**VOORBURG GROUP MEETING**

**on**

**SERVICE STATISTICS**



**CHRISTCHURCH 1999**

**MINUTES**

**Introduction**

The 14th meeting of the Voorburg Group on Service Statistics was held in Christchurch, New Zealand from 11 to 15 October 1999. The meeting was hosted by Statistics New Zealand. Forty-three people from x nations participated in the meeting.

The opening address was given by Mr Ian Ewing, the New Zealand Deputy Government Statistician. He spoke of the New Zealand economy and the challenges faced by statisticians in the modern world.

**Session 1      Reports**

**Chair:**  Peter Boegh Nielsen (Bureau Chairman)


**International Organisations**


**OECD**

*(Bill Cave, Bill Pattinson)*

<u>**Summary report on recent OECD services statistics activity**</u>.

This note gives a brief outline of *some* of the recent activity related to service industries in OECD.

<u>**International Trade in Services**</u>
**Implementation of OECD-Eurostat classification for international trade in services.**
OECD published jointly with Eurostat, in spring 1999, statistics on international trade in services, which were reported for the first time according to the OECD-Eurostat classification. This is a disaggregation of BPM5's classification for services. The publication is "Services: Statistics on International Transactions 1987-1996"

**Manual on International Trade in Services**
OECD convenes an inter-agency task force (UN,WTO, IMF, Eurostat and others as appropriate e.g. UNCTAD), which is charged with producing a Manual on Statistics of International Trade in Services (MSITS). MSITS seeks to meet the needs of WTO, the GATS negotiators, Government and business for data on trade in services.   A draft edition is planned to be circulated worldwide to all national statistical agencies and central banks at the end of October for comment. OECD, in discussion with member countries and Eurostat, intends to begin the process of seeking data collection according to the Manual in 2000**.**

MSITS brings together balance of payments type trade in services between residents and non-residents and foreign affiliate trade in services i.e. the commercial presence mode of trading in services. It also proposes a simplified method to allocate service provision according to the GATS modes of supply. It is based on extensions to existing standards, particularly BPM5  and is compatible with the OECD globalisation Manual. A correspondence with CPC v 1.0 is made as far as possible for BOP services, given their  BPM 5 structure. FATS activity is structured by ISIC rev 3 categories. Although no framework is proposed that brings together fully BOP trade and domestic production, nonetheless from now on the two activities will be compared in the same picture of trade in services, which will encourage the development of a unified framework at a later stage.

## Collection of Structural Industry Data on Services
**ISIS/STAN.** For the first time in 1999 OECD has requested and collected *detailed* structural business survey statistics across the service sector as a part of its annual industry questionnaire ISIS. These will be published with the annual ISIS data and will also feed into the analytical database STAN. Initial results are patchy but the commitment is there to develop, collect, analyse and publish such data in future.

**New data published on strategic business services and telecoms:** OECD STI directorate published in September 1999 a study on "Strategic Business Services", which involved substantial data collection from the member countries. Earlier in 1999 indicators and commentary on telecoms activity and developments were published in "OECD Telecommunications Outlook"

**National Accounts/Value-added and employment data by activity**
OECD is reviving its publication on detailed services value-added and employment by activity  (national accounts compatible). Data are normally published  for standard rather broad industry categories and this exercise seeks to supplement these with the most detailed activity breakdowns that countries have for services. The next publication is due by the end of the year.

## Non-Market Services
OECD has a strong interest in the measurement of output in non-market services. This interest is spread through the organisation, but two examples may be worthy of mentioning here.  OECD organised a seminar on productivity in government earlier in 1999 and is currently piloting a survey of member countries on uses of IT in government that have led to identifiable increases in productivity. Within National Accounts Division there is interest in implementation of SNA and its recommendations for non-market services output measurement. There is a desire to see estimates produced by countries so that some evaluation of plausibility, robustness and implications for GDP growth can be carried out.

## Service Prices
An  OECD Voorburg Group 1999 paper reports on an updated survey of activity in countries on collection and measurement of prices of services to enterprises. OECD is keen to encourage further progress in this area to develop appropriate deflators of service industry output and to widen the range of country involvement in this work.

## Tourism Statistics
OECD has developed a draft tourism satellite account. The World Tourism Organisation has done likewise and countries have expressed some concern that the two are not consistent. OECD is working with WTO/OMT and others to explore whether and how the two TSAs can be reconciled. A meeting is to take place in October and plans will be discussed at the OECD tourism statistics expert group in November.

## ICT Sector Statistics

Following the October 1998 endorsement by the Committee for Science, Technology and Policy of the ICT sector definition established by the Working Party on Indicators for the Information Society (WPIIS) in mid 1998, the WPIIS Secretariat moved to implement the definition in its statistical data collections. Thus the 1999 ISIS data collection referred to above also contained a request for data about the individual ISIC rev 3 classes included in the definition.

While some Member countries have been able to supply some data for some of the classes for some of the years, in general the response was somewhat disappointing. There were a lot of gaps in the data made available by Member Countries.

This means that the ISIS data publication for 1999 will not contain any ICT sector data. Alternatively the WPIIS Secretariat is looking to supplement the data provided as part of ISIS by undertaking special arrangements with individual Member Countries and utilising other data that may help to complete the coverage for those countries. In a number of cases it will be necessary to make "OECD estimates" to ensure that the overall comparability is maintained.

The revised data sets will be published by the OECD in a new issue outlining the size and structure of the ICT sector in the first half of 2000.

## Science, Technology and Innovation Measures

The OECD is looking to review its research and development survey framework (Frascati Manual) over the next twelve months. A key issue in this will be to examine whether the measurement of R&D in the services sector can be improved. The view of many member countries in this area at this time is that there are deficiencies in this area.

OECD and Eurostat are combining to review the manual for measuring technological innovation in business enterprises. A key area for review will be the relevance of concepts and definitions for the services sector. The review will be completed in time for the next round of innovation surveys to be run in Europe in 2001.

OECD is about to embark on a series of meetings aimed at developing standards for measuring the biotechnology industry.

OECD recently released a manual setting standards for measuring the environmental goods and services industry.

**OECD/STD and DSTI**
**October 1999**

**Eurostat**

*(Bernard Langevin)*

EUROSTAT is a facilitator for European Statistical Systems rather than a producer. This is why we welcome that pilot actions initiated by EUROSTAT are presented in the Voorburg Group by the European Union Member States leading these actions and we thank these member states.

However it might be of interest to indicate what is foreseen by EUROSTAT for the development of structural business statistics. I say "business" statistics and not "services" statistics because, with the new European regulations passed in 1996 and 1998, the breakdown of the European business analysis is no more primarily by sectors of activity as in the past but between structural statistics and short-term statistics. And these statistics cover in parallel industries and services. Nevertheless it is clear that the developments which are envisaged are in the "services" sectors.

The rolling three years program which will be discussed in a meeting of the Directors of Business Statistics of the 15 Member States of the European Union on the 27th October 1999 contain 25 priority fields to be discussed.

- Business Services (NACE K)
- Analysis of demand side
- FATS
- Enterprise demography
- Breakdown by legal form as a starting point for an analysis of "social economy"/"third sector".
- (NACE M, N, O (Health, Education, Others))
- (Subcontracting)
- Distributive trade : co-operation agreements, trading forms, etc….

