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Social Cohesion

An investigation into post-earthquake Christchurch

A dissertation
submitted in partial fulfilment
of the requirements for the Degree of
Bachelor of Commerce (Honours)

at
Lincoln University

by
Jennifer Ann Johnson (nee Brophy)

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by

Jennifer Ann Johnson

While there are varying definitions of the term ‘social cohesion’, a number of common themes regularly surface to describe what cohesive societies look like. Previous studies using known indicators of social cohesion have often been conducted at the international level for cross-country comparison, while there has been less focus on social cohesion within countries. The purpose of this research is to identify if indicators of social cohesion can be used to map trends at the city level in order to draw meaningful conclusions, particularly in the aftermath of a natural disaster. Using known indicators of social cohesion and Christchurch City as the basis for this study, variations in social cohesion have been found within the city wards, that preceeded but were affected by the events of the Canterbury earthquakes during 2010/11. These findings have significant policy implications for the future of Christchurch, as city leaders work towards the recovery of and subsequent rebuilding of communities.

Keywords: Social cohesion, Christchurch City, community engagement,
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Chapter 1
Introduction

The prominence of well-being in the public sector has gained significance in recent decades, with a number of major institutions such as the United Nations (UN), the World Bank and the Organisation for Economic Co-operation and Development (OECD) looking for new methods by which to measure it effectively. Traditionally societal progress has been defined by growth and most commonly measured using Gross Domestic Product (GDP). With these major institutions acknowledging the limitations of GDP however, many are now looking for supplements that better describe how well a society is doing using broader measures of well-being. The limitations of GDP include such criticisms as the tendency to “mask income inequalities and deprivations” (Houses of Parliament, 2012), and that it does not always accurately reflect the overall well-being of the people involved. The Beyond GDP conference organised by the European Commission in 2007 highlighted further issues such as the inability of GDP to measure the sustainability of growth, or differentiate high GDP when exploiting natural resources, making poor investments or recovering from natural disasters.

The UN has led several international conferences discussing well-being, beginning with the United Nations Conference on Environment and Development (UNCED) in 1992. Also known as the Earth Summit, this succeeded in raising the awareness of the need for greater focus on development and the environment when considering well-being. This was followed up by the Earth Summit 2002, also known as the Rio +10, and the more recent Rio +20 in 2012. The United Nations Development Program (UNDP) has followed with the creation of the Human Development Index (HDI), to “emphasize that people and their capabilities should be the ultimate criteria for assessing the development of a country, not economic growth alone”
In 2008, President Sarkozy of France commissioned a report by economists Stiglitz, Sen and Fitoussi, with the intention of finding statistics beyond GDP for measuring social progress. This report found that when defining well-being, the following areas should be taken into account: material living standards, health, education, personal activities, political voice, social connections, the environment and insecurity. Stiglitz et al. also found that these measures all have relevance in shaping people’s lives, but were often missed by standard measures. The report put forward a number of recommendations in how well-being measures should be included in future policy decisions. With regard to these recommendations, the OECD has put together the Better Life Initiative (2011) as a way of bringing together comparable measures of well-being on an international scale.

By going beyond GDP to incorporate other indicators of what really matters to people and their quality of life, it is believed that a better understanding of what contributes to well-being can be found. This is strongly supported by others such as the Australian and New Zealand Treasuries (in the form of the Wellbeing Framework and the Living Standards Framework respectively), and the UK government (ONS Measuring National Well-being program). The New Zealand Treasury established The Living Standards Framework in 2011, as a way of guiding policy advisors and others when considering well-being. Incorporating five key dimensions of economic growth, sustainability for the future, increasing equity, managing risks and social cohesion, the Treasury looks to take a broad view of well-being and living standards; by using a variety of measures that go beyond GDP, a more holistic approach is formed to better understand how to measure societal progress.

As a part of well-being, the term ‘social cohesion’ has gained prominence in recent decades within the public sector, particularly as many well-known international institutes formulate definitions around the concept, and look to compile indicators by which to measure it. These
include the OECD’s Better Life Index (2011), the World Bank’s World Development Indicators and the UNDP’s Human Development Index. In New Zealand, Statistics New Zealand’s Framework for Measuring Sustainable Development has also created social indicators to track and measure New Zealand progress in this dimension. While there are differences amongst these groups’ definitions and indicators, many common themes emerge to give a picture of what a socially cohesive society looks like, what influences the perceived level of cohesion in particular regions and what types of threats and pressures may challenge social cohesion.

1.1 Research focus

While some of the social cohesion indicators are of an objective nature (such as life expectancy, voter turnout, and crime and suicide rates), many subjective indicators are also used to measure social cohesion. These indicators are captured through the use of population surveys, such as the Quality of Life survey in New Zealand. Initiated in 1999, this survey is conducted every two years by the Quality of Life Project with the results used to gain insights into how social trends are tracking within New Zealand. The findings of the most recent surveys (2010, 2012 and 2014) provide an interesting picture of diverging trends between Wellington and Christchurch cities. Although this survey has recently changed the way it is administered (between 2010 and 2012, the survey was changed from interviews in person to online responses), which accounts for some of the notable changes/decreases in results across cities, the changes between Wellington and Christchurch have been inconsistent. This inconsistency is the starting point for this research.

To demonstrate, the following graph depicts the percentage of respondents who answered “very satisfied” or “satisfied” to a question of life satisfaction for Wellington and Christchurch, from 2006 to 2014. The ratings in life satisfaction drop for both cities between
2010 and 2012 (at the time of survey administering change), but there has been a much sharper decline in Christchurch in comparison to Wellington.

**Figure 1: Quality of Life survey results - life satisfaction, Wellington and Christchurch, 2006 - 2014**

The Quality of Life survey asks a number of subjective questions of the participants, who self-rate certain aspects of their life. Indicators such as overall quality of life, overall health and satisfaction with life (as above) have decreased by a greater amount in Christchurch when compared with Wellington, while other indicators such as experienced stress, perceptions of issues in the local area and feelings of isolation have risen further during the period between the 2010 and 2012 surveys. One of the clear differences between these cities during this period are the occurrence of the Canterbury earthquakes which began in September 2010, and whose effects are still being felt by many across the city. While all areas of the city have sustained some form of damage and disruption, there are strong perceptions that some areas of Christchurch have been more heavily affected than others.
1.2 Research purpose

The purpose of this research is to identify if indicators of social cohesion can be used to map trends at the city level in order to draw meaningful conclusions, particularly in the aftermath of a natural disaster. By breaking down Christchurch data into the separate ward areas, investigation was conducted to see if social cohesion trends have been consistent across Christchurch, or whether there is also divergence within the city comparable to the divergence with Wellington. After the subsequent results of that analysis were collated, key informant interviews were conducted to gain further insights into the findings from this analysis. Findings were also considered and compared with the perceived levels of damage/loss incurred by the earthquakes within these ward areas.

1.3 Research objective and questions

By using established definitions and indicators collected from the international literature, the aim of this research was to investigate if social cohesion can be measured at a local level and used to draw meaningful conclusions. In order to do so, this research addressed the following questions:

1. According to the international literature, what are the definitions, indicators and measures of social cohesion?

2. From this, can we identify a robust set of indicators for social cohesion that can be applied at a local level, in order to draw meaningful conclusions?

3. Can we use these indicators to gain insights into changes in social cohesion, two years after an event such as a natural disaster?

4. What insights can community leaders provide regarding these perceived changes?
1.4 Research significance

Social cohesion indicators are most commonly applied within international contexts and used for inter-country comparisons. With the exception of studies conducted by Forrest & Kearns (2001) and Lupi & Musterd (2005), there appears to be little literature that applies social cohesion indicators to a specific city, or discusses whether social cohesion trends can in fact diverge within a city. The effects of natural disasters on social cohesion are also an area for which further research would be useful. Therefore this research aims to gain some insight into how established indicators can be applied locally, to analyse the results for any diverging trends and to seek possible explanations based on the findings. It also serves to deepen our understanding of social cohesion in the context of natural disasters, such as under what circumstances it might decrease or increase.

It is envisaged that this research will be useful in providing local government and community leaders with insights into how individual areas are tracking, with the potential to highlight areas with a need for further analysis and investigation. It could also serve to increase the knowledge base for future disaster recovery plans, particularly around aspects of social cohesion that are likely to be affected through natural disaster.

1.5 Outline of the dissertation

This initial first chapter has served to introduce the background and purpose to this research. Chapter two presents a review of the international literature, which has been conducted to provide a deeper understanding of social cohesion from an international context, as well as to get an understanding of what is currently known about social cohesion at a local level. Chapter three provides an outline of the research methodology used (including a formal statement of a research hypothesis that emerged from the study), while chapter four presents the findings of the research and the subsequent data analysis. Chapter
five then uses the data to test the hypothesis stated in chapter 3, to draw conclusions about the effectiveness of the use of the selected social cohesions indicators for use at the local level.

Following on from this research, the second half of this paper focusses on providing further insights into the findings, drawing conclusions based on this analysis and providing recommendations for future policy consideration. Chapter six provides a summary of the key informant interviews which have been conducted with community leaders, followed by an overall discussion in chapter seven. The final chapter of this research provides recommendations regarding the use of social cohesion indicators, as well as suggestions for future policy analysis, particularly in the preparation for and aftermath of natural disasters.
Chapter 2

Literature Review

There is significant literature addressing social cohesion and how it can be defined. For the purpose of this research, three key aspects are important; the known indicators and measures; the factors that are believed to influence social cohesion; and the threats and challenges it faces. This review was conducted through the use of the ‘EconLit’ database, using the keywords “social cohesion” and “review”. In order to sort relevant data, only English language academic journals from 1999 onwards were referenced.

The websites of well-known institutions such as the Organisation for Economic Development (OECD), the World Bank, and the United Nations were also consulted for specific details of work on social cohesion. Further to this, an investigation into previous natural disasters was also conducted to identify subsequent studies into their levels of social cohesion in the immediate and long-term recovery. This review included a wider internet based search using keywords of “natural disasters”, “social cohesion” and “recovery” to find the relevant information. As before, only information from 1999 onwards was considered.

2.1 Social cohesion definitions

While there are varying definitions of the term, there are common elements across the international literature that give an overall picture of what social cohesion is and what a socially cohesive society would look like. Green et al. (2009, pg. R6) describe social cohesion as the “property by which whole societies, and the individuals within them, are bound together through the action of specific attitudes, behaviours, rules and institutions… “. Stanley (2003, pg. 5) builds on this togetherness aspect, by defining it as “the willingness of members of a society to cooperate with each other in order to survive and prosper”.


