

**CITY AND COUNTY OF SAN FRANCISCO
BOARD OF SUPERVISORS
BUDGET AND LEGISLATIVE ANALYST**

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Policy Analysis Report

To: Supervisor Ronen
From: Budget and Legislative Analyst's Office
Re: Estimate of unpaid commercial rent in San Francisco due to COVID-19 pandemic and related public health orders.
Date: March 18, 2021



SUMMARY OF REQUESTED ACTION

Your office requested that the Budget and Legislative Analyst estimate the amount of unpaid commercial rent in the City and County of San Francisco due to the COVID-19 pandemic and related public health orders.

For further information about this report, contact Fred Brousseau at the Budget and Legislative Analyst's Office.

Executive Summary

- The COVID-19 pandemic had an immediate and direct impact on San Francisco's economy, particularly on certain industries and businesses. The nature of the virus's transmission and related efforts to prevent its spread have required reductions in in-person working, limits on travel, and restrictions on in-person commercial activity. These developments have, in turn, translated into increases in unpaid rent and mortgages for many businesses, particularly small neighborhood-based enterprises.
- Data for San Francisco indicates there was a 50 percent drop in taxable sales in the second quarter of 2020 (April – June) for all business outlets compared to the previous year. This represents an estimated loss in revenue to local businesses subject to sales and use tax of \$2.68 billion relative to the year prior, or roughly \$894 million less per month for this period.
- Reductions in economic activity and revenues have a direct impact on a business's ability to pay operating costs and employees. Besides nonpayment of rent and mortgages, these reductions in economic activity have also led to significant increases in unemployment with 36,274 people

unemployed in the City as of December 2020 (a 6.4 percent rate), an increase of 25,135 compared to 2019.

Increases in partial or non-payment of commercial rent during pandemic

- Declines in the ability of certain businesses to pay rent and mortgages has been documented by commercial property management companies and mortgage broker associations since the start of the pandemic. National data suggests non-payment has recovered slightly from spikes early in the pandemic: the share of rent collected from local and regional retail chains was 81 percent in November 2020, up from 51 percent in April 2020, but still seven percentage points below March 2020 before the pandemic shutdowns had taken full force.¹

Smaller local firms have higher rates of partial or non-payment of rent

- Smaller local retail firms may be faring worse. A survey of a limited number of commercial tenants by the San Francisco Apartment Association indicates that from May through October 2020 between 52 to 63 percent of respondents were unable to pay rent in full. National mortgage data indicates that both retail and hotel properties have seen delinquencies rise more than other commercial sectors. Where local data was unavailable, our estimates assume local trends were the same as national results.²

Estimated unpaid commercial rent in San Francisco: \$19.1 – 44.9 million per month, April – December 2020

- Our estimates of unpaid rent for office, retail and industrial properties between April and December 2020 range from \$19.1 million to \$44.9 million per month, as shown in Exhibit A. Assuming this level of unpaid rent was sustained for three months, unpaid rent is estimated to be between \$57.3 million and \$134.8 million for a three month period. Due to more complex ownership and operating models, estimates for the hotel and accommodation industry are not included below and are discussed separately.

¹ Datex Property Solutions, retrieved from Western Real Estate Business, Vol. 28, Issue 4, December 2020 ([online](#)). “Non-National Retail Chain Tenants” includes local and regional chains and other retail operators, but not national or international chains.

² Further detail on the sources and methods used to produce these estimates are included in Appendix A.

Exhibit A: Low and High Estimate of Fully and Partially Unpaid Rent by San Francisco Business Tenants in Office, Retail and Industrial Properties, April – December 2020

Estimate	<i>Months of Unpaid Commercial Rent</i>			
	1 month	3 months	6 months	9 months
Low	\$19,123,160	\$57,369,479	\$114,738,959	\$172,108,438
High	\$44,949,278	\$134,847,834	\$269,695,668	\$404,543,503

Sources: BLA estimates

Notes: See Appendices A and B for detailed information on the inputs and methodology used to produce these estimates.

High rates of partial or non-payment of rent by retail sector

- Our estimates of non-payment of commercial rent indicate that between 89 and 98 percent of unpaid rent (excluding hotels) may come from the retail sector, including restaurants and bars. This is despite retail properties only making up around a quarter of total rented commercial property space (between 24 and 27 percent).
- As shown in Exhibit B, our estimates indicate that total unpaid rent associated with all retail properties may be between \$18.5 to \$39.8 million per month. This compares to the much lower \$0.6 to \$1.5 million per month for office properties and up to \$3.7 million per month for industrial properties.

Disproportionate partial or non-payment of rent by small neighborhood businesses in residential/commercial mixed use buildings

- Using parcel-level data from the Assessor-Recorder’s Office we separately identified businesses classified as “mixed used”, i.e., residential and commercial in a single building, to estimate non-payment in neighborhood commercial corridors. A typical configuration in neighborhood commercial areas, we estimated that around 12.9 million square feet, or 27 percent, of all retail property space is classified as mixed residential/commercial uses. These are primarily located outside of the downtown area, with the greatest presence in the Mission, Sunset, Richmond, Noe Valley, and Potrero neighborhoods. Unpaid commercial rent associated with these types of properties was estimated at \$10.2 to \$20.4 million per month, disproportionately high relative to their share of total retail square footage in the City.

Exhibit B: Low and High Estimates of Rent Partially or not Paid by San Francisco Business Tenants by Office, Retail and Industrial Properties, April – December 2020

Sector	1 month	3 months	6 months	9 months
Office	\$0.6 - 1.5m	\$1.8 - 4.4m	\$3.6 - 8.8m	\$5.3 - 13.3m
Retail (Single Use/ Office & Retail)	\$8.3 - 19.4m	\$25 - 58.2m	\$50 - 116.3m	\$75 - 174.5m
Retail (Mixed Use with Residential- <i>common in neighborhood commercial areas</i>)	\$10.2 - 20.4m	\$30.6 - 61.2m	\$61.2 - 122.4m	\$91.8 - 183.6m
Industrial	\$0 - 3.7m	\$0 - 11.1m	\$0 - 22.1m	\$0 - 33.2m
Total	\$19.1 - 44.9m	\$57.4 - 134.8m	\$114.7 - 269.7m	\$172.1 - 404.5m
<i>Retail (Total)</i>	<i>\$18.5 - 39.8m</i>	<i>\$55.6 - 119.4m</i>	<i>\$111.2 - 238.7m</i>	<i>\$166.8 - 358.1m</i>

Sources: BLA estimates

Notes: See Appendix A and B for detailed information on the inputs and methodology used to produce these estimates.

- Despite the significant estimate of unpaid rent in neighborhood commercial areas, continuing uncertainty around the timing and number of office-based workers returning to non-residential neighborhoods (i.e. Downtown, Financial District, etc.) may lead to longer periods of reduced commercial activity in these areas, and therefore reduced ability for retail tenants to pay rent.
- The level and distribution of unpaid rent among the different commercial sectors is supported by data on other local economic indicators. Among businesses subject to sales and use tax, those most likely to have been closed due to public health orders saw the greatest declines in sales as did gas stations due to stay-at-home orders limiting non-essential travel.
- Food services, which includes restaurants and catering services, saw the greatest decline in sales, with a 79 percent reduction in April to June 2020 compared to the same period a year prior. Clothing and clothing accessories stores also saw a 72 percent reduction in sales following the start of the COVID-19 pandemic and retail and food services overall were down 53 percent on 2019. While some of these businesses were able to reopen with various capacity restrictions after June 2020,

data from credit card processors indicates sales did not recover to pre-pandemic levels before further public health closures were ordered in December 2020.³

Significant pandemic impact on hotels measured in occupancy decline

- Separate data on hotel occupancy and revenues indicate similarly significant declines due to restrictions on international and domestic travel as well as reductions in business-related travel, including conventions. The latest estimates from commercial real estate services firm CBRE for hotels in San Francisco, San Mateo and Marin counties indicate that occupancy is expected to have fallen to 30.6 percent in 2020 compared to 81.2 percent in 2019.⁴

Office rent payments less impacted by pandemic

- The impact of the pandemic on office-based sectors appears to be more muted and less clear cut. Employment in traditional office-based industries such as professional, scientific, financial, and analytical services has been relatively stable (and even increasing) in the City. However, several large Bay Area employers have announced relocations or downsizing of some of their local offices and office vacancy has risen sharply since the start of the pandemic from 4 percent, in the first quarter, to 16.9 percent in the last quarter of 2020, the highest level since the 2003 recession.⁵

Federal financial assistance unequally distributed and additional local help needed to apply for new aid available

- While local, state, and federal financial aid have been made available, these do not appear to have offset the historic declines in economic activity, as economic indicators such as unemployment and commercial mortgage delinquency remain above pre-pandemic levels. Recent research also indicates that the timeliness of access and the amount of financial assistance has not been equal across different sectors or communities. However, businesses registered in San Francisco with gross receipts of \$25 million or less who missed a rent payment from March 16,

³ Data from Harvard's Opportunity Insights "Economic Tracker" (<https://tracktherecovery.org/>) shows small business revenue in San Francisco rose to 47 and 44 percent of January 2020 levels in July and early December 2020, respectively, compared 69 percent at the end of March 2020.

⁴ San Francisco Business Times, "[Full S.F. hotel rebound not until 2024, new forecast predicts.](#)" Sep. 10, 2020 (online).

⁵ CBRE MarketView, "[San Francisco Office, Q4 2020.](#)" January 2021 (online).

2020 to June 30, 2021 are currently protected from eviction if they meet certain conditions.⁶

- As substantial new rounds of federal and state funds are being made available to provide loans and grants for relief to small businesses, some improvements have been made to address deficiencies in earlier federal program processes. The City can best help maximize award of these new resources to local businesses by providing assistance with the application process and in navigating the various organizations awarding the funds. Depending on current capacity at the Office of Economic and Workforce Development, the Office of Small Business, and their community-based partners, this may require enhancement of such services at these organizations at least so long as these federal and state programs are operating.
- Legal assistance has also been made available during the pandemic through community-based organizations partnering with City agencies to assist small businesses and landlords negotiate lease terms and pandemic-related rent reductions. The demand for such services is likely to increase as the commercial eviction moratorium currently in place is set to expire at the end of June 2021. This is another area that may benefit from additional City resources if demand increases as expected and the service providers do not have further available capacity.

Policy Options

1. The Board of Supervisors could request that any new financial assistance programs for San Francisco businesses authorized by the City include provisions ensuring assistance is targeted to affected businesses who are ineligible or have previously been denied assistance from federal and state sources. Program applicants who do not receive City assistance should also be referred to other resources available.
2. The Board of Supervisors could request that the Office of Economic and Workforce Development (OEWD) and the Office of Small Business (OSB) ensure that their outreach efforts maximize awareness of available public assistance among small businesses who have or are likely to face language and other barriers in applying for aid as well as businesses and landlords

⁶ Governor's Executive Order N-28-20 (extended to March 31, 2021 by Executive Order N-80-20). Mayor's Fourth Supplement, dated March 18, 2020 (extended by Executive Orders on April 15, 2020, May 17, 2020, June 12, 2020, July 10, 2020, August 12, 2020, September 11, 2020, September 29, 2020 and November 25, 2020), and Board of Supervisors Ordinance File 20-1056.

facing legal issues regarding their leases and commercial eviction moratorium requirements.

