

Australian Telework Advisory Committee (ATAC), Paper II

Telework in Australia

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Acronyms and Glossary

ABS	Australian Bureau of Statistics
ACIRRT	Australian Centre for Industrial Relations Research and Training
AWA	Australian Workplace Agreement
BROADBAND	High-speed, low-latency, 'always-on' Internet connectivity
BCA	Business Council of Australia
DCITA	Department of Communications, Information Technology and the Arts
E-WORK	Telework arrangements that rely upon advanced ICT, such as broadband and next generation networks
HILDA	Household, Income and Labour Dynamics in Australia survey
HOME-BASED WORK	Work performed at home by either self-employed person or by and employee working remotely from normal place of work.
ICT	Information and Communication Technologies
IDC	International Data Corporation
IT	Information Technology
LAN	Local Area Network
PC	Personnel Computer
SMEs	Small and Medium Enterprises
TELECOMMUTING	Flexible working arrangements designed to minimise travel costs and commuting times
VOIP	Voice over Internet Protocol. An Internet-based telephony product, which translates voice signals into data packets and transfers them across the Internet. VOIP products are generally a less expensive, and potentially less reliable, alternative to traditional telephony services.
VPN	Virtual Private Network. A technology that overlays communications networks with a management and security layer, enabling network managers to establish secure communication flows, while still enjoying the low cost of a public network, such as the Internet.
xDSL	Digital Subscriber Line

INTRODUCTION

This discussion paper has been prepared by the Department of Communications, Information Technology and the Arts for the Australian Telework Advisory Committee (ATAC) in collaboration with the Department of Employment and Workplace Relations. This paper describes telework adoption and usage trends in the Australia across key sectors and occupational groups.

Overall, the prevalence of teleworking or home-based work in Australia has increased from a low base over the last decade. Measures of telework incidence change depending on the definition used, but there are around 1 million or 11 per cent of workers in Australia regularly working from home. Teleworking is concentrated in certain sectors of the workforce, such as in service industries, larger sized businesses and managerial or professional occupations. The incidence of teleworking in formal enterprise agreements is still fairly low. The up-take of technologies to enable teleworking has however increased. In summary, there is significant scope to increase the adoption of telework in Australia.

SUMMARY

The broadest measure of home-based work, which captures all workers who had worked *any hours from home*, indicates that around 2.4 million employed persons, including 1.4 million employees, had worked from home in Australia in 2003. A narrower measure, based on employed persons who had worked *all or most of their hours from home* or *had an arrangement with their employer* to do so, shows around 1 million home-based workers in 2000.

The spread of home based work is fairly uneven in Australia. In 2000, while one in five home based workers were farmers, industries with high proportions of teleworkers included Communication Services, Property Services and Personal Services (all 15 per cent), and Education and Cultural and Recreational Services (both 14 per cent). As a proportion of all home-based workers, 39 per cent were managers and administrators and 28 per cent were advanced clerical and service workers. Large companies (of 150 or more employees) are two and a half times more likely to offer teleworking compared to small companies (with less than 50 employees).

The gender distribution of teleworkers is fairly even. However, male teleworkers are more likely to be managers and administrators whereas female teleworkers are more likely to be employed in clerical and sales occupations.

In 2004, the majority of teleworking was undertaken as part of an informal arrangement with a manager with around one in five companies with flexible workplace policies providing standard guidelines on working away from the office. Working from home provisions were in 2.2 per cent of collective agreements and less than 1 per cent of Australian Workplace Agreements (AWAs) in 2003.

In 2004, an estimated 80 per cent of companies that offered flexible work options also provided technologies to facilitate the process, with just over half providing access to the company network (53 per cent). The phone was the main technology (72 per cent

of all teleworkers) used by NSW teleworker employees in 2001, with mobile phones second (68 per cent), Internet third (67 per cent) and e-mail fourth (65 per cent).

The reasons people gave for working from home varied depending on the nature of their employment. For example, self-employed people find working from home arrangements suit them to allow them to grow their business without attracting all the overheads of a rented office space. Employees will generally use work from home arrangements to either extend their office-based hours, or to allow greater flexibility in working arrangements (such as to allow greater work-life balance).

Some of the impediments to teleworking found in Australian studies include lack of trust on the part of Australian managers to allow employees to work away from the office. Mistrust and rivalry between co-workers regarding flexible working has also been identified as a problem. It is not surprising therefore to find that regularity and clarity of managers' communications are important factors in job satisfaction for teleworkers. To ensure a successful arrangement for both organisations and teleworkers, ongoing monitoring and evaluation of the teleworking arrangements is crucial.

