



VTS Office Demand Index (VODI).

MONTHLY REPORT: FEBRUARY 2021

KEY TAKEAWAYS FROM THIS REPORT:

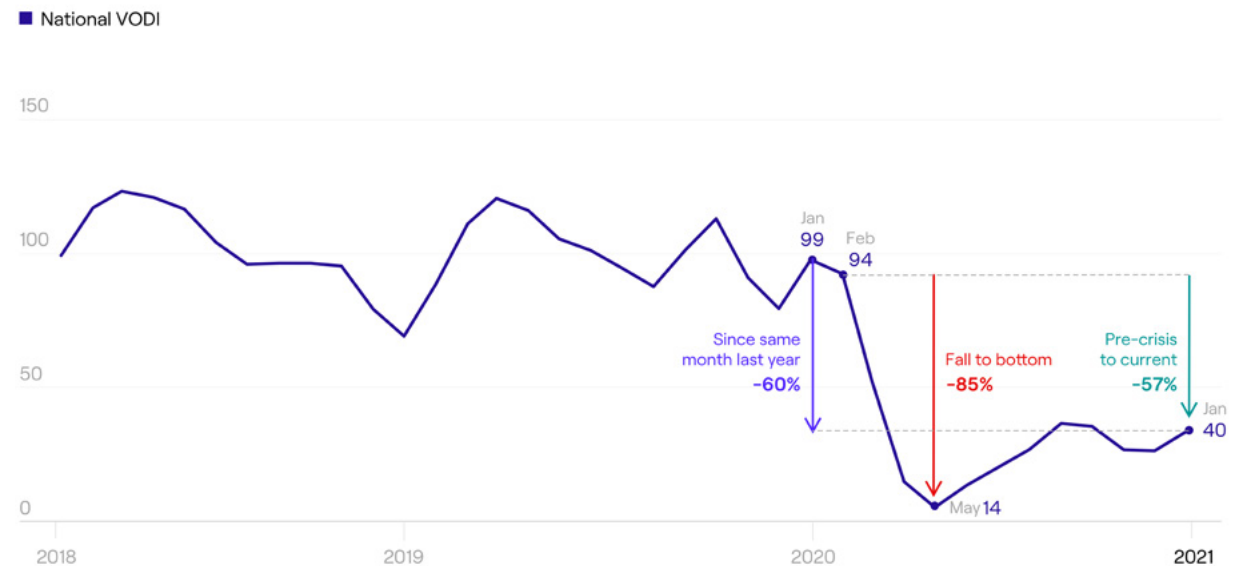
- The national VODI increased a seasonally appropriate amount in January as demand remains far below pre-crisis levels.
- Office demand in West Coast markets outpaced East Coast markets, though office demand in Washington, DC is expected to pick up with the new administration and single-party dominance in congress.
- Metro-level VODI variation is increasingly driven by mid- and long-term considerations for office leasing, and less and less by the improvement or rise of local COVID cases. More likely factors are features that could signal faster economic recoveries in general – such as office-using job growth or the stability from large local employers, as well as more mild weather enabling outdoor and open air solutions to maintain public health during a protracted pandemic endgame.

The National VODI Results

Demand for office space rises in January following seasonal trends, yet overall levels are still depressed by the ongoing pandemic