3. The Board of Supervisors could request that the Office of Economic and Workforce Development and the Office of Small Business provide information to the Board of Supervisors identifying opportunities for streamlining current processes for accessing assistance and whether additional resources are needed to ensure the maximum provision of services and relief funds to San Francisco businesses that may face hurdles in accessing and applying for relief funds and that may need legal assistance regarding the local commercial eviction moratorium and lease matters.
4. The Board of Supervisors could request that OEWD and OSB conduct a further review of opportunities to streamline “digital front door” access and program overlap between the Offices and with some partner organizations to improve accessibility to City programs and maximize the efficient use of City funds. Such a review should include ensuring that these two Offices’ websites provide seamless transitions to partner organizations that also provide assistance services and that they are easily accessible by those with no or limited English language proficiency.

Project staff: Cody Xuereb, Fred Brousseau

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1. The Impact of COVID-19 on San Francisco’s Local Economy

The COVID-19 pandemic had an immediate and direct impact on San Francisco’s economy. However, this impact has affected particular industries and businesses more than others. The nature of the virus’s transmission and related efforts to prevent its spread have required reductions in in-person working, limits on travel, and restrictions on in-person commercial activity. These public health efforts alongside personal behavioral changes due to the pandemic have been accompanied by significant reductions in economic activity for those industries that rely on in-person and indoor activity or tourism. While local, state, and federal financial aid have been made available, these have not offset the historic declines in economic activity.

Reductions in economic activity and revenues have a direct impact on a business’s ability to pay operating costs and employees. As discussed in our previous report on unpaid residential rent,⁷ these reductions in economic activity have also led to significant increases in unemployment with 36,274 people unemployed in the City as of December 2020 (6.4 percent), an increase of 25,135 compared to 2019.⁸ These reductions in employment also lead to further reductions in economic activity through reduced spending.

⁷ San Francisco Budget and Legislative Analyst, “[Estimate of unpaid residential rent in San Francisco due to COVID-19 pandemic and related public health orders](https://sfbos.org/budget-legislative-analyst-reports).” October 27, 2020 (https://sfbos.org/budget-legislative-analyst-reports).

⁸ US Bureau of Labor Statistics, [Local Area Unemployment Statistics](https://www.bls.gov/charts/unemployment-in-san-francisco)

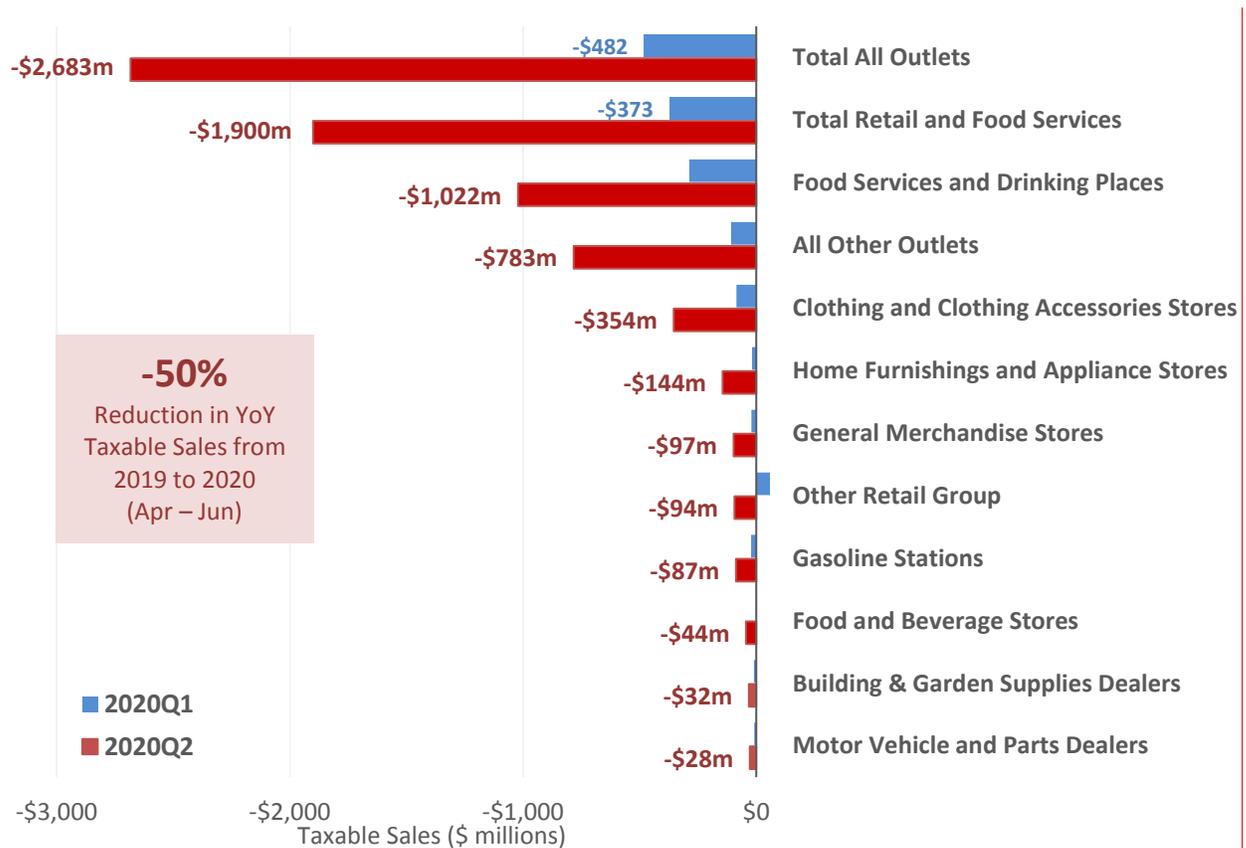
Another key operating cost for local businesses is payment of property costs such as rent or mortgage for the physical business premises. The impact of the COVID-19 pandemic on property costs are discussed further below.

The Impact of COVID-19 on Local Businesses

Retail and Food Services

The latest data for San Francisco indicates there was a 50 percent drop in taxable sales in the second quarter of 2020 (April – June) for all outlets, compared to the previous year. Exhibit 1 shows this represents a loss in revenue to local businesses subject to sales and use tax of \$2.68 billion relative to the year prior, roughly \$894 million less per month for this period. Generally, all tangible goods sold in the state, except groceries, are subject to sales or use tax. Hotel stays are also not subject to sales and use taxes. The Total Retail and Food Services classification includes restaurants, bars and other retail businesses.

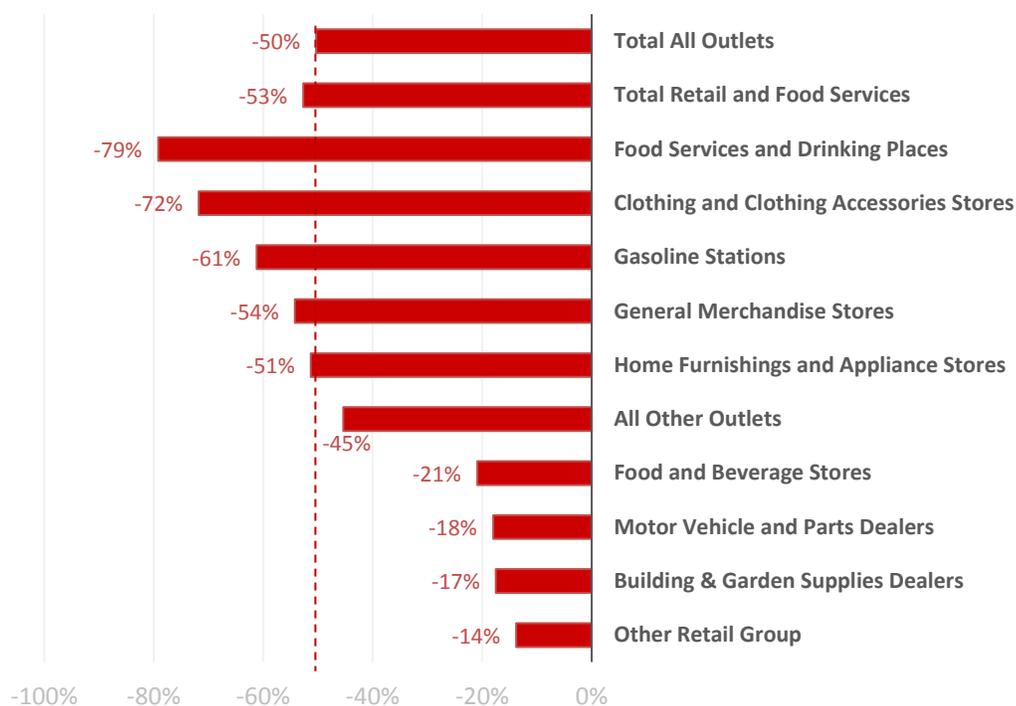
Exhibit 1: Year over Year Change in Taxable Sales in San Francisco County by Quarter and Business Type, 2020 vs. 2019



Source: California Department of Tax and Fee Administration
 Notes: Taxable sales generally do not include groceries (other than hot or packaged meals) or hotels.
 “Total Retail and Food Services” includes all business types except “All Other Outlets.”

Among businesses subject to sales tax, those most likely to have been closed due to public health orders saw the greatest declines in sales, as did gas stations due to stay-at-home orders limiting non-essential travel. Exhibit 2 shows that food services saw the greatest decline in sales, with a 79 percent reduction in April to June 2020 compared to the same period a year ago. Clothing and clothing accessories stores also saw a 72 percent reduction in sales following the start of the COVID-19 pandemic and retail and food services overall were down 53 percent on 2019. While some of these businesses were able to reopen with various capacity restrictions after June 2020, data from credit card processors⁹ indicates sales did not recover to pre-pandemic levels before further public health closures were ordered in December 2020.

Exhibit 2: Year over Year Percent Change in Taxable Sales in San Francisco County for the 2nd Quarter (April – June) by Business Type, 2020 vs. 2019



Source: California Department of Tax and Fee Administration

Notes: Taxable sales generally do not include groceries (other than hot or packaged meals) or hotels.

“Total Retail and Food Services” includes all business types except “All Other Outlets.”

⁹ Data from Harvard’s Opportunity Insights “Economic Tracker” (<https://tracktherecovery.org/>) shows small business revenue in San Francisco rose to 47 and 44 percent of January 2020 levels in July and early December 2020, respectively, compared to 69 percent at the end of March 2020.

