SESSION 1: STRATEGY FOR THE COLLECTION AND COMPILATION OF STATISTICS FROM THE SERVICES SECTOR

Chair: Russell Rogers (Australia)

In opening the session the Chair noted that the inclusion of a session on how countries have developed strategies for their programs for service industries statistics had followed on from the presentation at the eighth Voorburg Group in Oslo of a paper from Statistics Canada which outlined that country's approach to expand their statistical base in this important area.

The session proposed to extend this discussion to examine how other countries have approached developing strategies, especially in a climate where resources are limited and there is a reluctance from users to reduce their requirements from traditional areas.

There were four papers presented for this session:

1) Expanding Service Coverage in the US Economic Censuses (USBOC).

This paper addressed the way in which the 1992 round of Economic Censuses in the US expanded its collection program into new areas (especially the transport, communications, utilities, finance, insurance, and real estate areas). The paper highlighted a number of new collection related issues that required new approaches in these new fields. The issues discussed included the fact that in these sectors the traditional units relationship between locations and establishments had to be re-examined, that definitions for some industries (written without the benefit of survey experience) need to be revised, business' request for (and creation of) pseudo-tax entities for internal accounting purposes, administrative revenue may not coincide with industry practices, some traditional frame sources proved to be less reliable (including industry coding and coverage) and some new accounting practices were encountered.

2) Selected OECD Countries' Strategies for the Collection of Service Statistics (OECD)

This paper summarised and compared the strategies adopted by UK, France and Canada highlighting similarities and differences. The summary provided a framework for examining these strategies and suggested that these countries formulate their strategies around a number of questions such as what are the objectives and scope of service program, how are industries to be grouped, what tools are required to meet the needs, what data items, frequency and what priorities.

3) Reflections on the Development of European Statistics on Services (Eurostat)

This paper gave a further summary of the issues facing agencies in attempting to define a long term collection strategy in this area. The paper included some proposals relating to balancing the costs of collection, using appropriate sample surveys, using existing data collections and administrative sources wherever

possible. The paper suggested three dimensions for delineating a strategy; the appropriate grouping of services sectors, the tasks or results to be achieved, and the time axis for achieving the results.

4) A Strategy for Provision of Statistics on Services (Australia)

This paper outlined the Australian proposed approach to determining its future program of services collections. The paper presents a model of the likely areas of interest in each industry and includes a list of criteria to be used to set priorities.

Following presentation by the authors of their papers, discussion raised the following issues.

It was pointed out that the outcomes that countries have reached for defining their strategy depended to a great extent on the different statistical environments facing them (e.g. the USA has a full census every 5 years whereas France and Canada do not).

A number of speakers commented that a significant priority was to provide input to their national accounts. It was also mentioned that while it was critical to obtain a clear indication of what are the user needs, these needs were changing constantly and as such it has proved difficult for agencies to classify these needs. The quality of data required will vary from user to user (national accounts have broad macro requirements but business organizations often have more specific detailed micro needs).

It was suggested that a further issue worth exploring in collecting from some industries might be partnerships with trade associations. On the other hand it was felt trade associations purposes may conflict with governments and there maybe coverage and confidentiality problems.

Funding was also an important issue. The UK for instance has received increased funding which has enabled it to widen its service industry activity. Sweden required more external funding to change priorities for the service sector. All members reported that because of pressures of resources the question of priority setting had been raised but then there was no single solution applicable across countries. The different frequency of collections between countries was also discussed. Sweden previously collected detailed information every third year but found this did not satisfy some significant needs and therefore they are now attempting less detailed annual surveys.

Some other issues discussed included:

- the impact of standard accounting classifications and the need to relate data across industries.

- problems with using tax data and changing of industry classifications.

- the need to explore further the labour profile of service industries.

- the question of statistical units; most countries indicated that the enterprise should be the standard unit of collection for service industries.

- a number of countries raised the point that their business registers do not always represent the whole population in service industries.

It was pointed out that in 1993 the SNA and the BPM5 have been released and their new standards gave a greater emphasis to services. In developing services programs the new standards (including for example the functional classifications) will need to be considered. The use of satellite accounts was also raised.

It was generally agreed that there was a need for data on the demand side and that to some extent this area of interest has been neglected up to now. Eurostat believed that the demand side was particularly important for business services. For some sectors data such as that from Household Expenditure Surveys can prove valuable. In other areas such as Health and Community Services, demand data has up to now been the main data available and collections for supply side data are rare.

The Chair, in closing the session, noted that the issue of developing strategies for the collection of statistics for the services sector was obviously one that all statistical agencies were grappling with, and, was becoming increasingly important with the resource constraints facing most agencies. He considered that the discussion and papers had raised many issues that member countries may wish to consider in developing their programs for services sector statistics.

SESSION 2: INTER COUNTRY COMPARISONS OF SERVICES SECTOR DATA

Chair: Marco Lancetti (Eurostat)

In introducing the session the Chair commented that the principle objectives of this session were to discuss the conclusions that could be drawn from the comparison of different countries data and to decide on a strategy that would enhance our ability to improve that comparison.

There were three papers presented for this session:

1) Business Services In Europe.

This paper presented the background, methodology and definitions used in the Eurostat pilot survey of the services sector in Member States, and presented basic statistical information on the eight subsectors surveyed. The pilot survey data gives the first comparable picture of the basic structure of the business services sector within Member States. The analysis revealed a number of uniform patterns across the countries but also revealed a number of shortcomings which would have to be overcome before more detailed comparisons can be carried out.

The pilot survey also included information about the demand side of the business services sector by a breakdown of the turnover by type of clients.

2) Linking of Establishment and Enterprise Data for Canada.

The purpose of this study was to attempt a reconciliation between enterprise-based and establishment-based financial statistics. The paper showed that there are considerable difficulties in relating such data, even within one country. Statistics Canada is only at an early stage of the investigation and continued work will provide more insights into the reconciliation process.

3) The Composition and Structure of the Telecommunications, Audio-visual, Insurance and Computer Services Industries in Voorburg Group Member Countries.