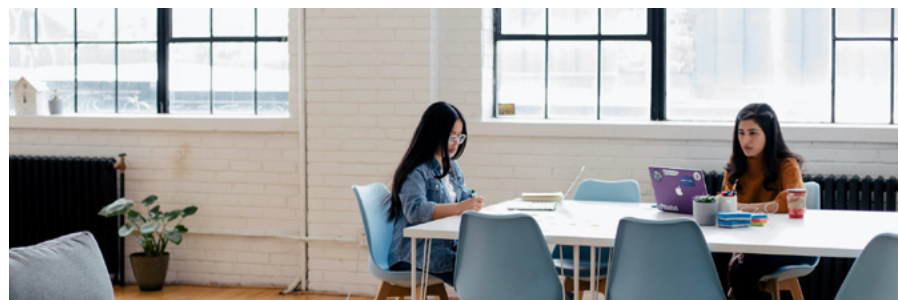
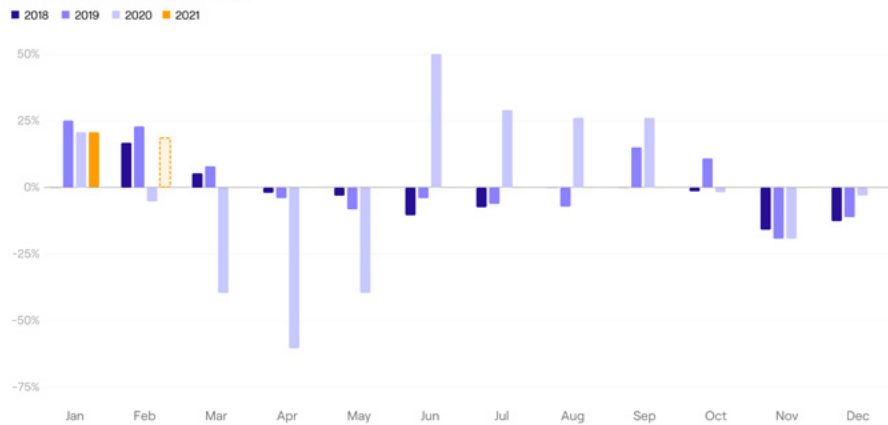
The start of 2021 brought a fairly typical seasonal rise in office leasing demand relative to the depressed levels that have been seen throughout the ongoing coronavirus pandemic. Nationally, new demand for office space trended upward in all core markets in January, increasing the national VODI by seven index points from December to 40. The national VODI in January is 60 percent down year-over-year and 57 percent down from February 2020 – the month before it tumbled 85 percent to hit a trough in May.

VODI Month-Over-Month Trends



Pre-crisis, during the first month of the year we would typically expect to see an average January lift of around 18 points. Last month's rise at seven points represents a smaller absolute increase in tours and toured space than typical, however, the monthly growth rate of 21 percent is on-par with historic seasonality. This January's historically appropriate growth rate – even from such a low base – suggests 2021 may bring some familiar ebb and flow but around a level of demand that remains low. Should typical seasonality hold, February numbers may bring a comparable increase in office demand to the January lift.

VODI Month-Over-Month Trends



With public health plans stable for the short run, demand for new office space leases is driven by mid- and long-term considerations

The relative rise, and in some cases, fall of local COVID-19 cases over the last few months is no longer driving the relative growth and recovery in office space demand across markets. While in the early spring of 2020, a market hit harder by COVID-19 often experienced a more dramatic fall in demand, from November to January markets with greater increases in COVID-19 cases were more likely to see larger lifts in office leasing demand.

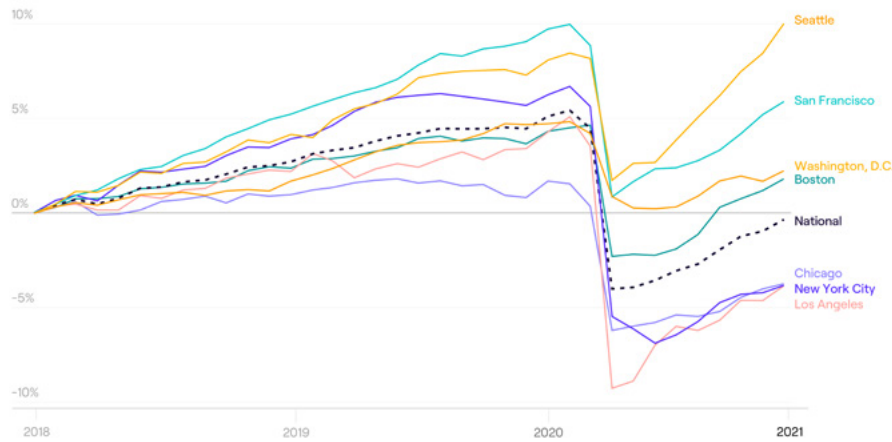
As the relationship between local market VODI growth and local COVID-19 cases eases, we turn to other features to explain different paths in market-level VODIs. Such features could include the pace of economic improvement, the presence of industries experiencing growth during the pandemic, the stabilizing interest from large successful employers, and mild weather – a benefit should COVID-19 variants and low vaccination rates push the pandemic into next winter. The West Coast markets of San Francisco, Los Angeles, and Seattle – the markets with the biggest gains in office demand both over January and quarter-to-quarter – benefit from these features.