Hotels and Accommodation

Separate data on hotel occupancy and revenues indicate similarly significant declines due to restrictions on international and domestic travel as well as reductions in business-related travel, including conventions. The latest estimates from commercial real estate services firm CBRE for hotels in San Francisco, San Mateo and Marin indicate that occupancy is expected to have fallen to 30.6 percent in 2020 compared to 81.2 percent in 2019.¹⁰ CBRE forecasts that occupancy will not recover to pre-pandemic levels until 2024. According to the Controller's Office, hotel revenue, measured by Revenue Per Available Room (RevPAR), was down to \$30 in October 2020 compared to \$227 in January, an 87 percent reduction.¹¹

Office-based Businesses

The impact of the pandemic on office-based sectors appears to be more muted and less clear cut. Employment in traditional office-based industries such as professional, scientific, financial, and analytical services has been relatively stable (and even increasing) in the City. However, several large Bay Area employers have announced relocations of at least some of their local offices, including Oracle, and other large local tech companies, such as Twitter and Facebook, have announced indefinite remote working policies for at least some employees.

Additionally, according to CBRE, office vacancy has risen sharply since the start of the pandemic from 4 percent, in the first quarter, to 16.9 percent in the last quarter of 2020, the highest level since the 2003 recession.¹² Sub-lease activity, usually an indication that the space will not be used for a longer period, made up 47 percent of available office space in the fourth quarter.¹³ Average office rental rates were also down 13.3 percent from the start of the year, from \$88.20 per square foot to \$76.47, indicating a reduction in demand for office space.¹⁴

Residential rents and real estate activity in the City have also decreased significantly, indicating a reduction in demand and potential outmigration of

¹⁰ San Francisco Business Times, ["Full S.F. hotel rebound not until 2024, new forecast predicts."](#) Sep. 10, 2020 (online).

¹¹ Controller's Office, ["FY 2020-21 3-Month Budget Status Report."](#) November 10, 2020 (online).

¹² CBRE MarketView, ["San Francisco Office, Q4 2020."](#) January 2021 (online).

¹³ Ibid

¹⁴ Ibid

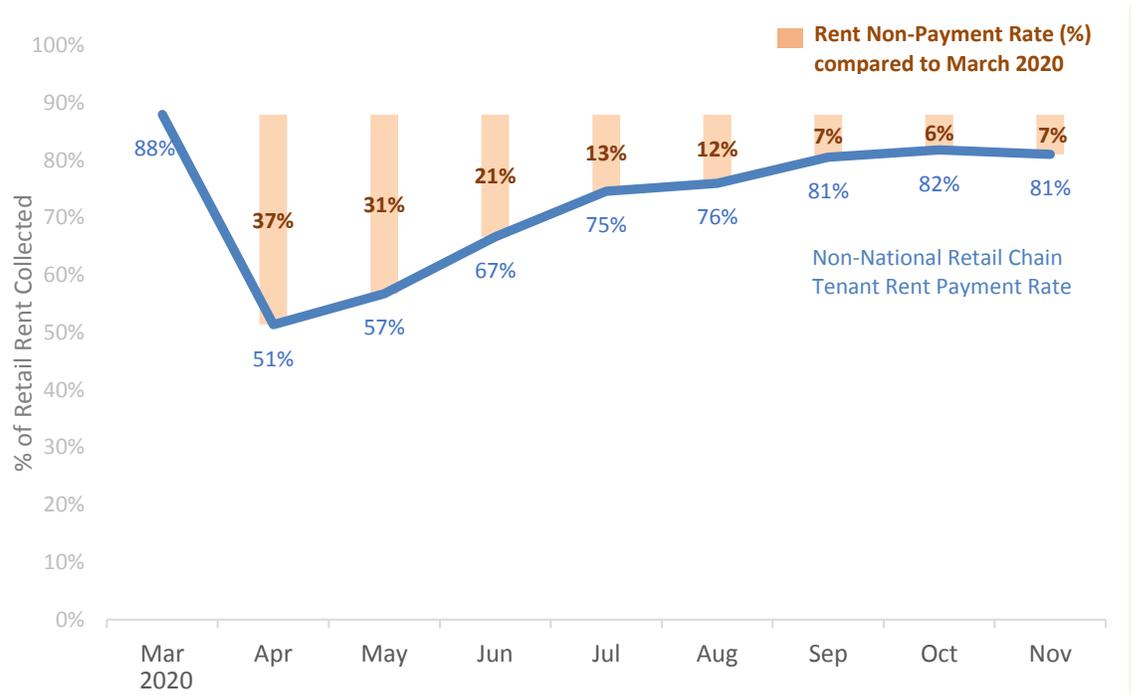
local workers. It is not yet clear whether this outmigration is a short-term phenomenon tied to the pandemic and whether those leaving the City are remaining in the wider Bay Area or moving outside the region. In the short-run, these factors are likely result in a further reduction in economic activity at local retail and food service businesses.

Estimates of Non- or Partial Payment of Commercial Rent and Commercial Mortgage Delinquency

Non-Payment of Rent in the Commercial Sector

Reductions in business sales and revenue have an impact on businesses' ability to cover their operating costs, including rent and mortgage payments. While local data on these payments is more limited, national data indicates that the retail and accommodation sectors have seen significant declines in rent and mortgage payments. Exhibit 3 below, from national retail property IT solutions company Datex, shows that unpaid rent among local or regional retail chains (but not national or international chains) peaked at 36.6 percent in April but were still around 7 percent higher than pre-pandemic levels in November 2020. However, this national data may not be representative of San Francisco retail operators as the City tends to have smaller retailers due to legislation prohibiting large chains in some neighborhoods as well as real estate that is generally less amenable to larger retailers (i.e., shopping centers and strip malls).

Exhibit 3: U.S. Retail Rent Payment and Non-payment Rates among Local, Regional, and other non-national Retail Chains, March – November 2020



Sources: Dutex Property Solutions, retrieved from Western Real Estate Business, Vol. 28, Issue 4, December 2020 ([online](#))

Notes: Dutex statistics are from a national pool of 20 million retailers across several states. “Non-National Retail Chain Tenants” includes local and regional chains and other retail operators, but not national or international chains.

More local data covering a broader range of retail operators suggests certain San Francisco retailers may be faring much worse. The San Francisco Apartment Association has been conducting monthly surveys of members with commercial tenants since April 2020 requesting data on: unpaid rent or partially paid rent, notices to vacate filed, requests for rent reductions, and other metrics. Properties where this is occurring are generally buildings with retail space on the ground floor and residential units on the floors above, a common configuration in San Francisco’s neighborhood commercial areas.

The organization’s survey results from May through October 2020 indicate that between 52 to 63 percent of commercial tenants of survey respondents were unable to pay rent in full. Exhibit 4 provides an overview of these survey results by month. While these figures are high, it should be noted that the number of responses was relatively small, varying from 11 to 74 per month, and the survey did not use random sampling to control for potential bias. Also, unpaid rent in the survey covers both partially and fully unpaid rent by tenants.

Exhibit 4: San Francisco Apartment Association Survey Responses on Commercial Non-Payment of Rent, May – October 2020

Survey Metric	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20
# of Respondents	74	15	54	38	NA	11
Commercial Units/ Spaces Covered	451	161	418	254	NA	254
<i>Avg. # of Units per Respondent</i>	<i>6.1</i>	<i>10.7</i>	<i>7.7</i>	<i>6.7</i>		<i>23.1</i>
% of Respondents with a commercial tenant who permanently closed, broke their lease, or gave notice to vacate	21%	20%	28%	43%	NA	18%
% of Commercial Tenants unable to pay rent in full	57%	52%	53%	56%	NA	63%
<i>% of Respondents with commercial tenants not paying rent in full who are offering:</i>						
Rent Forbearance / Payment Plans	51%	36%	43%	34%	NA	44%
Temporarily Reduced Rent	26%	14%	26%	59%	NA	56%
Renegotiation of Lease	4%	14%	9%	7%	NA	

Sources: San Francisco Apartment Association

Notes: No survey was administered in September 2020

Despite limitations of the survey, data from the state and local restaurant associations provide some confirmation of the potential extent of non-payment in the retail sector. In an August 2020 survey of its members, the California Restaurant Association found that 76 percent of respondents were in need of rent relief, and only 37 percent had received such rent relief.¹⁵ The San Francisco-based Golden Gate Restaurant Association survey of its members conducted in October and November 2020 found that 86.1 percent of the 166 respondents had attempted to re-negotiate with their landlord. Finally, preliminary results from a not yet published survey of small businesses conducted by the City’s Office of Small Business showed a similar rate of inability to pay rent among survey respondents as reported by the San Francisco Apartment Association.

Mortgage Delinquency in the Commercial Sector

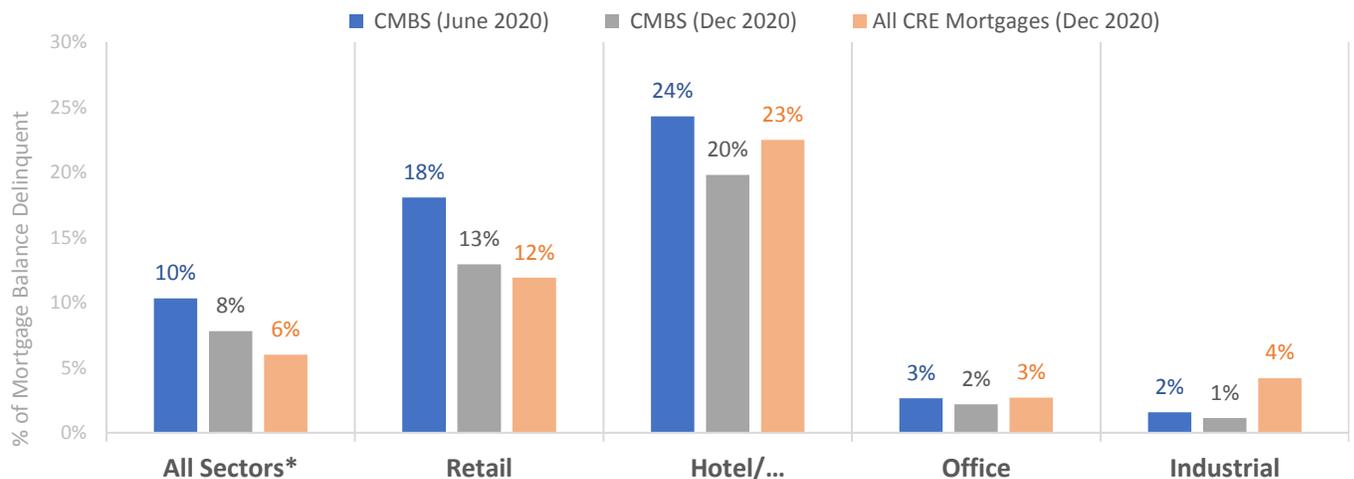
Another indicator of distress in the commercial sector is the level of delinquency in mortgage payments for commercial properties. Delinquency is generally defined as payments that are 30, 60, or 90 days late, or that have entered foreclosure process. While data on commercial mortgage

¹⁵ California Restaurant Association, [“Thousands of California Restaurants Close Permanently.”](#) August 28, 2020, press release (online).

delinquencies at the local level was not available, national data provides some insight into which industries in the commercial sector have been most impacted the pandemic.

Exhibit 5 provides a summary of key findings on rates of delinquency among commercial mortgages since the start of the pandemic from two key sources: (1) Trepp, Inc. for Commercial Mortgage Backed Securities (CMBS), and (2) the Mortgage Bankers Association (MBA) for all commercial mortgage types. While overall mortgage delinquencies have increased since the start of the pandemic, both sources indicate greater than average rates of delinquency in the retail and hotel/ lodging sectors.

