears. 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. 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.¹⁰⁷

520. Whether the statistical agency opts for a yearbook or an abridged volume - made available in all of the country's embassies abroad and designed to inform the potential foreign investor or tourist - or whether the matter is handled through the Internet, the initiative to produce a yearbook requires a structure (i.e., a department or unit). That structure is not so different from the one envisaged for the marketing of statistical publications. It consists of a coordinating body entrusted with the responsibility of defining contents, setting deadlines, handling distribution (or delegating that responsibility to a dedicated marketing unit), planning the future evolution of the yearbook, pointing out contradictions or ambiguities in the data and, if required, ensuring

¹⁰⁷ For example, some editions of the *Oxford English Dictionary* are published in several formats: the *Concise* (one volume.), *The New Shorter* (two volumes.) and the full publication (now 20 volumes). In fact, some statistical agencies already follow this model and have an abstract, an intermediate publication, and a pocket-size abridgement.

liaison with other departments of Government, where other producers of statistics can be found.

521. Perhaps the most difficult challenge for the coordinating unit is to ensure that the contributing departments do not dismiss the exercise as someone else's responsibility for which they are not accountable. A system of links operated through the yearbook's web site might place users in more direct contact with contributors and stimulate their interest.

Conclusions

A statistical agency must strike a balance on two matters of relevance to its dissemination policy: (a) how much interpretation and analysis should be left to intermediaries; and (b) 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 a schedule of publication release dates. In addition, a dissemination policy should define the cost of accessing detailed statistical information.

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.

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.

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.