However we have to take into account the very important workload that the implementation of the European regulation is giving to the EU National Statistical Institutes (NSI). As EUROSTAT is clearly giving the first priority to the implementation of the regulation in its present state, the Directors of the NSI strongly advise EUROSTAT to limit the developments to those strictly necessary. This is why EUROSTAT is proposing to the Directors to decide on the next 27th October to choose which of these possible developments they consider as more important and feasible. The discussions and conclusions of the Voorburg Group will be of interest for this discussion.


**UN Statistical Commission**

*(Ralf Becker)*

At its last meeting on 1-5 March 1999, the United Nations Statistical Commission reviewed the report submitted by the Voorburg Group. The report outlined the accomplishments regarding the CPC and a proposal for the future workplan of the Voorburg Group.

The UN Statistical Commission accepted the report and recommended that the future work program of the Voorburg Group be focused on problems of service product prices.

At the same session the UN Statistical Commission recommended that the Expert Group on Economic and Social Classifications be the central coordinating body for implementing the proposed work program in Classifications, which includes work on ISIC and the CPC. Therefore the question was raised whether the CPC-subgroup should also be a subgroup of the Expert Group. The UNSC recommended that this decision be taken at the next Expert Group meeting.

As a forum of users of classifications, the Voorburg Group should continue to provide input regarding the use of the CPC, especially in the area of services.


**Country Reports**

Each country reported on recent achievements and current challenges. The list of critical issues follows.


Key Issues  - Service Statistics

Rapid Change – new industries, new problems
- Restructuring of business – mergers and acquisitions
- Identifying new businesses and business closures
- Rapid turnover of businesses
- Deregulation of service industries

Trade in Services

**Statistical burden – new statistics, new domains**

Foreign affiliates trade statistics

Reluctance to provide information
- External pressure to reduce respondent load
- Indices of respondent burden
- Quality of responses
- Declining response rates for surveys

Innovation statistics

Electronic Commerce
- Companies do not keep separate record of E transactions
- Pressure from governments to measure

Non-market services

Statistical law

Budget constraints

Producer Price Indexes
- Obtaining information from telecommunication industry
- Pricing Retail Trade margins
- Hedonic regression for measuring quality change

Collection Units
- Identifying a survey unit which is able to be aggregated
- Different units need for different purposes

Pressure for international comparability

Longitudinal analysis

Administrative data
- Timeliness of tax data

Organisation of statistical offices

Electronic methods for data collection (E-surveys)

Biotechnology

Measures of human capital

Definition of wholesale trade

**Meeting of the VOORBURG GROUP** :

**REPORT**

**Session 2;  Measurement and Classification Issues.**
**Leader: Canada**

a)  CPC

In the past the Voorburg Group had the direct responsibility for assisting UNSD in developing the services part of the CPC. The Voorburg Group created a Sub-Group of classification experts from amongst its members to undertake the technical work. As reported by UNSD, the Statistical Commission has now given the responsibility  for coordinating the revision of ISIC and the CPC to the Expert Group on Economic and Social Classifications and they in turn have given the members of the Classification Sub-Group the added responsibility for revising ISIC. In future they will likely constitute a Technical Sub-Group of the Expert Group  to work on the updating and revision of ISIC and the CPC. The Statistical Commision has approved that an update to CPC version 1.0 be produced for 2002. As classifications can only be developed  by taking into account  the analytical needs of users, and the experience of  data collectors, the Sub-Group looks  to  the statistical offices represented in the Voorburg Group, to provide their suggestions  for updates or changes to the classifications, by drawing on their experience in using the classification for collecting output and price data.

Papers:  Statistics Canada, Services Division, Use of CPC version 1.0 for defining Service Product         Outputs, Canadian experience.
         France, INSEE, Chantal Cases , From the French structural business survey to CPC v 1.
         Italy, ISTAT,Robert Gismondi,Use and Significance of Classifications for Retail Trade.
         Eurostat,Niels Langkjaer, Distributive Trade, Links between ISIC Rev 3 and CPC version 1.0

1. The Eurostat paper provided the links between the reference list of products named in the CPC under Wholesale and Retail Trade to ISIC Rev 3 .

2.The Canadian paper described the experience of using CPC v 1in five surveys. Much of the time, the classes of the CPC are further broken down. These are described in the paper. However particular recommendations are the need  for a separate class for Packaged Computer Software ( either under publishing or where it is now in the CPC), the need for a class for the digital transmission of software and other products and the need for a separate class for  Real Estate Appraisal.

France agreed that a separate class is needed for Real Estate Appraisal .

Australia also starts with the CPC and details it further. It mentioned that for IT services, it is not always possible to collect the detail for bundled services. From the point of view of prices, it is more significant to collect prices for the bundle than for the detail because the bundle is provided at a discount as compared to the sum of the prices of individual products.

3.The paper from INSEE studied the problems of aggregating their data collections to the CPA and CPC v 1.0. Areas of difficulty were

Engineering: The project dimension is considered more analytically significant than type of engineering service, but the CPA has no mention of the former.
Telecommunication: In CPC v 1.0 the main breakdown is based on the technology used. wired, wireless and satellite.The type of service is considered more useful.
Computer services: Problems arise because there is no stability in the services offered each year. And there is a constant necessity to introduce new products.
Both in engineering and consulting services, intergrated projects are difficult to split up into their components for classification to individual CPC classes. Special products need to be created in the classification for them.
Employment Agencies: There was too much detail by qualifications of personnel, that cannot be collected.
Audio Visual services needs more study.

Denmark stated that they collect engineering services both by type of service and by type of project. Canada mentioned that they too collected both but that more significant price movement had been observed  in the project dimension than in the services dimension. Finland had earlier reported that they found the project dimension in engineering services to be more significant.

Denmark also pointed out that the pilot survey of computer services showed that training and education is an important product that needs a place in the classification of products.

On the subject of data collection. Denmark raised the issue that if only large enterprises are sampled, small very specialised ones are missed. Canada stated that collection of product data for small enterprises becomes a particular problem, when the data are drawn from administrative data

4. The ISTAT paper presented a detailed analysis of  the conceptual basis for the classification of retail trade and pointed out the difficulty of making the distinction between specialised and non-specialised trade. The paper pointed to the need for alternative classifications

It requested discussion on the following issues

Whether the idea that a predominating activity really exists for any specialised  enterprise. Even if a predominating activity exists, whether to assign a predominating relevance to the evaluation of the consumption function that products are designed to satisfy rather than to

the types of products themselves, a choice that could imply a decreasing importance for the specialisation concept;

The paper suggested  1) getting around the existing rule that uses as exclusive discriminant factors the two single trading forms, namely specialised and non-specialised retailers, by trying to better evaluate new mixed types of retailing. 2) reclassifying some of the typologies using more detailed subdivisions only for those 4 digit headings where empirical evidence shows an imbalance in size confirmed by a high heterogeneity of turnover. Eurostat was asked to play a central role in harmonising such subdivisions.