Exhibit 5: National Rates of Commercial Mortgage Delinquency, by Data Source, June and December 2020



Sources: Trepp, Inc. for CMBS, Mortgage Bankers Association Survey for all CRE mortgages.

Notes: * All Sectors includes retail, hotel/ lodging, office, industrial, and multi-family properties.

CMBS (June 2020): % of CMBS Mortgages delinquent for the specific month (measured relative to total outstanding balance) from Trepp, Inc. CMBS are Commercial Mortgage-Backed Securities or mortgages that have been resold as securities in equity markets.

All CRE Mortgages (Dec 2020): % of all commercial mortgages delinquent (measured relative to total outstanding balance) from Mortgage Bankers' Association Survey.

Exhibit 6: National Mortgage Delinquency Rates for June and December 2019 and 2020

	CMBS Mortgages ¹						% Pt. Chg. June - Dec. 2020	All Commercial Mortgages ² Dec. 2020
	June			December				
	2019	2020	% Pt. Chg. ³	2019	2020	% Pt. Chg. ³		
All Sectors ⁴	2.8%	10.3%	7.5%	2.3%	7.8%	5.5%	-2.5%	6.0%
Retail	4.4%	18.1%	13.6%	4.4%	12.9%	8.5%	-5.1%	11.9%
Hotel/Lodging	2.4%	24.3%	21.9%	1.5%	19.8%	18.3%	-4.5%	22.5%
Office	3.0%	2.7%	-0.4%	2.0%	2.2%	0.2%	-0.5%	2.7%
Industrial	1.9%	1.6%	-0.4%	1.5%	1.1%	-0.3%	-0.4%	4.2%

Sources: Trepp, Inc. for CMBS, Mortgage Bankers Association Survey for all CRE mortgages.

Notes: ¹ CMBS Mortgages: % of CMBS Mortgages delinquent for the specific month (measured relative to total outstanding balance) from Trepp, Inc. CMBS are Commercial Mortgage-Backed Securities or mortgages that have been resold as securities in equity markets.

² All Commercial Mortgages (Dec 2020): % of all commercial mortgages delinquent (measured relative to total outstanding balance) from Mortgage Bankers' Association Survey.

³ Percentage point difference compared to the same period a year ago.

⁴ All Sectors includes retail, hotel/ lodging, office, industrial, and multi-family properties. MBA is the Mortgage Bankers Association. CMBS are Commercial Mortgage-Backed Securities, essential mortgages which have been resold as securities in equity markets.

Compared to the same period a year ago, Exhibit 6 shows that the share of CMBS mortgage balances that were delinquent for all sectors increased by 5.5 percentage points to 7.8 percent in December 2020, though this rate was down from 10.3 percent in June 2020 in the early months of the pandemic.¹⁶ The same pattern can be seen for all sectors for CMBS mortgages: delinquency rates were lower in December 2020 compared to June 2020 except for the industrial sector. However the mortgage delinquency rates were still higher than one year prior in December 2019 for all sectors except industrial, indicating that most of the economy nationally continued to be distressed and there is no reason to believe that the same pattern was not in place in San Francisco.

Continuing the pattern that can be seen in June 2020, the hotel/lodging and retail sectors continued to have substantially higher CMBS mortgage delinquency rates compared to all sectors in December 2020 (19.8 percent

¹⁶ Mortgage delinquency is defined relative to the total outstanding mortgage balance in the sector.

for hotel/lodging and 12.9 percent for retail vs. 7.8 percent delinquency for all sectors).

Among all commercial mortgage types (including CMBS),¹⁷ 6.0 percent of balances were delinquent in December 2020. The hotel/lodging sector had the highest delinquency rate of all commercial mortgages in December 2020 at 22.5 percent, according to a national Mortgage Bankers Association survey. A higher percentage of loans in these sectors were also on mortgage servicer “watchlists” and/or already engaged in discussions regarding special repayment arrangements (i.e. forbearance, restructuring, etc.).

Both the office and industrial sectors show relatively unchanged levels of delinquency compared to a year ago according to national CMBS data from Trepp, Inc. This may be due to a greater ability for office-based tenants (and therefore mortgage-holding landlords) to terminate leases or sub-lease rather than avoiding payment altogether. It is also a reflection of businesses in offices not being as reliant on in-person interactions with their customers as is the case for retail and hotel businesses, and thus being less affected by the pandemic. Any reductions in industrial properties from production businesses (i.e. manufacturing) may have been offset by commensurate increases in demand from logistics and distribution firms for warehouse space (i.e., Amazon, etc.).

Commercial Mortgage-Backed Securities make up around 19.9 percent of total commercial and multifamily mortgage debt outstanding, this is the second biggest debt type after traditional bank-originated mortgages (39 percent).¹⁸ These mortgages tend to be slightly larger due to underwriting and market demand but are generally comparable to conventional mortgages.¹⁹

Factors Driving Non-Payment and Delinquency in the Commercial Sector

A review of the sources above and additional research of national economic data indicates that the key factors and characteristics associated with non-payment of rent and mortgages include:

¹⁷ CMBS mortgages make up around 19.9 percent of total commercial and multifamily mortgage debt outstanding (see Footnote 12)

¹⁸ Mortgage Bankers Association, [“White Paper on the Role of CMBS in the Financing of Commercial and Multifamily Real Estate in America.”](#) Published in 2019 (online).

¹⁹ Ibid

- **Businesses with high-levels of personal contact and limited ability to transition to online sales:** commercial sectors that require high levels of person-to-person contact have been most affected by COVID-19 public health orders as these types of contacts present the highest levels of potential exposure to the virus. These include the retail and accommodation sectors, such as hotels, food service establishments, restaurants, and bars. Personal care services such as hair and nail salons are also likely to have been disproportionately affected – statewide employment in this industry was down 60.9 percent in December 2020 compared to December 2019, from 90,200 to 35,300.²⁰
- **Businesses that rely heavily on local pedestrian foot traffic from office-based workers:** zip code-based data presented by the Controller’s Office in their Five Year Financial Report indicates that downtown zip codes have seen significant reductions in sales, likely due to reductions in office-based workers in the area.
- **Businesses that may not have been eligible or able to access local, state or federal aid:** this includes smaller businesses and/or businesses run by undocumented immigrants and those in neighborhoods traditionally underserved by commercial banks. Recent national research indicates that small businesses owned by African-Americans and Latinx were disproportionately impacted by COVID-19. This research also found that communities with larger shares of people of color generally received federal Paycheck Protection Program (PPP) loans later and in smaller amounts, however, federal Economic Injury Disaster Loans (EIDL) tended to correlate positively with the proportion of people of color.²¹ However, publicly-available PPP and EIDL loan data do not include comprehensive information on the race or ethnicity of recipients or of those denied loans nor the number of businesses that needed assistance but did not apply for aid from these programs for various reasons such as not having an established relationship with a bank.

²⁰ US Bureau of Labor Statistics, State and Area Employment, Hours and Earnings (Current Employment Survey). Accessed [online](#). Data at the metropolitan or county for this specific industry is not available.

²¹ Fairlie R., Fossen F., “Did the \$600 Billion Paycheck Protection Program and \$220 Billion Economic Injury Disaster Loan Program Get Disbursed to Minority Communities in the Early Stages of COVID-19?” NBER Working Paper, January 2021. Published [online](#).

2. Estimates of Total Unpaid Commercial Rent due to COVID-19

Using available information on the quantity of commercial real estate by sector in San Francisco, average rental rates, and delinquency in rent and mortgage payments, we estimate a range of total unpaid rent by industry related to the COVID-19 pandemic and related public health orders. Due to more complex ownership and operating models, estimates for the hotel and accommodation industry are not included below and are discussed separately.

Our resulting estimates of unpaid rent for office, retail and industrial properties in San Francisco between April and December 2020 range from \$19.1 million to \$44.9 million per month. Assuming this level of unpaid rent was sustained for three months, unpaid rent is estimated to be between \$57.3 million and \$134.8 million for a three month period.

Exhibit 7 below provides a summary of the low and high estimates for one, three, six and nine months.

Exhibit 7: Low and High Estimate of Fully and Partially Unpaid Rent by San Francisco Business Tenants in Office, Retail and Industrial Properties, April – December 2020

Estimate	<i>Months of Unpaid Commercial Rent</i>			
	1 month	3 months	6 months	9 months
Low	\$19,123,160	\$57,369,479	\$114,738,959	\$172,108,438
High	\$44,949,278	\$134,847,834	\$269,695,668	\$404,543,503

Sources: BLA estimates

Notes: See Appendix A and B for detailed information on the inputs and methodology used to produce these estimates.

These estimates were produced using the following approach:²²

- 1) Estimating total rented commercial real estate space by industry:** we started with estimates of the total amount of commercial real estate

²² A more detailed discussion of the methodology used and inputs is included in Appendix B.

space and adjusted these to account for the share of property area that is rented versus owned and that is currently occupied.²³

- 2) **Estimating total commercial rent due:** we multiplied the total rented commercial space estimates by average rental rates for each industry obtained from commercial real estate brokers and property management companies.²⁴
- 3) **Estimating total unpaid commercial rent:** total commercial rent for each industry was then multiplied by associated estimates of unpaid rent (or proxy measures for unpaid rent). These were primarily obtained from national data on commercial mortgage delinquency but also included survey estimates for smaller residential neighborhood-based retail properties.²⁵

Our range of estimates reflects different assumptions including that there is a strong correlation between mortgage delinquency rates and non-payment of rent. In the absence of more robust national and local commercial rental payment data, we believe this is a reasonable assumption as many commercial landlords are likely to have mortgages due to the cost of such properties and rental income is likely a key source for mortgage payments. Mortgage delinquency rates also appear to be similar to available estimates of rental non-payment among large retail properties and surveys of small businesses.²⁶ Available estimates of non-payment of rent and mortgage delinquency are discussed further in Section 1 above and Appendix A.

Our estimates also assume that the City's commercial real estate sector has performed similarly to the nation as a whole in terms of non-payment and delinquency. Commercial real estate and economic trends discussed in Section 1 suggest that this is likely the case at minimum but that the San Francisco retail industry may have performed worse than nationally due to more stringent public health orders requiring people to stay at home and restricting in-person business activity. To account for this local variation, we

²³ For the low end estimates we used estimates from real estate brokers and property management companies such as CBRE and CoStar, which tend to exclude very small commercial properties. For the high end estimates we used Assessor-Recorder Office Secured Property Tax roll data which includes assessments for every parcel in the City. See Appendix B for more detail.

²⁴ Rental estimates were based on CoStar and CBRE report data.

²⁵ Unpaid rent estimates used in the model are discussed further in Appendix B.

²⁶ See discussion of rates of commercial non-payment of rent and mortgage delinquency in Section 1.

have estimated neighborhood-based retail²⁷ separately using data from a local survey from the San Francisco Apartment Association.

