



Medical Office Building and Cancer and Specialty Center Impact Analysis

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Study Methodology and Purpose

Estimate the **potential medical office demand** that can be captured within the immediate area as a result of the **new** Cancer and Specialty Centers at John Muir Health and BASS Medical Group.

- Research other medical centers on the West Coast to compare the average ratio of primary hospital operations to surrounding occupied medical offices.
- Estimate the potential range in additional medical office demand based on the ratio of medical office per square foot of primary hospital and number of affiliated doctors at selected medical centers.
- Apply the ratio to estimate residual medical office demand in proximity to the new Cancer and Specialty Centers at John Muir Health and BASS Medical.
- Estimate the existing supply's capacity to accommodate the long-term demand.



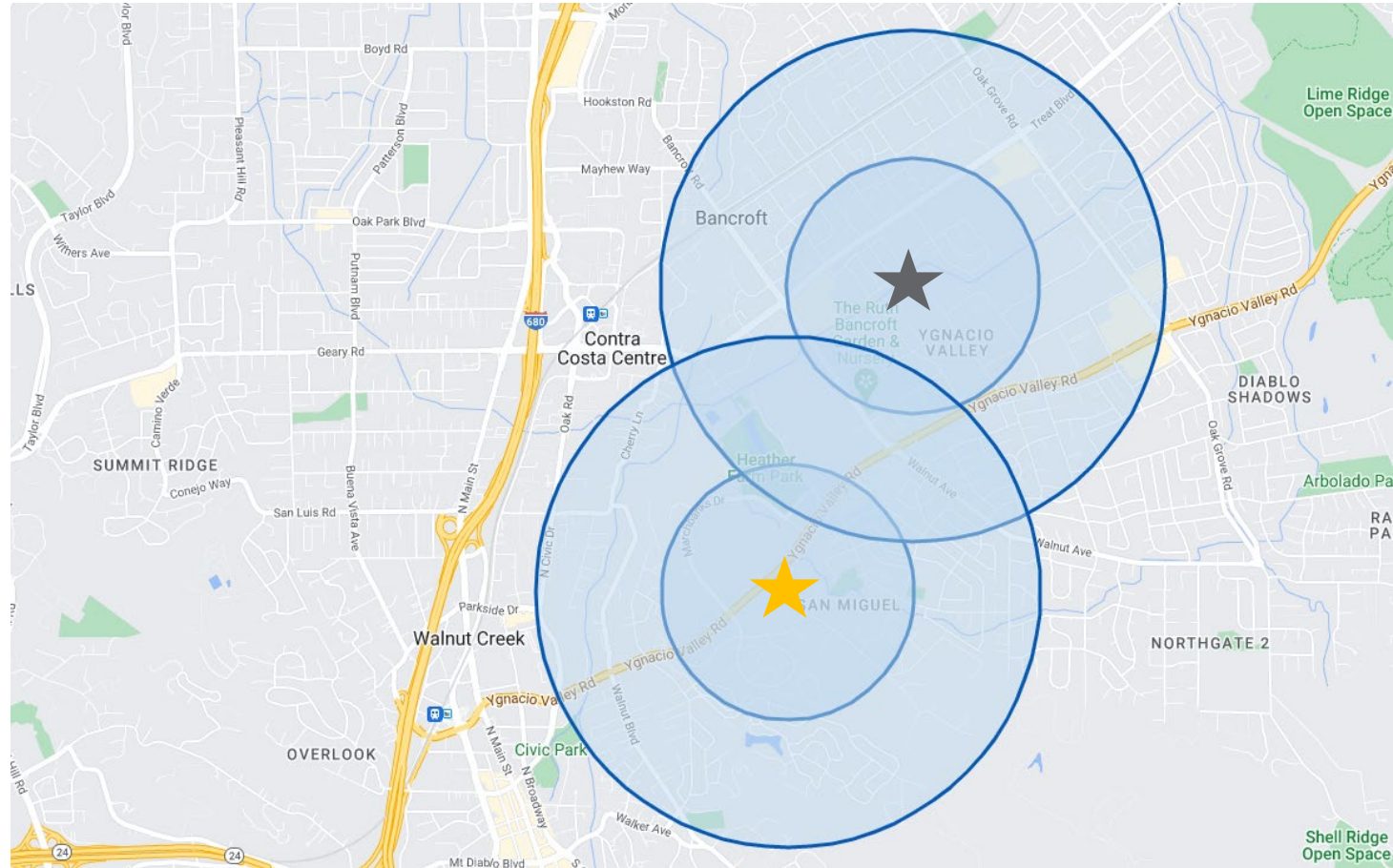
Approximate Locations of the John Muir Health and BASS Medical Group Cancer and Specialty Centers



- The two Cancer and Specialty Centers are approximately two miles from each other in the City of Walnut Creek.
- For the purpose of this study, JLL estimated the potential office demand generated from the two developments on an aggregated level and excluded HMOs (i.e. Kaiser) due to doctors being in-house as opposed to off-site in their own private practices (i.e. John Muir Health).
- There is 1.28M square feet of existing medical office within the pictured radii. The City of Walnut Creek's total medical office supply is 1.78M square feet.

BASS Medical Group 

John Muir Health 



Overview of Findings – Cancer and Specialty Center

- Upon evaluation of existing hospitals and surrounding medical office demand, there is approximately 0.9 square feet of medical office per square foot of primary hospital within a half mile radius or 1.3 square feet within a full mile radius.
- The estimate per affiliated doctor is approximately 1,300 square feet of medical office per doctor within a half mile radius or 1,800 square feet of medical office per doctor within one mile.
- Applying the square footage of the new Cancer and Specialty Centers (i.e. 154,000 square feet), the new developments will generate approximately 139,000 square feet of medical office demand within a 0.5 mile of the hospital and approximately 200,000 square feet of medical office demand within one mile from the the hospital.
- If calculated on a per affiliated doctor basis, the additional medical office demand would be slightly lower at 101,000 within 0.5 mile of the hospital and 140,000 within a mile of the hospital.
- There is insufficient available medical supply to accommodate this long-term demand under the high impact estimate (i.e. 200,000 square feet). However, there is ample supply amongst the Class B office inventory that can be converted to medical office space.
- This analysis may over-estimate medical office demand as the industry overall consolidates with more vertically integrated health care operations. Recent national health statistics imply medical practice consolidation which would reduce demand for individual medical offices as high as 38% to 49%. This is due to increased administrative overhead endured in health care that can receive significant economies of scale under a larger health care organization.

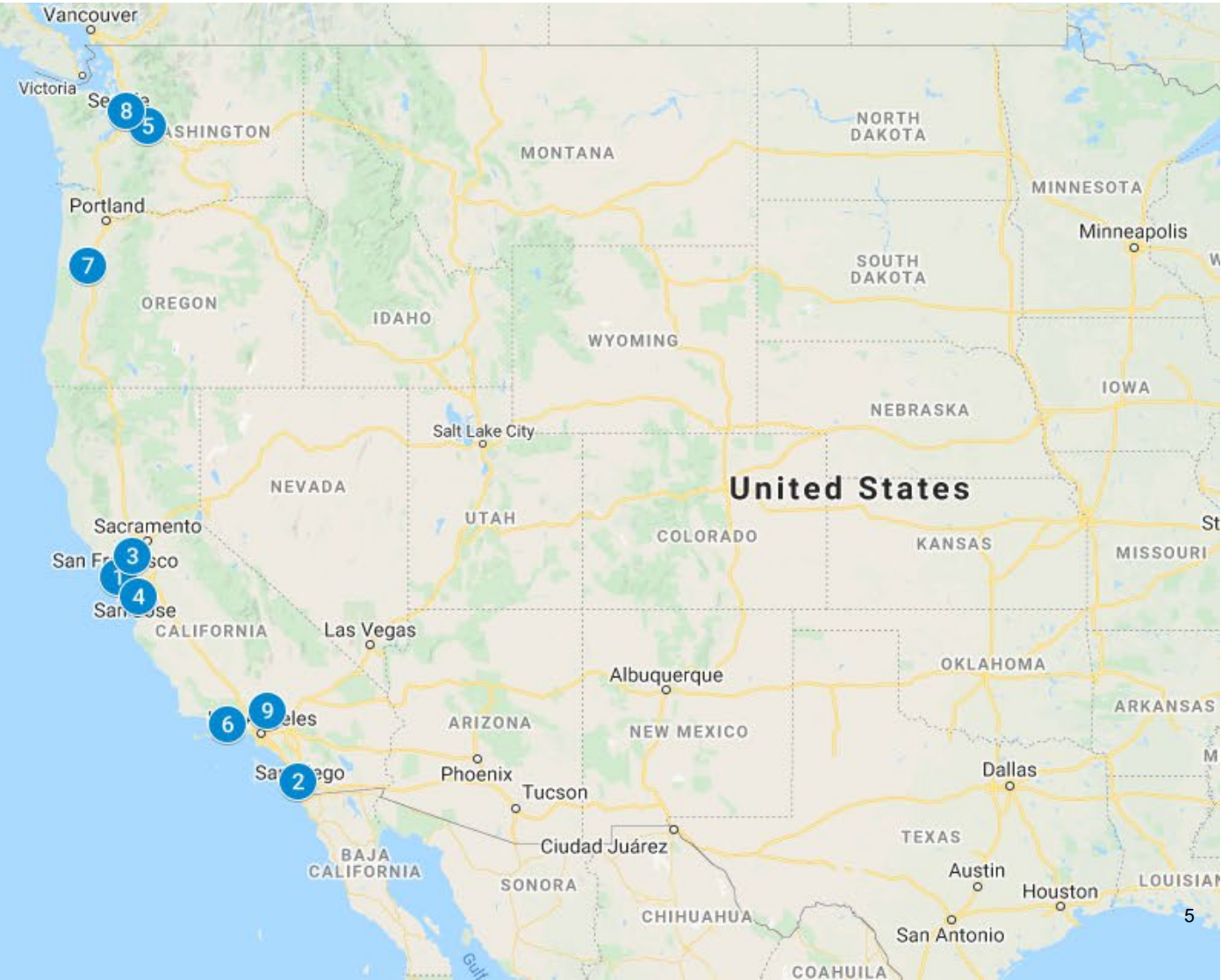


Potential Medical Office Demand Analysis



JLL researched existing hospitals built 5-15 years ago on the West Coast to evaluate their average distribution of occupied medical office compared to the size of the hospital and the number of affiliated doctors. To ensure accuracy, the hospitals selected do not have another existing hospital nearby.

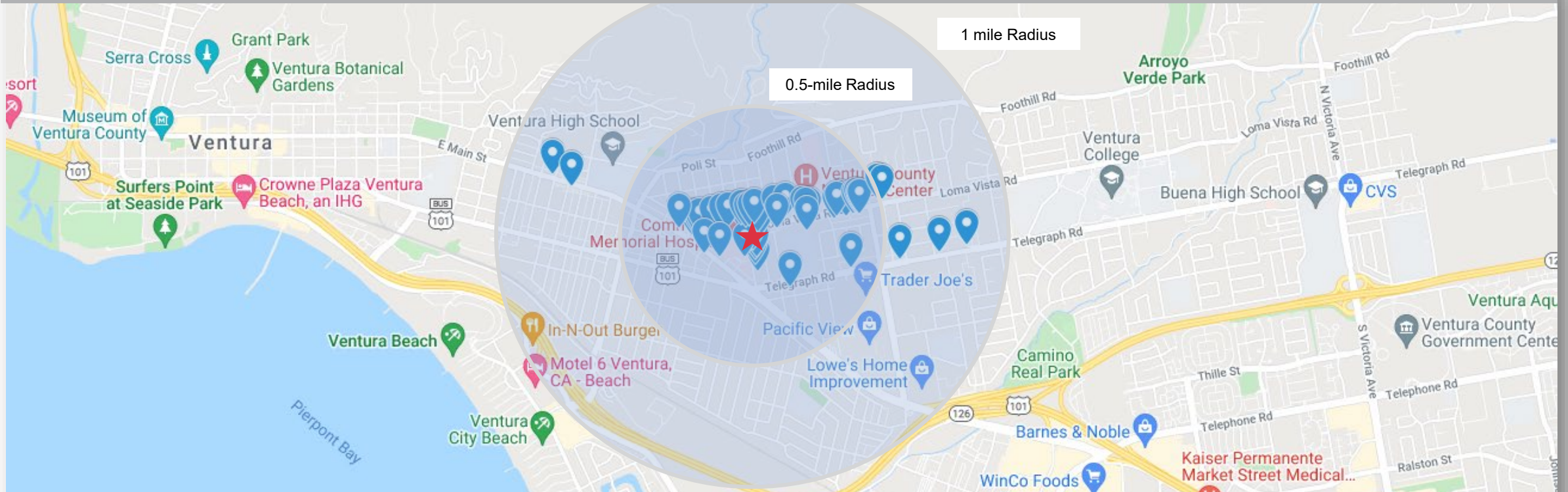
- 1 UCSF Medical Center at Mission Bay
- 2 UC San Diego Jacobs Medical Center
- 3 Sutter Health - Alta Bates Summit Medical Center
- 4 Santa Clara Valley Medical Center
- 5 Swedish Medical Center - Swedish Issaquah Campus
- 6 The New Community Memorial Hospital
- 7 Good Samaritan Regional Medical Center
- 8 Evergreen Hospital Medical Center
- 9 Palmdale Regional Medical Center



Medical Offices from The New Community Memorial Hospital (1 mile and 0.5-mile radius)

JLL selected 9 Hospitals and evaluated the occupied medical office space within close proximity. This was evaluated by medical office square feet per square foot of primary hospital and medical office square feet per affiliated doctor.

