Shaking Up Small Business:

The Impact of Seismic Retrofitting on Small Businesses in San Francisco

Figure 1. Vacant small businesses at Haight Street and Scott Street in San Francisco (Week, 2020).

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Abstract: In 2013, the San Francisco Board of Supervisors passed legislation establishing the Mandatory Seismic Retrofit Program. Requiring all 'soft-story' buildings – defined as structures with 'soft' wall lines – to seismically reinforce their ground floors, the law is an example of proactive environmental resiliency planning. However, the legally sanctioned passthrough of capital improvement costs onto tenants has resulted in an unintended consequence: extreme rent burden. While residential occupants with a financial hardship have been provided an appeals process by the City of San Francisco, no equivalent exists for commercial tenants. This piece analyzes the impact of mandatory seismic retrofitting on small businesses across three San Francisco Supervisor Districts: 1, 2, and 5. The correlation between retrofit construction and high rates of business turnover, ownership change, and vacancy illuminates the tension between planning for environmental resiliency and ensuring small businesses are economically resilient. Moreover, it illustrates the need for a financial hardship appeals process for commercial tenants.

Introduction

San Francisco is known for its history of disruption: where pioneers once searched for gold, data miners now wait for Google buses; where bohemians embraced counterculture, a new experimental generation learns to code; and while earthquakes molded, and continue to endanger, the city's topography, entrepreneurs now shape and threaten the Bay Area's cultural landscape. As the contemporary imagery illustrates, the region's current iteration of disruption is deeply embedded in the technology sector. While headlines often highlight the tensions caused by technology and its surrounding industry, less attention has been paid to San Francisco's other entrepreneurs – small business owners. As the city confronts rising rents and changing demographics, many small businesses are at risk of 'disruption' and can be forced to close. However, these consequences of gentrification are not the only factors causing San Francisco's small businesses to shutter their doors.

The Mandatory Seismic Retrofit Program, passed by the City in 2013, accounts for a quarter of commercial vacancies in some San Francisco neighborhoods.[1] The program's goal to retrofit all seismically unstable buildings is imperative for the health, safety, and resiliency of San Francisco. However, just as an earthquake disturbs the city's bedrock, the ordinance disrupts the small businesses that serve as the economic and cultural foundation of many neighborhoods. Although the City intended for closures and vacancies caused by retrofitting to be temporary, the increased rents following remodels have led to enduring changes for San Francisco's small business community. I assess the impact of mandatory seismic upgrades on San Francisco's neighborhood commercial districts by analyzing three San Francisco Supervisor Districts: 1, 2, and 5, and tracking the number of businesses that closed before, during, or after the retrofit permitting process. The resulting turnover, ownership change, and vacancy rates illuminate the tension between planning for environmental resiliency and ensuring that small businesses are economically resilient.

Mandatory Seismic Retrofit Program

In 2013, the City of San Francisco passed Ordinance 66-13, which established the Mandatory Seismic Retrofit Program.[2] According to the U.S. Geological Survey, within the next 30 years, the probability of a 6.7 magnitude earthquake occurring in the Bay Area is 72 percent.[3] Due to the looming threat of a high-magnitude earthquake, the program aims to stabilize and reinforce San Francisco's aging building stock. The legislation specifically targets residential and mixed-use buildings with a 'soft-story condition.' Defined as "wood-frame, multi-unit residential buildings" with "soft, weak, or open-front wall lines" on the ground floor, examples of 'soft-story' buildings include residences with garages or first floor commercial spaces.[4] These buildings are "particularly vulnerable to severe damage and collapse" following seismic activity.[5] In the event of an earthquake, 'soft-story' structures will account for 66 percent of devastated and uninhabitable housing in San Francisco.[6]

The program has affected over 5,000 buildings across the city.[7] Municipal agencies have categorized each of these structures into four tiers. Due to my research's emphasis on the impact of the program on small businesses, I will only analyze Tier IV properties, defined as "any building containing ground floor commercial uses."[8] Such properties, which account for 1,009 structures in San Francisco, are in the midst of retrofitting before the program's September 15, 2020 deadline. Under guidelines mandated by the San Francisco Rent Board, capital improvement costs associated with mandatory retrofits can be fully passed on to tenants over a 20-year amortization period. Although the City offers an appeals process for residential tenants with hardship, no equivalent exists for commercial occupants. Due to the conjunction of the Mandatory Seismic Retrofit Program and passthrough policies stipulated by the Rent Board, San Francisco's small businesses are faced with a legally sanctioned and annually guaranteed rent increase for two decades – with no available legal protection. The turnover, ownership change, and vacancy rates determined by this research call for a comparable financial hardship appeals process for commercial tenants.

