Media Coverage and Rebuilding in Two Neighborhoods in the Aftermath of the 1989 Loma Prieta Earthquake

Monika Moore
University of Toronto

Abstract

This mixed-methods study examined two neighborhoods in San Francisco with similar earthquake-induced ground failure history—the Marina District and the South of Market Area (SoMa)—in the aftermath of the 1989 Loma Prieta Earthquake. The research explored differences in their recovery processes, including the potential impact of uneven coverage in newspaper media, and different pre-earthquake socioeconomic conditions and building types. Despite findings that the Marina was mentioned more frequently in news media coverage than SoMa, disproportionate to the ratio of damaged buildings between the two regions, socioeconomic processes of rebuilding may better explain how the geography of these neighborhoods shaped the earthquake recovery experience.
Keywords: earthquake, disaster, media, Loma Prieta, rebuilding

Introduction

Images of the San Francisco Bay Area's Marina District burning permeated the air waves and made front-page headlines in the days and weeks that followed the magnitude 6.9 earthquake on 17 October 1989 (Bardet et al. 1992). The earthquake itself originated seventy miles south in the Santa Cruz Mountains, causing a wide swath of destruction up and down the San Francisco and Monterey Bay Areas. In total, sixty-four people were killed and $10 billion USD (in 1989 dollars) worth of damage was inflicted on the region in the span of roughly thirty seconds (Steinbrugge and Roth 1994).

The Marina and South of Market districts (SoMa) experienced particularly extensive damage during Loma Prieta because of ground failure and liquefaction. In the Marina District, seventy-four buildings were destroyed and damages were estimated at $55,233,241 USD (in 1989 dollars); in SoMa, twenty-five buildings were destroyed and damages were estimated at $36,893,325 USD (in 1989 dollars) (Harris and Egan 1992; Taylor et al. 1993). The Marina District and SoMa neighborhoods make for a compelling comparison because while their underlying soils shared similar liquefaction potential and both neighborhoods experienced significant structural dam-

age in the 1989 quake (Dyl 2009), the two neighborhoods had significantly different socioeconomic compositions.

The Marina District was (and remains) an upscale, picturesque neighborhood of elegant architecture and exclusive streets (Bauman 1997). SoMa was heavily industrial and commercial, with residential niches of mixed income households, and experienced a surge of development during the dot-com boom of the 1990s (Bauman 1997; Gin and Taylor 2010). The median home value in the Marina was over $500,000 USD in the 1990 census, and the population below poverty level was just under 5 percent (US Census Bureau 1990). In SoMa, the median home value was $192,700 and the poverty level was 18.7 percent, which was 6 percent higher than the San Francisco City and County average at that time (US Census Bureau 1990). The Marina had more owner-occupied buildings than SoMa, although both neighborhoods had more renters than owners (US Census Bureau 1990). The Marina, covering 0.6 square miles, housed 9,775 people in 1990, making up 1.4 percent of the San Francisco City and County population. SoMa covered 1.5 square miles and contained 11,770 people, 1.6 percent of the San Francisco population. The Marina was populated by mostly middle- and upper-income white professionals, while SoMa housed a diversity of ethnic backgrounds from various layers of economic strata (Bauman 1997; US Census Bureau 2010). Identifying potential underlying contributors to the different rebuilding patterns of these two neighborhoods is the central subject of this study.

Although there is discussion around what exactly exemplifies recovery, for the purposes of this study, rebuilding is taken as a major indicator of recovery, and is the main factor considered here (Chang 2010; Tierney and Oliver-Smith 2012). The Marina was repaired rapidly and in nearly identical form to its pre-earthquake state (Arnold 1993; Bauman 1997). Reconstruction was geared toward replacing damaged structures with new structures that served the same purpose of providing housing, and even involved transforming previously low-rent units into condominiums. The costs were met mostly by residents themselves, with government aid intended to help homeowners with bureaucratic processes (Bauman 1997).

SoMa, however, did not quickly return to its previous state. After the quake, the city did not encourage replacing lost low-income apartments in the same way they did in the Marina (Bauman 1997). The cost of rebuilding in SoMa was borne largely by government and NGO assistance and volunteers (Bauman 1997). The earthquake presented an opportunity to work toward needed redevelopment goals in SoMa, as evidenced by the growth and work of the South of Market Redevelopment Area, initially established to aid recovery, later supporting improvement in housing and neighborhood services (Office of Community Investment and Infrastructure n.d.).

In addition to the socioeconomic and building-type differences in these two regions, media coverage varied dramatically. After the 1989 Loma Prieta event, media coverage focused on the Marina District, while less coverage was given to the more ethnically diverse East Bay and Santa Cruz, even though these areas were equally devastated (Dyl 2009; Rogers et al. 1990; Rodrigue, Rovai, and Place 1997). Research has suggested that differences in media coverage have been related to differences in recovery time and community response, and has possibly been linked to economic and cultural differences (Rodrigue 1993; Rodrigue, Rovai, and Place 1997; Rovai 1994). Repetitive images of earthquake damage in certain locations shown by the media has coincided with public perceptions that damage was most severe in these locations (Rovai 1992; Rodrigue, Rovai, and Place 1997). Additionally, Rodrigue, Rovai, and Place (1997) described "filters" through which information provided by the media must pass. These filters may involve news reporters receiving official communications that they must then turn into a news story, adding discursive layers to the information that may shape the resulting impressions on the audience (Davis and French 2008). It is quite possible that the Marina represented a more popular story for the media than SoMa in the quake's aftermath.