Example Case Study Evaluation of Medical Office Sq. Ft. / Hospital Sq. Ft. (The New Community Memorial Hospital)



1/2 Mile Radius from Hospital					
Medical Center	Total Medical Office S.F.	Total Medical Offices	S.F. Medical Office / Hospital Sq. Ft.	S.F. Medical Office / Affiliated Doctors	
The New Community Memorial Hospital	232,218	39	0.71	597	
1 Mile Radius from Hospital					
Medical Center	Total Medical Office S.F.	Total Medical Offices	S.F. Medical Office / Hospital Sq. Ft.	S.F. Medical Office / Affiliated Doctors	
The New Community Memorial Hospital	291,922	47	0.90	750	

***Only Occupied Medical Office

Medical Offices from Studied Hospitals (1 mile and 0.5-mile radius)



The average ratio of **0.9** occupied square feet of medical office / Hospital square feet within 0.5-mile radius from the hospital and the average ratio of **1.3** occupied square feet of medical office / Hospital square feet within 1 mile radius from the hospital. On a per affiliated doctor basis, the average ratio is **1,300** occupied square feet and **1,800** occupied square feet within 0.5-mile and 1 mile radius, respectively. These estimates do not account for future vertical integration.

1/2 Mile Radius from Hospital					
Medical Center	Total Medical Office S.F.	Total Medical Offices	S.F. Medical Office / Hospital Sq. Ft.	S.F. Medical Office / Affiliated Doctors	
UCSF Medical Center at Mission Bay	386,717	3	0.44		703
UC San Diego Jacobs Medical Center	1,081,251	9	2.12		2,021
Sutter Health - Alta Bates Summit Medical Cent	849,700	62	2.02		1,553
Santa Clara Valley Medical Center	210,924	10	0.57		659
Swedish Medical Center	53,278	1	0.11		241
The New Community Memorial Hospital	232,218	39	0.71		597
Good Samaritan Regional Medical Center	213,683	7	1.23		1,161
Evergreen Hospital Medical Center	808,969	26	0.82		1,245
Palmdale Regional Medical Center	228,724	24	0.42		3,877
John Muir Health Center	333,064	17	0.88		952
Averages			0.93		1,301

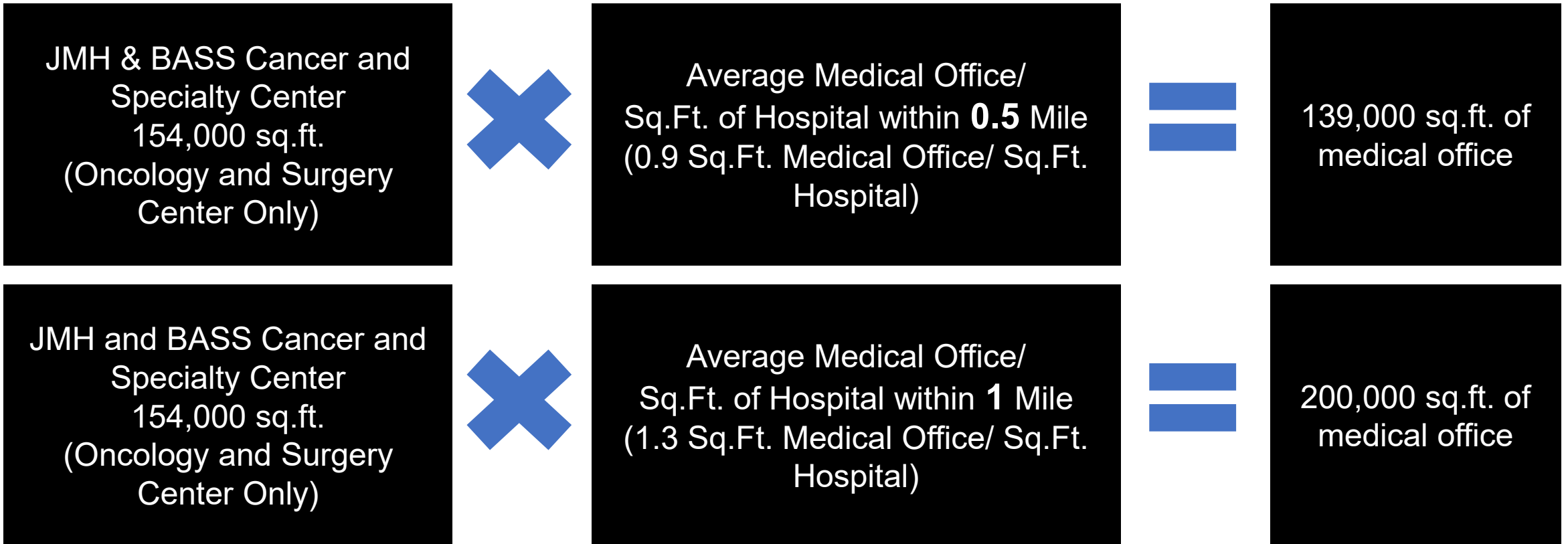
1 Mile Radius from Hospital					
Medical Center	Total Medical Office S.F.	Total Medical Offices	S.F. Medical Office / Hospital Sq. Ft.	S.F. Medical Office / Affiliated Doctors	
UCSF Medical Center at Mission Bay	386,717	3	0.44		703
UC San Diego Jacobs Medical Center	1,918,611	24	3.77		3,586
Sutter Health - Alta Bates Summit Medical Cent	939,885	74	2.23		1,718
Santa Clara Valley Medical Center	565,868	53	1.53		1,768
Swedish Medical Center	82,969	5	0.16		375
The New Community Memorial Hospital	291,922	47	0.90		750
Good Samaritan Regional Medical Center	213,683	7	1.23		1,161
Evergreen Hospital Medical Center	822,689	28	0.84		1,266
Palmdale Regional Medical Center	318,671	31	0.58		5,401
John Muir Health Center	434,021	28	1.14		1,240
Averages			1.28		1,797

Long-Term Impact of the Cancer and Specialty Centers on Medical Office (Square foot calculator)



Using the average ratio of medical office square feet per square foot of hospital (0.9 – 1.3), the new Cancer and Specialty Centers have the potential to induce an additional ± 139,000 to ± 200,000 square feet of medical office demand within the City of Walnut Creek.

Below shows the formula to estimate spin-off medical office demand.

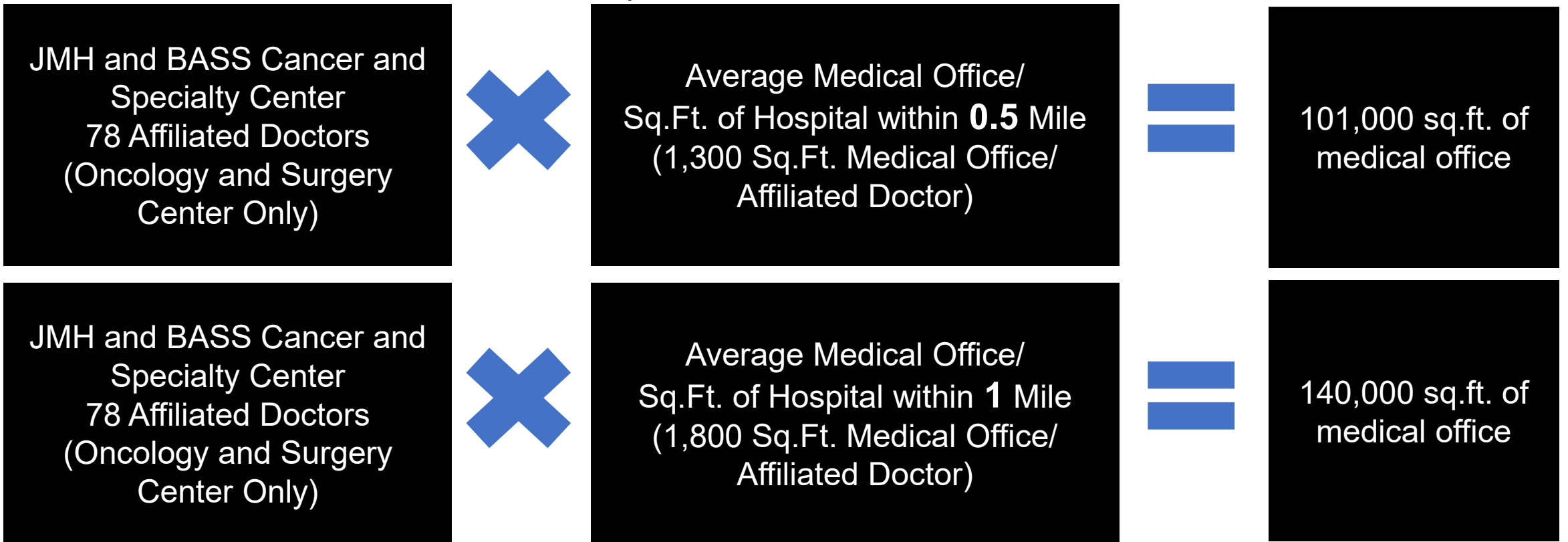


Long-Term Impact of the Cancer and Specialty Centers on Medical Office (per affiliated doctor estimate)



JLL received estimates of the number of affiliated doctors associated with Cancer and Specialty Centers. These are rough estimates and may in fact grow over time as the operations increase. Regardless, the number of affiliated doctors (i.e. 78) is generally a better ratio of medical office demand. This estimate shows a lower square footage demand, generating 101,000 square feet of medical office demand within 0.5 miles.

Below shows the formula to estimate spin-off medical office demand.