SECTION 1 - PREVALENCE OF TELEWORK AND HOME-BASED WORK IN AUSTRALIA

There are a number of surveys that provide information on telework and home-based work on the individual level – such as the Household, Income and Labour Dynamics in Australia (HILDA) survey¹ data on people who worked some hours from home and the Australian Bureau of Statistics (ABS) ‘Location of Work’ survey.² Statistics collected at the organisational level include the Toshiba Australia 2004 report and the National Telework Survey undertaken between 1999-2002.

It is important to note that the teleworking statistics in Australia are somewhat complicated by the different definitions used across surveys. Some measures of telework or home-based work refer to people who worked any number of hours from home. These figures often include the self-employed, who are conceptually different from employees of organisations. Some telework measures specify the use of technology, include other locations of work or restrict the measure to those teleworking full-time or part-time within normal business hours. Some surveys are based on workers, while others focus on organisations as the unit of analysis. Therefore care needs to be taken when referring to figures, particularly when making comparisons over time.

Individual level

The 2003 HILDA Survey reports that an estimated 25 per cent or 2.4 million employed persons (including the self-employed) worked some of their usual hours at home. Excluding employers and the self-employed, an estimated 17 per cent or 1.4 million employees worked some hours from home. It is noted that less than a third of employees had a formal arrangement with their employer to work from home. As an indication of the extent of work being undertaken from home, 27 per cent (or 350,000) of home-working employees worked more than one fifth of their hours from home.³

ABS data from the ‘Household Use of IT’ survey revealed that between 6 and 8 per cent of wage and salary earners had an agreement with their employer to work from home between 2000 and 2002.⁴ Other ABS surveys show:

- around 5 per cent, or 440,000 workers, worked from home on census day in 2001. Excluding primary industry workers, the number was 320,000 or 3.8 per cent;⁵
- according to the 2000 ‘Location of Work’ survey, 1 million employed Australians (11 per cent) worked all or most of their hours at home or had an arrangement with their employer to work from home. Of these, 62 per cent were employees;⁶
- nearly a quarter of a million NSW workers had teleworked (during normal business hours for a full or part day) in the three months to October 2001, constituting 8 per cent of that state’s workforce.⁷

Organisations

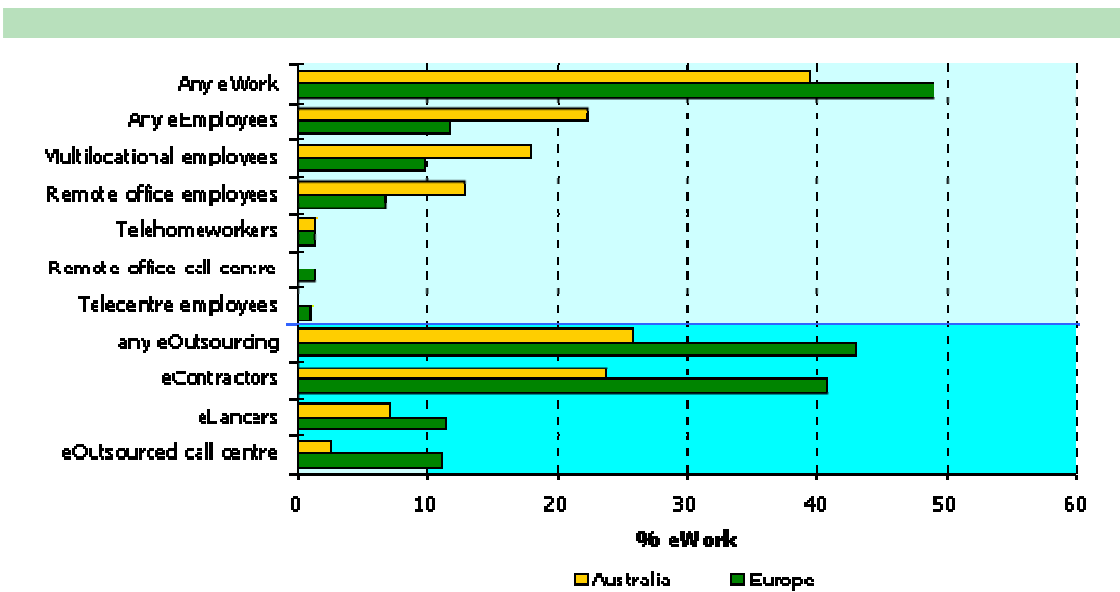
The Toshiba Australia 2004 report (on workplace attitudes towards flexible working arrangements in 400 Australian businesses) showed that 38 per cent of Australian

organisations have introduced flexible workplace arrangements (which include telework).⁸