Methodology

I used San Francisco's geographic information system, Planning Information Map, and DataSF, an aggregator of planning-related datasets, to collect all Tier IV addresses and associated construction permit and business registration information. Records maintained by the Department of Building Inspection disclose the application date of each address's retrofit permit and the completion date of construction.[9] The Treasurer and Tax Collector's Office maintains the location information of each registered small business, as well as closures and ownership changes.[10] Since physical site visits were not possible, Google Maps, Yelp reviews, and lease listings further supplemented the research. First, I used Google Maps to confirm how many commercial spaces each Tier IV structure has: some addresses have multiple small businesses on the ground floor, while others were erroneously categorized as Tier IV and had none. I removed all Tier IV addresses with no identifiable commercial space from the sample frame. Additionally, by using the timeline feature of Google Maps, identifying businesses reported as "closed" on Yelp, and seeing if specific addresses were available for commercial lease, I attempted to confirm the status of small businesses in cases where business records were conflicting or not up to date. A comparison of a property's construction timeline against its commercial lease start and end dates (as determined by a combination of business records, Google Maps, Yelp, and commercial leasing websites) revealed the fate of each small business: survival, sale, or shut down. By tabulating the number of businesses shut down, sold, or currently vacant, then dividing their sums over the total number of impacted commercial spaces, I translated these results into a turnover, ownership change, or vacancy rate.

Supervisor Districts

11 Supervisor Districts divide the City of San Francisco. Representing the political boundaries of the city's elected legislative body, districts provide comparable areas for analysis due to their relatively distributed population sizes. This study will analyze Districts 1, 2, and 5. Together, these districts offer a statistically significant sample size of impacted commercial spaces. Moreover, their diverse racial, ethnic, and socioeconomic demographics provide a representative picture of San Francisco's overall diversity and allow for a comparison of the program's impact on different types of neighborhoods. In theory, construction and its consequences will more severely change the character of districts with more vulnerable populations, such as those with a large percentage of immigrant or lower-income communities. Temporary closures and increasing rents disrupt the specialty Chinese grocer or African-American arts and music retailer more than the high-end clothing boutique. Lastly, although the forces of gentrification have impacted the entire city, the University of California, Berkeley Urban Displacement Project has identified these districts as either low risk or historically high-income and expensive.[11] This helps decrease the confounding impact of gentrification on rising commercial rents and business change. Combined, the districts represent 85 Tier IV buildings and 180 commercial spaces.