This paper presented the results of an analysis of participating countries data on the industries in question. The data reflect the extent to which countries have been able to implement the model survey approach endorsed by previous Voorburg Group meeting.

The paper concluded that considerable work still needs to be done before accurate international comparisons can be made and raised the issue of what might be done with this analysis in the future.

A number of speakers commented on the data presented in the above three papers with discussion being mainly focused on the conclusions presented in the third paper.

There was general agreement that work should continue to improve international comparability. Australia volunteered to review and continue the collection and

presentation to Voorburg Group meetings of these data, with an aim of achieving a set of data on a consistent basis which might be subsequently published, possibly as a set of Voorburg Group statistics. There also was a general agreement among the participants of the importance of including data on the links between the supply and demand size.

The Chair in concluding emphasised the importance of being able to undertake intercountry comparisons. He noted that the extent to which data were comparable provided a useful monitor of the success of the Voorburg Group in standardising the concepts and definitions used by participating countries.

SESSION 3: REPORT ON OECD'S SEPTEMBER 1994 MEETING ON SERVICE INDUSTRIES

Chair: Jacob Ryten (Canada)

The Chair outlined that the purpose of the session was to report on the meetings of three other groups, which are of direct relevance to the matters under consideration of the Voorburg Group.

The three groups are:

1. OECD Meeting of Group of Experts on Service Statistics

2. Inter Secretariat Task Force on Industry Statistics

3. Inter Secretariat Task Force on Services Statistics

The Chair reported on the Meeting of the Group of Experts and provided information on the Group's origins, composition, relationship with the Voorburg Group, the items discussed and the range of issues raised at the recent meeting. The latter include the construction of a short term indicator of the output of service industries.

In relation to the Task Force on Industry Statistics, The Chair provided a short summary noting that a major issue was the rate of adoption of ISIC Rev 3 particularly outside Europe. There was extensive discussion by the Group on the reasons and problems encountered in implementing and adopting ISIC Rev 3 and the likely timing of adoption by European countries.

Erwin Veil (OECD) reported on the role and objectives of the Task Force on Service Statistics noting that the statistical requirements for information on Trade in Services had resulted in the Task Force concentrating, in the first instance, on this subject. The Task Force has concentrated on providing technical assistance in developing trade in services statistics and the production of a manual on Trade in Services.

SESSION 4: REVIEW OF THE CENTRAL PRODUCT CLASSIFICATION

Chair - Jacob Ryten (Canada)

The Chair introduced the four papers to be presented at this session:

Recommendations for Changes to the Services Part of the Provisional Central Product Classification (Classification Subgroup of the Voorburg Group)

Developing a Services Product Classification for the USA (USBOC)

Issues in Handling Service Industries in Industrial Classification and Input-Output Tables (Japan)

Some Considerations Concerning Revision of the Central Product Classification (Austria)

The first paper was the result of the work of the classification subgroup established at last year's meeting held at Oslo. The paper was a draft of a report on the Provisional CPC from the Voorburg group to the United Nations Statistical Office (UNSTAT), for transmission to the United Nations Statistical Commission (UNSC) for it's twenty-sixth session in February 1995.

The objective of the report was to inform the Commission of proposed changes to the CPC, resulting from the experience of members in applying or testing the classification, as reported in papers presented to meetings of the Voorburg Group, since the CPC was first published.

The report of the subgroup noted that the Voorburg Group would have to address some substantive issues before the report to UNSC could be completed. These were, whether the Voorburg group was prepared to recommend to UNSC that the services part of the Provisional CPC be adopted as final in 1997 and what was the desirable level of detail for the services part of the CPC.

The subgroup asked the Voorburg Group if it believed the Provisional CPC should be redeveloped as a classification with a demand side aggregation.

Regarding whether the Voorburg Group was prepared to recommend to UNSC that the services part of the Provisional CPC be adopted as final, two issues of concern emerged. Members noted that since publication, only about one-third of the classification had been subject to testing by members. There may be some experience not yet reported but its extent was not clear. Accordingly, it was difficult to gauge how much more of the classification could be tested by 1997.

In circumstances where services commodities such as telecommunications and computing were changing rapidly, some members were of the opinion that a recommendation to adopt the Provisional CPC as final was premature. Final adoption might lock-in a classification which was fully expected to be outdated at the time it was published.

Other members were in favour of adoption of the Provisional CPC as final because of its widespread use as a classification standard. Members argued that the standing of the classification as an international standard warranted its adoption as final.

The discussion of "finality" was allied to consideration of the level of detail for the classification. Some members questioned whether there were any practical applications for all the levels, especially the one- and two-digit levels. They suggested that in the absence of evidence of use of higher levels of aggregation consideration should be given to setting them aside.

The meeting noted that the higher levels of hierarchy had particular application in the presentation of input-output statistics. But the Voorburg Group could only think of these higher levels as "domain" headings for the enumeration of commodities. In any case countries should be free to choose levels as suited their needs and circumstances.

Members reported that they were finding the Provisional CPC reasonably robust at the three-digit level. The detail at the four-digit level was being refined by testing but that at the five-digit level in some cases rapid changes were taking place and others had not yet been tested.

The meeting agreed that the Voorburg Group would recommend to UNSC adoption of the services part of the Provisional CPC as final at the three-digit and four-digit level for international comparability. UNSC would be advised that the Voorburg Group categorised the CPC into three classes. First, those classes which had been tested and finalised. Second, those for which there was an expectation of amendment after field testing or for which the Group recommended change, for whatever reason. Third, those for which no change was expected because they had not been looked at or there was as yet no international consensus for change. The recommendation to UNSC would say that Voorburg Group's view of the detail at the five-digit level was that it would define the contents of the four-digit level and could be used for data compilation and collection by those who wished to do so.

To take account of the evolution in services commodities the Voorburg Group agreed its recommendation to UNSC would indicate that the Group's classification work would continue so that results could be used in periodic proposals to revise the CPC.

On the question of whether the Provisional CPC should be redeveloped to reflect a consistent demand aggregation the meeting agreed that this task could not be attempted for 1997 because of insufficient resources.