Growth Comparison Between VODI, Office-Using Employment, and COVID-19 Cases



Source: VTS analysis of U.S. Bureau of Labor Statistics and Federal Reserve Bank of St. Louis, All Employees by Industry, retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/SMU36935615552000001SA>, February 3, 2021. COVID data drawn from New York Times GitHub <https://raw.githubusercontent.com/nytimes/covid-19-data/master/us-counties.csv>

Metro Level Office-Using Employment



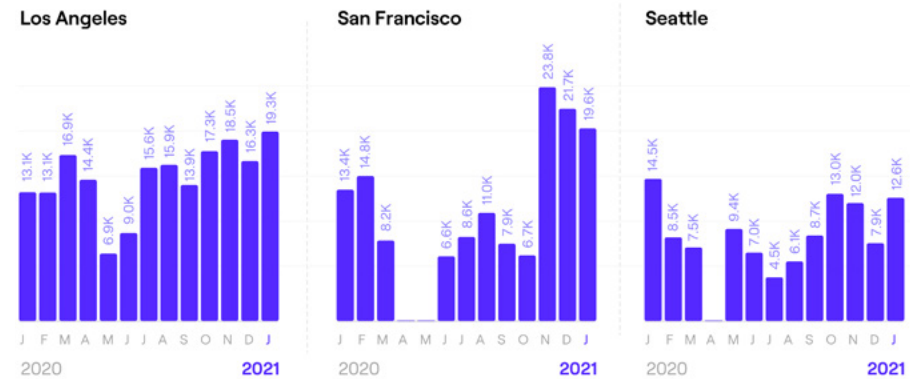
Source: VTS analysis of U.S. Bureau of Labor Statistics and Federal Reserve Bank of St. Louis, All Employees by Industry, retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/SMU3693561555200001SA>, February 3, 2021.

Employment growth in office-using industries – a similar set to the knowledge intensive industries and services increasingly behind economic growth in the modern information economy – helps capture not just the workforce to literally fill out office spaces upon a return to the workplace, but is also a key measure in the pace of recovery from the biggest economic shock in recorded history. Seattle, San Francisco, and Los Angeles saw the most significant increase in office-using employment over the last quarter of 2020¹.

As the pandemic and the uncertainty it introduces persists, the West Coast markets are also more likely to show some signs of rising interest from large employers – those with the track record and credit history for greater confidence in their ability to weather a crisis. The activity of these economic bellwethers could mean more promise when the crisis subsides. Not only is the VODI growing in West Coast markets as the number of office tours rise, additionally, the average tenant requirement size is also increasing

– a measure correlated with employer size. While the benefit from the renewed interest of larger employers is most dramatic in San Francisco, even the more modest increase in average requirement size in Los Angeles and Seattle over the second half of 2020 is in contrast to trends observed in the East Coast markets where typical requirement sizes are flat or falling.

Average Requirement Size in Fastest Growing Markets for Office Leasing Demand



While general economic improvement and interest from larger employers can help explain some of the variation across metros, the uncertainty over the pandemic endgame leaves many more possible explanations. In a future with insufficient vaccination rates and aggressive variants of the disease, the end could be drawn out with public safety measures still in place next year. This could benefit more mild climates with more outdoor and open air solutions at their disposal as well as early movers making shared spaces safe for public health even before we have the pandemic fully behind us. According to our second annual VTS Global Office Landlord Report, while 85% of landlords aren't sure they have adequate visibility into what investments or features tenants require in order to proceed to safely return to work during COVID-19, the early movers are making massive investments in air filtration systems, touchless building entry, and building management systems.