The EMERGENCE Australia 2000 survey found that 12 per cent of employers in Australia have remote employees. The survey shows that Australia has a higher proportion of ‘remote office employees’ compared to Europe, an equal proportion of ‘telehomeworkers’ (employees who use a computer and telecommunications link to conduct their work and who are based wholly or mainly in their homes), but a lower rate of ‘eWork’ overall (the use of Information and Communications Technologies in activities involving the processing and transmission of data to remote locations).⁹

A National Telework Survey was undertaken as a collaborative project between Unisys Australia, the University of Queensland and the Queensland Department of Employment, Training and Industrial Relations. The study of 2,500 organisations in 1999 found that 44 per cent of organisations employed people who teleworked at some time, while 15 per cent employed some ‘regular’ teleworkers (who teleworked more than 40 per cent of their working time).¹⁰

Figure 1: eWork uptake in Australia and Europe in medium to large organisations with >50 employees, 2001.



Source: EMERGENCE survey 2000, performed by Edith Cowan University and funded by a grant from the Department of Transport and Regional Services. Weighted figures, per cent of establishments; sample size of 332 large or medium establishments in Australia, 7,305 large or medium establishments in Europe. European data from Huws & O’Regan 2001.

SECTION 2 - CHARACTERISTICS OF TELEWORKERS

Sectors and occupations

According to HILDA data on employees, Australian teleworkers were nearly twice as likely to work in the public sector in 2003 (26 per cent of public sector workers worked some hours from home) compared to private sector workers (14 per cent).¹¹ A much smaller gap between the private and public sector usage was reported in the 2001 ABS survey of NSW workers. It showed that NSW public sector employees were only slightly more likely to telework (10 per cent of public employees performing telework, compared to 7 per cent of private sector employees), and that the majority of NSW teleworkers (74 per cent) were located in the private sector.¹²

There is a wide variation in the use of working from home arrangements between industries and across occupations.

In 2000, just over one in five home workers (including the self-employed) were farmers and half of all farmers worked from home. Communication Services, Property Services and Personal Services had the next highest proportions of persons working from home (all 15 per cent), with Education and Cultural and Recreational Services the third highest (14 per cent).¹³

Figure 2: Industries with employees who worked from home in Australia in 2003.

Industry	Employees who worked from home as a proportion of all employees in the industry (%)
Agriculture, forestry and fishing	18.4
Mining	8.6
Manufacturing	9.4
Electricity, gas and water supply	**
Construction	12.6
Wholesale trade	19.3
Retail trade	6.1
Accommodation, cafes and restaurants	5.4
Transport and storage	8.4
Communication services	17.1
Finance and insurance	15.8
Property and business services	25.1
Government administration and defence	15.9
Education	54.7
Health and community services	11.3
Cultural and recreational services	18.8
Personal and other services	15.4
TOTAL	17.1

Source: HILDA Survey, Wave 3, 2003

Notes: ** indicates relative standard errors greater than 50%

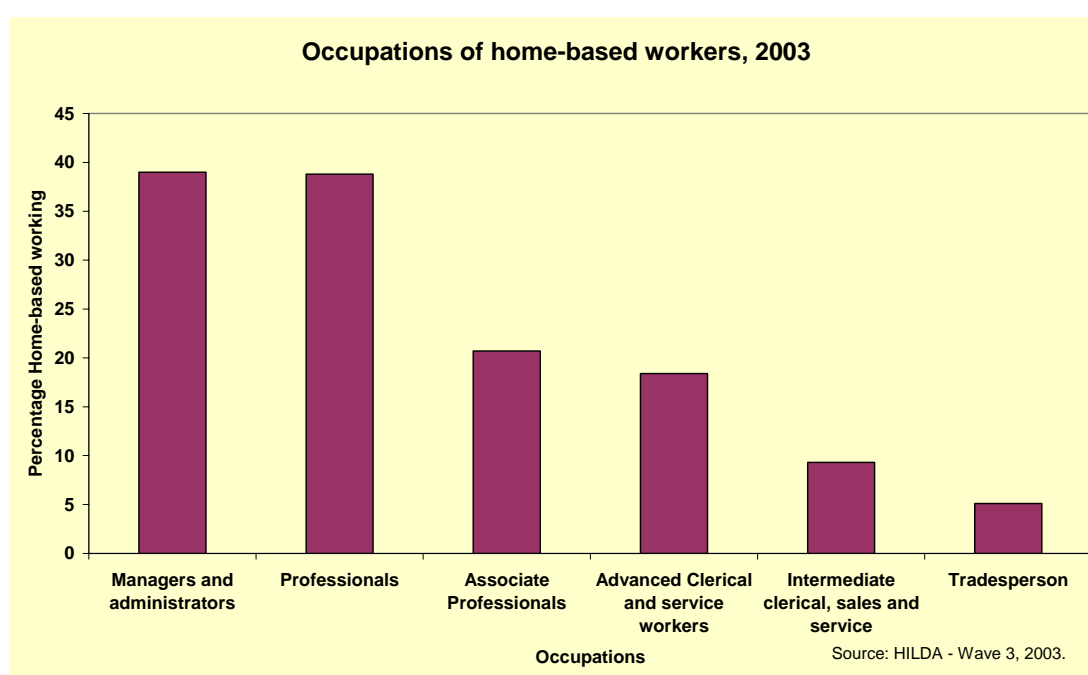
Excluding the self-employed, the HILDA data in Figure 2 show that the Education sector had the highest proportion of employees who had worked some hours at home (54 per cent), with the Property and Business Services sector (25 per cent) second

