

AN EFFECTIVE GLOBAL STATISTICAL SYSTEM – A PREREQUISITE FOR CONSISTENCY IN GLOBAL MEASUREMENTS

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Abstract

A pre-requisite for consistent global measurement is a strong global statistical system. A lot of improvements have been made in recent years and there are signs of increasing collaboration. However, there is plenty of scope for improvement and the paper make a number of suggestions on to further improve the global statistical system.

1. Introduction

What is the global statistical system? In this paper, I am referring to the various international organisations that are providers of statistics at both the global and regional levels. This would include those organisations with regional only responsibilities such as Eurostat and the Africa Development Bank. I also include organisations such as OECD whose coverage is global although only for a sub-set of countries. Some have a ‘chief statistician’, others do not. The global statistical system also includes the various mechanisms for binding the contributing organisations. These include:

- a) the annual meetings of the UN Statistical Commission, the peak organisation of the global statistical system;
- b) the meetings of the Committee for the Co-ordination of Statistical Activities (CCSA) which has been meeting two or three times per year;
- c) international statistical standards; and
- d) the principles governing international statistical activities.

Why is the global statistical system important? In the next section of the paper, I will explain in more detail why the global statistical system is important and growing in importance. International statistics are increasingly being used in a variety of settings. This World Forum provides a good example. I have not done any analysis but I expect at least half of the presentations in this Forum will use statistics produced through the global statistical system. To be useful, international statistics must be relevant, of good quality and consistent across countries and across time.

Section 3 discussed the many advances in international statistics in recent years. There have certainly been improvements but there is scope to do much more. Section 4 considers the current state of play – both the strengths and weaknesses.

Section 5 is the crux of the paper. It makes a number of suggestions for a way forward. I have tried to separate by degree of difficulty. The outcome being sought is better international statistics. Better national statistics are a pre-condition for this to occur and the global statistical system also has a responsibility for improving national statistics. And there is a need for improvements in the global statistical system if it is to deliver on this outcome.

What are my credentials for speaking on such an important topic. My main point of reference is being Australian Statistician (Head of Australia's statistical agency) for nearly 7 years and being an active participant in many international statistical activities during this time (eg attendance at many UN Statistical Commission meetings). I have also been President of the International Statistical Institute, Chairman of the ESCAP Committee of Statistics, member of the Bureau of the Conference of European Statisticians, and Chairman of the Global Executive Board of the International Comparison Program). I also spent two months working as an Adviser (on National Statistical Systems) to the UN Statistics Division earlier this year. This provided a different perspective – from inside the global statistical system if you like.

2. The Importance of Global Statistical System

More and more people are reliant on international statistics. This came through strongly at a High Level Forum on the "(United Nations) Statistical Commission and the Global Statistical System – The Way Forward" held on 26 February 2007. Several of the papers are on the United Nations Statistics Division web site (unstats.un.org).

International agencies are among the key users. Jose Ocampo, the Under-Secretary-General for the Department of Economic and Social Affairs at UN spoke about the importance of statistics as a consequence of the UN Development Agenda. They were needed to target programs as well as monitoring progress. He spoke about the importance of improving the quality and scope of international statistics. Many developing countries are lacking important indicators. Furthermore some sectors of statistics (eg service industries, informal sector) are not well represented in international statistics.

Francois Bourgignon, Chief Economist of the World Bank, also pleaded for improved coverage of many important statistical indicators. He asked for the delivery of improved and timely statistics that are relevant to policy. He felt that policy development was in some cases restricted by the lack of relevant statistics.

The private sector are also important users of international statistics particularly those that operate globally. Stephen Roach, Chief Economist of Morgan Stanley, spoke at the same Forum. He said that statistics were in some ways the 'glue' that held his organisation together. But he said that in ways the financial system had outstripped the utility of international and national statistical systems. They were not always relevant to their uses or sufficiently timely.

National governments are also very important users and the level of interest seems to be growing. In particular, comparisons with other countries can be very useful for

evaluating the efficiency of existing policy and identifying areas of potential improvement.