The Voorburg group wished to make further progress in enhancing the provisional classification prior to its adoption as final. For this purpose it agreed to continue the activities of the Classification Subgroup. Members indicated their willingness to continue participating and the United Kingdom said it would consider offering to join the subgroup. Canada warned that it might not find the resources necessary to take the role of the subgroup's co-ordinator. The Voorburg Group requested the subgroup to convene during the course of the current meeting and nominate a

co-ordinator and to plan for submission of a report to the 1995 meeting of the Voorburg Group.

The Voorburg Group also requested the subgroup to report on any new testing and findings members might have experienced. Members agreed to prepare reports as appropriate for use by the subgroup. The subgroup would audit these reports to identify extra parts of the CPC which could be upgraded to the first and second categories. The subgroup was asked to insert in the recommendation to UNSC a definition of a service commodity and commentary that the unit of measurement of services commodities was the transaction for the services. Part three of the report dealing with outstanding issues was to be reconsidered by the subgroup to take account that not all outstanding issues were discussed in the section. A recommendation for a recasting of the numbering system itself should also be prepared by the subgroup.

In presenting its paper the USA noted that its main difficulty in applying the Provisional CPC to its collections was the lack of detail. The detail in the CPC tended to be equivalent to the detail in the US industry classification.

Japan's presentation noted that it was preparing a comparative table of its industries to the international standard. Its work had uncovered some grey areas, particularly in telecommunications and data processing.

The Austrian presentation emphasised the potential conceptual problems that may be encountered in the transport and environmental parts of the Provisional CPC. Part II Principal Issues of the Austrian paper was strongly endorsed as containing four issues of importance for progress in this work. The Classification Subgroup was asked to take into account these four issues and the other matters raised in the three papers when preparing for the next session of the Voorburg group.

In concluding, the Chair emphasised the importance of the CPC to the development of service statistics and the critical role that the Voorburg Group had played and would continue to play in the development and testing of the product classifications of the CPC.

Subsequent to this session, a sub group consisting of Michel Beekman, Niels Langkjaer, Shaila Nijhowne, Hugues Picard/Michel Boeda, Norbert Rainer, George Sarossy (or appointee), Jack Triplett/Pamela Powell-Hill and a possible member from the United Kingdom was formed to progress the work on the CPC. Shaila Nijhowne agreed to act as co-ordinator of the group with each of the members accepting responsibility for drafting specific relevant sections for the CPC document. Papers prepared by individual members would be submitted to members of the sub committee for comment and discussion at a subsequent sub committee meeting.

Also, subsequent to this session, and in light of the discussion during the session, a redraft of pages IV to VI of the paper on Recommendations for Changes to the Services Part of the Provisional Central Product Classification (CPC) (starting with the section entitled Prospects) was presented to the group for consideration. After discussion the proposed redraft was accepted by the group.

SESSION 5: PLANS TO DEVELOP AN INTERNATIONAL MANUAL FOR THE COLLECTION OF SERVICES SECTOR STATISTICS

Chair: Erwin Veil (OECD)

The conference Chair, George Sarossy, opened the session by noting that there were a large number of issues that would need to be addressed in developing an international guidelines manual.

The session Chair, Edwin Veil, proposed that the meeting consider and discuss the following issues.

a) Is there a need for a methodological manual at the world and/or the OECD level?

b) If so, is the EUROSTAT manual an appropriate basis?

c) What may be the procedures for elaborating a world or OECD manual?

As the EUROSTAT manual is at the centre of this discussion, Erwin Veil asked Marco Lancetti to present the EUROSTAT paper.

Mr Lancetti spoke to his paper, entitled "Development of the Methodological Manual". Mr Lancetti briefly outlined the form of the Eurostat methodological manual for services statistics. He described how the manual consists of a general framework chapter and chapters relating to particular service sectors, which are intended to be consistent with the general framework as well as having a common structure and a common look. He noted that various editions of the general framework chapter had been promulgated. The latest, V1.4, had been released only a few months ago in three languages. Already work is proceeding on V2, which will be consistent with the new European System of Accounts (ESA 1995). He then went on to briefly describe the status of each of the sectoral chapters.

Mr Lancetti then described the possibilities for further documents. He began by noting that the methodological manual, as it now exists, may not be sufficient in all circumstances. He suggested that the services methodological manual and the existing manual on industry statistics could be embedded in a single manual on enterprise statistics. He reported that work had already started on this manual.

While he could see the benefits for international coordination in having a generalised manual at the international level, Mr Lancetti recognised that the Eurostat manual in its current form may not be appropriate because of its unavoidable emphasis on EU law and regulations.

Mr Lancetti said that a data collection manual might be the subject of more universal appeal, particularly if also tailored to meet the needs of less developed statistical offices. (This was the subject of the Eurostat paper presented subsequently by Messrs Boegh-Nielsen and Hake.)

Erwin Veil then invited the authors of the other Eurostat paper to speak. Messrs Boegh-Nielsen and Hake then spoke to their paper, "Initial Outline of Guidelines for

Data Collection on the Services Sector".

The speakers outlined that the main function of the guidelines is to secure a harmonised implementation of the methodological manual and to establish a set of tools to analyse the results of data collection.

Mr Boegh-Nielsen said that some EU members had experienced very serious problems in identifying the universe of businesses in service industries. Compared with industries like manufacturing, many service industries had a very large number of small firms that some EU members found hard to identify. Also in order to minimise the respondent burden on these small firms, the use of administrative data should be explored. In this regard, Mr Boegh-Nielsen referred to the annex to his paper, which shows in detail how VAT and other administrative data can be used.

Mr Veil then called for comments from the floor. Initial discussion related primarily to the technical aspects of the manuals and its possible suitability for use at a wider level. In this regard it was noted that a name such as "Guidelines for Data Collection in the Services Sector" would not be appropriate, since any document designed for wider use should only be informative but the guidelines are designed to be prescriptive. It was also noted that the existing guidelines are designed for an enterprise statistics manual rather than for national accounts, and are not written in the language of the 1993 SNA. It was suggested that an annex could be developed that bridged the gap between the two.

