

# Commuting

## A Thing of the Past?



Research report assessing Illawarra Commuters experiences and perceptions with commuting and teleworking  
November 2013



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# Content

Executive Summary .....	ii
Introduction.....	1
Commuting .....	2
Travel Costs .....	2
Health Costs.....	3
Business Costs .....	3
Social Costs .....	4
Teleworking .....	5
Professional and employee characteristics.....	5
Cost Savings .....	6
Benefits .....	6
Disadvantages .....	6
Barriers.....	7
Factors for successful teleworking.....	8
Illawarra Commuter Survey.....	9
Illawarra Commuter Profile.....	9
Survey Results .....	10
Survey Respondent Profile .....	10
Commuting.....	11
Teleworking.....	15
Discussion and Conclusions .....	20
Appendix .....	24
Research Methodology .....	24
References .....	29

## Figures

Figure 1- Commuting labour force by locality .....	9
Figure 2 - Commuting labour force in each locality by destination .....	9
Figure 3 - Commuting labour force in each locality by modes of transport and destination .....	10
Figure 4 - Reasons for Commuting .....	11
Figure 5 - Daily Spend whilst Commuting .....	12
Figure 6 - Good aspects of commuting .....	13
Figure 7 – Negative impact of the commute .....	14
Figure 8 – Job tasks suitable for teleworking per week .....	15
Figure 9 - Telework location .....	16
Figure 10 - Perception of teleworking improving productivity .....	16
Figure 11 - Employers support capabilities for telework .....	17
Figure 12 - Organisations offering telework to non-teleworkers .....	17
Figure 13 - Non-teleworkers who discussed telework .....	18
Figure 14 - Teleworkers experiences with teleworking .....	18
Figure 15 - Non-Teleworkers perceptions of teleworking .....	18
Figure 16 - Commuters completing the Illawarra Commuter Survey by locality .....	24
Figure 17 - Age .....	25
Figure 18 - Position Levels.....	25
Figure 19 - Industry .....	26
Figure 20 - Teleworker experience with teleworking by variable .....	27
Figure 21 - Non-Teleworker perception of teleworking by variable .....	28

## Table

Table 1- Linking telework with variables for high organisational performance .....	21
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# Executive Summary

Commuting has been a way of life for many Illawarra residents. Over 20,000 people leave the region for work on a regular basis. Many regional leaders would like to change this and support residents to work closer to home. With technology improvements and the installation of the National Broadband Network this may become more feasible. The Illawarra Digital Strategy, released in July 2013, wants to make the Illawarra a telework leader. The Strategy gave momentum to this study into commuters' experiences and perceptions about their commute and telework. The Illawarra Commuter Survey data helps regional leaders better understand the commuter cohort. Also, it has given commuters a voice. This report combines the voice of 211 respondents with a literature review and the current mantra into commuting and teleworking. It provides some discussion and conclusions linking the findings with contemporary workplace issues.

Research indicates the significant social and health impact on commuters; the longer the commute the more significant the impact. Illawarra residents commute on average 180 minutes per day, well above the 54 minute average of the Australian commute. Most commuters travel daily to a fixed work place with some residents undertaking business activities. 84.3% of Illawarra residents travel by car due to the limited availability of public transport options to their place of work. The Bureau of Transport and Regional Economies expects an increase of 19% or one additional car in every five on our roads by 2020. Bigger congestion will come at a huge personal and business travel cost impacting on people and economic well-being.

Business costs, due to congestion, are estimated to double because of trip delays and variability. According to the Gallup Well-Being Index lengthy commutes increase adverse physical and emotional conditions of commuters. Illawarra respondents find that maintaining good health through exercise and sufficient sleep or rest is challenging. Fatigue increases the potential for accidents, both at work or on the road. It reduces the ability for sound decision making, people focused leadership or creating positive customer service experiences. People who are under stress or fatigued are also less able to adapt to changing circumstances either at work or at home. The most negative outcome is managing the social aspects of life such as having time for family, friends or managing personal time or work/life balance. An Australian study found that 10% of commuters spend more time on the commute than with their family or friends. In this study, three quarters of respondents say they have insufficient time for their family.

From a community perspective, commuters invest less time and money in the region. Time constraints restrict the involvement in community activities and volunteer contributions to society. The regional spending deficit is huge. This study indicates that each commuter spends about \$26.90 per day; per annum this equates to approximately \$6400. When taken across all commuters the spending deficit to this region is around \$130 million.

Telework seems to be the perfect option to reduce the significant and varied impacts of commuting. Many studies have investigated the benefits, disadvantages or barriers to teleworking from an employer and an employee perspective. An Australian and international perspective is available in this report.

In this study, 29% of respondents' telework and 71% do not and comparisons are made across six telework areas: processes to establish and maintain telework; equipment access to undertake work; attitudes by management and colleagues; career prospects; social aspects at work; and telework task impact. Results indicate teleworkers experiences of telework are more positive for most variables than non-teleworkers perceptions. Both groups, however, have similar views on the social aspects of work. 80% of teleworking respondents enjoy their telework days, highlighting the positive impact of telework. Almost half of non-teleworking respondents are interested in teleworking.

Studies into telework and workplace culture are rare. However, one recent study sees the social construct of organisations as a big influencer on the types of choices permitted in organisations. An Australian research project developing a High Performing Workplaces Index (HPWI) highlights 18 variables necessary for high performance organisations. 10 of these directly relate to this study and 4 have a large impact on successful implementation of telework in organisations. Taking the HPWI into consideration, this study shows that organisations are not really ready for teleworking:

- 49.3% have technological capabilities to support information technology issues.
- 43.6% of respondents' state they work in a trusting work environment,
- 31.7% have transparent and 37.4% a results based performance management processes,
- 31.7% have managerial capabilities to support telework,
- 24.2% organisations have a telework policy, and
- 18.5%% state they have procedural fairness.

Respondents in this study and other research indicate that a move to telework could improve productivity and reduce recruitment costs in organisations. However, research also shows that current management and leadership could be a key inhibitor to telework uptake. Those organisations interested in telework will have to individually assess telework based on task requirement and performance needs, motivation to attract and retain talent, productivity increases versus collaboration needs, and employee and management capability suitable for telework and telework supervision. Telework models can start small within one team or one division that exhibit the right attributes. This small start could help organisational capabilities.

Telework is a social change. It requires a move from the factory (office block) back to a localised and decentralised work model. Social change takes a long time and this should be factored into a regional telework strategy and action plan to ensure continued and consistent effort to achieve telework objectives.

# Introduction

Commuting has been a way of life for many Illawarra residents. Around 20,000 people leave the region for work on a regular basis. These residents commute long hours, often daily, spending the majority of their time and money somewhere else. The long term commute has significant social, environmental and economic effects on people and communities.

Since the 1970's telework has been an option offered to workers. The USA and Europe have been the front runners, with Australia lagging far behind. Yet studies in the USA and Europe indicate that the uptake of teleworking has been well below estimates and the reason for this lag is still not fully understood.

With advances in technology, the notion of telework has received a new boost. Technology has been touted as a cure to commuting and technological feasibility is increasing in the Illawarra with National Broadband Network (NBN) connectivity. In preparation, Regional Development Australia developed and released the Illawarra Digital Strategy in July 2013. It aims to make the Illawarra a telework leader. However, the question arises, has technology been the biggest hindrance to telework or are there other factors?

Cultural Inspirations undertook an online survey on commuters' experiences and perceptions about their commute and telework. Over 200 responses were received during September 2013. The Illawarra Commuter Survey introduces this regional data within the context of current commuting and telework research. This report provides an overview of the current mantra in commuting and teleworking, the outcomes, discussion on how the Illawarra is impacted and recommendations on achieving the Illawarra telework leader strategy.

# Commuting

Commuting has been a way of life for many Illawarra residents. Around 20,000 people leave the region for work on a regular basis. These residents commute long hours, often daily, impacting on all aspects of a commuters life: the family life with a sense of belonging, the working life with reduced sleep and concentration, the social life with reduced interaction and community participation and the personal life with reduced health and increased expenditure.

Research indicates that people seem to be unable to assess the cost of commuting fully. They are able to assess the physical costs of travel and real estate costs but they do not consider commuting stress when choosing the location to live or work in. Once commuting, their power to change the circumstances often seems reduced due to a limited amount of control or insufficient energy (Stutzer and Frey, 2004).

## Travel Costs

The Illawarra (and Lower Hunter) have a particularly low usage of public transport and high usage of private vehicles, with 84.3% (87% respectively) compared to 71.3% for the Sydney Greater Metropolitan Area and 48% for the inner Sydney area. The more distant work is situated from the CBD, the more car usage increases. In fact, car commuting overall has increased, while public transport commuting decreased (BITRE, 2012). Public transport only accounts for 4.9% of the commute, with 3.7% being by train, compared to the 14.3% of Sydney Outer (West, South West and North West).

An Auditor-General's Report released in 2011 found that during peak periods the public transport system in Sydney is more crowded and it takes commuters longer to get to work. Road conditions were worsening between 2001 and 2006 on six of the seven main routes to Sydney. The travel speed on the Princes Highway has reduced by 1 km per hour to 29 km per hour during the morning and by 4 km per hour to 32 km per hour in afternoon peak traffic. The Bureau of Transport and Regional Economics (BTRE, 2007) found that without significant and improved congestion management, the rising traffic volumes will escalate congestion by 19% by 2020. This will be an additional car for every five cars already on the road increasing commuter time due to traffic jams and other trip delays. In addition, the kilometres travelled in Sydney will increase by 38% from 2005 to 2020. Several studies found that the total passenger kilometres increase per person as income per person increases; and that higher socio-economic earners' have a longer commute (BTRE, 2007; Flood and Barbato, 2005). However, this is not necessarily true for parts of the Illawarra.

In 2011, Australia's average commute was estimated at 27 minutes one way, with a 45 minute one way commute for 17% of Australian's. Sydney commuters have the longest commute with an average

of 35 minutes per journey (IBM, 2011). For Illawarra commuters travelling to Sydney and surrounds these averages are too low. A commute from Helensburgh to Sydney is twice as long with 55 minutes travel to the CBD. And for residents living further south the commute increases significantly.