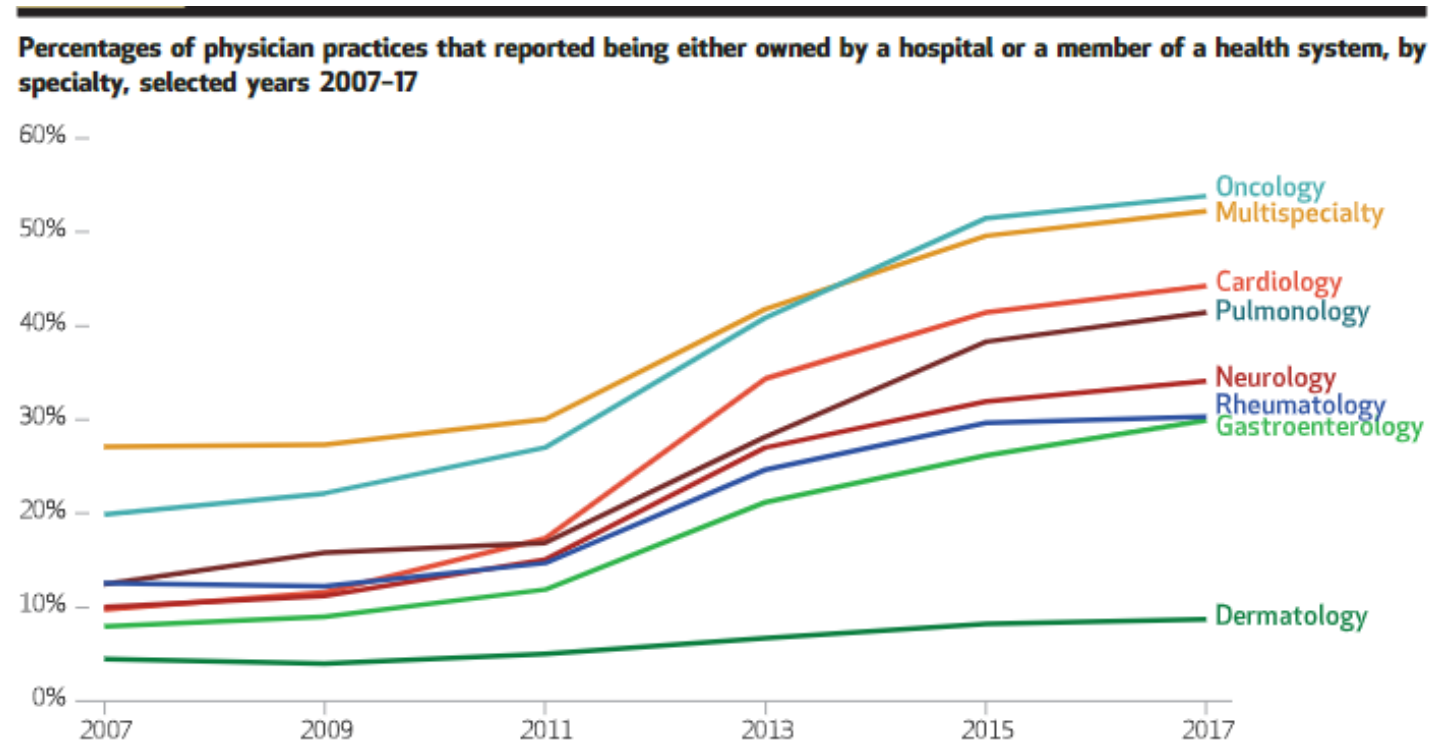
Long-Term Impact of the Cancer and Specialty Center on Medical Office (Private practice consolidation may reduce future demand)



These estimates do not take into account future private practice consolidation and vertical integration into larger health care practices. Health care data indicates continued consolidation amongst private practices into larger HMOs due to increasing overhead and billing cost that benefit from economies of scale. For example, only 20% of oncology practices were owned by a hospital or member health system in 2007 compared to nearly 50% in 2017.

The continued consolidation would have muting effects on independently operated medical office buildings that are not directly affiliated with a hospital, resulting in a reduction in gross MOB demand. Thus, the estimates herein are based on a static point-in-time but further consolidation could mute the estimated indirect demand on surrounding medical office space.

Note: The data for primary care physicians imply even more stark of a shift over a shorter period of time. Another Health Affairs study found primary care physicians affiliated with vertically integrated systems increased from 38% to 49% from 2016 to 2018 (Health Affairs, August 2020).

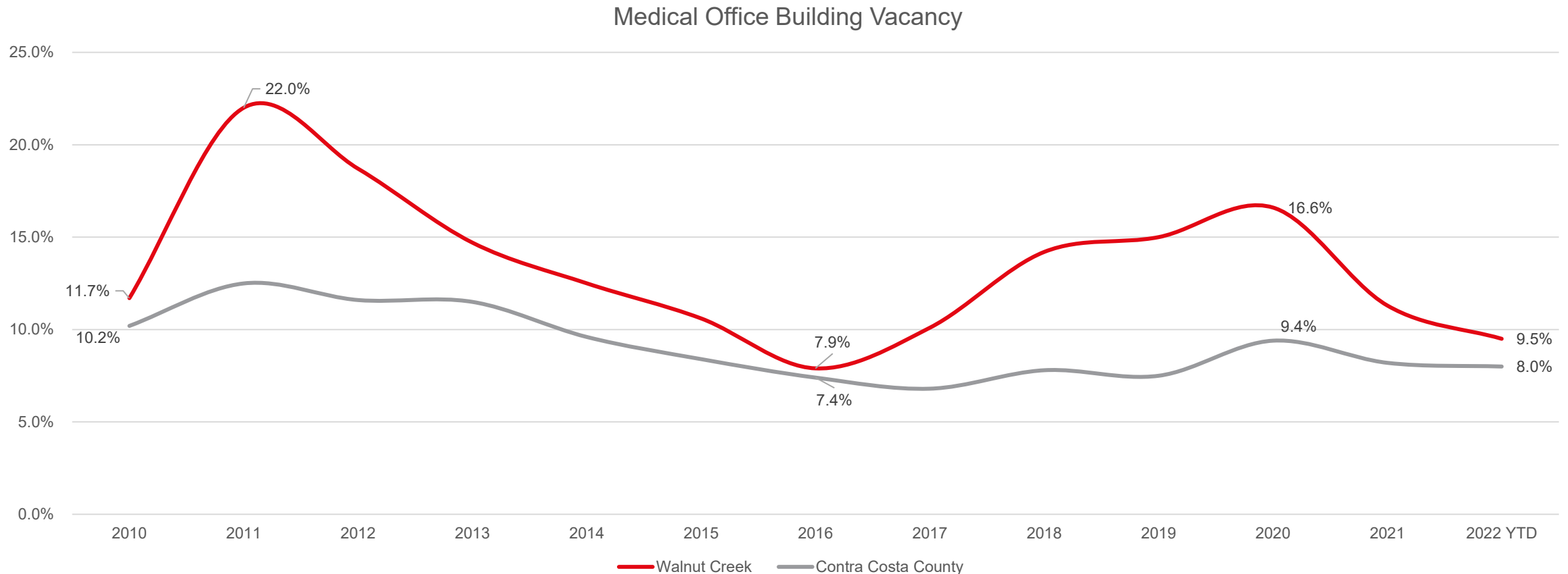


SOURCE Authors' analysis of data for 2007-17 from SK&A. **NOTE** For this exhibit, multispecialty practices are those composed of 50 percent or more medical subspecialists.

Source: *Hospital-Physician Consolidation Accelerated in the Past Decade in Cardiology and Oncology*.
Siyah S. Nikpay, Michael R. Richards, and David Penson, Health Affairs, July, 2018.

Medical Office Real Estate Market Conditions

Walnut Creek's medical office vacancy has historically trended above other cities in Contra Costa County. Contrary to traditional office space, vacancy rates have decreased 7% since 2020. [Note vacant space is space that is not occupied, whether it be leased or not. Available space can be occupied or unoccupied space but is currently being marketed for lease (e.g. under construction space or expiring leased space that will be vacant).]

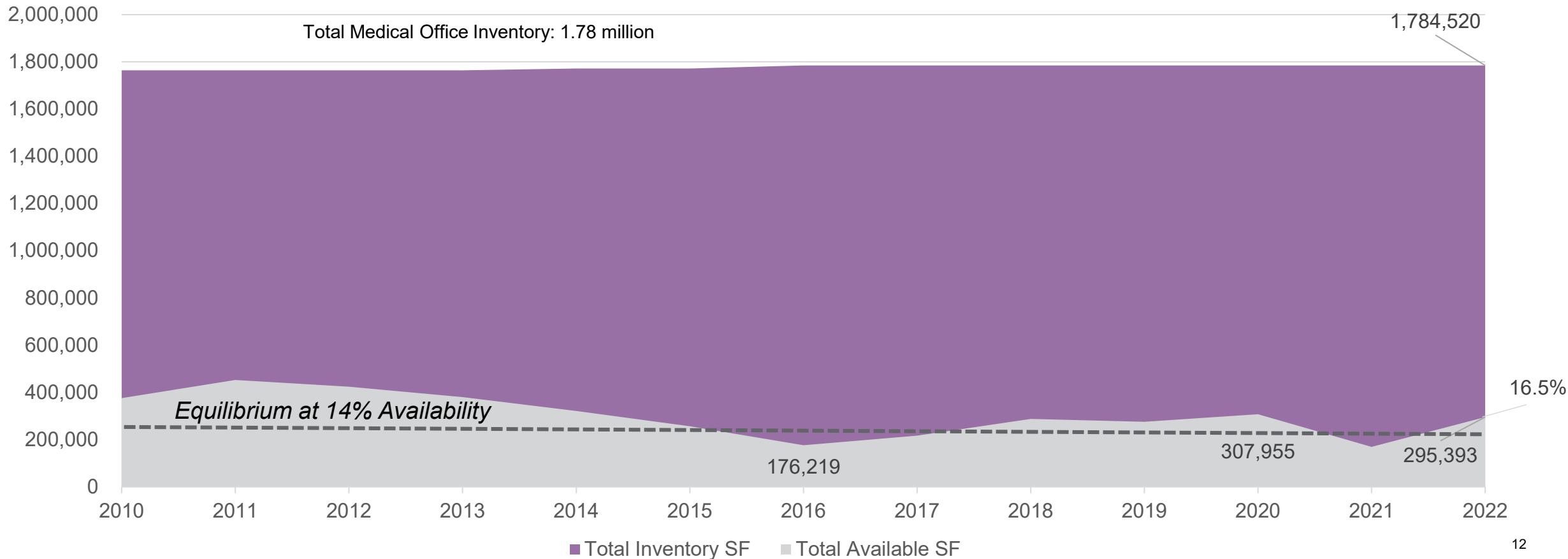


Medical Office Inventory Implications



Based on historic and current availability of medical office, there is insufficient supply to accommodate the additional 200,000 square feet of medical office demand in Walnut Creek. Note that healthy real estate markets require some level of vacancy to allow for tenant movement and competition. A standard rule for commercial space is approximately 12% - 14%, which would mean the market would need approximately 214,000 of availability to remain healthy (i.e. where rental rates increase at the same overall rate of long-term inflation). Thus, there's very little additional available supply to remain at a healthy equilibrium of supply and demand (with current availability of 16.5%, there is approximately 80,000 square feet of excess supply).

Medical Office Availability

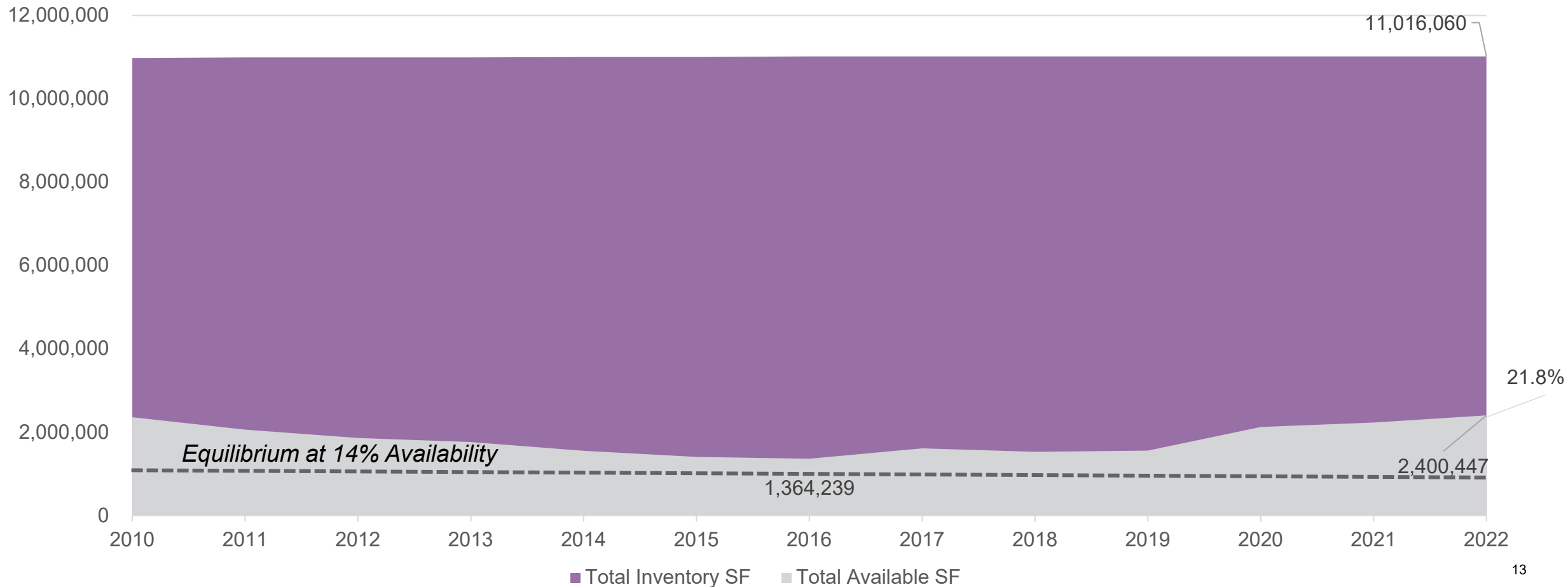


Medical Office Implications



However, there's ample available supply for relatively simple medical office conversions amongst the office inventory with availability over 20%. Meaning, the office supply could accommodate additional demand without pushing rents significantly above the rate of inflation. A target vacancy rate for the office market to reach a relative equilibrium is approximately 12%-14%, or 1.3M – 1.5M square feet of available office space. Meaning, the office market could conservatively convert over 850,000 square feet to medical office without significantly escalating prevailing office rents in Walnut Creek.

