



Business Resilience and Recovery following the Canterbury Earthquakes

Survey Methodology

Results Bulletin 2016-1

Overview

These bulletins report the brief findings from a survey conducted in mid-2016 of 206 organisations in the Greater Christchurch area. All respondents have completed one of four prior surveys undertaken by Resilient Organisations researchers, looking at impact and recovery from the Canterbury earthquakes.

Survey questions

The core survey asked all respondents about their organisation, their recovery from the Canterbury earthquakes and the Benchmark Resilience Thumbprint assessment (see http://www.resorgs.org.nz/Resources/resilience-thumbprint-tool.html). Demographic questions that had previously been asked as part of Surveys 2, 3 or 4, were removed for each respective respondent (Figure 1). An additional section on earthquake impacts was added for respondents who had previously only answered Survey One. That survey occurred after the September 4 2010 earthquake, but prior to the more devastating 22 February 2011 earthquake. One of the key aims in survey design was shortness, with survey fatigue a significant concern. Ensuring that only information not previously acquired, was gathered, resulted in the deployment of 3 surveys based on each respondent's prior participation. Lessons learned from prior survey analysis informed they key areas of focus and optimal question structure. The survey sections and question topics are summarised in the tables below. The specific questions are included as an Appendix.

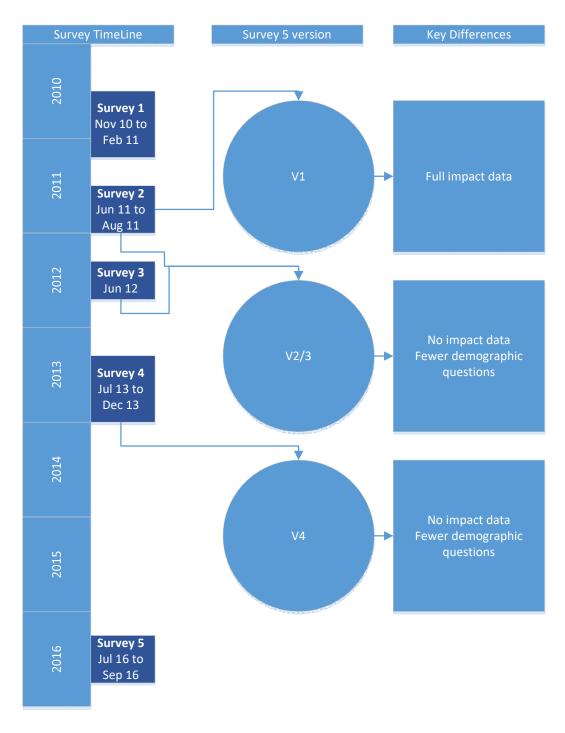


Figure 1 - Survey Timelines and Versions

Table 1 Year 5 Survey of Organisational Resilience and Recovery - Core

Section title	Question topics
About you	Respondent and organisation name and contact details, ownership, sector, current location
Recovery	Change in staff numbers, change in business operation, self-assessed recovery status, impacts on demand, ability to meet demand (x 7 time points), supplier capability, insurance cover and claim status, perception of the Earthquake Support Subsidy, profitability prior to earthquakes and currently, changes in turnover, implementation of new preparedness or mitigation actions
Resilience	Resilience profile using Resilient Organisations 13 resilience indicators thumbprint

Table 2 - Year 5 Survey of Organisational Resilience and Recovery – Additional

Section Title	Question Topics
Earthquake Impacts	Impacts, critical infrastructure disruptions, mitigation measures and effectiveness,
	feasibility of relocation, cessation duration,

Sample description

All respondents who were contactable, and had previously participated in any one of 4 recovery surveys were invited by email to take part. The original samples were selected as follows:

- Survey 1,2,3 Organisations were randomly selected from specific sectors of interest, and in specific geographical locations. The selected organisations share the main characteristic of being based in Canterbury and doing business in the region. For further information on sample selection, see Kachali 2013 (http://www.resorgs.org.nz/images/stories/pdfs/theses/kachalithesis-sept2013.pdf)
- Survey 4 A database of organisations was obtained from a business to business marketing company. Specifications for selection were that organisations needed to have premises in one of the three districts in the Canterbury region that suffered most direct damage from the 2010/2011 earthquakes: Christchurch City, Selwyn, and Waimakariri districts. Second, the organisations were selected to be representative of the sectoral make-up of the impacted region. This was based upon the 19 unique sector classifications defined by Australian and New Zealand Standard Industrial Classification (ANZSIC). For further information on sample selection, see Brown 2014

(http://www.resorgs.org.nz/images/stories/pdfs/Organisationsfacingcrisis/disruption_and_r esilience.pdf).