On the more general issue as to whether there was a need for a methodological manual at the world and/or the OECD level, several speakers supported the general philosophy of a methodological manual designed for an international audience. However, it was recognised that to be effective, such a manual would need to be comprehensive and cover a wide range of topics including: sampling, dealing with non-response in surveys, constant price estimation, time series analysis etc. Given the different statistical infrastructure existing in the various countries, most members were of the view that there would be major difficulties in developing such a wide-ranging manual. There was considerable discussion as to whether there were to be any benefits to be derived from a more generalised manual. In discussion mention was made of a handbook of industrial statistics published 20, or so, years ago, following the introduction of the 1968 SNA, which had proved to be of some benefit. Countering this view was the observation that statistical agencies and world economies had become far more sophisticated and complex in the intervening period.

Discussion then turned to the possibility of a more limited objective, namely the documentation of existing practices in different countries. Possibilities put forward included the development of a glossary of terms used in enterprise statistics. It was considered that such a glossary might assist in improving international comparability and understanding differences that may arise. Among other possibilities, one that gained some support involved a comparison of business accounting practices, perhaps starting with a pilot bilateral comparison.

The Chair concluded the session and summarised the discussion as follows:

- There is little support for the development of a comprehensive methodological manual for service industries for international use of the EUROSTAT Manual type.

- There is support for a more limited development, such as a basic glossary of terminology, or more ambitiously a comparison of business accounting practices.

- There is need for consideration of the possibility of forming a subgroup to determine the scope of a more limited document.

The Chair also invited participants to forward comments, if they wished, on the EU's guidelines document. Such comments should be forwarded to Marco Lancetti or Erwin Veil.

Mr Sarossy concluded the session by saying that it might be appropriate to revisit the issue in item 10, when future work of the Voorburg Group would be discussed.

SESSION 6(a) : THE DEVELOPMENT OF A REVISED EMPLOYMENT MODULE FOR SERVICES SECTOR MODEL SURVEYS

Chair: Peter Boegh Nielsen (Denmark)

The Chair for the session, noted in his introductory remarks, the importance of information on employment and educational qualifications in the service industries, and, as a result it was decided at the last Voorburg Group meeting to include employment as an agenda item for this meeting.

The lead discussant Berit Olsson (Sweden) summarised each of the papers presented for the session.

1. Summary Results of the Questionnaire on Employment Qualifications within Business Services.

At the last Voorburg Group meeting in Oslo, it was agreed that a survey on the availability of statistics on employment qualifications within the service sector in member countries should be undertaken. As a result, Statistics Finland, in co-operation with Statistics Denmark and Statistics Sweden sent questionnaires in March 1994 to the member countries in order to assess the current situation and to evaluate the future possibilities and ways to upgrade these statistics and their international comparability.

A total of 16 Voorburg Group member countries received the questionnaire and they all responded, highlighting the interest in the topic.

This questionnaire to the Voorburg Group Member countries was the first attempt to assess the availability and international comparability of statistics on employment qualifications in the business service sector and to evaluate the potential for developing these statistics.

The results show that in majority of the respondent countries, at least some data exist on employment qualifications. Employment data according to the age and sex of employees appeared to be quite readily available and also relatively easy to compare across the countries.

Although the age and sex structures are interesting, they are not good indicators to describe the human capital accumulation in the different services activities. Information on the educational or occupational structure of employed persons would be far more important indicators in this respect. It was found that even though most of the respondent countries collect data on employment by level of education or occupation, the classifications used differ from country to country thus restricting international comparisons.

It was also found that in addition to the classification problems, the use of different data sources had an impact on international comparability. In some instances, the data were sourced from a range of administrative data and in others they were sourced from various surveys.

The contribution of the participating countries in this questionnaire was valuable and significant, indicating a common interest in these statistics. This paper has provided useful information on data availability and comparability on employment qualification.

2. Measuring the Level of Education by the ELP-Indicator in Computer and Technical Services.

The primary aim of this paper was to introduce the Educational Level of Population as ELP-indicator, which can be used for analysing differences in educational attainment between groups. The ELP for technical and computer services was studied by age groups and sex for selected enterprises.

The second objective was to illustrate the possibilities of integrating enterprise data in the study.

This study found that differences in the level of education by sex were clearly larger in technical than in computer services. The male workers in technical services tend to have a higher level of education than their counterparts in computer services. However, the opposite seems to be true of female workers. The educational level of males seems to be rather constant across the age groups, while the level of education of females decreases rather rapidly as age increases. In addition, both males and particularly females tend to have the highest records of ELP in the age groups 25-39.

The paper also states the desire to extend this study to cover other activities, such as management consulting, legal and advertising. The theoretical aspects and framework will also need more profound discussion and development.

3. The Development of an Employment Module for Services Sector Model Surveys.

This paper has outlined a conceptual and practical basis for the development of an employment module for inclusion in services sector model surveys. It is argued that a "core", or minimum set of employment data items should be collected in respect of all service industries, where a basic distinction is drawn between persons in "paid employment" and those in "self employment". The details collected should be cross classified by "full-time/part-time" employment and "by sex" of persons employed. In respect of those service industries in which the numbers of owner-managers of small incorporated businesses are significant, it is suggested that the core set of data items should be extended to distinguish owner-managers of incorporated companies and trusts from other employees, thereby facilitating labour market analysis and international comparisons while conforming with the requirements of the 1993 SNA.

The paper also contends that individual national statistical agencies should determine what industry specific additional employment data items, including further disaggregations of "core" data items are required on the basis of the needs of users of the statistics and collection possibilities. Users' needs will vary considerably,

reflecting the heterogeneous nature of service industries and could include, for example, separate details of the number of permanent and casual employees in a specific industry, a distinction between professional and other staff based on the qualifications of individual employees, or a dissection of employment by broad category of occupation.

The paper also recognises that in certain circumstances it may be possible to obtain data from periodic population censuses, or household surveys, which might provide users with greater detail than could otherwise be obtained of the persons employed in a particular industry. Users would however need to be aware that the two data sets would not be fully compatible.