Closely related to these uses are the interests of the research community (in academic institutes, NGOs and elsewhere). Many are involved in debate on international and national policies and having access to a good evidence base is fundamental to such research.

And in an increasingly global world, the general community is showing increasing interest in international statistics. The internet has made access to these statistics far easier.

Of course it is not possible to provide high quality, relevant global measurements without strong national statistical systems. For this reason, and others, the global statistical system has a responsibility to develop national statistical systems especially those from developing countries.

3. What has been the main advancement in the Global Statistical System in recent years?

The United Nations Statistical Commission (UNSC) is the apex entity of the global statistical system. It has been functioning since 1947 and, in its early years, it was extremely influential on the formation of national statistical systems. There was a period during its life when it was less influential but this has been redressed to a large extent in recent years.

UNSC now meets annually. Meetings every 2 years were not sufficiently timely to influence many international statistical issues. Attendance at UNSC meetings has increased remarkably. This applies to both member countries and international agencies. Furthermore UNSC has had a major influence on a number of important international activities. Examples include the upgrading of the quality of statistics in the Human Development Report; the management arrangements for the 2005 round of the International Comparison Program; reviews of fields of statistics such as service industries, energy and education; and the latest revision of the System of the National Accounts.

But despite these improvements there is scope for further improvements in the operation of UNSC. At present it doesn't have a mandate over many of the international statistical agencies except by co-operation. This includes some of the major players such as the specialised UN agencies (eg ILO, WHO, UNESCO), OECD, Eurostat and the Bretton Woods agencies (ie IMF, World Bank). Most are co-operative but some are not so co-operative. Whilst some organisations will always be outside the remit of UNSC it is not the case for the UN specialised agencies for example, especially if there is a genuine move towards 'one UN'.

The UNSC has been reasonably successful in the development of standards for economic statistics. The System of National Accounts is probably the most notable example but there have also been important developments in trade and industry

classifications for example. Progress on the development of standards for social statistics has been much less advanced.

A major development in 'standards' was the endorsement of the Fundamental Principles of Official Statistics in 1995. These have been very influential particularly among the transition and developing countries. They have provided an excellent point of reference for how National Statistical Offices should operate. This has been invaluable in discussions with Governments. There have been many improvements in national statistics legislation over the last 10 years and the Fundamental Principles have been quite influential in these changes.

There has been a rapid increase in the development of international data bases provided by the international agencies. And they are increasingly being used by both international agencies and countries. The advent of the web has made this data much more accessible. The source data for these data bases mainly comes from national statistical agencies. This can be a considerable burden even though countries are one of the main beneficiaries of these data bases. There was quite a bit of duplication but increased co-operation among the international agencies has largely reduced this duplication.

A particularly pleasing development is the extensive co-operation between the international agencies on the establishment of the indicator data base for monitoring progress against the Millennium Development Goals. As part of this development, meta data standards have also been developed and the system is showing signs of being a world class data reporting system.

The amount of funding for statistical capacity building has increased substantially – so has the in 'kind' effort. This applies to both international and national donors. Whilst this appears to be good news, it is questionable whether the results have justified the increased effort. Too many statistical systems are still underdeveloped. There is a real need to understand how to get most value from the statistical capacity building effort. The recent emphasis on national strategic development plans does seem to be a step in the right direction.

A number of important global statistical projects have been conducted with much co-operation among the various stakeholders. More attention has been given to governance issues to increase the likelihood that the project is a success. The 2005 round of the International Comparison Program is one good example. Increased national statistical capacity is one important by-product of this Program. The 2010 Population Census round is a forthcoming opportunity to put a global effort into creating comparable international statistics as well as improving the quality of Census taking in countries.

Finally, the principles governing international statistical activities are an important advancement on how international statistical agencies should operate. For legal reasons, some international agencies could not formally endorse the Principles but they should have a major influence on the way they operate even if not formally adopted.

