

**Future Deliverables for the Voorburg Group:
Steps for Expanding and Aligning Work on Services Classifications and the
Measurement of Output and Prices**

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Abstract: The UNSC has directed the Voorburg Group to continue to develop internationally comparable concepts and methods in the area of service statistics related to the measurement of output and prices and use of classifications. Building upon past efforts to develop model surveys for particular service industries, the Voorburg Group's objective now should be to produce concrete, usable, measurable, and easy-to-publicize deliverables. This paper proposes one such approach: for the Voorburg Group to promote the coordinated and parallel development of work in the areas of classification, output measures, and prices – for use in expanding and aligning services source data used in calculating real GDP.

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Introduction

In the Report of the Organization for Economic Co-operation and Development (OECD) on service statistics to the United Nations Statistical Commission (UNSC) (March 2005), the Voorburg Group (VG) Bureau asked the UNSC to clarify the VG's mandate. In response, the UNSC confirmed that the VG retains the mandate to establish internationally comparable concepts and methods for the proper measurement of the service sector of the economy in constant prices. Further, in directing the VG to refocus on areas where they can add the most value, with more emphasis on “outputs with timetable,” the UNSC confirmed that the VG’s scope includes:

- Coordinating, reviewing, and disseminating the work of national statistical offices and regional efforts that have developed concepts, methods, and best practices in the areas of classifications, input and output measures, and price indices
- Maintaining and adjusting concepts, methods, and best practices in the areas of classifications, input and output measures, and price indices
- Transferring knowledge on concepts, methods, and best practices in the areas of classifications, input and output measures, and price indices

Accomplishments to Date

At the close of the 19th Voorburg Group Meeting in Ottawa, the scope, functions, and accomplishments of the VG were identified as follows:

	<i>Classification</i>	<i>Output Measures</i>	<i>Price Indices</i>
Development	Central Product Classification ^a	Model surveys ^a	Collected papers ^b
Maintenance	Statistics Division Technical subgroup ^c	Reviews of model Surveys ^c	Ongoing review of best practices ^d
Dissemination/ knowledge transfer	Statistics Division ^c	United Nations technical paper Voorburg Group ^d	Manual, workshops Voorburg Group

a Work completed.
b In development.
c Work almost completed.
d Work to be done.

New Strategy

The VG is now in its twentieth year. It is important that the strategy for achieving its mandate includes proposals for building upon past achievements related to the measurement of outputs and prices and the use of classifications. And it is important that the VG would now consider fresh proposals for proceeding with a work plan of concrete deliverables for the upcoming years of the Voorburg Program.

Along these lines, this paper recommends a new approach for constructing future work plans for the VG. Unlike past work that has focused on the separate development of output measures, price indices, and use of classifications, this paper recommends that the VG should, from now on, coordinate the parallel development of work in these three areas.

Building upon past efforts to develop model surveys for particular service industries¹, the VG's new objective would be to produce concrete, coordinated, measurable, and easy-to-publicize deliverables. One approach for doing this could be for the VG to propose best practices for the parallel development of work in all three areas and then assess the extent to which the various countries are adopting these best practices for selected service industries and sectors. These proposed concepts are outlined and described in the following three-step process.

Three Steps For Producing Voorburg Group Deliverables

Upcoming VG work plans could focus on taking the following three steps to produce a coordinated set of concrete deliverables.

Step 1: *Form a task force to develop auditing procedures for assessing and scoring country practices based upon work already done with respect to measuring the volume of services output, services producer prices, and using classifications in the calculation of real GDP. Using those auditing procedures, collect the requisite information from each country. Based on the information collected (including existing documentation² to the greatest extent possible), complete Voorburg Scorecards for each service industry or sector. The initial scores assigned for each country will establish baseline measures of the degree to which each country is adhering to best practices. "Best" practices, "good" practices, and "poor" practices are referred to as Type A, B, and C methods, respectively, in the Voorburg Scorecard.*

For illustrative purposes, a sample Voorburg Scorecard is provided in **Attachment A**. You will note that the Voorburg Scorecard strongly emphasizes the importance of coordination in the development of work related to classifications, output and price measures required for calculating real GDP.

