



VTS Office Demand Index (VODI).

MONTHLY REPORT: APRIL 2021

KEY TAKEAWAYS FROM THIS REPORT:

- **With the national VODI only 9 percent below the pre-crisis levels last seen in February 2020, return-to-work appears imminent**
- If growth trends continue, demand for office space in April 2021 will exceed pre-pandemic levels, but a potential fourth wave of COVID-19 cases and slowing office-using employment growth could be headwinds
- All core markets see a surge in demand in March, particularly Washington, D.C. and, the comeback kid of the office market, San Francisco
- Chicago and Boston continue to lag behind other markets

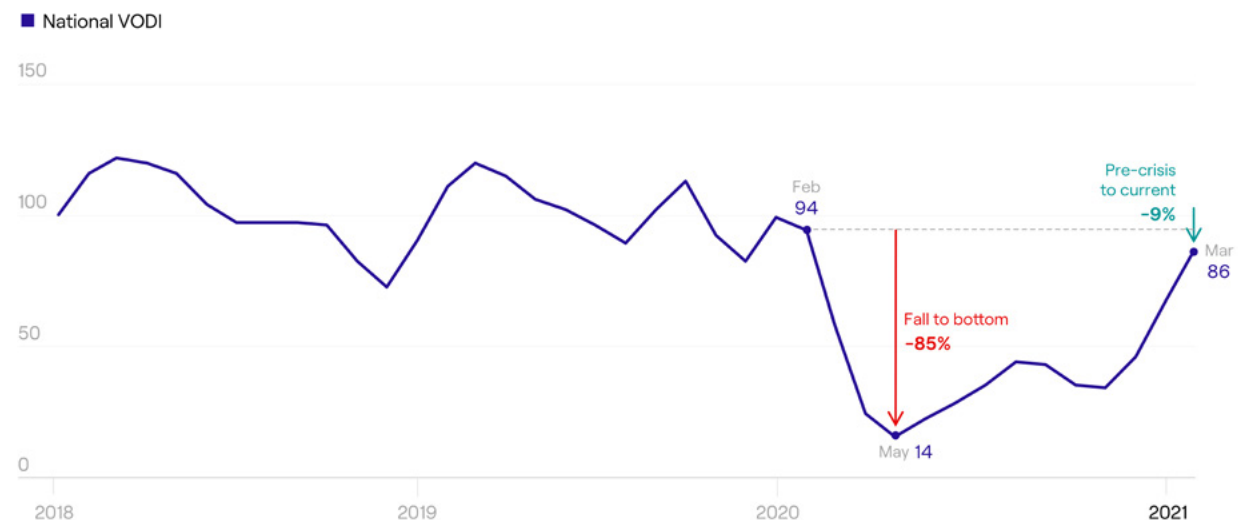
National VODI - An imminent return-to-work?

With the arrival of spring, commercial office tenants appear more than ready to start exploring spaces and imagining the possibilities for the post-pandemic office world. Nationally, new demand for office space in core markets surged upward in March to 86 index points, increasing by a stunning 19 VODI points from 67 in February. That is a monthly growth rate of 28 percent, over three times the 2018 and 2019 March monthly average of 7 percent. The March numbers close out a solid first quarter with the national VODI up 53 index points (161 percent). With the national VODI only 9 percent below the pre-crisis levels last seen in February 2020, return-to-work appears imminent.

The current momentum is driven by pent-up demand — tenants that postponed their space search during the height of the crisis — and deal hunters — tenants without urgent requirements seeking to lock in long-run leases at a discount. These same tenants could help maintain the growth beyond pre-pandemic February 2020 levels — a milestone possible before the end of April at current growth rates.

There are headwinds, however, that could slow the momentum. Much of the current recovery depends on our ability to put the pandemic behind us. A potential fourth wave of COVID-19 cases combined with stalled growth of office-using employment numbers could temper office demand growth.