Discussion

In the discussion that followed the presentation of the papers it was noted that most of the countries did have some method of collecting employment data. This does not imply that they will be in position to adopt the data collection procedure as outlined in the first paper. That is because they do not have (access to) the necessary administrative data and also the problem of linking the administrative data to enterprise data. On this issue various problems faced by countries were discussed and in particular the issues of privacy and the linking process.

The question of accuracy of the administrative data and the inability to check this was also a concern to certain countries. The problem of the administrative data being under the control of different agencies was also seen as a restriction for certain countries to be able to achieve the linking of administrative and enterprise data. To be able to put into place an effective and efficient data collection of educational qualifications was seen as a long term project for some member countries.

The issue of who are the users of this data was also raised and for some countries it would be a question of cost once it has been established for whom and why these data are collected. It was noted that the changing nature of the economy of certain countries, from manufacturing based to services based and the different educational requirements to meet that change, justified the need for data on education qualifications of the labour market. Here it was mentioned that the needs would vary across activities and also between countries.

One of the tasks of this meeting was decide on how member countries could proceed in terms of organising data collection and the two options available were that of linking administrative data and enterprise data as presented in the first paper, or an alternative approach, put forward by Australia, of surveying businesses and within those businesses collecting information regarding individual employees. There was considerable discussion of this issue and further alternatives were discussed. For some countries represented at this meeting both these approaches presented significant problems and no commitment could be given as to when they can put into place a mechanism for the collection of educational qualifications data. This would be seen in light of the priorities of the various national statistical offices.

The Chair summarised discussion of the session as follows:

- It was generally agreed that the issue of educational qualifications was important and that countries represented at this meeting and in particular those that did not have a data collection procedure for educational qualification may begin by exploring what was available in the way of administrative data and how the gaps could be supplemented through either population surveys censuses or business surveys.

- Countries who are in a position to collect educational qualification data through administrative data may wish to extend their scope to include service industries other than business services in the future.

- There had been a number of possible future contributions mentioned during the discussion. Eurostat might be enlarging the survey on availability of data on employment qualifications to the Member States not participating in the Voorburg groups. The Scandinavian countries and Canada might provide information to the next Voorburg Group meeting on the results from the linking of the various registers from an enterprise approach. Australia could possibly report on a pilot survey, surveying in a first phase the enterprises/establishments and in a second phase a sample of the persons employed in the surveyed enterprises.

The question of how the Voorburg Group would progress the issue would be further discussed in Session 10.

SESSION 6(b) : THE DEVELOPMENT OF A NEW INNOVATION MODULE FOR SERVICES SECTOR MODEL SURVEYS

Chair: Jacob Ryten (Canada)

The Chair opened the discussion by saying that there was considerable user interest in Canada in the topic of innovation and its influence on economic growth. He therefore welcomed the proposals put forward in the joint Statistics Canada/ ABS paper.

The lead discussant Bill Pattinson (Australia) presented the paper on behalf of the two agencies and summarised its content for the meeting. He reported that the proposal to suggest a new module for the model survey arose out of the Innovation Symposium held in Canberra in April 1994 which was hosted jointly by the ABS and Australia's federal industry department. The symposium had concluded that there was a need to measure the spread and impact of innovation in the services sector. The measurement of innovation is seen as an extension of the range of technology related statistics which to date have related only to the measurement of R&D and technology diffusion.

There has been considerable work world wide on the measurement of innovation in the manufacturing sector with most countries in Europe, Canada, USA and Australia all conducting surveys. These collections largely follow the structure laid down in the OECD's Oslo Manual and associated documents. However there has been very little work done for the services sector and no work at all on the impact of "non-technological" innovation. As "non-technological" innovation is likely to be quite significant in the services sector, the proposal detailed in the paper included proposals for some measurement of that type of innovation. It was conceded that it was not a well defined concept at this time.

The paper contains a recommended set of questions which might be applicable to the services sector and which are a subset of those usually included in innovation surveys of the manufacturing sector.

Mr Pattinson proposed three topics for discussion :

1. Should there be a data module on innovation?
2. If yes, what questions should be asked?
3. Should the data be restricted to technological innovation or should questions on organisational and managerial innovation be also included?

After some discussion the meeting concluded that the framework for the model survey should include a new module for innovation. However it was felt that it was too early to agree to the proposed set of questions to be included in the module. This should be determined after more pilot testing had occurred. The meeting also concluded that the module should include some measurement of "non-technological" innovation. This concept was to be further refined as a result of the Australian survey.

One comment was that the key issue was whether one could link innovative activity

to business productivity and performance. There was support for this proposition from many delegates.

As a way to proceed, Mr Pattinson suggested that countries other than Australia should conduct some pilot surveys using some of the proposed questions from the paper. Australia would report to the 1995 Voorburg group meeting on the results of its current surveys. ABS and Statistics Canada would also try to encourage OECD and Eurostat to further develop the proposals through their regular Science and Technology experts meetings.

In closing the Chair suggested that the question of which countries might be likely to conduct pilot surveys be raised in Session 10, Plans for future Voorburg group meetings.

SESSION 7: THE DEVELOPMENT OF PRICES AND QUANTITY MEASURES FOR THE SERVICES SECTOR

Chair: Ken Mansell

The Chair in his introductory remarks noted the contribution of the countries presenting papers, and advised the meeting that the 7 papers will be presented in two groups. The first group, consisting of the papers from Australia, United Kingdom and Hong Kong would cover essentially development proposals, and the second group, comprising the papers from Japan, Germany, Canada and Netherlands would cover issues relating to the compilation of price or quantity measures.

1. Development of Price and Volume Statistics for Services in Australia.

The Australian paper was jointly presented by Charles Aspden and David Collins and addressed two distinct topics, namely; (i) the developments in the derivation of volume statistics for a range of service industries, and (ii) plans and experiences as Australia moves to progressively establish a range of service industry price indexes.

In relation to service industry price indexes, it was noted that Australia was at an early stage in its development of services price indexes and were keen to learn from the experiences of other countries. It was also mentioned that Australia was in the very early stages of setting up indexes for the real estate, rail freight and overseas sea freight industries.

