Patterns Of Office Space Demand Cycles

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Based upon a review of quarterly office employment changes from 1975 through to 1994, this research concludes that for a majority of fifty metropolitan areas, office employment cycles are converging towards predictable seven-year cycles as exemplified by the cyclical trend for the nation as a whole. However, many of the patterns are just emerging, and for one-third of the cities office employment defies predictable changes and follows a noisy random walk. The nation is entering the third real estate cycle since 1975, and if trends hold, more cities will probably experience absolute losses in their office employment.

Office employment changes are no longer dependent upon total employment changes in a given metropolitan community. Changes in office employment and total employment are correlated, but neither series lags or leads the other. While quarterly office employment grew faster for every metro area than its total employment growth, the office employment growth was more volatile. Because of time series modeling requirements, quarterly data was used and seasonality was introduced into the model for classification purposes. Reliance on annual data would have obscured the complexity of the patterns.

At the high end of the growth scales, a group of cities exhibited a statistically significant higher level of growth. These cities were characterized as having an economic base with above-average concentrations in agriculture, government, military-related activities, and tourism and with a below average concentration in education employment. The research found that across the board the degree of concentration of these economic base components influenced the rate of overall office employment growth. Low growth rate cities had small concentrations of these components. The analysis compares the risk (volatility) and growth of the metro areas in their total employment and office employment. For a given level of quarterly growth, those metro areas that have a lower-than-average volatility are identified.

At this stage of research, no consistent relationship between a city's economic base profile and the pattern of office employment could be established.

Metropolitan areas differ in how the real estate industry responds with development. For two-thirds of the metro areas, it takes from one to four years for the real estate development industry to respond to a change in office employment. The remaining one third of the areas had no lag which could be interpreted as either industry indifference to demand or a systematic continuos incremental approach to office building.

The more volatile the quarterly percentage changes in office employment, the more likely that the vacancy rate in a community is higher. This confusion in interpreting the vacancy rate leads to overbuilding.

This research has framed the major cyclical characteristics of the office employment demand and the office building supply response. What needs to be done now is to introduce other factors and variable interpretation to identify the turning points.