The first principle is that high quality international statistics, accessible for all, are a key element of global information systems. Other principles emphasise the importance of impartiality, professional standards and the transparency of concepts, definitions, classifications sources and methods. There are a number of other important principles

and if they were followed by all international agencies we would have a strong global statistical system.

4. What is the current state of play with the Global Statistical System?

I first start with the strengths and there are many. In a paper like this it is easy to dwell on the weaknesses and areas of improvement but the strengths are worth mentioning.

The first strength is that most (but not all) the international agencies collaborate and to a lot greater extent to what they did previously. One criticism is that a lot of this collaboration is by way of information sharing but genuinely collaborative programs are starting to emerge. The ECE region took the lead with its joint work program, in the early 1990's.

Co-ordination of the work of international agencies is important

- (i) to reduce reporting burden on countries,
- (ii) to avoid duplicated and wasted effort particularly in statistical capacity building,
- (iii) to ensure consistency in the application of statistical standards and concepts across countries,
- (iv) to enable the main gaps in international statistics to be identified, and
- (v) to enable countries to know what is happening so that they can plan accordingly.

Another example is the Committee of Experts formed to assist with the co-ordination of effort on the development and enhancement for the data base on MDG indicators. This appears to be effective and there has been a co-ordinated effort to improve this data base, and make it world class. Countries are now participating in meetings of the Committee.

Also, as discussed above, UNSC appears to be increasingly influential now that it meets annually. It is widely regarded as the peak international statistical body even though its authority is limited in some areas. These limitations are discussed below.

One of the key outputs of the global statistical system is international statistical standards. Among other things they are invaluable for compiling internationally comparable data. They also provide a base for regions or countries developing their own standards. Most national standards are consistent with international standards at least at the broadest levels. The global statistical system has become more active in promulgating statistical standards for use by countries but more could be done to assist with implementation. This is also discussed below. Eurostat has been especially active for EU countries. Another means of obtaining internationally comparable data is through standard survey instruments. These are increasingly being considered sometimes for a module within a survey of broader scope. The OECD's PISA study is one well-known

example. The development of three international standards is discussed in the paper by Wallmann and Evinger being presented at the same meeting.

The UNSC has commenced reviews of particular fields of statistics (eg services, social, energy, industry, education) and these have been helpful in identifying areas where lack of co-ordination is a problem. But it is probably fair to say there has been little effective change put in place since these reviews were considered.

The amount of effort put into statistical capacity building has increased substantially. The challenge is to ensure that this money is well spent and that the enhanced capacity is sustained and that they can make an effective contribution to national and international statistics.

I will now briefly consider the weaknesses before making specific suggestions for improvement in the next section.

- I. Although international data bases have become more prevalent, their quality is of concern. (The OECD quality reviews were an important initiative for improving the quality of data). In 2005, UNSC created a Friends of a Chair group to address concerns with Millennium Development Goal Indicators. I was Chair of that Group. They found some real problems with the quality of the data -

“As a rough guide, meaningful analysis of an indicator at the global level would require that at least two thirds of countries (where the indicator is relevant) should be able to report at least two measures of it during the time period covered (1990-2005) in order to get an idea of trends. Only 33 percent of indicators satisfy the criteria”.

It is also found that a significant amount of data was imputed resulting in estimates that might be heavily criticised by countries. The assumptions behind the imputation were often unknown. The Friends of the Chair called for greater transparency in imputation methods and the use of country data wherever possible.

- II. UNSC has no influence over the UN specialised agencies, or a number of other important international statistical agencies, except by co-operation. Taking a country perspective, where co-operation is imperfect it creates duplication and makes the global statistical system seem fragmented.
- III. The Regional Commissions, with the exception of ECE, have become much weaker in their statistical efforts. In some Commissions, the Statistical Committees have been abandoned. But there have been steps in ECLAC and ECA to strengthen arrangements but driven by member countries. One outcome of the weakening of the statistical work of the Regional Commissions is that the Regional Development Banks have become more influential. Their increased interest in statistical development is a positive trend.
- IV. There is insufficient lateral mobility of statistical staff between the UN agencies (both global and regional agencies). National Statistical Offices know that lateral mobility is essential for staff development – to learn from different work

experiences. It is probably the most important way of learning. But it also important for injecting new ideas into organisations and keeping them fresh. UNSD is best positioned to manage greater flexibility in staffing across the UN agencies but this will only work if it has greater influence than at present over appointment decisions.