## Health Costs

A Gallup Well-Being Index found that workers with lengthy commutes are more likely to report adverse physical and emotional conditions. This is particularly the case for commuters travelling more than 90 minutes one way from home to work (Gallup, 2010; Sandow 2011). These commuters are less likely to experience enjoyment for much of the previous day or feel unwell and less rested than those with shorter commutes. It does not matter if these commuters worked full or part time.

There is evidence that the longer the commute the higher the impact of stress (Sandow, 2011; Flood and Barbato, 2005) and car commuting is considered more stressful than public transport. Flood and Barbato's literature review and research found that commuter strain includes

- Higher blood pressure (in Kluger, 1998), and greater risk for heart attacks for longer commutes (regardless of transport used) (in Peter et al. 2004).
- Stiff necks and sore backs, tiredness, negative moods, irritability and anger (in Kluger, 1998).
- Increased stress, more hopelessness and less positive problem solving ability, when there is an interruption or unpredictable variation to the trip.
- Crowding, whether in a train, bus or a traffic jam that increases levels of stress due to reduced control and the unpredictability of the experience.
- Road rage, which is becoming more common in Australia.
- Exposure to air pollutants, particularly when travelling by car or bus, having negative health effects on the lungs and heart, increase headaches, eye irritation and cancer (in Chertok et al. 2004).

## Business Costs

BTRE's 2007 report on estimates on national congestion costs show that private time costs will more than double due to trip delays and variability (from \$3.5 billion to \$7.4 billion) and business costs are expected to rise two and half times from \$3.6 billion to \$9 billion from 2005 to 2020. With every extra vehicle on the road and longer commuting distances, pollution costs will more than double from \$1.1 billion to \$2.6 billion. It is expected that Sydney will have the highest cost increases of any capital city in Australia.

A Regus business survey (2011a) found that the most annoying parts of commuting are dangerous drivers, traffic jams, road rage, talking loudly on the mobile phone, pollution, overheating, body odour or smelly food and lack of adequate information from service providers. The latter was confirmed in the IBM Global Commuter Pain Survey in Australia with 31% of people wanting timely and accurate

information on road conditions. The survey of 1500 commuters identifies 81% of drivers experience travel stress and 41% believe traffic has negatively impacted on their health – in Sydney it is 50%.

There are more intangible costs to consider. A stressed worker suffering from more health issues has reduced task performance (Flood and Barbato, 2005). This can easily impact on customer relations, decision making, or leadership ability. In addition, people under long term and constant stress or anxiety have less ability to go through change programs, as their coping thresholds are already impacted (Heath and Heath, 2012). In addition, long distance commuters tend to also have less job satisfaction (Stutzer and Frey, 2004). Job satisfaction tends to influence staff turnover intentions. The IBM Global Commuter Pain survey found that 35% of people want greater flexibility to work from home; and 39% believe commuting impacts on their work performance.

## **Social Costs**

The social costs are immense. Stutzer and Frey found that individuals commuting longer have lower satisfaction with their life than those with shorter commutes. Commuter's partners are also negatively impacted. Sandow found that commuting is a strain on relationships. This research considered the social consequences of Swedish commuters travelling longer than 45 minutes one way. She found that career was often the reason for longer commutes. There were more men commuting than women impacting on gender equality, as men can choose their career path, while women stay closer to home to look after family.

At least 10% of Australian commuters spend more time on their commute than with their children, partner or with friends. They are also less likely to be part of a sporting or community organisation; less likely to contribute to society through volunteer work; less likely to have a sense of neighbourhood and community; and less likely to have free time (Flood and Barbate, 2005). However, the researchers also found that veteran commuters seem to report fewer negative impacts.

# Teleworking

Telework has been around since the 1970's as the oil crisis brought about concerns of consumption by commuters. Telework as a term is not readily understood, unlike working from home (Bailey and Kurland, 2002). Telework Australia defines teleworking as work from a distance which can take many forms or is undertaken from different localities. A useful definition for corporations is:

*Maximising profit and productivity by enabling, supporting and effectively managing the performance of work in non-traditional work places*

Telework Australia state that telework is not technology driven, not about working from home and not always full-time. Technology advances are making teleworking a feasible and cost-effective solution, supporting the need to reduce traffic congestion and minimise infrastructure demand (Deloitte Access Economies, 2012).

Australia lags behind other Western nations in implementing telework. Telework week was held for the first time in Australia in November 2012. And the former Prime Minister, Julia Gillard, in the same year, set a Government target of 12% for Public Servants teleworking by 2020. With technology improvements and the installation of the National Broadband Network, telework seems to receive a lease of life in Australia.

## Professional and employee characteristics

Knowledge workers are the most suited for flexible work arrangements. Tasks either undertaken on public transport or at home include reading, writing or others requiring focused concentration (Hamilton, 2003). In addition, the intimate knowledge of the specific job rather than job categories seems more important. A career change may reduce the ability to telework. Employees most suited to teleworking seem to require the following characteristics:

- Self-motivation,
- Solid performance across relevant work tasks,
- Independence and confidence to undertake work,
- Time management and organisational skills to plan and action work demands,
- Concentration to focus and avoid distractions,
- Strong communication skills to stay in touch with manager and co-workers,
- Trustworthiness and reliability (Hamilton, 2003),
- Ability to keep organisations objectives at the heart of work.

## **Cost Savings**

While many studies refer to possible cost savings due to telework, most actual savings cannot be realised unless substantive numbers of employees' telework and the office space can be reduced. In this sense, better space utilisation of part-time workers and desk sharing for jobs not requiring a permanent desk would be just as beneficial. With teleworking, some costs transfer to the home such as utilities or rent for another space. However, through telework, costs may be sustained despite an organisation experiencing employment growth.

## **Benefits**

Providing telework for half of the time could reduce peak hour traffic by 5%. Considering the journey to work contributes 27% of the peak demand, this reduction would free up roads for business traffic (Corpuz, 2012). A Telstra study (in Corpuz, 2011) estimated that 242kg of carbon emissions per employee per year could be saved from reducing travel and work related efficiencies.

Other employee benefits cited are better family-work balance; more flexible break/work times; work intensity; dress code informality; minimised travel; reduced lateness to work; or risk of sickness infection. Some employees can leave work early to utilise commuting time as work time (Deloitte Access Economies, 2012). However, the latter will depend on seating availability public transport, as highlighted in a recent Illawarra Mercury article into the changes of the train timetable (Humphries, 2013).

Employers benefit from increased job satisfaction, productivity, loyalty and commitment. A global Regus study (2012) into flexible working practices (location or time flexibility) found that 72% of business believe they increase productivity and 69% of small and large businesses believe they increase revenue due to flexibility. They directly benefit from employees feeling more motivated and energised (63%). Hence, they are less inclined to leave the organisation reducing turnover costs. A similar study in 2011(b) showed that 41% of Australian firms only allow senior staff flexible work arrangements, while 70% think it provides employees with a better work/life balance. Employers also benefit from a reduction in recruitment costs, carers leave or other absenteeism (Deloitte Access Economies, 2012). In a study into the future of work, Blackwell found a direct correlation between older workers and their interest in more flexible working arrangements.

Research into telework has shown that the same task carried out in eight hours in the office have been carried out in three hours at home. Particularly cognitive demanding activities can benefit from telework as there are fewer interruptions or distractions (Marciano, 2013).

## **Disadvantages**

Employees feel working alone will create more social isolation from work colleagues. They also perceive it as more difficult to maintain skills through learning from others or to feel part of a team. In

addition, technology has the ability to infiltrate home life through constant connections to the workplace. There seems to be a fear that this will undermine the personal social connections and will require more management of boundaries. (Deloitte Access Economies, 2012; Hamilton, 2003) Employers see a disadvantage in their reduced ability to monitor staff to ensure the highest levels of productivity. They also feel that team dynamics, cohesiveness and communication suffer.

Work-related costs are considered a potential issue with employees and employers alike. These costs included the responsibility for hardware, software, internet usage, telephone costs and consumables such as utilities, stationary or printing. Employers felt costs would increase with the increased complexity of managing staff. (Deloitte Access Economies, 2012)

## **Barriers**

Marciano (2013) finds that teleworking barriers are of sociological not technological nature. He uses labour theory to explain how workplace culture influences what is possible or impossible; When the shared reality and social space are internalised as the way things are done; they become legitimised. New recruits will be socialised into this legitimised way of work. According to this theory, a change such as telework requires an organisational culture change.

Most of today's work places are still constructed around industrialised work models: productivity and income is measured in hours of work, and boundaries create the time and space of working. In this work model management is associated with control and monitoring. However, management styles that associate physical presence with performance or use command and control hinder telework. Manager – employee relationships impose a barrier, particularly when trust is an issue; this may be trust in decision making or trust in taking responsibility for work (Hamilton, 2003). Globally, trust in managers or CEOs is at an all-time low (Edelman Trust Barometer, 2012). Older staff receive between 10 to 15% more trust from their managers to choose time and location of work (Blackwell, 2012). A Career One survey identified that one third of all employees' state they have a manager who bullies, belittles, is moody or inconsistent. Another third state they have a mediocre manager. These results indicate that trust in Australian organisations is an issue.

In recent times, high profile organisations like Yahoo and Best Buys have reduced their telework programs. On-the-job learning from mentors or the ability to generate ideas, collaborate and innovate have led to a policy change from working from home to working in the office (Pepitone, 2013).

Reasons for these changes were business performance at the point in time.

Technology, while seen as a great benefit, can also create barriers. Bousa (2012) states that low levels of technology support limit networking and collaboration. And a slow internet connection for access to servers, email, Skype or video conferencing limits the interaction and the potential for productivity at home.