Estimates of Unpaid Commercial Rent in San Francisco by Industry

Our estimates of non-payment of commercial rent indicate that between 89 and 98 percent of unpaid rent (excluding hotels) may come from the retail sector, including restaurants and bars, due to high levels of delinquency and non-payment for those businesses. This is despite retail properties only making up around a quarter of total rented commercial property space (between 24 and 27 percent). As shown in Exhibit 8, our estimates indicate that total unpaid rent associated with all retail properties may be between \$18.5 to \$39.8 million per month. This compares to the much lower \$0.6 to \$1.5 million per month for office properties and up to \$3.7 million per month for industrial properties.

Exhibit 8 also presents a breakdown of the retail sector into two segments: (1) Single Use/Office & Retail, which covers stand-alone retail outlets and retail outlets in the same structure as offices (e.g., a convenience store in an office building), and (2) Mixed Use with Residential, which covers residential buildings with retail outlets on the ground floor. The latter category is a typical configuration in San Francisco for smaller retail outlets, particularly those found in neighborhood commercial areas.

²⁷ This was defined based on Assessor Use Types which include a mixed use of residential and commercial space within a property parcel. See more discussion in Appendix B.

Exhibit 8: Low and High Estimate of Rent Partially or Not Paid by San Francisco Business Tenants by Office, Retail and Industrial Properties, April – December 2020

Sector	1 month	3 months	6 months	9 months
Office	\$0.6 - 1.5m	\$1.8 - 4.4m	\$3.6 - 8.8m	\$5.3 - 13.3m
Retail (Single Use/ Office & Retail)	\$8.3 - 19.4m	\$25 - 58.2m	\$50 - 116.3m	\$75 - 174.5m
Retail (Mixed Use with Residential- <i>common in neighborhood commercial areas</i>)	\$10.2 - 20.4m	\$30.6 - 61.2m	\$61.2 - 122.4m	\$91.8 - 183.6m
Industrial	\$0 - 3.7m	\$0 - 11.1m	\$0 - 22.1m	\$0 - 33.2m
Total	\$19.1 - 44.9m	\$57.4 - 134.8m	\$114.7 - 269.7m	\$172.1 - 404.5m
<i>Retail (Total)</i>	<i>\$18.5 - 39.8m</i>	<i>\$55.6 - 119.4m</i>	<i>\$111.2 - 238.7m</i>	<i>\$166.8 - 358.1m</i>

Sources: BLA estimates

Notes: See Appendix A and B for detailed information on the inputs and methodology used to produce these estimates.

The underlying inputs in terms of rented commercial real estate space, rental rates and rent non-payment for these industry-based estimates are set out in Exhibit 9 below. Given limited publicly-available data at the local level on commercial property and rent payment by industry we relied on data from several different sources to develop estimates of total unpaid rent. The two main sources used include: (1) property size, leased and occupancy rates from commercial real estate services, property management firms (i.e., CBRE and CoStar) and Assessor-Recorder’s Office Secured Property Rolls data, (2) direct or proxy estimates of unpaid rent from local surveys and commercial mortgage delinquency rates (i.e., SFAA and Trepp, Inc., respectively). Further detail on the sources and methods used to produce these estimates are included in Appendix A.

Exhibit 9: Assumptions for Low and High End Estimates of Amount of Unpaid Commercial Rent in the Office, Retail, and Industrial Sectors in San Francisco, April – December 2020

Sector	Total Rented CRE		Rent Due		Unpaid Rent	
	Total CRE Sq. Ft. ¹	Total Occupied Rented CRE Sq. Ft.	Rental Rate per Sq. Ft. per year ²	Total CRE Rent Due per Month (\$m)	% of Rent Unpaid ³	Total Unpaid Rent per Month (\$m)
Office	82.2 - 103.8m	60.9 - 77m	\$ 58.24 - 76.47	\$ 295.9 - 490.8m	0.2 - 0.3%	\$ 0.59 - 1.47m
Retail (Single Use/ Office & Retail)	27.8 - 34.4m	21 - 26m	\$ 55.73 - 65.47	\$ 97.7 - 142.2m	8.52 - 13.63%	\$ 8.33 - 19.38m
Retail (Mixed Use with Residential)	12.8 - 12.8m	9.7 - 9.7m	\$ 44.9 - 44.9	\$ 36.4 - 36.4m	28 - 56%	\$ 10.2 - 20.4m
Hotel/ Accommodation	19.2 - 27.6m	NA	NA	NA	NA	NA
Industrial	23.4 - 40.5m	20.5 - 35.5m	\$ 29.64 - 29.64	\$ 50.8 - 87.8m	0 - 4.2%	\$ 0 - 3.69m
Total	165.6 - 219.3m	112.3 - 148.4m	\$ 51.37 - 58.29	\$ 481 - 720.9m	6.1 - 6.2%	\$ 19.12 - 44.94m
<i>Retail (Total)</i>	<i>40.7 - 47.3m</i>	<i>30.7 - 35.8m</i>	<i>\$ 52.3 - 59.87</i>	<i>\$ 134.2 - 178.6m</i>	13.8 - 22.27%	\$ 18.53 - 39.78m

Sources: BLA analysis, full details on sources and methodology is included in Appendix A.

Notes: CRE = Commercial Real Estate

¹ Total commercial real estate was estimated using commercial real estate services and broker estimates (i.e. CBRE, CoStar) and BLA estimates based on Assessor-Recorder's Office Secured Property Rolls data for FY 2019-20.

² Rental rates for each sector were derived from commercial real estate services and broker estimates (i.e. CBRE and CoStar).

³ Unpaid rent estimates for each sector are based on survey estimates or commercial mortgage delinquency rates.

Neighborhoods with High Concentrations of Retail Businesses

Lower-level parcel data from the Assessor-Recorder's Office indicates that neighborhoods with high concentrations of retail mixed use (residential/commercial) businesses may be particularly at risk for non-payment of rent.

To better understand the impact of non-payment of rent on neighborhood business corridors and smaller retail businesses outside of the downtown area, we used Assessor-Recorder's Office data to identify properties meeting

this definition. Specifically, we looked at use categories in the parcel-level Secured Property Rolls data for FY 2019-20 that contained a mixed use of residential and commercial.²⁸

Based on this data, we estimated that around 12.9 million square feet, or 28 percent, of the 45.9 million total square feet of retail property space is classified as mixed residential/commercial uses. As shown in Exhibit 10, these type of properties are found in relatively higher proportions in Supervisorial Districts 9, 5, and 8. While not as prevalent in the downtown area, single use retail and office/retail combinations (e.g., a retail space on the ground floor of an office building) make up higher proportions of all commercial space in Districts 3 and 6, where office buildings are most common.

Exhibit 10: Single and Mixed Use Retail Properties by Supervisor District

Supervisor District	<i>Mixed Use (Residential/ Commercial)</i>		<i>Single Use & Office/ Commercial</i>	
	Total Property Area	% of Property Area	Total Property Area	% of Property Area
1	1,435,549	11.2%	1,818,433	5.5%
2	1,148,147	8.9%	2,791,125	8.5%
3	1,225,897	9.5%	9,324,580	28.3%
4	976,674	7.6%	1,126,697	3.4%
5	1,717,317	13.3%	2,010,872	6.1%
6	428,175	3.3%	6,170,342	18.7%
7	353,574	2.7%	2,156,967	6.5%
8	1,686,221	13.1%	1,053,362	3.2%
9	2,039,422	15.8%	3,280,443	10.0%
10	961,713	7.5%	2,398,173	7.3%
11	898,219	7.0%	831,328	2.5%
Grand Total	12,870,907	100.00%	32,962,323	100.00%

Sources: BLA Analysis of Assessor-Recorder’s Security Property Rolls data.

Drilling down to lower level neighborhoods provided further indication of where smaller mixed-use retail are located. Exhibit 11 below provides the top 25 neighborhoods as tracked by the Assessor-Recorder with the highest share of mixed-use retail parcels. This shows a high concentration of mixed use retail business space located in the Inner Mission, Inner Richmond, Inner Sunset, Noe Valley, and Bernal Heights. While we were unable to identify

²⁸ See detailed discussion in Appendix B

data on sales or unpaid rent at the neighborhood level, retail businesses in these areas may be particularly at risk due to their dependence on local foot traffic and smaller size. The neighborhood designations correspond to those used by the Assessor-Recorder.

Exhibit 11: Top 25 Assessor Neighborhoods by Share of Mixed Use Retail Property Space

Rank	Assessor Neighborhoods	# of Parcels	Property Area	% of Property Area
1	Inner Mission	300	1,586,363	12.33%
2	Inner Richmond	153	686,306	5.33%
3	Inner Sunset	130	544,048	4.23%
4	Noe Valley	147	536,822	4.17%
5	Bernal Heights	158	530,815	4.12%
6	Central Richmond	124	476,060	3.70%
7	Hayes Valley	80	431,414	3.35%
8	Eureka Valley/Dolores Heights	98	417,898	3.25%
9	Central Sunset	94	417,531	3.24%
10	Potrero Hill	40	410,313	3.19%
11	Cow Hollow	88	374,377	2.91%
12	Lower Pacific Heights	72	350,929	2.73%
13	Parkside	85	333,261	2.59%
14	South of Market	41	328,102	2.55%
15	North Beach	60	313,700	2.44%
16	Haight Ashbury	53	303,891	2.36%
17	Excelsior	82	297,634	2.31%
18	Nob Hill	67	291,759	2.27%
19	Mission Dolores	41	278,831	2.17%
20	Mission Terrace	49	240,654	1.87%
21	Telegraph Hill	48	230,913	1.79%
22	Pacific Heights	50	219,529	1.71%
23	Portola	60	218,784	1.70%
24	Financial District North	48	197,416	1.53%
25	Bayview	56	185,709	1.44%
	Top 25 Total	2,224	10,203,058	79.3%
	Total Mixed Used Retail	2,910	12,870,907	100%

Sources: BLA Analysis of Assessor-Recorder's Security Property Rolls data.

Note: Neighborhoods shown above are breakdowns of neighborhoods as designated by the Assessor-Recorder.

3. Summary of Key Legal Protections and Financial Assistance Available for Business Tenants

Federal, State, and Local Financial Assistance Available for Businesses

Financial assistance to help businesses impacted by the COVID-19 pandemic have been made available by federal, state, and local government – primarily in the form of low-interest loans and some grants. Some of these loans, including the federal Paycheck Protection Program (PPP) are forgivable under certain circumstances, but many require repayment over several years. Exhibit 12 provides an overview of these financial assistance programs.