Eurostat suggested that if it was agreed that such a difficulty was being faced ,  the distinction between specialised and non specialised could perhaps be dropped,  to which INSEE responded that the problem arose only in the case of a few businesses and that in their experience there was a demand for separate data from non-specialised businesses. Canada asked whether INSEE had not in fact used a criterion that was based on the type of store and size rather than one based only on specialisation. It was suggested that it would be advisable for all countries to implement the  rules for determining whether a business was specialised or not, in the same way. Many countries adopt a top -down approach of establishing the main activity while some appear to use a bottom-up approach starting from the lowest level upwards. Eurostat will circulate their rules but pointed out that they were extremely complicated. Given national differences, it had been impossible to agree on a size cut off. Statistics Netherlands questioned whether the problem lay in the choice of unit rather than the determination of specialisation.

Canada mentioned that to de-emphasize specialisation perhaps we need to collect and provide both product and industry data. Statistics Netherlands were of the view that because users need both inputs and outputs  specialised industries were important.


**Session 3.  CPC and International Trade in Services**
**Leader : Canada**


Canada stated that  the next round of multilateral trade negotiations of the GATS that were to start in the year 2000 gave a new importance to the need for detailed data on international trade in services.Except for a few areas such as  Telecommunications and Finance, the previous  GNS/ W/120  list that formed the basis of the GATS Agreements of the Uruguay Round  were based on the Provisional CPC. Now the negotators are considering using CPC version 1.0.  Negotiators want data to monitor agreements. This becomes a matter of concern for statisticians, engaged in classification, producers of statistics of domestic production and international trade in services and the balance of payments.

Presently , Balance of Payments statistics are the main source of data on international trade in services.

The BOP classification in the BOP Manual 5th edition was linked to the Provisional CPC. Now the IMF has worked with OECD and EUROSTAT in expanding the classification of services (EBOP), and they are now developing links between EBOP and CPC v 1. This helps in defining the content of many of the BOP components, and indicates the correspondence with BOP components, of production or international trade data , if they are collected at the level of CPC v 1.

Margaret FitzGibbon of the IMF discussed the CPC from a user perspective and explained some problems faced in creating the links, some of which stem from the different conceptual bases of the two classifications.

1. Need for greater clarity in the description of the content of the classes of the CPC. The fact that the explanatory notes are only examples should be made clear.
2. Redefinition of content between the classes of the Provisional CPC and CPC v1 create problems in rebasing the definitions of the BOP components
3. Electricity distribution is usefully separated from electricity production but combining meter reading services with it, is not applicable for international trade. Perhaps it would be useful to combine electricity distribution with CPC 643 transport services by pipeline.
4. Focus should be on the service provided rather than who provides it in Division 91, Government services.

Other difficulties
5. There are certain areas of the BOP classification that are difficult to completely define in terms of the CPC e.g.travel
 6. It is sometimes difficult to draw the dividing line between architectural, engineering services and construction services when collecting balance of payments data.
7. Services may be bundled in ways that are not easily classified to the CPC.
8. Non-bulk subscriptions to newspapers and magazines are treated as a service in the BOP.

In conclusion , members were thanked for their input which would be taken into consideration in future revisions of the CPC.They were requested to continue to provide input.

**OTI Services Indexes**

On 14 September 1999, Statistics New Zealand (SNZ) released the first quarterly index number in a mew series of price indexes. These indexes (Overseas Trade in Services Price Indexes) are the result of ongoing efforts on the part of SNZ to improve the coverage and quality of its price index series. The indexes are primarily intended for use as deflators of international trade in services within the national accounts, and as such have been developed using SNZ'93 and BPM'5 concepts. Indexes are produced for both imports and exports of services. In addition, lower level indexes, consistent with national accounts aggregates in the External Transactions Account, are also published. The indexes are calculated as Laspeyres base-weighted price indexes, with annual base weights, which will be chain-

linked annually.  Further information on these indexes can be obtained by contacting shirley_nesbit@stats.govt.nz, or by visiting the SNZ homepage http://www.stats.govt.nz.

*Minutes of non-market services: session 4*

Leader: Fabiola Riccardini

Programme proposed for years 1999-2001.
While always a significant area for public policy concern, the increased level of interest in human capital raises the importance of producing relevant information about the provision of non-market services. This suggests a number of issues related to the measurement of these services. Above all the following items of work must be analysed:
1. valuation and deflation of output (discussing prices and quantities, taking in consideration also the System of National Accounts)
2. identification and collection of data relevant for non market units as well as non profit units belonging to these industries
3. using the occupational distribution of employment for valuing the output of non-market industries, and more in general data on the employment in these services industries
4. proposals for expansion or changes in the categories of the CPC

The work will be developed for each sector in which the services are typically produced: education, health, other social services, cultural services and other services, after having analysed general problems of measurements.
The work on this area has to take in consideration the development of the non market services in the System of National Accounts and the integration between social and economic statistics relevant for the industries operating in these sectors. Experience on surveys for the above items will be welcome.

Papers presented.

**1. Sweden**: Gunnel Bengtsson, Barbro von Hofsten, *Pilot survey of Non-profit Organisations Serving Households (NPISH)*, Statistics Sweden

**2. New Zealand**: Mike McGrath, *Non-market Services – New Zealand experience in measurement*, Statistics New Zealand

**3. Italy**: Roberto Casanova, Fabiola Riccardini, *The Italian Census on Non-profit Organisations*, ISTAT – National Statistical Institute of Italy

**4. Italy**: Alessandra Nurra, Fabiola Riccardini, *The European Experience on M-N-O Economic Activities, Focus on Business Registers in EU Countries*, ISTAT-National Statistical Institute of Italy

Presentations.

The lead introduced the session by stressing the importance of developing the statistics and analysis in this area. Many governments in different countries have been developing policies on the so called "non-market services" or the "third sector" economy and official statistics are required to contribute to the analysis. The substitution effect between public and private services production stands in many policy designs.
Taking this into consideration, different points of view of measuring the non-market services have been developed in this sub-area of the VG group. As well as SNA, other frameworks for developing statistics have to be considered.
The presentations of the papers developed two points:

1.valuation of output (NZ paper) and other relevant data required. Measurement problems regarding identification of the units to survey and the total population (Eu experience on MNO project: focus on register - Italy paper)

2. surveys experiences (Sweden, New Zealand, Italy)


Part 1:
Mr McGrath:

Adequate measures for this activity are required not only because of the size of the financial flows and stocks associated with it, but also because they are <u>crucially important to the stock of a country or region's human capital.</u>

While the definition of the term "Non-market" comes from SNA93, the valuation convention adopted by that framework is not entirely appropriate if we are to understand the full  role this activity plays in our economies. This, coupled with the currently impossible task of producing a relevant volume series based on price deflation of an SNA-based value time series, means we have to establish other methods of providing information about the volume of outputs produced and how that changes over time. The provision of such data is a prerequisite for the calculation of productivity statistics.

Developing appropriate volume measures is difficult, especially for those services that are said to be collectively consumed (e.g. Defence). The SNA presents a hierarchy of options for measuring <u>changes</u> in the outputs produced by non-market service providers, but these do not necessarily mean that we will be able to produce series showing actual volume data.

As the data required to compile accounts within the SNA framework are not sufficient to fully explain the  importance of this activity, further information must be collected. Specifically data is required about the results of the provision of non-market services (e.g. the health of residents), and the amounts of voluntary labour and donated goods within the production functions of non-market service providers. If this data is merged with that required under SNA, it is possible to compile reports of immense value in the formulation, implementation and monitoring of public policy.