## Factors for successful teleworking

Several factors were identified for successful teleworking:

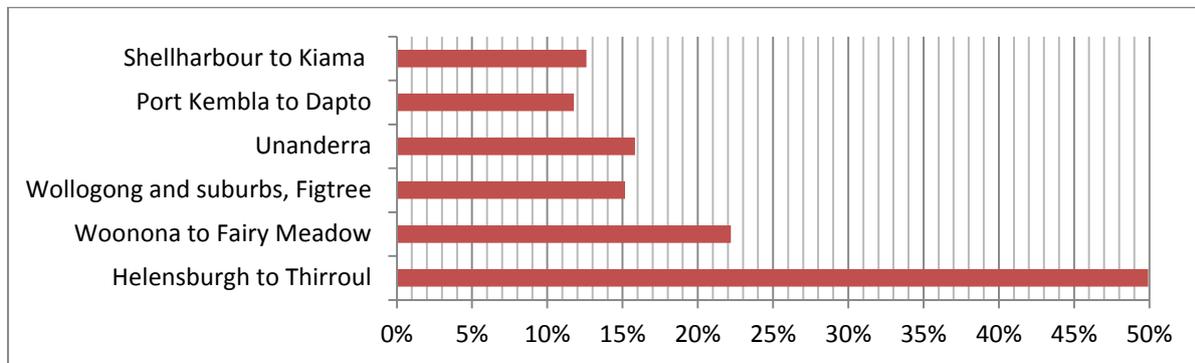
- A hybrid model of teleworking, i.e. a couple of days in the office, the rest at another location, will reduce the disadvantage of social isolation from teams, as well as performance management.
- Mutual trust and accountability between manager and employee help overcome 'social loafing' perceptions, performance management and task completion.
- Use of collaborative and web-based technologies to seamlessly work from anywhere helps teleworkers and managers stay in touch with each other.
- Training for both the manager and employee assist both parties with setting boundaries and expectations for new work arrangements.
- Performance management systems based on results for both the team and individual's support team cohesiveness and individual accountability.
- Meetings scheduled to stay in touch or help with task allocation assist in communication and maximising productivity despite the distance.
- Setting realistic targets for tasks (where appropriate) help in meeting result requirements.
- Careful employee selection for teleworking ensures that people have the characteristics for successful teleworking.

# Illawarra Commuter Survey

## Illawarra Commuter Profile

About 20,000 of Illawarra’s labour force commute to Sydney CBD, Sydney suburbs, the Southern Highlands and the Blue Mountains. This is just over 18% of Illawarra’s employed residents. They commute at least one day per week long distance. Around 8% travel from between Helensburgh and Fairy Meadow, 4% from the Wollongong to Unanderra area, 4% from the Shellharbour/Kiama area and another 2% from between Port Kembla and Dapto. Northern Illawarra has a higher percentage of commuters based on its labour force (Figure 1).

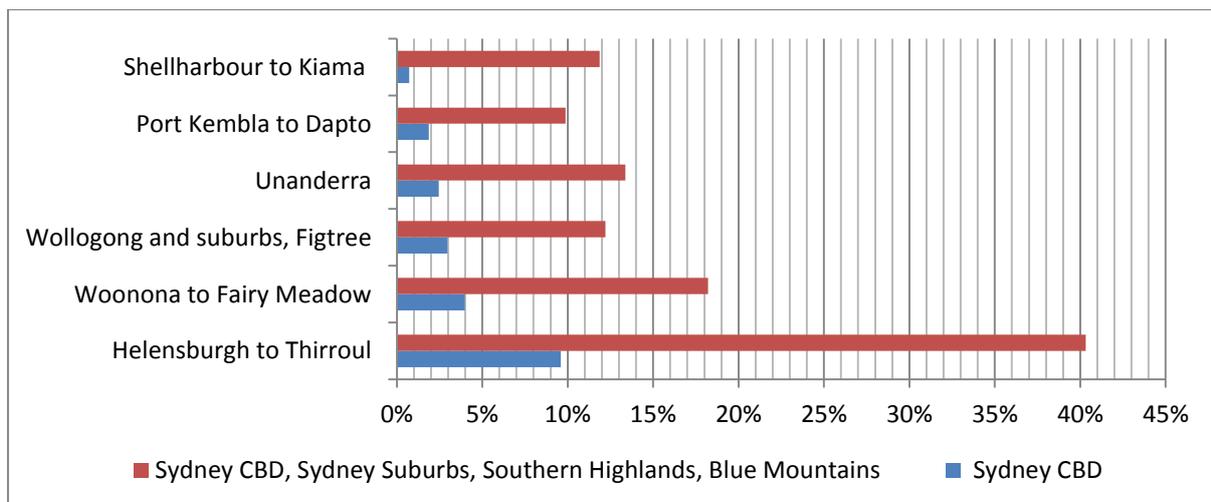
**Figure 1- Commuting labour force by locality**



Source: ABS (2011) Community Profile Statistical Area 2 Data

Just 16% of commuters travel to the Sydney CBD by train, bus or car with the majority travelling to other Sydney areas (Figure 2).

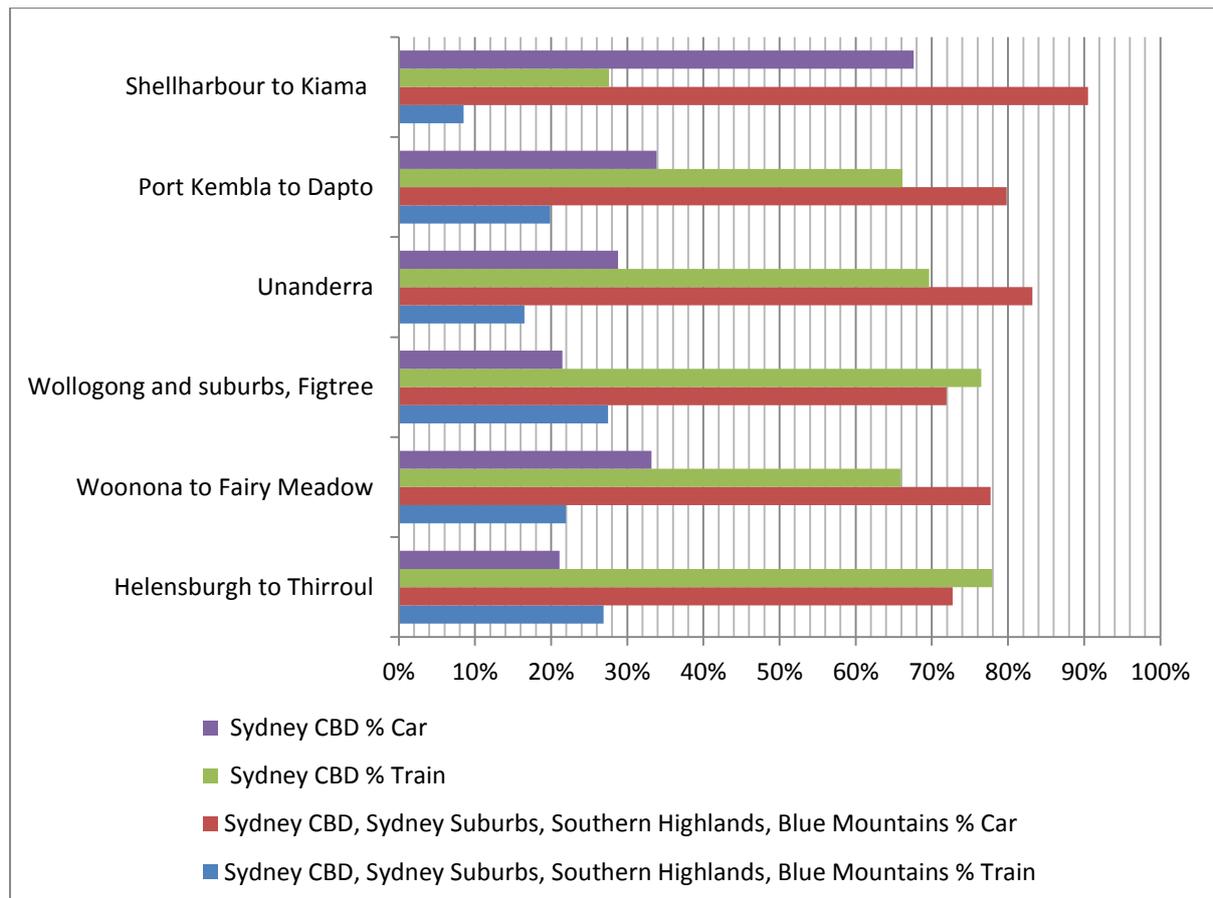
**Figure 2 - Commuting labour force in each locality by destination**



Source: NSW Bureau of Transport, JTW Explorer and ABS (2011) Community Profile Statistical Area 2 Data

The commute to the Sydney CBD consists of just below 2300 people travelling by public transport and less than 1000 travelling by car. In stark contrast commuters travelling outside the CBD consist of just over 3650 people travelling by public transport and over 14,000 by car, either as driver or passenger. No doubt this is due to the poor public transport options connecting the Illawarra with other regions of Sydney or the Southern Highlands. (Figure 3) Hence, 75% of commuters travelling to Sydney and surrounds travel by car and only 25% take public transport options.

**Figure 3 - Commuting labour force in each locality by modes of transport and destination**



Source: NSW Bureau of Transport, JTW Explorer and ABS (2011) Community Profile Statistical Area 2 Data

## Survey Results

### Survey Respondent Profile

A total of 211 valid surveys responses were received from across the region (Figure 16). The respondent profile is as follows:

- 43% of respondents were male, 36% were female, and 21% did not specify.
- 44% of respondents were aged 25 to 44 and 30% aged 45 to 64 (Figure 17).

- 39% of respondents were team members, 16% middle managers, 12% team leaders, 7 % senior managers, 4% senior executives and 1% each business owners, casual workers, workers in entry level positions or studying. (Figure 18)
- 52% of all respondents were from four industries: financial and insurance services; information, media and telecommunications; public administration and safety; and education and training. (Figure 19)
- 24% of all respondents were from three industries: professional, scientific and technical services; health care and social assistance; and administrative and support services (Figure 19)
- Most respondents were working 20 days and 20% were working more than 20 days over a 4 week period; and 17% were working part-time.

The research methodology and Figures of demographic data are attached in the Appendix.

