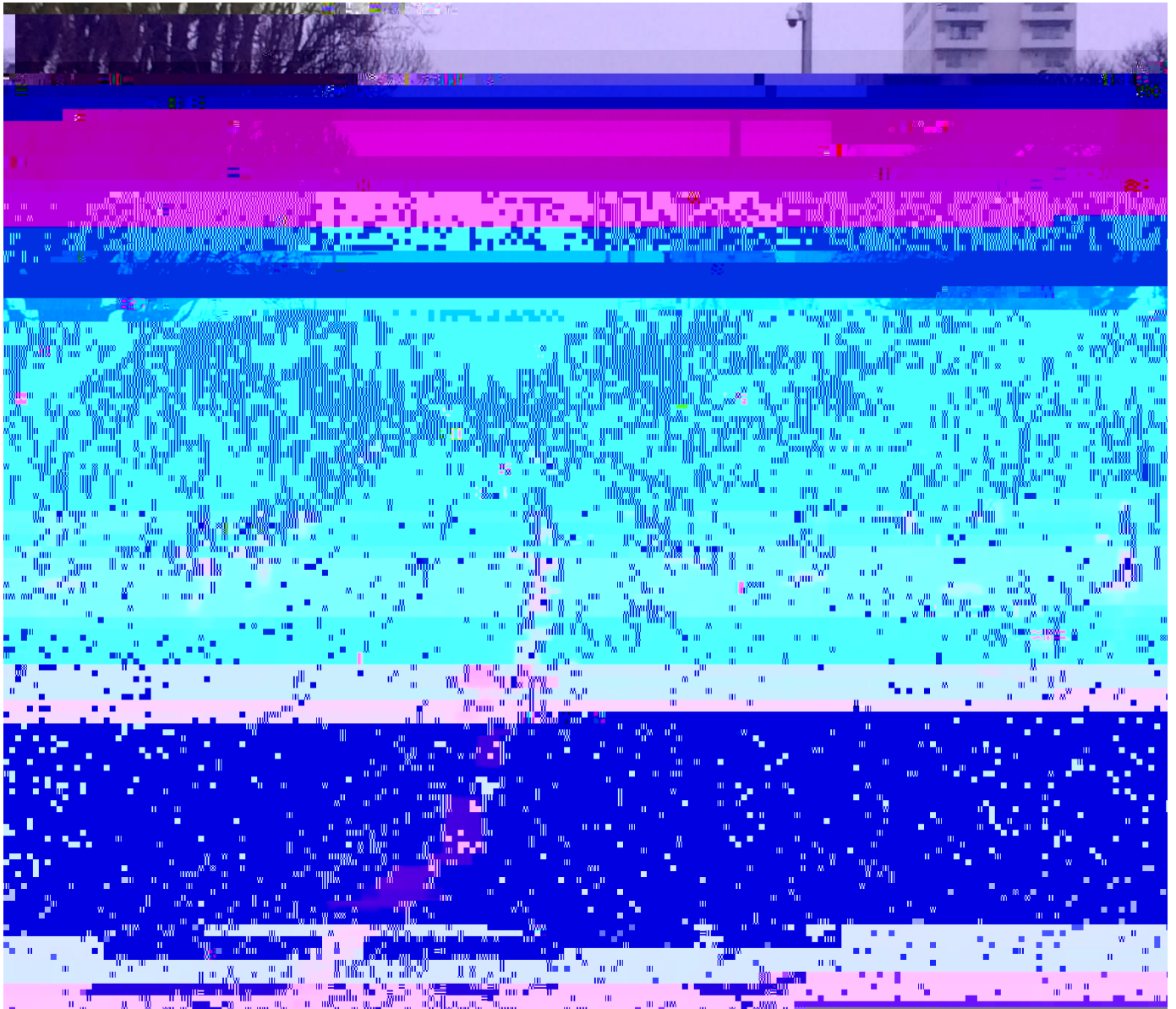


A case study of Hornby and Northwood



Cole Burchiel,
Brendon Lewis
& Mitchell Phillips

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Executive Summary

The suburbs of Hornby and Northwood were the central focus of this study. ~~Prior research by~~
~~given the previous information that had been collected by~~ and the Christchurch
City Council ~~which gave~~ offered us the basis for our research question ~~_~~ – Why have
Hornby and Northwood exhibited lower participation in the city centre rebuild and what
tactics can be employed to reengage these communities in the future? ~~_~~

