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Challenges to the Statistical System

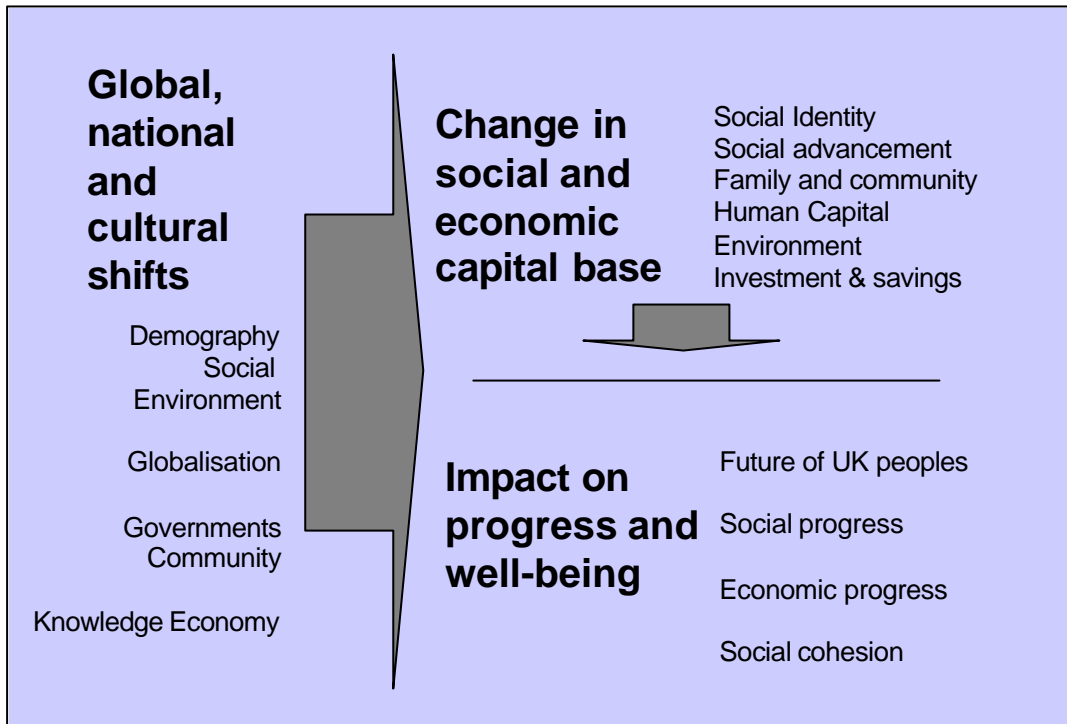
Paper prepared by the Office for National Statistics, United Kingdom¹

I. Challenges to Statistical Programmes

1. The Integrated Work Programme brings together the statistical development agenda of many international bodies and cross-agency groups. Mostly it is in response to forces of change that have been perceived for several years; often activity cannot start until a broad consensus exists about its value.
2. When we consider this very structured programme (essentially an ordered, end-response to changes in statistical need), these notes might provide a less structured assessment that pulls together our insights into how statistical needs will continue to change.

¹Prepared by Mr Len Cook, National Statistician, ONS, UK

FRAMEWORK FOR INTEGRATING INFORMATION NEEDS



3. With some judgement and insight about these major shifts in public policy and the indirect way that social and economic well-being is changing we can start to think about the kind of statistical pictures that we should be painting. For example, we could consider key recent changes under the following headings :

a) Demography

e.g.

- ?? migration (internal and external) - status of migrants e.g. illegal immigrants, asylum seekers are very difficult to count
- ?? population growth or decline (national - regional)
- ?? ageing of the work force
- ?? ageing population - impact on pensions, workforce, dependency ratios versus relevant dependency measures, trend toward early retirement, health and wealth of the elderly
- ?? role of women at work and impact on fertility and health
- ?? fertility - how low can it go? role of abortion and contraception

b) Social and Community

e.g.

Society:

- ?? ethnic and national identity - family patterns, health, labour, migration, education, poverty and wealth - comparative well-being and nature as distinct communities

- ?? inequality and social exclusion - outcomes in terms of health, crime, poverty and wealth, education, labour etc. - access to services
- ?? changing family patterns (marriage/cohabitation, serial relationships, single parented children - adoption, step parenting, divorce & separation, extended family relationships - care of grandchildren, elderly care) and its capacity as an enabling mechanism
- ?? social contribution and participation (e.g. getting beyond the labour market straight jacket to cover all forms of work-volunteering, caring, community engagement, family support, social networks etc.
- ?? citizenship - access to services; rights and responsibilities (social fabric/social capital)

Health:

- ?? declining mortality - ageing population
- ?? possibly constant rates of chronic disabling disease
- ?? development of composite measures (e.g. healthy life expectancy)
- ?? importance of measures of health and health risk including burden of mental and cognitive illness
- ?? identification of new diseases or new epidemics e.g. AIDS, BSE, TB
- ?? health accounts - cost of staff, costs of alternative care (private health care versus National Health Service), cost of informal care in community, cost of caring for the elderly

Labour market:

- ?? participation - men and women, full and part-time, multiple jobs
- ?? early retirement - health, pensions
- ?? changing size and shape of job market
- ?? earnings - diversity
- ?? stability - careers versus unstable short-term jobs
- ?? education and training - for IT, raising skills, retraining
- ?? e-society
- ?? changes in the labour force due to demographic and family pattern changes

c) Globalisation

e.g.

- ?? access, reliability and cost of the new infrastructures,
- ?? integration and quality,
- ?? competitiveness shifts,
- ?? economic migration,
- ?? economic integration (ECB, economic interdependence).
- ?? fragmentation (regional/local economies and politics) and weightlessness in economies;
- ?? destruction of the nation state

d) Knowledge Economy

e.g.