Mrs Riccardini:

The European experience in developing statistics in M-N-O economic activities can be used as input for analysing some measurement problems. The work was conducted inside a Eurostat task-force, where it was decided that the  main focus should be on registers regarding private or public enterprises, government and non profit organisations mostly active in these MNO activities. The analysis of registers should give an idea about how countries identify the relevant units. The survey was conducted in 11 out of 15 countries.

The main results from that study are: the distinction between market and non-market is useless for register concern because it is en ex-post concept. Difficult areas to cover in registers are government and  non-profit organisations. Among countries there are no common legal framework and fiscal data are not the only data used to identify the whole population, being units active in those economic activities. A common frame could be defined : units which employ at least one employees, pay tax or are registered in some administrative register. The conclusion is that first there has to be agreement, in particular for the non-profit organisations coverage. Following this then should be defined models to survey.



Part 2:
Mrs. Bengtsson:

Statistics Sweden  has carried out a pilot survey on Non-Profit-Institutions serving Households (NPISH) based on a sample of 200 entities classified as non-profit institutions in the Business Register. The objective was to investigate if the business register could be used as sample frame, if data required by National Accounts could be provided and if the NPISH were willing to participate

in a survey. It was found that the respondent rate was 70 per cent, and that the respondents were able to provide most of the required data on activities, employment, revenues and costs. There were however a lot of deficiencies in the sample frame concerning as well coverage as classification by institutional sector and economic activity. It was found that the main problems concerning surveying NPISH are connected with identification and classification issues. As a result a survey in larger scale limited to NPISH with persons employed is proposed to be carried out in Sweden next year.

Mrs Riccardini:
ISTAT is carrying out a non-profit census survey on non-profit organisations, inside the project on "non-profit sector" or "third sector" analysis. Definitions of units derives from SNA93 framework. In Italy there is no specific laws which identify these organisations.
The objectives were: to test the actual register of non-private organisations, which contained several different administrative registers and is connected with the principal one on active enterprises, to verify structural variables such as legal form and sector of activity, and to plan specific surveys in the future. The survey will be conducted on 300.000 units now identified, most of them active in M-N-O activities. The John Hopkins University classification, connected with the NACE classification, will be used. The survey will collect information also on the resources of organisations, on the basis of which the units will be classified as either market or non-market. Results should be available at the end of the year 2000.

Mr McGrath:
Statistics New Zealand use two surveys for measuring production and employment relating to the private sector non-market provision of services; the Annual Enterprise Survey, and the Quarterly employment Survey. There is a proposed project to use data from the Time Use Survey to measure voluntary labour.

Discussion.

Comparability of statistics among countries was raised and it was recognised that the main issues are the registers, meaning the satellite approach has to be supported.
The importance of data on employment in such services, despite the associated measurement problems, was stressed.
Another issue came up regarding the use of business surveys or households surveys, which should be investigated more. The issue being which is more appropriate for particular areas of information. Some co-operation in this area should be established with OECD and UNSO.

Conclusions.

From the papers presented and the outcomes of the discussion future work can be concentrated in:
- classifications usage and input for CPC;
- enlarge the analysis on registers,
- for the harmonisation of statistics more analysis in experiences done in surveying;
- enlarge data on employment and discuss more the business surveys approach or households surveys;
- verify the interest of international organisations (OECD and UN) on these issues;
- analyse prices and quantities relevant for these services.

**Session 5: Measurement and classifications issues related to the Information Society**

*Peter Boegh Nielsen, Martin Lundo (Statistics Denmark), Samuli Rikama (Statistics Finland), Anders Hintze (Statistics Sweden)* **ICT Usage in Enterprises. A draft proposal for a model questionnaire**
*Bill Pattinson (OECD)* **The Measurement of Electronic Commerce**
*Fred Gault (Statistics Canada), Jean-Marie Nivlet (Ministere de la culture et de la communication, France)* **Towards Indicators of Electronic Content**

As agreed in the meeting of the OECD Working Party on Indicators for the Information Society (WPIIS) the issues of the business usage of ICT and electronic content were given to the Voorburg group, as they are mainly concerned with service statistics, for further evaluation and to be a contribution for the next WPIIS meeting.

Russell Rogers gave a common presentation for the papers of information and communications technologies (ICT) in enterprises and e-commerce. Both papers deal with a very recent issue, i.e. move towards the information society/ economy, which is announced in most countries by policy makers to be a critical factor as ICTs are considered as key components to the growth and development in employment, productivity and competitiveness. Statistics of issues related to ICT are desperately needed, such as, who is using ICT and for what purposes. Different countries have carried out surveys using various frameworks and different concepts, a model questionnaire is supposed to build a core for common questions to make sure the international comparability.

The model questionnaire is based on the experiences of the Nordic countries with the first version of a common questionnaire tested already in Denmark and Finland, revised by the results and comments made by some contributing countries. The model questionnaire is based on flexible modules, where country specific issues are possible to be added. The four modules cover the key areas of user interest: Use of ICTs, Use of the Internet, Use of electronic commerce and Barriers to use of ICTs, Internet and e-commerce. The basic design uses tick boxes and concentrates on qualitative data.

How to measure electronic commerce has apparently several approches leading to various results with no possibilities to comparability. Definitions vary to a great extent sometimes covering the whole e-business, sometimes electronic transactions, even they understood in a different way. The e-commerce paper gives three levels for measuring the e-commerce - readiness, intensity, impacts – and suggests a number of indicators. As the proposed model questionnaire has a module 'e-commerce', this contribution gives support and new items for further elaborating the questionnaire.

Different countries have confronted different needs for information starting from reporting the infrastructure (or readiness), the use of ICT, the volume of e-commerce etc. Some countries use broader some narrower definitions of e-commerce. During the lively discussion on definitions of e-commerce (should it cover order, delivery, payment, after-sales support) the Group came to an agreement for the need of a set of definitions, such as e-business, e-commerce, I-commerce. The definitions will need to take account of the networks, the applications and the business processes being

performed. In compiling statistical questionnaires, it is crucial that the terminology can be understood by the respondents.

The definition of e-commerce ought to be built on the notion of a commercial transaction (ordering + confirmation of the order). The other business processes such as delivery, payment, marketing, after sales support are also worth measuring but not necessarily included in a e-commerce definition. Electronic commerce over open networks, with a specific emphasis on Internet orders would probably be the priority statistic to be measured by statistical institutes. The surveys would also measure the extent to which the other business processes occur.

The model questionnaire tested in Denmark and Finland was sent to enterprises employing more than 20 employees. To get results of real impacts of ICT i.e. impacts on employment also smaller enterprises should, somehow, be monitored. When surveying the enterprise we must also pay attention to the availability of data in the enterprise. It was announced that the enterprise is a proper unit. Virtual and network enterprises with the traditional enterprise groups are difficult to survey, however. It was agreed that the model questionnaire should at least recognise the type of network and the type of application. The qualitative questions with tick box approach was considered to be easy for the respondent, some quantitative data are needed, however. The approach of focusing on qualitative ICT questions combining afterwards with financial information from other surveys was seen as an appropriate approach by the Group.

