Working from Home: Lessons from the Christchurch Experience

This research report was prepared for Inland Revenue *Te Tari Taake*, in association with the Public Service Association, *Te Pūkenga Here Tikanga Mahi*.

This research report was prepared by:

Dr Noelle Donnelly & Dr Sarah Proctor-Thomson
Industrial Relations Centre,
Victoria Business School,
Victoria University of Wellington
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Foreword

We are delighted to introduce this independent and challenging report on the organisational and employee experiences of working arrangements in the aftermath of the Christchurch earthquakes.

When IRD and the PSA first discussed jointly funding and commissioning this research from Victoria Business School's Industrial Relations Centre, the experience of the earthquakes was still raw for many. As time passes, and the practical implications for individuals, organisations and communities are worked through, it is important that the lessons we take from the earthquakes, for both business continuity in a crisis and business as usual, are informed by robust research and reflection.

We know there is considerable national and international interest in the Christchurch experience, and IRD and the PSA have welcomed the opportunity to collaborate on this project with Victoria University and contribute to the body of knowledge of Christchurch people's working lives post-earthquakes.

Jeanie Truell
Chief People Officer,
Inland Revenue.

Brenda Pilott
PSA National Secretary,
Public Service Association.

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Overview

This research was commissioned as a joint initiative between the Inland Revenue (IR) and the Public Service Association (PSA) to explore the organisational and worker experiences of working from home (WFH) arrangements in the aftermath of the Christchurch earthquakes. It presents

> *'The Christchurch earthquake hammered home, "in just 22 seconds", the importance of businesses providing remote access to the workplace'.*
>
> **Communications Minister Amy Adams, 12th of November 2012.**

findings from a survey of 211 Inland Revenue employees and 36 team leaders who worked from home and/or managed others who worked from home in the period following the 22nd of February 2011 and subsequent earthquakes in Christchurch. Survey data is supplemented with qualitative data from 39 participants across four focus groups conducted with employees, team leaders and union delegates. In addition, interviews were conducted with key stakeholders. Issues surrounding staff readiness and capacity to return to work, the use of ICT in the management of WFH arrangements and the pattern and nature of WFH are discussed. Perceptions of team leaders and the factors that shape worker experiences of these flexible work arrangements are also presented. The research concludes by identifying a number of recommendations for managing WFH arrangements within a complex post-disaster environment and further, points to insights that might inform considerations of flexible working arrangements in a business as usual (BAU) environment.

Research Context

Natural disasters disrupt the nature of work. In post-disaster environments, flexible work arrangements (FWAs) are increasingly promoted as an organisational resource to ensure business and employment continuity (Alvaro, de Assis and Fernando, 2011). In particular, the introduction of WFH arrangements in a post-disaster environment is seen to enable organisations to operate when work site access is restricted, assist in the re-allocation of work tasks and processes and facilitate a swift return to business continuity during a recovery period (ITAC, 2005). For public service organisations, FWAs have a particularly critical role to play in ensuring continuity of 'essential' services. While widely proposed, little is known of the distinct challenges employees and organisations face in the implementation of these FWAs following a natural disaster. The Christchurch earthquakes that began in September 2010 are the most significant natural disasters in New Zealand's recent history. The earthquake that struck on the 22nd of February 2011 resulted in the loss of 185 lives, the displacement of workforces, widespread damage to buildings and infrastructure and sustained disruptions to critical services. Recent reports note that the February 2011 earthquake alone resulted in disruption to over 6,000 businesses and 52,000 employees for sustained periods of time (Stevenson et al., 2011). For some organisations, operating in a post-disaster environment resulted in the adoption of new forms of work organisation and work practices.

Research Background

The Inland Revenue Earthquake Management Project

The earthquake that struck Christchurch on the 22nd February 2011 resulted in the immediate closure of Inland Revenue's sole premises at 224 Cashel Street, the suspension of all their operations and the displacement of its entire workforce of 828 staff. Within 24 hours of that adverse event a number of managers and staff came together at the Wigram Airforce Museum to form the Inland Revenue Christchurch Recovery Team (CRT). With no access to premises, paperwork, technology or people, the CRT established a structure that brought support and business continuity functions together to 'manage and co-ordinate all ongoing Inland Revenue operations, support cross-government functions, and prepare for the future delivery of Inland Revenue services in Christchurch'. Once functional streams and leads were in place, the organisation adopted a three phase recovery strategy: Phase I- Response, Phase II -Recovery, and Phase III- Re-invention.

Phase I Response: 'Getting back to work':
With the establishment of the CRT, initial recovery activities were focused on staff welfare and the sourcing of temporary lease arrangements. In addressing welfare issues, staff were sent home on full pay enabling them to focus first on their own personal circumstances. In the days that followed contact was re-established with staff, individual living circumstances assessed, teams assigned or staff redeployed to other government agencies or volunteer organisations to assist with their recovery work. As the CRT focused on sourcing alternative work premises, a range of flexible working arrangements, including working from home (WFH) were introduced for a variety of reasons, one being to ensure business continuity. For some, the nature of their existing work enabled them to work from a home environment or in the community almost immediately. For others, who worked in business areas regarded as unsuitable for working from home, a series of options were deployed including: the allocation of different work tasks to enable work to be completed at home, or assignment to other government agencies or sites to address wider needs within Christchurch. As the CRT have noted '*Increased flexible working conditions were a direct response to the circumstances in Christchurch. While valuable lessons have been taken from this experience, the earthquake recovery project was not established to initiate new working conditions or to increase the overall flexibility of Inland Revenue's workforce*'.

To address feelings of isolation amongst staff and to facilitate team interaction, the CRT introduced a range of communications channels and identified a number of meeting sites to encourage staff mobility and interaction, understanding the social importance of workplace loss. The establishment of an IR Facebook site, 0800 telephone number, drop in centres, walking groups and motivational meetings with senior managers were just some of the communication mechanisms put in place by CRT to facilitate staff connectivity within these new work arrangements. Alongside communication mechanisms, new policies and

procedures were devised and implemented to guide the management of these new working arrangements. In the weeks that followed temporary sites were sourced providing accommodation for approximately 500 staff on a 'rostered hours' or shift basis. WFH was designed as a temporary work arrangement, to sit alongside processes where staff would be progressively relocated to temporary work accommodation, or, seconded to other government agencies to help with recovery activities. By May 2011 most staff had returned to working their full contracted hours, which for many was a combination of working from home and 'topping up' hours in temporary IR sites. In total 788 staff were redeployed across a range of temporary sites which, in addition to their own homes, included Winston Avenue, Wigram Air Force Museum, Ballarat Way, Maces Road, Windmill Center and Wrights Road.

On the 13th of June 2011 a further series of substantial aftershocks occurred resulting in the displacement of over 450 contact centre and collections staff from Winston Avenue. It was following the June earthquakes, as priorities intensified around the sourcing of temporary leased accommodation, that WFH arrangements were introduced more widely. As an interim arrangement for those displaced from Winston Avenue, staff were redeployed with appropriate tools and tasked with completing electronic correspondence or a range of other duties from home. One of the challenges faced by the CRT at that time was to secure and allocate computer equipment necessary to facilitate these FWAs and work agenda.

Phase II Recovery – 'Return to IR work':
By July 2011 the Inland Revenue response to the earthquakes had transitioned into the recovery phase of development. With the central focus of getting staff back into an organisational environment, CRT activities continued to be directed towards the sourcing of suitable temporary sites, the management of staff wellbeing, a return to full work capacity and planning for the reinvention phase. In keeping, functional teams were restructured into five streams of Facilities Management, People Relationships & Communications, Business Continuity IR, Business Continuity Community and Phase 3 Planning (see Appendix A for an overview of CRT structures). Human resource policies governing WFH were extended to July 31st. It was at this stage that team leaders returned to a BAU method of allocating work and the completion of team member work reports.

Over the months that followed, IR sourced alternative accommodation across 33 leased sites and shared spaces. In addition, a number of systems were put in place to manage working times, build resilience and emotional sustainability and reduce staff anxiety. The use of WFH arrangements declined by November 2011 as the 640 staff that remained working for IR Christchurch were redeployed across temporary IR sites. A further 63 staff were seconded to other government and non-government agencies.

Further seismic activity on the 23 December 2011 forced the short term closure of a number of those temporary sites. Interim business contingency plans were simultaneously

implemented while temporary sites were inspected and by mid-January 2012 these sites were ready for use. Staff worked from other temporary sites during this time, and as a large proportion of staff were on planned annual leave there was no requirement for staff to work from home. By the end of 2011, 10 months after the February earthquakes, the organisation was back to full business capacity with the entire workforce working from temporary sites on the specific work priorities of their business groups.

Phase III Re-invention – Creation of New Premises

Over the last 12 months the focus of the Christchurch Rebuild Programme team, formerly the Christchurch Recovery team, has transitioned towards the rebuild of their Christchurch operations and in providing long term support for staff wellbeing. As part of the rebuild programme a number of new sites have been opened including 72 and 74 Moorhouse Avenue, Russley Road. A Mid City office is scheduled for May 2013, in addition to Durham Street which is part of a government initiative to integrate services through the creation of a centre that will house various government departments, making it more accessible to customer needs. With the move into the final phase of recovery a number of the Christchurch Rebuild Programme team functions have been moved back into their respective BAU segments. The Christchurch Rebuild Programme team describes their focus for 2013 and beyond as centered on '*Government Key Priorities, Better Public Services, Cross Government initiatives and on the building and maintaining of emotional wellbeing of the public sector*'.

Summary of Findings

This report discusses the survey responses from 247 IR staff and a set of follow-up focus groups across a number of core themes relating to working from home arrangements including: the return to work; the implementation, conditions and nature of working from home; the management and experiences of home workers and the future demand for FWAs in a 'business as usual' environment. The report concludes with a set of insights for future business continuity and BAU practices.

Experiences of working from home were mixed which in part was shaped by individual's organisational level, living circumstances, and caring responsibilities…

Experiences of working from home had different outcomes for staff in the aftermath of the February earthquakes. For some, whose homes were badly damaged and/or had significant disruption to utilities, the experience was more negative and posed greater disadvantages. In contrast, for those who experienced little or short disruption to their utilities and who had caring responsibilities, the experience was more positive regarding certain benefits. Employees cited greater benefits of working from home than team leaders who also worked from home. Interestingly, the survey data highlighted team leaders' more negative perceptions of potential worker outcomes if future WFH arrangements were implemented in a BAU environment. These findings suggest that within a post-disaster environment, work demands need to be closely aligned with individual circumstances.

Relatedly, the high variability of individual staff circumstances at the time of the February earthquake shaped staff's 'readiness to return to work' and posed significant challenges for the organisation…

While most staff were 'ready to return to work' within a month, their readiness was shaped in part by personal living circumstances including: the length of time without utilities and their caring responsibilities. Of note, few staff began working before they felt ready to do so. This suggests that the organisational policy of placing employees on full pay with limited expectations of outputs for a period of time following the earthquake was appropriate and likely to have contributed to positive outcomes for employees. Finally, a large proportion of staff also did not begin working until a month or more after they felt ready to, thus highlighting scope for the organisation to benefit from more immediate continuity of work from some staff.

Working from home was a full-time activity for most staff, who often altered their working times to overcome technological difficulties and to balance their working and living circumstances…

Staff worked from home for various lengths of time over a nine month period. During that time, most staff worked 7 hours or more per day. A large group of staff reported sometimes working in the early hours of the morning (between 5am-8am) or in the evenings (6pm-10pm), which focus group participants reported was frequently to overcome technology difficulties experienced during peak work hours and/or to meet family and other commitments. Over half of those who responded had significant caring responsibilities while working from home, many also spent time during their working day liaising with trades people or formal bodies. These findings indicate that the ability of staff to alter their working times and arrangements in a post-disaster environment may be an optimal means of managing work organisation and offer a more positive experience for staff.

While most staff felt they had the same or greater influence over their work while working from home, the nature of their work environment offered significant challenges for some staff…

While most staff worked within a non-shared home, few did so within a dedicated separate workspace. While working from home, staff indicated that they had considerable influence over the start and finish times of the work day, the order and way in which they completed their tasks, and the pace at which they worked. In contrast, staff noted less influence over the tasks performed, the days and number of hours worked and the working of additional hours.

For some staff, there was a lack of continuity of work between their pre- and post-earthquake environments.…

The February earthquakes resulted in a change in the nature of work for a significant proportion of employees and in the membership and location of teams. In the focus groups, team leaders noted the difficulty of finding appropriate work for employees to do from home - thus explaining, in part, the challenges in getting employees back to work. These findings firmly point to the value in testing flexible work options for a broader pool of staff in a BAU environment, as part of a business continuity plan. The provision of FWAs as part of a business continuity management plan would enable IR to identify work appropriate to a WFH environment, ensure continuity of operations and address wellbeing concerns of staff operating within adversely affected environments.

Communication played a critical role in the organisation and management of new work arrangements in the aftermath of the earthquakes….

Staff noted the usefulness of the IR Facebook page, the telephone, the 0800 number and email in enabling them to maintain contact. Further discussions within the focus groups

revealed that various communication channels were utilized by staff for different purposes. In particular, employees noted that due to technological issues they frequently supplemented direct communication via phone, email or text, with more up-dated information, via the IR Facebook page or 0800 number. Staff also reported the importance of supplementing remote communication with face-to-face meetings. These findings highlight the role of diverse communication channels in meeting the varying circumstances and needs of a dispersed workforce in a post-disaster environment.

Despite their mixed experiences, there is strong demand for the future provision of flexible work arrangements in a BAU environment, with most staff favouring a 'hybrid' working from home arrangement - although improvements would need to be made…

In the future, flexi-time, working from home, a compressed work week and the ability to change employment status are of particular interest for staff seeking greater flexibility at work. Reflecting on their experiences of their work arrangements following the February earthquakes, staff within the focus groups indicated a preference for a 'partial' or 'hybrid' WFH arrangement in a BAU environment. In addition, staff noted greater access to technical support and co-ordinated organisation of face-to-face time with team members and team leaders as areas where improvements would be needed. For team leaders improved accountability and reporting structures, adequate training and clearer guiding policy are areas that require attention if WFH arrangements were provided in the future.

Methods and Data Collection

This research project had three main phases which involved scoping workshops, a large online survey and follow-up focus groups.

Phase one: Employee Workshops

As part of the Inland Revenue Christchurch PSA Annual members meeting (AMM) on the 31st of May 2012, the PSA held breakout sessions with 87 members and delegates to explore their experiences of working from home as part of the IR response to the Canterbury earthquakes. The purpose of these sessions was to validate initial anecdotal evidence that formed part of the research's initial scope and to identify key themes that would help inform the development of an online survey and follow-up focus groups. Using material provided by the research team, the delegates obtained feedback around four orientating questions:

1. *Following the February earthquake, what flexible working options were made available to you? What options did you take up and why?*
2. *What were the main benefits to you of this working arrangement?*
3. *What issues or challenges did you face in taking up that flexible work option?*
4. *What improvements would have made the experience better for you?*

Phase two: Online Survey

In the second phase of the project, the research themes that emerged from the PSA AMM were further explored through secondary data. An extensive review of academic and practitioner journals, government reports, telework associations and web sites was initially conducted. A database of academic articles was constructed, and filtered for articles pertaining to organisational and worker outcomes of telework – this produced a refined database of over 200 articles. A review of the main theoretical debates and empirical evidence was subsequently undertaken and used to inform the development of an online survey.

Primary data was collected through an online survey that sought information relating to employee and team leader experiences and perceptions of working from home. In addition, team leaders completed a separate section that sought information about their experience of managing others who were working from home. To test the accuracy of wording and content of items, the survey was piloted across a sample of PSA and team leaders during October 2012. The survey was administered online from the 30th of October to the 14th of November 2012.

The sample of employees and team leaders were obtained from workforce listings at the IR Canterbury office. The survey was distributed to a total of 669 staff - 568 employees, 59 team leaders, 17 managers and 25 staff who were found to be no longer working at IR. Only those who had worked from home for a period of 1 week or more from the February 2011 earthquake were eligible to complete the survey. Personal identification codes were sent out

to all potential participants providing them with the ability to save and return to the survey dependent on their work demands. Reminder emails were sent out to staff on the 7th and again on the 12th of November 2012. A total of 247 staff responded to the survey, of which 211 were employees and 36 were team leaders located across 24 business units.[1] By excluding the surveys that bounced back, the returned response rate was 36.1% for employees (including any managers that did not identify as team leaders) and 61% for team leaders.