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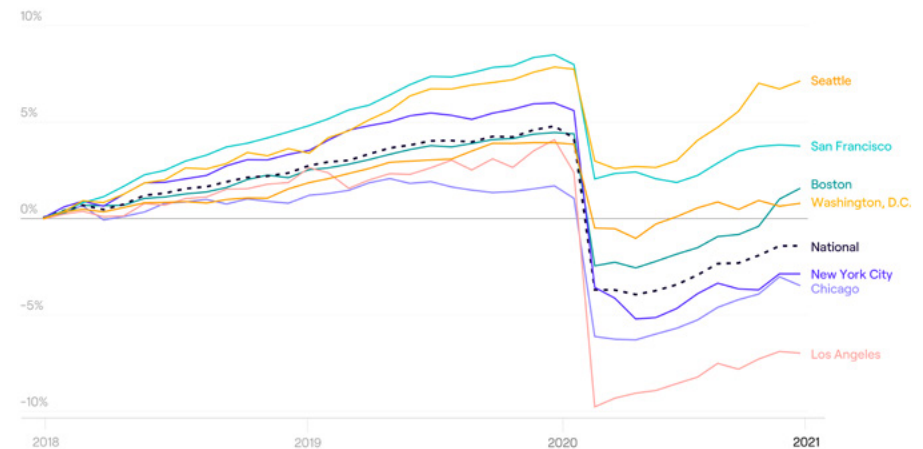
COVID-19 situation

While optimism from the coming summer and ongoing vaccine roll-out is palpable, relaxing social distancing standards and population mobility increases have been faster than expected. Unfortunately, case declines are slowing or even increasing in some markets. While swift vaccination rollouts race to control rapidly spreading variants of the virus, Institute for Health Metrics and Evaluation (IHME) worst scenario forecast – where daily deaths increase until mid-May – remains very possible. Highly relevant for herd immunity and the long-run, 70 percent of Americans say they would accept or would probably accept a vaccine for COVID-19. In a trend beginning to worry public health experts, this acceptance rate has declined recently.¹

Office-using employment situation

Watched closely by industry participants, employment in office-using industries as a group (typically captured by combining three industry supersectors: professional and business services; information; and finance, insurance and real estate) stagnated in February, a reminder that economic recovery in general for office space industries, while progressing, brings its own fits and starts. February office-using employment numbers follow strong growth over the second half of 2020 when national office-using job growth averaged an annualized growth rate of almost 4.3 percent a month. As it stands, office-using employment remains 5.9 percent below pre-crisis levels in February 2020, having fallen 8.3 percent pre-crisis to June mid-last year.

Metro Level Office-Using Employment



Local VODIs surge in spring

This good news and cautious optimism extends to all core markets covered by the VODI, which as a group saw stronger than expected growth in March, and most of which yielded Q1 2021 growth rates above typical seasonality in 2018-2019. To continue making progress towards recovery, outsized growth like this is necessary.



¹IHME analysis of Facebook survey data fielded and provided in collaboration with MIT.

VTS Office Demand Index by Market



Washington, D.C. sees strongest VODI growth over March, tops pre-crisis levels

With the Biden administration settling in and policy announcements beginning to roll out, demand for office space in Washington, D.C. surged, experiencing the strongest rise in the VODI over March — a lift of 28 index points (33%) to 114. After four consecutive months of demand outperforming seasonal norms, the Washington, D.C. VODI now exceeds pre-pandemic levels (110 index points in February 2020) by 4 percent but is still lower than 2018 and 2019 March VODI averages.

The strong showing from tenants this spring has landed Washington, D.C. ahead of Los Angeles — the previous leader on the road to pre-crisis demand levels. Amid rapidly improving COVID-19 case counts, the recovery in office demand activity in Washington, D.C. comes despite slowing office-using job growth. Quarter-over-quarter growth in office-using employment in Washington is only 0.3 percent — the same rate of growth as in San Francisco, and otherwise the lowest of all markets covered by the VODI.