2. Developments in UK Service Sector Statistics

This paper was presented by Ken Mansell and focused on plans to enhance the range of short-period data for the services sector.

The paper summarises endeavours to improve the quality of GDP estimates through the development of quarterly turnover collections and limited collections of services prices. It also outlined future developments of a monthly index of services, potentially leading to monthly GDP estimates, based on monthly collections of service industry turnover and prices.

3. An Account of the Methods for use to derive Constant Price Value Added in Services in Hong Kong.

This paper was presented by Dominic Leung and provided a description of how annual estimates of constant price value added were derived for the services sector. The two methods used by Hong Kong are (i) Extrapolation - An output volume index compiled using an appropriate method is employed as an extrapolator to derive the constant price value added in the current year from that in the base year and (ii) Deflation - an appropriate price deflator is selected and used to convert the current price value added in the current year to the constant price value added.

However, the results produced by these methods have not been considered reliable enough for publication and more research effort will be put into further development

of appropriate methodology for deriving constant price value added in services sector.

4. A Brief Explanation of the Development of Corporate Service Price Index (CSPI) in Japan.

This paper was presented by Hiroshi Nakagawa. The paper concentrates on the development of a Corporate Service (or business costs) Price Index (relating to services purchased by private businesses in Japan), and an analysis of the results obtained.

The objective is to supplement the traditional goods price indexes which did not tell the full inflationary story during the latter 80s.

The paper identifies some of the unique aspects of price index development for the services industries. It describes the approach to the selection and maintenance of samples, the need to use proxy indicators in certain industries, quality adjustment problems, etc. Finally, recent industry trends are described and related to market conditions, business activity, etc.

5. Developing Price Indexes for Consulting Engineers: The Canadian Experience.

This paper was presented by Albert Meguerditchian and outlines Canada's experience in developing price indexes for consulting engineers. In seeking to counter the classic problem of pricing unique products, the model pricing approach was initially tried. Extensive experience identified the need for a more complex approach because of three factors independently influencing price; labour rates, markups and changing labour productivity.

6. Price Indices for Road Haulage.

The Netherlands paper was presented by Michel Beekman. The paper provides a summary of a pilot survey for road haulage where a combination of the model pricing approach and transaction pricing for regular customers was used in measuring prices. Issues of productivity change (transport performance, eg time to produce the service) and quantity change (eg, contract conditions) are identified for the transaction pricing.

7. Experiences with the Collection of Quantity Indicators for the Telecommunications Sector in Germany.

This paper was presented by Lothar Hake.

The paper provides a detailed exposition of experiences with the collection of quantity indicators for the telecommunication sector. The data collected is designed to support government regulation of the market to ensure competitive conditions are maintained. It also describes their approach to measuring both the structure and utilisation of telecommunication facilities through seeking data on a wide range of quantitative variables, as well as financial data on turnover, employment, investment, etc. The paper also provides interesting information on collection

aspects such as response rates (low, but voluntary), ability to provide accurate data for different variables, etc.

Discussion

Some lessons learned about the market place, in the process of establishing price indexes for services sector included for example, the extent to which initiatives have been taken to deregulate service industries (eg, those that were previously government monopolies, or government regulated such as in the telecommunications industry) and render them more competitive - and the implications of those initiatives for prices statisticians. It was noted in discussion that there were a number of possible consequences resulting from deregulation. These included:

- more complex price structures
- increased demand for data for monitoring effectiveness of deregulation processes in terms of prices and/or output, and
- potential respondent resistance if data are seen as being used by government to monitor performance.

There was extensive discussion of countries experiences in developing service industry price indexes, relative to the traditional goods industries. Country experiences exchanged by members at the meeting in respect of the above can be summarised into the following :

- the need for close consultation with industry associations

- the benefits of establishing continuing collections

- the difficulties in defining the unit of output

- issues such as sample size (eg. Japan's experience has been that substantially larger samples are required for services as compared to goods because of the greater variability in prices)

- the difficulties in handling unique service items

- the problems in tracking actual market transaction prices and capturing all discounting, rebates, etc. (the meeting noted Japan's observations about the use of second best options such as list prices or unit labour costs)

- the difficulties in identifying and measuring quality changes

- the problems associated with measuring office rents over time due to the nature of rental contracts.

- how to handle sub-contracting

In discussing the many issues mentioned above, it was agreed that it would greatly assist statistical agencies if experiences in the development of price indexes could

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be shared on an on-going basis. In considering this issue the meeting suggested that in order to assist countries resolve the issues mentioned above, a database could be created possibly through Internet which can be accessed by member countries to find out about the most recent developments regarding price indices for services in other countries, i.e. countries will benefit by sharing the experiences of others. Arrangements for taking this interchange forward needed to be resolved.

A major feature of future OECD service sector work would be on developing an index of services output and on price indices for services. It was agreed that those countries who are not members of the OECD could inform Erwin Veil of their interest in OECD literature on the development work in these two areas and he will arrange for that literature to be forwarded to them.

In summarising the session the Chair noted the importance of price indices from a national accounts perspective as well as from a service industries statistics viewpoint and the difficulties confronting price statisticians in compiling indices of appropriate quality. He also noted the extensive development work being undertaken by individual member countries and the need to keep other member countries informed. He would pursue how best this might be done.

Session 8: Country Experiences with Model Surveys

Chair: Mr Hugues Picard (France)

The Chair outlined the content of this session and described the nature and purpose of the model surveys. He mentioned that the prototype model survey had in the first instance, been applied to computer services. Survey activity had subsequently expanded into most service industries.

The original model, consisted of eleven modules covering revenue, operating costs, goods and services for resale, inventories, basis of accounting, exports, imports, supplementary questions relevant to the industry, employment, fixed assets and R&D.

Berit Olsson (Sweden) spoke to her paper which dealt with the development of model surveys for renting and business services. The main points were:

- The fine level of detail sought in the surveys was a major concern as it represented a considerable burden on business. Small businesses in particular seemed adversely affected, based on reactions to the surveys.

- Despite the detail requested, most businesses had responded quite well, though there were suggestions that the length of the questionnaire had contributed to some questions near the end not being completed. It was noted that legal practices were often less than co-operative.