Survey 5 respondents were initially contacted by email, using Mail Chimp software to create a personalised invitation to participate. Respondents were provided with contact name and

information for the research team, if they would prefer to complete the survey by mail or phone. Where email addresses were no longer valid, phone calls and internet searches were conducted to establish the status of the organisation and individual detailed records were kept to record the status of all organisations. Multiple phone calls and emails were sent to try and improve participation rates.

The survey was open between June 2016 and September 2016. Of 958 organisations who had taken part in prior surveys, 52 were definitively found to have ceased operation, and a further 25 were unable to be found but without definitive proof of cessation, leaving a potential 881 respondents. In total 206 valid responses were received, for a response rate of approximately 23%.

Reference as:

Hatton, T., Brown, C., Seville, E., (2016) Business Resilience and Recovery following the Canterbury Earthquakes. Survey 5 Results Bulletin 2016-01: Survey methodology, Resilient Organisations, www.resorgs.org.nz

Appendix - Full Survey







2016 Organisational Resilience and Recovery Survey

This study is only made possible through your participation. Thank you very much for your time.

Recovering from the Canterbury earthquake events is a challenging long-term process for many. Through your contributions to our research, we will be able to capture important information about the long-term nature of disaster recovery and what strategies can support organisations through this journey.

The survey takes approximately 20-30 minutes to complete.

Your participation is voluntary.

The questionnaire is confidential. Results from individuals/organisations will never be disclosed to third parties. You may withdraw your participation at any time, including any information you have provided after you have completed the questionnaire. By completing the following survey your organisation is consenting to your involvement in this study.

About You

We use the term 'organisation' throughout this questionnaire to refer to any business or not-for-profit, such as a farm, retail store, dairy, church, etc. An organisation could be a one-person business or a 500-person business.

1	Your Name
2.	Organisation Name

Your e	mail address							
	indicate which of the following industry categories best describes your organisation choose the one that most represents your organisation)							
	Health Care and Social Assistance Professional, Scientific and Technical Services Education and Training Manufacturing Transport, Postal and Warehousing Construction Retail Trade Agriculture, Forestry and Fishing Accommodation and Food Services Wholesale Trade Information, Media and Telecommunications Electricity, Gas, Water and Waste Services							
	Financial and Insurance Services Rental, Hiring and Real Estate Services Administrative and Support Services Public Administration and Safety Art and Recreation Services Mining Other (please specify):							
	ould you describe your organisation's ownership structure? (please select one that epresents your organisation) Sole Trader							
	Partnership Limited Liability Company Charity/Association/Society/Trust/Sports Club							
	Branch of Company Incorporated Overseas Local or Central Government Incl. Local Authority Trading Enterprise, Crown Owned Entity or Schools							
	Co-operative Company Other (please specify)							
	Please (please)							

6. Does your organisation currently have a site/presence here in Canterbury?

	Yes						
	No No		Skip to Q8				
			· ·				
7.	Where is yo	our organisat	ion currently locate	ed? (your m	ain site in Cant	erbury)	
	Street						
	Area						
Reco	-						
	Canterbury.		y questions as they	relate to the	operations you	i have or had in	1
	Compared t changed?	to the perioc	I prior to the 2010/	11 earthqua	akes, how have	your staff nui	mbers
Grow	n significant	ly (greater tl	nan 20%)				
Grow	n (between	+5% and +20	0%)		1		
Staye	d about the	same (betw	een -5% and +5%)		1		
Reduc	ced (betwee	n -20% and -	-5%)		1		
Reduc	ced significa	ntly (more tl	าลท -20%)		1		
	-		changed since the e portance to your r	-			-
				Select tho	se that apply	Rank: 1 = Most Important	
New	products or	services	-			•	1
Chang	ge in custom	ners					1
New	delivery cha	nnels]
Use o	f new techn	ologies					
Opera	ational proce	esses signific	antly changed				
Restri	uctured						
Close	d unprofitab	ole lines					1
	ted new coll	aborations v	vith other				