According to Statistics New Zealand, it also “refers to how well people can meet their needs in society and maintain levels of unity and harmony”, and that social cohesion is about “why a society holds together rather than falls apart” (2008).

Based on these types of definitions, this leads into exploring what a socially cohesive society may then look like. Jensen (1998) describes a socially cohesive society as having the following characteristics: a sense of belonging, participation, inclusion, recognition and legitimacy, or conversely it could be viewed as a society free from exclusion, isolation, non-involvement, rejection and illegitimacy. The OECD (2012:1, pg. 1) states that socially cohesive societies work “towards the well-being of all its members, fights exclusion and marginalism, creates a sense of belonging, promotes trust, and offers its members the opportunity of upward mobility”.

### 2.2 Social cohesion indicators

Given these definitions of what social cohesion is and what a cohesive society looks like, it is now important to consider associated indicators and measures. Many international institutions have put together ‘frameworks’ of indicators; given that the definition is not singular in nature, this is reflected by the use of a range of indicators to provide a more holistic and encompassing view of social cohesion. The following tables present two different frameworks from an international and a national perspective; ‘Social Cohesion Indicators’ from the OECD, and ‘The Principles of Social Cohesion’ from the Framework for Sustainable Development from Statistics New Zealand.

The OECD is one of the world’s leading institutions regarding work around the concept of well-being measures. They list five key areas for measuring social cohesion, with their data sourced from reputable organisations such as the World Bank, the World Health Organisation and the World Gallup Poll.
Table 1: OECD Social Cohesion Indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life Satisfaction</td>
<td>Survey question: respondents use a self-assessment ten-step ladder to rate how they feel. Data sourced from the World Gallup Poll.</td>
</tr>
<tr>
<td>Trust</td>
<td>Survey question: can people be trusted or do you need to be careful when dealing with people? Data sourced from World Values Survey.</td>
</tr>
<tr>
<td>Social Behaviour</td>
<td>Includes volunteer time, giving money and helping strangers. Data sourced from the World Giving Index.</td>
</tr>
<tr>
<td>Suicide</td>
<td>Deaths caused by suicide/total population, rates per 100,000. New Zealand data sourced from the WHO mortality database.</td>
</tr>
<tr>
<td>Voting</td>
<td>Voting in national elections: number of voters casting ballots as a percentage of voting age population. Data sourced from administrative records of different countries.</td>
</tr>
</tbody>
</table>

Source: OECD (2012b)

To measure social cohesion from a New Zealand perspective, Statistics New Zealand’s framework was chosen as they are a leading provider of data relating to New Zealand, and their collection of data relating to social cohesion will be used throughout this research. The following table regarding the ‘Principles of Social Cohesion’ is sourced from the Sustainable Development framework, where social cohesion is considered to be one of the three key areas in regards to well-being now and for the future (the other two key areas being ‘economic efficiency’ and ‘environmental responsibility’).

Table 2: Statistics New Zealand: Principles of Social Cohesion

<table>
<thead>
<tr>
<th>Principle</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective living conditions</td>
<td>Meeting needs</td>
</tr>
<tr>
<td></td>
<td>Promoting health</td>
</tr>
<tr>
<td>Subjective living conditions</td>
<td>Satisfaction and happiness</td>
</tr>
<tr>
<td>Equality of opportunity and access to resources</td>
<td>Equal opportunities and access to resources</td>
</tr>
<tr>
<td></td>
<td>Limits to individual freedom</td>
</tr>
<tr>
<td>Knowledge and skills</td>
<td>Development of individual knowledge and skills</td>
</tr>
<tr>
<td>Governance</td>
<td>Civil and political rights</td>
</tr>
<tr>
<td></td>
<td>Civic and political participation</td>
</tr>
<tr>
<td></td>
<td>Government effectiveness</td>
</tr>
<tr>
<td></td>
<td>Partnership between Maori and government</td>
</tr>
<tr>
<td>Culture and identity</td>
<td>Historic heritage</td>
</tr>
<tr>
<td></td>
<td>Cultural diversity and identity</td>
</tr>
<tr>
<td></td>
<td>Maori cultural identity</td>
</tr>
<tr>
<td>Social connectedness</td>
<td>Social participation</td>
</tr>
<tr>
<td></td>
<td>Integration of disadvantaged groups</td>
</tr>
</tbody>
</table>

Source: Statistics New Zealand (2009)
2.3 Threats to social cohesion

The growing nature of globalisation brings some positive aspects as well as presenting some challenges for society. Forrest & Kearns (2001) believe that as globalisation increases there could actually be some positive effects, due to the fact that local interaction and the familiarity of landmarks could provide comfort and security for some. However, according to Green et al. (2011), globalisation, along with social inequality and generational division all contribute to weakening societal social bonds. Globalisation in particular, brings challenges to social cohesion, and these challenges and pressures facing each country depend primarily on the institutional foundations and historic traditions of social cohesion found within different areas. Countries such as New Zealand face challenges due to rising social and ethnic diversity, and debates that surround issues of immigration and refugee numbers are ongoing within the political arena.

Increasing ethnic diversity is frequently mentioned in the social cohesion literature as a potential source of disruption. Papillon (2002) found that when immigrants are spatially concentrated in urban areas, it can lead to the exclusion of future generations. This makes the management of such areas an important area of policy concern, and therefore policy needs to create conditions for the full inclusion of immigrants into all aspects of neighbourhood life. This is reiterated by the OECD (2012), who state that the integration of immigrants is a challenge, and they are often deprived of the necessary access to public services; this must also be addressed in policy formation. They note the importance of fostering bonds between immigrants and those native-born, which also helps promote the social mobility of immigrants and improvement of labour market outcomes and mobility. The OECD also discuss the importance of redistribution, as a means of combating the potentially negative effects of income inequality. Rising income inequality brought about
through the increasing wealth of the world can lead to reduced cohesion, therefore redistributive policies using taxes and transfers are especially important to address these issues.

Carnoy (1999) discusses the influence of the changes in working life on the family structure, and its subsequent effects on education and social cohesion. Stating that the family is the main institution for ensuring social cohesion, and given the influence of early education on development and future job prospects, he finds that with more women now working and spending less time in the home, there is less time spent in fostering these early requirements. Therefore there is a high need for learning and learning networks for families with low ability to provide for themselves.

2.4 Factors that influence/build social cohesion

Throughout the literature two themes frequently surface as being important influences on social cohesion; (i) education and (ii) having a sense of belonging and community engagement. These influences are not separate, as education is developed not only in schools, but at home and through interactions in the local community. Mobility is an important aspect of education as it enables participation and opportunity in society, but this process of increasing mobility does not happen quickly. The sense of inclusiveness is important as schooling is often the place where cultural norms and ethical values are instilled, thereby reducing social and ethnic tensions (Gradstein & Justman, 2000). Public education systems are also one of the means by which interactions can happen between society members from different cultures and backgrounds (Gradstein & Justman, 2002). The OECD states that building a more inclusive education system takes time to translate in increased inter-generational social mobility, therefore it is a long-term goal which requires commitment of policy makers (2012).
According to the literature, community plays an important role in the building and maintaining of social cohesion, through a number of avenues. The inclusion of communities in society, the level of involvement in decision-making and political participation, as well as the community organisations available for participation by locals all influence levels of trust and communication, and lead to more cohesive societies.

Communities as a whole need to feel included in greater society, which needs to be a focus of policy makers. Phillips & Berman (2003) found that communities can have strong local cohesion but a low level of inclusion within society itself, if they feel distanced and neglected as an entire community. This may be especially relevant in the aftermath of the Canterbury earthquakes, where communities that have suffered more damage than others feel that while other areas in Christchurch have been able to carry on with their lives, they continue to struggle.

The level of community involvement in local governance is said to have numerous benefits as well as potential for some negative impacts. According to Goodlad et al. (2005) the positive impacts of community involvement include strengthened ties between community members, greater trust, cooperation and contact which can stimulate greater communication and a sense of ownership in policy development. The OECD (2012) also discusses the impact on policy, indicating that inclusive policy making results in policies that have greater legitimacy and support. Goodlad et al. also point out some negatives associated with increased community involvement, such as the potential for frustration, alienation and increased tensions when working together. Andrews (2009, pg. 430) discusses the growing evidence that “voting may make citizens more considerate and respectful of each other’s rights”, while also discussing the positive externalities created from political participation for ethnically diverse areas.
The number of community-based organisations may also play an important role in the building of social cohesion. According to Andrews (2006, pg. 436) these organisations are important as they expose participants to different ideas and experiences, and he found within his study that “greater associational activity within an area is associated with high perceptions of mutual respect and social cohesion. Putnam (2002) also found that engaged communities (attained through participation in democracy and associational activity) produce more cohesive societies of active citizens.

As well as community, a sense of neighbourhood can also be important, more so for certain members of society than others. Forrest & Kearns (2001) found that those who spend more time in their local areas, such as the elderly and the poor require a greater sense of neighbouring when compared with the wealthier. However neighbouring and mixing between local residents does not happen automatically or spontaneously, but when it does occur it can lead to development of mutual trust between residents (Smets, 2011). Therefore the promotion of neighbouring in the community is needed to stimulate the process of mixing in order to build this trust.

2.5 Previous studies into the effects of natural disasters

In a study conducted by the State University of New York (1998), Stephen Sweet had the opportunity to conduct a form of longitudinal study on a local township that suffered from a severe ice storm which caused large scale damage to both infrastructure and the environment. Potsdam, New York, was essentially without power for several weeks, with many areas cut off by road damage and many people needing to move into emergency shelters; a situation similar to what many experienced in the aftermath of the Canterbury earthquakes. Residents were surveyed one month after the event, and were asked questions regarding their perception of their community; the results were then compared with the
previous survey results conducted three years prior. Their findings indicated that while social cohesion increased immediately after the event, social cohesion had returned to pre-disaster levels one month after the event, leading researchers to conclude that there were few lasting effects from the natural disaster on social cohesion. However, of specific note is the wording used, in that “this study indicates that social cohesion returns to normalcy once social structure returns to the form that existed before the disaster” (1998, pg. 10). Therefore, if social structure remains forever changed or takes a significant period of time to return to pre-disaster levels, it might be interesting to explore what effect this might have on social cohesion in the long run.