Almost half of the staff sample, worked within operations delivery, contact centres and investigations SME. The vast majority of the sample worked full-time (92.2%), and the average working hours were 37.25 hours per week. This sample represented a long-standing and stable workforce with just over half of those who responded (58.3%) indicating that they had worked at the Inland Revenue for 10 or more years, with another 25.1% having worked with the IRD for 5-10 years. The majority of staff who responded were male (68.4%) and identified as New Zealand European (82.4%). Their average age was 44.75 years. This group was highly qualified with approximately 90% of the respondent sample indicating that they had a tertiary certificate or higher. Finally, 75.5% indicated that they belonged to a union. These descriptive indicators describe the sample as a whole but there were some notable differences between the employee and team leader groups in both their working and demographic profile. Further detail regarding the sample profile is provided in Section 1.

Phase three: Focus Groups

The survey data is supplemented with qualitative data from four voluntary focus groups that were conducted separately with 22 employees, 10 team leaders and 7 trade union delegates. The focus groups were scheduled to explore the dynamics that shaped individual experiences of working from home and to explore the initial survey findings in greater detail. General employees were invited to attend one of two focus groups that ran on the 28th of November 2012. The response to this invitation was strong and these focus groups were over-subscribed. Some employees, who were unable to participate in a focus group, forwarded written comments. Two further focus groups were conducted with team leaders and union delegates on the 29th of November 2012. All the focus groups ran for approximately 90 minutes and were audio-recorded. The data was subsequently transcribed and analysed.

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[1] The data presented in this report focuses on staff who worked from home for a period of 1 week or longer following the 22 February 2011 and subsequent earthquakes (a total of 244 employees and team leaders). Responses from the three additional team leaders who did not work from home are only included in participant profile analyses and where issues of managing working from home are discussed.

Section 1: Profile of Participants

Demographic Profile

Gender

Most of those who participated in the survey were male (69.4%), although the gender profiles of the employee and team leader groups slightly varied. A greater proportion of team leaders were female (37.1%) when compared to the employee group (30.6%).

Age

The average employee age was 44.6 years with a range of between 22 to 71 years old. Team leaders were found to be slightly older with an average age of 46.3 years. This team leader group fell within a much narrower band of ages ranging from 28 to 57 years old (see Table 1.1 below).
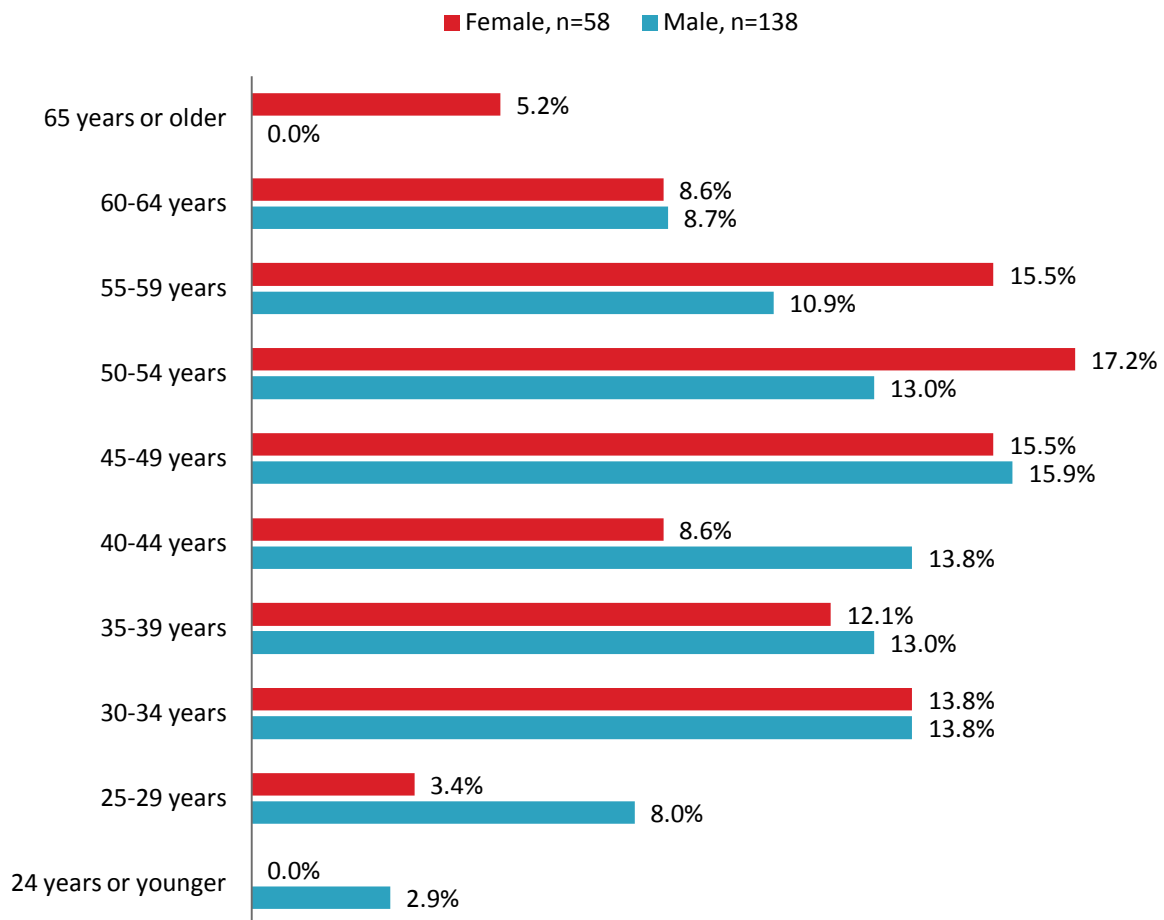
Table 1.1. Age Profile

	Employees %	Team Leaders %
24 years or younger	2	-
25-29 years	6.6	6.9
30-34 years	13.7	6.8
35-39 years	13.2	3.4
40-44 years	12.2	13.8
45-49 years	15.8	27.5
50-54 years	14.2	34.4
55-59 years	12.1	6.8
60-64 years	8.7	-
65 years or older	1.5	-
Total	100%	100%

Employee n= 197, Team Leader n=29 2

Female and male employees varied in age significantly where females were almost 4 years older on average (47.1 years) than their male colleagues (43.5 years), (*p =0.04)*[3] (see figure 1.1 below for percentage frequency of age bands by gender). Female team leaders were also found to be slightly older than their male counter-parts (46.8 and 45.7 years respectively) although this difference was not found to be statistically significant.

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[2] Specific sample sizes are presented for all tables and figures to provide information about variable response rates relating to individual survey questions. Percentages and means given throughout the document reflect the 'valid percent' of the respondent sample.

[3] All 'significant' differences reported throughout the document are based on appropriate parametric and non-parametric tests (including, independent t-tests, chi square analysis, Wilcoxon Signed-Rank Test, and Mann Whitney U tests) and are significant at the p<0.05 level of lower. For further information please contact the researchers.

Figure 1.1 Employee Age Groups by Gender

■ Female, n=58   ■ Male, n=138

Age Group	Female	Male
65 years or older	5.2%	0.0%
60-64 years	8.6%	8.7%
55-59 years	15.5%	10.9%
50-54 years	17.2%	13.0%
45-49 years	15.5%	15.9%
40-44 years	8.6%	13.8%
35-39 years	12.1%	13.0%
30-34 years	13.8%	13.8%
25-29 years	3.4%	8.0%
24 years or younger	0.0%	2.9%

Ethnicity

Most employees (80%) identified as New Zealand European. A further 5% of employees identified as being of both NZ European and Maori origin, or as Maori. The remainder of the employee group consisted of Samoan, Chinese, Indian and 'Other' ethnicities. The majority of employees in the latter group identified as either 'Other European' or with more than one ethnicity group. As figure 1.2 further demonstrates, the diversity of the employee group is clearly contrasted with the diversity of the team leader group with 97.1% of team leaders identifying as New Zealand European.
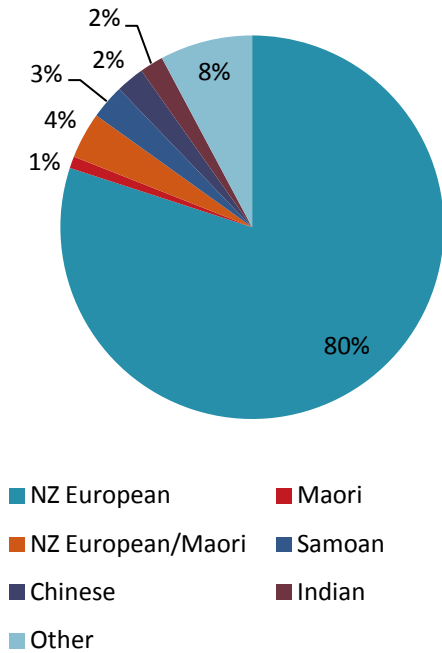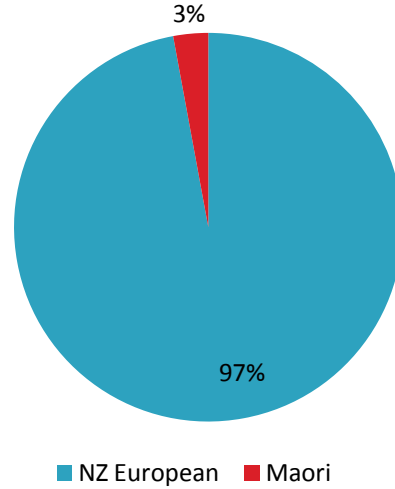
Figure 1.2 Ethnicity of Employees,
(n=205)

Figure 1.3 Ethnicity of Team Leaders
(n=34)

Legend for Figure 1.2:
- NZ European
- Maori
- NZ European/Maori
- Samoan
- Chinese
- Indian
- Other

Legend for Figure 1.3:
- NZ European
- Maori

Education

In general, Inland Revenue staff were found to be highly educated. Over half (65%) of all the staff that responded hold a tertiary certificate or higher. In addition, 42.1% and 47% of the employee and team leader groups respectively held a Bachelor's or Post-graduate degree (see figure 1.4 below). No significant differences in educational level were found between demographic or organisational groupings.

Figure 1.4 Levels of Education

Education Level	Team Leaders, n=17	Employees, n=145
Trade certificate		10%
Tertiary certificate	35%	35%
Bachelor's degree	18%	28%
Post-graduate degree	29%	15%
Other	18%	12%
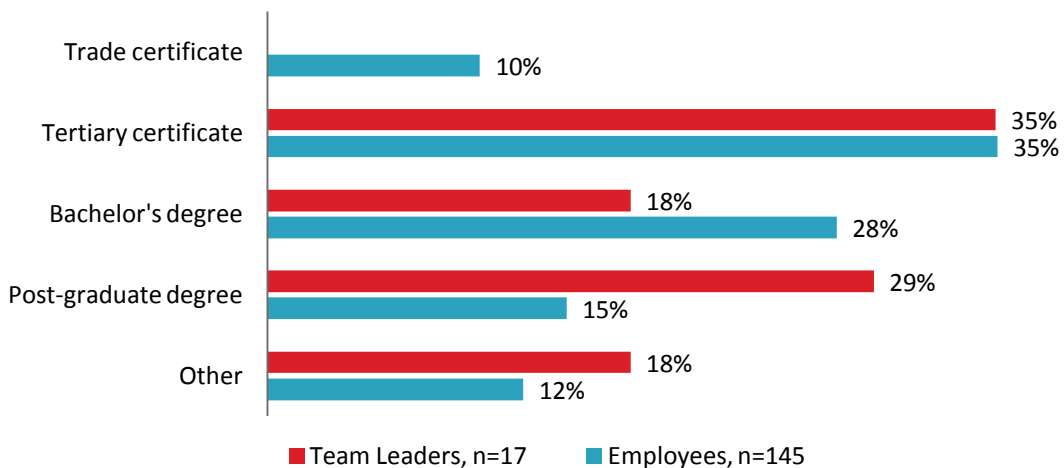
Interestingly, the non-response rate for educational levels was particularly high for team leaders. Of the 17 team leaders that did respond to this question, all held tertiary certificate or higher.

Level of unionization

Over two thirds of the employee (77.1%) and team leader (65.7%) participants indicated that they belonged to one of the three unions representing staff in Inland Revenue.
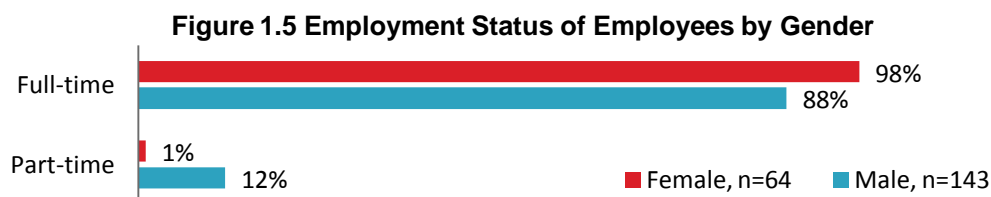
Working Profile

Business unit

Almost half of the employees who responded to the survey (46.9%) worked within operations delivery (21.8%), contact centres (13.3%) and investigations SME (11.8%). In line with this representation, the largest groups of team leaders were from Investigations SME (25%) and the operations delivery (22.2%) units.
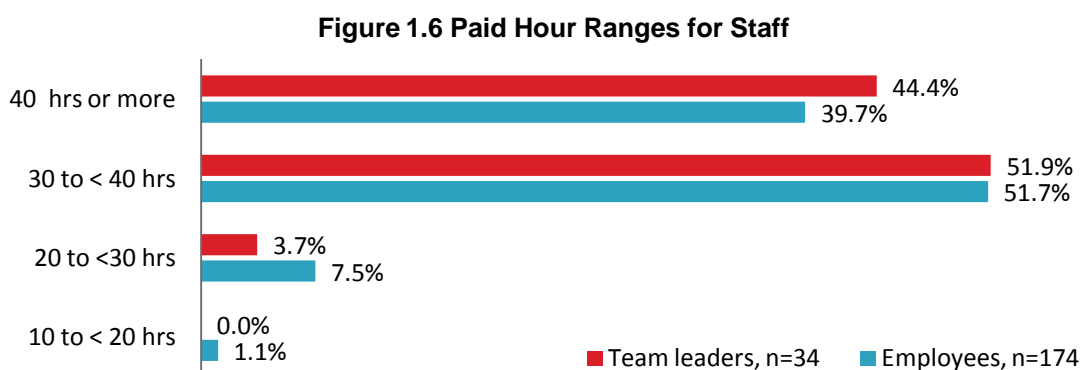
Employment status

At the time of the February earthquake most participants worked full-time in their roles (91.3% employees; 97.2% team leaders). Contrary to recent trends of non-standard work in New Zealand in which female workers' share of part-time work more than doubles that of their male colleagues (OECD, 2012), male employee participants were significantly more likely to be working part time than their female colleagues (see figure 1.5) (p=0.015).

Figure 1.5 Employment Status of Employees by Gender

Full-time — Female 98%, Male 88%
Part-time — Female 1%, Male 12%
Female, n=64   Male, n=143

Work hours

On average, employees worked for 36.9 hours per week before the February 22, 2011 earthquake within a range of 15 to 50 hours. Team leaders worked longer hours on average at 39.1 hours per week. Weekly hours ranged from 20 hours for a part-time team leader to a maximum of 60 hours for a full-time worker working in Investigations SME.

Figure 1.6 Paid Hour Ranges for Staff

40 hrs or more — Team leaders 44.4%, Employees 39.7%
30 to < 40 hrs — Team leaders 51.9%, Employees 51.7%
20 to <30 hrs — Team leaders 3.7%, Employees 7.5%
10 to < 20 hrs — Team leaders 0.0%, Employees 1.1%
Team leaders, n=34   Employees, n=174

Length of service

The participants represent a long-serving and stable group of employees with just over half of the employees (55%) and three quarters of team leaders (77.8%) indicating that they had worked at Inland Revenue for 10 or more years. Another 26.5% and 16.5% of employees and team leaders respectively had worked in the organisation for between 5 and 10 years. Only 2.4% of employees had 2 or less years experience working at Inland Revenue.

Table 1.2 Length of Service

Length of service	Employees %	Team Leaders %
less than 1 year	.5	-
1 to less than 2 years	1.9	-
2 to less than 5 years	16.1	5.6
5 to less than 10 years	26.5	16.7
10 years plus	55.0	77.8
Total	100%	100%

Employee n=211, Team Leaders n =36

Section 2: 'Getting Back to Work'

The high variability of individual staff circumstances at the time of the February earthquake shaped staff's 'readiness to return to work' and posed significant challenges for the organisation.

Changing living circumstances

When the February earthquake hit, a large proportion of staff were living in their own homes (70%, see figure 2.1). While most were able to remain in that home, for approximately one fifth of staff (18.1%), the disaster resulted in a long-term change to their main dwelling.

The devastation to roads, reduced number of retail outlets and diminished services impacted on all staff as they began to deal with the aftermath of the earthquakes. In addition, for those who had to re-locate and those whose homes sustained serious damage, there were significant ongoing effects as they began to work from home.