¹As of this writing, the most recent month available for employment by industry by MSA corresponds to December 2020.

Until we fully tackle that problem and figure out how to get back to business and pleasure safely, it's clear that downtowns are struggling – the usual amenities are closed and residential rents are dropping². We anticipate demand will continue to suffer as, collectively, tenants gather intelligence, evaluate new opportunities and challenges, and await better information about how the public health crisis will end so we can return to normalcy.



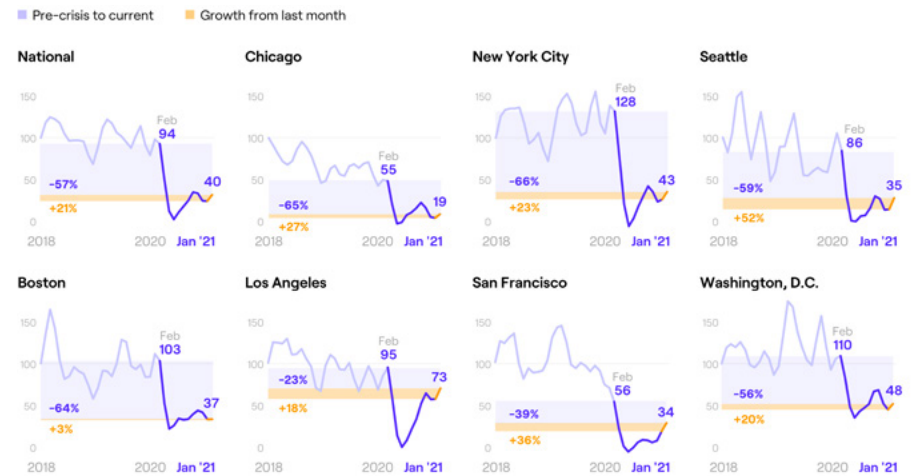
Market by Market

All markets see growth in demand in January, with the West Coast leading the way

All markets in the VODI saw growth in demand in January ranging anywhere from one to 12 index points. The West Coast markets of Seattle, San Francisco, and Los Angeles experienced the greatest growth in index points, although each of them have had very different trajectories post-pandemic.

The VODI shows the performance of East Coast markets slipping behind the West Coast. Either bolstered by the entrenched presence of big tech building owners – and the massive pool of skilled labor that provides – or by attracting the attention of other large employers, office leasing demand appears to be recovering at a faster pace in Seattle, San Francisco, and Los Angeles.

VTS Office Demand Index by Market



²According to a VTS analysis of Zillow's Observed Rent Index by ZIP code – a measure capturing local market rate rent built from repeat residential listed rents.

Los Angeles outperforms all markets, continues strong march towards recovery

Los Angeles continues to lead all markets with regards to recovery. After lifting another 11 index points in January, Los Angeles office demand is only 23 percent from the pre-crisis levels of February 2020. As in previous months, VTS' analysis of internal numbers shows the creative industry remains a relentless contributor to the growth in new demand, though new interest from larger employers in general – as suggested by the rising average requirement sizes discussed earlier – could also be a driver behind Los Angeles' success.

Los Angeles' steadfast lead is exceptional. While the metro is experiencing more office-using job growth in recent months than most other markets covered, lagging behind only San Francisco and Seattle, its office-using employment is currently far below pre-crisis levels at 7.4 percent down. The expectations for further growth however are strong – driven by the success of content in pandemic isolation. The stunning LA VODI numbers could very well be one of the earliest indicators of Los Angeles' future and early recovery.