Traditional Office Availability



Medical Office Availability within a 1-mile radius of John Muir Health and BASS Medical Group



- There is 196,000 square feet of medical office vacancy and 210,000 square feet of availabilities within one mile from each Cancer and Specialty Center.

Legend:

Medical Office with Availability



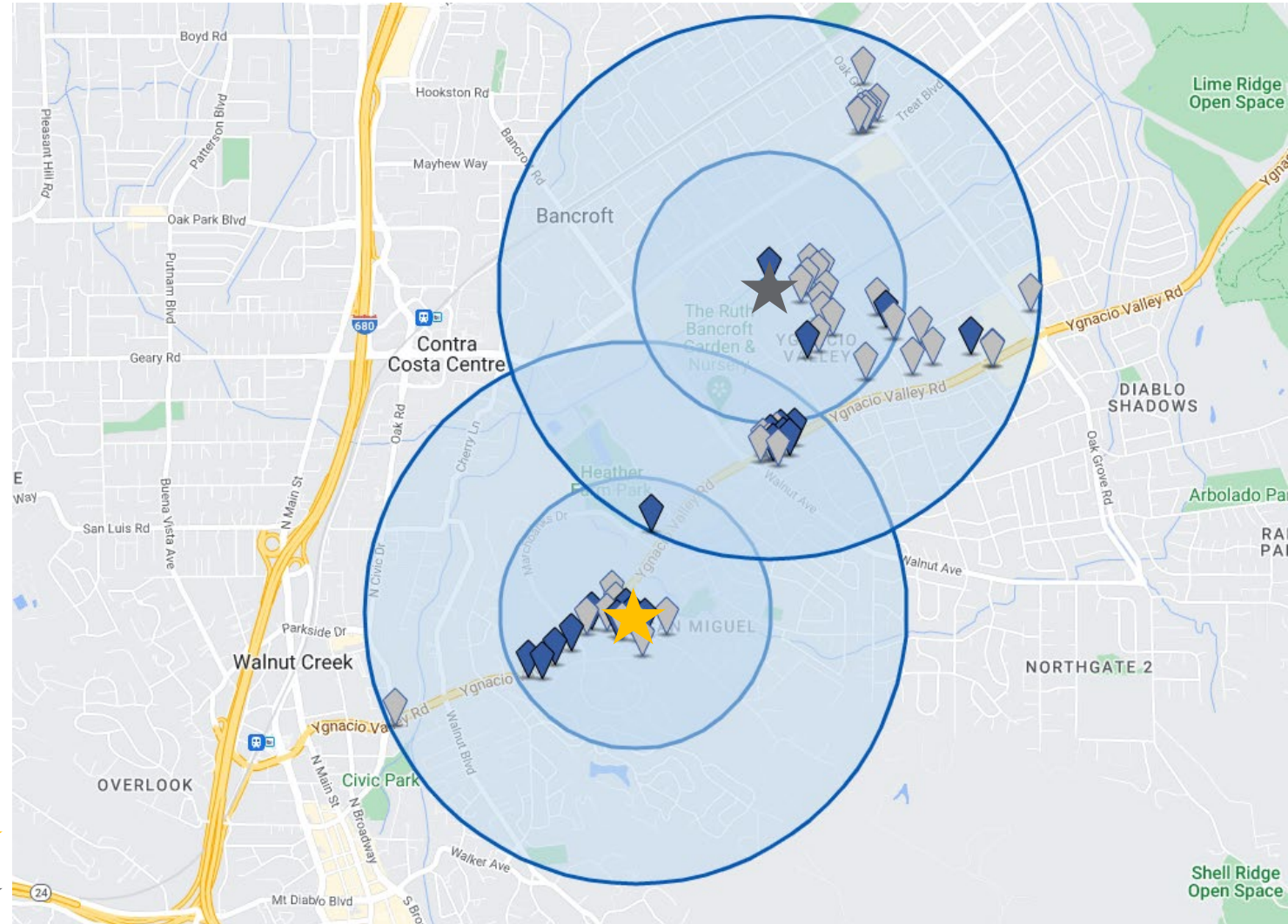
Occupied Medical Office Building



John Muir Health



BASS Medical Group







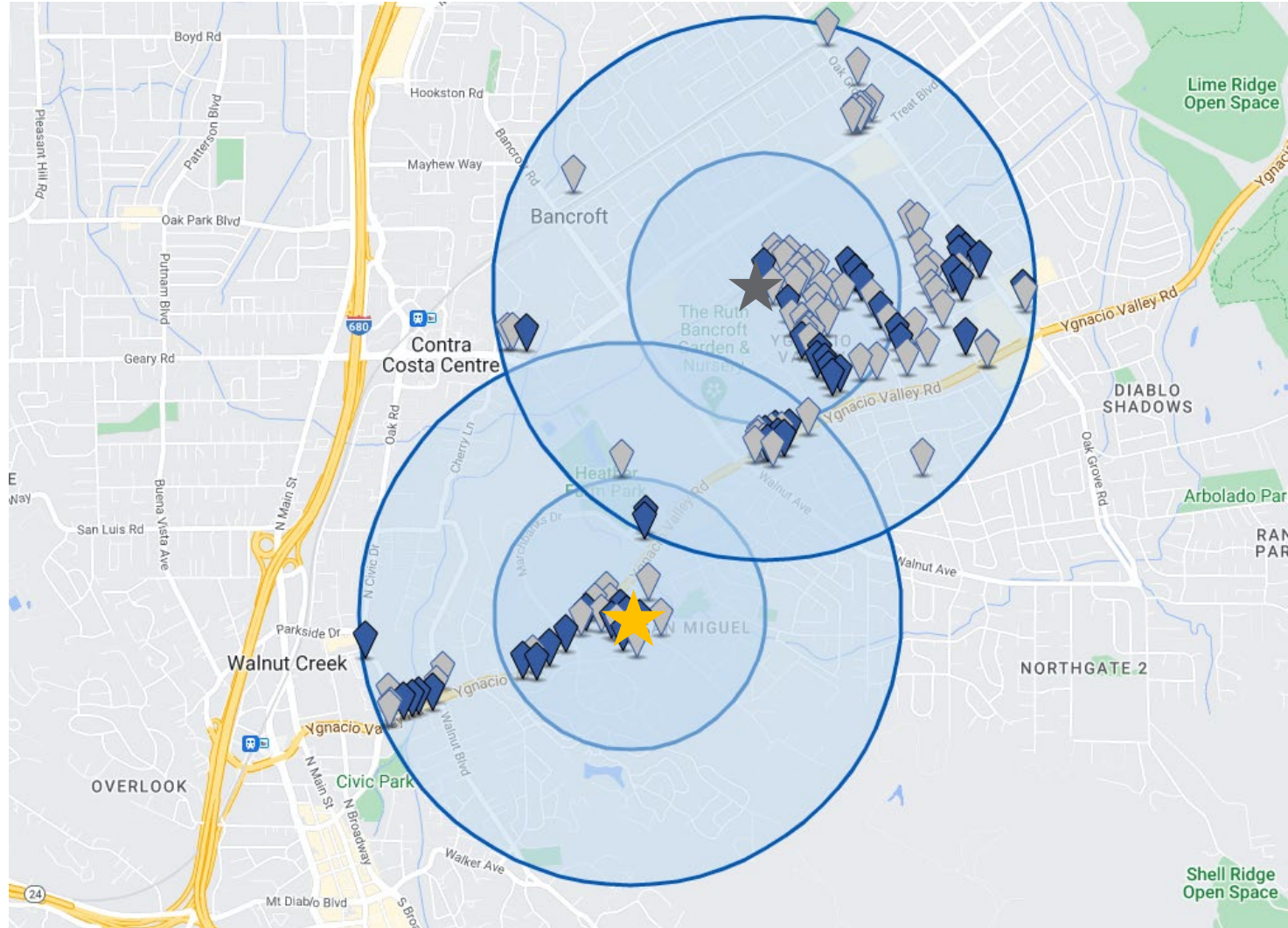
Total Office Availabilities within a 1-mile radius of John Muir Health and BASS Medical Group



- There is ample supply of traditional office inventory within a close proximity to the two new Cancer and Specialty Centers, which could result in conversions to medical office.
- After including traditional office inventory in the 1-mile radius, there is approximately 666,000 square feet of vacancy and 697,000 square feet of availabilities.

Legend:

- Office Building with Availability 
- Occupied Office Building 
- John Muir Health 
- BASS Medical Group 

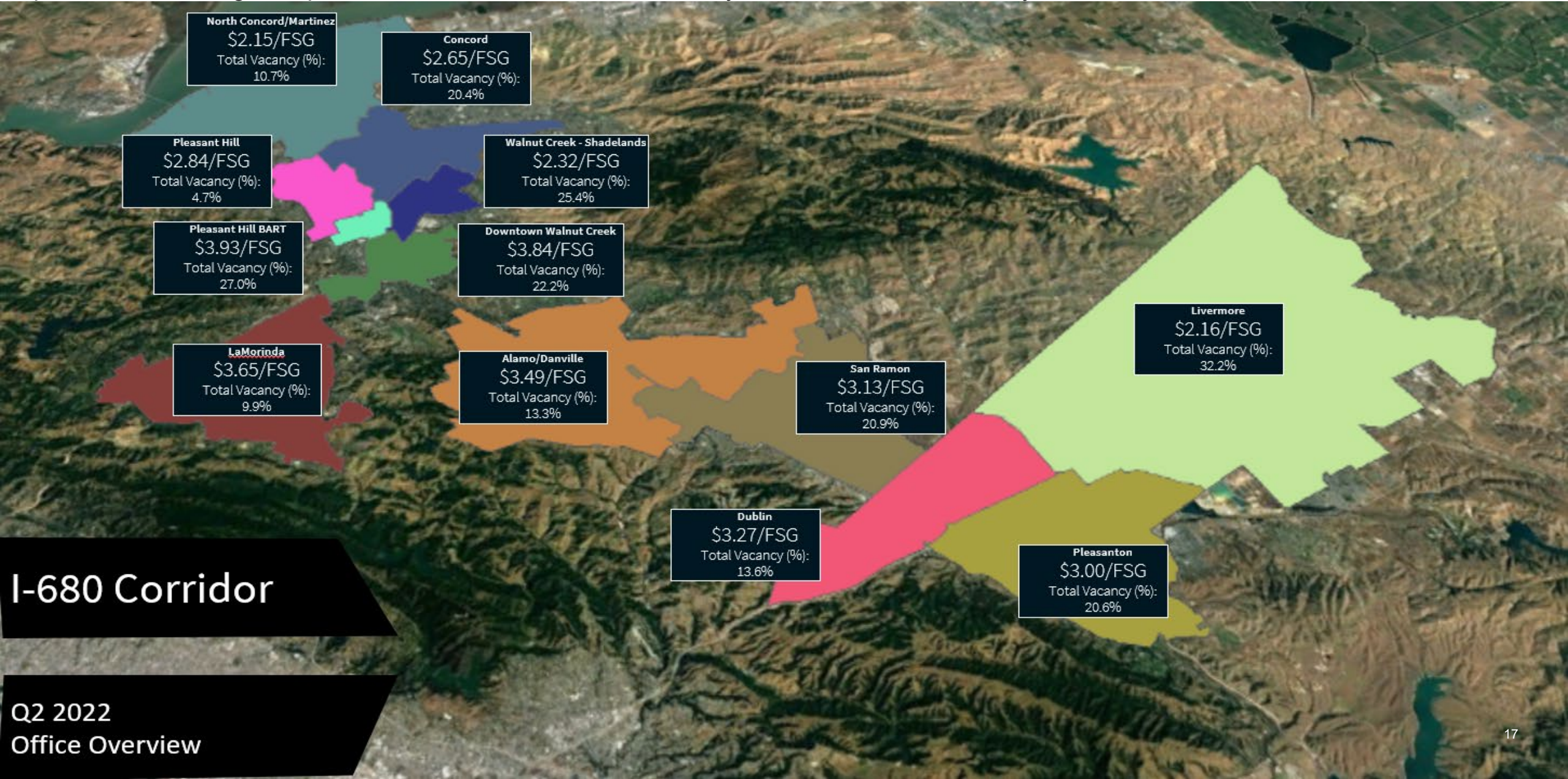


Office Market Real Estate Conditions Summary



Market Overview – Regional Office Market Conditions

For Alameda and Contra Costa Counties (i.e. East Bay Office Market), total office occupancy declined by approximately 3.9 million square feet. The region's peak was Q1 2020 with total vacancy of 14.1%. Office vacancy now stands at 21.1%.