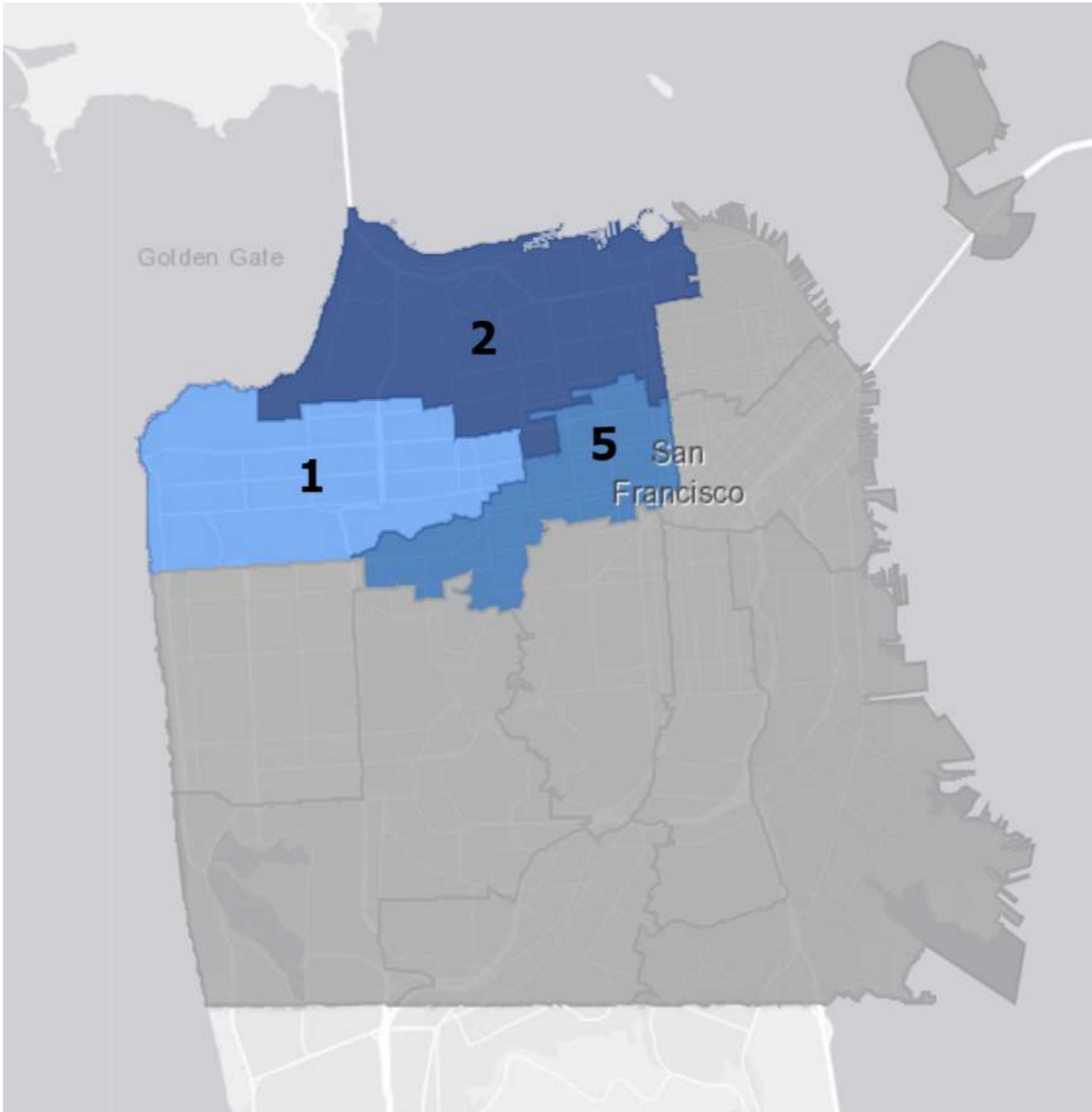

Figure 2. Districts 1, 2, and 5 in relation to the City of San Francisco (map created by author).

District 1: The Richmond

Bounded by the Pacific Ocean to the west, the Presidio to the north, Arguello Boulevard to the east, and Golden Gate Park's southern edge, District 1 is commonly known as The Richmond. Since the early 20th century, The Richmond has catered to the housing and commercial needs of a variety of immigrant communities. Two commercial corridors along Geary Boulevard and Clement Street continue to serve these residents. The City has flagged 17 Tier IV structures among these thoroughfares, which accounts for 32 commercial spaces.

Figure 3. Clement Street in The Richmond (*Wikimedia Commons,* 2014).