Ot	her (please	specif	y)						
N/	A – busines	s has r	emain	ed the sar	me				
							·		
1	O Whore	on thic	contin	NIII WALI	ıld vou place v	vour organisat	ion at the follo	owing points i	in time
ı					s (please tick)	your organisat ?	ion at the folio	owing points i	III UIIIE
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I	veral]						
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	'ear]						
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3 Y	'ears		7						
4 Y	ears		_						
5 Y	'ears		_		╁			+	
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1				riod prior ? (please t		1 earthquakes	s, how is the d	emand for yo	our
	-					ı			-
	Time since earthqual		Grea	tly eased	Decreased between	About the same:	Increased between	Greatly increased	
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			50%		%	5% and	+50%	than	
	Immodiat	alv		_		+5%		+50%	4
	Immediat after	ely		Ц	Ш	ш	Ц		
	Several	Ci .							
	months' a	inter		$\overline{}$		П		\vdash	-
	2 years							 	4
				<u> </u>				 	4
	3 years			Ш		\sqcup	\sqcup		

4 years		Ш]	Ш				Ш	
5 years]						
2. To what extent was your organisation able to meet the demand for your products or services? (please tick)										
Time since the earthquakes	Unabl	le	Limited	t	Partia	ally	Mostly		Comple	etely
Immediately after]]]
Several months' after	[]]]
1 year]]]
2 years]]
3 years	[]]]
4 years]]]
5 years	[]]]
earthquakes? Time since t earthquakes	he	Incapab	ole	Som	newhat able		Complete capable	ly	Don't	know
Immediately after				•						
Several mon	iths']
1 year]]
2 years										J
5 years										<u></u>
14. What types of insurance did your organisation have, claim on, and receive settlements for?										
Insurance Type	Had Cover		Lodged (Claim	Clain Settl		Approxima date settle		Approx % of lo	sses
	Yes		Yes	No	Yes	No	Month (numeric)	Year		
Property and Buildings							•			

Organisation contents, equipment, assets									
Business interruption, cash flow, income protection				ם כ					
Public liability									
Other: please specify									
15. Did your orga	anisatio	n receive the	e Earthq	uake W	/age	Supp	ort Subsidy?		
Yes		Go to Q							
No 🗌		Go to Q	17						
16. How importa It was not in It was nice t	nportan	t			ort S	Subsid	e for your or	rganisa	ation?
fine without									
It helped us					\perp				
It was a lifes Other (Pleas			Sation						
Other (Fleas	se desci	ibej.							
Go to Q18									
17. Even though your organisation did not utilise the Earthquake Support Subsidy, how important was its existence for the recovery of your organisation?									
Not relevant to Slightly relevant Somewhat Quite relevant Very relevant our recovery									
18. Is your organ	isation?								
For- profit				Go to	Que	stion	19, then skip	p to Q	21
Not-for-pro	fit			Go to			_		
Other				Please	e spe	cify			

19.	How profitable	was your	organisation	prior to	the earthquakes and no	w?
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Profitability	Prior to the	Now
	Earthquakes	
Highly profitable		
Moderately profitable		
Breaking Even		
Unprofitable		
Don't Know		

20. How would you describe your organisations financial surplus or deficit **prior to the earthquakes** and **now?**

	Prior to the earthquakes	Now
High Surplus		
Moderate Surplus		
No Surplus		
Low Deficit		
High Deficit		

21. With the earthquakes in mind, is your organisation (please tick one)?

Significantly better off	
Slightly better off	
The same	
Slightly worse off	
Significantly worse off	

22. Please estimate the percentage change in revenue (turnover) that your organisation experienced for each period. Use your pre earthquake turnover as the baseline.

Time since	Greatly	Moderat	Slight	About	Slight	Moderat	Greatly
the	Decrease	е	Decreas	the	Increase	е	Increase
earthquake	d	Decrease	е	same	Betwee	Increase	d
S	More	Between	Between	Betwee	n +6% &	Between	More
	than -50%	-26% to -	-6% to -	n -5%	+25%	+26% and	than
		49%	25%	and +5%		+49%	+50%
Immediatel							
y after	_				-		
Several			П	П	П		
months'		_		_	_	_	_
after							
1 year							

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2 years			Ш		\perp	Ш	<u> </u>	Ш	Ц
3 years									
4 years					T				
5 years					\top				
23. Are yea the Re Qu Ch Di Stare	egulatoreclining uality Frange in inficultion afficultion afficult		astes		indica	ate whet	-	formance ov	
(ple	None of the computation of the c	f these d in better IT ting d a business o	backups/continuity building st	loud	ess of	Inv bu Im ma Bu en Ca the	vested in resilding tactical proved lead anagement silding of staff gagement au pturing learne disaster ilding new p	ership or kills ff nd morale nings from	hquakes