Exhibit 12: Summary of Financial Assistance and Rent Relief for Businesses affected by COVID-19

Source/ Authority	Program	Description/ Eligibility	Period Available	Amount
Federal*	Paycheck Protection Programs (PPP) Rounds I and II	<ul style="list-style-type: none"> - Forgivable loans (if employees retained) for small businesses (SBA guidelines), non-profits, sole proprietors, independent contractors, and self-employed persons - Can be used for payroll costs and benefits, mortgage interest, rent, utilities, worker protection costs, and some other costs - Previous PPP recipients can apply again if they have used all of their first PPP loan, have no more than 300 employees and had a 25% reduction in gross receipts from 2019 to 2020 	I: 4/3/20 – 8/8/20 II: 1/11/21 – 3/31/21	1 st Draw (I and II): 2.5x monthly payroll costs (up to \$10m) 2 nd Draw: 2.5x – 3.5x ² monthly payroll costs (Up to \$2m)
	Economic Injury Disaster Loan (EIDL)	Loans for small business (<500 employees), sole proprietorships, independent contractor, cooperatives, non-profits ²	Ongoing	Up to 6 months of working capital and operating expenses
	Shuttered Venue Operators Grant	Grants for live performance, museum, or movie theater operators who had at least a 25% reduction in gross revenue in 2020 compared to the same quarter in 2019.	Not yet open	45% of gross revenue (\$10m) (\$15 bn available)
State	Small Business Relief Grant Program	Grants for small businesses, non-profits, sole proprietors, and independent contractors with revenues <\$2.5m impacted by COVID-19 or related public health orders. Business had to be operating prior to June 1, 2019.	Multiple rounds starting 12/30/20	\$5,000 - \$25,000 (\$2.075 bn available)
	Small Business Disaster Relief Loan Guarantee Program	Loans available to businesses with 1 – 750 employees are guaranteed by the California Infrastructure and Economic Development Bank	No time limit	Varies

Source/ Authority	Program	Description/ Eligibility	Period Available	Amount
	Property Tax Penalty Waiver	Late payment penalty waivers for secured and unsecured property taxes due during pandemic are waived until May 6, 2021. Taxpayers must apply for a waiver.	For 3/30/20 - 5/6/21	10% of Tax Due and \$45 fee
Local	OEWD Programs	Mixture of grants and loans, see Exhibit 14 for more detail.	Varies	\$10,000 - \$50,000 (\$24m available)
	Mayor's SF Relief Grants	Grants for small businesses in "high need" neighborhoods. Priority is for businesses operated by People of Color, women, long-standing businesses, those most impacted by the Stay at Home orders and those excluded from other federal and state programs,	TBD (Announced 1/12/21)	\$5,000 - \$20,000 (\$12.4m expected ³)
	Mayor's SF Community Investment Loans	Low to zero interest loans for small businesses (not yet defined), based on the same criteria as those for California Rebuilding Fund loans.	TBD (Announced 1/12/21)	Up to \$100,000 (\$7.6m expected ³)
	Business Tax & Fee Waivers	Waived license fees, business registration fees, and payroll expense taxes for restaurant and food services businesses with revenues of <\$750,000 and entertainment businesses with revenues <\$20m	For 1/1/20 – 3/30/22 ⁴	(Estimated at \$5m)

Source: BLA review of available assistance as of March 8, 2021.

Notes: The assistance presented above is for information purposes only and may not be an exhaustive list of all public assistance available to small businesses.

* Additional federal assistance currently under consideration is discussed below.

¹ Excludes businesses that derive revenue from gambling activities, lobbying or live performances of a "prurient" sexual nature or the sale of products or services of a "prurient" sexual nature.

² For small businesses in the Accommodation sector (NAICS Code 72)

³ Exact funding had not yet been appropriated by the Board of Supervisors at time of writing.

⁴ Entertainment businesses were granted a two-year waiver for license and business registration fees.

Data from the U.S. Small Business Administration shows that \$3.22 billion and \$0.94 billion in PPP and Economic Injury Disaster Loans (EIDL) were made to 37,227 businesses in the City between April and December 2020, respectively. Exhibit 13 shows that Professional and Business Services, such as legal, design, and other professional and technical services, received 22 percent of total PPP loan amounts in the first round, while restaurants, bars, and retail, leisure, and accommodation businesses combined received around 18 percent of total PPP loans. EIDL loan data, which accounts for

about 22 percent of total PPP and EIDL loan amounts, unfortunately does not include industry information.

Exhibit 13: Paycheck Protection Program (PPP) and Economic Injury Disaster Loan (EIDL) Loan Awards by Industry for San Francisco County, April through December 2020

Program/ NAICS Industry Grouping ¹	# of Loans	% of Loans	Total Loan Amount (\$)	% of Loan Amount (\$)
Economic Industry Disaster Loan (EIDL)				
EIDL Total (No Industry Info Provided)	15,012	40.3%	\$936,755,509	22.5%
Paycheck Protection Program (PPP)				
Professional & Business Services	4,858	21.9%	\$708,085,588	22.0%
Other (e.g. social, religious, property svcs.)	5,083	22.9%	\$577,073,084	17.9%
Educational & Health Services	2,706	12.2%	\$328,944,319	10.2%
Technology	1,171	5.3%	\$324,542,929	10.1%
Restaurants	1,805	8.1%	\$271,602,563	8.4%
Construction	1,087	4.9%	\$247,977,177	7.7%
Retail Trade	1,745	7.9%	\$177,291,891	5.5%
Manufacturing	669	3.0%	\$122,963,678	3.8%
Financial Activities	570	2.6%	\$117,830,801	3.7%
Arts, Entertainment & Recreation	652	2.9%	\$93,560,006	2.9%
Hotels and Other Accommodation	331	1.5%	\$81,225,571	2.5%
Wholesale Trade	486	2.2%	\$71,878,060	2.2%
Transportation, Warehousing & Utilities	615	2.8%	\$49,688,692	1.5%
Other Leisure & Hospitality	162	0.7%	\$24,601,308	0.8%
Bars	209	0.9%	\$15,954,675	0.5%
Government	66	0.3%	\$8,150,013	0.3%
PPP Total	22,215	59.7%	\$3,221,370,355	77.5%
Grand Total	37,227	100.0%	\$4,158,125,864	100.0%

Source: BLA analysis of Small Business Administration data published on Dec. 22, 2020.

¹ NAICS codes = North American Industry Classification System used by Federal statistical agencies.

New federal and state funding available for small businesses

The recently passed federal American Rescue Plan Act includes new assistance for businesses such as: (1) \$28.6 billion in grants for restaurants²⁹ with fewer than 20 locations to cover pandemic-related revenue loss (up to \$5 million per location); (2) \$15 billion in supplemental targeted EIDL advance payments, including \$5 billion for businesses with 10 or fewer employees (up

²⁹ This also includes establishments which serve alcohol such as bars, brewpubs, and taprooms.

to \$5,000); (3) an additional \$7.25 billion for PPP and \$1.25 billion for the Shuttered Venue Operators Grant program; and, (4) \$10 billion for State Small Business Credit programs to provide loans and technical assistance to small businesses affected by the pandemic.³⁰

The legislation, as well as recent changes by the Biden Administration, have prioritized and are attempting to expand access to the PPP and EIDL programs by small businesses and businesses owned by women and individuals from economically disadvantaged communities. This includes revising the PPP funding formula to allow sole proprietors, independent contractors, and self-employed individuals to receive more financial support and earmarking \$1 billion in existing funding for businesses located in low-and-moderate income areas.³¹

These enhancements to the federal programs should help address some of the criticisms that small minority- and woman-owned businesses were not awarded loans at the same rate as larger businesses that had long-standing relationships with banks and thus received preferential treatment during Round 1 of the Paycheck Protection Program.³²

The attempts by the federal government to provide improved access to PPP and other relief funds for small, minority- and woman-owned businesses also provides an opportunity for the City through OEWD, OSB, and their partners to ensure that they are prepared and have sufficient resources available to provide technical assistance in accessing available loans and grants to the many businesses that are struggling with covering their rent and other expenses.

Barriers to Accessing Available Aid and Local Technical Assistance Programs Available for Businesses

While state and federal programs provide the most substantial funding available to small businesses that have not been able to cover their rent and other expenses, they may be difficult to navigate and access for small businesses and those owned by socially and economically disadvantaged individuals, those with limited internet access, and non-native English speakers. Additionally, sole proprietors, independent contractors, and self-

³⁰ Based on H.R. 1319 (American Rescue Plan Act) as enrolled on March 11, 2021.

³¹ [“Fact Sheet: Biden-Harris Administration Increases Lending to Small Businesses in Need, Announces Changes to PPP to Further Promote Equitable Access to Relief.”](#) U.S. White House Briefing, Feb. 22, 2021.

³² See “Testimony on Loan Forgiveness and other Challenges of the Paycheck Protection Program”, Center for Responsible Lending testimony before U.S. House of Representatives Small Business Committee, June 17, 2020.

employed individuals may not be aware of recent changes expanding funding available through the latest round of PPP. For example, the Small Business Administration's PPP website primarily offers information in English and Spanish only, and the EIDL online application is only available in English.³³ The PPP requires applications be made through partner private and community banks.

The City Office of Economic and Workforce Development (OEWD) and Office of Small Business (OSB) provide information, counseling, and referral services to help small businesses in San Francisco access various grants and loans program. While both offices staff separate small business assistance centers, only OEWD's Small Business Development Center, a partner organization, provides direct assistance with applying for federal or state loans. OEWD also maintains a COVID-19 website with links to additional community-based organization partners who can assist small businesses in applying for federal and state loans and grants.

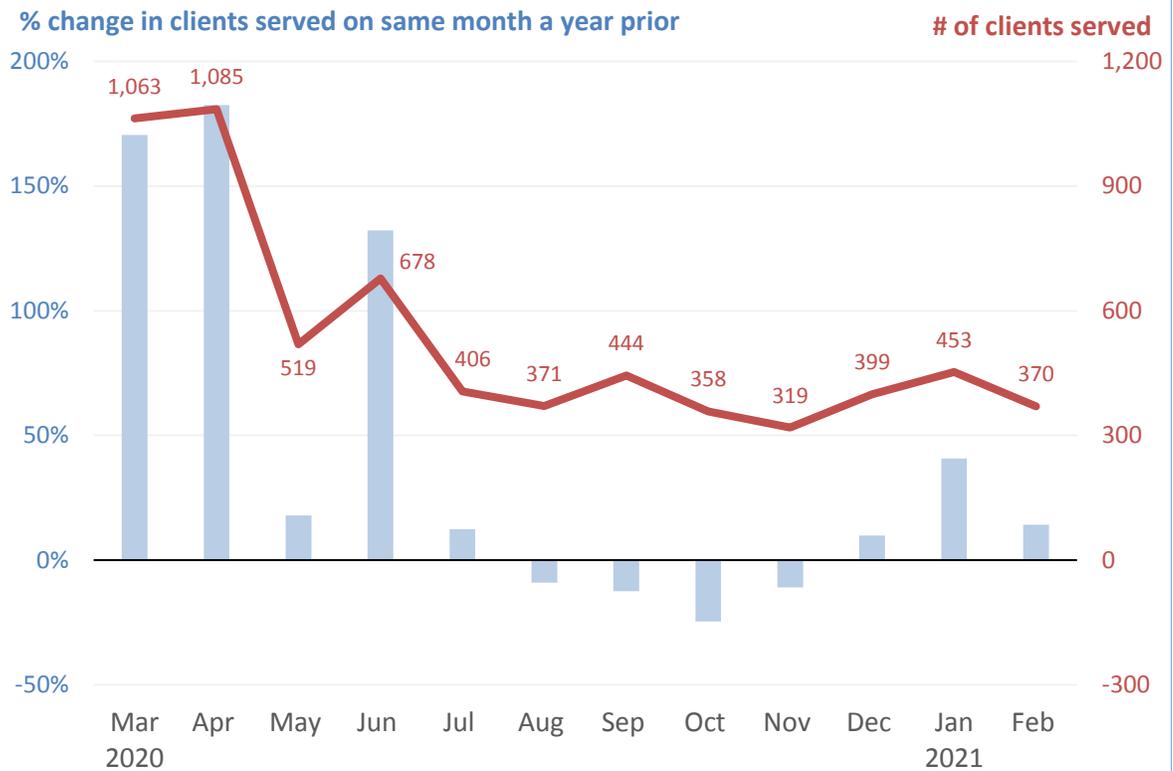
The Office of Small Business provides advisory services and workshops through its staff-run Small Business Assistance Center along with referrals to various OEWD-funded community-based organizations that can provide technical assistance in applying for the federal Paycheck Protection Program and other resources.