While the district was originally home to settlers of Irish and German ancestry, its demographics shifted post-1950. Chinese-American families began to escape the crowded conditions of Chinatown to settle in The Richmond throughout the second half of the 20th century. The collapse of the Soviet Union in 1991 resulted in an influx of Russian immigrants.[12] These communities continue to shape the culture and demographics of the district and its 79,970 residents. Two defining characteristics of The Richmond are its 34 percent foreign-born population (on par with the city's 35 percent) and slightly lower-than-median household income of $83,215 ($88,643 for the city).[13]

Excluding San Francisco's southern neighborhoods (which are majority single-family residential, not well connected by transit, and far away from job centers – characteristics that make these neighborhoods less susceptible to gentrification), The Richmond has been least impacted by redevelopment and consequential displacement compared to similarly located and connected districts.[14] Thirteen of the 17 census tracts within The Richmond's boundaries qualify as lower-income. According to the Urban Displacement Project, a majority of these lower-income tracts have not experienced the displacement associated with gentrification and are not losing lower-income residents.[15] Further analysis conducted by the Urban Displacement Project also illustrates limited commercial gentrification in The Richmond relative to comparable districts. Almost 50 percent of The Richmond's commercial census tracts have never gentrified, while an additional 12 percent have not experienced gentrification since 2000.[16]

District 2: The Marina

Although comprised of many sub-neighborhoods, the majority of District 2 can be delineated as the Marina. The district serves as the city's northern gateway from the Golden Gate Bridge and is often associated with its charming architecture and affluent populace. In fact, with a median household income of $128,633 (compared to the city's overall median of $88,643), the Marina is one of the wealthiest districts in San Francisco.[17] For many years, the Marina lay dormant as an undeveloped marshland. Today it features luxurious waterfront properties and business districts dotted with trendy boutiques, high-end restaurants, and artisan cafes. Primarily located along Union, Lombard, and Chestnut Streets, these commercial corridors feature 27 Tier IV structures and 49 commercial spaces.

Figure 4. Chestnut Street in The Marina (Adam Fagen, *Flikr,* 2013).

A history of affluence has molded the Marina's contemporary socioeconomic character. After the 1906 earthquake devastated the city's eastern housing stock, development slowly trickled west along the Pacific shoreline. However, the reveal of the Palace of Fine Arts at the 1915 Panama-Pacific International Exposition stimulated rapid investment that has shaped the district's architectural character and price range.[18] The Marina's exclusivity has also influenced its demographics. The district is the least racially diverse of the selected areas: 78 percent of its population identifies as white.[19]

The Urban Displacement Project classifies the Marina as a district not experiencing gentrification. However, this categorization holds true for very different reasons. The number of census tracts measured as moderate- to high-income represent another statistical indication of the district's wealth: 16 out of 18 census tracts house majority moderate- to high-income residents. The Urban Displacement Project has labeled the remaining two tracts as "data unavailable."[20] Due to the lack of lower-income households, the Marina does not need to fear the forces of gentrification; the district has successfully insulated itself to receive the Urban Displacement Project label of historically "exclusionary" and therefore is not in danger of gentrification because there are relatively few lower-income households to displace. Ongoing or advanced exclusion describe six of the census tracts for which data is available, while nine are at risk of exclusion: the remaining analyzed census tract has already gentrified.[21] Regarding commercial gentrification, 61 percent of Marina census tracts have never experienced gentrification. Since 2000, small businesses have been displaced due to commercial gentrification in only one tract.[22]

District 5: The Haight

Iconic gathering spaces such as Hippie Hill and the corner of Haight and Ashbury converge at the center of District 5. The Haight's history erupts with revolution, free love, and countercultural movements. However, before the hippies and the Beats, the Haight housed the upper class and bourgeoisie. The opening of Golden Gate Park in 1879 stimulated the residential development of the district. Wealthy families and city elites soon moved into the area to enjoy the large, open lots, the "luxuriant carriage entrance" located on today's Panhandle, and the nearby park.[23] Ashbury Street once held the moniker 'Politician's Row.'[24] Decades later, it would be famous again as the address of the Grateful Dead. The commercial corridor along Haight Street no longer caters to a bygone bourgeoise clientele. The district's contemporary retail is spread across 41 Tier IV structures, and its 99 commercial spaces often feature bohemian businesses ranging from smoke shops to Tibetan gift and spiritual stores.

Figure 5. 'Shaken' Small Businesses at Divisadero Street and Haight Street. Prior to retrofitting, this building housed two smoke shops, a café, and three family-owned restaurants: a burger joint, a pizza-by-the slice counter, and a Korean sandwich shop. After retrofitting, only the pizza restaurant remains. An artisan coffee and tea café, 'Instagram-ready' bubble tea shop, sit-down sushi restaurant, and 'fusion' Indian wine bar now occupy the other spaces (Week, 2020).