Attachment B provides proposed generic definitions for Type A, B, and C methods with respect to the four major activities involved in achieving the VG mandate: 1) use of classifications, 2) measurement of outputs, 3) measurement of prices, and 4) aligning the parallel development of activities 1 through 3. The score assigned in the scorecard to each country's service sector work in each area would be based upon which method (Type A, B, or C) the country's current practices most closely reflect.

Step 2: *Form agendas for future VG meetings that collectively address classifications, output, and prices for given service subject matter areas.*

An important part of the process of coordinating and developing best practices in parallel by the various countries will involve the specific focus of the VG meetings, themselves. We should no longer have separate tracks for classifications, output, and prices at the VG meetings. Addressing given subject matter areas collectively with respect to classifications, output, and prices will form the basis for cooperative and coordinated development of international recommendations for service statistics.

Step 3: *Each year the VG would use the auditing procedures and the Voorburg Scorecards to assign scores for each country pertaining to their measurement of the service sector of the economy in constant prices. An annual report containing each country's scores would thus document progress toward improving service sector statistics, and would serve as a primary component of the VG's annual report to the UNSC.*

In large part, the VG's progress in fulfilling its mandate within its scope could be measured by examining the annual Voorburg Scorecard results. It is assumed that improved scores do, in fact, reflect improved country work with respect to concepts, methods, and best practices in the areas of service classification, output measures, and price indices. If so, the VG will be able to concretely demonstrate how well it is doing its job of contributing to concepts, methods, and best practices in the improved measurement of each country's service sector in constant prices.

Future strategy papers might include an assessment of the Task Force's work done in carrying out the details of the steps proposed in this paper, with recommendations for how to improve the process as we move forward.

Attachment A. Voorburg Scorecard
(Includes Proposed Scoring Valuations for each Type of Method (A, B, or C))

Country:

Service Sector:

Classifications Method	Output (and Input) measures	PPI/Quality Adjustment Method	Coordination	Notes
<u>Turnover by products – number of product groups used:</u> “A” Method 20 “B” Method 10 “C” Method 0	<u>Output measures:</u> (Sales/turnover by product) <u>By industry:</u> “A” Method 20 “B” Method 10 “C” Method 2 <u>By sector:</u> “A” Method 10 “B” Method 5 “C” Method 1 <u>Wider-than-sector coverage:</u> “B” method 2 “C” method 0	<u>By product:</u> “A” Method 20 “B” Method 10 “C” Method 2 <u>By industry:</u> “A” Method 10 “B” Method 5 “C” Method 1 <u>By sector:</u> “A” Method 5 “B” Method 2 “C” Method 1 <u>Wider-than-sector coverage:</u> “B” method 1 “C” method 0	“A” Method 25 “B” Method 10 “C” Method 0	
	<u>Intermediate consumption (input) measures:</u> (Purchased services, purchased goods, salaries and benefits, operating expenses, capital investment, R&D) <u>By industry:</u> “A” Method 10 “B” Method 5 “C” Method 1	<u>By sector:</u> “C” Method 5 <u>Wider-than-sector coverage:</u> “C” method 0		
Top score: 20 Actual score:	Top score: 30 Actual score:	Top score: 25 Actual score:	Top score: 25 Actual score:	Top total score: 100 Actual total score:

Attachment B. Proposed Definitions for Type A, B, and C Methodology for Use in Completing the Voorburg Scorecard for Each Service Sector/Industry

Classifications

Category A ("Best")	Enhanced version of the international standard or proprietary classification designed to meet the specific needs of the country or region
Category B ("Good")	Direct use of the international standard, without modifications for local conditions
Category C ("Poor")	Use of prior international standard or any classification with no modifications in the previous 10 years to account for economic developments

Output measures

Category A ("Best")	Turnover by product collected for <u>detailed</u> level of chosen classification with unit of measure appropriate for price index use
Category B ("Good")	Turnover by product collected for <u>aggregated</u> levels of the chosen classification only with unit of measure appropriate for price index use
Category C ("Poor")	No turnover by product collected or unit of measure inappropriate for use in price indices

PPI/Quality Adjustment

Category A ("Best")	True transaction price 100% quality change accounted for Frequency correlates directly with price change Robust sample (excellent size and representation)
Category B ("Good")	Good proxy for transaction price Significant quality change accounted for Frequency correlates closely with price change Semi-robust sample (fair size and representation)
Category C ("Poor")	No relation to transaction price No significant quality change accounted for Frequency does not correlate with price change Weak sample (poor size and representation)

(from Fred Barzyk's paper for the Service Price Index proposal - 2004)

Coordination

Category A ("Best")	Turnover by product is fully in alignment with classification and PPI/quality adjustment methods
Category B ("Good")	Turnover by product is partially in alignment with classification and PPI/quality adjustment methods.
Category C ("Poor")	Turnover by product is not in alignment with classification and PPI/quality adjustment methods.