> *'The home was destroyed so we moved out to a different property which had to be developed overnight. We didn't have basic facilities so my husband was working on that while I was trying to work and not get plaster on the computer. So there were things we were trying to live with, but that was the circumstances at the time and we did what we had to do'.*
>
> **Employee Focus Group**

The February and subsequent earthquakes led to disruption in the living circumstances of a large proportion of staff who remained in their main dwelling, although the severity of disruption varied greatly between staff. Between 35% and 45% of staff had no disruption to their electricity, water, sanitation, telephone or internet services following the 22nd of February earthquake.

Figure 2.1 Main Dwelling of Staff on the 22nd of February 2011
(n=242)

In rented accommodation 25%

In family home 5%

In own home 70%
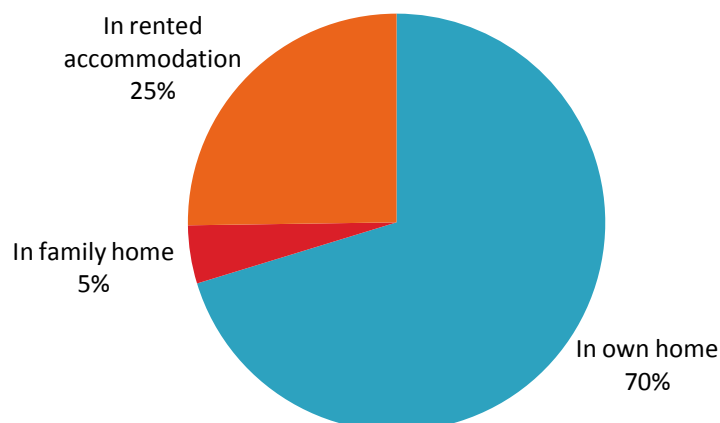
Approximately another third experienced disruption to these services for up to one week. Thus, by the end of the first week, services were available for over two thirds of all staff (79.1% had electricity, 68% had water, 65% had sanitation facilities, 86.5% had telephone services and 82.8% had access to the internet) (see figure 2.2). This is in keeping with other reports who noted that, in general, power was restored to 82% of households within 5 days and to 95% of households within 2 weeks (Stevenson et al., 2011).

> *'I think that they talk about one size fits all and that can't work. They've got to find out what their staffs' individual circumstances are and tailor their response to that'.*
>
> **Employee Focus Group**

The greatest disruption over the longest period of time was to sanitation and toilet services; 15.6% of staff did not have these services available to them for three or more weeks and for 2% it took between 6-9 months for these services to be fully restored. At the time of the survey, over a year and half after the February earthquake, one team leader still did not have sanitation services available to them.

Telephone services were the least disrupted service with only 3.4% of staff still experiencing disruption after 3 weeks. As later discussion in Section 3 demonstrates, the telephone became a crucial mode of communication for the workforce in the period that they were working from home.

Figure 2.2 Length of Disruption to Services for Staff
(n range from 174-199)
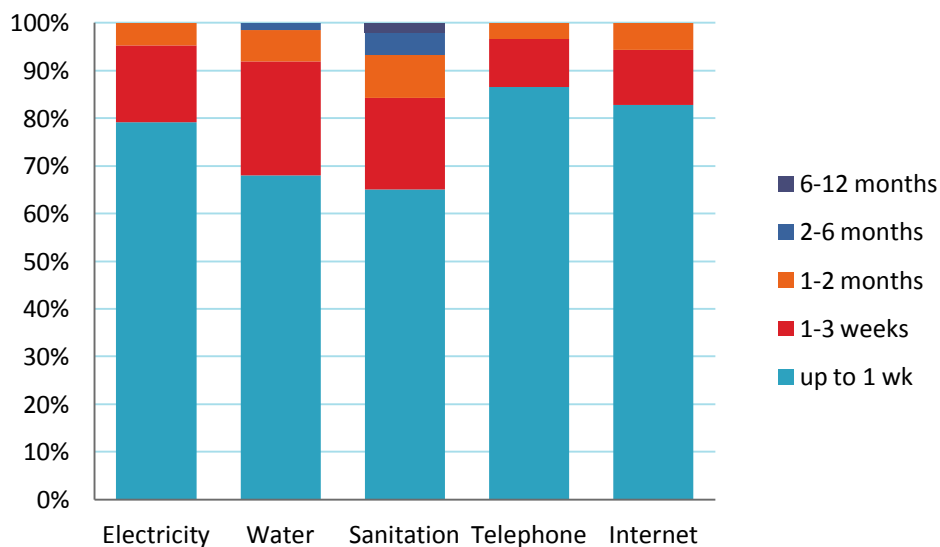
When staff work from home, their family situation and accommodation arrangements are likely to have a more pronounced impact on their work process than when working in the office. At the time of the February earthquake, staff lived in a range of living situations. Approximately one third lived with their partner and children (32.4%), another third with only their partner (30.7%), and approximately one in ten lived with only their children (10.2%) or

lived alone (12%) (see figure 2.3). A further 8.6% of staff lived in mixed family groups including parents, siblings, grandchildren, in-laws, nephews and nieces.

Figure 2.3 Personal Living Situation on the 22nd of February 2011
(n=244)
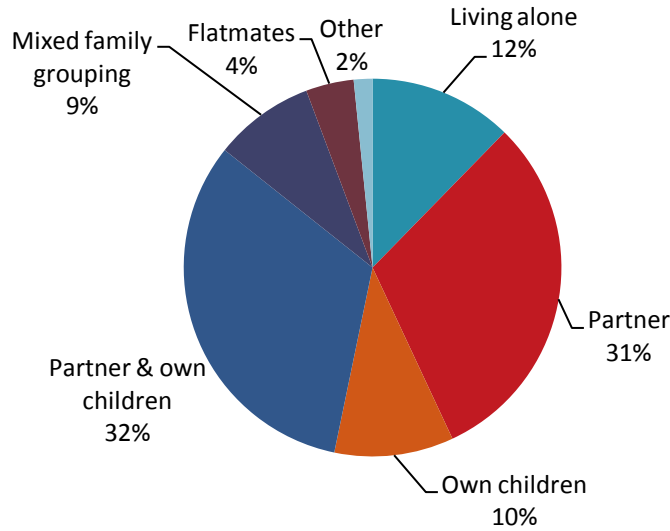
Return to work

Most staff indicated their readiness to return to work within 4 weeks of the February earthquake (82.4% of employees and 100% of team leaders). While some began working within that time period, for another large proportion it was a month later before they returned to work. Significantly, while team leaders unanimously indicated their readiness to work within 4 weeks, almost a third (30.3%) did not return to work until after 4-12 weeks had passed (see figure 2.4).

Figure 2.4 Staff Readiness and Return to Work
(employees n=210, team leaders n=33)
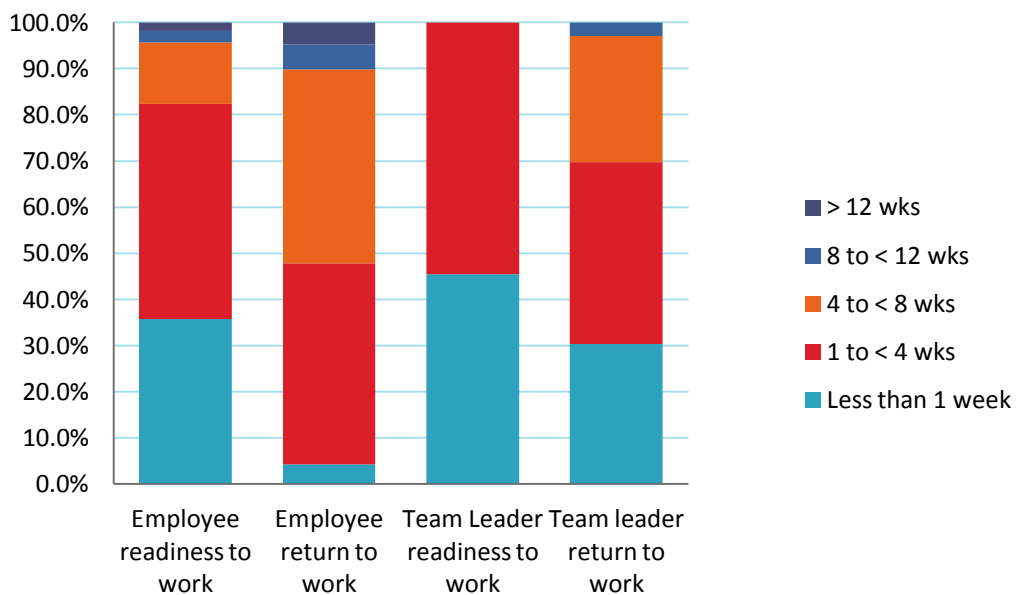
The likely variability in personal living circumstances of employees in post-disaster environments poses a significant challenge for organisations. While, most employees were 'ready to return to work' within a month, their readiness was shaped in part by their living circumstances. Not surprisingly, the length of time before employees felt ready to return to work varied with the length of time that their living accommodation was without facilities including electricity, water, sanitation/toilet facilities, telephone and internet and broadband. Those who had their services restored within one week of the February earthquake were much more likely to be ready to work within that same time frame than those who had greater delays in accessing basic facilities (p levels were consistently <.001).

Analysis also suggests that readiness to return to work was related to whether staff had caring responsibilities. Those with caring responsibilities were significantly more likely to need more time before they felt ready and available for work than those without such responsibilities (p=0.004). These findings highlight that within a post-disaster environment, work demands should be closely aligned with individual circumstances.

Importantly, few employees began working before they felt ready to do so, suggesting that the organisational policy of placing employees on full pay with limited expectations of outputs for a period of time following the earthquake was appropriate and likely to have contributed to longer term positive outcomes for their employees. The focus group data further suggests that team leaders in particular, played a crucial role in the evaluation of employee circumstances and appropriate allocation of work.

Section 3: Working from Home in a Post-disaster Environment

Working from home was a full-time activity for most staff, who often altered their working times to overcome technological difficulties and to balance their working and living circumstances. While most staff felt they had the same or greater influence over their work while working from home, the nature of their work environment offered challenges for some staff.

Work patterns

Employees worked from home for various lengths of time over a nine month period. During that time most employees worked from home for an average of 4 months or 124 days. Team leaders worked from home for periods of time that ranged from 1 month to 8.7 months with an average of 3.7 months or 111 days.

On average employees returned to their normal working hours within 7.27 weeks, as compared with team leaders who returned to normal hours on average within 3.45 weeks. Of those employees who worked from home, 13.8% worked 6 hours or less but most worked approximately full-time hours; employees worked an average of 7.37 hours per day, while team leaders on average worked a slightly longer day of 8.05 hours per day[4]. Over 4% of employees and 19% of team leaders worked more than a 40 hour week when working from home (see table below).

Table 3.1 Daily hours worked from home

Daily Hours	Employees %	Team Leaders %
3	0.6	-
4	1.9	-
5	6.4	-
6	5.1	9.6
7	27.6	4.6
8	53.8	66.6
9	3.8	9.6
10	0.6	9.6

Employee n= 156, Team leader n=21

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[4] Participants were asked to respond to questions pertaining to working from home in relation to the longest period in which they worked from home.

In examining the start dates of this work arrangement it can be seen that there were two times during 2011 that staff commenced working from home in larger numbers: following the February earthquakes and again following the June aftershocks. It was between the months of September and November 2011 that most staff returned to an IR work site.

Figure 3.1 Introduction and Cessation of Working from Home Arrangements (n= 188)
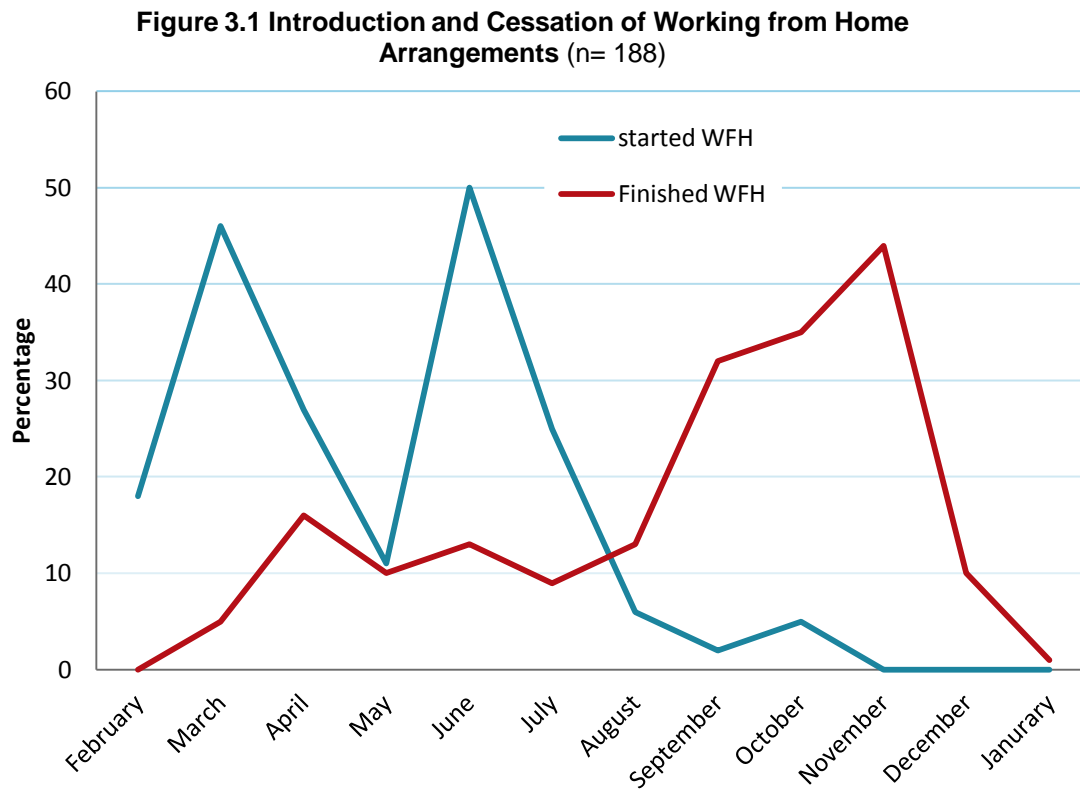
International research suggests that one of the challenges employees face while working from home is maintaining a clear division between their work and home lives (Felstead and Jewson, 2000; Tietze and Musson, 2003). In looking at daily work patterns it was found that most employees (94.8%) and most team leaders (96.9%) 'often' or 'always' worked during normal business hours (8-6pm). In addition to working during normal business hours, a large group 'always' or 'often' worked in the early morning between the hours of 5-8am (31.9%) and another 16.6% 'sometimes' worked during these hours (see figure 3.2). Working in the evening (6-10pm) or night-time hours (10pm-5am) was less common for this group of staff. 63% and 96% respectively seldom or never worked during these times. Even less common was working during the weekends. In contrast, for team leaders 40.7% sometimes worked on a Saturday or Sunday. In addition, working early mornings or evenings was more common for team leaders. 33% and 26% respectively reported that they 'often' or 'always' worked during these times.

Figure 3.2 Work Patterns when Working from Home
Showing percentage who 'often' or 'always' worked during these times.
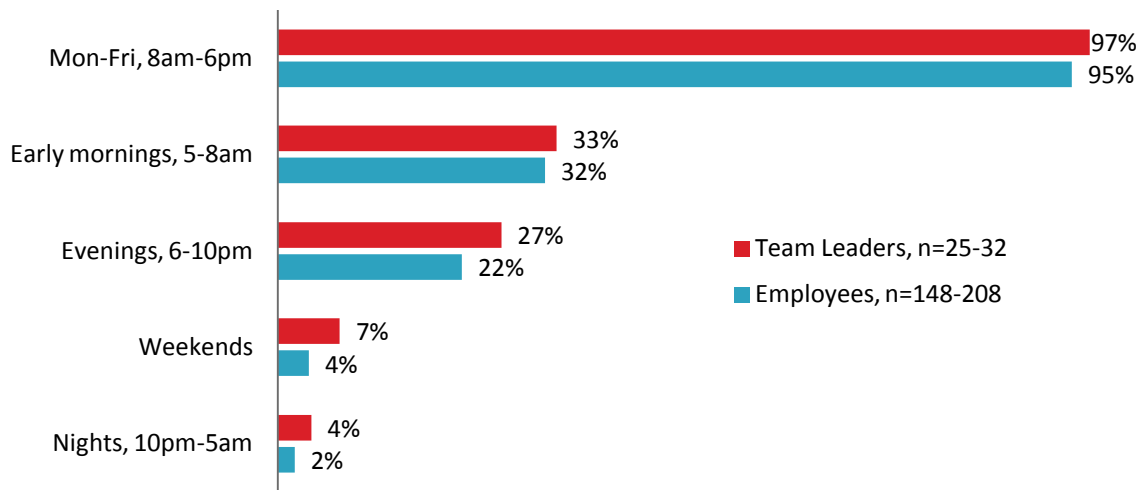
Employees across the focus groups frequently noted that working in the early morning hours between 5-8am was more efficient for them because they did not experience the technology problems that occurred later in the day due to system overloads. Others reported that they chose to vary their working times to fit in with childcare responsibilities. These findings indicate that organisational flexibility around working times might be warranted as part of ensuring employees' ability to maintain high levels of efficiency. It also points to the particular challenges employees face in maintaining clear divisions between their home and work lives when operating within a post-disaster environment.