- ?? decline of manufacturing
- ?? e-commerce,
- ?? cross cutting sectors (tourism).
- ?? changes to communication and transport - phones, internet etc.

e) Environment

e.g.

- ?? short term fluctuations versus long term trends,
- ?? ability to absorb change - response mechanisms,
- ?? genetic engineering,
- ?? epidemic spread (mad cow, mussel algae, foot and mouth)

- ?? natural resource depletion;
- ?? climate change

f) Governments

e.g.

- ?? Human Rights,
- ?? performance indicators and output driven government
- ?? indexation of resources of population,
- ?? quality of public services
- ?? local/regional/national/sub-continent/global change in political relations
- ?? role of the state

II. Challenges to the Statistical System

- i) National integration is now required at a local level, as well as strong coherence at the European level. Performance measures are politically defined concepts that are increasingly generating expectations of detailed and very robust measures that test the capacity of the statistical system.
- ii) Longstanding measurement concepts and assumptions are now less likely to remain relevant with rapid social and economic change.
- iii) Cultural integrity of statistical frameworks is more strongly tested but the need for trust never greater i.e. there is a need for a strong political framework for statistics as well as statistical framework
- iv) Major country events have international spill-over (UK unemployment, US census measured, Boskin, UNDI, Mexico and SDDS, Germany and 1982 census).
- v) Potential for international networks to deliver strongly - (need local integration to achieve this compared to having statistical standards with feedback in opposite direction).
- vi) New economic paradigms challenge ESA itself.
- vii) Concern with cohorts, rather than cross sections and with distributions not averages.
- viii) In order to integrate information "ownership" of NSO needs to occur for each broad community, in a way which will ensure integrity of statistics at the sub-national level and ensure that differential response does not make it difficult to match survey results.
- ix) Increasing accessibility and usefulness of data in the electronic world paradoxically raises concerns of individuals over use of data, and may reduce their willingness of those supplying data to provide survey responses. Confidentiality is a growing issue in an environment of increasingly vociferous demand.
- x) There is an increasing volume and accessibility of data and the need to differentiate data to ensure that specific data can be located and understood.

4. With these headings we can then think about how we should frame our view of influences upon statistical needs:

| <i>Source of challenge</i> | <i>Significance</i> | <i>Statistical Solution</i> |
|---|---|--|
| <p>STAKEHOLDERS ARE EXPANDING IN DIVERSITY AND TYPE:</p> <p><i>New stakeholders arise from globalisation, world treaties and organisations, multinational organisations and services, global property rights</i></p> | <p>European Integration Devolution Social diversity EEO Ethnic communities Globalisation Growth in survey response burden</p> | <p>Europe wide measures Change from national sampling Dispersion in statistical arrangements Concordats with devolved countries Administrative records used Active respondent load management Europe, international standards</p> |
| <p>THE QUESTIONS ARE CHANGING:</p> <p><i>New issues arise from ageing populations, the information age, environmental change, regional governments, smaller government</i></p> | <p>Environmental sustainability Human capital, Social capital Social exclusion Poverty in childhood Improved health outcomes Information economy Promotion of science & innovation Integrity of national infrastructures European Central Bank Dominance of "City states"</p> | <p>Natural resource accounts Environmental protection measures Social capital measures, surveys Neighbourhood statistics project Measures of e-commerce Microdata studies Coherent inflation measures Coherent in statistics on major cities Comprehensive social survey programme</p> |
| <p>WHAT WE OBSERVE IS CHANGING:</p> <p><i>Deregulation, privatisation, the services economy, new household forms, forms of business organisation, monitoring of transactions, change the world we measure. Customs attitudes, language and values change. Examples are given in table 4.</i></p> | <p>Globalisation Business organisation Services economy Rapid product quality change Ethnicity Language, religion Family dispersion Greater public/private synergy</p> | <p>IMF Portfolio survey New Govt business frame idea? Monthly index of services Hedonic indexes, annual reweighting Ethnicity measured across govt Census religion question Detailed family analyses (census) Labour Price Index</p> |

| | | |
|---|--|--|
| <p>THERE ARE MORE ALTERNATIVE INFORMATION FORMS:</p> <p><i>There is a changing balance between official statistics, scientific research, market research, and commercial statistics. There is more chance that other forms of information exist, internationally, commercially, other processes.</i></p> | <p>Administrative records Performance measures Small area level coherence Evaluation surveys Modelling processes Record linkage</p> | <p>Intentions surveys Internet as survey vehicle Use of administrative (tax) records Code of Practice for National Statistics EDI New measurement processes Public guardians of linkage Strong legislation</p> |
| <p>WE HAVE NEW STATISTICAL MODELS and PROCESSES:</p> <p><i>Access to administrative information from government and commercial processes, information management and technology, and privacy change statistical processes.</i></p> | <p>Dynamics of key processes, concentrations (recidivism) Electronic transactions Time measurement Growing concern with privacy Electronic marking</p> | <p>Environmental protection Business demography, survey of migrants, Longitudinal surveys, Statistical matching, Matching on identifiers or names EFTPOS records Time use survey Openness is statistical processes</p> |
| <p>GETTING THE DATA USEFUL AND USED:</p> <p><i>Are the results meaningful, accessible, and applicable. The internet changes opportunities to get access to information.</i></p> | <p>Rapid access Painting an informed statistical picture Microdata access</p> | <p>Internet Modern graphics Long term view of key questions Metadata data management, Information management, statistical protocols, possible new legal environment</p> |