- The surveys demonstrated that questions must be adapted to specific sectors. Modifications particular to individual countries seemed warranted. It was important for draft questions to be discussed in advance with respondents and business organisations.

- The module dealing with the operating costs and the fixed assets (modules 2 and 10) had caused some problems as had the employment module. There had been difficulties in formulating a suitable definition of self-employed and in defining computer specialists.

- Despite some difficulties, the response rate overall was more than 80 percent and the surveys were judged to have been successful.

Shaila Nijhowne presented the Canadian paper 'Implementation of the Model Survey of Computer Services : Canada's Experiences'. It was noted in the Canadian paper that the detailed split of expense items (Module 2) had not been handled well by enterprises generally, suggesting some sensitivity to divulging this type of information or alternatively. The paper also highlighted some problems in classifying some forms of revenue, particularly those relating to establishment trade, and in a more general sense the paper identified some problems in respect of Module 6 dealing with exports.

In discussion it was noted that some member countries had experienced some problems in obtaining revenue data according to CPC categories. It was recognised that often modifications to wording may be required to meet individual countries circumstances.

In discussing the issue of the burden of responding it was observed that small businesses had some times experienced more difficulty responding, while at other times it was large businesses. A possible solution, adopted by some countries, to this issue was the use of different questionnaires for small and large businesses.

There was some discussion about the basis of reporting in terms of financial reporting periods used by businesses and how various agencies dealt with this situation. In general, there did not appear to be much consistency in the treatments by various countries, though most specified the bounds within which the reporting year had to fall and some adjustments were made in particular instances.

In further discussion of the model some concerns were expressed about the import and export modules. It was observed that there appeared to be a need for more include and exclude instructions, and without tighter definitions and evaluation of the data obtained it was uncertain just what would be reported by businesses. In a more general sense the issue of the objectives and applicability of the import and export modules were raised. It was noted that if there were insufficient objectives then the Group might need to reconsider the need for these modules.

In summing up this part of the session the Chair noted that modules 2, 4, 6, 7 and 11 possibly need some further development to improve results obtained. The meeting noted the importance and need for comparable data for international comparison purposes, or documentation on the extent that individual countries diverged from the standard framework in order to identify national differences for evaluation. The Chair noted that despite some drawbacks the model did provide a basic set of guidelines to countries which had not yet conducted surveys into service industries. In this sense the model acted as a standardising framework. It was also noted that the model survey was first developed for computer services and took account of national accounting concepts. In applying the model to other sectors each country needed to be aware of the origins of the model and to adapt it where necessary to fit the task and the country context. It was accepted that questions needed to be adjusted to suit business accounting practices which may vary from country to country. The model questions should not be seen as being generally applicable without some adjustment.

Mr Carr (Australia) then outlined work recently undertaken on the film and video industries. He emphasised that extensive developmental work had been undertaken. As the model survey had not been directly commented upon, Australia committed itself to producing a paper for the next meeting which would focus on aspects of the model. An important observation concerning this industry was the existence of large numbers of freelance producers, which created difficulties in obtaining adequate coverage of the 'industry'.

Finland had also undertaken work into this industry and reported a similar experience with freelance producers, coupled with the relatively large number of small businesses in the industry. There were suggestions that in Finland, secondary production was significant (e.g. videos being produced by advertising companies). Finland had experienced problems with the level of detail sought in the questions, which seemed to be a reflection of the small size of units in the local industry.

Mr Trogan (France) spoke to his paper. The analysis which they have undertaken into the computer sevices items of the CPC was based on a cross classification of activities and products. The activities represent finer dissections than ISIC and the products are from the model survey. The results obtained reflect the relative importance (size) of the related 4-digit CPC headings.

In this respect, the conclusion reached indicates that 7740 'Data base services' is a relatively small activity and as such the validity of having a separate 4-digit CPC heading is questionable. In contrast, 7220 ' Software consultancy services' is very large. The activity ' facilities management services' is of a size which may be appropriate to split into two or more separate CPC 4-digit headings.

The paper was welcomed as it provided one of the first pieces of empirical evidence which could be used to critically examine the CPC. It was important to establish similar evidence for other areas of the classificationand other countries. An issue which needs to be considered is how much evidence is required in order to justify changes to the CPC. It was noted in discussion that it was important to also be able to establish the level of secondary activity within other industries that may be classified to CPC 4-digit headings. This would also be desirable from the viewpoint of determining the degree of coverage of the industry. The scope of the French study into computer services did not appear to permit such analysis.

In concluding discussion of the French paper, the Chair indicated that it was important to gather information from all service industries which would allow a similar analysis to that undertaken into computer services. It was important to establish, if possible, the specialisation and coverage ratios of the industry data gathered. He suggested that the Statistical Commission could give consideration to establishing a group to undertake an analysis of the CPC when sufficient empirical data becomes available. He encouraged individual countries to also make use of such data in appraising the CPC.

Eurostat (Mr Lancetti) spoke to the paper on the 'Pilot survey of the HORECA and Travel Agencies sector, the Italian case'. He indicated that the pilot survey had focussed principally on reporting unit issues and had been stratified by geographic location. There were now plans to go to a full survey implementation. Although the paper did not provide a critique of the model survey, Mr Lancetti undertook to provide comments along these lines for the next meeting. The Chair indicated that data from the full survey, if available in time, would be more valuable than that obtained in a limited pilot study.

The final paper in this session was presented by Australia (Mr Sullivan) on 'Medical services industries: Report on research in progess'. The paper highlighted problems in adequately defining suitable statistical units for this industry and establishing a frame for the collection of data. Users wanted data about medical practices.

There were however severe complications in this approach because of complicated and diverse arrangements which typify such businesses. It was not unusual to have a group of doctors operating from a single location (a practice) which involved more than 15 legal entities. Record keeping did not appear to support compilation of data about such practices. There seemed to be a need therefore to revert to a legal entity reporting basis.

