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Datafest 2025 Write-Up - Factors Contributing to Chicago's changing market for Office Space

The Dataset for this year's Datafest competition is centered around Lease transactions from January 1, 2018 to December 31, 2024 provided by Sivals, as well as Building occupancy in 10 markets from Kastle, and Unemployment data from the U.S. Bureau of Labor Statistics. We identified a strange outlier within the Dataset, as Chicago has a much larger proportion of unused O-grade office space in comparison to other major markets in the U.S, with a difference of about -0.115 from its A-grade office space in the same quarter. For comparison, the next closest difference was San Francisco, with a difference of -0.062, and second closest being Washington D.C. with a difference of -0.021. We therefore decided to tackle the question of how exactly this came to be, and why. A dramatic change such as this suggested to us that Chicago was potentially undergoing a complete overhaul of their market for Office Space in their Downtown area, and upon viewing the relevant quantities of office space available in both categories of grades, we found that Chicago had been shifting their proportion of A-Grade office space to match that of other Major Markets in the U.S. The change they seem to be aiming to make is to match an increase in demand for higher quality office spaces, while reducing the amount of O-grade office space that is seeing little interest from businesses. Other Markets such as Manhattan and Houston show a graph that is similar to what Chicago may potentially be aiming to look more like down the road, with a much greater amount of their total Downtown office space being devoted to high quality offices. We were initially able to recognize the outlier by creating a graph of the difference in Availability (A - O) over time, with each line in the graph representing a different major market. The majority of the lines are grouped together to begin with in the first quarter of 2018, and end mostly together in the fourth quarter of 2024, except for a few notable outliers mentioned above, such as Washington D.C., San Francisco, and Chicago. We decided to hone in on the A and O variables and the difference between them for each market, in order to effectively hammer home the importance in answering our initial question. As we looked to visualize this change in a more effective way, we created a two maps of the U.S., with dots representing the major markets in the dataset and their color corresponding to the difference value from Q1 of 2019 on the first map, and the difference value from Q4 of 2024 on the second map. This, and with a transition effect on the slideshow, helps make the change in Chicago's (as well as the other two outliers) difference much more apparent and heavy hitting. In addition to that, we included graphs of specifically Chicago's change in RBA over the entire dataset's time frame, and placed it side by side with a similarly created graph for Houston and Manhattan, to visually illustrate the end goal that Chicago seems to be moving towards. In the end, we identified an outlier and created several visual aids in order to attempt to explain why the outlier was doing what it was doing. In conclusion, Chicago is revitalizing its downtown office space scene in an attempt to appease clients who are demanding high quality offices by increasing the amount of A-grade offices that are downtown, leaving them with lots of empty O-grade office space that has led them to have a difference between the two that is wildly more negative than any other market with a similar number of transactions in the past 6 years.