The Haight's divergent history influences its diversity today. Of a total population of 84,030 (the largest of the three districts), 19 percent identify as Asian, 62 percent identify as white, 9 percent identify as Latinx, and 10 percent identify as black.[25] The Haight's reach into the historically African-American neighborhoods of Western Addition and the Filmore explains the higher-than-average proportion of black residents in the district. (Only 5 percent of San Francisco's residents identify as black.)[26] The Haight's more diverse racial composition separates the district from The Richmond and the Marina.

Diversity also defines the Haight's proportion of lower-income versus moderate- to high-income census tracts. Among its 20 identified tracts, the Urban Displacement Project has classified 12 as lower-income and 8 as moderate- to high-income.[27] Unlike The Richmond, the Haight has experienced widespread gentrification that has affected almost all of its lower-income population. Ongoing gentrification plagues 10 of the district's lower-income tracts and threatens one other. Only one census tract is not losing lower-income households.[28] Within the moderate- to high-income areas, three continue to exclude lower-income households, two are at risk of exclusion, and the remaining three are at an advanced stage of gentrification.[29] Despite these mixed levels of residential gentrification, the Haight's commercial tenants have been relatively safeguarded from displacement caused by redevelopment: 75 percent of commercial census tracts have never gentrified. Only three commercial tracts gentrified between 2000 and 2013.[30]

	District 1	District 2	District 5
Structures[31]			
Total Tier IV Structures	17	27	41
Impacted Commercial Spaces	32	49	99
Population[32]			
Total	79,970	68,390	84,030
% Asian or Asian-American	40%	15%	19%
% African-American or Black	2%	1%	10%
% White	49%	78%	62%
%Hispanic or Latinx (of any race)	8%	7%	9%
% Foreign Born	34%	17%	24%
Median Household Income	$83,215	$128,633	$91,055
% in Poverty	11%	6%	13%
Gentrification[33]			
Total Number of Census Tracts*	17	18	20
Number of Lower-Income Census Tracts	13	0	12
Number by Displacement Typology			
Not Losing Low-Income Households	7	0	1
At Risk of Gentrification	2	0	1
Ongoing Gentrification	4	0	10
Number of Moderate- to High-Income Census Tracts	3	16	8
Number by Displacement Typology			
Advanced Gentrification	0	1	3
Not Losing Low-Income Households	0	0	0
At Risk of Exclusion	2	9	2
Ongoing Exclusion	1	5	3
Advanced Exclusion	0	1	0
Data Unavailable	1	2	0
Number of Commercial Census Tracts	17	18	20
Number by Gentrification Typology			
Did Not Gentrify	8	11	15
Gentrified between 1990-2000	2	6	1
Gentrified between 2000-2013	5	1	3
Gentrified during Both Periods	2	0	1

Table 1. Characteristics of District 1, 2, and 5.

*Supervisor District boundaries do not perfectly align with census tracts. If a majority of a census tract falls within a Supervisor District, it was counted within that District.

Results

The turnover, ownership change, and vacancy rates for Districts 1, 2, and 5 are documented in Table 2.

	District 1	District 2	District 5
Impacted Commercial Spaces	32	49	99
Total Business Turnover	18	27	54
Before	3	6	10
During	5	12	20
After	10	9	24
Overall Turnover Rate	56%	55%	55%
Post-Construction Turnover Rate	47%	43%	44%
Total Ownership Change	5	4	10
Ownership Change Rate	16%	8%	10%
Total Vacant	5	11	11
Vacancy Rate	16%	22%	11%
District Averages			
Average Overall Turnover Rate		55%	
Average Post-Construction Turnover Rate		45%	
Average Ownership Change Rate		11%	
Average Vacancy Rate		16%	

Table 2. District 1, 2, and 5 turnover, ownership change, and vacancy rates (calculations by author).