## Commuting

### Reasons for commuting

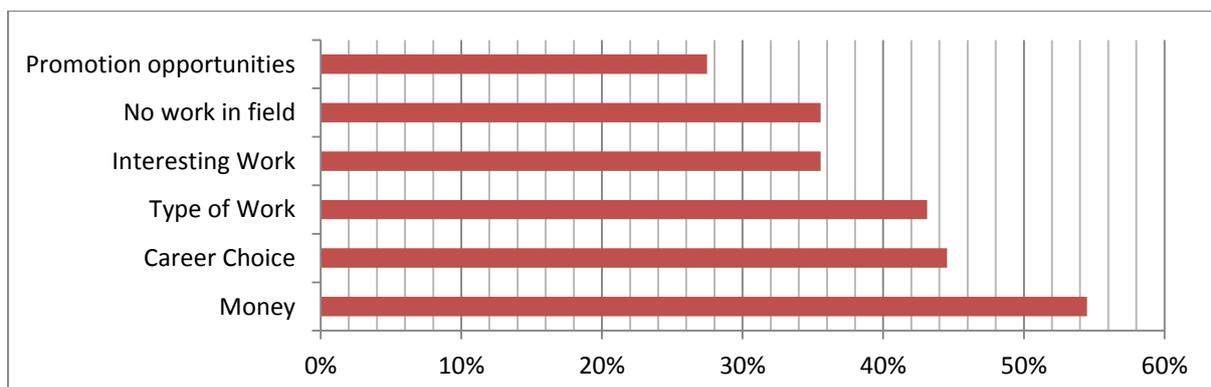
The reasons were varied:

- 88% of respondents say their purpose is to get to work,
- 8% also undertake business on the way to get to work,
- 2% each drop off children on the way or are only undertaking business activities.

In addition, respondents were asked to select from six statements about why they commute (Figure 4). 70 (1/3) respondents selected only one item, and nine selected all six items. Money was cited the most, followed by career choice and type of work. No work in the field variable was provided across all industries and position levels. Males find the type of work a more important reason to commute than females. There was no gender difference for the other reasons. Respondents had an opportunity to provide additional reasons for commuting. They were:

- a lack of job opportunities within their field of work in the region (8);
- job, placement or traineeship availability (6);
- better management, work environment and people (4); and
- affordable housing, national aspect of job, and loyalty to employer (1 each).

**Figure 4 - Reasons for Commuting**



## Time

Respondents travel between 40 and 420 minutes per day with an average and median of 180 minutes. The ideal commuting time ranged from 5 to 180 minutes per day. The ideal average commuting time is 55 minutes each day with a median and mode of 60 minutes each. 4 people wish to commute zero minutes. These are the people who commuted the most with more than 320 minutes (5 hours and 20 minutes) each commuting day.

Commuters who undertake other activities such as dropping off children or undertaking business activities in conjunction with getting to work travel slightly less than average with 170 minutes, Commuters whose sole purpose is to get to work travel an average of 180 minutes and those solely travelling for business travel an average of 260 minutes.

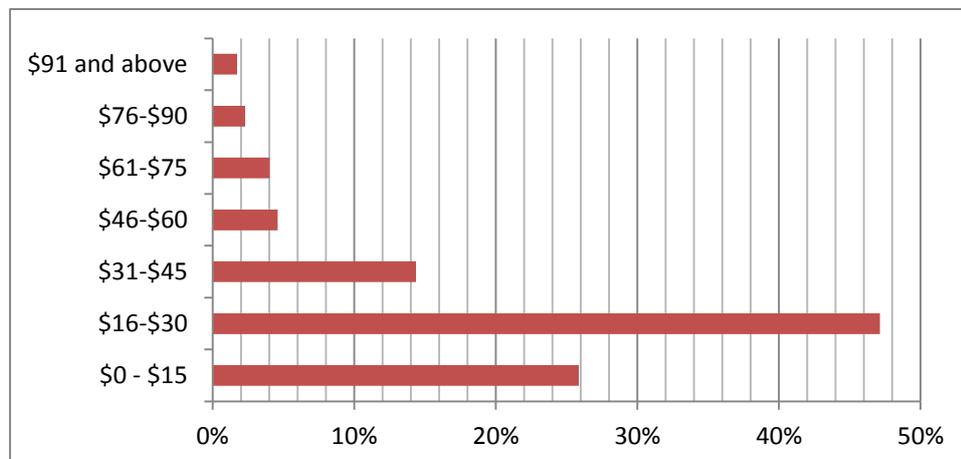
73% of respondents use both the train and car. They travel the least amount of time with 130 minutes, while those using the train (and walking less than 15 minutes) travel on average 195 minutes and those using multiple transport options such as car/train/walking or train/bus/walking combinations take 210 minutes for the average daily commute.

## Money

The 174 respondents provided data on how much money they spent on a commuting day (Figure 5). Respondents were asked to include transportation costs, parking, meals, drinks and other commuting related expenses.

On average each respondents spends just below \$27 per day or \$495 per four week period. Over the 20,000 Illawarra commuters the daily spend equates to an average of \$537,700 per day or a staggering \$9.9 million over a four week period (range of \$7.2 and \$12.6 million) and about \$130 million annually. Most of this spending would benefit businesses outside the region.

**Figure 5 - Daily Spend whilst Commuting**



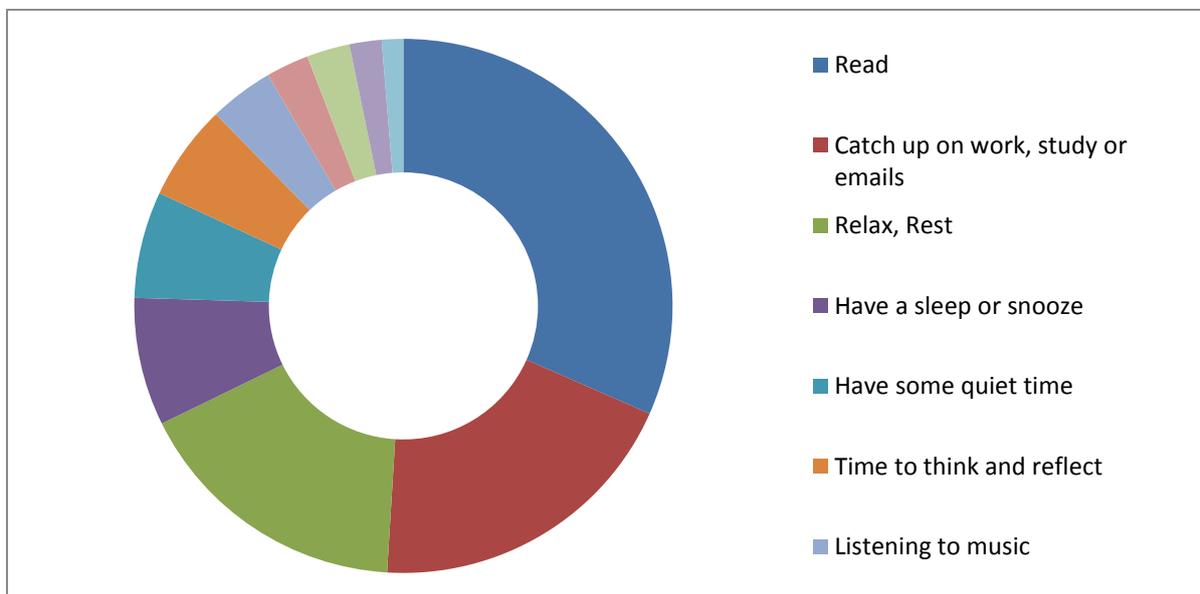
## Good and Bad Aspects of Commuting

*Living & working in the same small town could lead to an insular view of the world directly around me.*

127 train commuters stated that there are good aspects to commuting. These can be separated broadly into three groups: 1) personal leisure time, 2) work, and 3) rest (Figure 6).

1. Personal leisure time includes reading (49), listening to music (6) or podcasts (3), watching movies (4) and having time to themselves (2).
2. Work includes catching up on work, study or emails (30), thinking and reflecting on the day (9).
3. Rest includes relaxing (26), sleeping (12), having quiet time (10) and having a break between family and work (4).

**Figure 6 - Good aspects of commuting**



Of the negative aspects impacting on commuters, the top eight (8) of the 22 variables cover 61% of all responses received (Figure 7). They can be divided into two major issues:

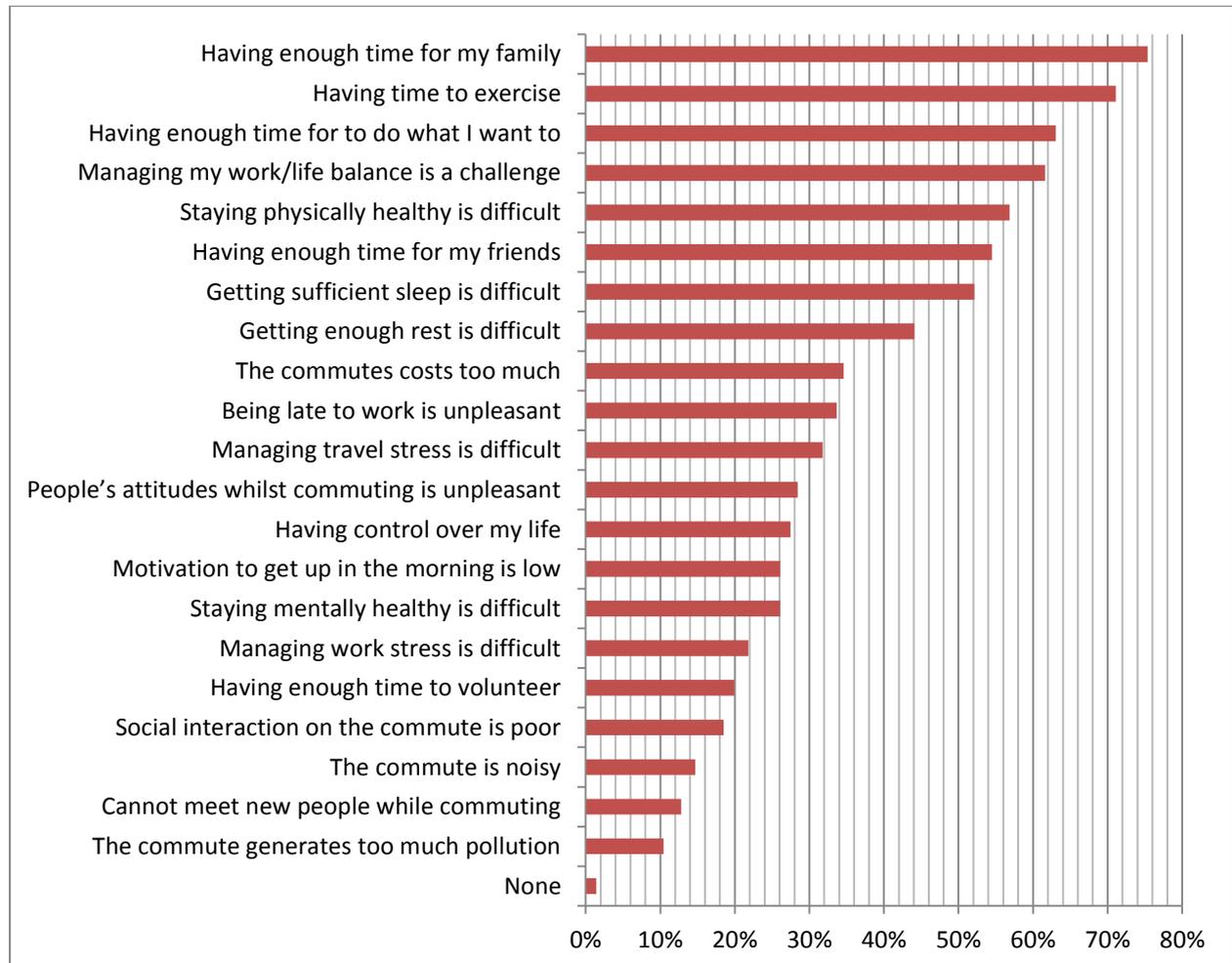
1. The challenges of managing the social aspects of life including having enough time for the family (75%), do what I want to do (63%), time for friends (54%), and managing work/life balance (61%).
2. The difficulty of managing one's health including having time to exercise (71%), staying physically healthy (56%), getting sufficient sleep (52%) or rest (44%).