As shown in Exhibit 14 below, OSB provided information to around 6,475 businesses from March 2020 to February 2021, around 44 percent more than for the same period a year before. The bulk of these inquiries were in March, April and June 2020, with inquiries leveling off until January 2021. Additional data from OSB indicates that just under half of inquiries received from March 2020 to February 2021 were related to federal, state, or local financial assistance (3,697) and around 12 percent of inquiries answered were provided in Spanish (6 percent) or Chinese (7 percent).³⁴ Around a third of businesses helped were from the Retail Trade and Food Services industries. OSB also provides information through its regular bulletins which currently has 13,000 subscribers.

³³ <https://www.sba.gov/funding-programs/loans/coronavirus-relief-options/paycheck-protection-program>

³⁴ OSB reports it has staff who can provide assistance in Chinese and Spanish directly and provides services in other languages using an interpreter service.

Exhibit 14: Number of Business Clients Served by the Office of Small Business, March 2020 – February 2021



Source: Office of Small Business

Local Financial Assistance Programs Available for Businesses

Just under \$20 million in grants and loans have been made available by the Office of Economic and Workforce Development (OEWD) from City and philanthropic sources, of which around \$14.5 million has been expended. Data from OEWD indicates that around 1,405 San Francisco businesses out of 15,000 applicants, or only approximately 9.4 percent of applicants, received financial assistance through these programs ranging from \$2,000 to \$44,000 (\$10,884 on average). A breakdown of OEWD financial assistance programs for businesses are included in Exhibit 14 below.

As of the writing of this report, only the SF Shines for Reopening grant program still had funding available. However, the Mayor announced on January 12, 2021 plans to make an additional \$12.4 million in grants and \$50 million in small business relief loans available to businesses (this will consist of the \$7.6 million shown in Exhibit 14 plus funds not yet identified to be

leveraged).³⁵ Legislation to appropriate these funds was introduced on February 23, 2021. While the total leveraged loan funding available has not yet been confirmed it is expected to be approximately two to five times the City’s investment based on criteria from the California Rebuilding Fund, or \$23 to \$46 million in total.

Exhibit 14: Summary of OEWD Financial Assistance Programs Available to San Francisco Businesses

Program	Funding Available	Grant/ Loan	Loan/ Grant Amount	Status*
Mayor’s Small Business COVID-19 Relief Grants ¹	\$ 12,400,000	Grant	TBD	Pending Legislation
Mayor’s Small Business COVID-19 Relief Loans ^{1,2}	\$ 7,600,000	Loan	TBD	Pending Legislation
SF HELP (Hardship Emergency Loan Program)	\$ 9,450,000	Loan	\$50,000	Closed
African American Small Business Revolving Loan Fund	\$ 2,700,000	Loan	\$50,000	Closed
Latino Small Business Fund (SF HELP extension)	\$ 2,475,000	Loan	\$50,000	Closed
SF Shines for Reopening	\$ 1,414,465	Grant	\$5,000	Open
Resiliency Fund (Round 1)	\$ 1,000,000	Grant	\$10,000	Closed
Resiliency Fund (Round 2)	\$ 1,500,000	Grant	\$10,000	Closed
Mini Grants (Neighborhood)	\$ 942,500	Grant	\$10,000	Closed
Mini Grants (Women’s Entrepreneurship)	\$ 160,000	Grant	\$2,000	Closed
Total	\$ 39,641,965	-	-	-
<i>Total Pending Legislation</i>	<i>\$ 20,000,000</i>			

Source: BLA review of available assistance and information provided by OEWD.

Notes: *Closed indicates all available funds have been committed or expended.

¹ Pending approval by the Board of Supervisors as of March 9, 2021 (see File #21-0177).

² Referred to as “Mayor’s Community Investment Loans” in Exhibit 12 above. Funding Available only includes direct City funds, OEWD estimates additional leveraged funds will range from two to five times the City contribution.

Total excludes overhead and explains the difference between the \$19,641,965 total for the Mayor’s Small Business COVID-19 Relief Grant and Loans and the \$24 million identified as available in OEWD programs in Exhibit 12.

³⁵ Press Release: [Mayor London Breed Mayor London Breed Announces New \\$62 Million Relief Plan for Small Businesses](#). Published January 12, 2021.

Assistance to small businesses is available from both OEWD and the Office of Small Business (OSB), with multiple different websites and programs operated by both Offices which may be confusing to businesses seeking help and potentially result in duplication of City efforts. For example, we found four different programs staffed by different City staff and contractors providing business assistance targeted at small businesses.³⁶ These are separate from additional specialized financial and technical assistance programs provided by other contractors for OEWD and OSB (e.g. ADA compliance assessment, real estate assistance, disaster relief, etc.).

Local Commercial Eviction Moratorium

Commercial business tenants in San Francisco who have missed rental payments since the start of the pandemic are generally protected from eviction until at least June 30, 2021, and longer for business with fewer than 50 full-time equivalent employees. Qualified businesses are still responsible for paying any missed rent. The period covered by the moratorium may only be extended by a further Executive Order from the Governor.

Under a State-authorized local eviction moratorium, businesses registered in San Francisco with gross receipts of \$25 million or less who missed one or more rent payment from March 16, 2020 to June 30, 2021 are protected from eviction if they meet certain conditions.³⁷ To qualify for eviction protection tenants must have missed a rent payment due to financial impacts from the COVID-19 pandemic or related public health orders and must not occupy space zoned for office use or leased from the City. Landlords who own less than 25,000 square feet of commercial property in the City and can demonstrate a significant financial hardship from loss of rental income may proceed with eviction.

Qualifying commercial tenants are also shielded from eviction during a forbearance period after the moratorium period ends (12, 18 or 24 months for businesses with fewer than 50 full-time equivalent employees depending on the number of employees).³⁸ Commercial tenants with more than 50 full-time equivalent employees cannot be evicted before the end of the

³⁶ These included: (1) OEWD's Small Business Development Center (contractor-provided); (2) Office of Small Business-staffed Small Business Assistance Center; (3) OEWD's City-staffed "Job Squad;" and (4) OEWD's contracted BizFit SF.

³⁷ Governor's Executive Order N-28-20 (extended to March 31, 2021 by Executive Order N-80-20, and to June 30, 2021 by Executive Order N-03-21) and Board of Supervisors Ordinance File 20-1056.

³⁸ Businesses with 10 or fewer full-time equivalent (FTE) have until Jun. 30, 2023 (24 months), those with 10 to 24 FTE have until Dec. 30, 2022 (18 months), and those with 25 to 49 FTE have until Jun. 30, 2022 (12 months), according to [OEWD guidance](#).

moratorium period, currently June 30, 2021. Commercial tenants are still liable for all rent due and may be evicted if rent remains unpaid after the end of the forbearance period.

The Office of Small Business provides referrals to two non-profit legal assistance clinics under contract with OEWD for assistance related to the commercial eviction moratorium and renegotiating commercial leases. These programs provide webinars, legal clinics, and direct legal services through matching with volunteer attorneys. According to OSB and OEWD, the demand for commercial eviction moratorium and lease renegotiation services has been increasing and is likely to continue to do so as the end of the moratorium period approaches. Data from OSB indicates that around 7 percent of inquiries received since March 2020 were related to leases and eviction-related guidance, though most of these were from the start of the pandemic.

We also found real estate and relocation assistance is provided by a separate OEWD contractor under the Office's Invest in Neighborhood program,³⁹ offering additional services that could potentially be repurposed to increase business assistance capacity for lease renegotiation. Other jurisdictions, such as the City of Oakland, have used CARES Act funds to expand outreach related to the local commercial eviction moratorium.

Ensuring commercial landlords and tenants are aware of the requirements of the ordinance and providing access to lease renegotiation assistance will be important in mitigating unnecessary litigation and business closures as the moratorium expiration date approaches.

³⁹ <https://www.workingsolutions.org/real-estate-assistance/> (Accessed from <https://oewd.org/neighborhoods>)

4. Policy Options

1. The Board of Supervisors could request that any new financial assistance programs for San Francisco businesses authorized by the City include provisions ensuring assistance is targeted to affected businesses who are ineligible or have previously been denied assistance from federal and state sources. Program applicants who do not receive City assistance should also be referred to other resources available.
2. The Board of Supervisors could request that the Office of Economic and Workforce Development (OEWD) and the Office of Small Business (OSB) ensure that their outreach efforts maximize awareness of available public assistance among small businesses who have or are likely to face language and other barriers in applying for aid as well as businesses and landlords facing legal issues regarding their leases and commercial eviction moratorium requirements.
3. The Board of Supervisors could request that the Office of Economic and Workforce Development and the Office of Small Business provide information to the Board of Supervisors identifying opportunities for streamlining current processes for accessing assistance and whether additional resources are needed to ensure the maximum provision of services and relief funds to San Francisco businesses that may face hurdles in accessing and applying for relief funds and that may need legal assistance regarding the local commercial eviction moratorium and lease matters.
4. The Board of Supervisors could request that OEWD and OSB conduct a further review of opportunities to streamline “digital front door” access and program overlap between the Offices and with some partner organizations to improve accessibility to City programs and maximize the efficient use of City funds. Such a review should also include ensuring that these two Offices’ websites provide seamless transitions to partner organizations that also provide assistance services and that they are easily accessible by those with no or limited English language proficiency.

