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Session 4 : CROSS CUTTING ISSUES: A FRAMEWORK OF ANALYSIS FOR ICT ISSUES OF DEMAND

ABS - ICT Demand Statistics

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Abstract

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Introduction

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ABS Strategy

2 The ABS' strategy is to collect data about the demand for ICT goods and services as part of an overall set of surveys about the ICT sector and related activities. That strategy calls for data to be collected every two years about the supply of ICT goods and services and every two years about the demand for such goods and services. While it is desirable to conduct such surveys with the same reference period, the ABS has not been able to do this, for resource availability reasons; hence the current situation in which we will conduct supply side surveys every two years with the demand side surveys in the intervening years.

3 The above strategy was broadly endorsed at a recent Conference in New Zealand, attended by users of the these statistics in both Australia and New Zealand as well as by the Statistical Agencies in both countries. However, it was agreed that it was more important and urgent to develop suitable indicators on the demand for, and use of, ICT goods and services than to measure supply side indicators.

4 At the same conference it was also agreed that more attention had to be paid to developing short term indicators. In response to that demand the ABS is also moving to develop some current (or short term) indicators of the supply and demand for ICT goods and services; additional resources will be allocated to this task as a result of its 1998 Planning cycle. The plan is to produce a limited number of indicators covering both the supply and demand for ICT goods and services. On the demand side, the attention will be focussed on the business and the household sectors, and the key indicators are likely to be in respect of use of the Internet and Internet commerce. On the supply side, the ABS is likely to collect indicators of activity in the ICT sector and to derive measures of the balance of international trade and market shares.

5 Another area of particular interest in Australia at the moment is in respect of the millennium bug. The ABS is currently negotiating with a national Committee (including representatives from Federal and State Governments and private sector organisations) to develop some indicators of the extent to which the business community is aware of the problem and the arrangements that those businesses have made to ensure that their computer systems, and those in their supply chain, will not be affected by the bug.

Current ABS Demand Surveys

6 As indicated above, ABS currently conducts surveys of the demand for ICT goods and services every two years from the household sector, the business sector and the Government sector. This proposal to put all three surveys onto a two yearly basis, although a considerable improvement on the frequency of collection up to now, has already come after some pressure

from both Government and private users of data. The users are seeking a wider range of data even more frequently.

(a) Household Survey Program

7 The household survey program that the ABS conducts in respect of the ownership and use of computers and other telecommunications goods and services has proven to be a very rich source of information society indicators in Australia.

8 The program commenced in 1994 with a single survey conducted in February with a sample size of approximately 2300 households. Encouraged by user feedback, the sample was increased to about 3000 households and conducted for each quarter of 1996. The increase to the sample size was made to significantly increase the reliability of the resulting estimates. During 1998, quarterly surveys are again being conducted.

9 The four quarterly surveys are selected with no overlap between the respective samples so that they can be combined to form one larger overall sample. While it would have been preferable to conduct a single large sample, it has not been possible to have this topic included as part of the main ABS household survey program. We are therefore using the ABS's smaller "omnibus" household survey vehicle which, although significantly smaller, does provide reasonably reliable indicators, particularly when the four quarterly samples are combined.

10 Using the smaller survey vehicle has had a number of other benefits, which would not have been available if the monthly household program had been used. It has been possible to ask a lot more questions, greatly increasing the range of indicators available. This has enabled the ABS to extend the survey to not only measure use of computers and the Internet in the home, but also get a measure of the use of such goods and services outside the home (ie at work, at study etc.).

11 Another feature of the ABS survey has been to use the survey to collect data from both the "responsible adult", who generally answers questions in a standard household survey and other users of computers and the Internet in the home. This greatly increases the sample size of people about whom we can compile statistics, particularly in respect of their personal characteristics and their uses of computers and the Internet. It also enables us to get measures of the use of such goods and services by children which is another issue of importance to users in Australia.

12 This household survey strategy thus enables data to be collected about households which use computers and the Internet, the people who use them and the uses to which they are put. We are also able to collect data about the equipment available in the home, training and the reasons that people do not use computers and the Internet. This means that ABS is able to presents a comprehensive picture of the Information Society in Australia, especially since we also have data on the use of computers and the Internet outside the home.

(b) **Business and Government Use of IT**

13 The ABS conducted its first surveys of this kind in respect of 1993-94. The next set of surveys have just started, with forms despatched last month. However the 1997-98 surveys are

significantly different from the earlier surveys. The 1993-94 surveys concentrated on computer use, expenditure on computers, people employed to provide computing services to firms and Government organisations, the type of computing equipment installed and the number of computer users in those organisations whereas the 1997-98 surveys have a focus on measuring the new phenomena of the Internet and electronic commerce. Users clearly indicated that this type of information was much more valuable than the expenditure based statistics which were derived from the previous surveys. Copies of the new survey forms can be made available on request.

Other ABS Surveys Measuring Computer and Internet Use

14 The ABS has also developed two other surveys in which statistics about the use of computers and the Internet can be derived. These are the Business Growth and Performance survey and the Agricultural Commodity survey and they are discussed below.

(a) Business Growth and Performance Survey

15 This survey is a longitudinal business survey aimed at measuring the factors which impact firm growth and performance. The survey covers almost all industries in Australia with the exception of Agriculture. The survey was first conducted in respect of the financial year 1994-95 and the third year of a 5 year program has recently been completed. In this latter year, the ABS introduced for the first time a number of new questions on the firm's use of computers and the Internet. These questions not only provide a set of snapshot data similar to what would be collected in a separate survey but will also provide financial performance data, linked longitudinally over time, which may enable measurement of the impact of the use of computers and the Internet on business activity. Some summary results from this survey are shown below.