As a comparison the IMB Global Commuter Pain Survey found that

- 52% want to spend more time with their family
- 51% want to do more exercise
- 50% want more sleep

Despite seeing the positives of having time for personal leisure whilst commuting, 63% of respondents state that they do not have enough time to do what they want to do. This clearly shows the limitation of the commute for hobbies and other pleasure activities. And 25% of respondents state that despite having a rest on the commute it is difficult getting enough sleep and rest.

**Figure 7 – Negative impact of the commute**



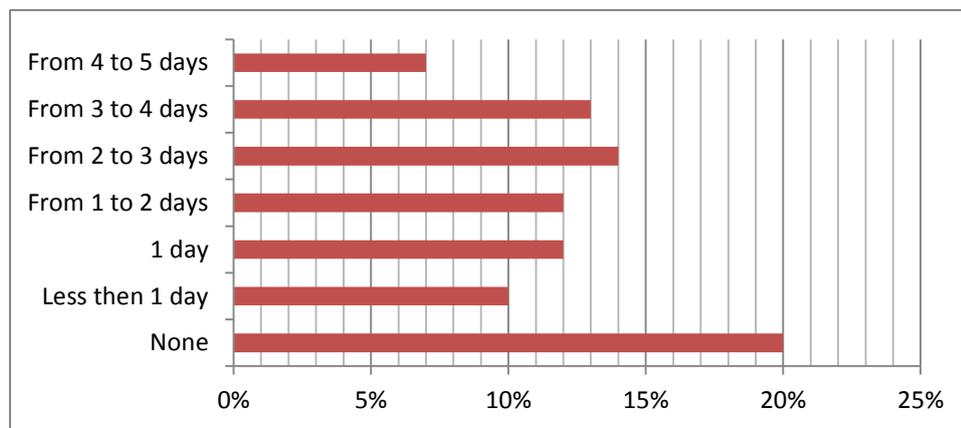
Of lesser importance seem to be journey and environmental factors or other relational issues such as having time to volunteer, meeting new people or social interaction during the commute.

Other comments made by several respondents relate to the difficulty in fulfilling time commitments for work and not getting a seat on the train. Both seem to relate to people wanting or needing to work whilst on the journey.

## Teleworking

The survey indicates that teleworking is possible for the majority of commuters with 58% of respondents stating their job tasks are suitable for telework at least 1 day per week (Figure 8). 22% of respondents state they can telework one day or less; 20% feel that they cannot telework; and 16% of non-teleworkers state they are not interested. In comparison, another Australian study shows that 15% of respondents worked from home or remotely every day of the week, 5% telework 3 to 4 days, 5% 2 days, 8% 1 day, 5% 1 day per fortnight, and 6% 1 day per month. 53% of these respondents don't work from home (Deloitte Access Economies, 2012).

**Figure 8 – Job tasks suitable for teleworking per week**



Of the 211 respondents, 62 state that they are already teleworking and 56 completed all telework questions in the survey. On average they telework 1 day per week. However, 3 state they telework too much, 7 feel it is just the right amount and 46 respondents would like to telework more. 80% of teleworkers enjoy teleworking and only 12% find it complicating their life.

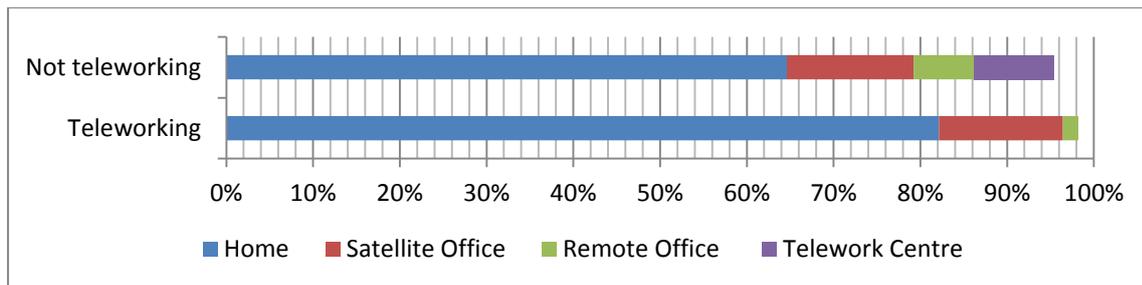
149 respondents stated they don't currently telework (non-teleworkers) with over 47% interested in teleworking. 37% would like to telework as much as their job is suitable for. The remaining respondents were equally split between teleworking more and less than the total job hours suitable for telework. It seems to depend on the level of position and possibly the industry. 16% of non-teleworkers are employed in organisations which offer teleworking as a work option. 34 (22%) of the 149 respondents have discussed teleworking with their manager.

## Telework Location

In this study a satellite office is operated by and for a single agency, a telework centre assists in renting office space when needed, and a remote office centre is for leasing office space to multiple companies.

*I would like to work from home a couple of times a month and then be able to also work from Wollongong a couple of times a week.*

**Figure 9 - Telework location**



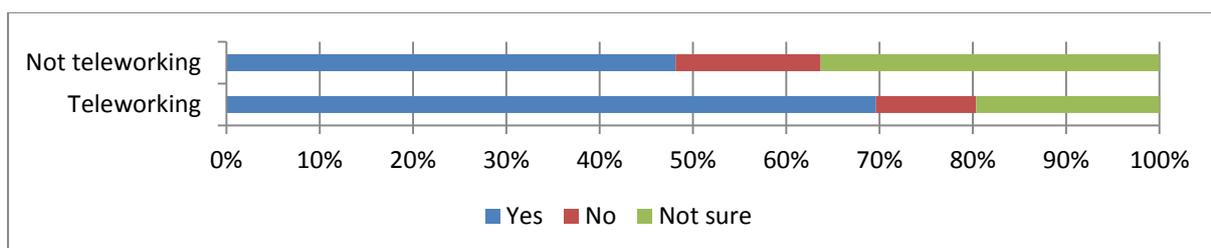
Most teleworkers currently work from home. The preferred location for non-teleworkers is also working from home, however, to a lesser extent (Figure 9). A couple of respondents would prefer a mixed arrangement. Isolation is often considered a drawback to teleworking. Over 80% of teleworkers agree and strongly agree that face to face and social interactions are important to them. 69% still feel part of a team. Non-teleworkers see less need for relational interactions with responses ranging between 50% and 57%.

Deloitte Access Economies research shows that 16% have formalised work from home agreements with the employer (77% are in management or professional positions). 32% have an ad hoc arrangement based on requesting permission from employer (82% are managers or professionals).

**Productivity**

Research shows that teleworking improves productivity. 66% of teleworkers find that they have fewer distractions and 71% less interruptions on their telework days. Non-teleworkers are more pessimistic or uncertain in relation to perceived productivity benefits during a telework day when compared to those already teleworking (Figure 10).

**Figure 10 - Perception of teleworking improving productivity**



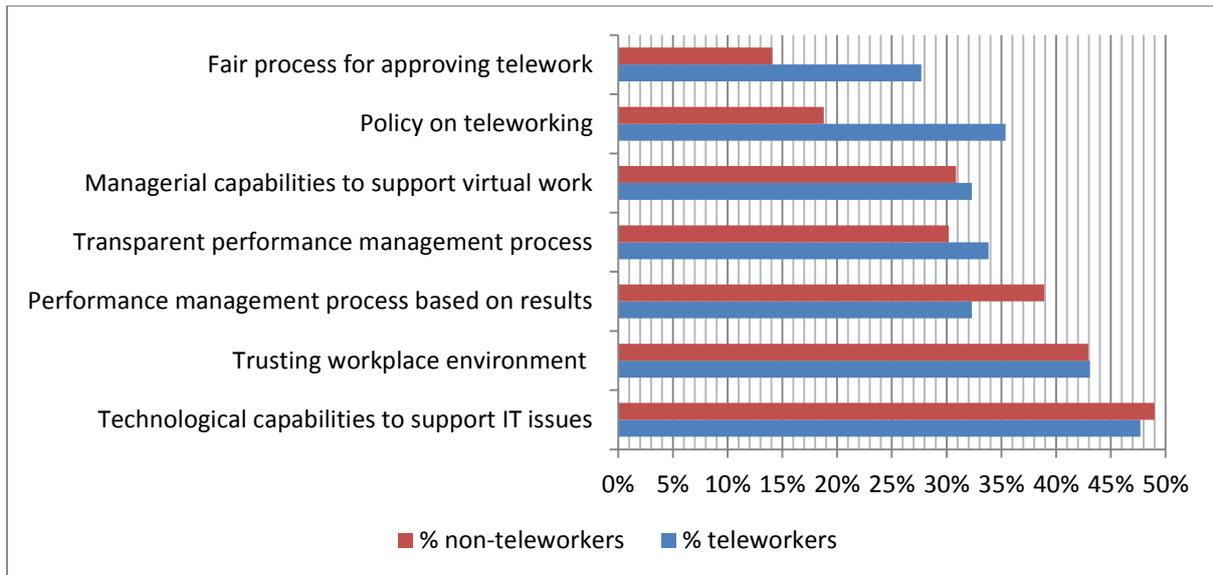
**Organisational perspective**

Overall respondents’ perception of organisations basic support capabilities for telework is low:

- 49.3% have technological capabilities to support information technology issues.
- 43.6% of respondents’ state they work in a trusting work environment,
- 31.7% have transparent and 37.4% a results based performance management processes,
- 31.7% have managerial capabilities to support telework,
- 24.2% organisations have a telework policy, and
- 18.5% state they have procedural fairness.