highest, and the Wholesale Trade sector (19 per cent) third. Accommodation, Cafes and Restaurants (5 per cent), Retail Trade (6 per cent), Transport (8 per cent) and Mining (9 per cent) had the lowest rates of employees working from home.¹⁴

Home-based working is most prevalent among people employed as managers and administrators. In 2000, ABS data show home-based workers comprised 39 per cent of all persons employed as managers and administrators and 28 per cent of all advanced clerical and service workers.¹⁵

HILDA data show the same proportion of managers and administrators performed work from home in 2003 as ABS data, with professionals (39 per cent), and advanced clerical and service workers (18 per cent) the other high users of home-based work.¹⁶

Figure 3: Leading home-based worker occupations in Australia, 2003.¹⁷



Gender and age

In 2003, the gender distribution of teleworkers is fairly even with the same proportion of male and female employees (17 per cent) working some hours at home.¹⁸

However, a gender difference appears pronounced when occupation is taken into account. ABS data for 2000 show that female home workers are more likely to be in the clerical, sales and service occupations (40 per cent compared to 7 per cent for males) whereas male home workers were more likely to be in managerial or professional occupations (63 per cent compared to 39 per cent for females). Male home workers were also more likely to be employed full-time (87 per cent) compared to female home-based workers (49 per cent).¹⁹

It is also interesting to examine how families with children use home-based work to balance their work and family responsibilities. The ABS 'Child Care' survey in 2002 reported that flexible working hours (35 per cent), permanent part-time work (24 per

cent) and work from home arrangements (16 per cent) were the most common arrangements used by families with at least one parent employed. Work from home arrangements in particular were prevalent for working mothers (18 per cent) compared to working fathers (9 per cent). The data also show that the rate of adoption of working arrangements by working families has been increasing over time.²⁰

This gender difference is also apparent when looking at reasons why people telework. The main reason 20 per cent of women in NSW teleworked was ‘childcare and family considerations’, compared to less than 7 per cent of men.²¹

The 2000 ABS survey found that 24 per cent of persons employed at home were aged between 15 and 34 years, 57 per cent were aged 35 to 55 years and 19 per cent were aged over 55 years.²² The most common age group for NSW teleworkers is 35 to 44 years-of-age, accounting for 38 per cent of NSW teleworkers in 2001.²³ The IBM Australia survey in 2001 reported that most of the company’s telecommuters were in the early part of their working careers, with telecommuting much less common among employees aged over 50 years.²⁴

Number of employees

Large companies are more likely to offer teleworking and other flexible workplace arrangements compared to medium and small companies. The 2004 Toshiba Australia survey showed that 45 per cent of organisations with 100 or more employees had flexible workplace arrangements (compared to the average take-up of 38 per cent).²⁵ An even higher telework availability rate was reported in the 2003 Business Council of Australia survey of by large companies, which found that 88 per cent of large companies surveyed offered telework in 2003.²⁶ The National Telework Survey conducted in 1999 confirms that the incidence of regular teleworkers was highest in organisations with 150 or more employees (25 per cent) compared with smaller companies of up to 50 employees (9 per cent).

A survey on Internet usage amongst small businesses showed that the use of the Internet for telecommuting or remote access purposes is growing. Internet usage for teleworking or remote access was 36 per cent in 2004, up from 17 per cent recorded in 2003.²⁷

Contractual arrangements

The majority of teleworking is undertaken as part of the teleworker’s informal arrangements with a manager. The 2004 Toshiba Australia report showed that, while 38 per cent of organisations had teleworking arrangements, only 21 per cent of companies that had telework policies provided uniform guidelines on working away from the office.²⁸ The 2003 HILDA survey shows that around a third of employees who had worked some hours from home had a formal arrangement with their employer to do so.