Bill Pattinson presented the OECD discussion paper of electronic content. Since content combined with the ICT sector is of interest in the context of the information society or economy and content is an area of rapid growth, the paper presents the basics and rationale how to define content products, namely electronic products. Whether we approach content sector via activities/ industries or products both approaches have impact to each other. Some members of the Group found this approach to be feasible. It was pointed out that the concept of the **electronic** information economy was only a partial measure of the key area of interest, the information economy and the information society.

The Group found the paper presented some of the problems we have in the existing classifications and that these areas would require further consideration and possible revision. It was seen as a further step in reaching a consensus on standard definitions and classifications in this field.

In summary, the Group was able to give contributions to further progress of these items. The model questionnaire will be revised taking into account the discussion. Any additional contributions (including copies of questionnaires) are asked to be sent to Peter Boegh Nielsen by the end of this year. The next WPIIS meeting should be able to agree on
• the model questionnaire and core questions including e-commerce.
• The set of definitions relating to the various definitions of e-commerce, including the terminology to be used
• The definition of electronic content and its incorporation into information society statistics.

Any additional comments on the Contents paper and issues involved should be sent to Bill Pattinson and Jean-Marie Nivlet by the end of November.

Additional discussions om these topics will take place during the next Information Society meeting to be held by Eurostat in January next year.  Subsequently revised papers will then go to the next WPIIS meeting for decision.

**Ruth Runyan - United States**


**Report on Session 6 of the 14th meeting of the Voorgroup Group**


The 6th session of the 14th meeting of the Voorburg Group included the presentation of three papers on the subject of Demand for Purchased Services.

The first paper presented by Shaila Nijhowne of Statistics Canada summarised results of a pilot survey conducted in seven industries for 1997: Aquaculture, Construction, Couriers, Taxis and Limousine Services, Real Estate Lessors, Real Estate Agents, and Food Services (as defined in NAICS 1997), wherein data for 14 categories of types of services purchased were requested.  These types of services generally could be expected to be purchased to some degree by nearly all industries.  Canada attempted to define them according to their perception of the types of information respondents kept in their accounting systems, as well as meeting the analytical needs of their statistical framework.  The categories were also defined in terms compatible with the Central Product Classification (CPC) system to promote standardisation with output measures.

In designing their survey questionnaires, survey managers could refer to a model questionnaire and choose to include the broad category  or use the detail to make it more applicable to the industry being surveyed, or not include the question at all. Results showed that, depending on the survey, between 48% and 66% of respondents reported expenses for one or more purchased services.  A general conclusion was that the low response rate, which is significantly less than revenues as reported, was due to the difficulty of collecting information on detailed service inputs from the respondent. A number of respondents reported total operating expenses but provided no detail.  It was also noted that reporting was better when the service was described in terms more specific to the industry being surveyed.  But for the more general types of purchased services, the costs reported rarely accounted for more than 10% of total purchased costs reported.

The second paper was a joint effort by Sweden and Denmark.  A draft questionnaire was developed for collecting data on eight categories of purchased services.  To get to these eight categories, they defined the universe of all types of purchased services consumed by companies into eight groups which were compatible with the Classification of Products by Activity (CPA).

The content of the questionnaire was described by Peter Nielsen as requesting both quantitative and qualitative information about the usage of services by enterprises. Some tick box information on characteristics of the firms and expectations of future purchases of services were included, while quantitative information was requested on employment, turnover for the enterprise, and for 28 subcategories of services, grouped according to the eight CPA compatible groups of services.

Sweden then tested the questionnaire on a very small group of enterprises classified in manufacturing of machinery and equipment, retail sale in nonspecialised stores, and other retail sale of new goods in specialised stores.  Gunnel Bengtsson summarised

the test results. Reporting by the manufacturing companies was more comprehensive than the other industries although it was unclear if the eight grouped categories aligned with any particular line items in the enterprises' books. It was further concluded that enterprises can more easily report their turnover at a more specific level of detail than they can report their purchases. A suggested cause was that the purchases or cost side of the enterprise accounts seems to have had less attention than the output side for their main activity in their enterprise accounting system.

The third paper was presented by the US and described the history of their data collection of purchased services, which dates back to 1977, in varying levels of detail. The construction, mining, manufacturing, wholesale and retail trades and selected service sectors are covered, but the summaries focus only on the wholesale, retail trade and services sectors. The more recent survey questions included about 12 types of services with varying levels of detail under each, eg, rent payments for machinery and equipment separate from rent for buildings.

Response results to nine of these types of purchased services questions were summarised and showed patterns as logically would have been expected. Consumption of traditional types of services, such as legal, accounting and repairs, were reported by 80% to 90% of companies who responded to the survey question in both 1997 and 1992 when the surveys were last conducted. Virtually all companies had communications services costs, and utilities were reported consistently with high electricity usage, followed by water supply and treatment costs, sewage, and refuse removal. Computer related services costs were reported by about 60% of companies in 1997, up from about 50% in 1992, and cost of contract labour, which was first included on the 1997 survey was reported by between 50% and 60% of companies.

While the nine categories of purchased services reported by the US did not line up directly with those presented by Sweden, Denmark and Canada, they were marched to groupings within the CPC, so all three papers attempted some compatibility with output descriptions of services produced.

As with the results presented by Sweden and Denmark, the US experience also reflected greater difficulty in getting response to cost of purchased services questions with about 55% -65% of companies responding, compared to about 80% to 90% on revenue detailed questions.

Also, the three papers cited needed improvements in their country's input-output accounts, as reason for the data collection on purchased services, and justification for the compatibility with definitions of supply of services activities.

The discussion leader suggested there were two issues needing comment and suggestions for future problem resolution. First, was the apparent reluctance of enterprises to provide purchased services cost data to the degree to which output data are provided; and second, the degree to which reporting burden can be increased when encouraging enterprises to extract cost data and estimate for the levels of detail we are requesting.

Some of the suggestions submitted during the discussion period included:

- make better use of cost data in tax records.
- include language in cost questions that relate to the specific consuming industry, such as the cost of subcontracted construction services by the construction industry.
- using location of supplier as requested on the Sweden questionnaire in estimation methodology.
- use class of customer information which is reported by suppliers on some questionnaires to help allocate costs.
- better describe examples of what is to be included in the more generic purchased services questions.
- use a short form/long form approach in which only a representative subsample of enterprises is asked to provide the most detailed classifications of data.
- design questionnaires so that the cost questions appear less imposing.
- collect on establishment level forms, supplemented by questionnaires to head office, to obtain costs which are not allocated to establishments.
- approach accounting professionals to help in standardising questions which may be more compatible with company bookkeeping practices; then approach companies to obtain some agreement that these questions are reasonable and can be reported.
- as a long term strategy to get statistical requirements incoporated into standard accounting packages offered by software developers.

There was general agreement that approaching the accounting profession might be useful, as well as working with companies to find out the organisational levels within companies where detailed costs are tracked. All contributors to the discussion unanimously agreed that minimising reporting burden was a primary concern.

Further testing of inquiries on purchased services is planned by both Canada and Sweden/Denmark/Eurostat. The next scheduled data collection for the US will be for 2002 in conjunction with the economic census for that year. However, discussions are underway for standardising data collection of purchased services costs across all business sectors. This will mean revisiting the issue of what is the proper observation unit or organisational level within companies where cost data are followed, while keeping focused on minimising the reporting burden.