25. To what extent do you agree or disagree with the following statements for your organisation?

	Strongly Agree	Agree	Disagree	Strongly Disagree	Don't Know
There would be good leadership from within our organisation if we were struck by a crisis					
People in our organisation are committed to working on a problem until it is resolved					
We proactively monitor our industry to have an early warning of emerging issues					
We can make tough decisions quickly					
We are known for our ability to use knowledge in novel ways					
We build relationships with others we might have to work with in a crisis					
If key people were unavailable, there are always others who could fill their role					
There are few barriers stopping us from working well with other organisations					
Our organisation maintains sufficient resources to absorb unexpected change					
We have clearly defined priorities for what is important during and after a crisis					
We have a focus on being able to respond to the unexpected					
Given our level of importance, I believe the way we plan for the unexpected is appropriate					
We believe emergency plans must be practised and tested to be effective					
26. What have been the greatest challe	enges to you	ır organis	ation follow	ving the ear	thquakes?

27. Any other comments you following the earthquakes		e to mak	e regarding	the recover	y of your orga	anisation
Earthquake Impacts						
This section aims to collect infor 2011 earthquake 28. For each of the following and, if relevant, how disru	factors, p	lease ind	icate wheth			
	Affect organis Yes	ed my sation? No	Not at all disruptive	Not very disruptive	Moderately disruptive	Very disruptive
Difficulty accessing IT data						
Difficulty accessing IT data Structural damage to building(s) (integrity of building compromised)						
Non-structural damage (fittings damaged e.g. windows or light fixtures)						
Machinery loss or damage						
Office equipment loss or damage						
Damage to inventory or stock						
Damage to ground surface						

Damage to or closure of adjacent (next door) organisations or buildings					
Damage to local neighbourhood (e.g. other buildings in area, damage to pavements etc.),					
Difficulty accessing premises/site					
Health and safety issues for employees					
Supplier issues					
Customer issues					
Availability of Staff					
Perceptions of building safety					
Changes in staff emotional wellbeing					
Other					
Other (please describe) -					
29. Following the earthquake services for your organisa	sruptive v	vas the loss	of the follo	wing infrastro	ucture

	No loss of service or not applicable	Not disruptive	Slightly disruptive	Moderately disruptive	Very disruptive
Water Supply					
Sewage					
Electricity					
Gas					
Phone networks (cell and landline)					
Data networks					
Road networks					
Rail					
Airport					
Port					
Fuel					

30. For each of the following factors, please indicate whether you had these measures in place pre-earthquake and if yes, how important these were in helping to mitigate the impact of the earthquakes.

	We had		Not important	Slightly important	Moderately important	Very important
	Yes	No No				
Backup/alternatives to water						
Backup/alternatives to communications						
Backup/alternatives to power						
Backup/alternatives to sewage						
Backup/alternatives to IT						
Good relationships with customers						
Good relationships with suppliers						
Good relationships with businesses in our sector						
Relationship with Business advisor/mentor						
Good relationships with staff						
Good relationship with banks or lenders						
Good relationship with neighbours						
Available cash or credit						
Spare resources (e.g. equipment or people)						
Insurance						
Business continuity, emergency or disaster preparedness plan						
Backup or alternative site						
Practiced response to disaster						
Emergency Kit						
Well designed and well-built buildings						
Other (please describe)						
31. How feasible is it to reloc	ate part	s or all o	f your organ	isation's op	erations? (ticl	call that apply
The majority of r	ny staff	can work	from home			

	It is relatively easy for	r us to set up in a new location
	We have multiple si	es we can operate from
		health/safety and regulation constraints affecting the locat
	we can operate from	
		ficult to source, relocate and replace
		location-specific, moving is not an option
	We could potentially	site-share with another organisation
	Other – please spec	y
5:1		
. Did you Yes	r organisation cease	operation at all as a result of the February 22, 2011 earthqual Go to Question 29
	Ш	·
No		Go to Question 30
	Day	on cease operation for? OR Closed Permanently did you have within the Canterbury region, prior to the
	Day	
. How ma earthqu	Day any sites or locations akes?	OR Closed Permanently did you have within the Canterbury region, prior to the ease specify how many sites were relocated and how many
. How ma earthqu	Day any sites or locations takes?	OR Closed Permanently did you have within the Canterbury region, prior to the ease specify how many sites were relocated and how many rthquakes
. How ma earthqu	Day any sites or locations takes?	OR Closed Permanently did you have within the Canterbury region, prior to the ease specify how many sites were relocated and how many rthquakes Within Elsewhere in Outside New
. How ma earthqu . Of thos were te	Day any sites or locations takes?	OR Closed Permanently did you have within the Canterbury region, prior to the ease specify how many sites were relocated and how many rthquakes Within Elsewhere in Outside New Canterbury New Zealand

Many thanks for your participation