Big quarterly gains in Seattle and San Francisco

Leading the way in terms of quarterly growth are Seattle (365 percent, 9x faster than average), San Francisco (276 percent, 10x faster), and Chicago (253 percent, 5x faster). All those markets saw office demand increase over five times faster during the first quarter of 2021 than on average during 2018 and 2019 — the two years of pre-crisis history available. New York City and Washington, D.C. clocked almost 3x the Q1 growth this past year up off of low 2020 levels.

Quarter-to-Quarter Change



Markets with slowing growth in Q1 2021

Los Angeles' VODI grew only 14 points (17 percent) over March, the second slowest of all markets covered, exceeding only Boston's monthly lift of 9 index points. While the March lift exceeded what was typical for the month pre-crisis, whether that is true for Los Angeles' quarterly growth in the VODI is less clear. Los Angeles' VODI increased 53 percent over Q1, more than the 49 percent quarterly growth in 2019, but dwarfed by an apparent demand boom in Los Angeles during early 2018.

The clear leader early on in the recovery, the Los Angeles monthly VODI growth has been exceeded by all markets except Boston since the start of 2021. However, it's less a matter of the Los Angeles market slowing down, but of other markets surging by a greater margin. With such consistent growth, Los Angeles just hit its pre-crisis level this March — a VODI of 95 index points.

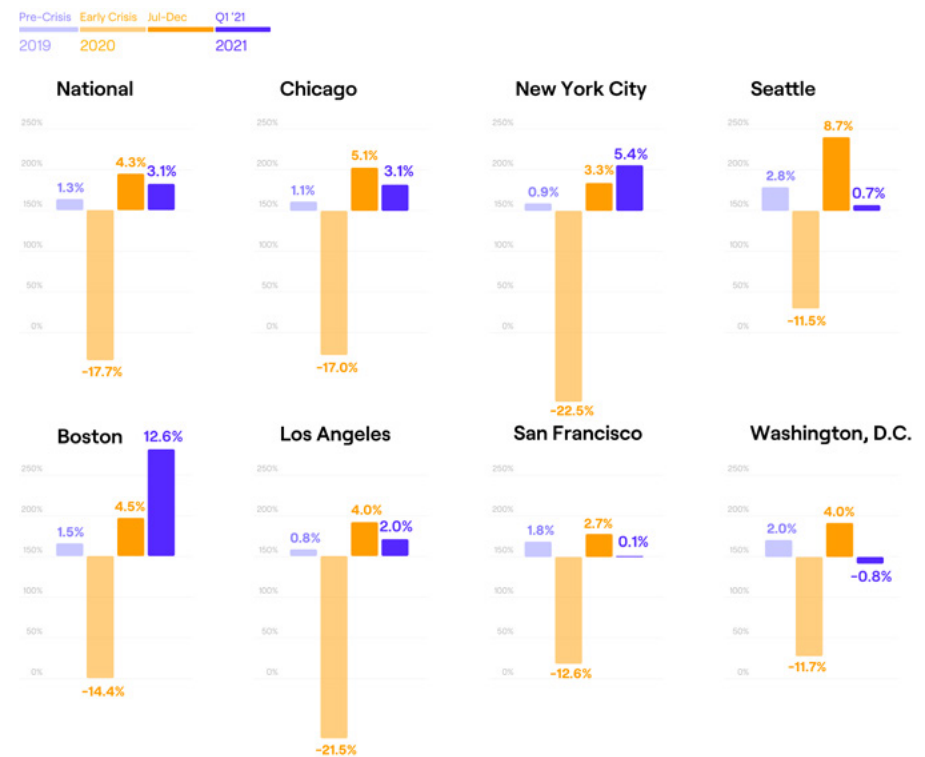
More troubling, though potentially fleeting, was the decline in Los Angeles' office-using employment in February, which remains the furthest from pre-crisis levels — a whopping 11 percent down. Despite the employment slowdown, industry insiders remain highly optimistic about the economic success of content creators during the pandemic — a boon to the future Los Angeles office market.