Another study was conducted in Pakistan in the aftermath of the severe flooding during 2010, focussed on the effects of the disaster on social capital, which is considered by some to be a component of social cohesion (Afzal, Turner & Said, 2015). This study found that the severity of the disaster determines the influence on contributions to public goods; mild disasters tended to positively influence contributions while more severe disasters resulted in negative impacts. These findings would suggest that the overall effects of events are not uniform across disasters, and are dependent on the level of severity.

The effect that a natural disaster has on a particular area also depends on such facets as the existing infrastructure, the nature of exposure as well as the preparedness for recovery. According to Tipson (2013), the earthquakes which have caused the most fatalities around the world in the past 60 years have not been the strongest in terms of magnitude. Instead, the most devastating earthquakes have occurred in areas where people were exposed and unable to protect themselves, such as the Boxing Day Tsunami (2004) and Haiti (2010). The deaths from these disasters occurred not only as a result of initial event, but also from the resulting issues stemming from a lack of medical care, hygiene and emergency relief.
Tipson’s report goes on to discuss the need to devise strategies against such disasters, in order to reduce the impact on the economic, political and social system. The report also discusses the importance of the level of resilience a community holds, which is reiterated by Aldrich and Meyer (2014). These authors highlight the importance that social capital and infrastructure plays in the process of disasters, both through survival and the subsequent recovery. Their report looks at the impact of disasters on community life and social systems, with particular mention of the growing worldwide population, further development of disaster-prone areas as well as the impact of changing climates on increasing disaster frequency. They recommend more focus on pre-disaster planning in the area of social infrastructure, as this affects community resilience and will aid the subsequent recovery process.

2.6 Conclusion

Each aspect of the literature review has provided insight into social cohesion; from the initial definitions, the factors that have been found to influence cohesion both negatively and positively, through to how natural disasters affect social cohesion. These concepts are used in the following sections to guide the research process, with particular input into the formation of the social cohesion indicators as well as the key informant interview questions.
Chapter 3  
Research methodology

3.1 Method

The purpose of this research is to investigate if indicators of social cohesion can be used to map different impacts of a natural disaster across a city. With this purpose in mind, research has been conducted to examine the trends in social cohesion across the different wards of Christchurch City, noting any variations in results and investigating potential reasons for any of these differences. Using frameworks and literature from established sources, a set of social indicators has been constructed for application across the city. A research hypothesis has been formulated and used to draw conclusions about the reliability of specific indicators for use at the local level. For this research, a mixed methods approach has been used. Quantitative analysis has been completed using time-series data to track trends and patterns, collected through survey and census data. The qualitative analysis has been conducted through the use of the initial literature review to provide the background and context for this research, while key informant interviews have been conducted after the quantitative data analysis has been collected and analysed.

3.1.1 Quantitative approach

The quantitative approach has made use of several secondary sources. Data were collected from the Quality of Life surveys (conducted bi-annually) from 2008 to 2014, to gather population survey information on self-assessed indicators on quality of life. These data (survey questions) have been matched with specific social cohesion indicators from the Statistics New Zealand ‘Principles of Social Cohesion’ in order to form an overall indicator of social cohesion trends across the six selected Christchurch City wards. In particular, the following table shows the eight questions that were selected, along with the corresponding
social cohesion principle. Each question has a potential of 4-5 possible answers, with each answer given a corresponding “weight’ (please see Appendix A to view full questions and answer options). These weights have then been added to give a total which is subsequently divided by the Christchurch average. This is completed for each of the four years of survey data, which is then charted to give a visual representation of the changes in each selected indicator for the ward.

**Table 3: Selected survey questions**

<table>
<thead>
<tr>
<th>Social Cohesion Principle</th>
<th>Survey Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Promoting health</td>
<td>In general, how would you rate your health?</td>
</tr>
<tr>
<td>Satisfaction and happiness</td>
<td>Taking everything into account, how satisfied or dissatisfied are you with your life these days?</td>
</tr>
<tr>
<td>Access to resources</td>
<td>How difficult is it for you to get to a park or other green space?</td>
</tr>
<tr>
<td>Meeting needs</td>
<td>Which of the following best describes how well your total income meets your everyday needs for such things as accommodation, food, clothing and other necessities?</td>
</tr>
<tr>
<td>Government effectiveness</td>
<td>Overall, I have confidence that the Council makes decisions that are in the best interests of my city</td>
</tr>
<tr>
<td>Cultural diversity</td>
<td>New Zealand is becoming a home for an increasing number of people with different lifestyles and cultures from different countries. Overall, do you think the city you live in is….?</td>
</tr>
<tr>
<td>Social connectedness</td>
<td>Over the past 12 months how often, if ever, have you felt lonely or isolated?</td>
</tr>
<tr>
<td>Cultural identity</td>
<td>“I feel a sense of pride in the way my local area looks and feels”</td>
</tr>
</tbody>
</table>

Source: Quality of Life Surveys

Additional data collected from the survey centres on the question regarding a ‘sense of trust’. Data has also been collected from Statistics New Zealand; in particular using the results from the 2001, 2006 and 2013 New Zealand Census to gather information on volunteer hours and other unpaid work, as well as information regarding voter turnout for each of the local elections from 2001 to 2013. The inclusion of these indicators of trust, volunteerism and political participation is due to the frequency of citation as being indicators of socially cohesive societies (Statistics New Zealand, 2008; OECD, 2012). These data from the Quality of Life survey and Statistics New Zealand were used to test the following hypothesis:
The ward areas of Christchurch that display lower levels of social cohesion (as per the compiled social cohesion indicator) will also exhibit lower levels of trust, volunteer hours and voter turnout in local elections.

3.1.2 Qualitative approach

The qualitative approach has used both primary and secondary data sources. The initial literature review provides secondary data which is the grounds for the selection of indicators used when testing and measuring levels of social cohesion. Secondly, primary qualitative data have been gathered through key informant interviews. These interviews were conducted with community leaders and representatives, particularly from the Burwood-Pegasus area as this ward has provided interesting and contrasting data when compared with the other wards. The purpose of these interviews was to provide further insights into the results of the data collection and hypothesis testing, as well as to build on the discussion provided through the literature review. Those interviewed were selected based on their occupation and their knowledge of the local area.

3.2 Ethics considerations

As a component of this research involves interviewing people, a short note on ethics is appropriate. The Human Ethics Committee of Lincoln University oversees all research involving human participants, in order to ensure it meets the ethical standards required by specific agencies throughout New Zealand. In accordance with the Human Ethics Committee Policies and Procedures manual, this research is considered to be exempt from the formal review procedure. The interviews that have been conducted through the course of this research fall into section 6.2.3 (2), which states that activities ordinarily exempt from review include “research projects involving interviews with ... public figures or professional persons in the areas of their duties or competence, provided that this is in accordance with the
provisions of the Privacy Act”. All interviewees were approached in their professional capacity, were informed that interviews would be documented and recorded solely for the purposes of the dissertation research, and were offered the opportunity to review their interview notes once the interview was complete and notes were summarised and written up for interpretation.
Chapter 4  
Data analysis

The section breaks down each of the six wards that are being analysed, with general descriptions of population numbers, local amenities and publicly provided facilities such as schools, hospitals and medical centres and libraries (data sourced from the Christchurch City Council website). Due to the small sample size, Banks-Peninsula ward has been excluded from this analysis. This is followed by data analysis of each ward’s respective Quality of Life survey results in relation to the Christchurch average, with an interpretation of these results.

Results are interpreted as follows:

- The Christchurch average is represented as 1. If the indicator is exactly 1 (equal to the average) or very close to it, it is considered to be close to/on par with the Christchurch average.

- A score of greater than 1 means this ward rates better than the Christchurch average in that particular indicator.

- Likewise, a score of less than 1 is interpreted as the ward rating below the Christchurch average.

Each graph presents the eight chosen indicators of social cohesion, with life satisfaction at the beginning and separated through the use of black as opposed to yellow or blue. This separation is intentional; ‘life satisfaction’ is typically cited as a very important indicator not only of social cohesion, but within the broader scope of well-being.
4.1 Burwood-Pegasus

Burwood-Pegasus ward contains the eastern suburbs of Christchurch City, with a total of 47,679 residents and 17,856 households, making it the smallest ward in our analysis (by population size). The area includes 14 primary schools, 1 intermediate and 1 high school, as well as 4 council libraries. In regards to community projects there are approximately 224, community groups, 4 council supported organisations, 101 community projects, 10 neighbourhood facilities and 13 residents groups/associations.

Figure 2: Quality of Life Indicator, Burwood-Pegasus Ward, 2008 - 2014

![Graph showing quality of life indicators for Burwood-Pegasus ward from 2008 to 2014.](image)

Source: Quality of Life Surveys

When compared with the Christchurch average (indicated at 1.00 by the ‘red line’), the ward of Burwood-Pegasus has consistently rated below average across most key indicators since 2008. ‘Overall Health’ has been an area consistently below average, with little deviation across the four survey periods. Similarly, ‘Not Feeling Isolated’ has stayed steadily below average, with a dip in 2014. ‘Confidence in the Council’ was briefly above average and at its highest in 2010 but has since dropped off. Likewise ‘Pride in Local Area’ was at its highest in
2008 before decreasing in 2010 and dropping substantially in 2012. The ward suffered significant damage in the earthquakes, with many areas taking much time to clear their destroyed buildings and further areas damaged irreparably. This is supported by the 2012 survey, with the most commonly cited reason by residents of the Burwood-Pegasus ward for not feeling a sense of pride in their area being as a result of “damage to the city environment as a result of the earthquakes” (83%). As people have become accustomed to their losses of infrastructure and areas are rebuilt, this could explain the subsequent rebound in 2014.

Due to the Canterbury earthquakes of 2010/11 many residential properties were classified as “red-zone”; that is, properties deemed to have been so badly damaged that rebuilding on them would too prolonged and not necessarily effective. Residents were given cash settlements from the government and/or through their own insurance policies, in order for them to be able to move on and leave their properties. Burwood-Pegasus has the vast majority of “red-zoned” residential properties within their ward. Prior to the earthquakes, this area also contained a substantial collection of naturally occurring as well as man-made recreation and outdoor areas. These include: QE 2 Park, Bottle Lake Forest, Horseshoe Lake Reserve and Wetland, Travis and Bexley Wetlands, the Avon-Heathcote Estuary, as well as the majority of the Avon River and coastal beach areas. Many of these have suffered vast damage, closures and pollution since the earthquakes, and this change is reflected in the indicator ‘Access to parks’. Prior to the earthquakes this was the only indicator rating above or close to average. This sharply decreased in the 2012 survey, which could be explained by the closure of several recreational areas (Horseshoe Lake Reserve and QE 2 Park), the reduced access to Bottle Lake Forest (due to the exclusion zone from earthquake landfill), and pollution/damage to much of the river and coastal area (broken sewerage and other
earthquake related incidents). As the different parks begin to re-open and access improved, this indicator subsequently increased in 2014.