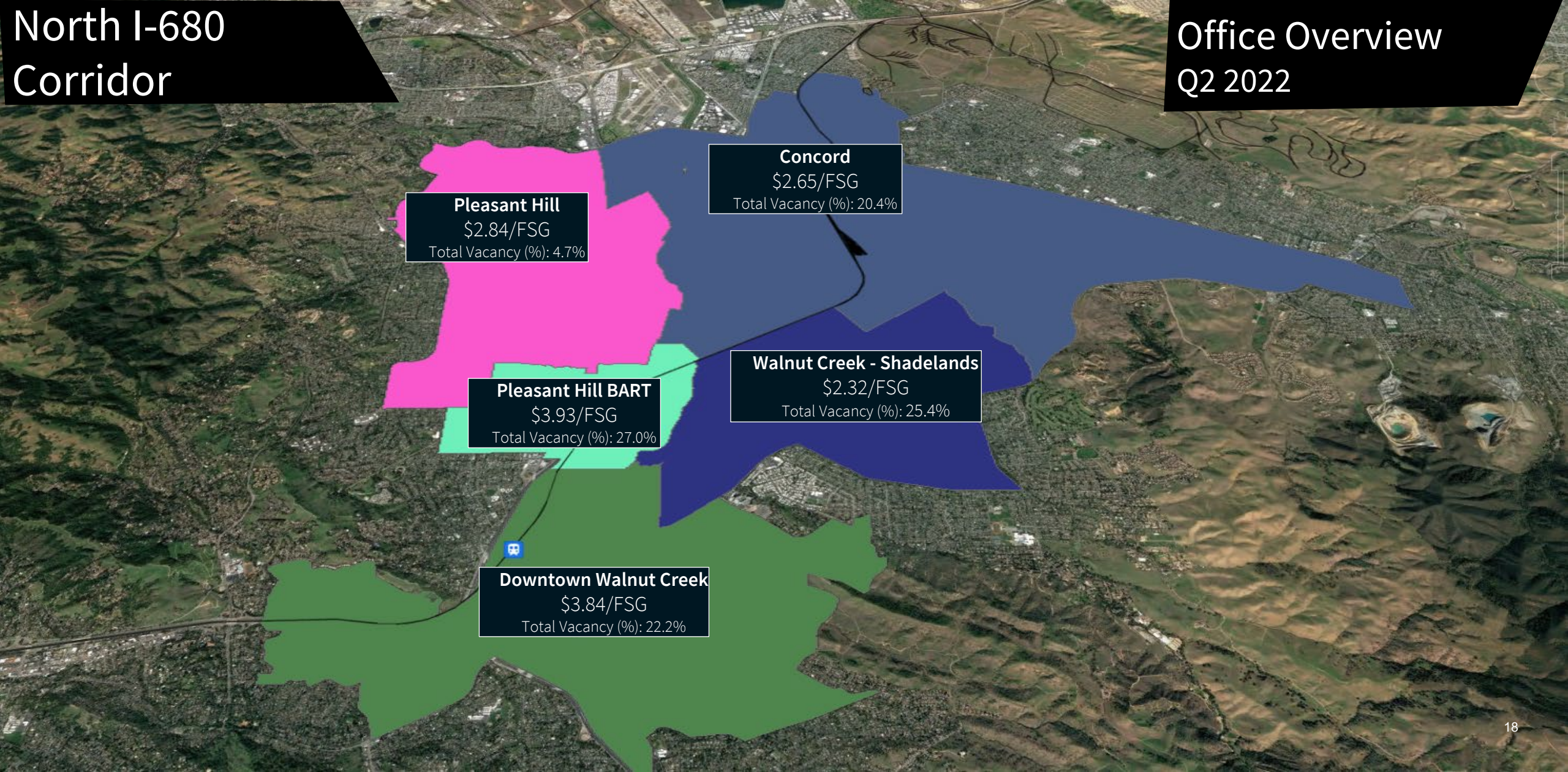


Market Overview – Regional Office Market Conditions

The North I-680 Corridor has followed similar market dynamics in the East Bay overall with increased vacancy across all major submarkets.

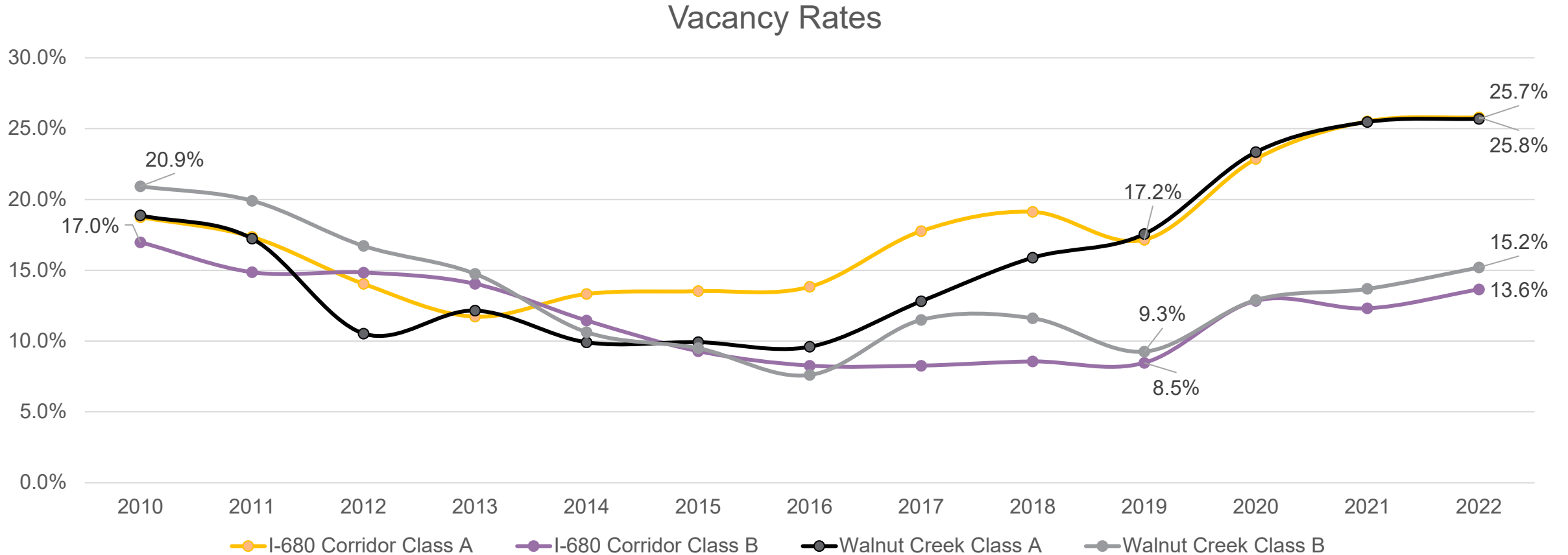
North I-680 Corridor

Office Overview Q2 2022



Market Overview – Local Office Market Conditions

Walnut Creek’s office vacancy rates for Class A and Class B buildings are higher than the average vacancy along the I-680 Corridor. Class A vacancy is 9.5% higher than Class B.

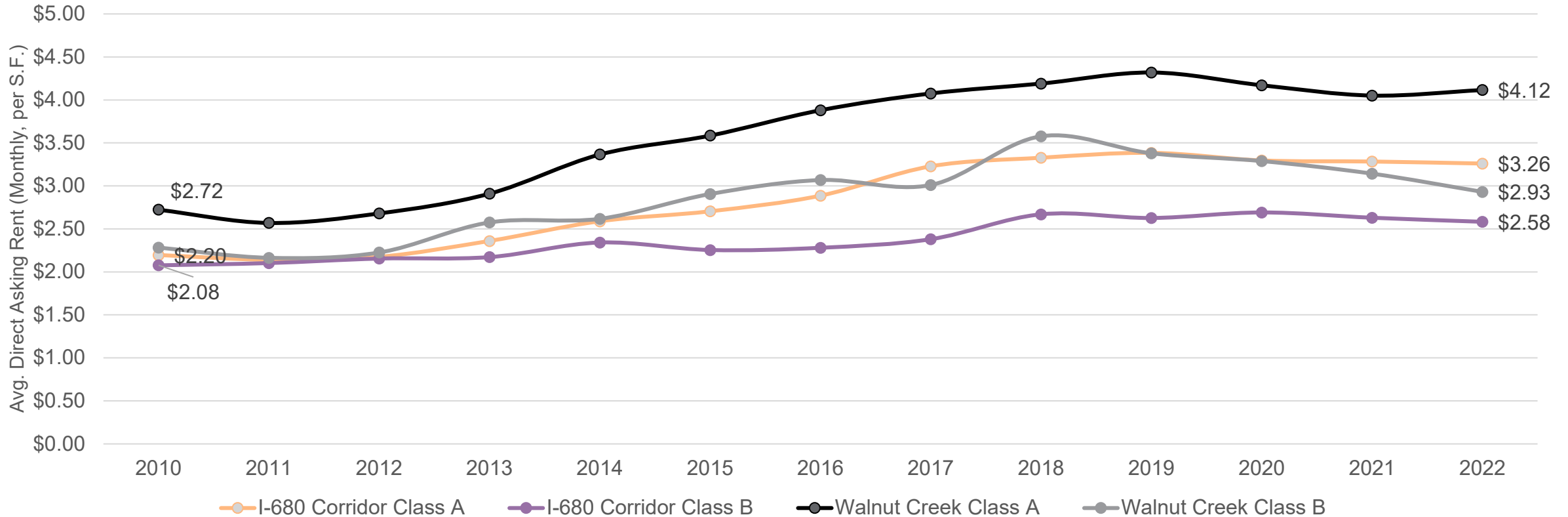


Note: JLL tracks only Class A and Class B office buildings over 10,000 square feet in the East Bay. JLL defines “Occupied” as whether a tenant physically occupies the space. Therefore, a property will be tracked as “Vacant” by JLL if the tenant has physically moved out, regardless of any lease obligation that may be on the space. As such, JLL tracks 6.9 million square feet versus 10.7 million square feet tracked by CoStar. JLL has more curated statistics on rents and occupancy with direct survey for the supply it covers.

Market Overview – Local Office Market Conditions

On average, rents for Class A and Class B space in Walnut Creek have trended above the average of other submarkets along the I-680 Corridor.