In contrast to office jobs in Los Angeles, Boston office-using employment growth was incredibly strong over January and February, clocking an average 6.3 percent annualized monthly growth over the beginning of 2021. Despite the strong job growth pushing office-using employment within 2.7 percent of pre-crisis levels, the Boston VODI is by far the furthest from recovery. At only 50, Boston office demand is still less than half of pre-crisis levels, or 51 percent from February 2020 — a matter not helped much by lack of recent growth.

Boston's VODI grew only 9 points over March, a pace only slightly faster than last month. Because Boston is so behind in its progress, a 9 point gain still represents a 22 percent lift in office leasing demand activity over the month — more than seasonally expected. Over the full quarter, however, Boston's VODI growth disappointed, increasing only 39 percent year-over-year, when during 2018 and 2019 the VODI grew 58 and 52 percent over Q1.

Remote work may blur the traditional relationship between employment levels and office use, but won't eliminate that relationship entirely. Boston is officially late in returning its attention to the downtown core, but strong office-using job growth over January and February, the largest seen across our covered markets, could bode well for further VODI in the months to come.

Average Monthly Change by Time Periods



Across a major milestone: some markets far exceeding pre-pandemic levels

Locally, due to a large first quarter jump in demand for office space, more than half the nation's core office markets including Chicago, Los Angeles and Washington, D.C. are within 5 percent of or have surpassed pre-pandemic demand for office space, but San Francisco and Seattle are solidly beyond.

After experiencing the lowest bottom of all markets with almost no office tenant demand in 2020 and slow initial growth out of the trough in May, San Francisco's VODI has experienced aggressive growth over the last quarter, increasing a stunning 27 points (40%) in March alone. A vast majority — 91 percent — of that demand went towards premium office buildings, up from 84 percent pre-crisis.

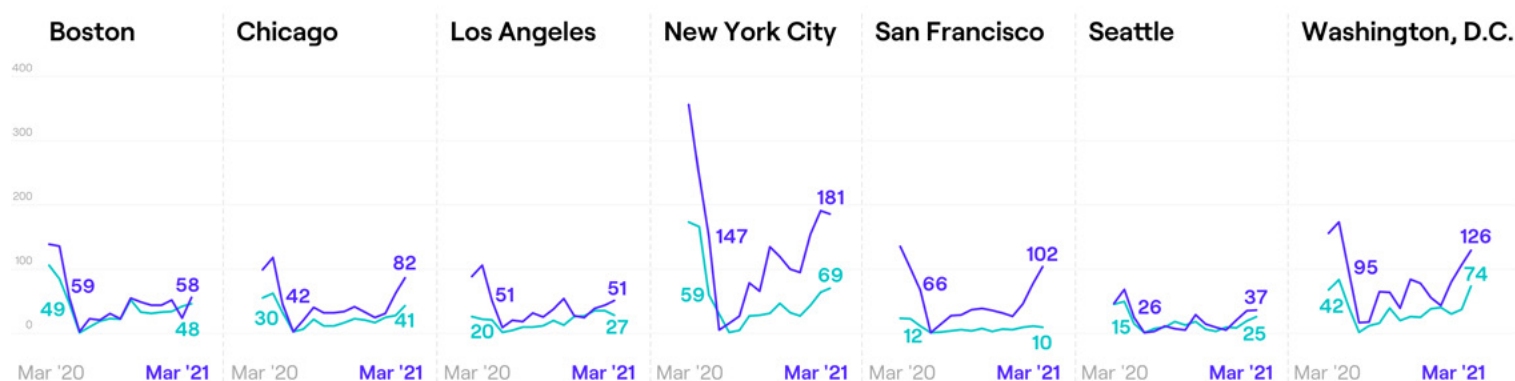
At 94, San Francisco's VODI is now 68 percent above pre-crisis peaks, a less-than-satisfying milestone for those who set their sights on 2018- and 2019-era demand levels. One of the hottest office leasing markets in 2018 and 2019, San Francisco saw demand fall sharply in the four months leading up to the pandemic (down 41 percent from October 2019 to February 2020).