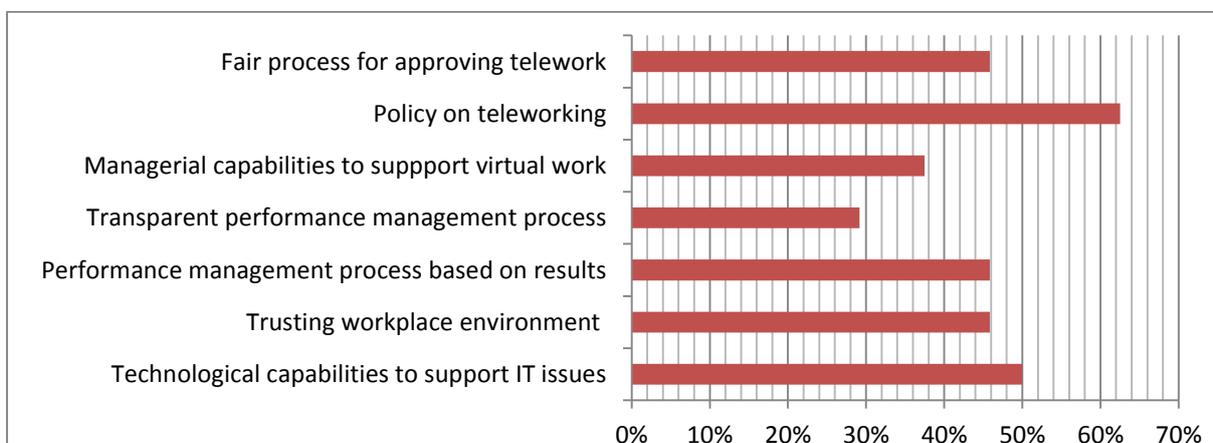
Organisations with teleworkers are more likely to have a policy on teleworking and a fairer approval process. Process fairness may be a direct result of a missing policy. These measure show significant differences between teleworkers and non-teleworkers. For managerial and technological support, performance management, and trust there are no differences between the two groups (Figure 11). Teleworking requires both managerial capabilities and a trusting work environment for effective functioning and ensuring the biggest benefits for all parties.

**Figure 11 - Employers support capabilities for telework**



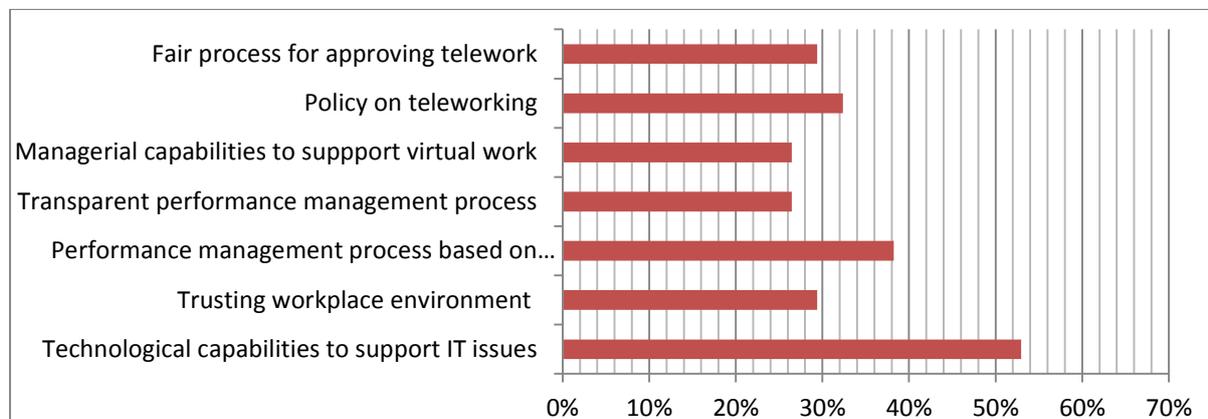
The non-teleworkers employed in organisations offering telework indicate a higher percentage of responses for all but one statement (Figure 12). Transparent performance management process is slightly lower. This indicates one of two things: Not teleworking is a personal choice or the non-teleworker perceptions are better than the actual organisational capabilities.

**Figure 12 - Organisations offering telework to non-teleworkers**



Among non-teleworkers only 22% discussed teleworking with their manager (Figure 13). Most responses were rated less than the responses from all non-teleworkers. Technological capabilities and performance management based on results were both rated higher.

**Figure 13 - Non-teleworkers who discussed telework**



## Management

Management of telework can be separated into five distinct areas (Figure 14 and Figure 15):

- Bureaucratic processes,
- Access to equipment,
- Attitudes by management and colleagues,
- Career prospects, and
- Social aspects of work

**Figure 14 - Teleworkers experiences with teleworking**

	Strongly Agree	Slightly Agree	Neither	Slightly Disagree	Strongly Disagree
Shading: Red higher, blue lower percentage					
Bureaucratic process	10%	14%	23%	22%	31%
Access to equipment	14%	22%	11%	19%	33%
Attitudes by management and colleagues	23%	35%	21%	11%	10%
Career prospects	9%	26%	25%	26%	14%
Social Aspects	48%	38%	5%	7%	2%

**Figure 15 - Non-Teleworkers perceptions of teleworking**

	Strongly Agree	Slightly Agree	Neither	Slightly Disagree	Strongly Disagree
Shading: Red higher, blue lower percentage					
Bureaucratic processes	27%	12%	25%	8%	11%
Access to equipment	19%	19%	24%	20%	18%
Attitudes by management and colleagues	14%	21%	35%	16%	13%
Career prospects	21%	28%	32%	9%	10%
Social Aspects	31%	30%	24%	8%	7%

Teleworkers experience and non-teleworkers perceptions are compared (More details are available in the Appendix: Figure 20 and Figure 21):

- Teleworkers disagree that systems and processes are difficult to adjust for teleworking or that approval and organisation of teleworking involves bureaucratic processes. This is in contrast to those who do not telework.
- While access to technology is fine for 61% of teleworking respondents, 46% find access to fast enough Internet difficult. This view is more balanced for non-teleworkers with about one third agreeing and one third disagreeing.
- Just above half of the teleworkers agree that the attitude of supervisors and colleagues is positive about teleworking. Non-teleworkers are more neutral and balanced in their view about these attitudes. Teleworkers and non-teleworkers both agreed they need to be seen in person by management with 46% and 44% respectively.
- Perceptions and experiences between the two groups also differ for job security, career choices and development. Non-teleworkers perceive teleworking as more detrimental to their career than those already teleworking.
- Both groups agree that social aspects such as face to face relationships, social interactions and feeling part of a team are important to them.

# Discussion and Conclusions

This research into commuting and teleworking, from an Illawarra commuter perspective and the literature review, is highlighting some major benefits but also issues for any region with a high commuter population. The discussion is provided from an Illawarra perspective, but can within the right context be adapted to other regions.

Illawarra commuters are long distant commuters and their commute is much longer than the Australian average or Sydney average. Sydney is considered one of the most affected Australian cities for longer distance commute and future congestion. These issues will have an increasingly detrimental effect on Illawarra residents for both business and work travel. The effects of the commute have more long-reaching impact for health, sleep and social inclusion than for many Sydney residents (except Western Sydney).

Long commutes contribute to fatigue. There is a strong relationship between sleep deprivation and performance degradation. Cognitive performance is more affected than motor performance (Griffith, 2006; Pilcher and Allen, 1996). Dinges et al (1997) research into cumulative fatigue assessed people's behavioural alertness when they function with about 5 hours of sleep per night. Their study found that restricted sleep over consecutive nights increased sleepiness during the day with a resulting performance deficit and mood disturbances such as lack of motivation beyond the 7 days of sleep deprivation. They state that recovery requires two full nights of sleep. For commuters this is a full weekend of recovery; a recovery that should exclude late nights to catch up with friends or extended family members, attend parties or other functions.

The commuter lifestyle decreases the spending in the region while supporting other regions throughout the week. On weekends there is lower regional spending due to recuperation, lower motivation and fewer community contributions; hence, the higher the commuter population, the higher the spending deficit for the region.

Current work models are based on industrial work models and do not foster teleworking. Teleworking is a big social change akin to the move from nomads travelling their world, to agrarian village settlement; and agrarian home-based working to the industrial revolution; and then the move to the factory. This new form of work requires a move out of the factory (aka office block) to a more localised model. Social change takes time and requires mass to create a tipping point for majority adoption.

Teleworking benefits are often viewed from the reduction of carbon emissions' point of view. Yet, Illawarra commuters are not too concerned about pollution from their travel. They wish to telework for personal and health reasons. In addition, non-teleworkers have more fear of working virtually,

possibly due to a lack of experience or the workplace culture. Both must be addressed for more successful uptake. Those commuters discussing telework with their manager and being rejected may have more negative perceptions of their manager and the organisation impacting on perceived fairness and trust.

However, the research shows that organisations also inhibit telework adoption. The low level of trust and minimal telework processes in organisations create barriers to widespread uptake. Businesses need to understand the metrics of high-performing business better (Boedker et al., 2011). This Australian research project develops a High Performing Workplaces Index (HPWI). The HPWI has 18 variables showing the level of performance in organisations. 10 of these directly relate to this study and 4 have a large impact on successful implementation of telework in organisations. All relate to workplace culture.

**Table 1- Linking telework with variables for high organisational performance**

<b>Telework</b>	<b>HPWI</b>	
Management Capabilities & Trusting Work Environment	People Management Authentic Leadership Employee Commitment	Job Satisfaction Staff Turnover
Fair process	People Management Employee Commitment Emotions – feeling valued	Procedural Fairness Distributed Fairness Job Satisfaction
Performance Management	People Management Employee Commitment Job Satisfaction	Distributed Fairness Emotions – feeling valued, optimistic, proud
Career Prospects	Employee Commitment Job Satisfaction	Learning and Development Emotions – motivation, feeling valued
Social Aspects of Work	Employee Commitment	Emotions – positive interactions with colleagues and supervisors, feeling proud to work there

The HPWI impacts on telework in the following ways:

- Management: in particular the capability to manage people virtually, and to keep a positive attitude towards and trust in teleworkers. High performing organisations focus on better people management and on authentic leadership. Authentic leadership tends to build trust. Trust requires a culture of freedom to do the work independently with a view of outcomes rather than method, accountability without blame, transparency in communications and actions, and fairness.