This low level of formal arrangements was also reported in a 1999 survey of Australian organisations by Dr Lafferty which found that the majority of organisations who employed teleworkers had no formal agreement on terms and conditions for teleworking.²⁹

According to the Australian Centre for Industrial Relations Research and Training (ACIRRT) in 2003, there were working from home provisions in 2.2 per cent of collective agreements and less than 1 per cent of AWAs, suggesting that employers deal with working from home informally or through internal human resource manuals and procedures. Provisions are more widely found in public sector agreements and, in particular, in the public administration industry group in which 20 per cent of agreements have working from home provisions. The ACIRRT stated that this higher rate of formal arrangements in the public sector indicates a greater propensity for public sector employers and unions to codify such arrangements than private sector employers.³⁰

The DEWR Workplace Agreements Database shows that, by the end of 2004, the Government Administration and Defence sector had the highest proportion of Federal certified agreements covering home-based work (47 per cent), with the next highest rate in the Health and Community Services sector (12 per cent).

SECTION 3 – TELEWORK TECHNOLOGY

Use of a computers, mobile phones and a modem was the main technology employed in teleworking in Australia in 1999.³¹ The use of portable personal computers for teleworking increased from 40 per cent in 2000³² to 49 per cent in 2001, but then declined to 43 per cent in 2002, with mobile phones becoming the predominant technology used by homeworkers (increasing from 39 per cent in 2000 to 59 per cent in 2002).³³

In 2000, an estimated 64 per cent of persons employed at home used information technology while working from home.³⁴ Professionals working from home (over half are male) are more likely to use the Internet in their job at home (59 per cent) than to use computers alone (24 per cent). In contrast, ‘advanced clerical’ and ‘service workers’ working from home (most are female) were more likely to use computers without a connection to the Internet (40 per cent) than a computer with an Internet connection (36 per cent).³⁵

The phone was also the main technology (72 per cent of all teleworkers) used by NSW teleworkers employees in 2001, with mobile phones (68 per cent), Internet (67 per cent) and e-mail (65 per cent).³⁶

Most teleworkers are supplied with equipment by their employer. In 2001, approximately two-thirds of NSW teleworking employees were supplied with equipment by their employer for working at home.³⁷ The supply of teleworking technology was even higher in the Toshiba Australia 2004 survey which estimated that 80 per cent of companies that offer flexible work options also provided technologies to facilitate the process. The most common provisions include:

- company notebook computers (80 per cent);
- mobile telephones (76 per cent);
- remote email (63 per cent); and
- full access to the company network (53 per cent).³⁸

The networked teleworker

Accessing the employer's computer system via a modem increased only slightly in 2002 (after increasing from 35 per cent in 2000 to 45 per cent in 2001).³⁹ The International Data Corporation (IDC) predict the decline of the isolated PC centric (non-networked) telecommuter and forecast that by 2008 there will be 1.2 million networked homes in Australia, with networked teleworkers connected via broadband to their corporate network (and also to the telephone system through a diversity of devices).⁴⁰

While broadband is crucial to the success of remote working, it is IP VPN (Virtual Private Network) that replicates the office environment in the home, at least in terms of access to IT resources and corporate information. IP VPN is still not considered as a must-have for telecommuters as the PC or laptop and the Internet connection, but it is becoming one. According to IDC's *Australia Broadband and IP Services Usage and Preferences: IDC 2004 Telecommunications Survey*, 17 per cent of respondents currently use self-implemented IP VPN services while only 7 per cent use carrier based IP VPN services.⁴¹

SECTION 4 - DRIVERS AND IMPEDIMENTS

According to the 2000 ABS Locations of Work survey, the main reason given by people for working from home was to operate their own business (48 per cent), with 'catching up on work' listed as the second highly ranked reason by 15 per cent of all home workers.⁴² The main reasons given for teleworking in NSW in 2001 included 'work commitments/job requires it' (33 per cent), 'less distractions' (15 per cent), 'childcare/family considerations' (13 per cent) and 'greater productivity' (12 per cent).⁴³

The Toshiba Australia 2004 survey found that the majority of managers (63 per cent) and employees (57 per cent) do not consider technology a barrier to implementing flexible workplaces. The report also found that there were significant differences between the facilities provided to managers and employees, with employees 17 per cent less likely than managers to receive technologies that allow them to work flexibly.⁴⁴

In 2001, IBM Australia supplied all the necessary telecommuting equipment to 63 per cent of their teleworkers. The most common and vehement complaints from the survey of IBM Australia teleworkers concerned the maintenance of equipment and the Internet connection.⁴⁵