> '..the technical problems with the connectivity meant that there were times where you just got frustrated and went on a break and later on in the evening sometime you might have more luck so you might have done something then'.
> **Employee Focus Group**

Caring responsibilities

One of the main motivations for introducing FWAs in a post-disaster situation is that it allows staff to meet demands in their immediate and often adversely affected environment. The survey found that most employees worked on IR business during normal business hours when working from home. In addition, just over a third of employee participants spent time caring for their immediate family or liaising with formal bodies regarding their living circumstances. A further quarter (26.1%) spent time liaising with trades and 14.7% spent time volunteering in their community or neighbourhood. In all cases

> 'I've got young children as well and I could finish at 3 o'clock and log back in at night and do more work. Sometimes you didn't feel like you had a rest from work but that was your choice, because you had that flexibility to be able to fit everything else in all day'.
> **Employee Focus Group**

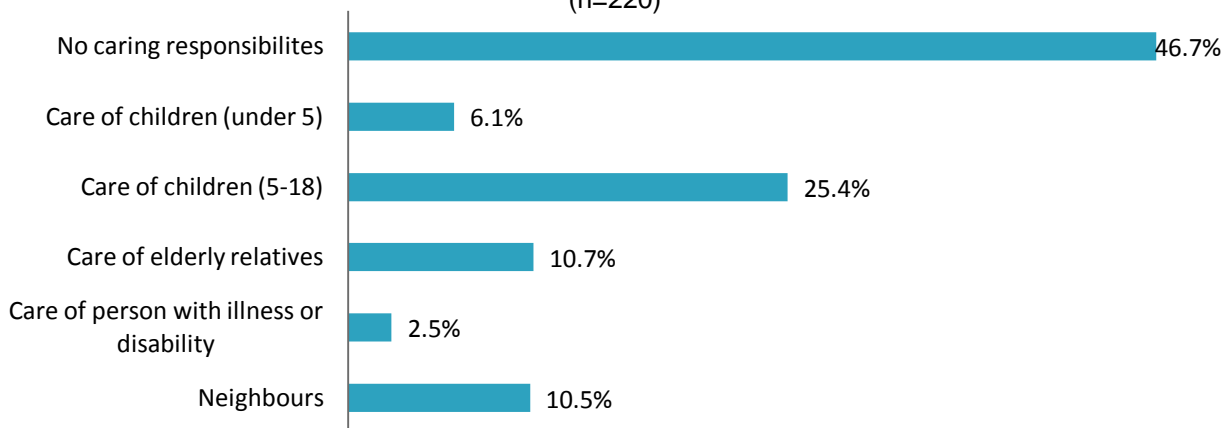on average participants spent less than 2 hours per week on these duties (see figure 3.3).

Figure 3.3 Additional Demands while Working from Home

■ Team Leaders, n=33   ■ Employees, n=211

Caring for immediate family	42% / 35%
Community / neighbourhood work	21% / 15%
Liaising with trades	27% / 26%
Liasing with formal bodies	30% / 32%
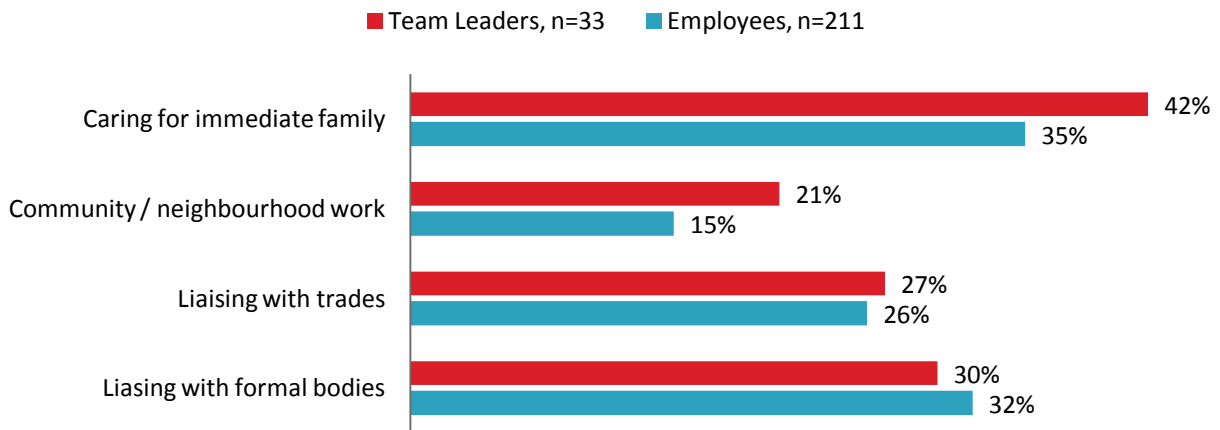
For over half of all staff there were significant caring responsibilities while WFH (53.3%). 6.1% of staff cared for at least one child under the age of 5 (own or others'), 25.4% cared for at least one child between the ages of 5 and 18, 10.7% cared for elderly relatives and 2.5% cared for someone with a long term illness or disability while working from home (figure 3.4). A small percentage of staff had multiple caring responsibilities for children, elders and/or individuals with an illness or disability (4.7%). Other responsibilities that staff reported were predominantly the care of neighbours and pets (10.5%).

Figure 3.4 Caring Responsibilities while Working from Home
(n=220)

No caring responsibilites	46.7%
Care of children (under 5)	6.1%
Care of children (5-18)	25.4%
Care of elderly relatives	10.7%
Care of person with illness or disability	2.5%
Neighbours	10.5%

Approximately one quarter or 25.6% of employees lived on their own while WFH. A further 28.6% had one other person at home and 45.9% had between 2 and 7 people at home while working from home. For team leaders 34.8% lived on their own, 30.4% with one other person, 34.7% had between 2 and 7 people at home while working from home.

Place of work

Most staff who worked from home (72.4% employees and 65.5% team leaders) did so within a home that was not shared with another worker (figures 3.5 and 3.6). Only 13.8% employees and 20.7% of the team leaders worked within their own shared or another IR worker's shared home. In addition, a small proportion of staff (6.2% of employees and 13.8% of team leaders) reported that their work involved moving between sites/ offices and other locations.

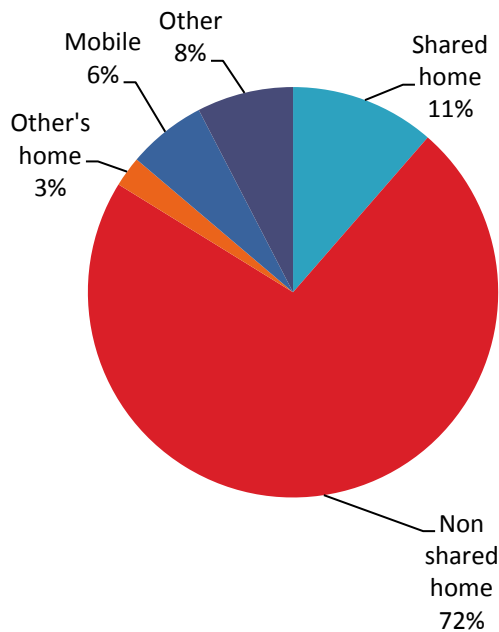**Figure 3.5 Place of work**
Employees (n=210)

Figure 3.6 Place of work
Team leaders (n=29)
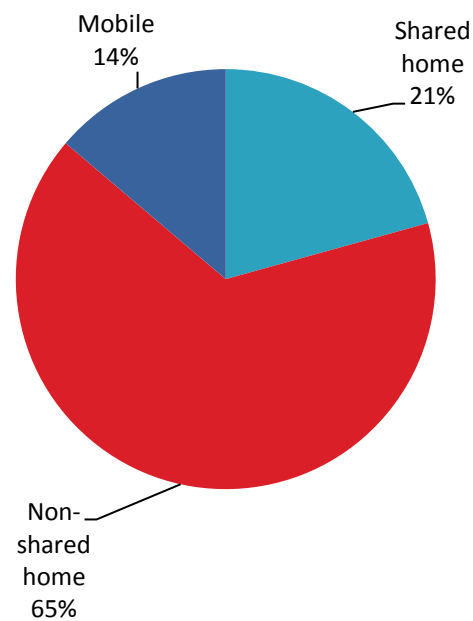
Most participants reported working within a shared living space (48.3% employees and 65.5% of team leaders, see figure 3.7). A much smaller proportion indicated that they worked in a dedicated space within a shared living arrangement (21.9% of employees and 10.3% of team leaders) or were able to work in a separate dedicated work area (26.7% of employees and 24.1% of team leaders). These results highlight the low likelihood of staff being able to work within a dedicated and separate workspace when WFH in a post-disaster situation and the potential for work / life conflicts. The potential for conflict may be particularly acute for team leaders who were working longer hours and undertaking telephone work more often.

Figure 3.7 Work Space in Working from Home Environment

Shared Space — Team Leaders 65.5%, Employees 48.6%
Separate Space — Team Leaders 24.1%, Employees 26.7%
Dedicated Space — Team Leaders 10.3%, Employees 21.9%
Other — Team Leaders 0, Employees 2.9%

Team Leaders, n=29
Employees, n=210
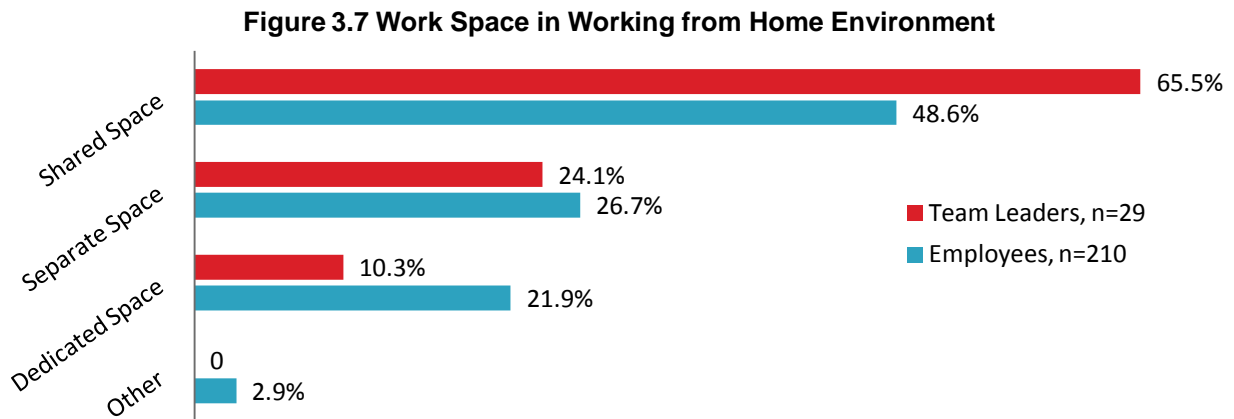
Nature of 'home' work

Over half of all staff reported that the work they did while working from home was similar to work conducted prior to the February earthquakes (56.4%). However, for 42.4% employees and 45.5% of team leaders the nature of their work differed from their previous work.

Working from home for employees and team leaders alike typically involved the use of a computer and connection to the internet (see figure 3.8). 41.8% always or often worked on a telephone, while for 34.9% that was seldom or never the case. For only a third of those employees who responded (33%) worked using reference materials, whereas for 44.7% they worked independently of reference materials or files. Employees were least likely to work in groups while working from home – for 73.6% they never or seldom worked in a group, while for 46.4% of team leaders their work sometimes involved working with groups.

Figure 3.8 Nature of Work from Home
Showing percentage who 'often'/ 'always' relied on these work tools

Computer — Team Leaders 94%, Employees 98%
Internet — Team Leaders 90%, Employees 89%
Phone — Team Leaders 70%, Employees 42%
Reference materials — Team Leaders 28%, Employees 33%
Group work — Team Leaders 14%, Employees 10%

Team Leaders, n=28-30
Employees, n=174-207
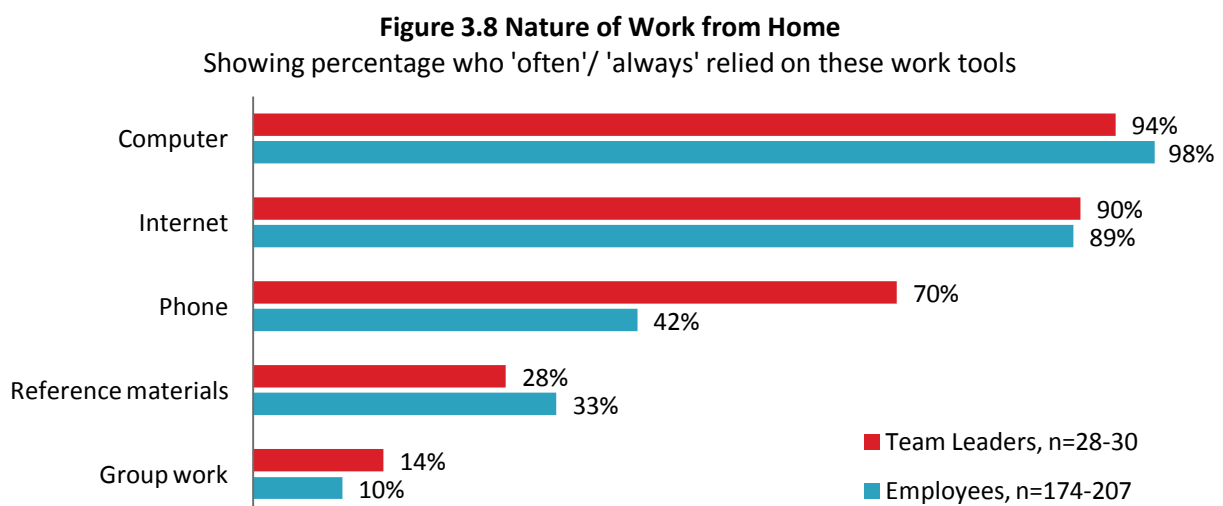
In examining the degree of influence staff experienced over aspects of their jobs while working from home, it was found that most employees and team leaders reported a high degree of influence over their pace of work, the order of tasks, methods of work and the time

they started and finished their work day (figures 3.9 & 3.10). Fewer staff felt they could influence the tasks they did, the days they worked, the number of hours they worked and the working of additional hours and for employees in particular it was the length of their working day that they had less influence over in comparison to team leaders. What these findings highlight is the degree of influence over nature, pace and process of work both groups experienced while working from home.

Of note, while team leaders worked a greater number of hours per day on average than their team members, they were also significantly more likely to report greater influence over the hours they worked (p=0.011), the days they worked (p=0.026) and the working of additional hours (p=0.002).