Direct Asking Rents



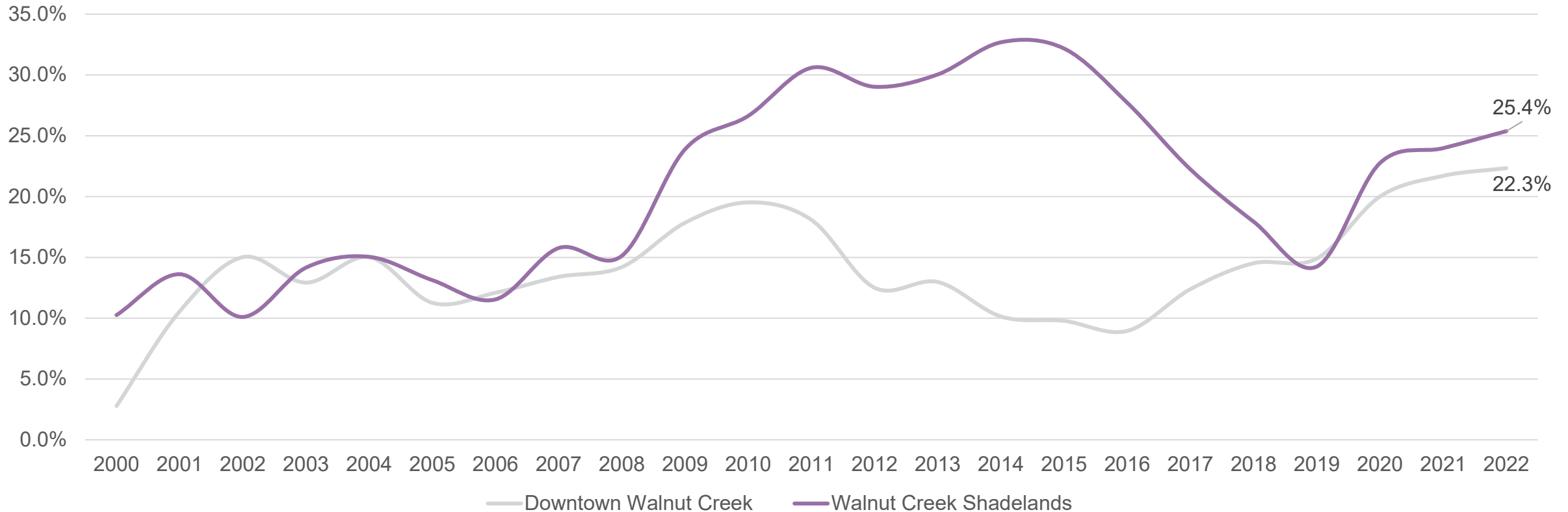
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Downtown Walnut Creek and Shadelands Office Conditions



During the dot.com boom, Walnut Creek's office reached record lows at the region had record employment levels. The market quickly corrected with vacancies within the 12% to 15% range until the great financial crisis when vacancies reached new heights. Walnut Creek's office market slowly recovered over the previous recovery and had fallen to 15%. However, COVID-19 and the subsequent recession led to significant occupancy losses with vacancy now standing at well over 20% for Walnut Creek citywide.

Historical Office Vacancy (2000-2022)



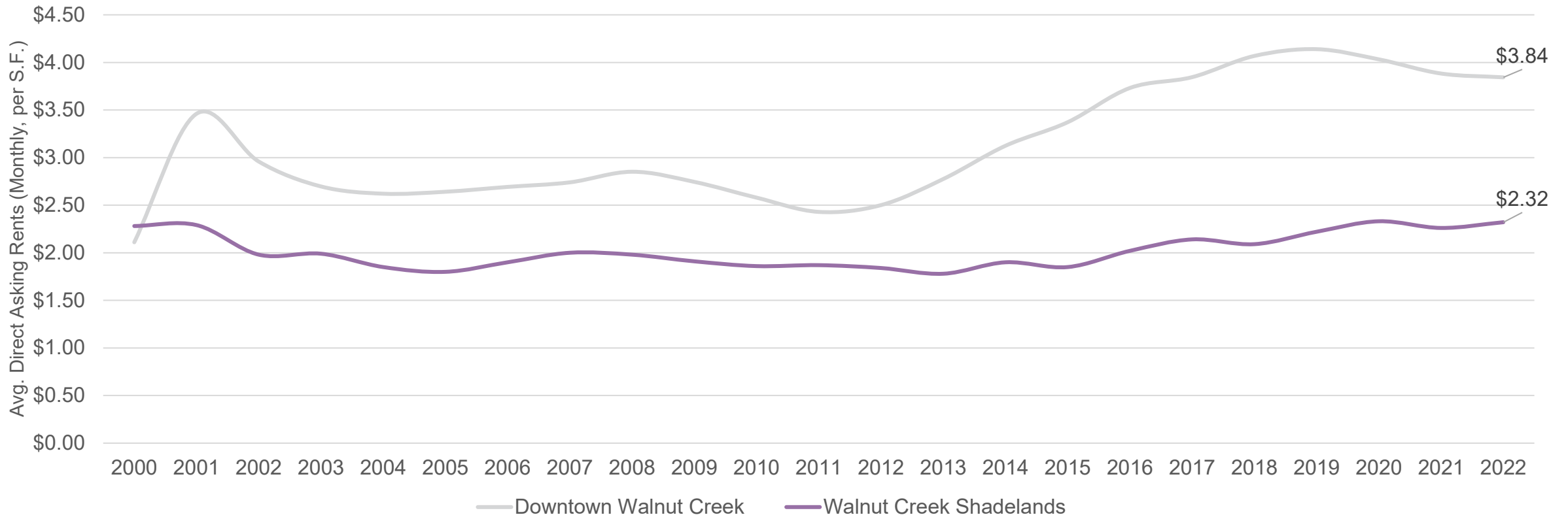
Note: JLL covers Class A and Class B office buildings greater than 10,000 square feet. We also do not cover owner occupied supply.

Downtown Walnut Creek and Shadelands Office Rent Conditions



Rents have stagnated since 2001 where Downtown Walnut Creek peak rent of \$3.46 per square foot (full-service gross) compared to \$3.84 as of Q2, 2022. After accounting for inflation, rent has declined over the past 20 years by roughly 50%. In nominal terms, rents in the Shadelands have remained flat from 2000 to 2022 with average asking rents in 2001 at \$2.29 per s.f. compared to \$2.32 per s.f. in Q2 2022.

Direct Asking Rents (2000-2022)

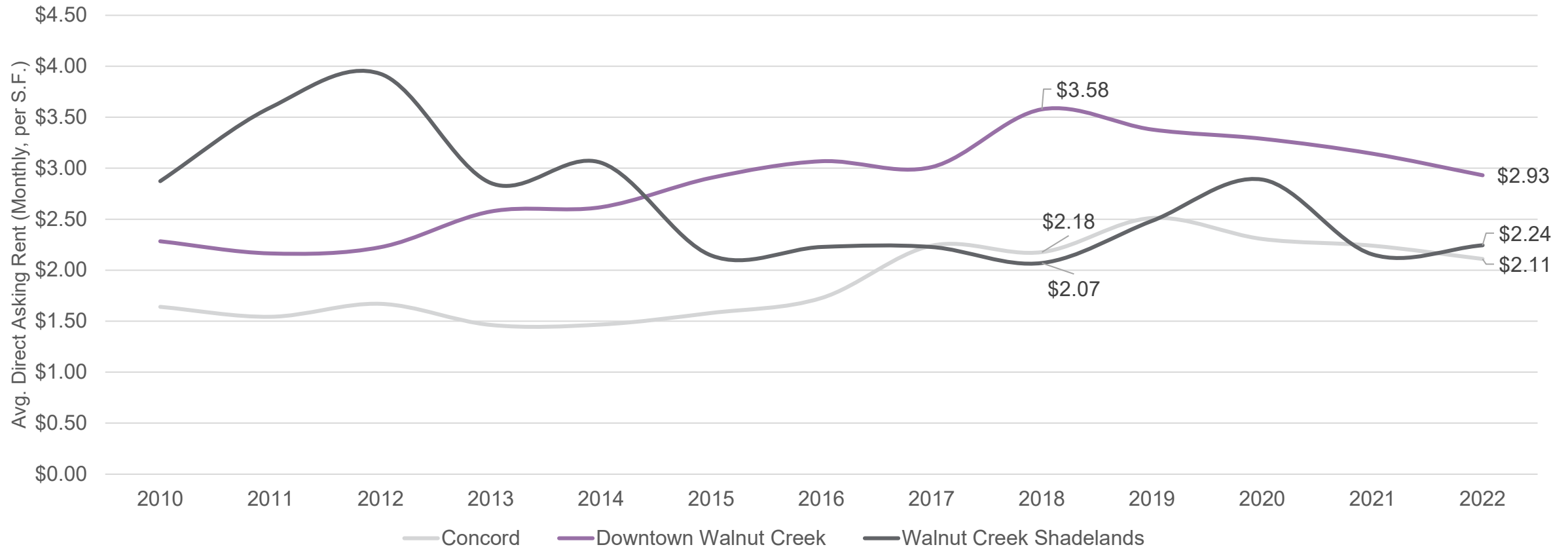


Shadelands Office Rent Conditions



Upon comparing asking rents amongst Class B buildings from neighboring submarkets, the margins between Downtown Walnut Creek and the Shadelands are closer aligned. The Shadelands more closely compares with Concord's Class B asking rates. This year, direct asking rents in the Shadelands surpassed Concord for the first time in 4 years.