The US would like to report on any progress made at next year's meeting, as well as present more quantitative data on the significance of specific cost data as reported in the 1997 survey results. Canada too may have results from more surveys to present. As the Eurostat actilving 4 European countries (Denmark, Sweden, Eurostat and the UK) is carried out in the coming months, an evaluation report on the feasibility of the questionnaires can be presented next year.

Session 7   New Zealand Day

Chair: Ron McKenzie, Statistics New Zealand

Michael Andrews, Senior Economic Statistician, National Accounts presented a description of the experimental Tourism Satellite Account which has been developed by Statistics New Zealand.

David Schreiber, Economic Statistician, Business Statistics presented a description of the experimental Business Activity Indicator which has been developed by Statistics New Zealand using Goods and Services Tax data.

Keith Sykes, International Business Relationship Manager, presented an overview of the IT systems that have been developed by Statistics New Zealand in the last few years.

Dr Junghoi Koo of the National Statistical Office of Korea presented his views on Issues in the Development of Service Statistics from an Asian Perspective.

Minutes of Producer Price Indices for Service Products.

Session 8

Lead Canada:  A. Meguerditchian

Presentation:

Non-Market Services  New Zealand Experience in Measurement
Mike McGrath
Statistics New Zealand

Non-market services are an important part of the statistics required of a national statistical office. This is not only because of the size of these activities but, perhaps more importantly, because of their influence on the stock of (and development of) human capital.

Comparatively, Statistics NZ compiles a good breadth and depth of financial and economic data about the provision of non-market services. The major exception to this is data relating to Religious organizations.

The usefulness of this data is vastly increased if it is coupled with information on the degree of voluntary labor input and on the social benefits arising from their provision. These different aspects should not be viewed as separate, stand-alone areas, but rather as pieces of an overall picture required to understand the impact on, and role of, non-market services to the well-being of people.

To this end, data from the Annual Enterprise, Quarterly Employment and Time Use surveys (conducted by Statistics NZ), could be combined with that from other agencies. This will enable the construction of reports of immense value in the development, implementation and evaluation of policies regarding the well-being of the residents of NZ.

The results of the 1998 Time Use survey will be released and available in December 1999.

Presentation:

Estimation of the Service Sector in the Korean Economy:
Methodology and Source
Dr. Junghoi Koo
Korea National Statistical Office

Dr. J. Koo reviewed and explained the different methodologies and sources which are used in compiling and calculating price indexes for the service sector of the Korean economy.

Presentation:

Plans for the Development of a Monthly Index of Services in the UK
Hugh Skipper
Paper presented by Martin Brand
Office for National Statistics

The ONS is planning a major project to develop a constant price monthly Index of Services (IoS), which will mirror the established Index of Production (IoP) by indicating the month-on-month percentage changes in gross value added in the service sector. This builds on previous work by the ONS to develop the statistical information on the service sector and has been identified as a top priority by both HM Treasury and the Bank of England.

These plans are ambitious; in the UK, as in other countries, there is a scarcity of suitable monthly data for service industries and producing reliable output indicators for many types of services is technically challenging. To address these difficulties, there will therefore be a continuing program of research and development.

For the next few years, however, the inherent difficulties of developing a monthly index will impose limitations on the data quality that is achievable. For that reason, the IoS will initially be released as a prototype indicator only.

Presentations:

Producer Price Index Aggregation Models and the Expansion into the Service Sector
Irwin B. Gerduk
Paper presented by Roslyn Swick
U.S. B.L.S.

Because of the growing importance of the service sector in the economy and because of a pressing requirement to arrive at a total Producer Price Index including services, a new aggregation system, based on input output tables, has been devised which eliminates the problem of double counting of inflation. This total commodity price index would be used as the primary release vehicle.
Indexes would be available by stage of processing as well as by total final demand and would cover economy wide domestic services.

Regression techniques were used to evaluate possible stage of processing aggregations using forward flows, skips, internal flows as well as backward flows. Results were not very good and new industry wide aggregation based on input output were designed. Aggregate measure would cover final demand categories including exports.

Experimental results would be available in 2004 and official release is scheduled for 2009-2010. Corporate service price indexes would be available in 2002, distributive trade sector would not be covered.


Australia's Economy-wide Price Index Frameworks
David Collins
Australian Bureau of Statistics

Factors which prompted the development of an economy-wide measure of inflation were:
policy focus on inflation,
growth in services,
demand for quality National Accounts,
and international attention to indexes.
Reference was made about the Boskin report.

The new approach should offer a family of indexes, which would cover the entire economy.
The aggregated measure would exclude non-market transactions such as general government services and imputed rents. The aggregation process would be a bottom up approach starting at a micro level.
The economy would be divided in market segments (diagram 1) and separate indexes would be developed for the major markets. An index of Domestic Final Purchases (DFP) at purchaser's prices will cover purchases by domestic residents including imports and excluding exports. The DFP index would be based only on final transactions and weights would be changed every year.
Analysis of input output tables will allow for the development of Stage of Production (SOP) producer price indexes at basic prices with separate treatment of domestic demand and imports, final demand versus intermediate demand, final consumption , investment and exports.
Three stages of processing are proposed (diagram 5)
The scope of the total index would be goods and services. Initial coverage would be restricted to goods. Services and construction will be added as collections are established. Utility of initial SOP index would be increased after services and construction are included into the total price index calculation.

Discussions:

The exclusion of non-market transactions in the calculation of the total price index for Australia raised some concerns. The priority for the time being is to arrive first at a better measure of inflation and then work on international comparability.

Weights which are used in the calculation of the total index come from the input output tables for both the United States and Australia.

Users have been asking for stage of processing indexes for as long as twenty years in the United States which makes it difficult to put such a request to bed.  Banks in both the United States and Australia are interested in an economy-wide measure of inflation which goes beyond the Consumer Price index.

For Australia, National Accounts deflate on both a basic prices and purchaser's basis so they use series from both the SOP and DPF indexes.

OECD Inquiry on Prices of Services to Enterprises
William Cave
O.E.C.D.

Context:
Services are growing rapidly and both product and prices information are needed to obtain a measure of real output.  There has been a lot of work done on consumer prices and on producer prices of goods but relatively little in the way of producer prices of services.

Telecommunications, computer and business services are very dynamic sectors of the economy.

OECD conducted annual surveys of what is being done on services prices in 1997, 1998 and conducted an update in 1999.  The content of these surveys included the following:
Does the country collect Prices of Services to Enterprises (PSE)?
What is the ISIC Rev3 coverage?
What type of price is collected?
Frequency of collection
Type of service which is priced
Start of data collection

The 1997 survey asked about the type of price when service prices were first collected.
The 1998 questionnaire (table 3) asked for product detail by CPC Rev1 or product description.  The questionnaires were only sent to known collectors.
The 1999 update asked for:
comments on the 1998 survey,
tables to be updated,
information on published indexes,
and readily available documentation.

OECD received 17 responses in 1999 out of 29 member states of which 3 were from new respondents.
15 countries collect some PSEs

13 new surveys were reported in 1999 by Australia, France and the United Kingdom
14 new surveys were planned for 2000 by 7 countries.

Countries prefer to tackle simple service prices.  Countries also predominantly collect transaction prices on a monthly basis.