Turnover Rates

Turnover signifies that a new entity replaced the original small business at some point in the retrofitting process. Calculations correlating to the turnover rate were split into two categories: 1) overall, and 2) post-construction. The overall rate captures all turnovers after 2013 (when the legislation was passed) to account for preemptive closures in response to small businesses' concerns over temporary shutdowns during construction or potential increased rents due to the San Francisco Rent Board's passthrough rules. The post-construction rate includes only turnovers that occurred after the initial retrofit permit was filed.

While I could not find average turnover rates for San Francisco, research conducted by the Federal Reserve found that 19 percent of businesses across all industries turned over – i.e., entered or exited the economy – in 2015.[34] Across large metro areas such as San Francisco, business turnover in the retail sector was less than 18 percent as of 2014 (the last year for which data is available).[35, 36] The services sector in large urban areas experienced a turnover rate of less than 21 percent in the same year.[37] Although the comparison between the local and national statistics is not perfect, it suggests that the program has severely impacted San Francisco's small businesses.

The Richmond suffered from a turnover rate of 56 percent overall and 47 percent post-construction. The Marina lost 27 small businesses between 2013 and 2019, correlating to an overall turnover rate of 55 percent and a post-construction rate of 43 percent. Lastly, on par with the other included districts, the Haight's turnover rate stands at 55 percent overall and 44 percent post-construction. Despite differences in population and class and differing stages of gentrification or exclusion, seismic upgrading similarly impacted small business turnover in all three districts.

Ownership Change Rates

The ownership change rate tracks the sale of small businesses from one owner to another throughout the retrofit timeline. A change in ownership potentially indicates a forced sale caused by the program and the uncertainty of its consequences. Thus, even if a small business survives, small business owners suffer. This distinguishes the ownership change rate as the study's most covert calculation. Since the same small business continues to operate, residents and visitors to a district see no physical or cultural change taking place. However, although not specifically assessed by this study, ownership change may indicate a sale from a mom-and pop business owner to a large-scale business operator or corporate entity. The disruptive impact of the seismic retrofit program remains hidden among business records, which document who owns a district's small businesses and thereby reaps the economic benefits of what should be a community-serving economic development tool.

The ownership change rates for The Richmond, the Marina, and the Haight, respectively, are 16 percent, 8 percent, and 10 percent. While the rate of ownership change was similar in the Marina and the Haight, small business owners impacted by the program in The Richmond were almost two times more likely to sell. The Richmond has the highest proportion of lower-income census tracts and the largest immigrant community. In conjunction with the effects of the Mandatory Seismic Retrofit Program, these factors may contribute to the vulnerability of the district's small business owners and their likelihood to sell. However, since this district is most impacted by commercial gentrification, it is difficult to separate the forces of redevelopment and ensuing displacement from the program's influence on small business owners and their decision to sell.

Vacancy Rates

Research conducted by the San Francisco Planning Department estimates that healthy vacancy rates fluctuate between 5-10 percent.[38] San Francisco does not currently achieve this with a citywide average of 12 percent commercial vacancy.[39] A comparison between the citywide average and the vacancy rates calculated in this study, which account only for vacancies in Tier IV structures, reveals the impact of the program.

The Richmond surpassed the city's average at 16 percent. Interestingly, the Marina, with the highest median household income, lowest poverty rate, and a geographic concentration of affluent and white residents, has the highest vacancy rate at an enormous 22 percent. Despite evading the forces of gentrification due to its long history as an expensive (and therefore price-exclusionary) area, the district suffers from the worst vacancy rate. Some analysts and politicians believe that San Francisco's extreme vacancy rates are indicative of landlords holding commercial spaces until they can procure higher rents.[40] This theory is not proven; however, it stands as a possible explanation for the Marina's high vacancy rate. The district has some of the fastest-growing rents in San Francisco.[41] Lastly, the Haight sustains a nearly healthy vacancy rate at 11 percent. The district's relatively low vacancy rate offers another datapoint supporting the theory of speculative landlords. As of 2019, a majority of the district's commercial rents were decreasing.[42] Vacancy rates illustrate how differences in a district's characteristics and gentrification or exclusion stage may affect retrofitting's impact on small businesses.

