

# RESEARCH BRIEFING ON EQC IN *THE PRESS*

Submission to the *Public Inquiry  
into the Earthquake Commission*

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# Introduction

This research briefing reports on the key findings of a computer-assisted text analysis of records from *The Press* newspaper related to the Earthquake Commission (EQC) from 2010 to 2019. The briefing has been prepared as a submission to the *Public Inquiry into the Earthquake Commission*. The aim of producing this research briefing is to provide the *Public Inquiry* with preliminary findings of a large-scale overview of media coverage on EQC and to identify and quantify key features and trends in public discourse about EQC over time. This research, which aggregates many stories and voices over time, offers a unique lens to view how EQC has been collectively represented, understood and experienced by the people of Canterbury.

## Data and Analysis

The corpus (or data-set of texts) used for this analysis was developed from records supplied by *Fairfax Media* to the University of Canterbury Arts Digital Lab. The Fairfax data-set is available to researchers at the University of Canterbury and is archived in *UC QuakeStudies* (Smithies, Millar, & Thomson, 2015),<sup>1</sup> a digital archive of materials related to the Canterbury earthquakes and recovery. Although the full Fairfax data-set includes media reports from other *Fairfax Media* publications in New Zealand, the analysis reported here only includes those stories indicated as being published in *The Press*. As Christchurch's only daily newspaper, *The Press* has been a prominent venue for local news reporting and opinion in the period since the earthquakes in 2010 and 2011. *The Press* content is available in print form and online and enjoys wide readership (Roy Morgan, 2019).

The corpus used for analysis covers the period September 4, 2010 to April 12, 2019. *The Press* corpus totals over 112 million words and contains 296,117 documents. The documents in the corpus consist of news articles, editorials, letters to the editor, entertainment and other content. Studying the corpus offers insight into news reports since 2010, as well as reflecting the views of

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<sup>1</sup> *UC QuakeStudies* can be accessed at <https://quakestudies.canterbury.ac.nz/>.

the people of Canterbury in the aftermath of the earthquakes as preserved in news reporting and opinion writing.

The computer-assisted text analytic techniques applied in this research have been developed and applied in the fields of corpus linguistics (for example, see: McEnery & Wilson, 2001; Baker, 2006; Partington, Duguid, & Taylor, 2013) and “computational” or “automated” content analysis (for example, see: Krippendorff, 2004; Grimmer & Stewart, 2013). By applying computer-assisted text analysis techniques and other “digital methods” to process large quantities of data researchers can detect and quantify phenomena that are not easily recognised or scrutinised in other ways (for recent discussion, see: Rogers, 2013; Marres, 2017).

The specific analytic techniques that have been applied in preparing this research briefing are frequency analysis and collocation analysis (for discussion, see: Baker, 2006). Frequency analysis has been used to quantify mentions of EQC (either as “EQC” or “Earthquake Commission”) and to determine when EQC was being featured prominently in *The Press*. Collocation analysis has been applied to determine collocates (words that demonstrate a measureable tendency to co-occur within a limited span of text) of “EQC”/“Earthquake Commission” which helps understand how EQC has been represented in *The Press*.

# Key Findings

## Quantifying EQC coverage

**EQC was a prominent feature of coverage of the earthquakes in *The Press*.** The terms “EQC” or “Earthquake Commission” were mentioned 14,626 times in total. Comparing this to other terms related to the earthquakes puts this quantification in perspective. Table 1 depicts the frequencies of other earthquake-related terms in *The Press* corpus. Mention of “EQC” or “Earthquake Commission” is prominent when compared with terms for earthquakes, aftershocks and insurance. Interestingly, EQC was mentioned significantly more than the *Canterbury Earthquake Recovery Authority*, the other key government entity involved in the earthquake response.

Table 1 Comparing frequencies of earthquake-related terms in *The Press* corpus

Terms	Frequency	Frequency per million words
“EQC” or “Earthquake Commission”	14,626	130
“earthquakes”, “earthquake”, “quake”, “quakes”	90,229	803
“aftershock” or “aftershocks”	4,431	39
“insurance”, “insurer”, “insurers”, “insured”, “insure”	31,226	278
“CERA” or “Canterbury Earthquake Recovery Authority”	10,391	93

The frequent coverage is also evident when examining the proportion of documents mentioning EQC. The terms “EQC” or “Earthquake Commission” were represented in 1.3% of documents in *The Press* corpus. On average this equates to one document mentioning EQC for every 77 documents. When considering only the 36,064 documents that mention “earthquake”, “earthquakes”, “quake” or “quakes”, EQC was mentioned in 8.8% of these documents or at least once in every twelve earthquake-related documents. Further indicating the prominent coverage of EQC over time, there were documents mentioning EQC on 54.4% of the 3,035 days represented in *The Press* corpus. EQC was a leading and recurring character in Canterbury’s earthquake story.

## Quantifying EQC coverage over time

**Coverage of EQC has varied considerably over time.** The proportion of documents featuring “EQC” or “Earthquake Commission” peaked in 2011 and trended downwards each year from 2011. As Figure 1 shows however, when viewed month-by-month, there has been considerable variation within each year period, with noticeable spikes in the proportion of documents mentioning EQC.