While volatile and still very low relative to normal, Seattle sees biggest jump in demand for office space

After experiencing a significant decline in new demand activity over November and December, Seattle experienced the largest January increase in demand among our covered markets – a lift of 12 index points, a 52 percent gain. While Seattle office leasing demand is still down nearly 59 percent from pre-crisis levels and 67 percent year-over-year, the employment situation bodes well for the economic region. Seattle is the only market with higher levels of office-using employment than before the pandemic, and is experiencing the fastest current growth rate over Q4 in such employment (3.1 percent) by almost a full percentage point.

Healthcare in particular has been a critical source of new office leasing demand in the market – with its share of demand rising meaningfully during post-COVID months versus pre-crisis levels. The tech industry also plays a sizable role in demand activity, particularly from smaller firms. With the recent and stunning performance of Microsoft

and Amazon – two major employers in the region buoyed by the markets for remote working solutions and e-commerce – the ability of Seattle to provide high-skill labor into the future is ensured. This may be the confidence smaller tech employers need to consider Seattle as a future location.

The high volatility in the Seattle VODI over 2020 and into 2021 – relatively strong summer growth followed by one of the more significant seasonal declines over Q4, only to be chased by the strongest January growth of any market – leaves us cautiously optimistic about the continued growth of their VODI over the coming months.

VTS Office Demand Index by Market – Progress to Recovery



San Francisco experienced strong growth over the past quarter

After experiencing the lowest bottom of all markets and struggling to gain any momentum over the summer months, the San Francisco VODI picked up the pace significantly in November. Behind Seattle and Los Angeles in terms of absolute gains in January, San Francisco increased a full 21 VODI points from November to January – the largest quarter-to-quarter rise of any market. By January 2021's end, 58 percent of

the demand lost in the early pandemic days had been recovered, leaving San Francisco office demand only 39 percent below the pre-crisis levels of February 2020 (though San Francisco office demand had been at a low point pre-crisis).

San Francisco's recent and sustained recovery in office demand is great news for this leasing season. While demand could be rushing in to capitalize on available space and soft rent in the initially hard hit market, strong Q4 employment growth numbers – the second highest of gateway markets at 2.2 percent – help to build the case for renewed interest from San Francisco employers.

Washington, DC sees modest growth in January but is expected to see significant gains once the new administration gets settled

Washington, DC experienced modest gains over January. The market saw an eight point rise to 48 index points and ended January 56 percent below pre-crisis levels, putting the market solidly in the middle of the pack in its progress back to normalcy. The January gains help reverse DC's dramatic slide in office demand over Q4 – a fall from 66 to 40 from October to December – the largest of any market.

True to DC's reputation, small- and mid-size associations, as well as non-profits, drove the January increase. Other than its weak Q4 fraught with turmoil due to current events, demand in the market has been steadier than most. Now that the new administration is in office with single-party dominance in Congress and executive orders freely coming, DC office demand is expected to continue to strengthen over the next quarter. As the policy agenda begins to take hold, office demand will be driven by lobbyists, consultants, and contractors from impacted industries.

The Capitol Hill and East End submarkets are particularly well positioned to attract tenants in need of space from which to launch lobbying efforts induced by the specter of potential new or modified regulations for the tech sector. However, the DC core is also likely to benefit due to an abundance of commodity A space traditionally preferred by non-profit and association tenants.

New York City is struggling to build demand for office spaces, but four out of five tenants in the market have their eyes set on the highest quality buildings

While the return of office demand has been slow and steady in New York City, the market has a big hole to climb out of. New York City experienced modest gains over January with an eight point rise to 43 index points, yet remains furthest from pre-crisis levels (66 percent down from February 2020) relative to all other markets.

Finance has been a bright spot with respect to demand, contributing to most of the VODI recovery in NYC. Tech, however, which emerged to be one of the primary drivers of office demand last cycle alongside finance, has yet to return and contributes minimally to the current New York City VODI.

Soft demand continues to provide an opportunity for space in the most coveted buildings. The flight to quality in office demand is still significant with Trophy and Class A taking up 82 percent of all toured space in January.