Footnotes

¹The following papers provide a rich variety of resource material:

1. OECD (2005), "Report of the Organization for Economic Cooperation and Development on Service Statistics" <http://unstats.un.org/unsd/statcom/doc05/2005-5e.pdf>
2. OECD STESEG Task Force on Services (2005), "Compilation Manual for an Index of Service Production" <http://www.oecd.org/dataoecd/45/45/34813425.pdf>
3. UNSD (2005), "Revision of the International Recommendations for Statistics on Economic Activities (discussion paper prepared for the expert group meetings and international workshops on international recommendations for statistics on economic activities organized by the UNSD)"
4. United Nations Statistical Commission (2005), "Report on the thirty-sixth session (1-4 March 2005), Economic and Social Council, Official Records 2005, Supplement No. 4

Note: Papers 5 through 10 are available on the Voorburg 2004 Website maintained by Statistics Canada. <http://stds.statcan.ca/english/voorburg/2004-ndex.htm>

5. Statistics Canada (1993), "A Strategy for the Development of Service Statistics"
6. Cave, W., (2003), "Service Statistics: International Development Work and Coordination – Towards a Strategic View"
7. Hertzman, C., and Alajaasko, P. (2003), "An Inventory of Surveys Collecting Information on Services' Turnover by Detailed Product"
8. Ryten, J. (1999), "The Voorburg Group Looks at its Future"
9. Ryten, J. (1995), "The Voorburg Group's Tenth Anniversary: A Review of Achievements"
10. Sullivan, P. (1995), "Role of Model Surveys – A Review"

Many of these resource materials provide thoughts on how prices used as deflators can be consistent with the input and output measures being collected for various classifications and products.

² **Existing documentation includes, but is not limited, to the following:**

- **Classification of detailed service products and activities**

The Central Product Classification (CPC) and the (provisional) North American Product Classification System (NAPCS) are in various stages of development and maintenance.

- **Nominal output data consisting of turnover by detailed products for service industries exists for many countries**

A summary of country activity in measuring services turnover by product was produced in 2003. See "An Inventory of Surveys Collecting Information on Services' Turnover by Detailed Product" (Hertzman and Alajaasko) on the VG web site. Using this inventory as a starting point, we should investigate and document the various country experiences in collecting these data so as to inform the degree to which turnover by product detail is collectable for particular service industries and sectors.

- **Nominal input data (purchased services, expenses, labor, and inventory) for service industries**

Prior to 1995, model surveys, containing prescribed nominal input data variables, were developed for computer services, telecommunications, audio-visual services, market research and advertising services, and insurance services. More recently, model surveys have been developed for employment services (1997), educational services (1998), demand for services (1999) and usage of information and communication technology by enterprises and households (2001-2002). The models are available in the corresponding papers on the VG web site: <http://stds.statcan.ca/english/voorburg>. Using prescribed data variables from these model surveys as a starting point, we should investigate and document the various country experiences in collecting these data so as to inform the degree to which nominal input data is collectable for particular service industries and sectors.

- **Service producer price indices**

Available on the VG web site are principal papers presenting international practices concerning the measurement of producer price indices used as deflators for the following services: accounting (2001), telecommunications (2001), legal services (2001), real estate (2001), advertising (2002), road freight transport (2002), engineering (2002), and prepackaged software (2003), air transport (2004), telecommunications (2004), and property and casualty insurance (2004).

- **Best Practices for Developing and Coordinating Service Sector Classifications, Output Data, and Price Data**

See “Incorporating NAPCS Products in the 2007 Economic Census: Addressing Lessons Learned and Implementing a Coordinated Approach to Improving Economic Data” (Murphy and Wallace - 2005)