Closer examination of documents from 2010 and early 2011 indicates that EQC was active in publicly releasing information in the immediate period after the major earthquakes and aftershocks, including providing information on how people could make claims. However, further analysis indicates that as time progressed, spikes in coverage were often due to controversies related to the EQC claims and repair process, as well as the politics of the earthquake recovery, including political oversight of EQC.

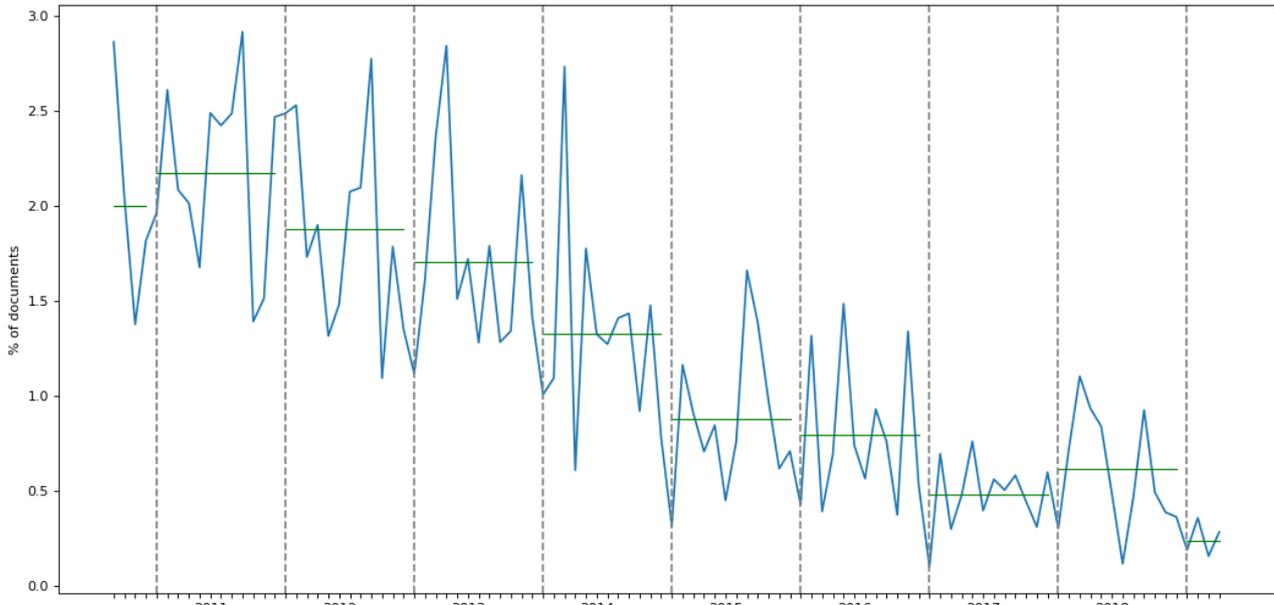


Figure 1 The percentage of documents in *The Press* corpus mentioning EQC for each month<sup>2</sup>

## The changing vocabulary of EQC



Figure 2 Word cloud of the collocates “EQC”/“Earthquake Commission”<sup>3</sup>

Collocation analysis of “EQC”/“Earthquake Commission” reveals the words closely associated with EQC in the aftermath of the earthquakes. Figure 2 represents a word cloud of the top 100 collocates based on all sentences mentioning “EQC”/“Earthquake Commission” in *The Press* corpus. Collocates measure associations between words that are based on recurring patterns of use. The top collocates for “EQC”/“Earthquake Commission” can be broadly

<sup>2</sup> The green horizontal lines represent the percentage of documents in each year that mention EQC.

<sup>3</sup> The word cloud depicts the top 100 collocates of “EQC”/“Earthquake Commission” as ranked by the LogDice collocation measure (Rychlý, 2008). The collocation span is within the same sentence. Words are sized according to the frequency of co-occurrence.



been a key institution influencing the post-quake experience of people in Canterbury. The social scientific literature on disasters emphasises that people's wellbeing after a *natural* disaster is directly related to institutions, decisions, processes, and patterns of inequality that are *human* in origin (Hayward & Cretney, 2015; Olson, 2000; Wisner, Blaikie, Cannon, & Davis, 2004). The findings reported in this research briefing provides some broad context and touch on one problematic aspect of EQC's processes in relation to repairs.

As a "big data" and preliminary investigation, this analysis cannot do justice to individual stories and the specific experiences of members of the public. Future research will investigate aspects of EQC processes, decision-making and oversight in more detail and connect these findings to people's experiences of the process. Further attention to the varying coverage of EQC over time and the nature of the news reporting, debates and controversies underpinning this coverage is also warranted.

## Project Team

This research briefing was prepared by Dr Geoffrey Ford with support from the University of Canterbury Arts Digital Lab. This research will be developed by the University of Canterbury Arts Digital Lab with Professor Paul Millar and Dr Christopher Thomson and other researchers as part of ongoing work to map public discourse and earthquake narratives in the aftermath of the Canterbury Earthquakes.

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## Further Information

Dr Geoffrey Ford is available to discuss this research briefing and the ongoing research. Contact [geoffrey.ford@canterbury.ac.nz](mailto:geoffrey.ford@canterbury.ac.nz) for further information.

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