In the 1999 National Telework Survey, of organisations that had regular teleworkers, concern about data security was the most frequently reported problem (cited by 44 per cent of organisations as 'moderately' or 'highly' problematic). 'Lack of support from staff/unions' ranked higher than 'lack of support from management'. For organisations that had considered but not introduced telework, 'lack of suitability' of teleworking was the most highly perceived problem (51 per cent), and concerns about data security also rated highly (46 per cent). Only 5 per cent of organisations who had

considered, but not adopted, telework mentioned industrial relations as influencing the decision not to introduce telework.⁴⁶

Management culture

The Toshiba Australia 2004 report found that Australian managers do not trust employees to work away from the office and are denying them the opportunity to work flexibly. Mistrust and rivalry between co-workers regarding flexible working is also prevalent, with those who work away from the office subject to increased criticism from their colleagues. Specific findings of the report include:

- mistrust of flexible workers is common in Australian organisations: more than 50 per cent of respondents think managers are less trusting of flexible workers and nearly 75 per cent think employees disapprove of their colleagues who sometimes work away from the office;
- most managers (75 per cent) in non-flexible workplaces said they would be unlikely to let employees work flexibly, even though nearly 50 per cent of employees would like to, if allowed; and
- a major obstacle to the uptake of flexible working is the perceived difficulty in monitoring and supervising employees, indicating scope for greater use of performance rather than attendance-based evaluation techniques in order to increase trust. An estimated 65 per cent of managers and 59 per cent of employees cited monitoring and supervising as a common problem.⁴⁷

The 2003 Business Council of Australia survey also identified resentment from managers and staff as a barrier to implementing work/life policies:

Resentment from managers having to become more adaptable as their staff take up more flexible working options, and resentment among other employees, were also identified as difficulties to overcome in implementing work/family policies.⁴⁸

The 1999 National Telework Survey found that, although managers were the primary category of teleworkers, they also constituted the greatest resistance to the spread of teleworking to other employees, as they were not prepared to trust employees to work at home.⁴⁹ There was also a lack of systematic analysis of industrial relations, labour processes and regulatory frameworks for teleworking.⁵⁰

Teleworker satisfaction

Despite observed increases in stress, the IBM Australia 2001 survey found that teleworking is preferred as a work option compared to routine office attendance by the majority of respondents (56 per cent preferred teleworking over normal office attendance), and 51 per cent would like to telework until they retire. Around 26 per cent do not prefer teleworking to routine office attendance.⁵¹

The clarity of a manager's communication is important in contributing to teleworker job satisfaction at IBM Australia. The 2001 survey of IBM Australia teleworkers found that:

- 83 percent of teleworkers stated that communication of job responsibilities to them was clear;
- 77 percent reported that communication of goals and objectives to them was also clear; and
- more than 90 percent of respondents felt that manager communicate deadlines clearly.⁵²

The IBM Australia 2001 survey also found that teleworkers and managers communicated freely and regularly. However, communication between managers and teleworkers did not redress teleworker concerns regarding the level of training and equipment connectivity maintenance:

- most respondents have a positive view of how their positions are managed. More than 60 per cent agree that managers support career development, and almost three-quarters believe that management supports their continuing training;
- however, more than 70 per cent believe that they were given too little training in the “nuts and bolts” of teleworking before embarking on the new style of work;
- almost 70 per cent of respondents state that managers review their work and 67 per cent agree that the company appropriately reviews their salaries; and
- more than 60 per cent of respondents communicate with their office online more than ten times a week, and 81 per cent visit their office more than five times a fortnight.⁵³

Further surveys of Australian teleworkers report seven key factors that can significantly influence the job satisfaction of teleworkers:

- communicating job responsibilities;
- defining goals and objectives;
- deadlines and job expectations;
- communicating freely and regularly;
- providing appropriate equipment, training and career development; and
- reviewing work and salary regularly.⁵⁴

¹ The HILDA Survey is funded by the Commonwealth Government through the Department of Family and Community Services. Responsibility for the design and management of the survey rests with a group comprising the Melbourne Institute of Applied Economic and Social Research (University of Melbourne), the Australian Council for Educational Research and the Australian Institute of Family Studies. Data collection performed by AC Nielsen.

² Australian Bureau of Statistics, *Locations of Work*, June 2000 (Cat. No. 6275.0).