Hornby and Northwood are two suburban settlements located in the ~~south west~~ Southwest and
north North outskirts of the Christchurch city district

These responses are expected to portray the sensibilities of the relevant communities and conclusions extrapolated from results should reflect relevance on the population, however further sampling should be done if representative data is required. ~~we were only able to draw direct results related to the participants in our study. As our sample was too small, we do not have the required number of results to draw comprehensive percentage-based results. With our survey answers~~ Finally, ~~participants~~ participant -answers varied significantly, necessitating categorization of responses. Individual responses should be reviewed for further

Introduction

This research aims to investigate and gain an understanding of the perspectives of underrepresented Christchurch communities in post-earthquake recovery and rebuild processes

out to Little River and Southbridge and was absorbed into the city boundaries mainly due to urban sprawl from the Riccarton direction (Wilson, 2014). The suburb in many respects can still be viewed as an independent town operating within a greater urban space; Hornby hosts largescale industry, retail, sports, education and social facilities serving the local population and surrounding suburbs and outlying rural districts. Significantly more than half of its population (14,400) is employed locally within the suburb (CCC, 2018).

Northwood is a relatively recent addition to the greater suburb of Belfast located 8 kilometers north of the Christchurch city centre. The development gained further impetus when suitable land for residential construction became scarce following the 2011 earthquake and plans for residential and commercial development were fast-tracked (CCC, 2014). It comprises approximately 630 medium-density homes, 64 retirement village units, a preschool, two major supermarkets, bulk retail and good access to green spaces and a lake. The development (nd g)1 vlll 41p f 4

Literature Review

With little literature directly relating to Northwood and Hornby, international literature and case studies were used to draw comparisons and provide main focal summary points. We decided upon these comparisons as they were the principal findings in previous research that relate to international examples of Northwood and Hornby. The literature focused around some pre-determined hypotheses we thought would be prominent in the answers of our participants.

Inequality Between Socioeconomic Classes

city centre. Ideas rose by Baker and Billinge (1982) suggest that when any disaster occurs (such as an earthquake) there will be some communities that are left in dislocation or isolation. They use the case-study of San Francisco from the 1906 earthquake where post-disaster recovery was primarily focused towards the wealthy, building tourism numbers

Hornby and Northwood have fewer options and irregular transport patterns (Coates, Johnston & Knox, 1977). Examples of these cities include Montreal, Canada where the city centre is strongly connected through regular bus systems and cheap subways. To get to the outer suburbs by bus, people need to take three buses and for subways, people need to take two lines to the end of their route costing more money and time (Mercier, Carrier, Duarte & Tremblay-Racicot, 2016). While this outline the connections, people have to the city centre (although limited), Strakos and Novak (2015) highlight that some transport options are used for connection to the city centre for settlements outside the city boundary or to connect those who cannot afford private transport but if emotionally they have no need to go to the city then these options are not appropriate.

[Psychological Trauma from Disasters](#)

depending on the efficiency and success of recovery. For residents, the connection to a city centre is strongly built around safety and trust. In a Sheffield case-study, people were asked to travel to the city centre and to record any difficulties or issues they encountered. Many reported that the construction and poor transport were people died when the west stand of the Hillsborough stadium collapsed from overcrowding. For many of the respondents, traumatic memories from this event was a strong deterrent for many to visit the city centre (McClimens, Partridge & Sexton, 2014). Other issues around trauma from disasters have included the speed of recovery after a disaster, emotional issues from witnessing little recovery or ignorance of no sense of remembrance from the event (Helms, 2012). It is argued, however, by Najarian et al., (2001) that people should stay away from the city centre after a disaster. In their study, over half of participants recorded poor cognitive function such as memory and speech issues as well as PTSD (post-traumatic stress disorder) symptoms from either observing a disaster in the city centre or from the immediate aftermath such as building collapses or ground movement. A recent report on the effects of the February 2011 earthquake on Christchurch city saw that many of the children who were within the central business district or eastern suburbs still suffer mental health issues, a 60 percent rise compared to 2010. (Hayward, 2016).