‘Cultural Diversity’ is an aspect that has seen declining results since 2010. Within the survey, respondents that indicate they think increasing cultural diversity has a negative impact on society have an option to select a reason for this opinion. Within the Burwood-Pegasus ward, respondents in the 2014 survey that elaborated further selected “people from other countries and cultures don’t integrate into New Zealand society” (43%), followed by “people from other countries and cultures often have a lack of English skills” (36%) as the main reasons behind their response.

A surprising aspect of this analysis is the ‘life satisfaction’ indicator; with the exception of 2012, this area has rated very close to or slightly above the Christchurch average. This is somewhat unexpected due to the poor nature of the other indicators, in that overall health, the ability to cover costs and the perceived impact of cultural diversity have been substantially below average. There is also lower than average pride in the local area, confidence in council decision making and not feeling isolated. It would appear that these indicators do not have a strong influence on overall levels of life satisfaction.

4.2 Fendalton-Waimairi

Fendalton-Waimairi ward contains predominantly the north-western suburbs of Christchurch, with a total of 56,169 residents and 21,078 households. The area includes 18 primary schools, 4 intermediates and 6 high schools, as well as 2 council libraries. In regards to community projects there are approximately 181 community groups, 1 council supported organisation, 70 community projects, 9 neighbourhood facilities and 7 residents groups/associations.
Fendalton-Waimairi ward contains a number of well-known areas of the city. Mona Vale Gardens and Homestead are located close to the boundary of the Riccarton-Wigram ward, while Christchurch International Airport lies to the north-west of the ward boundary. There are also several wildlife and outdoor/recreational areas such as Orana Park, McLeans Island and Jellie Park.

**Figure 3: Quality of Life Indicator, Fendalton-Waimairi Ward, 2008 - 2014**

![Quality of Life Indicator Chart](image)

Source: Quality of Life Surveys

In contrast to Burwood-Pegasus, Fendalton-Waimairi has remained either close to average or consistently above average across all indicators, with some showing more deviation than others. Pride in the local area and cultural diversity improved markedly from 2010 to 2012, with some drop off in the 2014 survey. The most commonly cited reason by members of the ward for rating cultural diversity as a positive impact are that “people from other countries and cultures make the city more vibrant and interesting, including bringing more food and restaurants” (78%). For pride in the local area, the most common reason for this rating by members of the ward was “there are plenty of parks, green or open spaces or gardens”
(63%). Overall health showed increases in the 2010 and 2012 survey but has since returned to pre-earthquake level, slightly above average. Ability to cover costs was consistently up until 2014, when it took a drop bringing it closer to the Christchurch average, while not feeling isolated has increased over this time. Confidence in the council dropped substantially from 2008 to 2010, but has since steadily increased. The most commonly cited reason by residents of Fendalton-Waimairi ward for a lack of confidence in council decision-making in the 2010 survey, was due a “lack of public consultation/don’t listen to public submissions”.

Despite the above average ratings for most of the key indicators, life satisfaction has remained at close to or just above average. As with Burwood-Pegasus, this would suggest that there are possibly other indicators with a stronger relationship to life satisfaction, or other factors that influence it are not shown within this data collection.

### 4.3 Hagley-Ferrymead

Hagley-Ferrymead ward contains predominantly central, eastern and coastal suburbs of Christchurch, with a population of 49,050 residents and 19,800 households. The area includes 15 primary schools and 6 high schools, as well as 3 council libraries, 1 mobile library and 3 volunteer libraries. In regards to community projects there are approximately 174 community groups, 6 council supported organisations, 87 community projects, 7 neighbourhood facilities and 24 residents groups/associations.

This area contains some of the most important and well-known central landmarks in Christchurch history such as Hagley Park, the Cathedral, Victoria and Cranmer Squares and the Botanic Gardens. The ward extends to the coast and contains other well-known areas such as Sumner and Redcliffs. As with Burwood-Pegasus, this ward has also experienced substantial damage to housing and infrastructure, with many areas still considered off limits to the public. After Burwood-Pegasus this area contains the most red-zoned residential
properties, particularly in the coastal and cliffside areas. Many houses in the Redcliffs area are still yet to receive any classification at all, four years after the events.

Figure 4: Quality of Life Indicator, Hagley-Ferrymead Ward, 2008 - 2014

After Burwood-Pegasus, Hagley-Ferrymead ward displays the most indicators below the Christchurch average. Access to parks has seen steady decline since 2008, while overall health declined more rapidly but has since rebounded to above average in 2014. Ability to cover costs has remained fairly steady but consistently below average across the four surveys, while confidence in the council has seen more fluctuation during this time. It does however also remain below average, at its lowest level in the most recent 2014 survey. Cultural diversity has consistently remained above average for Hagley-Ferrymead, with little variation over the four survey periods. This is due to a belief that diversity makes the city a more vibrant and interesting place, that “people from other countries and cultures add to the multi-cultural and diverse feel of the city” and that diversity contributes “to a sense of community in the city”. Not feeling isolated has also remained at or above average.
throughout the surveys, with the exception of 2012. This peak in the period after the earthquakes could likely be explained due to the high level of damage suffered in the area, with the more coastal areas especially feeling a sense of isolation.

Despite the lower/below average ratings of several indicators levels, as with Burwood-Pegasus this ward has retained a consistent level of life satisfaction. This again brings one to think of what actually does impact on overall life satisfaction, if not represented through the choice of these particular social cohesion indicators.

### 4.4 Riccarton-Wigram

Riccarton-Wigram ward contains much of the south-west section of Christchurch, with a population of 65,529 residents and 22,628 households, making it the largest ward in Christchurch by population size. The area includes 14 primary schools, 2 intermediates and 6 high schools, as well as 3 council libraries and 2 volunteer libraries. In regards to community projects there are approximately 220 community groups, 3 council supported organisations, 139 community projects, 8 neighbourhood facilities and 17 residents groups/associations.

Riccarton-Wigram ward’s indicators have remained close to average, with some exceptions moving in both directions. Overall health has fluctuated up and down whilst remaining close to average, while access to parks has seen very little variation at all. Ability to cover costs, confidence in council and not feeling isolated have been moving above and below average across the surveys, while always remaining within 5% of the Christchurch average.

The most interesting movements within the Riccarton-Wigram ward indicators have been cultural diversity and pride in the local area. Cultural diversity is the only indicator within this ward that has been in consistent decline across the four surveys. In 2014, the most cited reason for a negative impact of cultural diversity is that “people from other countries and
cultures often have a lack of English skills” (60%), followed closely by “people from other countries and cultures compete for jobs with other New Zealanders” (55%).

Figure 5: Quality of Life Indicator, Riccarton-Wigram Ward, 2008 - 2014

Source: Quality of Life Surveys

Pride in the local area has remained above average throughout the surveys, with a substantial increase in 2012. This increase could be attributed to Riccarton-Wigram suffering comparatively less damage to the local area from the earthquakes. As the other wards have recovered, this indicator has since declined closer to the Christchurch average. Life satisfaction has remained slightly above average, with the exception of the spike in 2012. This mirrors the drop in life satisfaction in 2012 in Burwood-Pegasus, while the other wards have remained consistent. The only other indicator that showed a similar increase in Riccarton-Wigram is the pride in local area, but this is not necessarily linked as Fendalton-Waimairi also showed a similar spike in pride in the local area but without a substantial change in life satisfaction.
4.5 Shirley-Papanui

Shirley-Papanui ward contains predominantly northern suburbs of Christchurch, with a population of 59,349 residents and 22,956 households. The area includes 15 primary schools, 2 intermediates and 3 high schools, as well as 2 council libraries and 1 volunteer library. In regards to community projects there are approximately 42 community groups, 2 council supported organisations, 86 community projects, 19 neighbourhood facilities and 12 residents groups/associations.

Figure 6: Quality of Life Indicator, Shirley-Papanui Ward, 2008 - 2014

Shirley-Papanui ward shows fluctuation across all indicators, compared to the Christchurch average, with some exceptions. Overall health was above average in 2008/10, before dropping in 2012 and slightly increasing in 2014. Access to parks has improved since 2008/10 to above average, while not feeling isolated has moved in the opposite direction, to now being worse than average. Ability to cover costs and cultural diversity have stayed close to average throughout these periods, while the biggest changes have been seen in confidence.
in council and pride in local area, which have followed a similar fluctuating pattern. Confidence in the council has always remained above average for Shirley-Papanui, but pride in the local area took a considerable decrease of over 10% to its lowest in 2012. As with Burwood-Pegasus, the main reason cited by respondents of the Shirley-Papanui ward for a lack of pride in their local area was due to the earthquake-related damage (73%). While this ward did not have as many red-zoned properties as Burwood-Pegasus or Hagley-Ferrymead, it does contain northern and some eastern suburbs which sustained substantial damage to roads, sewerage, power and other infrastructure in the earthquakes.

Life satisfaction, with the exception of a brief spike in 2010, has remained average or just below average during this time period.

4.6 Spreydon-Heathcote
Spreydon-Heathcote ward contains predominantly the southern suburbs of Christchurch, with a population of 55,455 residents and 21,558 households. The area includes 20 primary schools, 1 intermediate and 2 high schools, as well as 2 council libraries and 4 community volunteer libraries. In regards to community projects there are approximately 42 community groups, 4 council supported organisations, 67 community projects, 7 neighbourhood facilities and 9 residents groups/associations.

Spreydon-Heathcote ward has remained consistently close to and above average across four of the eight indicators. Life satisfaction, overall health, access to parks and ability to cover costs have seen little variation over the four surveys, with two out of the four at their highest in 2014. In contrast, the other four indicators have seen notable fluctuations, with the most pronounced in cultural diversity.
Figure 7: Quality of Life Indicator, Spreydon-Heathcote Ward, 2008 - 2014

For three out of four surveys this has been above average, but it dropped substantially (10%) in the 2012 survey. The most frequently cited reason during this time for cultural diversity having a negative impact was “people from other countries and cultures don’t integrate into New Zealand society” (84%). It has since rebounded to above average and is at its highest level for all survey periods. Confidence in council has improved since its low levels in 2008/10, in a similar pattern as pride in the local area. Not feeling isolated recovered from its decline in 2010, to now sit above average.