Issues:

A new manual on PPI has been proposed by IMF and an expert group is to meet in Geneva in November 1999.
There is a need for further information on country PSE activity.
OECD wants to know what countries need by way of documentation.
Coordination with PPI is a requirement.
Is there evidence of the usefulness of the work on PSE?

Discussion:

OECD initiative was perceived to be an excellent one.  It was suggested that e-mail addresses with contact name for each country on the OECD Website be available to obtain documentation and to exchange ideas. Suggestions were made to improve the OECD inquiry and also for OECD to update information on the web when new country information was received.
Statistics Canada mentioned that a Voorburg website had been put into place at the department.  The address is:
http/www.statcan.ca/english/subjects/standard/scs/voorburg.html

The United Nations indicated that there is a classification hotmail on the web to address classification issues.
It was recognized that it was extremely useful to be able to compare different approaches for pricing services, to have a list of definitions, to see how the CPC compares to services products when constructing price indexes for services.

Individual country data comparisons, data analysis and data confrontation was suggested to be the next step OECD could take in the future.

Presentation:

Wired Telecommunication Carriers Price Indexes
James J. Gorko, François Bordé
U.S. Bureau of Labor Statistics, Statistics Canada
Paper presented by François Bordé

Three estimations methods for calculating price indexes were discussed:
The bill method,
The rate method,
The unit value method.

## The bill method

Respondents are supposed to re-price a sample of telephone bills trough time. This is the usual approach for constructing Laspeyres price indexes. However this approach was considered to be too burdensome for the respondents, the sample of bills was biased towards smaller consumer of telephone services, bundling and unbundling of services became a problem, service discounts were difficult to estimate.
All of the above problems prompted the US BLS to refit the bill method into another method

## The rate method

A set of representative telephone service characteristics was supposed to be re-priced trough time. This was an improvement over the bill method but discounts by characteristics were difficult to estimate.

## The unit value method

This method did offer a simpler way for calculating price indexes. Telephone companies do keep their books in such a way that revenues in dollars and quantities in minutes are available at a very detailed level of service.
The advantage of the unit value method are:
Full coverage,
Information is readily available,
Weights can be updated more frequently than every four or five years
Paasche and Fisher price indexes can be calculated.

The unit value method, however, results in changes which show both price and calling structure changes. Depending on the level of detail of the service classes, calling structure changes within an individual service class may blur the price change picture. Unit values at the level of the individual service category through time should be analyzed to find out if there is a presence of regular fluctuations, calling thus for a redefinition of the individual service class.

Issues:

Both US BLS and Statistics Canada arrived at the conclusion that the unit value approach, despite its limitations, is the preferred option for calculating a price index.
It was argued that no method could handle quality changes adequately.
Comparison of the US household price index against the Australian CPI based on the bill method should be made to see what the difference would be.

US BLS is starting to publish a wireless telecommunication price index using the unit value method. Weighting of the price relatives is based on the population by city and not on revenues. Telephone companies refused to give revenue information away.

Presentation:

Methods of Incorporating Discounts into the price Index:
The Case of Telecommunications Services in Japan's
Corporate Service price Index (CSPI)
Kuniko Moriya
Bank of Japan

K. Moriya explained that there were deregulations of entry restrictions and that various kinds of discounts were offered to customers.
Recent changes in prices brought about:
Diversification of charge systems,
Volume discounts,
Longer term contract discounts,
Packaged services,
And other discounts.

Finding representative samples of telephone services is becoming more and more difficult.
Depending on the timeliness of information on discounts, price indexes can adjusted at the time of index compilation or at the following period. Therefore, price indexes may be revised if information on discounts is not available on time.
Further work needs to be done in the area of service classification, eg domestic vs international telecommunication services and in the area of quality adjustments.

Presentation:

Telecommunication Services
Patrice Roussel
I.N.S.E.E.

I.N.S.E.E. conducts an annual survey on telecommunications services to collect revenues and quantities. This survey relies on administrative sources for licensed suppliers and will cover non licensed suppliers starting in 2000. The service nomenclature for non licensed suppliers is still preliminary as the questionnaire content is in the testing phase.

A service nomenclature will probably have to be incorporated to cover radio and television broadcasting.
Production price indexes are not yet available.


Nomenclature for telecommunication services

Licensed suppliers offer:
       Wired telecommunication services
       Mobile telephone services
       Data transmission
       Sale of transmission capacity
       and interconnection;
While suppliers which operate without license offer
       Wired telecommunication services
       Data transmission
       And special access resale.
These services cover CPC 84110, 84120 and 84130
Note:
Wired telecommunication services include
       Local, intercity, international phone calls
       Wired to mobile calls
       Public phone
       Subscription card
       Prepaid, postpaid phone card
       Free services
       Shared cost phone services
       Shared cost data transmission
       Shared costs kiosk services
       Information services
       Electronic diary
       Shared benefit service
       Internet
       On-line service
Mobile telecommunication services include
       Mobile to fixed phone calls
       Mobile to mobile phone calls
       Satellite
       Phone card
       Other of which paging services
Internet services include
       Access through:
              Switched area network
                  Normal debit
                  High debit
              Dedicated lines

Cable
Satellite, mobile
Services
Advertising
E-mail
E-commerce
Site hosting.

This classification goes much beyond the CPC classification. Telephone price indexes for the United States and Canada are not available at this level of detail. They are rather broken down by type of customer and by geography rather than by type of service. If international price index comparisons become a requirement, there is a need for further discussions to agree on a common classification.

Presentation:

Australian Price Index for Computing Services
David Collins
Australian Bureau of Statistics

The Development of a Corporate Service price index for Computer and Related Activities in the UK
Bernice Francis & Dave Watts
Paper presented by Martin Brand
Office for National Statistics

The computer services sector was reviewed both in terms of classification of activities and in terms of pricing methods.
Classification issues
UK classification is somewhat out of date and does not relate well to the way in which the Computer Services and Software Association view the organization of the industry. Computer training is treated explicitly in the UK classification as being part of the computer industry while it is treated under education in the Australian classification. Shrink wrapped software is considered to be out of scope for computer consultancy. Outsourcing has become an important part of the activity of the computer sector. The product classification does not offer a special category for outsourcing or bundling of services.
Measurement of non market activities carried out as in-house activity in many government agencies and businesses is essential in measuring growth in computer services.

Finer classification detail is a requirement for mapping this sector of the economy in a more realistic way. The North American Product Classification System goes the other extreme in terms of level of detail.

Pricing issues
The following pricing techniques have been used for this sector of the economy:
Most revenue earning fee
Model pricing
On-going contracts
Average pricing
Input costs
The earning fee pricing is the preferred option and the input cost approach is the least preferred.
Model pricing, however, is difficult to maintain as the computer services sector changes very rapidly through time.
Adjusting for quality is a difficult issue and close contact with the respondents is the safest way of knowing when changes take place.
Incorporating discounts represents also a difficult challenge as respondents are tempted to give lest prices in place of negotiated prices.
Revenue data from surveys and information from individual businesses are used in the weighing of the individual price relatives to obtain aggregated price indexes.

Presentation:

The Development of a Corporate Services Price Index for Accountancy Services
Dave Watts
Paper presented by Martin Brand
Office for National Statistics

Business Services price Index for Accountancy Services in France
Charles Bérubé
Paper presented by Patrice Roussel
I.N.S.E.E.