Social Connections in Other Locations

Several authors have made identification to social connections that communities possess. Heida and Koudenburg as well as Postmes and Gordijn (2013) state that when people have more frequent connections to a specific area, the connections to other communities diminish. They use the case study of Crescent City, California where a tsunami killed 11 people and destroyed hundreds of buildings and businesses. When construction was finally completed, visitor numbers were still drastically lower than pre-tsunami. T

where if people have positive connections to closer or more accessible facilities/amenities then there will be a decrease in the needs to explore past this section of the city. An interesting discovery was that even when improvements to public transportation and increased employment opportunities are offered, people will still prefer to stay within their pre-existing communities. This concept is built on by Sack (1997) who explains the idea of people and place where if people have positive experiences with their place (such as Northwood or Hornby) then the need to expand is decreased. Dumitrache and Nae (2013) explain how social connections are built on emotional connections. As many of our participants responded, they do not like how many historical buildings have been demolished and replaced. For them, these were their emotional connections which have been cut entirely. A study by Rahman, Shamsuddin and Ghani (2015) found the five factors that influence social connections to a city centre being attraction of the street, activities, proximity to commute, congestion (both public transport and foot traffic) and familiarity/length of engagement which is a strong issue within our research (Ujang, 2008; 2010).

Methodology

Survey Sampling

We sought a comprehensive assessment of the relationship held by Hornby and Northwood with the city centre. Qualitative closed-ended data was required to compare communities and change over time, along with open-ended data in the form of individualized short answer responses to increase our understanding of public perception and desires. The selection of open and closed-ended questions presented both positive and negative effects of our study. Our open-ended questions where little data was previously known allowed our participants to freely answer the question to as much detail as they desired, however, it was more time consuming than a closed question which is why we proposed only eight questions in the entire survey (Gray, 2009). With the intent of working with many participants and producing a report for use by an NGO, we decided a questionnaire would be the most effective and recognizable format of data collection (Cloke, 2004). An eight-question survey was created to satisfy both open and closed-ended requirements (Appendix I). The questions covered frequency of usage, positive qualities of the city centre, obstacles which prevent access to the city, and specific recommendations for the continued improvement of the city centre. Questions alternated between discrete multiple-choice,

2014). The choice to use

only two questions

pre-

behaviour with respect to visiting the city centre (Fink,

2003).

Due to time and resource constraints, our research group elected to survey community leader groups rather than poll the entire population; the allotted timeline made it very unlikely to establish a representative sample size, in addition to the fact that historical efforts to poll these communities have suffered severely from lack of participation (Hay, 2016). The questionnaire was distributed in person to the Hornby Rugby Club and the Northwood Neighborhood Association, popular groups with an active presence in their communities. We attempted to stimulate diversity of gender and age in our initial survey sample by inviting families to participate together (Brymann, 2016). This generated a heterogeneous sample, though it still remained slightly weighted toward adult men for both communities. To increase sample size, the

questionnaire was also digitized using Google Forms and publicized on popular Hornby and Northwood social media pages such as their Facebook pages. We included questions regarding age and gender in the online distribu

Results

Considering the limited information on our subject matter, we attempted to approach data analysis with a retroactive blind by establishing multiple working hypotheses before categorizing the data. The multiple theory approaches allow for complex interpretation of a social dynamic by comparing multiple combinations of variables at different weights (Eyles, 1988).

Demographic differences

generate a t-statistic of -2.01 which exceeds our calculated critical value of ± 1.935 ($p = 0.0506$). Therefore, at a confidence level of 94% we reject the null hypothesis that the post-quake means are the same and can assert that these two samples are significantly different from one another; Hornby and Northwood display likeness preceding the earthquake but depart from one another to a statistically significant difference. Our results show these two communities have responded to the Christchurch city centre in different ways following the earthquakes and

Our results show that the frequency at which residents of Hornby and Northwood visited the city centre preceding the earthquakes was comparable, though Northwood residents had a slightly higher rate visitation. Following the earthquake, these frequencies dropped noticeably; daily and

neighbor

range of options provided as well as the written input provided on some surveys which were placed under this category.

Changes made by single respondents in visit frequency pre- and post-quake were noted to determine how individuals from each community reacted (Figure 1b). We found that 50% of Northwood respondents did not change their habits, 29% decreased their visits, and 21% increased their visits. However, 52% of Hornby respondents did not change, 45% decreased their visits, and 3% increased their visits, which for this sample size was only one respondent.