As mentioned, life satisfaction has seen little variation across the four survey periods, always remaining slightly above average.

4.7 Summary of ward analysis

These indicators have provided a way of looking at each ward individually, as well as comparatively to analysis social cohesion across Christchurch City. Each of the wards has
been graphed, analysed and discussed separately, in order to determine if a consistent and clear picture of social cohesion can be found at the ward level. Sample size does not permit testing for statistical significance with high power, and so the analysis has concentrated on points where patterns are repeated across time or across indicators.

Fendalton-Waimairi and Riccarton-Wigram have shown fairly consistent patterns with small spikes across the indicators, with both spiking upwards in the ‘pride in local area’ indicator, and the latter trending downwards with ‘cultural diversity’. Shirley-Papanui and Spreydon-Heathcote have had more below average variation within the indicators, but for most part have remained close to the average. Hagley-Ferrymead has remained below average on a number of indicators, but with several still at or above average across the four survey periods.

Burwood-Pegasus is perhaps where the most interesting results are found. While it is frequently recognised that the eastern suburbs of Christchurch were the hardest hit during the earthquakes, it would appear that the quality of life in the area has been below average for most of the social cohesion indicators since before the earthquakes began. This is demonstrated more clearly in the following table and figure:

**Table 4: Un-weighted Average of Selected Indicators, Christchurch wards, 2008 - 2014**

<table>
<thead>
<tr>
<th>WARD</th>
<th>2008</th>
<th>2010</th>
<th>2012</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fendalton-Waimairi</td>
<td>1.01</td>
<td>1.01</td>
<td>1.04</td>
<td>1.03</td>
</tr>
<tr>
<td>Spreydon-Heathcote</td>
<td>1.01</td>
<td>0.99</td>
<td>1.00</td>
<td>1.02</td>
</tr>
<tr>
<td>Shirley-Papanui</td>
<td>1.01</td>
<td>1.03</td>
<td>1.00</td>
<td>1.01</td>
</tr>
<tr>
<td>Riccarton-Wigram</td>
<td>1.01</td>
<td>1.01</td>
<td>1.02</td>
<td>0.99</td>
</tr>
<tr>
<td>Hagley-Ferrymead</td>
<td>0.99</td>
<td>0.98</td>
<td>0.98</td>
<td>0.99</td>
</tr>
<tr>
<td>Burwood-Pegasus</td>
<td>0.97</td>
<td>0.97</td>
<td>0.93</td>
<td>0.95</td>
</tr>
</tbody>
</table>

Source: Quality of Life Surveys
This table was compiled by calculating an un-weighted average of social cohesion indicators for each ward of each surveyed year, which were then ranked to discover any significant pattern. In graph form, the table is represented in the following figure:

**Figure 8: Un-weighted Average of Selected Indicators, Christchurch wards, 2008 - 2014**

While there has been some variation within the ranking of four of the wards, Burwood-Pegasus has consistently had the lowest ranking across all four surveys. Likewise Hagley-Ferrymead, although higher has been the second lowest ward each year. In contrast, Fendalton-Waimairi as remained 1st or 2nd each year. Thus for the purposes of testing the hypothesis formulated in the previous chapter, Burwood-Pegasus, Hagley-Ferrymead and Fendalton-Waimairi have been selected as the wards for further comparison and discussion.
Chapter 5
Hypothesis testing

Hypothesis testing is used within this research process to test the selected social indicators for robustness for use at a local level. This has been done through the use of the OECD social cohesion indicators, which have been aligned with the data available. Of the five indicators ‘trust’, ‘social behaviour’ and ‘voting’ have been selected as there is relevant data available in New Zealand at a ward level and this has been collected over a number of years. Trust will be tested through the use of the Quality of Life survey (2008 – 2014), social behaviour will be tested through the use of volunteer work (unpaid work) as available through the New Zealand Census (2001, 2006 and 2013) and Statistics New Zealand, while voting will be tested through voter turnout in local government elections, over the five elections conducted from 2001 to 2013.

Recall from chapter three that the research hypothesis is:

The ward areas of Christchurch that display lower levels of social cohesion (as per the compiled social cohesion indicator) will also exhibit lower levels of trust, volunteer hours and voter turnout in local elections.

The following graphs and discussion analyse all six wards, but with particular attention placed on the three wards of Burwood-Pegasus, Hagley-Ferrymead and Fendalton-Waimairi. The other three wards (Riccarton-Wigram, Shirley-Papanui and Spreydon-Heathcote) have been given less attention as each of the them hovered in the middle of the graphs, often changing places with each other but rarely reaching the level of Fendalton-Waimairi or dipping to below Burwood-Pegasus or Hagley-Ferrymead.
5.1 Sense of trust

This indicator is taken from the Quality of Life survey which asks respondents the following:

**Question:** Which of the following statements do you agree with the most?

<table>
<thead>
<tr>
<th>Statement</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>You almost always can’t be too careful in dealing with people</td>
<td>1</td>
</tr>
<tr>
<td>You usually can’t be too careful in dealing with people</td>
<td>2</td>
</tr>
<tr>
<td>People can usually be trusted</td>
<td>3</td>
</tr>
<tr>
<td>People can almost always be trusted</td>
<td>4</td>
</tr>
<tr>
<td>Don’t know</td>
<td>5</td>
</tr>
</tbody>
</table>

One notable aspect of the Quality of Life survey is its rotating of questions between survey years. Unfortunately the question regarding a ‘sense of trust’ was omitted in 2010, but returned from 2012. When the data collected was translated into a similar style as used in table 4 and figure 8, the following results were found.

**Figure 9: Unweighted average all wards - sense of trust, 2008, 2012 and 2014**

Source: Quality of Life Surveys
This graph does not appear to show any particular pattern across the different wards, which calls into question its ability as a robust indicator of social cohesion. Three of the wards show changes in a sense of trust to above and below average, with Spreydon-Heathcote showing decline across the surveys.

However, if the three wards of Riccarton-Wigram, Shirley-Papanui and Spreydon-Heathcote were removed for the purposes of clarity in analysing our three wards of particular interest, the following graph results.

**Figure 10: Unweighted average 3 wards - sense of trust, 2008, 2012 and 2014**

With this restricted graph, there does appear to be a continuation of the pattern found earlier amongst these remaining wards. While each of the three show some variation, Fendalton-Waimairi remains above average, while Hagley-Ferrymead and Burwood-Pegasus remain below. This suggests some evidence for the inclusion of a ‘sense of trust’ as an indicator of social cohesion, but it does lack consistency in its application.
5.2 Volunteer work

Data on the number of volunteer hours has been collected through the New Zealand Census for the years 2001, 2006 and 2013. This data was retrieved from the section entitled ‘unpaid work’, which is separated into three sections; unpaid work that occurs within the household, unpaid work that occurs outside the household and other voluntary work through organisations, groups or marae. Work inside and outside the home for the purposes of this research have been excluded, which leaves voluntary work through organisations, groups or marae as the indicator of volunteer work for social cohesion.

The New Zealand Census is normally conducted every five years, however the events of 2010/11 in Canterbury meant that the census was postponed and conducted in 2013 instead.

Figure 11: Unweighted average - volunteer hours, 2001, 2006 and 2013

The specific question from the ‘New Zealand Census of Population and Dwellings’ is as follows: in the last four weeks, which of these have you done, without pay? The selected
answer for this analysis was 'other help or voluntary work for or through any organisation, group or marae. Data collected has been used to calculate a figure based on the number of volunteer hours (as defined above), divided by the population.

When compared to a sense of trust, there is a much more consistent pattern within the wards, in that none of the wards move significantly over time, or increase/decrease below average. Spreydon-Heathcote’s compiled social cohesion indicator was not the highest or always above average, yet has been consistently high within the population volunteer hours. There is still the same pattern within our three main wards remaining consistently above and below average.

5.3 Voter turnout

Information regarding voter turnout in local elections has also been collected through Statistics New Zealand. As all data to this point has been collected on the basis of ward areas and interests, elections that are conducted for the purpose of selecting local community board representatives has been chosen for further analysis.

In contrast to the five or seven yearly Census, local elections are conducted every three years, with each ward having a potentially different numbers of elected representatives according to their population size. In order to use the same time period as used with volunteer work, data have been collected from five local elections, from 2001 to 2013. This data has then been used to calculate a percentage, such that it is the number of electors that voted divided by total number of those enrolled per ward.
As with volunteer hours, voter turnout follows a similar pattern in the wards remaining above and below average, with the notable exception of Burwood-Pegasus in the most recent election in 2013. This spike in voter turnout could be attributed to other election related occurrences such as the long-serving (13 years) Christchurch-East MP Lianne Dalziel stepping down from her role to contest the Mayoral seat successfully in the 2013 election. Were it not for this spike, it is expected that the pattern we have seen in the previous indicators would have continued for the three wards of Fendalton-Waimairi, Hagley-Ferrymead and Burwood-Pegasus.
5.4 Discussion of results

While the results are not conclusive, there does appear to be some pattern forming between the compiled social cohesion indicator and those indicators selected for the hypothesis testing. Looking at each of the six wards separately:

**Burwood-Pegasus and Hagley-Ferrymead were the two lowest wards in the compiled social cohesion indicator** and kept this trend fairly consistently through the hypothesis testing, while rating 4\(^{th}\), 5\(^{th}\) or 6\(^{th}\) within the three indicators. They remained below average throughout, with the one spike in Burwood in the 2013 local elections being attributed to increased interest due to the mayoral candidate. While this is not conclusive evidence to support the hypothesis, there is a consistency which suggests some support for a relationship between social cohesion and the indicators surrounding trust, social and political participations.

In contrast, **Fendalton-Waimairi was consistently first in voter turnout and either first or second within the compiled social cohesion, the sense of trust and volunteer hour’s indicators.** This would support a contrasting hypothesis that an area displaying higher levels of social cohesion will display higher levels of trust, volunteer hours and voter turnout.

**The inconsistency concerning the other three wards is where the hypothesis fails to hold up.** When considering the original social cohesion indicator, Spreydon-Heathcote hovered around average. However, this ward displays proportionately higher levels of volunteer hours and voter turnout than others, while a sense of trust has markedly declined. Shirley-Papanui shows declining/lower levels of social cohesion and trust, improving volunteer hours and steady voter turnout. Riccarton-Wigram stays fairly close to average throughout the process, with small variations between indicators. This variation makes it difficult to draw a solid conclusion about the effectiveness of the compiled social cohesion indicator.
within the hypothesis testing, in wards that are on par with the average or tend to fluctuate above/below average.