Limitations and Potential Future Research

Due to limited bandwidth and resources – the data collection process occurred over a period of two weeks and was not funded in any capacity – I could not conduct site visits of each Tier IV building. The somewhat limited reliability of certain databases further hinders the viability and applicability of my analysis. For example, not all businesses report their closures to the City, while some businesses never register. Despite the aid of the Google Maps timeline feature, Yelp reviews, and commercial lease listings, without physically examining commercial spaces in person, I could not always determine the status of a small business. This may have led to imprecise counting.

Site visits would greatly improve the accuracy of future research. Moreover, such observations would add meaningful qualitative data: did building owners use the retrofitting process as an excuse to redevelop and reposition the entire property to attract 'higher value' commercial tenants? Have new small businesses, or conversely, persisting vacancies, changed the character of commercial corridors? Do restaurants, retail, and services continue to serve a district's historic residents, or have they transformed to entice new shoppers, and in the long-term, new residents?

Other forces causing business turnover, ownership change, and vacancy also place limitations on the study. I have already discussed the compounding factor of gentrification. Although conversations around gentrification often focus on housing and the displacement of residential occupants, the market mechanisms and population shifts impacting tenants also affect small business owners. Thus, the forces of gentrification convolute the data surrounding turnover, ownership change, and vacancy. Furthermore, personal matters – such as moving, retirement, or unrelated financial concerns – may also impact a small business's decision to close or sell. Without interviewing or surveying every affected small business owner, it is difficult to confirm the true reason for closure or ownership change. Moreover, the pressures of capitalist competition also lead to 'natural' turnover, sale, and vacancy, as highlighted by the Federal Reserve research. This study does not directly account for these forces.

Future research should attempt to survey all impacted commercial tenants. Additionally, focus groups or interviews can supplement the surveys by collecting more in-depth feedback from a sample of affected business owners. Together, surveys, focus groups, and interviews should investigate the reasons small businesses survived, shuttered, or sold. Furthermore, they should conduct a systematic inquiry into the types of businesses, owners, and customers served in post-construction commercial spaces. Do post-retrofit small businesses provide essential goods and services, such as cultural foods or laundry facilities? Have small businesses been sold to limited liability corporations, or do they remain in local residents' hands? Are post-retrofit businesses affordable for lower-income customers? Surveys, focus groups, and interviews, in conjunction with a more detailed review of business records, can help answer these important questions.

Conclusion

San Francisco's aim to become a more resilient city is vital for its long-term health and safety. Due to the likelihood of a high-magnitude earthquake, mandatory seismic retrofitting remains an important and necessary program. However, limited foresight and noncomprehensive policy analysis has shaken the core of San Francisco's neighborhood commercial districts. Due to the legally sanctioned passthrough of capital improvement costs onto tenants allowed under the Mandatory Seismic Retrofit Program, small businesses have been put at risk for disruption. Across the three surveyed San Francisco Supervisor Districts, an average of 55 percent of small businesses have turned over, 45 percent of which closed post-construction. An additional 11 percent have been forced to change ownership, while 16 percent of commercial spaces remain vacant. These rates reveal that the Mandatory Seismic Retrofit Program has negatively impacted San Francisco's neighborhood commercial corridors. Resiliency planning is a necessary priority given the threat of an imminent high magnitude earthquake; however, programs and policies should and can be adopted to relieve the tension between planning for environmental and economic resiliency. Based upon the pre-existing residential hardship appeals process, a similar program can be implemented moving forward for commercial tenants. To qualify for the program, a business's revenue must fall under a certain threshold. The business should also fulfill an essential neighborhood-serving purpose or be culturally significant to the district. By offering a hardship appeal to qualifying commercial tenants, the City can foster thriving neighborhoods and help safeguard San Francisco's neighborhood-serving small businesses – the bedrock of resilient local economies.

Acknowledgements

The San Francisco Office of Small Business originally developed the idea and hypothesis guiding this research. I am immensely grateful for the opportunity to work with the City and County of San Francisco and hope the conclusions of this research offer guidance in future policy analysis and implementation. Moreover, I hope this research can aid and support San Francisco's vital and resilient small business community.

Notes

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