Figure 3.9 Degree of Job Influence for Employees,
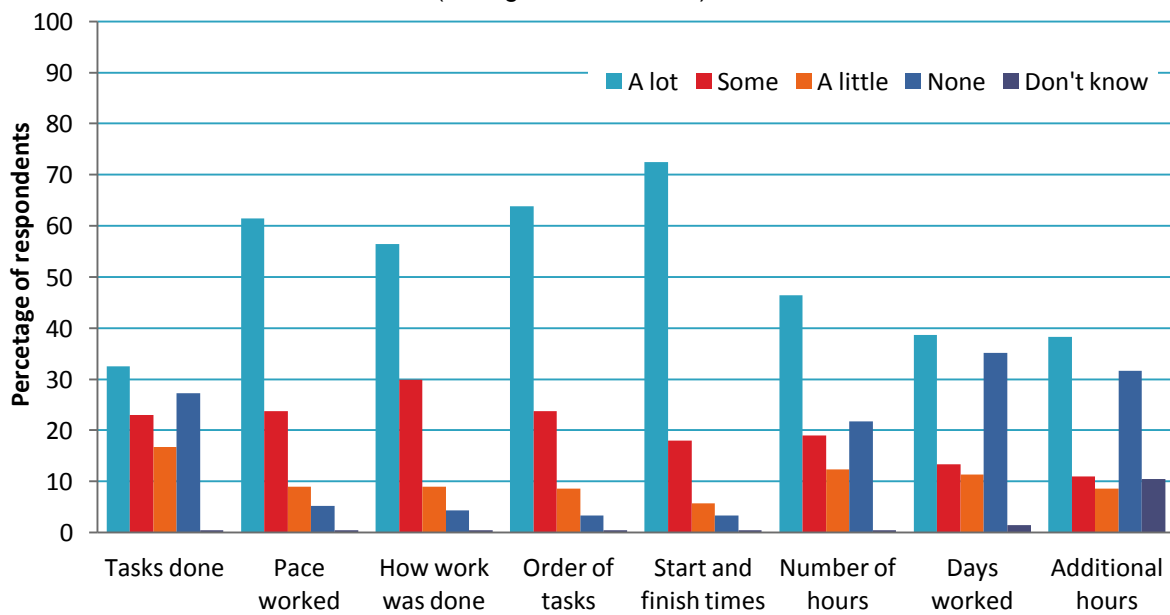(n range from 209-211)

Figure 3.10 Degree of Job Influence for Team Leaders,
(n=33)
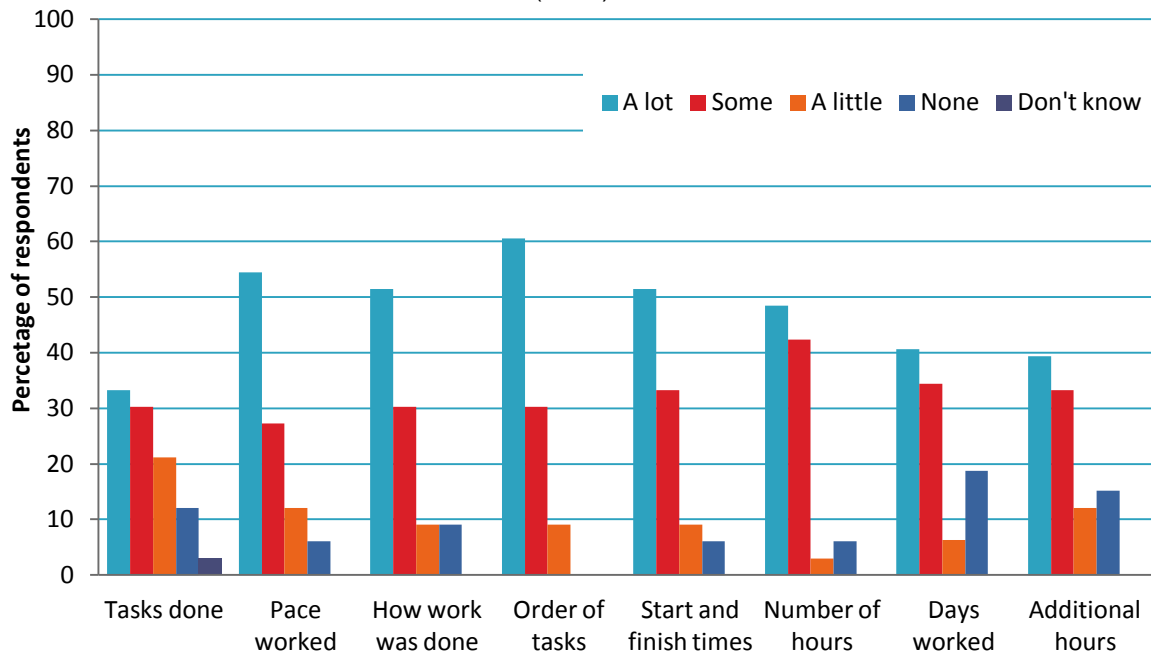
Perhaps contrary to what might be expected, staff samples were split as to whether they felt they had more influence over their work while working from home than they did in a business as usual (BAU) environment. Under half of both employees (45.2%) and team leaders (35.5%) thought they had greater influence over their work when working from home when compared to their previous working arrangements. In contrast, 29% of team leaders and 18.6% of employees felt they actually had less influence when working from home.

Figure 3.11 Degree of Influence compared to before February 2011
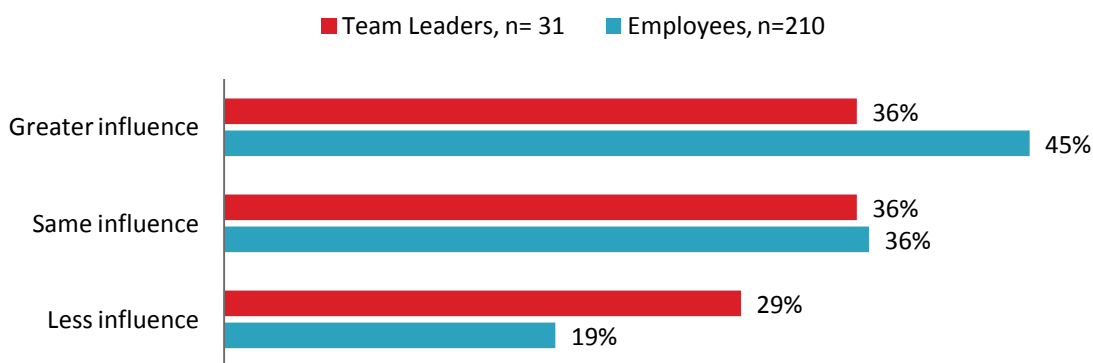
Job demands

The type of work carried out by staff while working from home was also investigated. Figure 3.12 indicates that on the whole, job demands were high while working from home for employees. For most (77.2%) the biggest demand was solving unexpected problems on their own and meeting precise quality performance standards (65.5%). For team leaders it was the meeting of precise quality standards that exerted the greatest demand on them (77.4%) (see figure 3.13).

> *'At the start it was a novelty, to work at home. I thought I can hang out my washing while my computers loading up. But then that got quite frustrating. …Not having speedy access, it took so much longer to do anything in the system'*
>
> **Employee Focus Group**

Figure 3.12 Job demands for Employees,
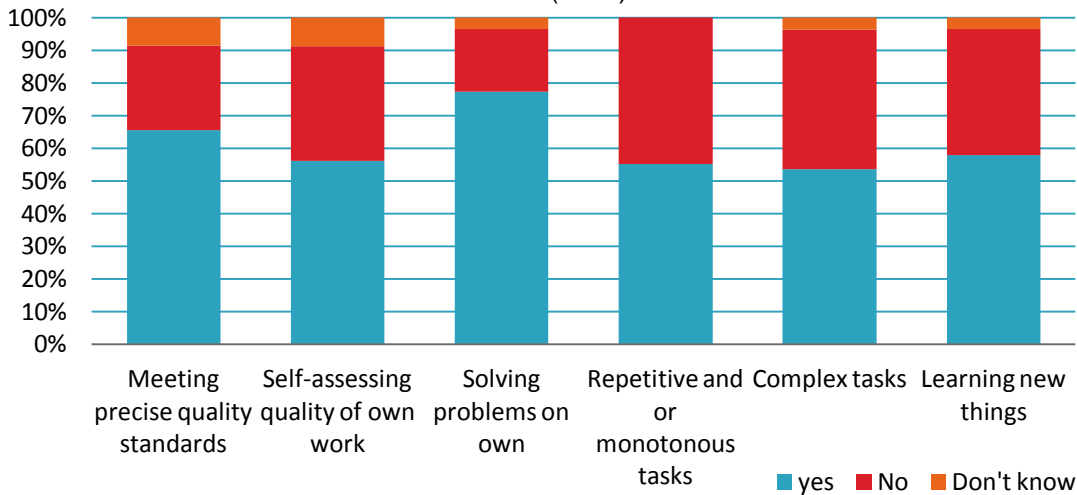(n=59)

Figure 3.13 Job demands for Team Leaders
(n ranged from 30-31)
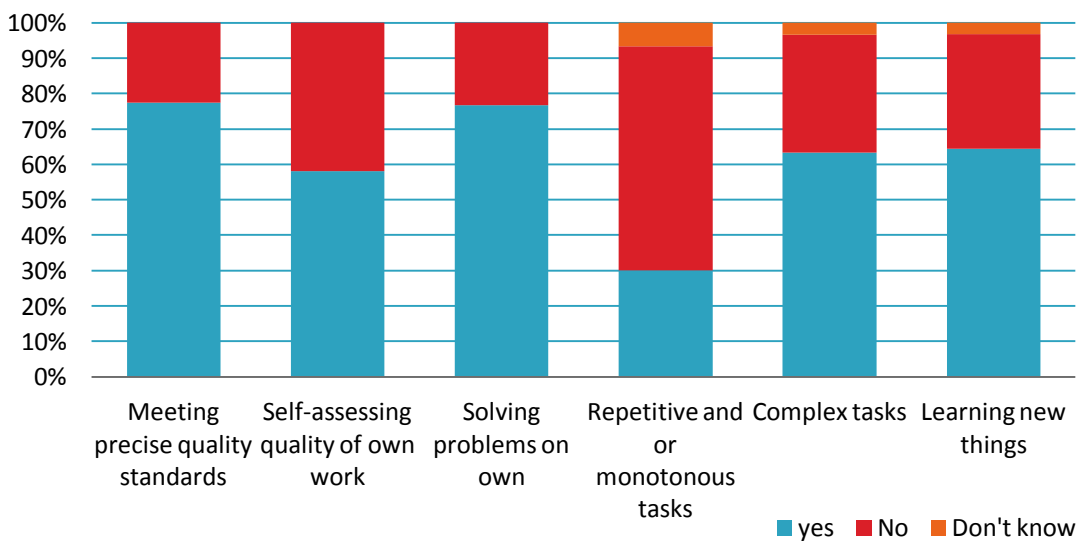
Job control

The most commonly cited factor influencing the pace of work for staff was the IR technology systems (see figure 3.14 & 3.15 below). Just under 95% of employees reported that the organisational technical systems influenced their pace of work. Participants in the focus groups mentioned on a number of occasions that there were significant challenges in overcoming the slowness of the technology systems. Many staff reported being spontaneously dropped off the system, difficulties with logging back on etc. Not surprisingly in a post disaster environment, difficulties with external local area telecommunications networks were also noted by staff to significantly influence their pace of work. In contrast, just 78.1% of team leaders noted that the technology shaped their pace of work. For team leaders, performance targets (69%), and management control (60%) were also important factors shaping their pace of work when WFH.

Figure 3.14 Job Control for Employees,
(n from 56-57)

Figure 3.15 Job Control for Team Leaders
(n from 28-32)

Section 4: Managing Home Workers
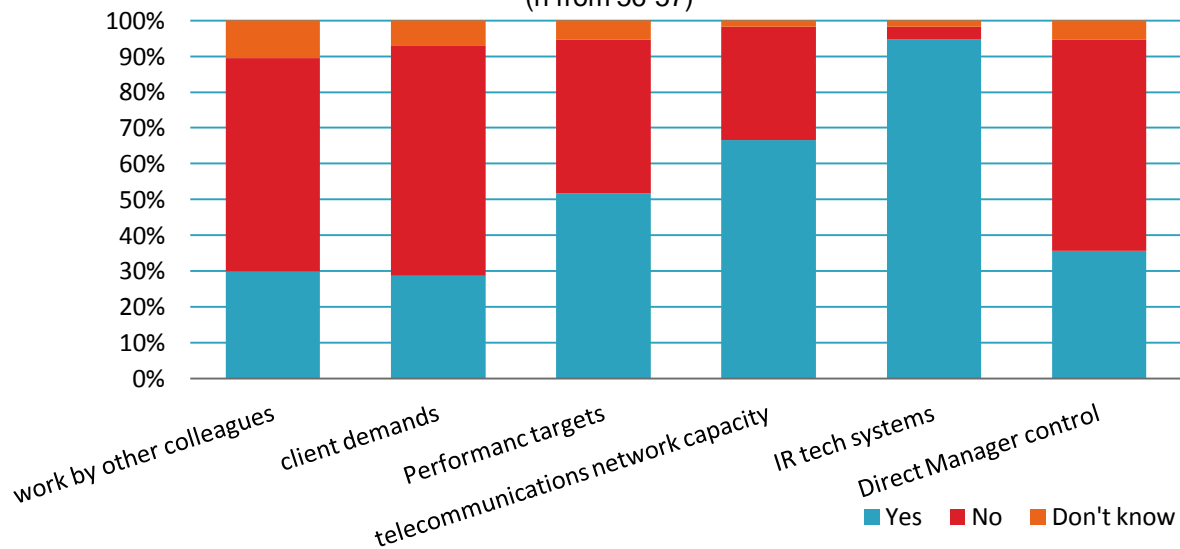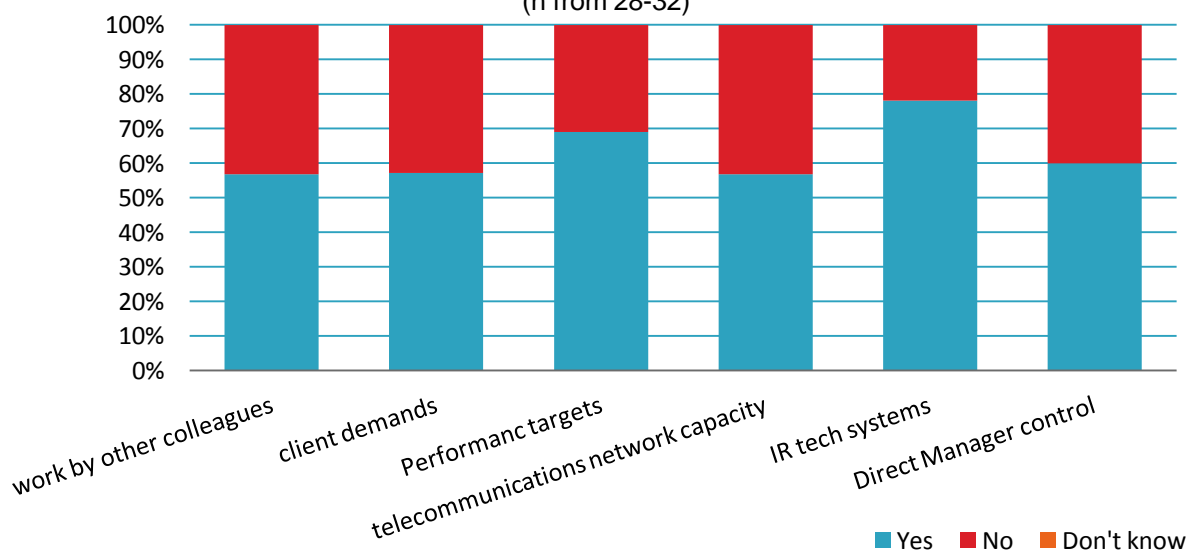
For some staff, there was a lack of continuity of work between their pre- and post-earthquake environments. Consideration of the unique management demands of a post-disaster environment including innovative use of communication channels appears to be critical. Communication played a critical role in the organisation and management of new work arrangements in the aftermath of the devastating earthquake.

Team composition and location

Team composition and leadership changed for many following the February earthquake. For half of the team leaders (48.5%), the teams they managed were different to those they had managed directly prior to 22 February 2011, and, for most, their teams typically consisted of a highly dispersed workforce. Teams ranged from 5 to 45 members, with an average of around 12 in each team. Approximately two thirds of team leaders (61.1%) were managing employees across other locations in addition to those working from home, including staff in IR buildings within Christchurch and other government departments or agencies within and outside of Christchurch (figure 4.1). 80.6% of team leaders managed employees who worked from home and most (50%) managed between 6 and 10 team members who worked from home during that time. Discussions from the focus groups highlighted that team leaders operated within adversely affected environments, with some noting the personal and professional challenges they faced at that time. As one team leader noted "*personally, I think it was very very hard….that first week I found really really hard because you had all these emotions yourself to deal with*".

Figure 4.1 Location of employees managed by Team Leaders
(n=36)
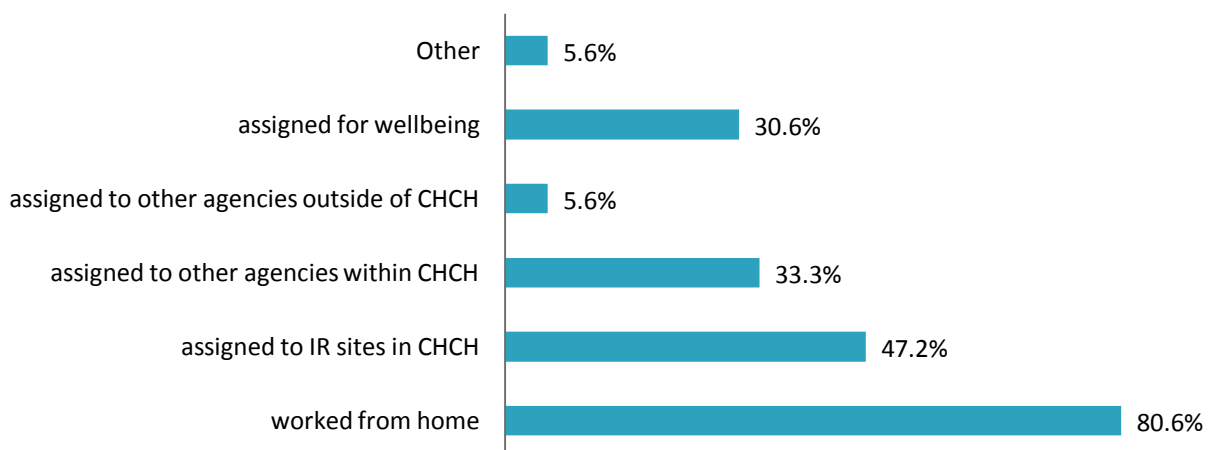
In terms of work allocation, 70.4% of team leaders managed workers whose work was fully or partially assigned by them. However, 22.2% of team leaders managed employees whose work was assigned by someone else and 7.4% managed employees who self-assigned work from a group set of tasks. Most team leaders (82.1%) 'somewhat' or 'strongly' agreed that they

monitored the work of their staff as a matter of course. However, for a large group (44.8%) monitoring the work of employees working from home was also found to be difficult. Given the difficulties in measuring performance outputs in aftermath of the February earthquakes, team leaders noted in focus group discussions that teams operated on higher levels of trust. For some, they found staff to be highly conscientious frequently contacting them when they were unable to gain access to networks.