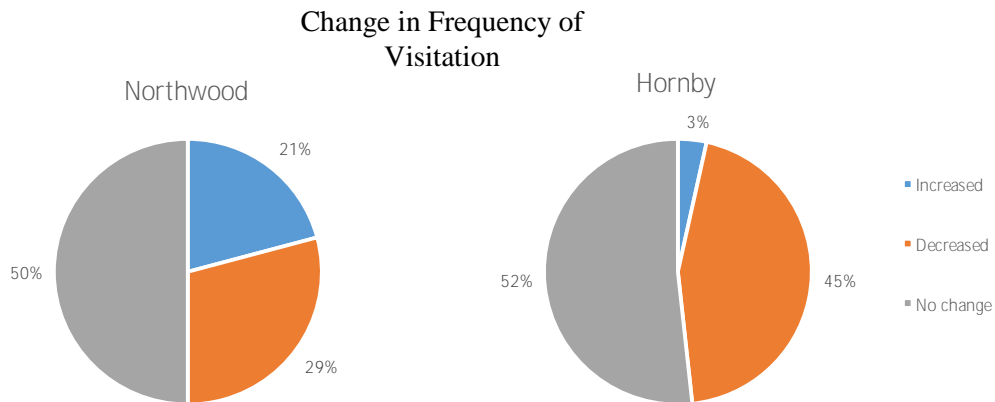


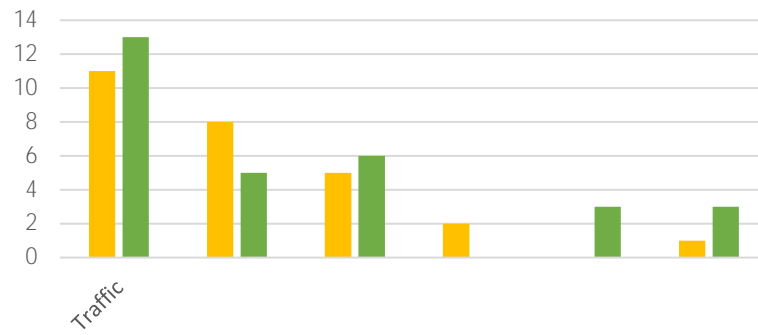
Figure 1b: Differences in visit frequencies reported by single respondents.

Perceived Value

Questions designed to gauge perceived value of the city centre indicate percentage of respondents who believe there are certain amenities found exclusively in the city (Figure 2) and what reasons may bring people from surrounding suburbs to visit the city (Figure 3).

Limiting Factors

Respondents also identified primary obstacles that limit their access to the central city (Figure 4) and the connection they feel to the city centre (Figure 5).



Responses highlight physical obstacles as primary deterrents which dissuade respondents from visiting the central city. Comparable numbers of responses indicate a hierarchy of concerns; 11 and 13 respondents from Northwood and Hornby respectively state that traffic, road construction, and confusing detours prevent them from accessing the city. 5 respondents from Northwood and 6 from Hornby expressed concerns about crowds while a similar amount

The greatest interest was expressed for green spaces consisting of parks, walkways, publically accessible fruit and vegetable plants, and improved landscaping; 7 respondents from Northwood and 5 respondents from Hornby made these recommendations. A disproportionate amount of 8 Hornby respondents expressed interest in the proposed stadium compared to 1 respondent from Northwood. 4 Northwood and 3 Hornby respondents stated that parking should be more accessible and/or less expensive. 3 respondents each from both communities described various cultural projects t

The second most disproportionate recommendation involved further development of athletic fields and outdoor recreation, written by 1 Northwood respondent and 4 from Hornby. The remaining recommendations reported in pairs or single responses are detailed in the following discussion along with further details on the preceding reported recommendations.

Discussion

disaster can take 5-10 years. Seven years on from the 2011 event has allowed many to move on from the events of the CES, though others may remain heavily affected.

Najarian et al. (2001) also found that if the risk of depression increases as post-disaster recovery processes are delayed and drawn out, as is the case with Christchurch, whereas instances of PTSD develop to a greater extent in the immediate aftermath of the trauma. This supports the no

impact is followed by a secondary phase of drawn out recovery, including insurance claims, poor roading and lost community connections and facilities (Parliamentary Library, 2014). Research conducted by All Right?, a Christchurch health and well-being initiative led by the Canterbury District Health Board and the Mental Health Foundation of New Zealand, found that these

- Is more severely than the initial shock and aftermath of a disaster, as they erode well-being over the long term (All Right?, 2017).