The San Francisco VODI is still 9 percent below the 2018 and 2019 average and 26 percent below the March 2018 and 2019 average. Like San Francisco, Seattle's VODI also blasted past pre-pandemic levels. Seattle saw the third strongest VODI growth over March, increasing 25 points (30%) in March to an index level of 107, 24 percent over pre-crisis levels. Unlike San Francisco, the Seattle VODI has beaten the 2018 and 2019 average level by 19 percent and the March 2018 and 2019 average by 1.4 percent — indicating a higher level of demand in Seattle in March than pre-pandemic times, not just higher growth.

After struggling over the second half of 2020, Seattle's sustained recovery has been impressive. Headwinds do still exist for the city, however. Seattle is one of only two VODI markets to see significant increases in new COVID-19 cases; the other is New York City. With COVID-19 cases back on the rise, we caution that this pace might not continue, but with the strength of Seattle's office-using employment — the closest of our covered markets to recovering jobs lost to the pandemic — it could.

Number of Tours by Building Class - March 2020 - March 2021

■ Trophy or Class A ■ Class B or C



Chicago is almost back to pre-pandemic demand, but New York City's office market is hotter

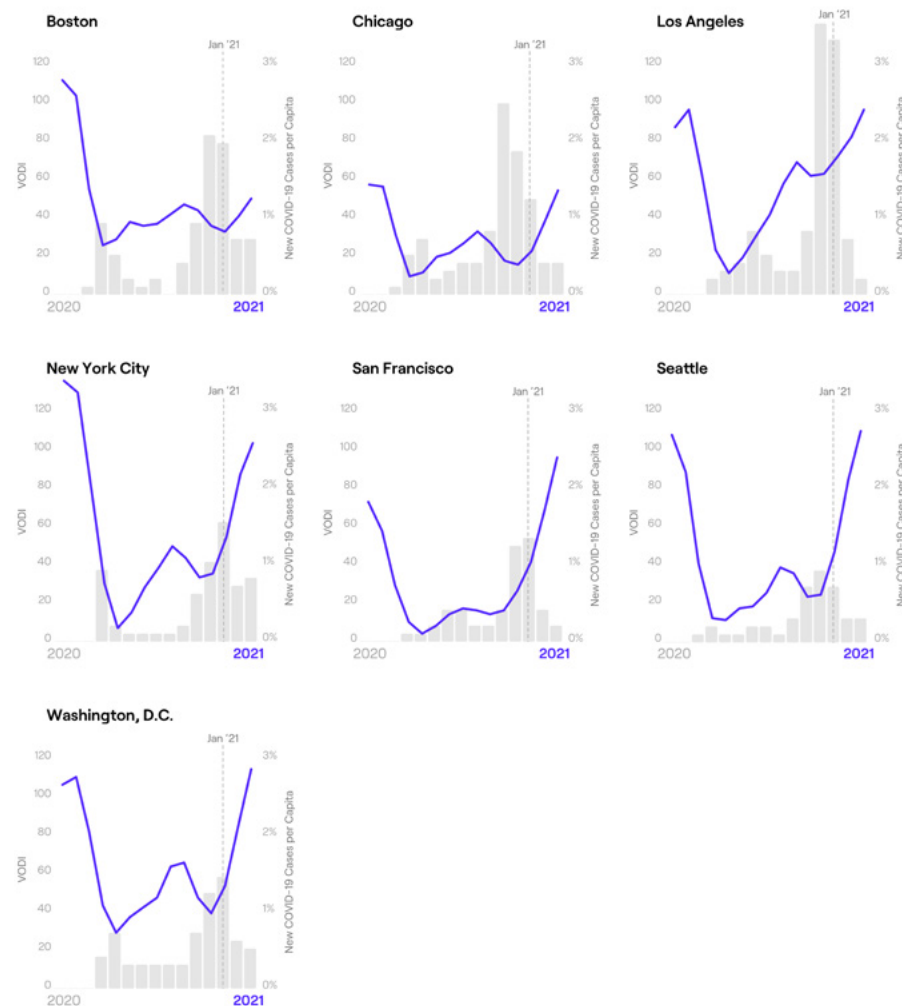
Chicago, which had been experiencing two years of declining office demand before the pandemic began, nearly back to February 2020 levels. The Chicago VODI grew 15 points (39%) over March, and 253 percent over the first quarter, to 53 — only 4 percent below February 2020 levels. Important to note, though, is that Chicago's office leasing market struggled long before the onset of the pandemic, declining with seasonal variation over the previous two years. Chicago's VODI at 53 is down 25 percent from demand levels in March 2019 and 36 percent down from the same month in 2018.