- V. UN reform proposals point to problems with duplication and lack of cohesion within the UN system. These criticisms also apply to statistics but, because of the influence of UNSC, possibly not to the same extent as other UN fields of endeavour. Although there has been a considerable reduction in the duplication of data collection, some still exists and should be addressed. These collections impose burden on countries – they are less likely to accept this burden if they are of poor standard and/or countries do not see the results of their efforts. Feedback to countries on the results is important. Also some collections are of poor quality and not developed and tested consistent with good statistical practice.
- VI. The Committee for the Co-ordination of Statistical Activities (CCSA) is an attempt to improve co-ordination across the global statistical system. Having not attended any of these meetings. I am not well positioned to comment on their efficiency. But many participants are critical of the usefulness of these meetings. But clearly a body of this type needs to exist. The main challenge is to make it effective.
- VII. As previously mentioned earlier, standards for social statistics are not well developed. Yet much of the interest of international agencies is in better understanding trends in social issues.
- VIII. Although there has been important progress on the development of statistical standards, there is increasing concern that political considerations, not just statistical validity, are playing a larger role in country's views on statistical standards. If this becomes more prevalent, it could put the overall integrity of the global statistical system at risk.
- IX. There is another problem with international standards. Insufficient attention is paid to their implementation and as a consequence many countries, particularly developing countries, have not introduced the latest standards. Good examples are the System of National Accounts (SNA) and the International Standard Industry Classification (ISIC) where, for many countries, only versions that are now quite out of date have been implemented. There are many training programs but 'hands on' assistance with implementation is more limited.
- X. The approval process for international statistical standards is expensive and can take some time. Is there a more efficient way of developing international statistical standards? This is difficult work so the focus should be on those areas of statistics where comparisons are of greatest interest.
- XI. Despite the considerable effort put into statistical capacity building, it is still low for many countries. Furthermore there is a real lack of co-ordination within countries. In a Pilot reporting exercise in sub-Sahara Africa, PARIS 21 found a number of co-ordination problems within countries. Even the value of technical

assistance was not easily identified. Furthermore, the collaboration between bilateral donor agencies and their statistical offices was not well co-ordinated. As a lead agency, Eurostat has been taking the 'co-ordinator' role in many Eastern European countries and believe it has led to significant improvement. Perhaps it is an approach that might be modelled elsewhere. Lack of co-ordination of resources leads to inefficiency in the overall allocation of capacity building funds (eg a single country might be allocated too much or too little of the resources available for development assistance).

5. A Way Forward

Here I will focus on major initiatives only. However, they should be part of an overall strategic plan for improving the global statistical system a prerequisite for the advancement of international statistics. Isolated, disjointed initiatives are not likely to have much long term impact. A strategic plan should also include the ideal organisational arrangements.

I wonder if statisticians have the full range of expertise required to develop a strategic plan of such complexity. Maybe it should be assigned to a management consultancy group – it is a management problem not a statistical problem that we are trying to solve. But it is important that their work is relevant to the concerns of both the international and national statistical agencies. One way of doing this might be to establish a consultative group of experts from the countries and the international agencies. UNSC is the body to give endorsement to a strategic plan to improve a global statistical system.

Having said a strategic plan should be developed first, I have chanced my arm at some of the changes that might be made. I would expect that these type of changes would receive consideration in the development of any strategic plan for the global statistical system. Underpinning these proposals is a belief that the fundamental problem is that there needs to be an improvement in co-ordination. This applies at several levels most notably

- across the international agencies to provide a coherent global statistical system
- across donors and providers of technical assistance within countries

To my mind these are the main issues that need to be addressed. We have a decentralised global statistical system but that does not mean the stakeholders should not work more closely with each other.