Direct Asking Rents: Class B Buildings

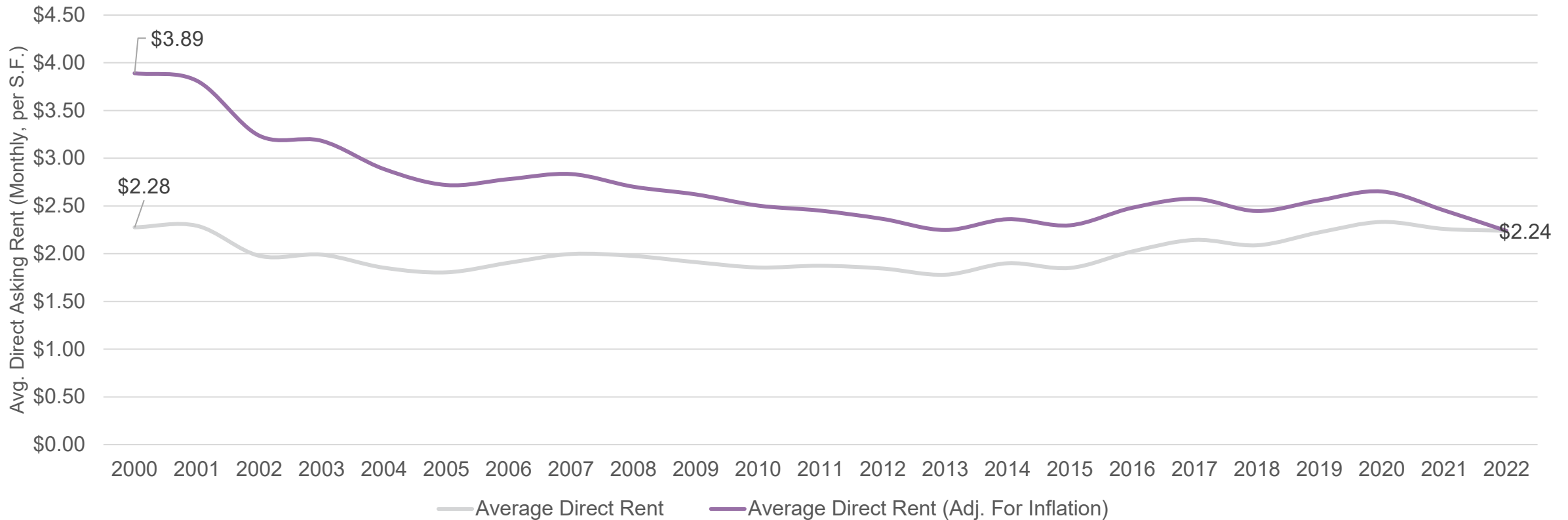


Inflation-Adjusted Rents

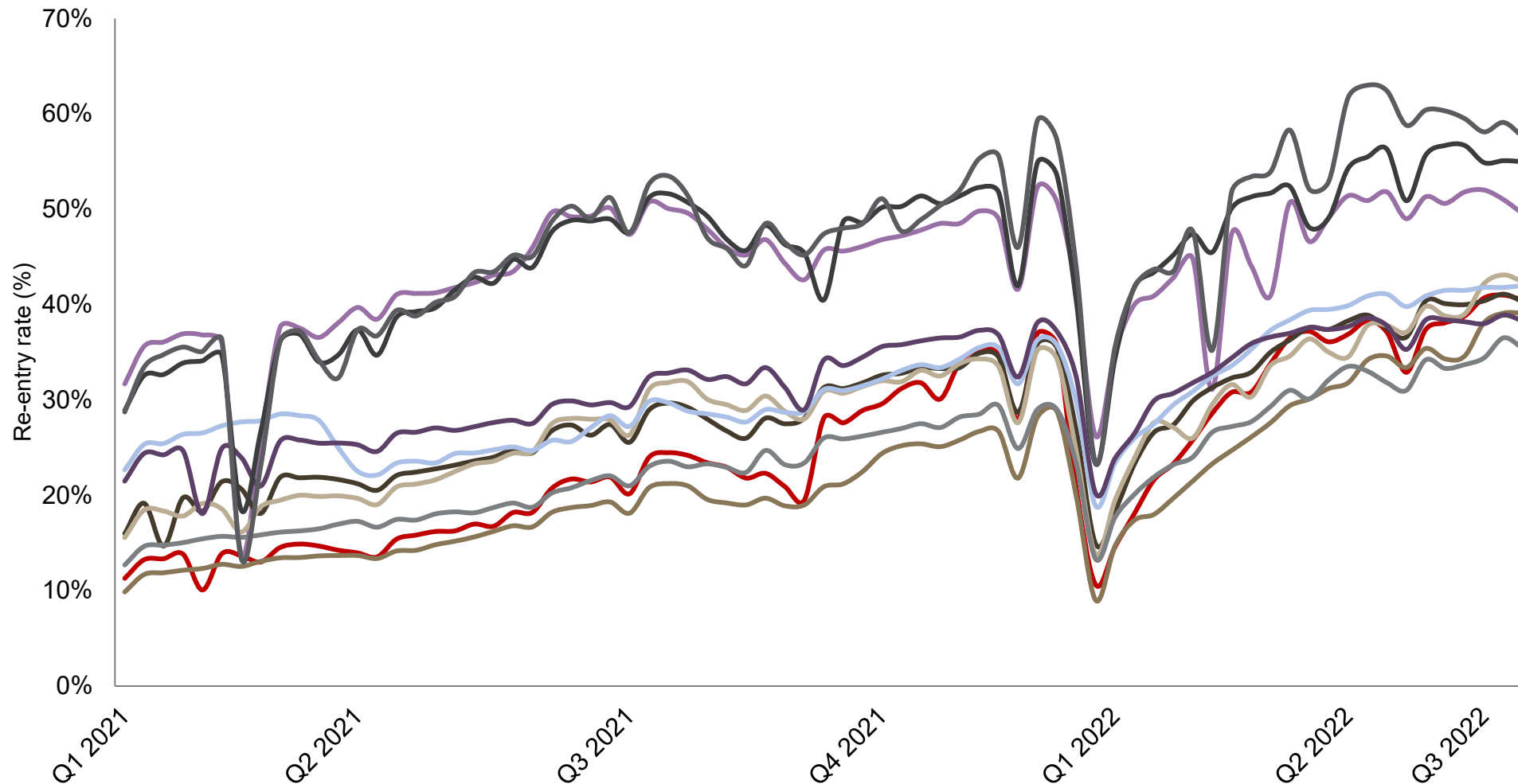


Adjusting for inflation, real rents in the Shadelands were \$3.89 in current dollar terms in 2000. Adjusting for inflation show rents have decreased 42% over the last 20 years. This means there's a disincentive for ongoing reinvestment in the property to recapitalize the asset because real returns are falling while other costs, such as maintenance and operations continue to increase.

Average Direct Asking Rents (Adjusted for Inflation)



Even with re-entry plans in place from many high-profile tenants, the return to office is stalling



Office re-entry rate (%)

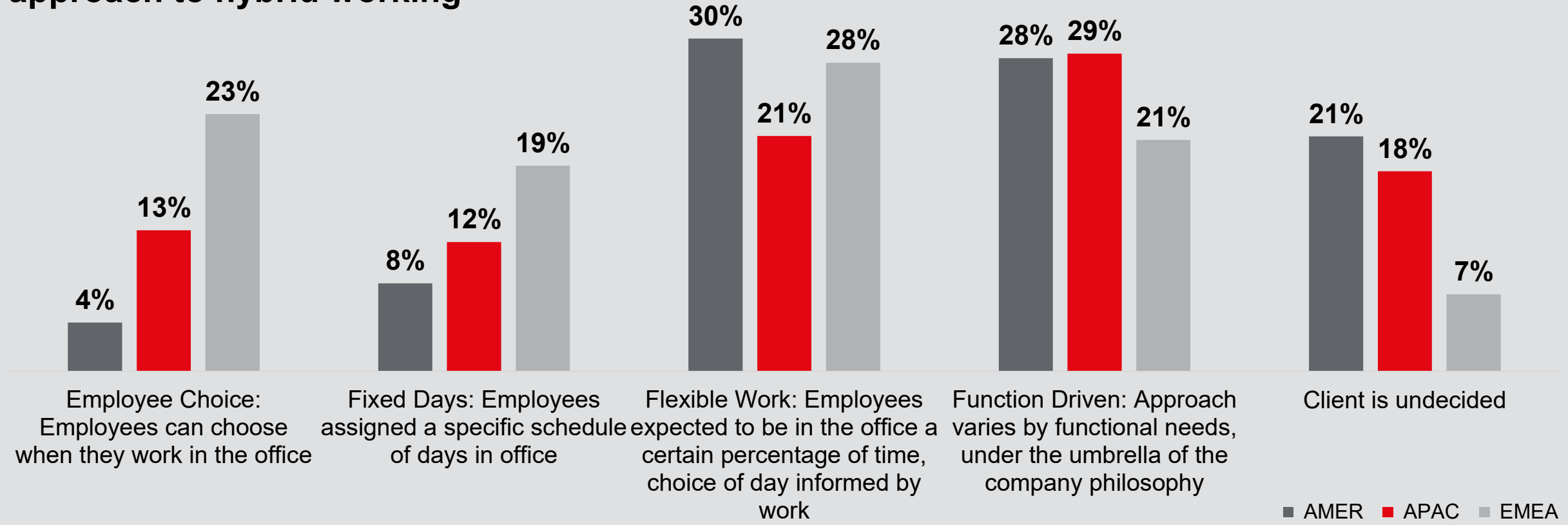
57.6%	Austin MSA
55.0%	Houston MSA
49.5%	Dallas MSA
42.4%	Chicago MSA
42.0%	Los Angeles MSA
40.3%	Washington, DC MSA
40.5%	New York MSA
39.1%	San Francisco MSA
38.3%	Philadelphia MSA
35.4%	San Jose MSA

Market Overview – Shifting Office Demand Dynamics

A survey of corporate real estate manager indicates that approximately 4% of companies will allow the employee to decide on when and how much time they spend in the office. However, a large share have indicated a long-term acceptance of hybrid work.

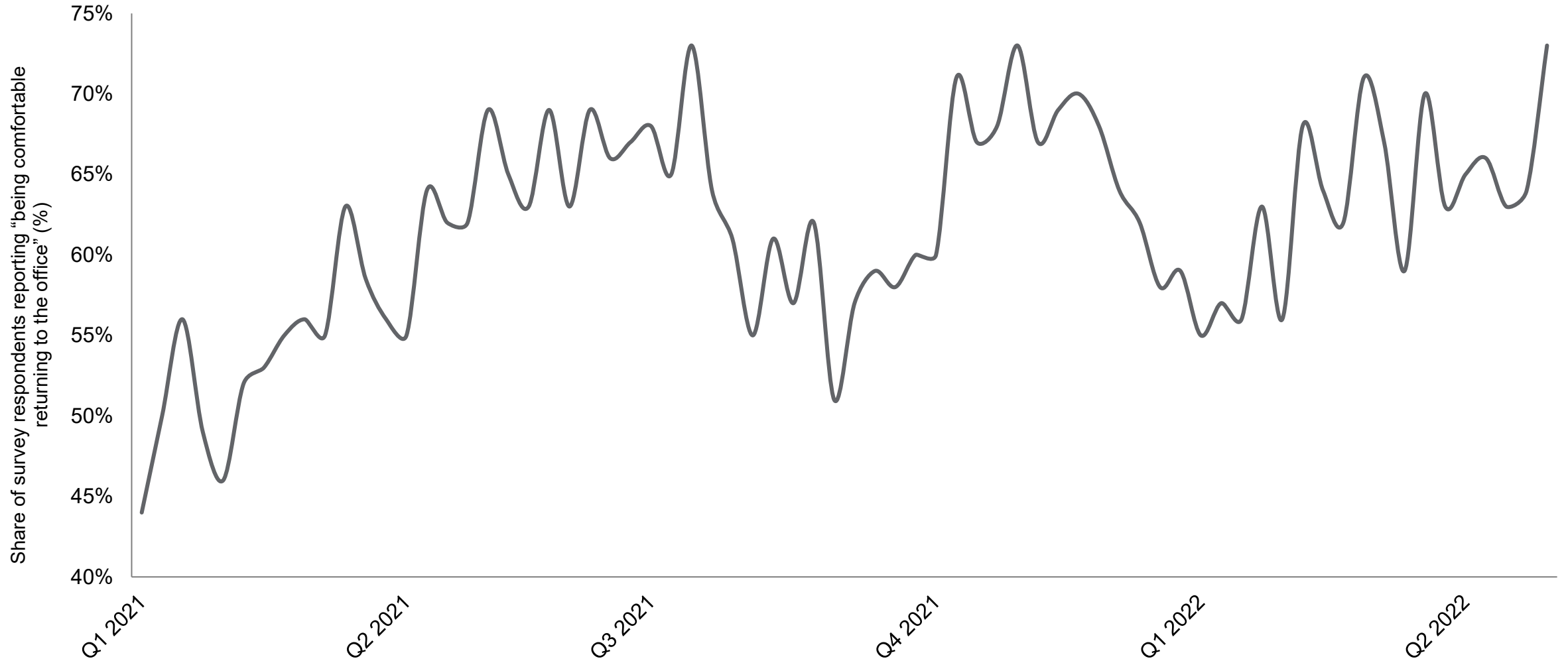


Organizations appear to be consolidating around a ‘percentage of time’ or ‘function-driven’ approach to hybrid working



*Respondents who answered “Other” or “N/A (client doesn’t anticipate having any ‘hybrid’ employees)” are not shown.
 Source: JLL, Work Dynamics Pulse Survey, October 2021

“Comfortability” of working in an office is stable, with ~70% of employees feeling safe at the office



National Office Demand Shifting

Aggregate office demand is expected to decline slightly, but with a wide performance spread across the market. JLL estimates that commodity space will compete with the home office reducing office demand for general office space that is not highly amenitized. Highly quality “nameplate” buildings will become increasingly valuable.

Offsetting forces impacting demand



-15%

Expected shift from 10% to 25% WFH, with potential reversion given likely impairment to productivity and innovation



-10%

40-50% of employees could end up in hybrid work mode, spending some time in the office and some at home



+8%

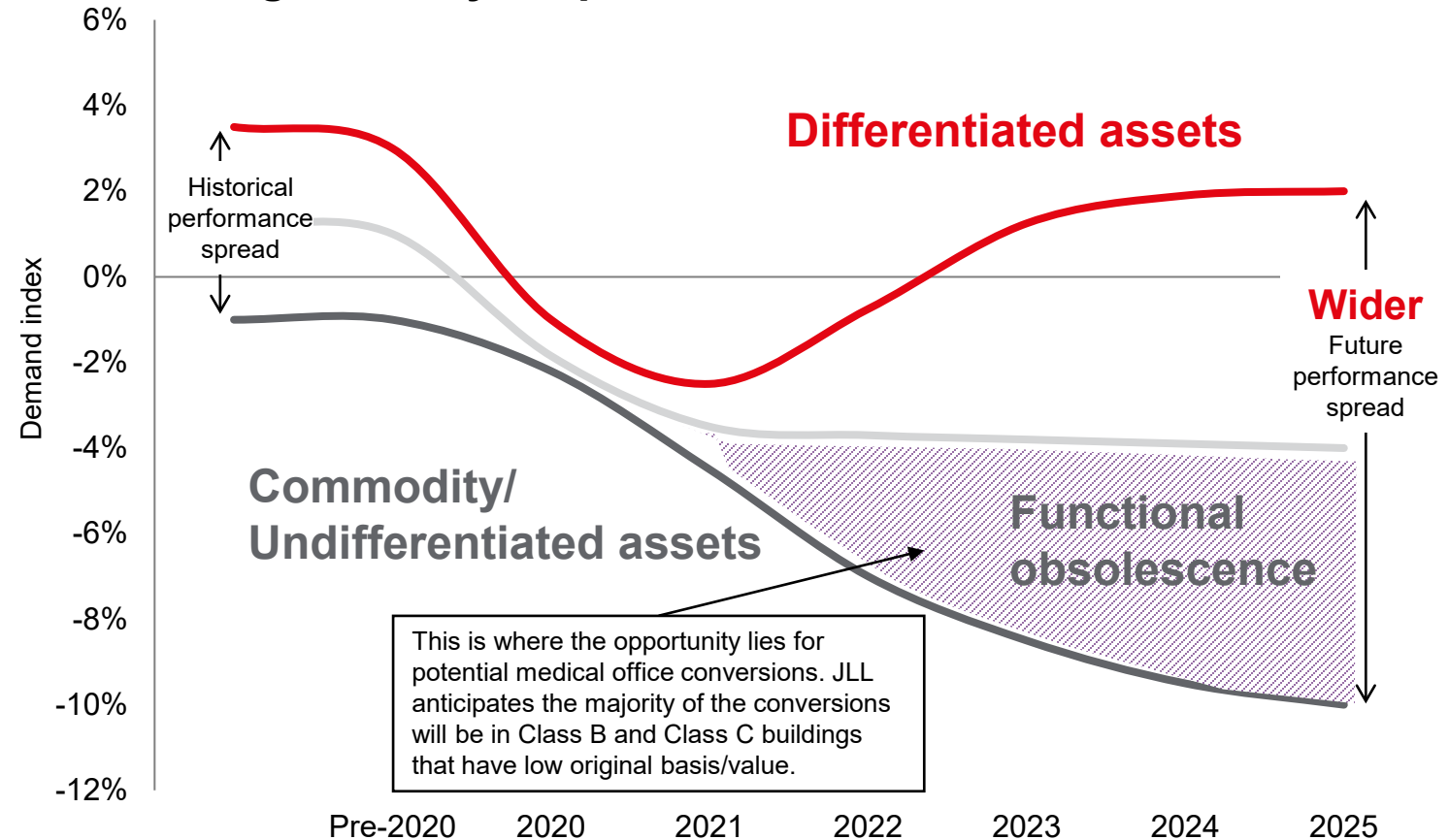
50% of tenants are planning permanent space redesign, with de-densification and more collaboration space