The fact that the media is a highly commercialized industry that depends in part on sensationalism to draw in and keep customers to maintain a steady base of support may help explain why the aesthetically dramatic burning Victorian structures in the Marina were utilized (Ali 2013). These images may have served as a disaster reporting "hook," which are often composed of a compelling visual image such as a memorable landscape or a site of dramatic fatalities to draw in viewers and readers (Dynmon and Boscoe 1996). The media's actions may have unintentionally generated a bias toward the Marina District.

The 1992 North Coast Earthquake in California also exemplified a media bias toward certain regions (Rovai 1994). Rovai (1994) argued that the media's attention was focused on picturesque, tourist-oriented Ferndale rather than lower per-capita income Rio Dell, as evidenced by significantly higher visibility in newspaper articles and photographs. Rovai (1994) concluded that socioeconomic factors existing prior to the earthquake contributed to differential rates of recovery, and that financial resources were clearly more

available and accessible to Ferndale residents than to Rio Dell residents. Though the populations in the 1992 North Coast earthquake and the 1989 Loma Prieta Earthquakes were quite different, Rovai's (1994) study exemplifies the potential impact of unintentional media biases on recovery.

The three main sources of information for media outlets in the aftermath of Loma Prieta were the national newswire, network television broadcasts, and witness accounts, all of which suffered from misinformation, inadequate estimations, and preconceived views in the immediate chaos that followed the event (Rogers et al. 1990). At the time of the Loma Prieta Earthquake, media outlets of all kinds were concentrated in San Francisco to cover the 1989 Major League Baseball World Series. The fire that broke out in the Marina District made it the first region to gain media attention, and the images captured of that event greatly influenced impressions of damage as a result (Bolin 1990). Rogers et al. (1990) reported on a visit to the San Francisco Bay Area the day after the earthquake and took stock of the casualties and damage reported by radio, television, and newspaper outlets. Some of these reports specifically mentioned impassable intersections, which Rogers and his team found very much passable. Recently published "best practices" stress the importance of thoughtful, ethical reporting in order to help reduce errors and negative impacts on communities in the midst of disasters, alluding to the tremendous potential impact of inaccurate reporting (Ewart and McLean 2018).

The goal is not to critique the media, but instead to illuminate its possible role in disaster recovery within these two neighborhoods following the 1989 earthquake by answering the following question: Was there a difference in newspaper coverage of the Marina and SoMa neighborhoods following the 1989 Loma Prieta Earthquake, and if so, did this impact recovery? As models for the current study I draw on Rodrigue's research on media coverage following the 1994 Northridge Earthquake (1993; 1997; Rodrigue and Rovai 1998; Rodrigue et al. 2004) as well as Rovai's research on community response to the 1992 North Coast Earthquake (Rodrigue and Rovai 1998; 1994) and modify the scope of their methodology and approaches to fit the confines of this study.

Tabulating newspaper mentions of the Marina District and SoMa indicated that the Marina District was mentioned more frequently in the *San Francisco Examiner* and the *San Francisco Chronicle* than the SoMa neighborhood during the three months following the Loma Prieta Earthquake. By triangulating this quantitative information with a geohistorical analysis of both neighborhoods' pre-existing socioeconomic dimensions and post-earthquake reports, the different pathways to recovery are more clearly elucidated. The results of this mixed-methods approach suggest that, although possibly expressing bias in media coverage of the Marina over SoMa, pre-earthquake socioeconomic conditions and building type were likely dominant factors in determining the patterns of rebuilding.

Materials and Methods

This research utilized a mixed-methods approach, combining quantitative and qualitative data to provide a more multifaceted perspective on recovery from the quake in these two neighborhoods. By triangulating the quantitative newspaper mentions with assessments of the neighborhoods both before and after the earthquake, a more nuanced scenario emerges (Salkind 2010).

First, newspaper mentions of Marina District damage and SoMa damage were tabulated for the three months following the 1989 Loma Prieta Earthquake. The *San Francisco Chronicle* and the *San Francisco Examiner* were the primary sources for newspaper media data, given that they were the primary morning and evening edition newspapers (Table 1). Sections included in this tabulation included news, business, community, and science sections, and I eliminated sports, entertainment, and editorials. Only full text articles were included with a title indicating subject matter related to the earthquake. The newspaper media data collected covered both residential and commercial recovery in both neighborhoods, so the interpretations made based on this data do not distinguish whether the article mentioned a residence or a commercial building. Because of the time and technology involved, television media was not used in this study.