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- ³ Household, Income, and Labour Dynamics in Australia (HILDA) Survey 2003 (Wave 3), 2003.
- ⁴ ABS, *Household Use of IT 2000 and Household Use of IT 2001-02*, 10 September 2003 (Cat. No. 8146.0).
- ⁵ B. Salt 'Homing workers seek lifestyle roots', *The Australian*, 17 February 2005, p48. URL: http://www.theaustralian.news.com.au/common/story_page/0,5744,12269225%25E25658,00.html
- ⁶ ABS, *Locations of Work*, June 2000 (Cat. No. 6275.0).
- ⁷ ABS, *NSW Teleworking 2001*, 11 April 2002. URL: <http://www.abs.gov.au/Ausstats/abs@.nsf/e8ae5488b598839cca25682000131612/0b92ef6f04e14868ca256b97007e2c57!OpenDocument>
- ⁸ Toshiba Australia, *Mobility and Mistrust*, September 2004. URL: http://www.isd.toshiba.com.au/cgi-bin/ai1.exe/topic/content/ed_content.jsp?BV_SessionID=@@@@1432676610.1106624503@@@@&BV_EngineID=caddcfddjdkkbfhdhckjcfldio.0&CATOID=-15057&LISTOID=60210
- ⁹ Australia had 27 per cent of medium to large organizations using eWork according to the EMERGENCE survey, performed by Edith Cowan University and funded by a grant from the Department of Transport and Regional Services. EMERGENCE Australia, *Cities are main eWork magnets in Australia*, 2000. URL: <http://www.emergence.nu/news/ausreport.html>.
- ¹⁰ *The Management of Telework: An Employment and Industrial Relations Model for Australian Industry*, A collaborative research project undertaken by the University of Queensland, Unisys Australia Ltd and the Queensland Department of Employment, Training and Industrial Relations, Final Report, June 2002. URL: <http://www.ir.qld.gov.au/reports&submissions/telework.pdf>
- ¹¹ Household, Income, and Labour Dynamics in Australia (HILDA) Survey 2003 (Wave 3), 2003.
- ¹² ABS, *NSW Teleworking 2001*, 11 April. URL: <http://www.abs.gov.au/Ausstats/abs@.nsf/e8ae5488b598839cca25682000131612/0b92ef6f04e14868ca256b97007e2c57!OpenDocument>
- ¹³ ABS, *Australian Social Trends 2002*, 4 June 2002.
- ¹⁴ Household, Income, Labour Dynamics in Australia (HILDA) survey - Wave 3, 2003.
- ¹⁵ ABS, *Locations of Work*, June 2000 (Cat. No. 6275.0).
- ¹⁶ Household, Income, Labour Dynamics in Australia (HILDA) survey - Wave 3, 2003.
- ¹⁷ Household, Income, Labour Dynamics in Australia (HILDA) survey - Wave 3, 2003.
- ¹⁸ Household, Income, Labour Dynamics in Australia (HILDA) survey - Wave 3, 2003
- ¹⁹ ABS, *Locations of Work*, June 2000 (Cat. No. 6275.0).
- ²⁰ ABS, *Child Care*, June 2002 (Cat. No. 4402.0).
- ²¹ Reasons given for not teleworking were 'type of work not suitable' (75 per cent) and 'employers not allowing it' (13 per cent). ABS. *Teleworking, NSW 2001*, 11 April 2002. URL: <http://www.abs.gov.au/Ausstats/abs@.nsf/e8ae5488b598839cca25682000131612/0b92ef6f04e14868ca256b97007e2c57!OpenDocument>.
- ²² ABS, *Locations of Work*, June 2000 (Cat. No. 6275.0).
- ²³ Those aged 45-54 years accounted for the largest proportion of employed people who spent all day in the office and only worked at home after normal business hours ABS, *NSW Teleworking 2001*, 11 April 2002.
- ²⁴ 'How IBM Australia manages its telecommuters' , 2002, Human Resource Management International Digest, 2002. Volume10, Issue 5. (DCITA Subscription. ProQuest Database).
- ²⁵ Toshiba Australia, *Mobility and Mistrust*, September 2004. (The report was commissioned by Toshiba Australia, Information Systems Division (ISD) and conducted by Sweeney Research, surveyed 600 managers and employees across Australia and New Zealand into their attitudes towards flexible working. It covered a wide range of industry sectors, including communication services, finance and insurance, government administration and transportation.)
- ²⁶ Companies surveyed were all Business Council of Australia (BCA) members. BCA, *Balancing Work and Family Survey*, July 2003.
- ²⁷ Pacific Internet, *Broadband Barometer*, July 2004.
- ²⁸ Toshiba Australia, *Mobility and Mistrust*, September 2004.
- ²⁹ Local Government Manager Australia (LGMA), *Home-based work in Australian Local Government*, September 2003. (report produced by Associate Professor Michael Paddon, The Centre For Local Government, University Of Technology, Sydney Michael.Paddon@uts.edu.au). URL: http://www.lgma.org.au/national/HBW_per_cent_20Report.pdf.
- ³⁰ LGMA, *Home-based work in Australian Local Government*, September 2003.
- ³¹ G. Lafferty and G. Whitehouse, *Telework in Australia: Findings from a National Survey in Selected Industries*, Australian Bulletin of Labour, 2000. (Reported in LGMA, *Home-based work in Australian Local Government*, September 2003.