The accountancy sector in the UK covers business and management consultants in addition to accounting activities such as book-keeping, auditing and tax consultancy. In Japan as well as in Mexico no activity breakdown is available as accountants offer package deals to their customers.
Both countries, France and the UK, relied on industry expertise to define individual service categories and bundles of individual services.
The Australian Bureau of Statistics pays accounting firms to have access to their records.
The US BLS produces indexes on accounting since the end of 1995; bundling of services

is a problem for publishing individual service categories. Consultancy is classified under management consultancy in Australia.

Two pricing methods have been used in the UK for this sector; the fee income approach for smaller firms and the model pricing approach for larger firms.
In France, the methods of price measurement which have been adopted were the fixed rate invoicing for smaller firms and well defined services (book-keeping and annual auditing) and the invoicing based on time for larger firms. This latter approach was used for lager accounting firms which keep detailed records of their activities in machine readable form.

The areas where more work needs to be done are: productivity assessment, quality change adjustments, bundling of services and measures measures of price indexes quality.

<u>Presentation:</u>

A Volume Index for the Output of the Dutch Banking Industry Based on Quality Indicators
Sake de Boer
Paper presented by Jan Eefting
Statistics Netherlands

Two methods of deflating the banking sector were described.

The old method
        Input method

           The volume change in output value = volume change in intermediate consumption + volume change in labor costs
    Disadvantages:    deflation of inputs and outputs are independent of each others,
           Volume change of output and of labor productivity are probably underestimated.

The new method
        Output of bank services = interest margins (FISIM) + commissions
        Deflation of commissions with deflators for comparable business services
        Breakdown of FISIM according to main activities (credit granting, savings, transfers of payment) and a further breakdown in partial activities.
    The new deflation method allows for the selection of appropriate volume indicators and allows for sensitivity analysis.

Advantages:

> Meets standards of commission
> Efficient use of all kinds of available data on banking sector
> Plausible description of real volume changes

Conclusions:

This new method is superior to the input measurement method, it makes efficient use of all kinds of available data in the banking sector, the banking sector will cooperate in supplying additional information and the results have been implemented into the National Accounts.

<u>Presentation:</u>

Pricing Services within Producer price Indexes – The New Zealand Experience
Nairn MacGibbon
Statistics New Zealand

Statistics New Zealand adopted a pragmatic approach in introducing service price indexes into the production price index program in contrast with other statistical agencies which preferred to concentrate on very well defined service sectors.
In many instances Statistics New Zealand uses charged out rates of service providers to represent the price of the services being provided. While the use of the charged out rates is practically straightforward, there are a number of potential deficiencies with the use of such charged out rates to represent service prices.
Initial investigation was made into the price prices collected for a range of legal services using both charge out rates and model prices. These prices were compared in an effort to assess the extent to which charge out rates could be used to represent legal service prices.

Conclusions:

- The definition of the service being provided is of paramount importance in constructing price indexes for service activities. This definition may well depend upon the uses to which the price index will be put, and this will in turn impact upon the choice of an appropriate pricing methodology.

- While there are clearly some short term differences in the index series derived from using model prices as opposed to charge out rates for legal services, over the medium to long term these differences are not necessarily as large as might have been expected.

- Where additional costs involved in developing and maintaining a model pricing methodology for services are significant, it may be that the use of charge out rates can provide a cost effective substitute while still returning meaningful time series.

<u>Presentation:</u>

Lewis Evans
New Zealand Institute for the Study of Competition and Regulation
Victoria University
Wellington

A guest lecture was presented by Professor Lewis Evans, who is the Executive Director of New Zealand Institute for the Study of Competition and Regulation in Wellington.
The subject of his lecture Problems in International Benchmarking using Statistical Data. Professor Evans discussed the issues raised by international comparisons of the price of services. Price structures differ significantly between countries. This makes interspatial comparisons much more difficult than intertemporal ones. For telecommunications, most companies have non-linear pricing functions. For, example price caps put a maximum for the cost of a call regardless of how long it takes. International comparisons give different results depending on which basket of calls is priced. This is a particularly important issue for productivity comparisons.

Session 9   The Future of the Voorburg Group

Chair: Peter Boegh Nielson (Bureau Chairman)

The discussion was opened by Len Cook (Government Statistician, New Zealand) who summarised the responses to his letter to Chief Executives asking their views of the Voorburg Group.  He said that the views were well encapsulated by the comments of Paul Champsaur, the Director General of INSEE, who was opposed to any single focus for the group, but sees it as continuing as a critical group of experts in the general field of service statistics so that their expertise is available to relevant problems.  He also encouraged collaboration using modern technology.

Russell Rogers introduced the paper prepared by the ABS.  He was uncertain as to whether the ABS would continue to be involved in the group. ABS believes that the VG should take the advice of the UN StatCom and, at least for a period of time, change its focus to make services price index work its key priority. There is much work to do in this field and all counties are seeking to share experiences and to develop an understanding of best practice in this field. This work should not continue indefinitely and the group should continually monitor its program and outputs and when its major goals are achieved, either disband or refocus on another area of services statistics that needs progressing.

Peter Boegh Nielson then led a roundtable discussion.  There was a general consensus that there is still work on services statistics to be done and that the group could provide a forum for advancing this work.   Many felt that there was a benefit in not focussing too narrowly.  There was a strong view that Price Indexes should be given a high priority.  Many appreciated the country reports on the first day.

Koong Chee Seng from Singapore said that there was a need for part of the programme to be targeted to the needs of countries that are still developing their statistical systems.    Most of the papers for this meeting focused on "cutting edge issues".   Support is needed for countries that are just starting on services statistics. Bill Cave of the OECD agreed to co-ordinate discussion on this issue.


Peter Boegh Nielson presented the Bureau's proposal for the next meeting: VG2000. The group will meet in Madrid from 18 to 22 September.   Topics for discussion will be:
> Producer Price Indices
> Classifications
> Demand for Services
> Non-Market Services
> Information Technology and Electronic Commerce

The first two days will be devoted completely to the measurement of services prices. The general services meeting will begin on Wednesday with country reports.

After some discussion the group accepted this programme. Bill Cave of the OECD agreed to set up website for discussion on prices issues.  The following topics were suggested for possible consideration at future meetings.

> Cross cutting industries
> Audio-visual industries
> Respondent load
> Use of tax data
> Statistical units

The following agreed to take responsibility for leading the session in Madrid.

| | |
|---|---|
| Producer Price Indices | Irwin Gerduk (US BLS and Albert Meguerditchian (Statistics Canada) |
| Classifications | Shaila Niijhowne (Statistics Canada) |
| Demand for Services | Ruth Runyan  (US Bureau of the Census) |
| Non-Market Services | Fabiola Riccardini (ISTAT) |
| ICT | Lea Parjo (Statistics Finland) |

They will circulate a work programme for the next meeting by the end of 1999.

Shaila Niijhowne circulated a copy of the home page of the Voorburg Group website that has been set up by Statistics Canada.

Peter Boegh Nielson said that a procedure for appointing the Bureau will be presented to the next meeting of the group.  The aim would be to maintain the continuity of work, while ensuring all views are represented.

The meeting concluded with Len Cook's closing remarks.  He thanked participants for their attendance and noted the quality of the discussions.   He wished them a safe trip home.