However, a key finding in the Otago University research explaining low reported trauma rates also points to a greatly positive evaluation of Christch

he psychological impact of the quakes could have been worse if community spirit were not so - have acted as a protective factor in mitigating the consequence for those with high levels of exposure to earthquake-

rsity, 2014).

Connection

Our secondary hypothesis regarding community connections references the correlation between the frequency of visitation to communities and the level of emotional connectedness reported by visitors (Heida, 1987; Koudenburg, Postmes, & Gordijn, 2013). Under this hypothesis, catastrophic damage and exclusion zones across Christchurch created physical barriers of entry to the centre, thus decreasing connectedness to the area. Continued physical obstruction by way of road construction and detours further inhibits re-establishing a sense of connection to the city. The relative difference in accessibility to the the city from each community pre- and post-earthquake - ve responses to the rebuild.

Physical Barriers to Reengagement

The most significant observed hindrance for reengagement with the city centre as reported by respondents is difficulties with traffic and parking. The Christchurch City Council has reported 400 transport projects yet to be completed at a cost of more than \$1 billion over a 20-year time frame (CCC, 2014). Media reports and anecdotal accounts of disruptive roadworks and traffic chaos indicate that severity and reach of this issue; while reconstruction of a quake-damaged city will necessarily take time, Canterbury Automobile Association chairman Roy Hughes suggests that the 20-year

Park encompasses nearly 161 hectares immedia

[Recommendations](#)

Conclusions made from the two case studies in this report constitute individualized recommendations for each community. However, similar themes of inclusion and accessibility will likely allow for single concerted improvement efforts to maintain relevance for both Hornby and Northwood. To improve accessibility, information on road detours or closures need to be made public before commencing to allow residents time to choose more suitable transport or more suitable routes. Public transport services for Hornby and Northwood residents may also be increased to optimize city accessibility while roadworks continue; community representatives, such as Northwood Residents Association, should be included in conversations with Christchurch City Council, other government organisations, and local organisations to secure said transportation. Increased pedestrian accessibility within the city will also enhance the experience of suburban visitors. Efforts to increase pedestrian access should also be mindful of is both functional and appealing to pedestrian. As Christchurch residents proceed to heal with the city, they will continue to require encouragement and incentive to remain engaged with the city centre. The future of development must maintain a humanizing perspective to understand the fundamental and emotional needs of visitors to the city. Residents express needs for safety and intent; the future iteration of Christchurch must meet the needs of all residents to remain engaging and reconstruct the community which existed before the earthquakes.

[Future Research](#)

A larger sample size will be useful for integrating connections between our selected suburbs and the Christchurch city centre. The opinions of residents from neighboring suburbs may provide context as to whether responses from this report are exclusive to the researched communities; a comparison between low participation suburbs (Northwood and Hornby) could be made against higher participation suburbs to identify similarities and differences. Another report should be conducted into the perceptions of residents in silent communities once construction and roadworks have finally terminated within the city centre as we believe through our study, a large percentage of our participants will want to enter the city centre.

Acknowledgements

We would like to thank our community partner Dr. Jessica Halliday, spokeswoman for Te who gave us information on our suburbs, and reasons to carry out this research. Doctor Rita

Dionisio, Senior Lecturer

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Appendices

Appendix 1 Short Questionnaire Used as Sampling Methodology

1) How frequently did you visit the city centre prior to the February 2011 earthquakes?

Once a day Every other day Once a week Once a month Other

2) How frequently do you visit the city centre currently?

Once a day Every other day Once a week Once a month Other

3) What would bring you to visiting the city centre?

Retail Work Restaurants Recreation Other

4) Are there amenities available in the centre city that are not in Hornby/Northwood, and do you have any need for them?

5) Or what other reasons deter you or other people in the community to visit the city centre?

6) Do you feel a connection to the city centre as you do with your local community (for example: memories, sense of belonging, sense of community, place attachment)?

Yes No Other

Please explain

7) What is your perspective on the Christchurch city centre?

8) What would you change or suggest to make the city centre more enticing for yourself, friends, family and your community?