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- ³² Australian Bureau of Statistics, ABS, *Household Use of IT – 2000*, 8 May 2001.
- ³³ Australian Bureau of Statistics, ABS 8146 0 *Household Use of IT - 2001-02*, 10 September 2003.
- ³⁴ ABS, *Locations of Work*, 28 May 2001.
- ³⁵ ABS, *Australian Social Trends 2002*, 4 June 2002.
- ³⁶ ABS, *NSW Teleworking 2001*, 11 April 2002.
- ³⁷ ABS, *NSW Teleworking 2001*, 11 April 2002.
- ³⁸ Toshiba Australia, *Mobility and Mistrust*, September 2004.
- ³⁹ Australian Bureau of Statistics, ABS 8146 0 *Household Use of IT – 2000*, 8 May 2002 (Source: Australian Bureau of Statistics 2003, ABS 8146 0 *Household Use of IT - 2001-02*, 10 September 2003)
- ⁴⁰ IP VPN is an important technology that will enable remote working not only to access the corporate network, but in the near future, it will enable voice and video in a more reliable and secure fashion. IDC 2004, *Australia Telecommuting Services and Equipment 2004-2008 Forecast & Analysis*, November. URL: http://www.idc.com.au/solutionscentre/telco/press_detail.asp?releaseid=130.
- ⁴¹ Also, the survey found that quality of service satisfaction levels for self implemented and carrier based IP VPN was very high, above 73 per cent, which is a good indicator that companies will use more of this service in the future. IDC 2004, *Australia Telecommuting Services and Equipment 2004-2008 Forecast & Analysis*, November.
- ⁴² LGMA, *Home-based work in Australian Local Government*, September 2003.
- ⁴³ Reasons given for not teleworking were 'type of work not suitable' (75 per cent) and 'employers not allowing it' (13 per cent). ABS 2002. *Teleworking, New South Wales, 2001*, 11 April (Cat. No. 1373.1).] URL: <http://www.abs.gov.au/Ausstats/abs@.nsf/e8ae5488b598839cca25682000131612/0b92ef6f04e14868ca256b97007e2c57!OpenDocument>.
- ⁴⁴ Toshiba Australia, *Mobility and Mistrust*, September 2004.
- ⁴⁵ 'How IBM Australia manages its telecommuters', Anonymous. *Human Resource Management International Digest*, 2002, Volume 10, Issue 5. (ProQuest Database).
- ⁴⁶ G. Lafferty, and G. Whitehouse, 'Telework in Australia: findings from a national survey', *Australian Bulletin of Labour*, 2000, Volume 26, Issue 3.
- ⁴⁷ Toshiba Australia, *Mobility and Mistrust*, April 2004.
- ⁴⁸ BCA, *Balancing Work and Family Survey*, July 2003. URL: <http://www.bca.com.au/content.asp?newsID=92507> [The BCA Work/Family Survey was distributed in July 2003 to Business Council of Australia Members. Around 70 per cent - 68 of large companies - of Members participated in the Survey – with a combined employment of 800,000 people]
- ⁴⁹ Dr Lafferty found that managers were followed by IT professionals and administrative and clerical workers as the main types of teleworkers.
- ⁵⁰ Dr Lafferty and fellow researchers defined "regular teleworkers" as employees who consistently spent more than 40 per cent of their working hours away from the office, using telecommunications technology to access it. Telework can include "flexi-place arrangements" with employees working on the road, at remote sites or on-site with clients.
- ⁵¹ 'Australian telecommuting: Management communication strategies', D. Ilozor, B. Ilozor. *Logistics Information Management*, 2001, Volume 15, Issue 1/2. (ProQuest Database).
- ⁵² 'How IBM Australia manages its telecommuters', Anonymous. *Human Resource Management International Digest*, 2002. Volume.10, Issue. 5. (DCITA Subscription. ProQuest Database)
- ⁵³ 'Australian telecommuting: Management communication strategies', D. Ilozor, B. Ilozor. *Logistics Information Management*, 2001, Volume 15, Issue 1/2. (ProQuest Database).
- ⁵⁴ D. Ilozor, B. Ilozor, J. Carr, Management communication strategies determine job satisfaction in telecommuting, *The Journal of Management Development*, 2001, Volume 20, Issue 5/6 (DCITA Subscription. ProQuest Database)