Overall there is some evidence in support of the hypothesis, in that wards which are definitively above and below average in the compiled social cohesion indicator remain so, when compared with known indicators of social cohesion. However, the indicators and hypothesis are less definitive in the wards that fluctuate closer to the city average.
Chapter 6

Key informant interviews

Following on from the findings of the literature review, data analysis and hypothesis testing, the last stage of information gathering has focussed on interviewing community leaders. The purpose of these interviews was to take what had been learned in the previous stages, and take these findings to those working in the community to gain further insights. Interviewees were selected from a broad range of community-focussed professions which include the following: the voter-elected Community Board, Burwood-Pegasus Community Watch, the locally-based National Marae Ngā Hau e Whā, various church leaders, business leaders, community trust leaders and the Christchurch Mayor. While statements in the following will be generally attributed to named individuals, there has been an effort to find points of agreement between those interviewed.

Following on from the compilation of social cohesion indicators and subsequent analysis, Burwood-Pegasus was selected for further investigation. This was based on the long-term below average, lowest ranking in the compiled social cohesion indicator, as well as the perceived higher level of earthquake-related damage and impact on the East-Christchurch area. While it is acknowledged that this may not be conclusive evidence of low levels of social cohesion, it has led to further questions. In particular, what has been happening in this ward over a long period of time that has led to lower levels of cohesion, when compared to other wards across the city?

6.1 In response to the data analysis

When presented with the results of the data analysis, the reaction was similar across those interviewed; initial surprise, followed by reconsideration and an acceptance that this was
likely an accurate depiction of Burwood-Pegasus. Of those interviewed that were able to elaborate further on the individual indicators, overall health and ability to cover costs were mentioned as particular struggle points for the area, with a certain amount of inter-linking between the two present. One participant made mention of the high number of alcohol-related businesses and subsequent problems, along with a lack of social services based in the area. Another mentioned that access to healthcare is only one part of the picture, as affordability of doctor’s visits and the subsequent prescriptions can be too costly for many and therefore a deterrent/obstacle to visiting. Low levels of registration in local healthcare providers (GPs) was also discussed as a possible problem. The recent improvement in ability to cover costs was more surprising and could possibly be attributed to ongoing pay-outs that residents have received in regards to the damages to their homes. Another possibility not raised within the interviews is that the unemployment rate decreased in Christchurch, with the drop attributed to the employment opportunities provided within the Christchurch rebuild. These changes have allowed many to begin the process of rebuilding/moving on, which may have resulted in a more confident feeling for many in their ability to cover their costs.

The response to the change in the access to local parks indicator was as expected, with many citing the extensive damage to parks and numerous closures as being the reason behind this. Many who live in the area have likely chosen this ward as their home due to the wide variety of outdoor areas available to them, so are likely to feel the effect of the earthquakes in this way particularly hard. Likewise the drop in pride in the local area was also as expected given the damage to the ward, as well as the length of time it has taken for much of the area to be repaired and attended to. Adding to this, many of the red-zoned areas have become a dumping ground for unwanted goods, stolen/burnt out cars and general rubbish. Until these
areas are given a purpose and have a greater presence of people in the community, this is a problem likely to continue for the foreseeable future.

In contrast, the overall below average cultural diversity indicator was surprising to most interviewed, as they believe the ward to be one of the most diverse in the city. A possible explanation provided for the continued decrease is the way in which home ownership has changed across the ward. Prior to the earthquakes home ownership in some suburbs was particularly high (upwards of 90% in Avondale). With the rising number of properties being sold ‘as is where is’, many have now been bought and turned into rental properties for the increasing number of migrant workers involved in the Christchurch rebuild. While this sense of changing community may go some way to explaining the post-earthquake decrease, it does not explain the long-term below average trend.

6.2 Impacts of the earthquakes

With specific reference to the impacts of the earthquakes on the area, there were a number of common points and themes that came across from those interviewed regarding some of the changes or issues they have noticed. In particular there is criticism levelled at government, with a strong feeling that bureaucracy is slowing down the recovery process. Coupled with disillusionment over the length of time the recovery would take, there is a sense of frustration amongst community leaders. In saying this, there is also certain amount of understanding of the difficulty faced by local and national government, given the unprecedented nature of the events and the learning-as-you-go that comes with it.

Suburbs that did not have systems in place and/or strong leadership at the time of the earthquakes struggled to respond to the needs of their local community. By having a well-known community hub or a place known to residents as a venue for assistance, this would likely help in the days immediately following such an event. Aranui Community Trust (ACTIS)
found this to be particularly true; given that they have been heavily involved in the
community since 2001, leaders were able to immediately communicate with residents and
respond to their needs. They were also the recipients of international help (from Chinese
fundraising and humanitarian groups) that may not have been available to other
communities; this help was attributed to the established networks and connections that
were in place before the earthquakes occurred. Areas with strong cohesion and systems in
place prior to the earthquakes were in a better position to respond the disaster, and have
made better progress since, in terms of community planning and moving forward.

For those who have lived in Burwood-Pegasus for some time, many feel that there has
always been a sense of disconnection between the two sides of the city. This was heightened
further due to the perception that the east side of the city was hit harder than the west.
Many members of society who were struggling prior to the earthquakes were further
isolated, particularly elderly members. It was suggested that older people tend to complain
less and don’t like to ‘make a fuss’, along with many of them not having friends and family in
near proximity, this can often mean their needs are overlooked. Many groups such as
Community Watch worked alongside the police and took to visiting every home in the area
in the days immediately following the earthquakes. This was done in order to ensure
everyone who may have needed help would be discovered quickly. Without this kind of
initiative, it is easy to know how many people could be left in serious need.

While there are many negative aspects, there are also many reports of positive outcomes
that came about from the earthquakes. People were more willing to help others than
before, going the extra mile to talk and help where needed. This created a strong sense of
bonding and working together, particularly in the immediate aftermath.
6.3 Building a cohesive community

Across the interviews there were four key themes that surfaced as the strongest builders of social cohesion. Of the factors discussed, *community engagement* was the most consistently mentioned as being vital to building a cohesive community. This is particularly from the view of a top-down approach, with much of the responsibility placed upon local government to initiate discussions and involve community members in the decision-making process. A strong criticism by interviewees has been a history of little engagement from the Council, which has led to a certain level of distrust from the community. This distrust stems from wanting to be involved and consulted, but otherwise left feeling unheard. The need for consultation is now more relevant than ever, as the recovery process focusses more effort into the eastern side of the city. The growing level of interest in the rebuild and overall engagement from the community is evident with the large percentage of overall submissions into planning discussions coming from the area (upwards of 50%). This interest should be capitalised upon so as to not lose the sense of trust and relationships built through the recovery process.

Closely linked to engagement is the strong need for *collaboration*, which should be driven both from the Council as well as from local community groups. Areas like New Brighton have struggled in the past due to the inability of the varying number of businesses, community groups and residents to come together and work in a unified manner. A good example of what can be achieved when groups are able to work in a collaborative manner is evidenced by the establishment of the New Brighton Business and Landowners Association (NBBLA) in 2013. This group has managed to build a foundation for working together, while ensuring as many people and interested parties are included in the discussion. Collaboration will be
particularly important moving forward as the suburb and ward as a whole progresses through the recovery process.

Beginning the process of engagement and collaboration will best be driven through the presence and use of *strong leadership and systems* with the ability to communicate effectively. Areas of the ward that struggled in the immediate aftermath, such as North New Brighton, were those that were cut-off from help and lacked the infrastructure to communicate their needs. This is in contrast with other ward suburbs such as Aranui which had a strong community group and leadership in place at the time of the disaster, and were able to respond more quickly to people’s needs. Without the initiative of a person or group to stand up and take responsibility during these times, an area will likely flounder for some time and struggle to find direction.

The fourth key theme that came across within the interviews was the concept of *adaptable*, with particular focus on the changing nature of technology, communication and social networks. Technology is ever evolving, and if used appropriately can be an asset to the recovery. The NBBLA has made use of this to go beyond their own local networks, and reach out to communicate with world experts that can provide insights and guidance into rebuilding the local area. Adaptability also applies in responding to unexpected circumstances, to use what resources you have at hand and reach out to others beyond those directly around you. An example of this is the joining of two church congregations St Pauls Lutheran Church and All Saints Anglican Church, while the former’s building undergoes repair work. While these churches have similar backgrounds and processes, the concept of two churches from different denominations joining is unusual and would likely have never occurred were it not for the events of 2010/11 (even with both congregations suffering declining numbers). In the months that followed, church leaders have spoken about how
well the people have joined together and complimented each other’s needs. The building repair is expected to take at least six more months, with delays likely. However given the strong relationship that has been built over the past few months, there is not likely to be any issue with this.

Youth are another important asset and strongly tied into the concept of adaptability; the Student Army that was born out of the earthquakes is an example of the innovative ability of new generations. They have used technology to build and use strong networks to form connections and help many people across ward areas, and they’ve made use of what resources are actually on hand and available to go beyond one’s own neighbourhood and help those in need.

6.4 Hope for the future

The results of the data analysis and the subsequent interview process have shown that the people of Burwood-Pegasus have been struggling for a period of time, since before the earthquakes of 2010/11. The few more positive aspects of the social cohesion indicators such as access to local parks and life satisfaction declined as the area was hit particularly hard during the events. For Christchurch, an event of this magnitude was unexpected and therefore it is likely many areas of the city would not have been prepared for what lay ahead. However, given the perceived lower levels of cohesion in the area, the lack of community hubs and centres in place, it is also likely that Burwood-Pegasus was less prepared than they might have been.

Despite the perceived problems, there is a strong sense of hope for the future from many of the residents and leaders in the community. All those who were interviewed spoke of how in the immediate aftermath of the events, and in the following weeks/months, people became more aware of those around them. Neighbours who might never have spoken before
showed concern over each other’s well-being, building stronger social networks with those around them that have lasted longer than just the immediate weeks after the earthquakes. Areas such as New Brighton, which have struggled to work in a collaborative manner for some time, are making progress towards a more unified future. In some ways, the earthquakes have worked as a catalyst for change, and provided the much needed interaction from local government as well as the funding needed to rejuvenate the area. The strong response rate in submissions for area planning also demonstrates a strong interest and desire to be involved in the future direction of the ward.