Organisational Communication Channels

Communication played a key role in the organisation and management of work arrangements following the February earthquakes. In response to these adverse events, the CRT introduced a range of communication channels designed to keep staff engaged in the recovery and rebuild of the organisation. The introduction of an IR Facebook site was a new departure for the

> 'Facebook was great just to know that everyone was still out there because you were completely isolated not just from work but from life all of a sudden, so any connection with anything you used to have was great and for me it was huge going to Facebook'.
>
> **Employee Focus Group**

organisation and was specifically designed to ensure that staff were fully informed and were given the opportunity to provide feedback. The survey results indicate that this web-based form of communication, along with telephone, and personal Facebook were on average the most frequently utilised (on a 5-point scale from 1=never to 5=always) (see figure 4.2). Email, the CRT Newsletter, the 0800 number and text were also used frequently by employees. In contrast, team leaders more frequently used direct forms of communication including email and the telephone although the CRT newsletter was also referred to regularly. Texting, the 0800 number and the IR Facebook were used at times by the team leaders.

Figure 4.2 Frequency of Use of Communication Channels
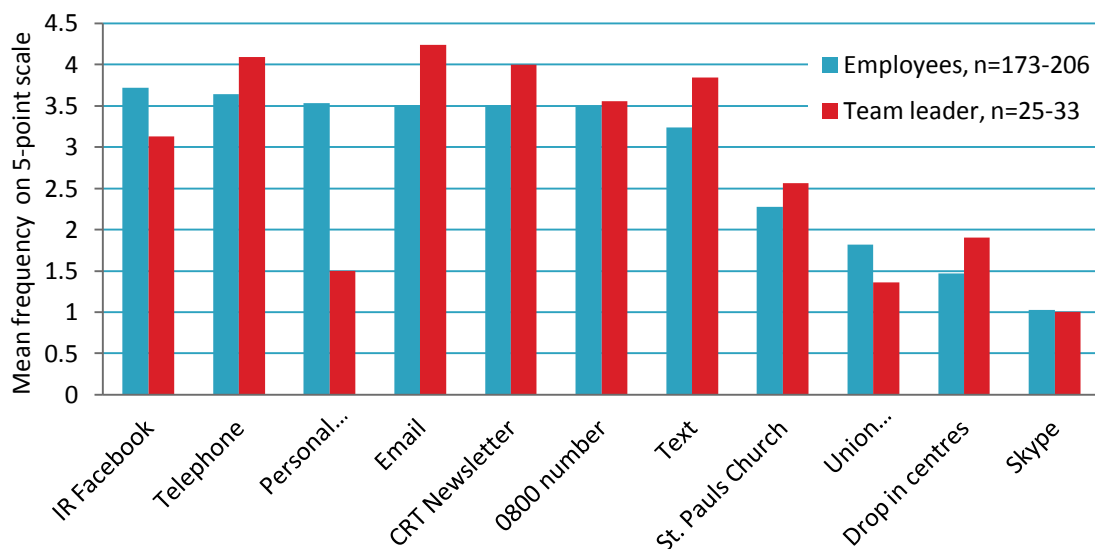
As figure 4.3 highlights for employees, the most useful communication channels were reported to be the IR Facebook site (64%), telephone (50.7%) and 0800 number (50.2%). In contrast, team leaders found regular direct contact with their managers and team members, in the form of phone calls (60.6%), emails (57.6%) to be the most useful. Both employees and their team leaders also reported the importance of supplementing remote communication with team meetings either in team members' homes, or, within conveniently located public spaces such as cafes.

Figure 4.3 Most Useful Forms of Communication for Staff
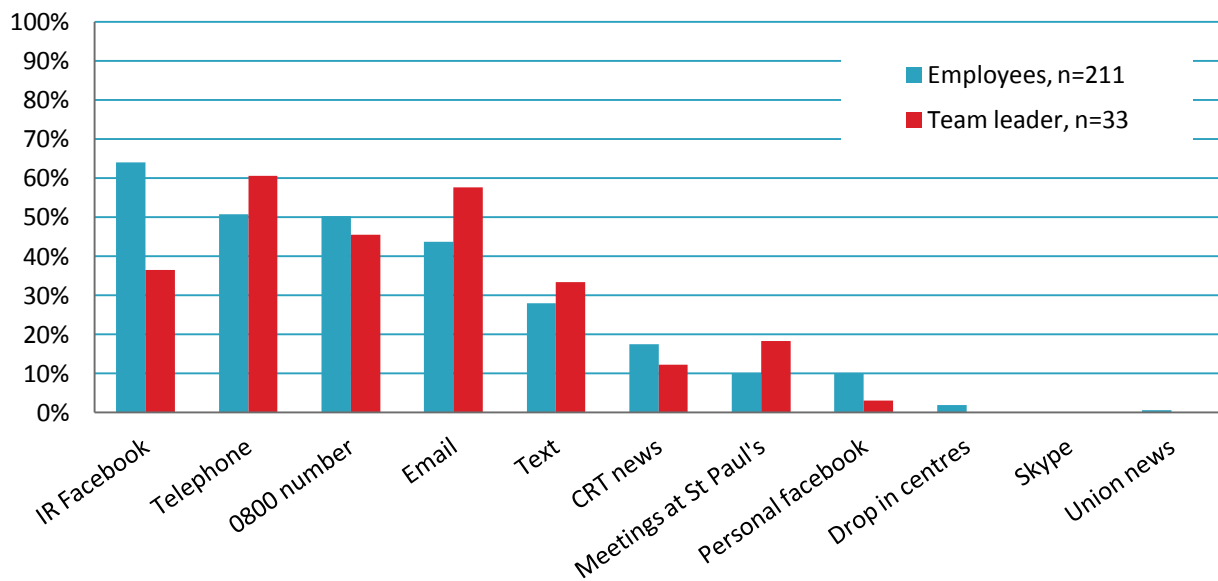
Feedback from the focus groups suggests that various forms of communication were utilized by staff for different purposes. In particular, employees noted that due to a number of technological issues they frequently supplemented direct, and at times infrequent or variable communication via phone, email or text, with more centralised and continually up-dated information, via the IR Facebook page or 0800 number. These findings highlight the role of multiple channels of communication in meeting the varying circumstances of a dispersed workforce in a post-disaster environment.

> *'.. the 0800 number, the newsletter and the Facebook were a good way of pushing information out to staff but in terms of staff interacting with the organisation talking with your team leader was probably going to be the best way'*
>
> **Employee Focus Group**

Section 5: Staff Experiences of Working from Home

Experiences of working from home were mixed which in part was shaped by individual's organisational level, living circumstances, and caring responsibilities. Employees experienced significant stress during multiple transitions into and out of temporary accommodation.

The benefits of WFH in a post-disaster environment

The majority of employees and team leaders agreed or strongly agreed that working from home allowed them to balance their work and home commitments in the aftermath of the 22 February 2011 earthquake (82.2% and 56.3% respectively) (see figure 5.1 showing agreement on a 5-point scale from 1=strongly disagree to 5=strongly agree).

Figure 5.1. Agreement that WFH enabled staff to Achieve Work-life Balance
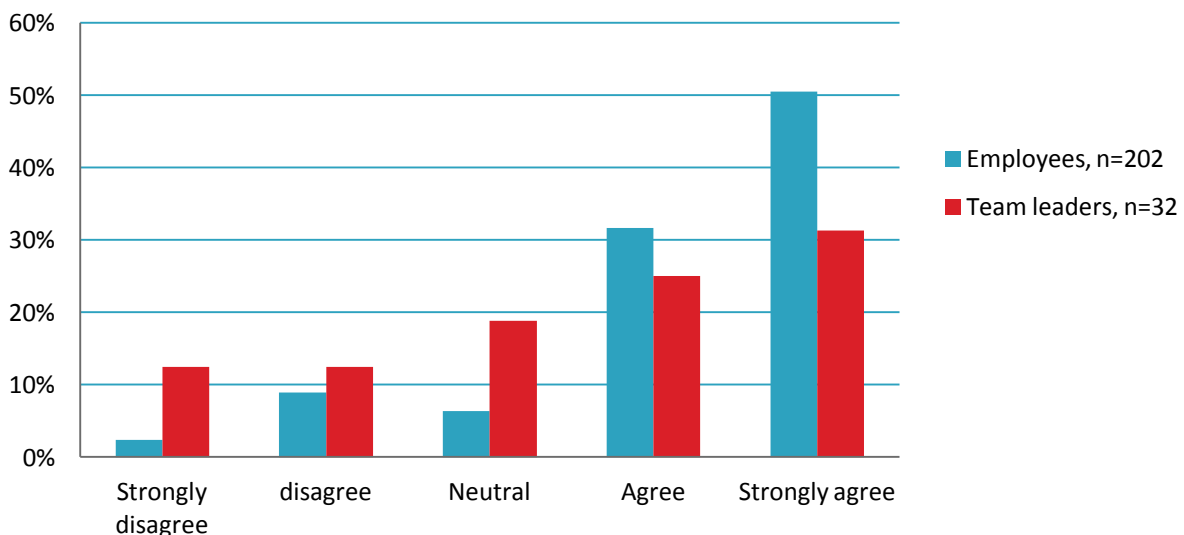
However, agreement for the two staff groups varied significantly and suggested that team leaders had a less beneficial experience of working from home than did their employees (employee M=4.19, Mdn=5; Team leader, M=3.5, Mdn=4)p=.005). Indeed, one in four team leaders disagreed that working from home helped them to achieve work-life balance.

This general finding is corroborated when looking at specific benefits and disadvantages for these staff groups. On almost all measures, employees demonstrated significantly higher agreement of the benefits of working from home than did their team leaders

'productivity was very very good. And accuracy too. The comparison I have is going back into the staff environment and sitting in a noisy room and trying to do the same sort of work. It just took so much longer and less accurate'.

Employee Focus Group

who also worked from home, including: greater flexibility, more independence, greater environmental control, higher productivity, greater concentration and motivation, more time for themselves and reduced stress related to commuting (see figure 5.2). However, these staff groups did not vary on benefits related to an increased ability to care for their dependents, having more family time and feeling safer (all median differences significant at the p<0.05 level except for*).

> 'I can say it suited me. I got fitter, I lost weight and I came off my heart tablets, so it was good for me'
>
> **Employee Focus Group**

Data from the focus groups indicated that some employees also experienced considerable health benefits of working from home including better control of temperature and more time around work for physical fitness activities.

Figure 5.2 Experience and Perceptions of the Benefits of Working from Home (means).
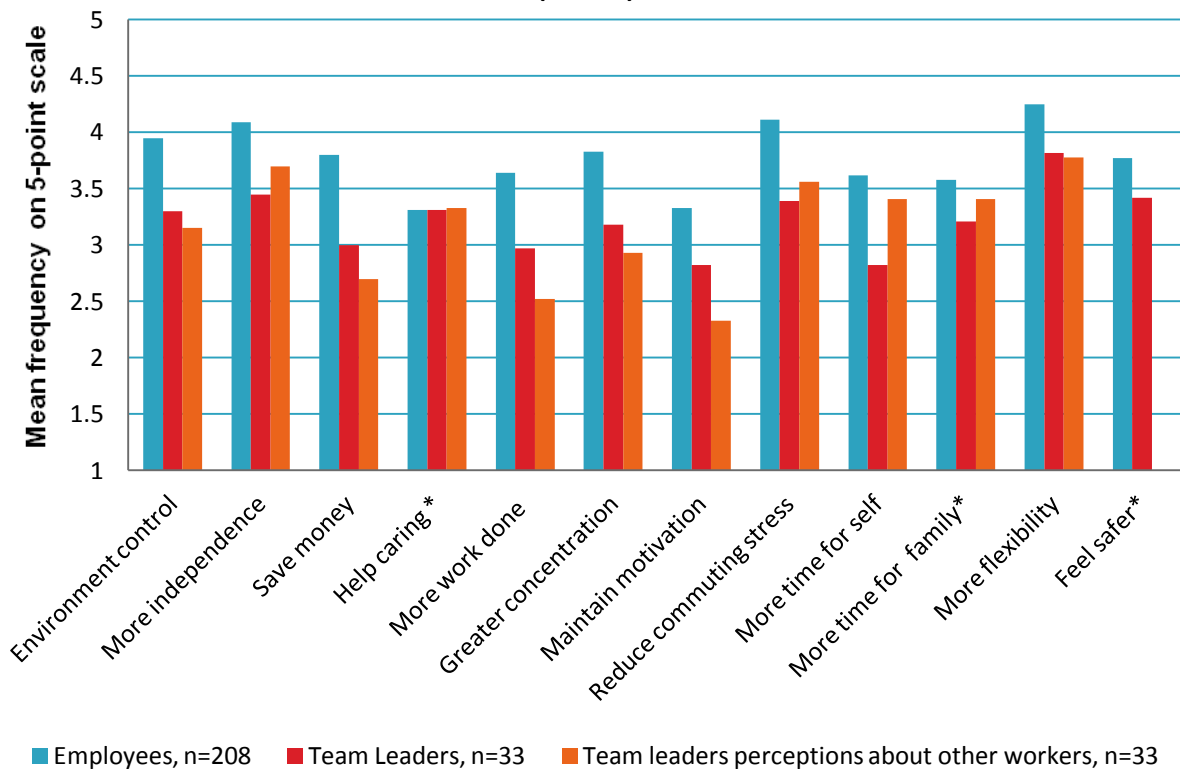
Figure 5.2 also provides a useful comparison of employee and team leader *experiences* against the *perceptions* that those same team leaders held about the benefits of working from home for employees generally. Team leaders demonstrated significantly stronger agreement that 'more independence' and 'more time to self' were likely benefits for employees than what they experienced for themselves when WFH (p<.05). However, the benefits of 'staying motivated' and 'increased concentration' were viewed as less likely and in particular, team leaders demonstrated a significantly lower agreement that WFH would allow employees to 'get more work done' (Mdn=2, M=2.52) than their assessment for their own work output when working from home (Mdn=3, M=2.97) *(p=0.04).*

Those who had caring responsibilities demonstrated a significantly higher agreement than those with no caring responsibilities that WFH resulted in enabling them to manage caring responsibilities and gain more time with their family (p<0.001 and p<0.05 respectively). This group did not vary from non-carers on any other benefit or disadvantage.

The positive outcomes reported by staff also varied according to the level of influence that they experienced when WFH as compared with their work in the previous BAU environment.

Those who felt that WFH provided them greater influence over the way they worked than in a BAU environment, were in higher agreement about the benefits than those employees who experienced the same or lower levels of influence (significant at p<.05 levels for all benefit factors). As might be expected, some of the starkest differences between these groups related to experiences of increased control, independence and flexibility. Similarly, those who felt they had greater influence when working from home were less likely to report negative outcomes of WFH (significant at p<.05 levels for all factors).

> 'My living situation was fine, I wasn't adversely affected by the earthquake and I think that personal circumstances have quite a bit to do with it [experience of WFH]. I'm sort of lucky I suppose that I don't have young children and my wife works nights so she would be getting in as I was getting ready [for work]…by the time my working day was finished she would be getting up and we could have another coffee together. So that worked fine for me'.
>
> **Employee Focus Group**

The challenges of WFH in a post-disaster environment

By contrast, employees and team leaders demonstrated greater similarity in their experiences of the primary challenges of working from home. No significant differences were found between these groups in their experience of challenges of WFH except that team leaders demonstrated significantly higher agreement that WFH led to family conflict in their experience (p=0.019). However, when team leaders were asked to describe the potential disadvantages of working from home for employees generally, they were consistently more negative than what their own or their employee's reported experiences might predict (see figure 5.3 for means on a 5-point agreement scale, 1=strongly disagree to 5=strongly agree below, all median differences (not shown) were significant at p<0.05 level). In particular, when asked about likely disadvantages of WFH for their employees, team leaders agreed at significantly higher rates that 'lower commitment', difficulty in staying motivated and 'lower output' were all likely disadvantages of WFH (p<0.05).