A recent report by the Productivity Commission indicates that there is significant work required in building Australia’s management and leadership capabilities. With managers and

leaders influencing workplace culture, this may indeed be the biggest stumbling block for telework uptake in Australia.

- Fairness is a major contributor to higher performance and relates to two issues addressed in this report:
  - Procedural Fairness is about the fair and equitable implementation of procedures and processes by supervisors. This means that organisations need to ensure that supervisors and employees know about the specific characteristics acceptable for telework. A policy can outline these attributes and state how selection is evaluated.
  - Distributed Fairness is about the fair acknowledgement and application of rewards and recognition for an employee's efforts, responsibilities and contributions. This directly links to performance management based on results and outcomes.
- Employee commitment is related to the strength of identification and involvement in an organisation. It influences motivation and the willingness to exert effort – both are necessary characteristics of teleworkers.

Commitment is directly influenced by management, their application of fairness and transparent performance management processes and their long term career prospects.

Great working relationships (social aspect) create strong desires to maintain the membership in an organisation.

- The combination of these variables influences job satisfaction and staff turnover. In turn, they influence productivity in the organisation. Job satisfaction is often reduced due to the commute.

Productivity is also an indicator of a high performing organisation. Telework supports more productive work, namely through

- flexible work arrangements;
- better sleep and rest management;
- increased employee health and concentration due to more time for exercise; and
- talent harnessing and staff turnover reductions.

The latter point is particularly important for Sydney businesses which experience far more staff turnover than the Illawarra. Hence, telework could be considered a value proposition for Sydney businesses who wish to reduce their recruitment costs and increase their productivity.

In implementing telework, employers will have to assess where their workplace culture inhibits telework and remove those barriers. They will have to individually assess organisational needs based on task requirement and performance needs, motivation to attract and retain talent, productivity increases versus collaboration needs, and employee and management capability suitable for telework and telework supervision.

At a regulatory level, a possible review of the current Fringe Benefit Tax (FBT) arrangements may be an advantage. Laptops are a transferrable means of taking work to any location. And yet, enterprises are excluded from FBT through salary packaging. Some consideration for the future must be given to salary packaging 'telework' to allow more flexible work arrangements and cost benefits.

This research shows that there are several big benefits for, but also big obstacles in achieving the Digital Illawarra Strategy. To achieve the regional telework objectives, there are several issues to consider:

- Telework hubs create social work environments. But telework hub options need consideration in line of possible competitors wanting a telework space for employees. Spillover effects may reduce competitive advantage if competitors work in the same space.
- 75% of Illawarra respondents think it a good idea to promote telework to employers. Yet, telework is not suitable for everyone (e.g. profession/industry such as construction or frontline service) or wanted by everyone. Hence, regions should select the knowledge industries it wants to promote telework to.
- Education about telework:
  - One focus is on the management variables addressed in this study and on workplace culture issues that impact on high performance.
  - Telework hubs or satellite offices may have more appeal once these models are better understood by both the employee and employer. The Illawarra should build case studies to show the practical benefits for the employer, the employee, and the employee's family for all telework models e.g. home, telework hubs, satellite or remote office.
  - There may be a case for telework becoming a corporate social responsibility measure relating to reduced emissions, or increased family and society cohesion. Measure on social spillover effects are being developed for not-to-profit sector organisations, but would also be applicable to corporations.
- Telework can start small in any organisation. Finding an authentic leader and committed team members suitable for telework could set the precedence for the rest of the organisation.
- Social change requires a long term perspective with consistent and continued effort by key stakeholders. The marketing model of product uptake may be useful for adoption: innovators, early adopters, majority, and laggards - with a 15% uptake by the target market creating sufficient mass for adoption by the majority. The government can help the move to the majority.
- The telework effort needs to encompass all relevant stakeholders across government, local and Sydney business and commuter communities. Measurable milestones need celebrating to spread the message of successful implementation.

# Appendix

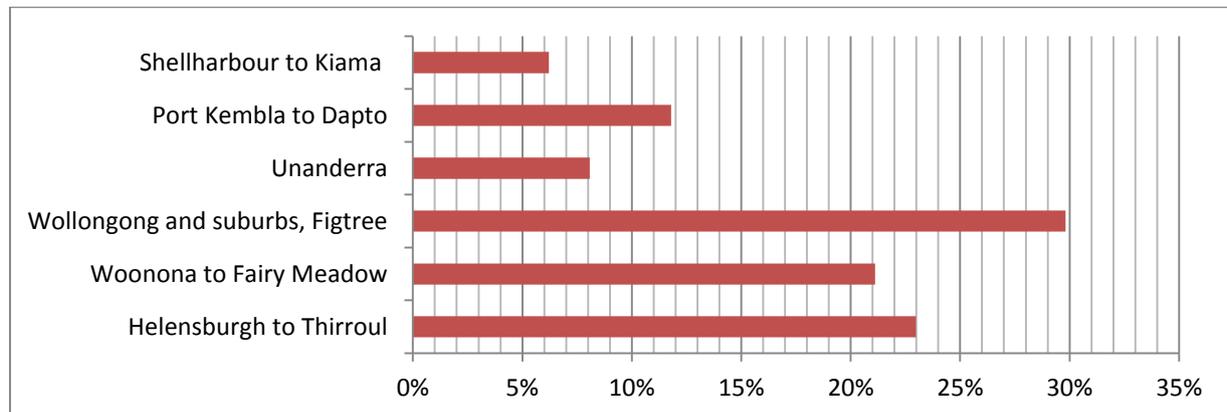
## Research Methodology

The Illawarra Commuter Survey was open online from 9 September to 30 September 2013 encouraging responses from Illawarra commuters travelling more than 25 minutes one way to work. The survey was aimed at long distance commuters travelling from the Illawarra into another place of work. Within the region most distances travelled would fall within the 25 minute commuting time.

A total of 218 surveys were received of which seven were removed. Most were from respondents travelling from outside the region into Wollongong. Of the 211 surveys 35 or 17% were partially completed. Most were missing demographic data. These surveys have been retained and their non-response is included in the overall data analysis.

The survey was promoted through two newspaper articles, one in the Illawarra Mercury on 9 September and one in The Advertiser on 25 September, and an ABC Radio interview on 9 September. In addition, there was promotion at the major railway stations through 1) handing out pamphlets in the early morning rush, and 2) by placing them under windscreen wipers in railway car parks from Sutherland to Dapto. This promotion focused heavily on train commuters. Due to this, the sample is non-representative of the commuter population and should be interpreted with judgement.

**Figure 16 - Commuters completing the Illawarra Commuter Survey by locality**

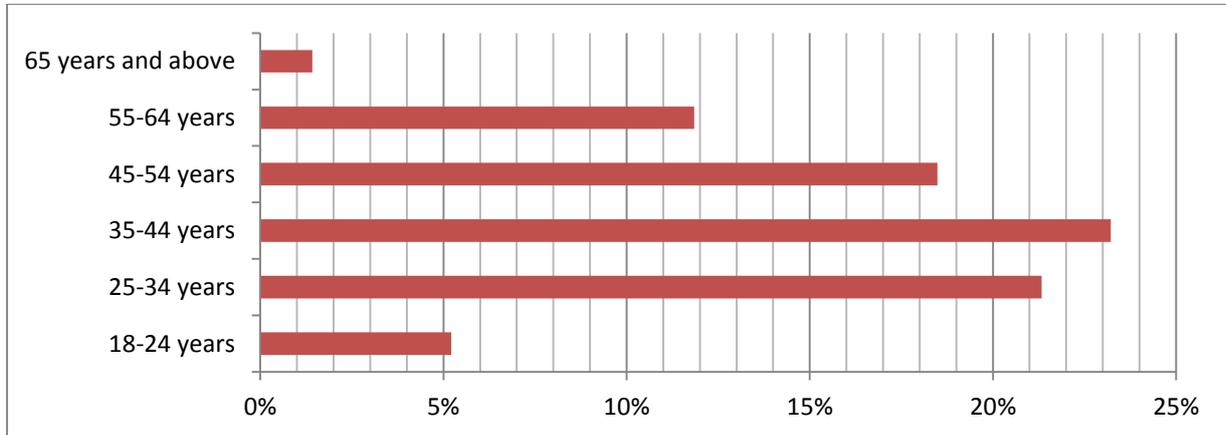


### Destination locations

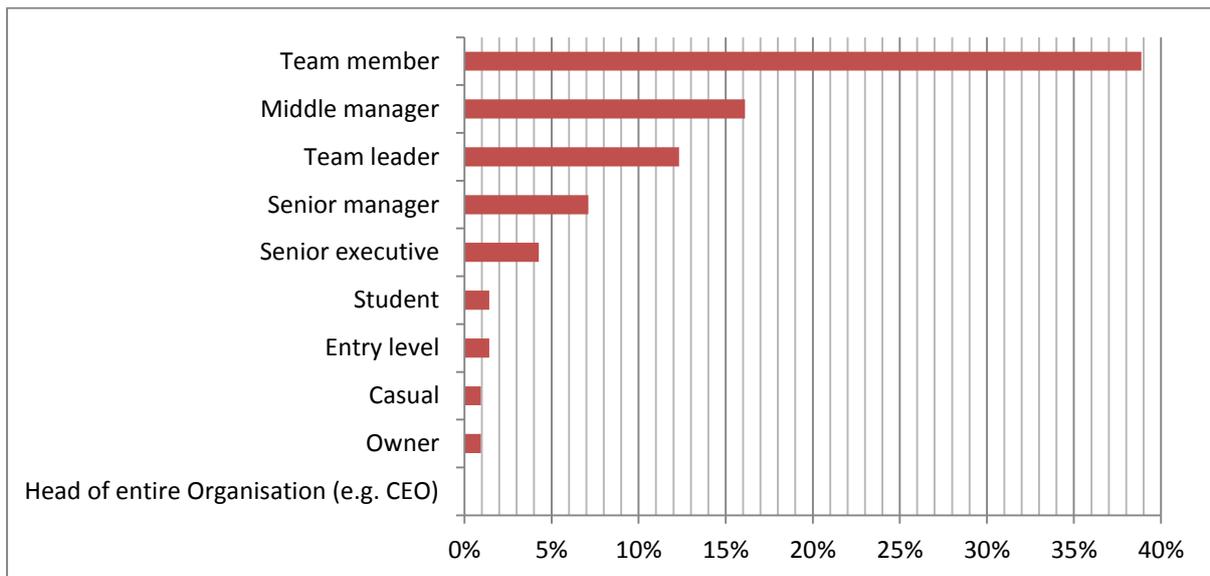
- 113 respondents travel to Sydney CBD or within 3 km of Central Station
- 13 travel to North Sydney and the Ryde area
- 12 respondents travel within the region by more than 25 minutes one way
- 8 respondents work in areas around the Airport
- 8 work between Sutherland and the Airport