The Christchurch Mayor also spoke of the way in which wards have been formed in the past; that is, along the basis of voting lines as opposed to commonalities. This is seen as an obstacle to building cohesive communities, and there is a plan in the future to change this. It is proposed that the number of wards might increase from 8 to 16, with each ward’s suburbs grouped together with more common purpose, centred round a community hub. The prospect of being able to redesign local areas and provide a central point for communication provides a sense of hope for the future and a stronger ability to build more cohesive communities.
Chapter 7
Discussion and Conclusion

7.1 Introduction

With the literature review providing the basis for the research process, and the relevant data collected and analysed to look for supporting/conflicting evidence, this discussion chapter now focusses on tying all these pieces together. The investigation into the application of social cohesion indicators at a local level has uncovered interesting variations across the city of Christchurch. This section also discusses to what extent the research purpose and questions have been answered, as well as offering overall conclusions and recommendations for the future.

7.2 Discussion

The initial literature review set out some of the core concepts used to understand what a socially cohesive society looks like, what defines and builds social cohesion as well as what threatens to pull it apart. For some aspects, the data analysis and subsequent community leader interviews supported these findings. Philip and Berman (2003) found that communities with low levels of overall inclusion can feel distanced and neglected from greater society, which is particularly important when considering how the east side of the city suffered more damage during the earthquakes and has felt a stronger sense of isolation during the recovery process. Adding to this, Jensen (1998) talked about how a socially cohesive society will be free from exclusion and isolation, which is one of the particular difficulties faced in Burwood-Pegasus in the aftermath of the earthquakes. Feelings of exclusion (when compared to the other side of the city) are apparent, and those that were isolated beforehand were at further risk of being marginalised. Forrest and Kearns (2001) stated that for older people and the poor, “community” has a greater sense of importance
as they tend to spend more time in the community than others. With this in mind, many of
those interviewed mentioned that older people were those who suffered the most during
the time immediately after the earthquakes due to their potential isolation and lack of close
connections in the area.

Statistics New Zealand referred to one aspect of social cohesion being about how well
people in a given society can meet their needs, which can be seen in the overall social
cohesion indicator. This indicator includes the ability to cover costs, access to outdoor
spaces and overall health, and these are all below average for the Burwood-Pegasus ward.

While globalisation was mentioned as a potential negative in the literature (Green et al.,
2005), a number of positive outcomes are evident as well. Though there was little mention
of the term ‘globalisation’ specifically within the interviews, several did provide thoughts
around this theme, in that globalisation and technology can provide positive outcomes when
seeking assistance in times of need. In the period after the earthquakes, several community
groups within Burwood-Pegasus benefited from international connections and networks
providing money and other resources, which was made possible due to the growth of
technology and communications. Globalisation can also lead to a more narrowed focus, in
that while international connections and abilities grow, there are signs that people also want
to feel a closer sense of community with those directly around them. When coupled with a
growing understanding of how a community hub/central point is an important feature to
have within the area, this is in line with the literature provided by Forrest and Kearns (2001)
which discussed how globalisation can lead to stronger focus on local interaction and the
importance of the familiarity of landmarks.

Andrews (2006) found that the number of community organisations may play an important
role in building social cohesion, but this does not appear to automatically result in a cohesive
society. For example, Burwood-Pegasus has the highest proportion of community groups to population (224 groups or 21% of the Christchurch total), yet the lowest perceived levels of social cohesion and relatively low levels of voluntary work/participation. Andrews (2006) and Putnam (2002) both discussed how associational activity is an important builder of cohesion, but higher numbers of community organisations alone does not translate directly into higher levels of social cohesion so there must be other factors at play, such as how community members are engaged and encouraged to be involved within local groups.

Sweet (1998) has discussed how a community’s social cohesion is affected during natural disasters, finding that social cohesion increased immediately after the event but returned to pre disaster levels once a sense of structure had returned. This finding is supported within Burwood-Pegasus in two ways; community leaders within the ward mentioned growth in people knowing/talking with their neighbours and looking out for one another, while the data analysis has also shown the social cohesion indicators returned to/increased from pre-earthquake levels by 2014. Three of the indicators are at their highest level, and three others have recovered from their lowest 2012 measure. The indicator areas that have not bounced back are cultural diversity and feelings of isolation which have continued to drop. This could be seen to support the discussion around the difficulties with a growing migrant population in the area as well feelings of exclusion from the rest of the city that differ to pre-disaster levels.

7.3 Recommendations

The purpose of this research was to investigate if indicators of social cohesion could be used to map the different impacts of a natural disaster across a city; this research has shown not only that this is possible, but highly recommended. It has shown disparities in social cohesion across the city, which go back before the earthquakes of 2010/11. For the future of
the city, and especially in light of the earthquakes, the tracking of social cohesion would be beneficial as a way of understanding how cohesive individual and greater communities are, and where work needs to be done.

The **first research question** looked to define and identify measures/indicators of social cohesion and this was addressed within the initial literature review. **Questions two and three** looked to answer whether it was possible to identify a ‘robust’ set of indicators and use these to draw meaningful insights into social cohesion after an event; these have been answered within the data analysis and hypothesis testing. While the robustness of the compiled social cohesion indicator may be called into question, there were definite trends and patterns that emerged that can be linked to other well-known indicators to provide support for its use and possible expansion. The **fourth and final question** took the research to community leaders, to ascertain whether they could provide insights into the perceived changes/levels of social cohesion. These interviews not only answered this question, but also provided additional insights into what builds social cohesion and where work needs to be focussed in order to build it further in the future.

Of particular note are the following thoughts and recommendations:

**Future policy regarding migrants**

The spatial concentration of immigrants was mentioned by Papillon (2002) as being a potential for future issues, which is supported to some degree by the interviews. Several community leaders mentioned how diverse Burwood-Pegasus is, yet this is not necessarily viewed positively by those living in the community. Therefore with the large number of migrant workers currently based in the city with the rebuild, it is very important to consider and plan for how these people will be incorporated within the future of the city. The OECD (2012) discussed the importance of fostering and strengthening bonds between the local
established community and migrants/immigrants, so this should become an immediate focus of future policy planning in Christchurch. Consideration into how to better support migrants within individual communities is also important, so as to avoid the exclusion of future generations as migrant families develop and grow.

**Community engagement and involvement in decision-making**

The involvement of communities in overall decision-making was mentioned specifically within the literature, and was reinforced through the interview process. While this is important at all times, it is also particularly important as the recovery process continues. The growing number of submissions into city planning and interest from all people across the city, as well as the strong response from the east shows just how much the people want to be involved in decision-making. Therefore there must be a strong focus and intent from local government as well as community groups to work collaboratively, utilising the opportunity the earthquakes have provided in opening up future planning for discussion.

**Stronger focus on reducing exclusion**

Particular focus needs to be placed upon the elderly and poor, as these people are often excluded from participating in society, and this is only further exacerbated in times of natural disaster. Policy that encourages inclusion need to be put in place for how those who may otherwise fall through the cracks and be left to fend for themselves, particularly in more difficult times.
7.4 Future research

Following on from this research, there is potential to expand on these findings in a number of different directions.

Compilation of a social cohesion survey and indicator framework

This research has shown how it is possible to compile a set of social cohesion indicators for use at a local level. This compilation indicator has been used to record disparities in social cohesion within the city, which go back before the Canterbury earthquakes of 2010/11. It would be worthwhile for the city’s future to build on this further, by designing a more robust set of social cohesion indicators. Within a greater well-being framework, this could be used to specifically monitor the overall recovery and progress in developing social cohesion within Christchurch City.

Currently use of the Quality of Life survey is limited due to small sample sizes; this makes the results difficult to use when looking for significance. This was particularly evident when looking at the ward of Banks-Peninsula, which has well-known communities but was omitted from this research due to the small sample size available. By structuring a survey that is based around more of the ‘Principles of Social Cohesion’ as provided by Statistics New Zealand, a wider and more comprehensive indicator could be constructed. Combined with a larger sample size from each of the wards, this could capture a more representative view of the city and provide valuable information in guiding the rebuild of Christchurch communities.

Within this research the life satisfaction indicator provided some interesting results, in that there does not appear to be strong correlation between the individual indicator trends and overall life satisfaction. This may warrant further investigation as to what does influence life satisfaction and how this can be better monitored.
The role of community engagement

This research has further validated the findings of the literature review that highlight the importance of community engagement in building social cohesion. From national down to local government, local government through to community groups, and community groups working with local residents, engagement is critical to enable change and growth in the current levels of social cohesion within the city. Through the literature and interviews conducted, community engagement is conceived as the involvement of those in the community in the decision-making processes whose outcomes directly affect their interests, both in the short and long term future. Research into the current level of community engagement used within project planning/policy formation, combined with an analysis into the effectiveness of previous projects/policy implementations with differing levels of engagement, would be a useful exercise. This would provide a picture of any disparities between what is known about the importance of engagement, with what actually occurs in practice.

The following is a range of questions that could be answered within such research:

- How much community engagement is currently used in the process of policy formation and decision-making by local government?
- How effective are community groups at engaging their local community members?
- Are there certain policy and decision areas that lend themselves better to inclusive discussion processes, while others need to remain in the realm of officials only?

The importance of community structure

A third area for possible further exploration and research centres on some of the comments that arose within the discussions with community leaders; that is, the importance of the way a community is constructed, in enabling communities to find commonalities and build cohesive societies. People talk of the importance of local community, especially in times of
need and disaster. A community hub or central point was often mentioned as a necessity for gathering people, for providing information and helping to get community members involved.

Research could be conducted into what basis there is for this hypothesis, as well as looking directly into communities, comparing those with high degrees of infrastructure (such as those with central community hubs, numerous community services and/or areas for gathering) with those that are lacking. Further questions around this could include:

- How important is the way a community is physically formed and constructed in order to build cohesion?
- What importance does a community hub/central point play?
- What is the mayor/council’s purpose in increasing the number of wards and will this plan be successful in building more cohesive communities?

**Social cohesion within schools**

Along with other factors, the literature highlights the importance of schools in providing foundations where social cohesion skills are first learned. While this was outside the scope of this research, a worthwhile follow on study could be conducted into how social cohesion skills are learnt within the school system, and whether or not this happens naturally through the process of exposure to other people, or needs to be especially cultivated and nurtured. While the New Zealand National Curriculum does not directly list social cohesion within their main principles, it does discuss some related aspects of social cohesion such as cultural diversity, inclusion and community engagement. Further study into the National Curriculum and the New Zealand school system would be beneficial in providing further insights into how social cohesion is introduced and nurtured within these early years. Further questions could also include:
Exposure to cultures and backgrounds that are different from your own is said to build better understanding, tolerance and bonds between people, therefore do schools in Christchurch (or New Zealand) that have a more diverse range of socio-economic backgrounds and ethnicities produce students with a stronger sense of cohesion?