I have separated the recommendations into relatively easy, hard and very hard. Perhaps 'relatively easy' oversimplifies the degree of difficulty.

Relatively Easy

- UNSC should exert its leadership role (through the influence of member countries) in the management and development of international statistical policy

and practice; it should rely on its technical strength and expertise and avoid political considerations

- UNSC should be given final authority for most statistical standards. This does not mean that agencies that have other governance arrangements should not use them as well.
- A federated model should be developed for the dissemination of international statistics. This would mean that individual agencies would retain custodianship and responsibility for their own data bases but they would agree to certain protocols and standards (eg meta data standards for describing the quality and methodology of collections) so that users can search and download data across data bases. It does not mean one physical data base (although this may be appropriate for some data bases such as the Millenium Development Goal indicators. This should result in increased user interest, awareness in international data bases as well as improve accessibility.
- Consistent with the previous proposal there should be agreed information standards for the dissemination of international statistics
- The recent SNA Revision process should be reviewed to identify strengths and weaknesses with the view of developing a model of the process for the development of international statistical standards.

Hard

- If these types of changes to the global statistical system are to be successful, there needs to be a real commitment from all the international agencies to make real change to the system with pressure from countries on those agencies who do not comply.
- The CCSA should be restructured, or its processes revised, to improve its effectiveness.
- There should be a protocol for improved co-ordination among all donors of technical assistance effort within developing countries to ensure greater alignment with national priorities, and statistical development is sustainable. A key element of the protocol will be to appoint a 'lead agency' to facilitate the co-ordination. The lead agency will vary by country and could be one of the bilateral donors. There continues to be a real need to improve statistical capacity in developing countries; the lack of statistics is often constraining policy development.
- The UN Statistics Division and regional bodies should work together cohesively on a mutually agreed agenda with respect to global statistical issues; unless satisfactory governance arrangements are in place for the regional bodies (such as for ECE) make them regional units of the UN Statistics Division

- A project management approach along the lines of the International Comparison Program (ICP) should be adopted for the implementation of new/revised statistical standards and other international statistical programs. A Friends of the Chair Group has been established to review the 2005 round of the ICP. They will no doubt make conclusions about the governance and project management arrangements. In my view they are basically sound. Any problems were due to the way they were implemented rather than the basic model.
- It is necessary to develop ways of engaging more high quality staff within the international statistical system even if only on a temporary basis. This may mean eliminating some of the current bureaucratic restrictions. Consideration should be given to establishing a single recruitment arrangement for professional statistical posts within the UN system. This would most sensibly be managed by UNSD.
- International statistics are becoming increasingly important for both national and international users. The scope and coverage of international statistics should be continually reviewed to ensure they are relevant and timely. This will involve new collections from time to time. Before embarking on such collections, the costs and benefits should be carefully assessed. Both international and national uses and costs should be part of that assessment. As for national statistical offices, lower priority collections should be curtailed from time to time.

Very Hard

Even if only some of the previous proposals are implemented, strong leadership and co-ordination will be necessary. For this purpose a global statistical office should be created (or most sensibly assigned to a restructured UN Statistics Division) to provide leadership to the Global Statistical System; a Chief Statistician should be appointed to head the Office. A strengthened Bureau of the UNSC would in effect act as a Governing Board for the global statistical office.

Concluding Remarks

This is quite a long list but the effort will be worthwhile. International statistics will only increase in importance – many participants at this Forum will vouch for that. Also, with increasing emphasis on managing for development results, national policy makers and the international development community have become increasingly aware of the essentiality of statistics in informing and designing development interventions. If the international agencies do not take the necessary steps to improve the situation, it may eventually be taken out of their hands.

Improvements also require member countries, individually and through UNSC, to play a leadership role in management and development of international statistical policy and practice.