In addition to the units problems there were also difficulties in achieving adequate coverage. The ABS Business Register does not contain non-employers. The Australian Medical Association had however provided a list of doctors. A two phase approach is therefore planned. Phase one would seek information from doctors about the legal entities used and phase two would seek data from the legal entities concerned.

Finland indicated that the issues outlined in the Australian paper were important. A survey conducted in Finland had virtually failed because of problems similar to those outlined.

The Chair indicated that there would be considerable interest in the data when available, and also in the sampling and estimation procedures adopted. He invited Australia to provide more details on this work at the next meeting.

Session 9: The Development of Statistical Frameworks for Specific Parts of the Services Sector

Chair: Alan Mackay (Australia)

The Chair introduced the Session, proposing that it be structured in three parts, with a discussion of frameworks firstly for tourism statistics, and secondly the Information Technology related industry (IT), and finishing with a discussion of the general issues arising from these two topics. In particular, the Chair identified four main issues which relate to these two industries, and also to several service industries more generally. These were:

- defining the industry
- overlaps with industry frameworks
- defining the product/service
- classification issues.

Tourism

Mr Marco Lancetti spoke to the Eurostat paper 'Summary of Eurostat Activities Concerning Tourism Statistics'. This work has focused on the development of a reference framework to enable Member States of the European Community to work towards the adoption of common standards, definitions and methodologies.

Mr Lancetti particularly noted the efforts taken to achieve close co-operation with the World Tourism Organisation (WTO) and the OECD. Much of the work is also tied to the goal of maintaining linkages with the generalised international classification systems, particularly the Central Product Classification (CPC) and ISIC.

Mr Stan Fleetwood presented the Australian paper 'Framework for the Collection and Publication of Tourism Statistics'. He summarised the context to the development of tourism statistics in Australia which had led to calls for the development of a tourism statistics framework. The aim was to provide a logical model linking the different aspects of tourism and encouraging the adoption of standard concepts, definitions and classification systems.

Central to the framework is the fact that tourism is defined by the activities of tourists. This contrasts with the transportable goods producing industries that are defined by supply-side concepts.

The framework comprises a model that links tourism CONSUMERS to PRODUCTS and their SUPPLIERS. For each of these elements, a set of "typical" measures have been proposed. It was noted that this model is also being adopted by the WTO.

Mr Fleetwood indicated that work is proceeding on the development of a concordance between the CPC and the Tourism Expenditure Classification. This highlighted the fact that, where possible, the various "typical measures" attempt to build on or otherwise incorporate standard international classification systems, concepts and definitions as much as practicable. However, in a number of cases

tourism specific classification systems have had to be developed.

Information Technology

Mr Bill Pattinson presented the Australian paper 'Information Technology Statistics' which summarised the approach taken by the ABS in dealing with the information technology "industry" and the surveys developed recently to measure this sector. In common with tourism and many other service "industries", the IT industry cannot be defined in terms of ISIC. Instead, the framework for IT defined 'IT related industries' as either suppliers or users of certain IT goods and services.

On the supply side, the ABS is conducting surveys of ANZSIC industries that collectively account for the bulk of businesses engaged in providing the selected IT goods and services. However, as not all businesses within ANZSIC classes were grouped into categories of primary producers of IT goods and services, secondary producers, and non-IT producers, the ABS has included a question which asks for the value of sales of IT goods and services, which thus enables a specialisation ratio to be calculated.

Recognising that a significant proportion of IT activity is undertaken in-house by the business enterprise and general government sectors, the ABS is also conducting a survey of production of non-marketed (ancillary or in-house) IT goods and services.

The third part of the ABS' strategy for measuring IT relates to the use or consumption of IT goods and services. This topic is included in the surveys of the business enterprise and general government sectors mentioned above, and in a survey of the household sector.

Mr Pattinson cited a number of findings from the recent IT surveys relating to each of the key elements of the framework - notably, consumers (users of IT), the products (IT goods and services), and suppliers.

Mr David Archer (Statistics New Zealand) spoke to his paper on the Computer Consultancy Services Industry in New Zealand. This investigation is part of a broader project looking at business behaviour and survival factors over time. The study therefore focuses on a well defined industry within the scope of the IT "sector", but seeks to provide a wide range of measures reflecting business dynamics and demographics. Mr Archer noted the many difficulties that had been encountered in undertaking such a study but considered that the results would greatly assist in users developing an understanding the services industries. A number of participants commented on similar or related studies undertaken in respective countries.

General Discussion

Before moving into a general discussion of issues, the Group heard a short presentation from Marco Lancetti on the links between Tourism Classifications and the CPC, and how these could be seen as being logically linked to other classification systems and frameworks.

There was considerable discussion on the appropriate terminology in relation to services like tourism and IT. The Australian paper had suggested the term 'related industries', whereas in Canada, attempts to measure the economic impact or significance of respective service industries that contribute to a number of standard "industries" or sectors of the economy (eg., transport) are occasionally attributed to the relevant service "activity". It was suggested that the term "activity" might perhaps be more suitable than "related industries".

This led to a further comment about the difficulty in deciding how much to include in a "related industry", especially if the intent is to include "indirect" producers or service providers. Unless these are based on somewhat narrowly defined criteria, some of these classifications will start to encompass many sectors of the economy.

Referring to the INSEE (France) paper on differences between Satellite Accounts on Tourism, Hugues Picard (France) mentioned that France had begun using the term "domain" rather than "related industry" or "activity". Mr Picard also supported the suggestion that the scope and coverage of such "domains" should not be defined too broadly. To do so would impact adversely on the compilation of respective Satellite Accounts. Mr Picard also noted two significant deficiencies in the available statistics on tourism industries : the absence of data on sources of finance for this industry; and difficulties in measuring the government's contribution to the tourism industry (eg., infrastructure).

In relation to the question of overlaps across frameworks (and Satellite Accounts), it was felt that these constructs provide very important views of respective "industries", but which need not strictly complement other frameworks. The System of National Accounts caters specifically for the needs of additivity and comparability across sectors.

The Chair noted in his concluding remarks that the issues that had been raised and discussed would continue to be a challenge to all participant countries, as users of data increasingly sought information relevant to cross-cutting themes.