If this is the case, would this then mean that students who left school without having the necessary exposure, and having not learnt skills in interacting with others in a way that builds cohesion, therefore be unable to learn this skill in the future?

While the first suggestion of a stronger social cohesion framework for future research is of a standalone nature, the other three suggestions discussed above could be compiled to form one piece of research. A research thesis that considers the level of community engagement, the formation of community and the use of schools in building social cohesion could form the basis for a greater research piece on social cohesion.

### 7.5 Concluding remarks

Social cohesion is an area of ongoing interest, as a part of the wider research surrounding well-being. This dissertation has focussed on the compilation of a social cohesion indicator for use at a local level, with the results showing that this can provide worthwhile information for policy makers and others interested in tracking how socially cohesive different communities and regions are.

Building on these initial findings, there is now an opportunity for research to expand further into the different aspects of social cohesion; from where cohesion is first learnt and how to build a socially cohesive society through to how it can be successfully measured and
monitored on a larger scale in the future. The benefits of doing so are numerous, and with some variation could potentially be applied at any level.
Appendix A

Quality of Life survey questions

The following are the full questions selected from the Quality of Life survey for use as Social Cohesion indicators. These were chosen as being the most in line with the ‘Principles of Social Cohesion’, as determined by Statistics New Zealand.

1) Taking everything into account, how satisfied or dissatisfied are you with your life in general these days?

<table>
<thead>
<tr>
<th>Response</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very dissatisfied</td>
<td>1</td>
</tr>
<tr>
<td>Dissatisfied</td>
<td>2</td>
</tr>
<tr>
<td>Neither satisfied or dissatisfied</td>
<td>3</td>
</tr>
<tr>
<td>Satisfied</td>
<td>4</td>
</tr>
<tr>
<td>Very satisfied</td>
<td>5</td>
</tr>
</tbody>
</table>

2) In general how would you rate your health?

<table>
<thead>
<tr>
<th>Rating</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor</td>
<td>1</td>
</tr>
<tr>
<td>Fair</td>
<td>2</td>
</tr>
<tr>
<td>Good</td>
<td>3</td>
</tr>
<tr>
<td>Very good</td>
<td>4</td>
</tr>
<tr>
<td>Excellent</td>
<td>5</td>
</tr>
</tbody>
</table>

3) How difficult or easy is it for you to get to a local park or other green space?

<table>
<thead>
<tr>
<th>Difficulty</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very difficult</td>
<td>1</td>
</tr>
<tr>
<td>Difficult</td>
<td>2</td>
</tr>
<tr>
<td>Neither</td>
<td>3</td>
</tr>
<tr>
<td>Easy</td>
<td>4</td>
</tr>
<tr>
<td>Very easy</td>
<td>5</td>
</tr>
</tbody>
</table>
4) Which of the following best describes how well your total income meets your everyday needs for things such as accommodation, food, clothing, and other necessities?

<table>
<thead>
<tr>
<th>Option</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have more than enough money</td>
<td>1</td>
</tr>
<tr>
<td>Enough money</td>
<td>2</td>
</tr>
<tr>
<td>Just enough money</td>
<td>3</td>
</tr>
<tr>
<td>Not enough money</td>
<td>4</td>
</tr>
<tr>
<td>Prefer not to say</td>
<td>5</td>
</tr>
</tbody>
</table>

5) “Overall, I have confidence that the Council makes decisions that are in the best interests of my city”. Please circle one answer for each statement

<table>
<thead>
<tr>
<th>Option</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree</td>
<td>1</td>
</tr>
<tr>
<td>Disagree</td>
<td>2</td>
</tr>
<tr>
<td>Neither agree or disagree</td>
<td>3</td>
</tr>
<tr>
<td>Agree</td>
<td>4</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>5</td>
</tr>
</tbody>
</table>

If you ‘disagree’ or ‘strongly disagree’ that you have confidence in your Council’s decision making, please answer the following question:

For what reason do you not have confidence the Council makes decisions in the best interests of your city or district?

<table>
<thead>
<tr>
<th>Reason</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do not agree in general with decisions the Council has made</td>
<td>1</td>
</tr>
<tr>
<td>Do not like specific decisions or outcomes of the decisions the Council has made</td>
<td>2</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>3</td>
</tr>
</tbody>
</table>

6) New Zealand is becoming home for an increasing number of people with different lifestyles and cultures from different countries. Overall, do you think the city you live in is....

<table>
<thead>
<tr>
<th>Option</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>A much worse place to live</td>
<td>1</td>
</tr>
<tr>
<td>A worse place to live</td>
<td>2</td>
</tr>
<tr>
<td>Makes no difference</td>
<td>3</td>
</tr>
<tr>
<td>A better place to live</td>
<td>4</td>
</tr>
<tr>
<td>A much better place to live</td>
<td>5</td>
</tr>
<tr>
<td>Not applicable, there are no different lifestyles or cultures here</td>
<td>6</td>
</tr>
<tr>
<td>Don’t know</td>
<td>7</td>
</tr>
</tbody>
</table>
If you answered ‘worse’ or ‘much worse place to live’, please answer the following question: Why is it a worse place to live?

**Please read through the whole list below** before circling your main reason, or reasons.

<table>
<thead>
<tr>
<th>Reason</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>People from other countries and cultures don’t integrate into New Zealand</td>
<td>1</td>
</tr>
<tr>
<td>Too many different cultures cause tensions between groups of people</td>
<td>2</td>
</tr>
<tr>
<td>People from other countries and cultures compete for jobs with other New Zealanders</td>
<td>3</td>
</tr>
<tr>
<td>People from other countries and cultures often have a lack of English skills</td>
<td>4</td>
</tr>
<tr>
<td>People from other countries and cultures are often associated with crime</td>
<td>5</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>6</td>
</tr>
</tbody>
</table>

If you answered ‘better’ or ‘much better place to live’, please answer the following question: Why is it a better place to live?

**Please read through the whole list below** before circling your main reason, or reasons.

<table>
<thead>
<tr>
<th>Reason</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>It’s good to learn about people from other cultures</td>
<td>1</td>
</tr>
<tr>
<td>It’s good to mix with people from other countries and cultures</td>
<td>2</td>
</tr>
<tr>
<td>People from other countries and cultures make the city more vibrant and interesting, including bringing more food and restaurants</td>
<td>3</td>
</tr>
<tr>
<td>People from other countries and cultures add to the multi-cultural and diverse feel of the city</td>
<td>4</td>
</tr>
<tr>
<td>People from other countries and cultures contribute to a sense of community in the city</td>
<td>5</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>6</td>
</tr>
</tbody>
</table>

7) Over the past 12 months how often, if ever, have you felt lonely or isolated?

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always</td>
<td>1</td>
</tr>
<tr>
<td>Most of the time</td>
<td>2</td>
</tr>
<tr>
<td>Sometimes</td>
<td>3</td>
</tr>
<tr>
<td>Rarely</td>
<td>4</td>
</tr>
<tr>
<td>Never</td>
<td>5</td>
</tr>
</tbody>
</table>
8) How much do you agree or disagree with the following statement: “I feel a sense of pride in the way my local area looks and feels?” Please circle one answer.

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disagree</td>
<td>2</td>
</tr>
<tr>
<td>Neither agree or disagree</td>
<td>3</td>
</tr>
<tr>
<td>Agree</td>
<td>4</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>5</td>
</tr>
</tbody>
</table>

If you disagree that you feel a sense of pride in the way your local areas looks and feels, please answer the following question:

*Please read the whole list below before selecting the main reason, or reasons, for not feeling a sense of pride in the way your local area looks and feels.*

| Loss of heritage or other important buildings | 1 | Lack of parks, green or open spaces or gardens | 9 |
| Poor urban design | 2 | Crime and safety issues | 10 |
| Poor planning and zoning | 3 | Lack of sense of community | 11 |
| Issues with transport system | 4 | Too many people living in it | 12 |
| Untidy and dirty | 5 | Too few people living in it | 13 |
| Rundown or needs better maintenance | 6 | Lack of facilities, services and things to do | 14 |
| Presence of graffiti or vandalism | 7 | Does not provide a good overall lifestyle | 15 |
| The natural environment is too polluted | 8 | Other (please specify) | 16 |

If you agree that you feel a sense of pride in the way your local areas looks and feels, please answer the following question:

*Please read the whole list below before selecting the main reason, or reasons, for not feeling a sense of pride in the way your local area looks and feels.*

| Presence of heritage or other important buildings | 1 | There are plenty of parks, green or open spaces or gardens | 9 |
| Presence of good urban design | 2 | Lack of crime and safety issues | 10 |
| Good planning and zoning | 3 | There is a sense of community | 11 |
| It is clean | 4 | Good population size | 12 |
| Presence of a transport system that works well | 5 | Plenty of facilities, services and things to do | 13 |
| It is well maintained | 6 | Provides a good overall lifestyle | 14 |
| Lack of graffiti or vandalism | 7 | Other (please specify) | 15 |
| The natural environment is beautiful | 8 | | |
Appendix B

Key Informant Interview questions

Introductory questions around role in the community

A: How long have you worked in the Burwood-Pegasus ward?
B: What sort of roles and positions have you held during that time?
C: What types of people does your role/s allow you to come in contact with on a regular basis?
D: What are some of the major changes you’ve noticed in the community since the earthquakes?

Questions regarding the analysis

E: Are there any aspects of the results that stand out to you? Which ones were as expected?
F: In regards to ‘Access to Parks’, what do you think has happened in order to see such a change between 2010 and 2012?
G: In regards to “Ability to Cover Costs, in your experience in the local area, would you say people are beginning to find it easier to cover their costs? Can you elaborate further?
H: In regards to ‘Cultural Diversity’, can you think of any reasons why this area is below average and has decreased further in the most recent survey?
I: In regards to ‘Pride in Local Area’, what do you think has happened in the local area to bring about such a dramatic decrease from 2010 to 2012, and what has happened since to bring it back to 2010 level?
J: Why do you think it is that although residents of the area rate most areas well below than that of the Christchurch average, life satisfaction still remains close to/above average (with the exception of 2012)?

Further questions

K: When thinking about social cohesion, are there areas that influence/indicate it that you don’t see covered within these results? What aspects of everyday life play a role in building cohesion?
References


