



STATISTICS DIRECTORATE

National Accounts and Financial Statistics Division

OECD Handbook 'Measuring Education and Health Volume Output'

Introduction – history and context

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Workshop on measuring Education and Health Volume

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INTRODUCTION – HISTORY AND CONTEXT

1. This handbook aims at providing guidance on the measurement, within a National Accounts framework, of the volume of education and health services. Because of the size on the non market sector in these domains, of the interest on the analysis of public expenditures and of the special difficulties of non market estimates, this handbook will very much focus on non-market education and health services. However, it still has the objective to cover all education and health services, whether market or non market. . Non-market producers include all levels of government as well as social security funds and non-profit institutions serving households. These producers form a part of the economy which, in some ways, has not been measured with great precision in the past and where national accountants have begun to apply new measurement guidelines which were agreed in the 1990's. More widely, non-market production of education and health services is a frequent topic of discussion and debate among politicians, press and the public. In part, that reflects the importance of these services to the many people who use them – or who might one day need them. But this interest also arises from the fact that, in most countries, the provision of these services is largely under the control of governments and is therefore the subject of political debate, particularly when pressures on government budgets are severe. That is all the more reason why statisticians should strive to bring more clarity to this area.

2. This volume is aimed at meeting the needs of several different groups of readers:

- those who compile the national accounts, particularly for non-market output, for whom the ideas conveyed might supplement existing guidance. For them, the objective of the handbook is to propose methods to compile relevant and internationally comparable time-series of growth of volume education and health.
- those who calculate purchasing power parities. Here, the objective of the handbook is to propose relevant and internationally comparable methods to deflate expenditures on education and health in order to better compare their volume consumption per head among OECD countries.
- those who might find it useful to use the national accounting approach to measure the output of non-market services in other contexts for example to measure efficiency or productivity, either for individual units or across an industry.
- those who work in or fund public services and who need to understand how their performance is captured in:
 - output volume growth measures compiled as components of the National Accounts, and in
 - measures of internationally comparable volume levels

3. This Handbook is about the measurement of two industries – education and health – in the context of the whole economy. The work of measuring economies becomes more challenging as they get larger and more specialised, and as users demand ever more accurate measurement. The services sector remains a particular challenge: it is an area with above-average growth and, as services are less tangible than goods, they are more difficult to measure accurately. Measuring services produced by non-market units (that is by government or non-profit bodies) presents a series of other novel problems which have not yet been adequately solved.

4. Since the creation of national accounts, education and health combine these difficulties. In the pioneering age of national accounts, the fact that government services contribute to GDP was not accepted by all. However, since the “SNA 1968” non-market production has been fully recognised as contributing

to GDP, even if, as there are neither sales nor market prices, the estimation of their production at current prices has to rely on costs. During a long period, because of this reliance on costs for current price estimates and because of the general difficulty of measuring services, it was more or less accepted that the estimate in volume (i.e. at constant prices) of government services would also be based on deflating costs, using specific cost indices. As a result, productivity growth of inputs to government services has, by definition, been nil in the national accounts. Because of this weakness, informed users of national accounts have often excluded the non market sector from productivity analysis.

5. The SNA 1993¹ has opened the way to move away from this second best estimate. It strongly advocated, at least for individual services, that

“... the fact that output is valued on the basis of the value on inputs does not mean that it cannot be physically distinguished from inputs used to produce it. Changes in productivity may occur in all fields of production, including the production of non market services”. (paragraphs 16.133 to 16.141)

6. However, the national accounts manual failed to give detailed recommendations on how to go about measurement even if it states that

“... there is no mystique about non market health or education services which makes change in their volume more difficult to measure than volume changes of financial or business services”.

7. This last sentence leaves the impression that it is easy to measure the volume of financial or business services, while it is not. Thus the impulse given by the SNA 93 had small immediate impact because of its lack of detailed recommendation in face of the intrinsic difficulty to measure the volume of services, in particular for health and education.

8. A systematic effort at the international level with more detailed guidance towards addressing these problems was made in 2001 when Eurostat set out guidance through its “Handbook on Price and Volume Measures in National Accounts” for both market and non-market services². The Eurostat Handbook became part of European law, obliging member states to implement its recommendations. Despite the guidance provided in the handbook, it became clear that inconsistent treatment between countries could easily arise. This issue was recognised in the setting up of the Atkinson Review in the United Kingdom³. There is thus a need for further clarification with a focus on the health and education sectors.

9. The present Handbook builds on the above set of guidelines, with two special added values. The first one is that it is the result not only of discussions between experts of national accounts, but also of the experts participating in the specialised OECD networks for education and health. This synergy should ensure the relevance and practicability of the recommendations of this handbook. An important objective of this Handbook is therefore to go beyond the improvement of national accounts estimates, and to construct tools that will help responding to the needs of statisticians and analysts specialised in health and education comparisons. The second added value of this Handbook is that it simultaneously considers the

¹ In the European Union, the corresponding manual is the ESA 95. This is a legal act that has been adopted which requires all Member States to act according with the guidance see: <http://forum.europa.eu.int/irc/dsis/nfaccount/info/data/esa95/en/een00000.htm>

² http://epp.eurostat.cec.eu.int/portal/page?_pageid=1073,1135281,1073_1135295&dad=portal&schema=PORTAL&p_product_code=KS-41-01-543

³ http://www.statistics.gov.uk/about/data/methodology/specific/PublicSector/Atkinson/final_report.asp

temporal aspect (analysis for a particular country over time) and spatial aspect (analysis across countries at a particular point in time). As explained in Section 1.8, the two approaches are similar.

10. Overall, this Handbook aims at disseminating advice and relating best practice, including from experts in these industries. A major aim is to find solutions which allow consistent measurement across the market/non-market boundary. A declared objective of the Handbook is also to make it accessible to those working in the education and health industries. For the Handbook's recommendations to be implemented successfully, they must be accessible to and understood by those whose actions it describes.