16 It is planned to run similar computer and Internet use questions again in the 1997-98 reference year survey.

(b) Agricultural Commodity Survey

17 ABS conducts an annual sample survey which collects data about the commodity outputs from the Agricultural sector. For the 1998 collection ABS added some questions on the use of computers and the Internet on these farms. Data was collected about the use of such goods and services and the barriers to their use. This work has been done for two main reasons. Firstly it gives some information about a very significant part of the Australian economy, to supplement the other industry information discussed above. Secondly it will provide data about the barriers to use in rural Australia, which is a significant concern in Australia. It is planned to collect similar information in the 1999 collection.

Summary Results from ABS Surveys

18 The tables attached provide some summary information for Australia on the demand for computers and the Internet in Australia. However, there is considerable additional data available, particularly from the household survey collection. The data item content of the ABS household

surveys is shown in the companion paper 'The Household Use of ICT Goods and Services: Towards a Framework for Internationally Comparable Statistics" and data could be made available to facilitate any international comparisons which might become possible as a result of discussion at this Voorburg Group meeting.

19 Limited information on government IT usage is available pending results of a 1997-98 survey which was recently despatched. Prior to this, the only data that ABS has is from its 1993-94 government usage surveys, which is now quite dated and does not address a number of important issues in relation to Internet usage and e-commerce.

Issues for Discussion

20 The ABS would welcome Voorburg Group members views on its demand surveys described above. It is still grappling with a number of issues associated with the surveys and would particularly welcome views on:

(a) the relative priority that statistical agencies should give to:
- annual or longer term supply versus demand statistics about computer and telecommunication goods and services,
- household, business and Government use of IT statistics, and
- short term indicators on the demand for computer and telecommunication goods and services.

(b) the importance of developing internationally comparable data for the demand for such goods and services and the need to develop international standards and definitions.

(c) the demand for statistics about the millennium bug and its likely effect on business performance.

APPPENDIX

	TABLE 1 - HOUSEHOLDS FREQUENTLY USING A COMPUTER, FEB/MAY 1998		
	Feb/May 1998		
	'000	%	1996 %
Aust.	**2 425**	**35.8**	**30.6**

(a) Frequently using a computer defined as once a week or more.

	TABLE 2 - HOUSEHOLDS ACCESSING THE INTERNET FROM HOME, FEB/MAY 1998(a)	
	'000	%
Aust.	**913**	**13.5**

(a) Relates to all households.

	TABLE 3 - ADULTS ACCESSING A COMPUTER OR THE INTERNET(a)(b)
	Australia
S\Accessing a computer	
Number '000	
Home	4 618
Work	4 339
Other	3 912
Any site	**7 630**
Proportion %	
Home	34.4
Work	32.3
Other	29.2
Any site	**56.9**
s\Accessing the Internet	
Number '000	
Home	1 292
Work	1 427
Other	1 704
Any site	**3 348**
Proportion %	
Home	9.6
Work	10.6
Other	12.7
Any site	**25.0**

	TABLE - 4 ADULTS USING THE INTERNET TO MAKE PURCHASES FOR OWN PRIVATE USE(a)	
	'000	%
Purchased or ordered goods/services(b)	409	11.5
Location of purchase(c)		
Australia	116	28.3
Overseas	254	62.2
Both	*29	*7.0
Don't know	*10	*2.4
Location from which order made(c)		
Home	336	82.3
At work	*19	*4.6
Other	*53	*13.1
Goods purchased and paid for online(c)	318	77.9
Number of purchases(c)		
one	77	19.0
two	87	21.2
three	86	21.0
four or more	82	20.2
don't know	76	18.6
Period when purchases made(c)		
April–May 1998	142	34.8
January–March 1998	122	29.9
October–December 1997	199	48.6
June–September 1997	113	27.7
Other	*26	*6.3
Can't remember/don't know	*5	*1.1

(a) Period covers the 12 months to February 1998. (b) Percentages are of all persons aged 18 years and over
accessing the Internet. (c) Percentages are of all persons aged 18 years and over making purchases via the Internet.

	TABLE 5 - PROPORTION OF BUSINESSES USING COMPUTERS BY FIRM SIZE JUNE 1997				
		Length of time using computers			
	Do not use computers%	Less than 2 years%	2 to less than 5 years%	5 or more years %	Total businesses%
Micro business	44	9	21	26	100
Other small business	31	10	23	37	100
Total small business	40	9	22	30	100
Medium business	6	9	26	60	100
Large business	0	3	10	87	100
Total	**38**	**9**	**22**	**32**	**100**

	TABLE 6 - PROPORTION OF BUSINESSES USING THE INTERNET BY BUSINESS SIZE GROUP, JUNE 1997					
	Micro\ business %	Other small business %	Total small business %	Medium business %	Large business %	All business %
Businesses with access to internet	17	24	19	49	85	21
Businesses with web site/ home page	2	7	3	18	50	5
Major uses of the internet						
Email	15	23	18	48	79	20
Gathering information	14	20	16	43	79	18
Data transfer	8	9	8	17	44	9
Marketing	2	7	4	16	33	5
Selling	1	2	1	3	2	1
Purchasing	1	0	1	1	3	1