While New York City's VODI is further from pre-pandemic levels, a booming office market in early 2021 means a full recovery will take longer. New York City's VODI at 102 remains 20 percent below the February 2020 VODI, but is closer to 2018 and 2019 levels than Chicago's. In New York City prior to the pandemic, the VODI was remarkably high at 128 index points. Fueled by pent-up demand, the VODI may exceed even those heights in the coming months, but 2018 and 2019 levels will likely be more sustainable over the long run.

While the number of tenant tours in class-A or trophy building spaces declined in March for the first time since December, interest in premium spaces is still high. Seventy-two percent of all tenant tours in NYC are for premium spaces, still up from roughly two thirds pre-pandemic.

Intense scrutiny was paid to the office leasing market this first quarter of 2021. Demand activity for office space typically crests in March after the biggest jumps in January and February from the quiet period of the holidays, but this season was even more important. The market expected and delivered a significant boost in demand levels, bringing confidence to a market radically influenced by the specifics of the pandemic — public safety concerns in shared spaces such as office spaces and the greater spread and acceptance of remote work. We await next month's VODI to better understand the path ahead.

VODI vs. COVID-19 Cases per Capita



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	NATIONAL	BOS	CHI	LA	NYC	SEA	SF	DC
February 2020 VODI (pre-pandemic)	94	103	55	95	128	86	56	110
March 2020 VODI	57	55	30	62	81	39	28	82
March 2021 VODI (current)	86	50	53	95	102	107	94	114
Year-to-Year VODI Change	29	-5	23	33	21	68	66	32
Year-over-Year VODI change (%)	50.9%	-9.1%	76.7%	53.2%	25.9%	174.4%	235.7%	39%
Month-to-Month VODI Change	19	9	15	14	16	25	27	28
Month-to-Month VODI Change (%)	28%	22%	39.5%	17.3%	18.6%	30.5%	40.3%	32.6%
Quarter-to-Quarter VODI Change	53	14	38	33	67	84	69	74
Quarter-to-Quarter VODI Change (%)	160.6%	38.9%	253.3%	53.2%	191.4%	365.2%	267%	185%
Recent Historical Average (Jan. 1, 2018-Dec. 31, 2019)	102	99	73	98	117	90	103	120
March 2021 Percent From Recent Historical Average	-15.3%	-49.3%	-27.4%	-2.8%	-12.7%	18.5%	-8.8%	-4.8%
Average March VODI Pre-crisis (2018-2019)	121	126	77	113	135	106	128	153
March 2021 Percent From Average March VODI Pre-crisis	-29%	-60%	-31%	-16%	-24%	1%	-26%	-25%

Methodology

VTS is the leading provider of leasing, marketing, 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 smooth the most recent month in a similar way to its history, VTS first projects the relative demand ratio forward by one month using the average of two simple forecasting techniques. One leverages the seasonality inherent in the raw national series to project the VODI series forward. The other uses the momentum in the metro level VODI series since June 2020 - one to two months after hitting a trough depending on the market.

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.

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