

Matthew Powell (Office for National Statistics, United Kingdom), "Non Market Hedonics"

Abstract

This paper will draw on the extensive theoretical literature and practical experience in the measurement of quality change and new goods effects developed by price statisticians over the past decade to throw light on some of the the questions raised in the session introduction. Although the price statistics debates have been explicitly concerned with the market sector but I believe they have a lot to contribute to the discussion of non market measurement. Briefly

- Many proposals for distinguishing quality change and new goods effects in price measurement were attacked by authors who either complained that they confused quantity changes with changes in utility or were happy to measure changes in utility but said it was being estimated wrongly. There are strong similarities with the outcomes/outputs debates.
- The debates on quality change and new goods in price measurement are slightly more mature than those on non-market output in National Accounts. Although many controversies are still open, applied price statisticians in several countries have developed a rough consensus about what to do in practise. Issues that appeared vital in the early stages of the debate now seem less important while the process of applying theoretical principals in a live setting has raised new issues, some of which will also be relevant to National Accountants.
- Most market sector volume estimates in National Accounts are in fact deflated value measures. If direct output measures for the non market sector are to be consistent with the market estimates there will need to be some consistency in the solutions adopted. My suggestion is for a paper that would start with a brief history of the debates on quality adjustment and new goods in price measurement, drawing out the implications for deflated volume measures of outputs and outcomes, followed by a description of current practise with particular emphasis on service prices and the application of hedonics.

Next I would try to show how the hedonic quality adjustment techniques we use for quality adjustment in goods price measurement could be applied to estimate quality changes of service outputs. The key feature of the approach is that quality change is derived by looking at differences in outcomes associated with the characteristics of different (but closely related) products at one point in time and that changes in quality over time are derived from changes in product characteristics rather than directly from changes in outcomes.

Outcomes associated with non market services usually take the form of changes in state that can arise from a variety of factors other than the output of the service itself. This implies that non market hedonics requires a lot of data on the characteristics of those receiving the service as well as the service providers. Collecting integrated datasets like this in a single survey is extremely rare in developed countries. However statisticians working in developing countries have a tradition of social sector performance studies that

combine surveys of service providing units at various administrative levels with extensive questionnaires completed by the households receiving services from those units. I would propose to demonstrate an application of the proposed technique using data from one of these surveys.