Table 1: Number of mentions of SoMa and/or Marina neighborhoods during the three months after the Loma Prieta Earthquake in the *San Francisco Chronicle* and/or *San Francisco Examiner*, 10/18/89–1/18/90.

	Chronicle		***Examiner***	
	SoMa	**Marina**	**SoMa**	**Marina**
October	35	206	30	184
November	18	95	20	55
December	8	15	10	19
January	0	7	7	5
Total	61	323	67	263

The data from the first three months of coverage after the 1989 earthquake in the two primary San Francisco newspapers indicates that the Marina District was mentioned more frequently than SoMa. However, without socioeconomic data, the newspaper mentions provide an incomplete view of the event and its aftermath.

In addition to tabulating newspaper mentions, this analysis included a close reading of reports published in the quake's aftermath that described damage and recovery patterns in order to formulate a pre- and post-quake picture of the two neighborhoods. Reports to the government on the quake included analyses of pre-quake socioeconomic conditions in these two neighborhoods, and issues encountered in the post-quake environment. Incorporating these qualitative studies on post-earthquake recovery contexts and processes provided potential explanatory reasons for why the newspaper coverage was uneven. These data are described in the Discussion section below.

Discussion

While the Marina had three times as many damaged structures and a slightly higher cost of damage than SoMa (Harris and Egan 1992; Taylor et al. 1993), the Marina was mentioned more than four times more often in these newspapers. This indicates that media representation in the Marina was *not* directly proportional to that of its damage, and that it did receive disproportionately more coverage in these newspapers than SoMa.

That the Marina was mentioned more frequently than SoMa could have been related to damage differences and the spectacular visuals that accompanied it, but also socioeconomic differences. Because of distinct socioeconomic circumstances existing in each neighborhood *before* the quake, recovery may have occurred more rapidly in the Marina than in SoMa *regardless* of media coverage. The Marina was mostly residential with a high-end commercial district, while SoMa was mixed industrial and commercial with some small residential enclaves (Bauman 1997). This difference may have had an effect on the speed of recovery because commercial buildings have a different route to reconstruction than residences do, with wood-frame buildings tending to be repaired more quickly, and also are more likely to be residential (Al-Nammari and Lindell 2009). On average, repaired residential wood-frame multifamily buildings were occupied roughly two years after Loma Prieta (Comerio and Blecher 2010). Recovery in the Marina District also may have been facilitated by the fact that Marina residents fit the model of an anticipated disaster victim, that of a middle-class homeowner (Comerio, Landis, and Rofe 1994). The recovery processes in the Marina District and SoMa likely differed in part because of their socioeconomic makeup, but also because of the type of buildings located in the two neighborhoods.

Importantly, SoMa had a higher percentage of renters rather than owner-occupiers compared to the Marina. In fact, almost seventy percent of San Francisco's low-income, single-room occupancy (SRO) hotel rooms in residential hotels were lost in SoMa alone during the quake (Bolin 1990). Many owners found it cost-prohibitive to replace their damaged hotel with a new hotel serving the same purpose and population (Comerio 1998). Low-income housing is the most difficult to replace, as agencies that work with low-income populations and build low-income residences were already working in a near-crisis mode during normal conditions (Greene 1991). Further, there was a requirement that those requesting housing assistance from FEMA have stable housing prior to the quake, leaving SRO residents unable to rely on this resource upon which regular homeowners and renters could rely (Comerio 1998). Not only were displaced SoMa residents, typically renters or shelter residents, unable to make rebuilding decisions on their own, they were often coming from a position of instability (Comerio 1998).

The differences between recovery patterns in these two neighborhoods falls in line with other studies that have found pre-disaster socioeconomic status an important factor in disaster recovery (Fothergill and Peek 2004; Masozera, Bailey, and Kerchner 2007). Grants, loans, and donations are used in emergency situations to bring one's situation back up to where it was prior to the emergency, not above and beyond. Although media coverage is associated with increased charitable giving, even if resources toward recovery were allotted based on newspaper media representation, it is nearly impossible to say whether these additional financial resources can offset pre-earthquake financial circumstances (Brown and Minty 2006).

Concluding Remarks

The purpose of this study was to identify the interplay of media coverage and socioeconomic status in recovery from the Loma Prieta Earthquake, as evidenced by building reconstruction. As the findings and discussion indicate, the media is just one cog in the larger socioeconomic machine; the complex interplay of competing and coexisting socioeconomic, environmental, and political factors that impacted disaster recovery in San Francisco may be fruitful for future research in this area, particularly in the field of environment justice. With increasing awareness of the interplay of socioeconomic and environmental vulnerability, perhaps there will be more recognition of

the higher relative vulnerability of certain neighborhoods to disaster that will avail them to increased attention, newspaper media or otherwise, that may perhaps result in speedier and more efficient recovery.

Future research might incorporate television media coverage in addition to newspaper coverage. Details on the tax structure in San Francisco at the time of the 1989 earthquake might also shed further light on this subject in future research. In addition, a frame analysis of the textual and visual content of newspapers might provide more contextual evidence for how earthquake impacts were described, further detailing the media's impact on recovery.

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