APPENDIX A

Detailed Explanation of Methodology for Estimating Unpaid Commercial Rent Estimates

In order to estimate unpaid commercial rent in San Francisco County, we used the following steps:

Exhibit A1: High-Level Steps Used to Estimate Unpaid Commercial Rent

Step	Calculation	Assumptions
1	Estimated total occupied rented commercial real estate by industry in square feet. We started with estimates of the total amount of commercial real estate space and adjusted these to account for the share of property area that is rented versus owned and that is currently occupied.	<ul style="list-style-type: none"> - Data on total commercial real estate size by industry from real estate broker reports and BLA analysis of Assessor-Recorder's Office data is accurate and captures all commercial real estate in the City. - Data from commercial real estate brokers and property management companies on percent of commercial space leased is accurate and captures all leased commercial space. - Data from commercial real estate brokers and property management companies on occupancy/vacancy is accurate and captures all leased commercial space. - Month to month changes in inputs from March 2020 to December 2020 were not significantly different than quarterly averages used.
2	Estimated total commercial rent due by industry per month. We multiplied the total rented commercial space estimates by average rental rates for each industry from commercial real estate brokers and property management companies.	<ul style="list-style-type: none"> - Rental rates used generally reflect rates paid by business tenants during the period.
3	Estimated total unpaid commercial rent by industry per month. Total commercial rent for each industry was then multiplied by associated estimates of unpaid rent (or proxy measures for	<ul style="list-style-type: none"> - Proxy and direct estimates of non-payment of rent are generally representative of actual non-payment rents from March – December 2020.

	unpaid rent). These were primarily obtained from national data on commercial mortgage delinquency but also included survey estimates for smaller residential neighborhood-based retail properties.	<ul style="list-style-type: none"> - For Retail (Mixed Use) low-end estimate: assumes non-payment represents an average payment of 50% of rent due. - For Retail (Mixed Use) high-end estimate: assumes non-payment represents an average payment of 0% of rent due.
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Exhibits A2, A3, and A4 provide more detail for the specific sources and values used as inputs for the unpaid commercial rent estimate model.

Exhibit A2: Information Sources Used for Unpaid Commercial Rent Estimates

Row	Variable	Purpose	Sector	Source (Low Estimate)*	Source (High Estimate)*
A	Total Commercial Real Estate (CRE) Square Footage	To identify total commercial real estate space	Office	CBRE (2020Q4)	BLA/ASR data
			Retail (Single Use)	Diff. b/w CoStar Retail total and BLA/ASR data	BLA/ASR data
			Retail (Mixed Use)	BLA/ASR data	BLA/ASR data
			Hotel	BLA/ ASR data	BLA/ASR data
			Industrial	CBRE (2020H1)	BLA/ASR data
B	% of CRE Square Footage Leased	To estimate CRE space is leased	Office	CoStar (Dec 2020)	CoStar (Dec 2020)
			Retail (Single Use)	CoStar (Dec 2020)	CoStar (Dec 2020)
			Retail (Mixed Use)	CoStar (Dec 2020)	CoStar (Dec 2020)
			Industrial	SFMADE Interview**	SFMADE Interview**
C	% of CRE Square Footage Occupied	To estimate share of CRE space occupied (i.e. non-vacant)	Office	CoStar (Dec 2020)	CoStar (Dec 2020)
			Retail (Single Use)	CoStar (Dec 2020)	CoStar (Dec 2020)
			Retail (Mixed Use)	CoStar (Dec 2020)	CoStar (Dec 2020)
			Industrial	CBRE (2020H1)	CBRE (2020H1)
D	Total Occupied Rented CRE Square Footage	To estimate total occupied CRE square footage	All Sectors	Multiplication of rows (A), (B), and (C)	
E	Rental Rate per Square Footage per Year	To estimate total rent due	Office	CoStar (Dec 2020 - Asking Rent)	CBRE (2020Q4 -Asking Rent)
			Retail (Single Use)	CoStar (Dec 2020 - Asking Rent)	CoStar (Dec 2020 – Market Rent)

			Retail (Mixed Use)	CoStar (Dec 2020 – bottom of Typical Market Rent)	CoStar (Dec 2020 – bottom of Typical Market Rent)
			Industrial	CBRE (2020H1 – Asking Rent)	CBRE (2020H1 – Asking Rent)
F	Total CRE Rent Due per Month	To estimate total CRE rent due by industry	All Sectors	Row (D) divided by 12 to determine monthly rent and then multiplied by row (E)	
G	% of CRE Rent Unpaid		Office	Trepp (Dec. 2020 - CMBS YoY Delinq.)	Trepp (Jun. 2020 - CMBS YoY Delinq.)
			Retail (Single Use)	Trepp (Dec. 2020 - CMBS YoY Delinq.)	Trepp (Jun. 2020 - CMBS YoY Delinq.)
			Retail (Mixed Use)	SFAA Survey (May – Oct 2020, Avg.)	SFAA Survey (May – Oct 2020, Avg.)
			Industrial	Trepp (Dec. 2020 - CMBS YoY Delinq.)	MBA (Dec. 2020 – Total % Delinq.)
H	Total Unpaid CRE Rent	To estimate total unpaid CRE rent by industry	All Sectors	Multiplication of rows (F) and (G)	

Notes: *Detailed description of data sources provided in the table below.

** BLA interview with SFMADE Executive Director Kate Sofis

Exhibit A3: Detailed description of data sources used for unpaid commercial rent model estimates

Source Name – Sector	Source Description	Unit/ Metric	Geographic Coverage
CBRE (2020Q4) - Office	CBRE SF Office MarketView (2020Q4)	Various (see above)	SF County
CBRE (2020H1) - Industrial	CBRE SF Industrial MarketView (2020H1)	Various (see above)	SF County
CoStar (Dec. 2020)	CoStar reports for Office and Retail properties	Various (see above)	SF County
BLA/ ASR data	BLA analysis of Assessor-Recorder’s Office Secured Property Rolls data for FY 2019-20*	Total square footage by industry (see detailed discussion in Appendix B)	SF County
SFAA Survey (May – Dec 2020) - Retail	SFAA Commercial Rent Survey	% of commercial tenants unable to pay rent in full	SF County

MBA (Dec 2020 – Total % Delinq.) - Industrial	Mortgage Bankers Association (CREF Loan Performance Survey)	% of Industrial outstanding CRE & multifamily mortgages that are not current	National
Trepp (CMBE YoY Delinq.)	Trepp, Inc. CMBS Research	% of CMBS Loan Balance Delinquent for each sector (adjusted for YoY change)	National

Source: Budget & Legislative Analyst's Office

Notes: *See Appendix B for detailed discussion of our analysis of Assessor-Recorder's Office data.

The specific numeric inputs used from the sources referenced in Exhibit B2 and B3 to produce the unpaid commercial rent estimates are included in Exhibit B4 below.

Exhibit A4: Assumptions for Low and High End Estimates of Amount of Unpaid Commercial Rent in the Office, Retail, and Industrial Sectors in San Francisco, April – December 2020

Sector	Total Rented CRE		Rent Due		Unpaid Rent	
	Total CRE Sq. Ft.	Total Occupied Rented CRE Sq. Ft.	Rental Rate per Sq. Ft. per year	Total CRE Rent Due per Month (\$m)	% of Rent Unpaid	Total Unpaid Rent per Month (\$m)
Office	82.2 - 103.8m	60.9 - 77m	\$ 58.24 - 76.47	\$ 295.9 - 490.8m	0.2 - 0.3%	\$ 0.59 - 1.47m
Retail (Single Use/ Office & Retail)	27.8 - 34.4m	21 - 26m	\$ 55.73 - 65.47	\$ 97.7 - 142.2m	8.52 - 13.63%	\$ 8.33 - 19.38m
Retail (Mixed Use with Residential)	12.8 - 12.8m	9.7 - 9.7m	\$ 44.9 - 44.9	\$ 36.4 - 36.4m	28 - 56%	\$ 10.2 - 20.4m
Hotel/ Accommodation	19.2 - 27.6m	NA	NA	NA	NA	NA
Industrial	23.4 - 40.5m	20.5 - 35.5m	\$ 29.64 - 29.64	\$ 50.8 - 87.8m	0 - 4.2%	\$ 0 - 3.69m
Total	165.6 - 219.3m	112.3 - 148.4m	\$ 51.37 - 58.29	\$ 481 - 720.9m	6.1 - 6.2%	\$ 19.12 - 44.94m
<i>Retail (Total)</i>	<i>40.7 - 47.3m</i>	<i>30.7 - 35.8m</i>	<i>\$ 52.3 - 59.87</i>	<i>\$ 134.2 - 178.6m</i>	13.8 - 22.27%	\$ 18.53 - 39.78m

Sources: BLA analysis

Notes: CRE = Commercial Real Estate. An explanation of the sources and calculations for each column is included in Exhibit B2.

APPENDIX B

Methodology Used to Estimate Commercial Real Estate Space from the Assessor-Recorder's Office Data

We used Secured Property Roll Data for Fiscal Year 2019-2020 published by the Assessor-Recorder's Office to estimate high-end estimates of total commercial real estate square footage.⁴⁰ According to the Assessor-Recorder's Office, the data includes information on all property parcels in the City and County of San Francisco and is used to appraise all taxable property for the purpose of property and other taxes collected locally. The dataset includes information on each parcel including the location, Assessor's Parcel Number, lot dimensions and square footage, internal building square footage, Assessor-Recorder's Office class and use codes, and MLS district.

In order to estimate the total commercial real estate universe as well as sector-specific estimates we carried out the following data cleaning and transformation steps:

- 1) Ran various data checks to validate completeness of information and problematic data in the dataset.** This showed that around 65 percent of all parcels and 71 percent of commercial use parcels had a valid non-zero internal property area estimate. Another 11 percent of commercial use parcels had a lot area but not internal property area estimate and another 2.4 percent had a lot and internal property area that were the same. In total, around 84 percent of commercial use properties had a lot or internal property area estimate. All parcels had class and use codes assigned by the Assessor-Recorder's Office.
- 2) Identified "commercial" properties based on the class and use codes used by the Assessor-Recorder's Office.** Based on the Class and Use Codes provided by the Assessor-Recorder's Office, we categorized these into codes that identified a commercial use, whether the use was single or mixed-use and then the category or sector (i.e. office, hotel, retail, industrial). The category/sector classification largely followed the Assessor Use Codes but we re-classified Class Codes which included mixed uses including office, retail, hotel and residential as well as mixed uses of office, retail, and hotel. We also excluded several Class Codes

⁴⁰ The dataset is available on the Assessor-Recorder's Office website: <https://sfassessor.org/news-information/property-data-0>

which did not meet common commercial real estate types, including: garages, hospitals, churches/ religious uses, clubs/ lodges, gold courses, nursing homes, schools, “Live/ Work Condominiums,” Port Commission property, “Mission Bay” Class Code, and other codes labeled “Mixed Use” and “Misc.” Based on our review, these codes represented a small share of total real estate. We also excluded Class Codes labeled as “vacant.”

- 3) **Identified “outlier” parcels that should be excluded:** we identified outlier commercial parcels based on size and reviewed these to determine if they should be included in the analysis. Sources consulted included Google Maps and Streetview and the San Francisco Property Information Map (PIM). Through this we identified four parcels representing around 6.5 million square feet to exclude: Warriors Stadium⁴¹, SFPUC Balboa Reservoir site (vacant lot), and the SFPUC Southeast Treatment Plant in the Bayview.
- 4) **Conducted random checks of parcels in each sector to ensure the accuracy of the use codes:** Using information from Google Maps, Google Streetview and San Francisco Property Information Map searches, we randomly searched parcels in each sector to confirm the Use Codes were accurate. These checks generally validated the Use Codes though some properties appeared vacant (this was controlled for by using vacancy/availability estimates in the unpaid rent model).
- 5) **Produced a new property area estimate for each parcel using data on internal property area, where available, or lot area, if no internal estimate was available.**

Further detail and all datasets used to produce the analysis are available upon request.

⁴¹ We were unable to separate actual commercial retail space from the main stadium area.