> 'Probably for me the isolation was a big issue. So what we decided to do was every second Saturday afternoon we'd just gather the team and say, we went to a Belfast pub, and that continued for several months'.
>
> **Employee Focus Group**

Figure 5.3 Experience and Perceptions of the Challenges of Working from Home
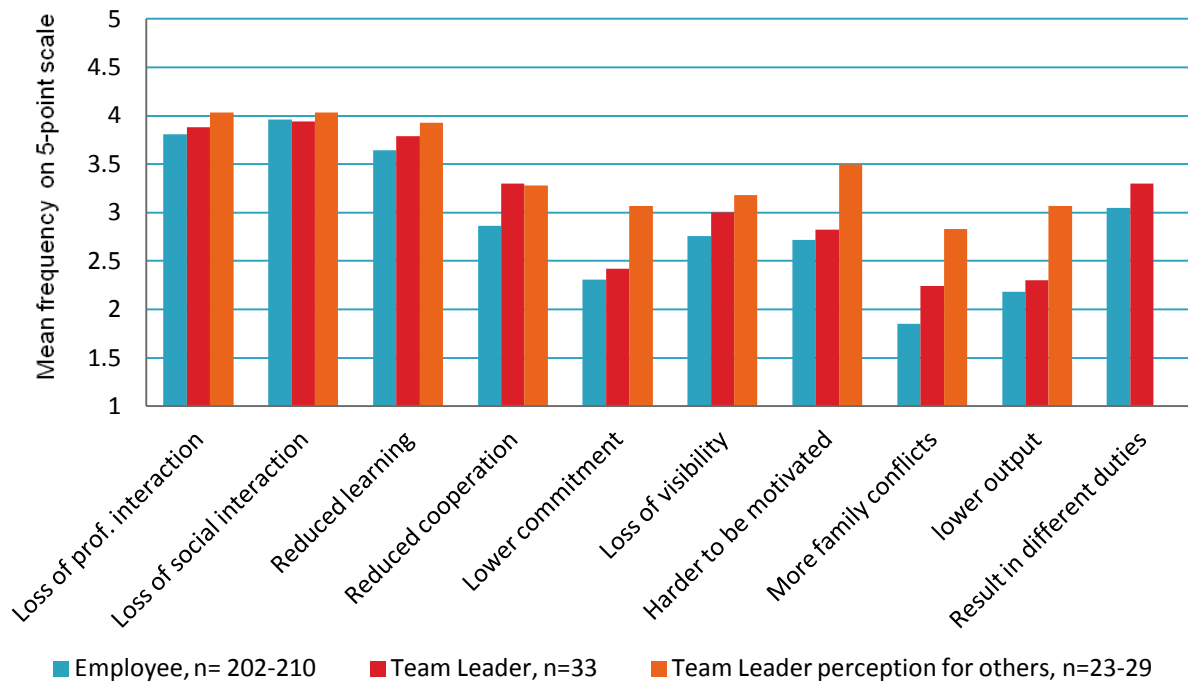
Key disadvantages experienced by both employees and team leaders included loss of social and professional interaction and reduced information sharing. The focus groups also highlighted isolation and loss of social interaction as one of the major challenges employees faced when working from home. Focus group data suggests that feelings of isolation were made all the more acute because of the disaster situation in which employees found themselves.

A crucial response to such feelings of isolation was for work teams to initiate regular meetings with their team members, often, but not always including their team leaders. The main benefit of these meetings was described as gaining social interaction rather than being specifically work-related.

'After the 22ⁿᵈ of February I certainly experienced a lot of delayed trauma from the earthquake……so working from home in that kind of environment was very isolating and depressing because you kind of wanted to be out feeling a sense of normality'.

Employee Focus Group

One other disadvantage cited by employees and team leaders was the need for them to cover extra financial costs when working from home. 58.9% of staff reported that while working from home they incurred extra expenses. While there was a reimbursement process made available to staff, evidence from the focus group suggested that this provision only partially met extra costs and a number of employees found the process difficult to take advantage of.

The focus group data suggested that staff with highly disrupted facilities at home might have had more negative experiences of WFH than those with a low level of disruption. In analysing the survey results no significant difference was found between these staff groups on their overall ability to balance work and non-work commitments while working from home. However, those experiencing high, medium or low disruption did vary on some specific measures of benefits and disadvantages. Those who experienced a higher level of disruption (2 or more months of disruption to one or more home facility) were significantly less likely than those experiencing lower levels of disruption (0-3 or 4-7 weeks of disruption) to agree that WFH provided them greater control over their work environment (p=0.001), or that WFH allowed them to get more work done (p=0.01).

The group of staff experiencing high disruption to their utilities at home were also more likely to agree than those experiencing lower disruption that WFH involved the disadvantages of getting less work done (p=0.02) and their work resulting in different duties (p=0.003).

> '*At one stage we got told we had to go and work one day a week in that Winston Avenue building which was the most frightening thing...you know the building would shake. I got angry about that because I didn't want to be there, I didn't feel safe there, ...it took me forever to get there and I couldn't work because it was so noisy when I did get there and I just thought it was a complete and utter waste of time*'
>
> **Employee Focus Group**

Staff transitions between worksites

While staff experiences of WFH were mixed, the majority of participants in the survey and focus groups suggested that they felt their organisation handled the implementation and management of this working arrangement well, given the challenging circumstances. However, this generally positive view of organisational practice following the February and subsequent earthquakes was not extended to the processes related to transitioning in and out of temporary workspaces before more permanent premises could be developed.

A theme emerging strongly in the focus groups related to perceptions of poor decision-making and process in the relocation of working staff out of their home and back into temporary workspaces such as Winston Ave or the Ilam flats. Some staff reported having moved work locations up to seven or eight times after the February earthquake and they discussed a number

> '*Before the earthquake we had a good relationship with management to a point, after the earthquake it went the other way! No relationship at all. Unions were the last ones to be consulted on anything. We would actually find out when it came out in the updates, we would go 'this is not what we were told in that meeting*'
>
> **Union Delegate**

of negative issues relating to these transitions. Three of the most prevalent concerns related to health and safety issues, reduced productivity, and difficulty in managing home

responsibilities when they were required to work in specific locations at short notice. A number of delegates representing staff in Inland Revenue noted a decline in the level of workplace consultation in the months following the February earthquakes. Even though fortnightly meetings with management were in place by mid May, delegates found that issues that were agreed at those meetings would change within a very short period of time. The need to feel 'safe at work' was also a major concern for members in Christchurch. Delegates noted difficulties in obtaining reassurances from management around the safety of the temporary work sites. As one delegate noted *'there was a lack of transparency in the communication about the safety of buildings'*. Getting access to staff in temporary accommodation was also found to be difficult at times.

For many staff living in a city experiencing hundreds of aftershocks a week, the move to temporary and often sub-standard premises promoted significant fear and anxiety. As above, WFH enabled staff to feel safer while working than they might have outside of the home. The shift to temporary workspaces removed this feeling of security. A number of staff also mentioned health and safety concerns relating to the cramped conditions of the temporary workspaces in which they shared small desks and work tools (such as phones) with their colleagues, and sat with tearoom facilities (such as fridges and kettles) at their elbows.

Because conditions were often cramped, many staff indicated that they felt they were less productive once they returned to temporary workspaces. One focus group participant spoke of having to take turns with a colleague to use the phone when working from a bedroom in an IR leased house because it was too noisy otherwise. Others noted that the move to Winston Ave meant that they reduced their work hours from a seven or eight hour day to four hours a day to fit in with the available shifts.

Some staff also noted the difficulty of managing caring responsibilities during multiple re-locations. For these staff, every shift to a new temporary workspace required a different set of arrangements for getting children to and from their school. Such difficulties were exacerbated when only short notice was given to staff regarding relocation or when staff were put 'on call'.

Finally, given the kinds of problems outline above, staff did not always understand why they were being automatically re-allocated back into temporary accommodation. A number remarked that it just seemed to be a belief of the organisation's that working in offices was better than working at home. This perception led to frustration and anger for some staff who had felt that they had already endured a lot.

> *'I think if there was one flaw in IRDs approach it was that kind of feeling that around about sort of November, it became…almost like it was an objective of someone's performance plan to get everybody into an office, back into an office!'*
> **Employee Focus Group**

Section 6: Looking forward

Despite their mixed experiences, there is strong demand for the future provision of flexible work arrangements in a BAU environment, with most staff favouring a 'hybrid' working from home arrangement - although improvements would need to be made.

Future demand for flexible work arrangements (FWAs)

In assessing the future demand for flexible work arrangements, most staff (98% employees; 93% team leaders) indicated an interested in having flexible hours (that is flexible start and finish times) available to them in the future (see figure 6.1). There was a marked difference between employees and team leaders groups regarding WFH as a flexible working arrangement; working from home was considered more preferable for a larger percentage of employees (80%) than by team leaders (53%) (p <0.002). In contrast, team leaders were most interested in the availability of a compressed week. The ability to work full hours across 4 or less workdays was favoured by 72% of team leaders as opposed to just 69% of employees.

> *'Everyone's different so I think that option to have perhaps one or two days in the office and the rest at home [would work]'*
> **Employee Focus Group.**

Figure 6.1. Future Demand for Flexible Work Arrangements
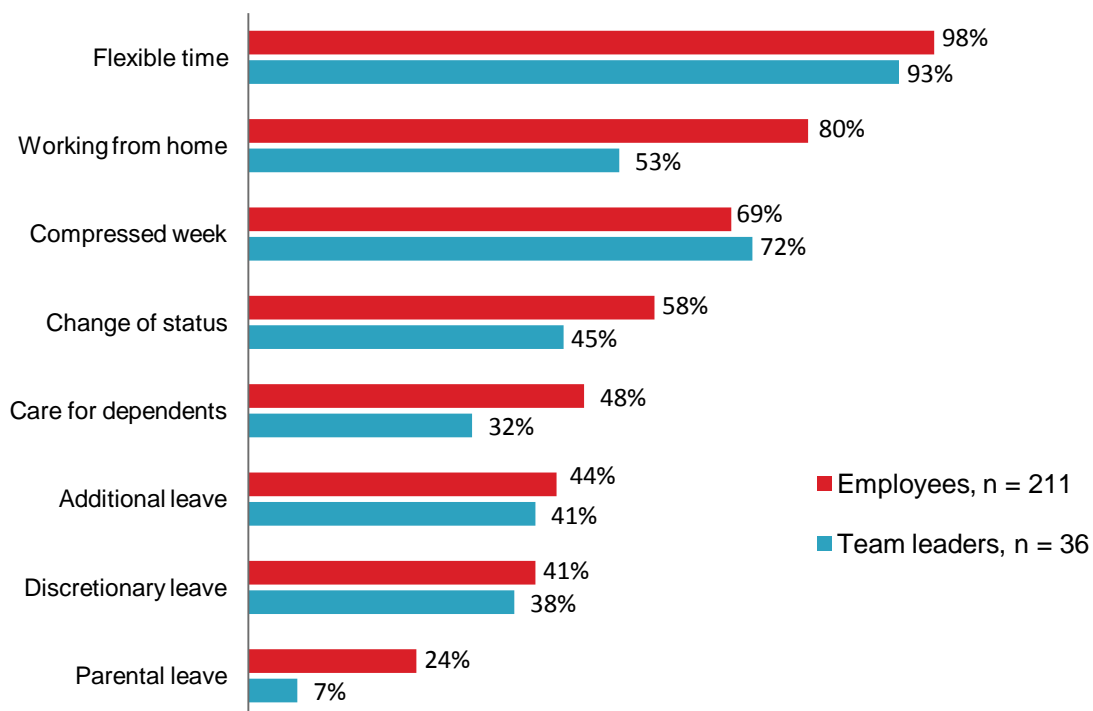
Participants in the employee focus groups noted the need for flexibility in the future due to the long term effects of the earthquakes. In terms of future access to flexible work arrangement in a BAU environment, for most employee focus group participants there was a strong desire to have a hybrid arrangement available in the future in which a number of days were spent in the office and the other days worked from home. The idea of a hybrid WFH arrangement was also cautiously supported by team leaders.

> 'I think one thing the organisation needs to realise is these effects will go on for a number of years. For some of us who weren't badly affected at the beginning are going to be effected in the years to come when are houses finally come up to be repaired or rebuilt'
> **Employee Focus Group.**

Team leaders were asked about the demand by their team members for FWAs since staff had returned to IR work sites. As Table 6.1 reveals, since a return to IR offices, there has been some demand for flexi-time, care for dependents and parental leave but very little demand for other forms of flexible working arrangements.

Table 6.1. Perceived Demand for FWAs since a return to BAU

	Mean
Flexible time	3.00
Care for dependents	2.07
Parental leave	2.04
Discretionary leave	1.85
Change of status	1.81
Working from home	1.63
Additional leave	1.54
Compressed week	1.38

Team Leaders n =36. Table shows mean scores on a 4-point scale
(1=none, 2=a little, 3=some, 4=a lot).

Team leaders were asked to select the main constraints in providing WFH arrangements to employees on a more permanent basis. For just over a third, it was pressure on other employees and managers and a belief that WFH arrangements were incompatible with the nature of work or operating hours that were the most constraining (see figure 6.2). Of those who indicated 'other' constraints, these largely centred on beliefs that WFH reduces output, discipline and team environment.

> 'I'd support the one to two days [WFH], because we found productivity did go up'
> **Team Leader Focus Group**

Interestingly, a lack of demand from employees was not noted by many as a constraint to the more permanent introduction of WFH arrangements. Some of these concerns were borne out in the team leader focus groups where a number of team leaders noted a need for greater clarity around issues of security and measurement of outputs and outcomes.

> 'the concern I have is even though they're highly paid, highly motivated and self managed I still have a little question mark in my mind whether that's the right thing [WFH] and, as well as that, there's a lot of other things to consider, like security. So it's not only about the person, it's about the environment, how can we measure time that they're working from home compared to not?'
>
> **Team Leader Focus Group**

Figure 6.2. Constraints in providing Futrue WFH Arrangements
(n=36)

Constraint	Percentage
Pressure on other employees and managers	36.1%
Incompatible with work/hours	33.3%
Other	22.2%
No constraints	16.7%
Size of workplace	13.9%
Costs	13.9%
No demand from employees	5.6%
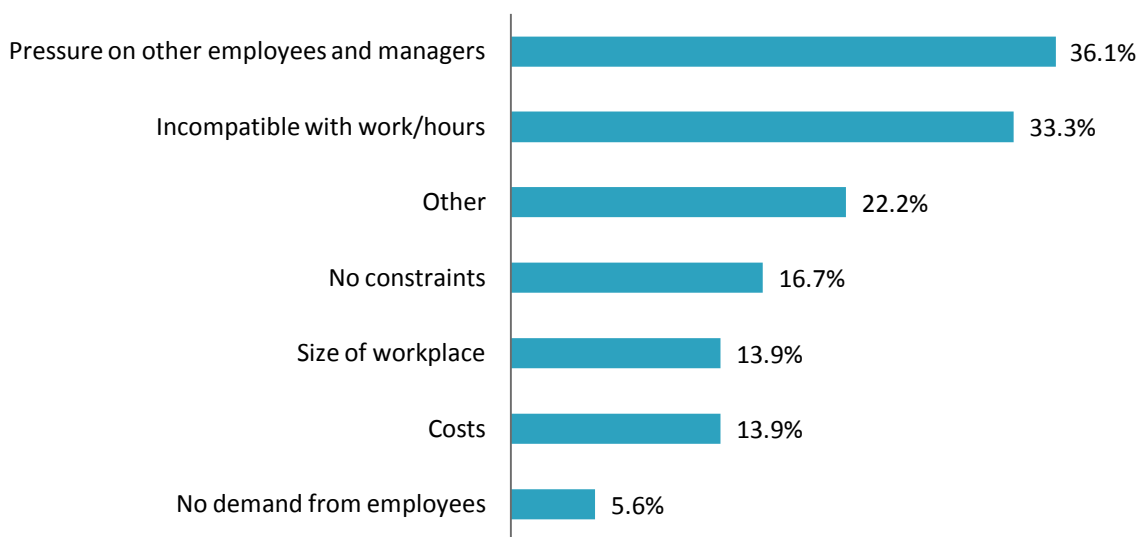
With a return to a business as usual (BAU) environment, union delegates noted that management was 'taking a tougher line on staff'. In particular, some union delegates noted that staff now need to take annual leave or leave without pay to deal with EQC related issues.

> 'I think IRD have taken the opportunity with the earthquake to enforce on people that they want to impose restrictions around flexi-time in particular'.
>
> **Union Delegate Focus Group**

Areas for improvement

In terms of looking to the future, staff were asked to rank a number of areas for improvement based upon their overall experience of either working from home (employees) or, their experience of managing others who worked from home (team leaders). For both employees and team leaders, accessible technical support, regular face-to-face team meetings, and regular face-to-face meetings with team leaders were rated most highly (see figure 6.3 for means on 5-point likert type scale of importance, 1=not at all important to 5=very important). When reflecting on the management of their employees, team leaders rated meetings with team leaders to be of significantly higher importance than did their employees (Mdn=5 and 4 respectively, p=0.02).