+7%

5-8% office employment growth from previous peak by 2025

Top quality well positioned assets expected to significantly outperform

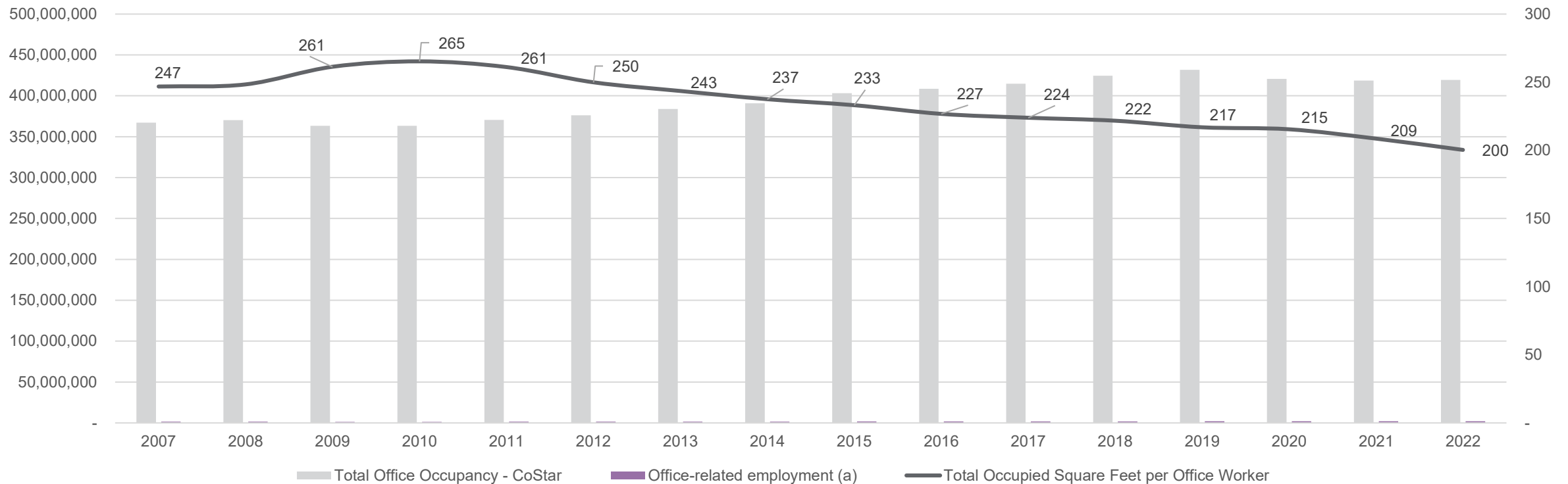


Increased densities combined with more work from home.



While JLL strongly believes that the office will remain the center of work for most companies, JLL recognizes that it will not return to 2019 levels. Data already suggests that employers are more willing to accept hybrid work. As such, the typical space need per office related job (i.e. finance and insurance, information, professional services, and management and administration) has been reduced. Overall, the Bay Area has seen its average occupied office square feet per office related job decrease from 247 square feet per worker in 2007 to approximately 200 square feet per worker as of 2022. Over that 15-year period, the average square feet per office related job has decreased approximately 1.4% per year, which has only accelerated from 2019 to 2022 (-2.6%).

Bay Area Square Feet per Office Worker
(Bay Area Average Annual Office Occupancy to Total Bay Area Office-Related Employment)

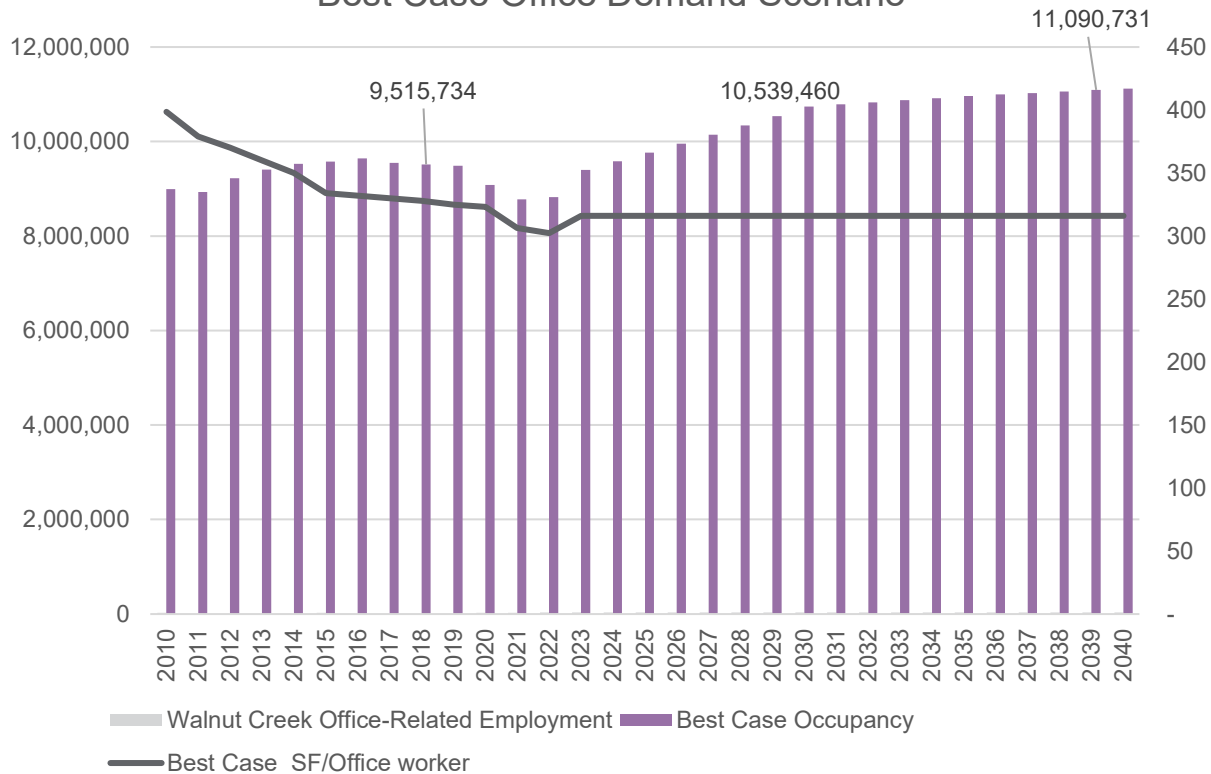


Future Office Demand Scenario

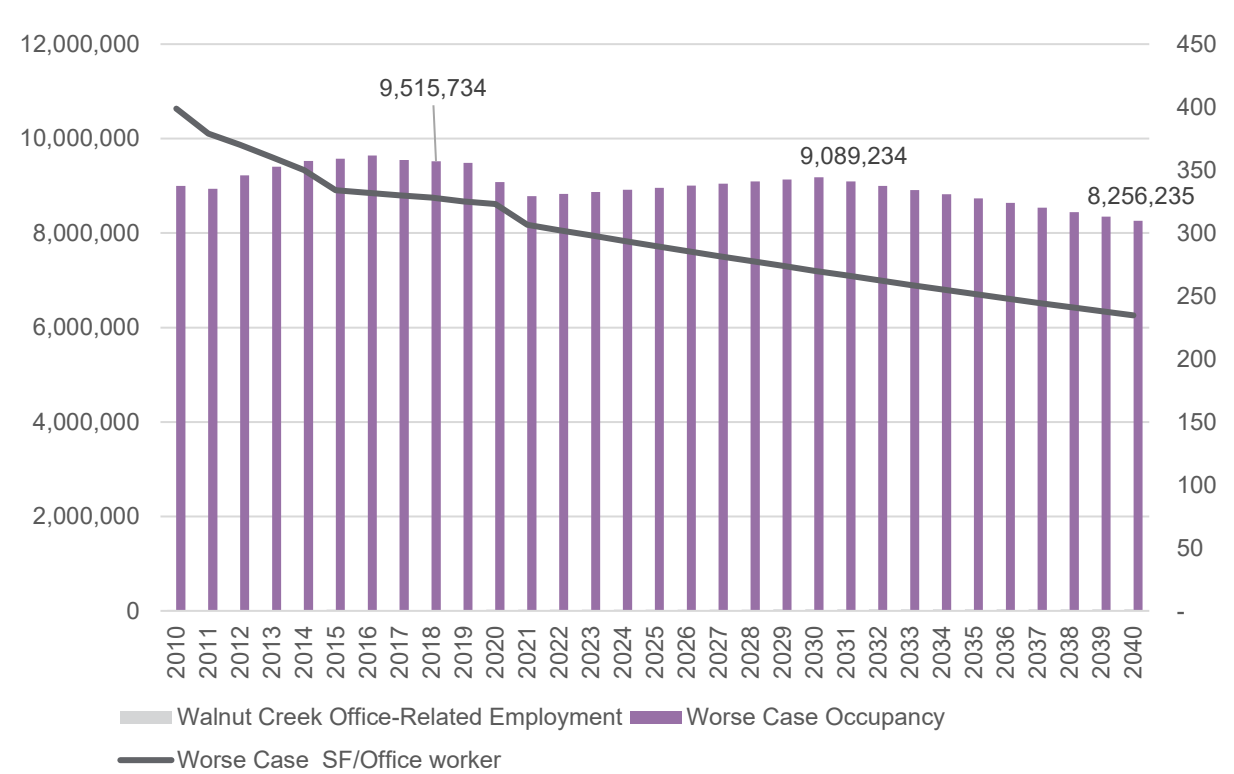


Walnut Creek has historically held higher occupied office square feet per worker than the Bay Area overall at approximately 390 office square feet per office-related job. This may be due to the general make-up of the businesses that prefer personal professional offices. Regardless, it provides a metric to forecast future demand, either by assuming no erosion associated with work from home (best case) or assuming Walnut Creek will average a steady decline of 1.4% per year in total square feet per employee (worse case). Using Oxford Economics growth forecasts and apportioning Walnut Creek's share of office jobs, it would mean Walnut Creek office occupancy could return to its 2008 peak by 2028 or worse case aggregate demand would decrease by over 1.2 million square feet despite forecasted employment growth.

Best Case Office Demand Scenario



Worst Case Office Demand Scenario



Notes: JLL applied CoStar occupied square feet averages as Costar covers smaller office buildings and Class C properties. JLL used Oxford Economics office employment projections for the Oakland-Berkeley-Hayward Metro District to forecast future employment growth.



Thank you