5 travel to West Sydney  
 5 travel to Campbelltown/Liverpool  
 3 travel to Nowra  
 2 respondents leave the State to work in Canberra and Melbourne

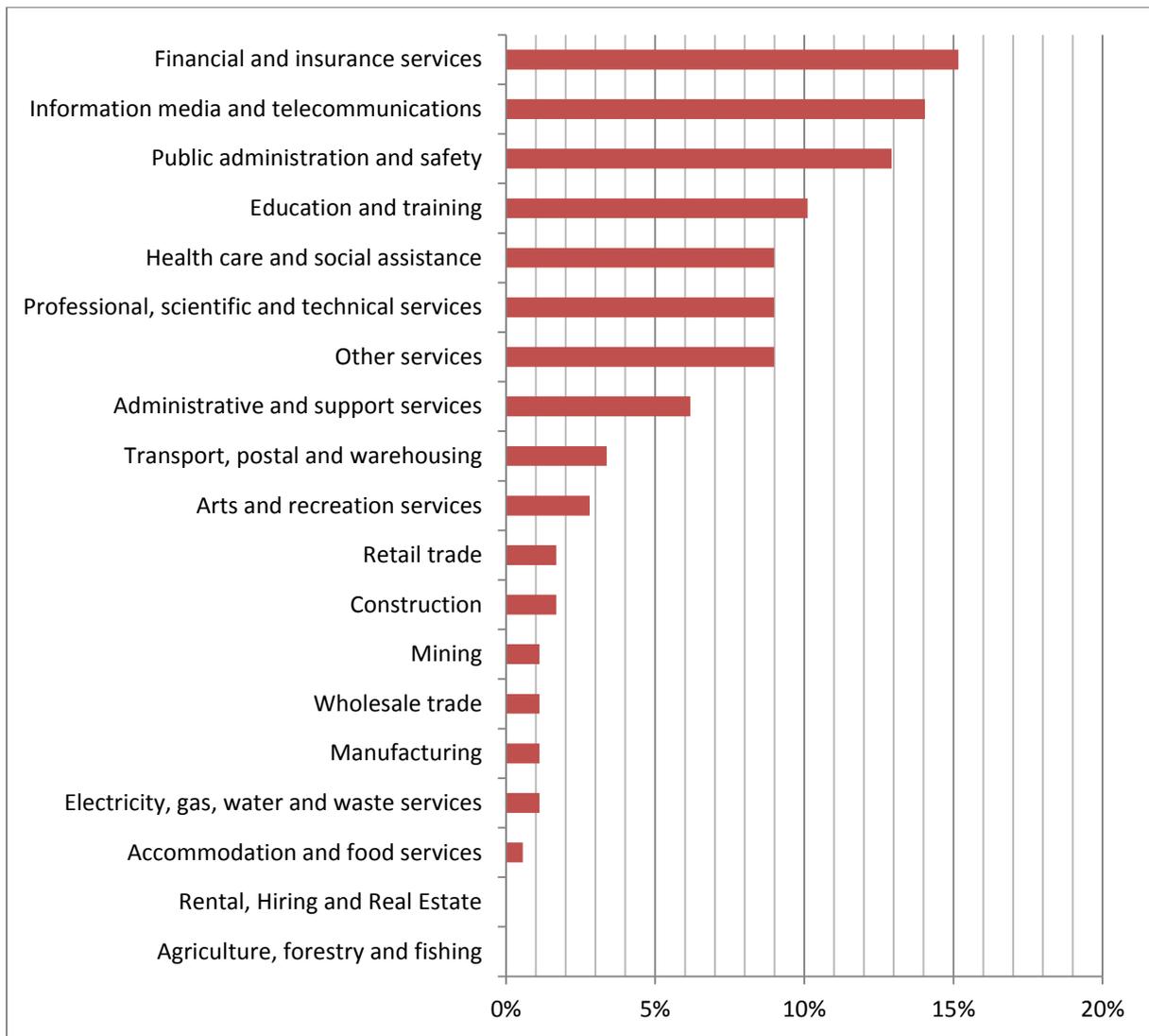
**Figure 17 - Age**



**Figure 18 - Position Levels**



**Figure 19 - Industry**



**Figure 20 - Teleworker experience with teleworking by variable**

The red shading darkens the higher the percentage of responses Grey shading is by	Strongly Agree	Slightly Agree	Neither	Slightly Disagree	Strongly Disagree
Bureaucratic process to get teleworking approved	14.52%	17.74%	12.90%	17.74%	27.42%
Bureaucratic process to get teleworking organised	6.45%	12.90%	20.97%	24.19%	25.81%
Bureaucratic process to get reimbursements for telework office set up	11.29%	3.23%	37.10%	12.90%	25.81%
Bureaucratic process to get reimbursements for ongoing telework costs from home e.g. stationary, electricity, internet connection etc	12.90%	6.45%	33.87%	16.13%	20.97%
Systems and processes of my workplace are hard to adjust for teleworking	3.23%	11.29%	8.06%	27.42%	40.32%
My meetings schedule is hard to rearrange	8.06%	22.58%	9.68%	20.97%	29.03%
Access to equipment is minimised	8.06%	24.19%	16.13%	16.13%	25.81%
Access to technology is difficult	8.06%	11.29%	9.68%	20.97%	40.32%
Access to fast enough internet is difficult	22.58%	24.19%	4.84%	14.52%	24.19%
Need to be seen in person by management	8.06%	38.71%	25.81%	12.90%	4.84%
Supervisor's attitude is positive about teleworking	29.03%	29.03%	14.52%	6.45%	11.29%
Colleagues attitude is positive about teleworking	24.19%	27.42%	17.74%	11.29%	9.68%
The potential to get a promotion is reduced	9.68%	24.19%	32.26%	14.52%	9.68%
The potential to have career choices is reduced	12.90%	22.58%	19.35%	25.81%	9.68%
The potential for career development is reduced	9.68%	19.35%	22.58%	25.81%	12.90%
The potential that my job is seen as unimportant if I am absent	3.23%	29.03%	14.52%	29.03%	14.52%
The potential to lose my job in a downturn because I am not always present	6.45%	22.58%	22.58%	22.58%	16.13%
Face to face relationships are still important	51.61%	30.65%	3.23%	3.23%	1.61%
The social interactions at work are still important to me	41.94%	38.71%	1.61%	6.45%	1.61%
I still feel part of a team	37.10%	32.26%	9.68%	9.68%	1.61%
The type of work I do is not suitable for teleworking	4.84%	6.45%	9.68%	24.19%	45.16%
Teleworking complicates my life	0.00%	9.68%	8.06%	17.74%	54.84%
I enjoy teleworking	50.00%	29.03%	6.45%	3.23%	1.61%
I have less distractions on my telework days	40.32%	25.81%	12.90%	9.68%	1.61%
I have less interruptions on my telework days	46.77%	24.19%	11.29%	8.06%	0.00%

**Figure 21 - Non-Teleworker perception of teleworking by variable**

	Strongly Agree	Slightly Agree	Neither	Slightly Disagree	Strongly Disagree
The red shading darkens the higher the percentage of responses					
Bureaucratic process to get teleworking approved	34.23%	14.09%	25.50%	4.70%	8.72%
Bureaucratic process to get teleworking organised	32.21%	9.40%	28.86%	7.38%	9.40%
Bureaucratic process to get reimbursements for telework office set up	26.17%	13.42%	28.86%	5.37%	13.42%
Bureaucratic process to get reimbursements for ongoing telework costs from home e.g. stationary, electricity, internet connection etc	27.52%	13.42%	28.86%	6.71%	10.74%
Systems and processes of my workplace are hard to adjust for teleworking	21.48%	13.42%	20.13%	17.45%	14.09%
My meetings schedule is hard to rearrange	14.77%	12.75%	22.82%	18.12%	18.12%
Access to equipment is minimised	15.44%	15.44%	24.16%	17.45%	14.09%
Access to technology is difficult	12.75%	16.78%	18.12%	18.79%	20.13%
Access to fast enough internet is difficult	20.13%	16.78%	19.46%	16.78%	13.42%
Need to be seen in person by management	22.15%	22.15%	22.15%	11.41%	8.72%
Supervisor's attitude is positive about teleworking	6.71%	14.77%	34.23%	16.11%	14.77%
Colleagues attitude is positive about teleworking	8.05%	18.12%	34.90%	14.77%	10.74%
The potential to get a promotion is reduced	17.45%	23.49%	32.89%	3.36%	9.40%
The potential to have career choices is reduced	18.12%	22.82%	28.19%	8.72%	8.72%
The potential for career development is reduced	18.12%	25.50%	26.85%	8.72%	7.38%
The potential that my job is seen as unimportant if I am absent	18.12%	28.19%	24.16%	8.05%	8.05%
The potential to lose my job in a downturn because I am not always present	18.79%	22.82%	25.50%	10.07%	9.40%
Face to face relationships are still important	30.87%	25.50%	18.79%	6.04%	5.37%
The social interactions at work are still important to me	25.50%	26.17%	20.81%	6.71%	7.38%
I still feel part of a team	24.83%	25.50%	22.15%	8.05%	6.04%
The type of work I do is not suitable for teleworking	18.12%	12.08%	22.82%	18.12%	15.44%
Teleworking complicates my life	5.37%	7.38%	37.58%	17.45%	18.79%
I am not interested in teleworking	10.07%	6.04%	22.82%	18.12%	29.53%

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