Other 'somewhat' or 'very important' areas of improvement identified by staff included the provision of clear accountability and reporting structures, adequate training, availability of standards and training manuals and a clear reimbursement policy.

Figure 6.3 Areas for Improvement
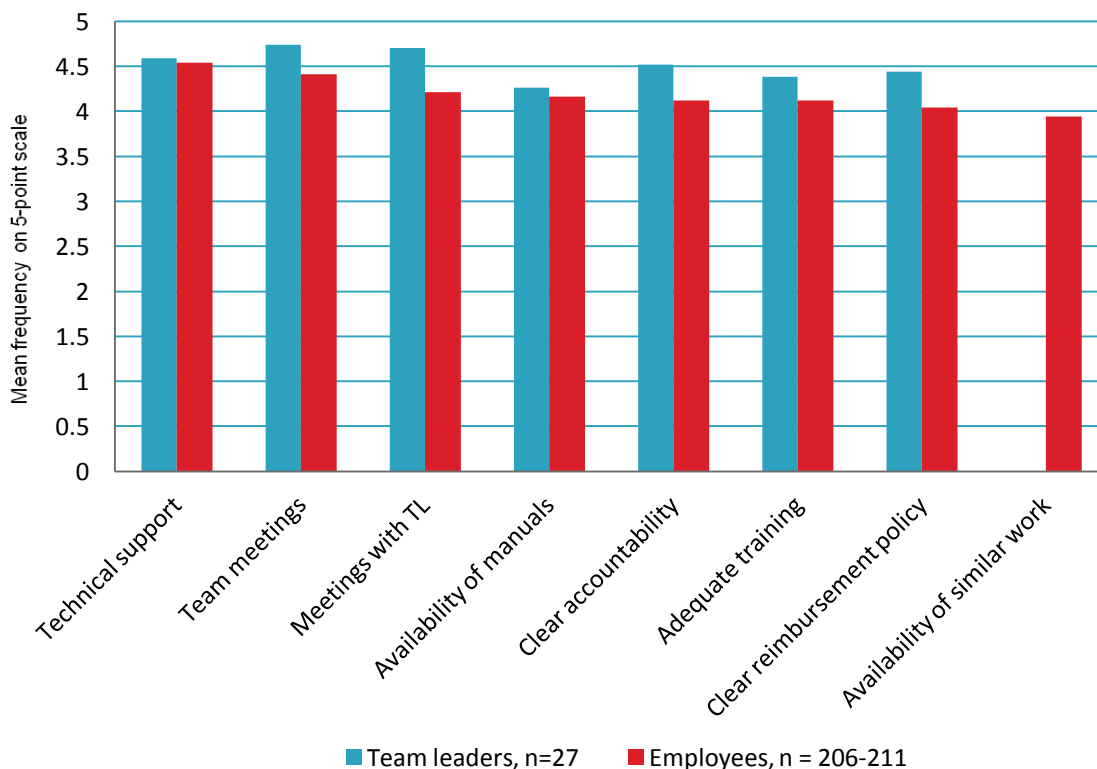
Section 7: Organisational Learnings

The results of this research point to a number of insights that might contribute to the use of FWAs as part of a future business continuity planning process, and to the use of FWAs in a business as usual (BAU) environment.

Working from home arrangements as a business continuity tool (BCT)

Natural disasters highlight the strategic need for business continuity planning (BCP) within organisations. Such activities are particularly important for public services where continuity of operations is critical and organisational resilience is promoted (Treasury, 2011). Empirical research suggest that while BCP processes frequently focus on physical and technical infrastructural risk, less attention is directed towards employment concerns. Indeed, maintaining employee engagement and productivity levels, while ensuring employment and physical personal security are issues that are frequently overlooked (ITAC, 2005). In addressing this, FWAs are promoted to assist continuity of operations and organisational agility in post-disaster environments.

The research presented above reaffirms the strategic importance of FWAs as a BCT in the absence of accessible and structurally safe worksites. The Inland Revenue experience shows how the complex process of re-allocating resources and work tasks in a post-earthquake environment can be enabled through the introduction of WFH arrangements. Importantly, this research also notes the importance of the CRT and team leaders and their ability to identify work appropriate for working from home as key to the implementation of WFH arrangements and staff's return to work. Inland Revenue's policy of providing staff with a period of time to address personal living circumstances while on full pay was found to have likely contributed to positive outcomes for staff. Furthermore, this research highlights the significance of having appropriate and reliable information technology resources and support services in place. Innovations with web-based communication channels like the IR Facebook page, in response to concerns of staff isolation, were found by most to be highly effective in ensuring engagement across a dispersed workforce. Understanding the usefulness and purpose of each channel is important given the staff need for up-to-date information, organisational engagement, technical reports around safety, and more interpersonal mechanisms, upon which WFH depend.

From an employee perspective, this research reveals that the provision of WFH work arrangements in a post-disaster environment provides both employment and personal security at a time when greater validation around safety issues is required. In addition, the results suggests that positive outcomes of WFH arrangements for staff are related to a number of factors, including access to a functioning home and work space, the ability to vary work times to manage increased tensions between working and living demands, the opportunity to interact professionally and socially, greater consultation around workplace transitions and safety, and finally clarity around reimbursement policies.

In regard to managing staff in a post-disaster environment, the need for clear consultation, pre-planned systems and guiding policies was highlighted. In particular, the focus groups indicated that the management of transitions including the movement of staff in and out of WFH, temporary accommodation and permanent premises caused significant stress for staff. For team leaders, whose role was pivotal to implementing and managing FWAs arrangements as BCTs, one of the more challenging aspects was working with newly composed teams that were also often highly dispersed. For team leaders, clearer accountability and reporting structures, availability of guiding policies around new work arrangements and access to training resources will require attention as part of future business continuity planning. Altering the way and place where people work has significant organisational implications. The current *Health and Safety in Employment Act 1992* (HSE Act) places a duty on employers to provide safe and healthy workplaces, while recognising that 'employees have a valuable contribution in making workplaces safe' (http://www.osh.govt.nz). These are issues that will need to be addressed in a BAU environment.

Working from home arrangements as part of a continuity of operations strategy is a relatively new departure for organisations. The experiences of Inland Revenue and their staff will go a long way toward informing the practices of these forms of work arrangements within other organisations.

Working from home arrangements in a 'business as usual' (BAU) environment

The 'business case' for the introduction of FWAs in a BAU environment is well established. The ability to work from home is seen to be potentially beneficial to both organisations and their workforces, leading some to point towards a range of outcomes that include increased staff retention, engagement and satisfaction (WorldatWork, 2011). Indeed, a recent report from the Institute of Broadband-Enabled Society at the University of Melbourne demonstrates that FWAs and WFH arrangements can lead to increased productivity and employee wellbeing – outcomes that they note are primarily dependent upon adequate resourcing (Bosua et al., 2012). Even in the post-disaster context of this case, the survey results provide evidence that benefits such as higher productivity and greater concentration are potential outcomes of WFH arrangements.

While WFH arrangements are seen to be mutually beneficial, as others have noted, such forms of work can also lead to conflicts and tensions resulting from a re-regulation of working arrangements (Taskin and Edwards, 2007). In particular, traditional management approaches based on the 'visibility' and 'presence' of staff are challenged in a WFH BAU environment (Felstead et al., 2003). A shift away from 'observing and assessing individual activity' toward 'assessing the quality of outputs or outcomes' can lead to a reassessment of organisational norms and values. And as some have cautioned 'managing by outcomes' can be dependent on factors or inputs that staff may have little to no control over. Understanding and addressing these tensions is regarded as key to achieving positive outcomes for all.

Despite their mixed experiences of WFH, the majority of staff indicated a high interest in accessing FWAs in the future. Indeed, a key concern for those in the focus groups was that having experienced these forms of work arrangement, a return to a BAU environment will lead to less informal workplace flexibility as traditional work norms are reinforced. With regard to WFH arrangements, those who participated in the focus group were unanimous in their interest in accessing a *partial* or *hybrid* work option in a BAU environment – where there was regular scheduling of time spent in and out of the office. In light of the survey findings, such a work arrangement could alleviate some of the more negative outcomes of WFH including a loss of professional and social isolation, data security, along with reduced information sharing and team interaction. While some staff noted that they currently have no interest in working full time from home, the 'choice' to avail of such an arrangement on a partial or part time basis remains important.

Finally, the interconnection between 'FWAs in a BAU environment' and 'FWAs as BCTs' is perhaps worth noting. The incorporation of flexible work arrangements such as working from home and remote working in a BAU environment can provide organisations with the knowledge, systems, supporting structures and workforce experience to adapt quickly in a post-disaster situation. Inland Revenue and its staff have significant knowledge and experience of FWAs and WFH arrangements in a post-disaster environment – building on that experience in BAU environments has obvious advantages for the organisation.

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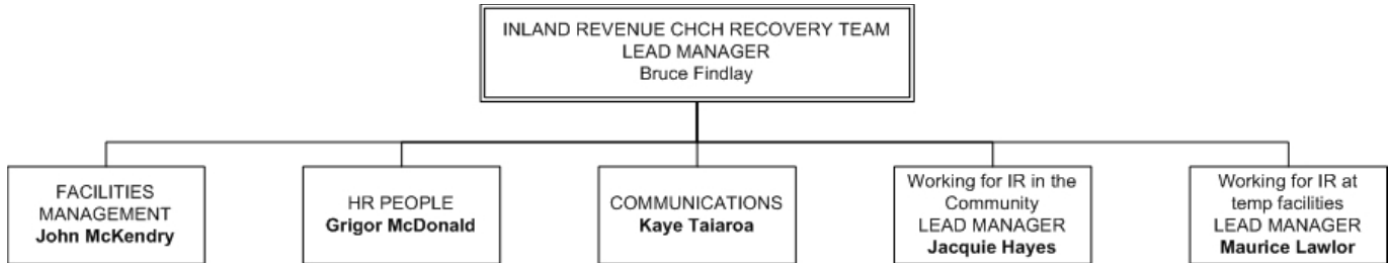
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Appendix A: Structure of the Christchurch Rebuild Programme Team

Phase I: The Response phase (Feb-July 2011)

CRT structure - Feb 2011

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                    INLAND REVENUE CHCH RECOVERY TEAM
                            LEAD MANAGER
                             Bruce Findlay
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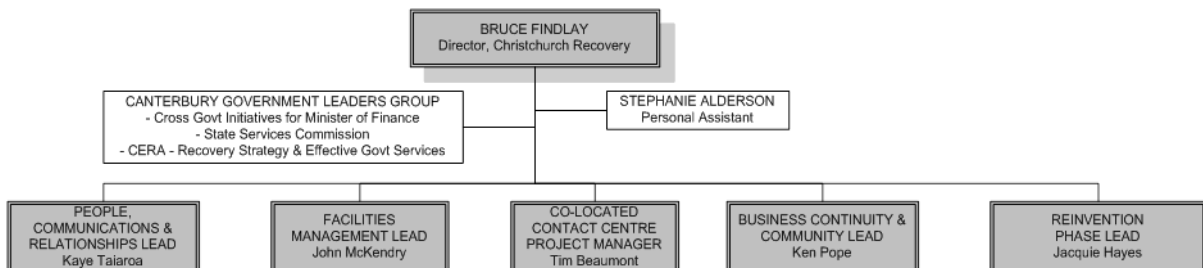| FACILITIES MANAGEMENT John McKendry	HR PEOPLE Grigor McDonald	COMMUNICATIONS Kaye Taiaroa	Working for IR in the Community LEAD MANAGER Jacquie Hayes	Working for IR at temp facilities LEAD MANAGER Maurice Lawlor

Phase II: The Recovery phase (July- Dec 2011)

CRT structure - 29 July 2011

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                    CHCH RECOVERY
                        TEAM
                       Director
                     Bruce Findlay
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Facilities Management LEAD MANAGER John McKendry	People, Relationships & Communications LEAD MANAGER Kaye Taiaroa	Business Continuity - IR LEAD MANAGER Maurice Lawlor	Business Continuity - Community LEAD MANAGER Ken Pope	Phase 3 Planning LEAD MANAGER Jacquie Hayes

CUSTOMER OPS LEAD Yvonne / Richard	CONTACT CENTRE LEAD Lauren	ASSURANCE LEAD Lynley	NON SD FUNCTIONS LEAD Meriel	NCE LEAD Ishula

Phase III: The Re-invention phase (Dec 2011-)

Christchurch Rebuild team structure – 16 Nov 2011

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                    BRUCE FINDLAY
                Director, Christchurch Recovery
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CANTERBURY GOVERNMENT LEADERS GROUP
- Cross Govt Initiatives for Minister of Finance
- State Services Commission
- CERA - Recovery Strategy & Effective Govt Services

STEPHANIE ALDERSON
Personal Assistant

PEOPLE, COMMUNICATIONS & RELATIONSHIPS LEAD Kaye Taiaroa	FACILITIES MANAGEMENT LEAD John McKendry	CO-LOCATED CONTACT CENTRE PROJECT MANAGER Tim Beaumont	BUSINESS CONTINUITY & COMMUNITY LEAD Ken Pope	REINVENTION PHASE LEAD Jacquie Hayes

Christchurch Rebuild team structure – Current (Feb 2013)

Director ChristchurchRebuild Programme
Bruce Findlay

Programme Advisor – Shane Scott
- Canterbury Government Leaders Group
- Canterbury Innovations Project
- Service Transformation
- Stakeholder Engagement

PA Support
Stephanie Alderson

Project Manager
MidCity Project
Geoff Brown

Lead People, Communications, & Stakeholder Relationships
Kaye Taiaroa

Lead Business Engagement
Ken Pope

Appendix B: The Christchurch Earthquake Rebuild Programme Timeline

February 22nd 2011	Earthquake hits resulting in the immediate closure of IR's sole premises at 224 Cashel Street and displacement of 828 workers.
February 23rd-24th 2011	**Establishment of the Christchurch Recovery Team (CRT):** ➤ Christchurch Recovery Team established and accommodated at Wigram Air force museum. A three phase recovery strategy developed: ▪ Phase I Response ▪ Phase II Recovery ▪ Phase III Re-invention Initial structure teams established with the following function leads: • staff welfare, • communications, • business continuity, • building recovery, • government/inter-agency relationships.
End of February 2011	**Phase I: Response commences (Feb-July)** ➤ Primary objectives for each team 　○ Focus on staff welfare 　○ Source temporary lease arrangements ➤ Access laptops from other sites ➤ Team leaders or 'people leaders' are briefed and assigned teams ➤ TLs develop person circumstance profile for each staff member to assess living circumstances and suitability for return to work ➤ Staff paid for full contracted hours irrespective of hours worked – employment security.
Mid March 2011	➤ Staff assigned out ➤ Range of working arrangements introduced ➤ Formal policy on Return to Work introduced 14th March ➤ Formal process of assigning work and hours commences ➤ Formal agreement for staff covering period 17th March to 30th June
May 2011	➤ 788 staff are redeployed across a number of temporary sites ➤ HR policy covering period 6th May to 30th June ➤ Provision to have all working their contracted hours by 30th June ➤ Combination of rostered hours / WFH to top up hours ➤ By May normal leave policies apply
June 13th 2011	6.3 earthquake results in the displacement of staff from Winston Avenue

July 2011	**Phase II: Recovery commences (July -Dec)** CRT - 5 streams and functional teams: • Facilities management (FM) • People relationships and communication (PRC) • Business continuity Inland Revenue (BCIR) • Business continuity Community (BCC) • Phase 3 planning ➢ Focus on the sourcing of suitable temporary accommodation ➢ Management of staff anxiety ➢ Return to full work capacity ➢ Planning for Re-invention phase
November 2011	➢ Staff fully redeployed to temporary IR accommodation or seconded to other government agencies ➢ Reporting lines back to BAU
2012 onwards	**Phase III Re-invention** Decision to permanently close IR's Cashel St premises announced 19 April ➢ Retrieval of files, equipment and personal items from Cashel Street ➢ CRT transitioned – Christchurch Rebuild Programme team ➢ Focus on staff wellbeing, resilience and emotional sustainability, ➢ Working with CERA wellbeing on cross Govt agency network group - PORT ➢ Reduction of temporary IR sites ➢ Official opening of Moorhouse Ave site - 6 December
2013	➢ Official opening of Russley Road site - 24 January ➢ Official opening of IR front of house in the NZ Govt site in Durham Street ➢ Planned opening of Mid City site - May ➢ Better Public Services and Cross Govt initiatives ➢ PMCoE - Initiative to house number of Govt departments together in the CBD

TE WHARE WĀNANGA O TE ŪPOKO O TE IKA A MĀUI

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