Number of Tours by Building Class – Jan '20 to '21



Given the low rates of office-using employment growth – less than a percentage point over Q4 2020, New York City's failure to gain significant momentum in office demand and interest from new tenants could reflect the economic challenges facing the region as a whole.

Demand in Boston and Chicago fails to gain momentum

Office demand in Boston and Chicago continues to struggle, only gaining one and four index points, respectively, in January. Whereas most other markets are now at or beyond their late-summer peak in demand, Boston and Chicago are failing to gain momentum.

Once a market staging one of the more impressive recoveries in mid-2020, the slump from September 2020 throughout the end of year weighed heavily on office demand in Chicago. The small, but important lift in January was driven primarily by legal tenants.

Unlike Chicago, Boston has no one industry taking the lead and appears weighed down by a lack of large requirements (very few requirements over 50,000 square feet entered the market in January). Without an industry taking the lead and somewhat sluggish job growth, Boston appears plagued by countervailing ebbs and flows. Compared to the core – which is more heavily dominated by finance and tech – industry insiders suggest that submarkets like Cambridge and its greater prevalence of life science and healthcare tenants and proximity to the burgeoning Seaport District are attracting more attention.



	NATIONAL	BOS	CHI	L.A.	N.Y.C.	SEA	S.F.	D.C.
January 2020 VODI	99	111	56	86	134	105	71	106
February 2020 VODI (pre-crisis)	94	103	55	95	128	86	56	110
December 2020 VODI	33	36	15	62	35	23	25	40
January 2021 VODI (current)	40	37	19	73	43	35	34	48
VODI Change from February 2020 to current (Jan.) (%)	-57.4%	-64.1%	-65.5%	-23.2%	-66.4%	-59.3%	-39.3%	-56.4%
Month-to-Month VODI Change	7	1	4	11	8	12	9	8
Month-to-Month VODI Change (%)	21.2%	2.8%	26.7%	17.7%	22.9%	52.2%	36%	20%
Quarter-to-Quarter VODI Change	-2	-10	-7	5	0	1	21	-18
Quarter-to-Quarter VODI Change (%)	-4.8%	-21.3%	-26.9%	7.4%	0%	2.9%	161.5%	-27.3%
Year-to-Year VODI Change	-59	-74	-37	-13	-91	-70	-37	-58
Year-to-Year VODI Change (%)	-59.6%	-66.7%	-66.1%	-15.1%	-67.9%	66.7%	-52.1%	-54.7%

Methodology

VTS is the leading provider of leasing and asset management software for commercial real estate landlords, with market share in excess of 65% for office buildings in every major market. The VTS platform captures, aggregates, and anonymizes supply and demand data across all office asset classes and age segments. Due to VTS' market share and the multiple spaces considered by tenants in a given search, VTS sees 99% of all newly created tenant "requirements." With this unprecedented view, VTS has developed a new index, the VTS Office Demand Index, to be published monthly, to provide landlords, brokers, tenants, and the business community with visibility into a previously opaque segment of the market – real-time tenant demand in the US office leasing market.

The VODI reflects the total square feet toured by tenants in a given month relative to the total property square feet tracked in VTS' expansive network of leasing, marketing, and asset management software to control for new construction and VTS' own market expansion.

The reported index is a smoothed but not seasonally adjusted view of this demand ratio. The smoothing procedure is a symmetric 3-month moving average where the concurrent month's value is weighed twice as heavily as either of the adjacent months to better surface overall trends without losing the month-to-month variability of interest

to market analysts during this time. To compute the most recent month, VTS projects the relative demand ratio forward by one month using the seasonality inherent in the raw national series before smoothing.

To enhance comparability across regions, VODI is reported as an indexed value from the base month, January 2018.

To ensure viability of VTS data for market insight, VTS suppresses data points reflecting information from less than four customers and all data aggregated prior to January 2018.

MEDIA CONTACTS

Alison Paoli
Kingston Marketing Group
alison@kingstonmarketing.group

Eric Johnson
VTS
eric.johnson@vts.com