

## Industrial Market Close-up: Philadelphia MSA

**Overview and Economy.** With an inventory of 605 million square feet in 22 submarkets, the Philadelphia MSA industrial market had a vacancy rate of 4.8% in the second quarter of 2023. This compares to the average U.S. industrial vacancy rate of 5% in the same period. Real asking rents increased by 7.8% year-over-year in the MSA, to \$10.28 per square foot per annum in the second quarter of 2023, according to CoStar (adjusted for inflation by Linneman Associates). The comparable U.S. real net industrial rents averaged \$11.29 per square foot, up by 4.9% year-over-year.

With a population of 6.2 million in 2023, the MSA's largest employment sectors are education and health services (21.2%); trade, transportation, and utilities (17.8%); professional and business services (16.4%); government (10.2%); leisure and hospitality (9.7%); and financial activities (7.4%). Payroll employment in the MSA peaked in January 2020 at 3.1 million jobs but declined sharply, to 2.6 million due to the shutdown. By July 2023, the MSA had regained 500,000 jobs, up 19.2% from the bottom to reach 1.9% above the pre-COVID peak. Through July 2023, Payroll Survey employment in every major sector in the MSA experienced year-over-year increases. Leisure and hospitality (8.9%), education and health services (5.3%), and "other" services (5%) saw the largest year-over-year growth, while financial activities (0.9%) and trade, transportation, and utilities (0.9%) saw the lowest year-over-year growth.

According to Select Greater Philadelphia, the MSA's largest employers include the University of Pennsylvania and Penn Medicine (46,554 employees), Thomas Jefferson University and Jefferson Health (42,700), the City of Philadelphia (25,000), The Giant Company (17,850), and Comcast (8,000). The Philadelphia area's top Fortune 500 companies include: AmerisourceBergen, Comcast, Rite Aid, Aramark, and Lincoln National Corp.

In previous issues, we have discussed a covariance analysis that was first published in the *Wharton Real Estate Review* (spring 2007) and regularly updated in this publication. The analysis examines how various economic indicators behave in individual metropolitan areas based on national economic changes. For each MSA, we estimated an equation, which summarizes how a 100-basis point (bp) change in the national variable affects the local indicator. The equation consists of a

constant ("alpha") for each market and a "beta," which is a multiplier applied to the national percent change in employment. The alpha indicates MSA growth that is independent of national growth. If there is no national job growth, then the alpha is the expected annual percentage change in MSA employment. The beta for the U.S. is defined as 1.0. An MSA with a beta of 1.0 registers (on average) an increase of 100 bps in employment growth (plus its alpha) when national employment rises by 100 bps. A beta that is less than 1.0 indicates that the MSA does not boom (or bust) around its trend to as great an extent as the national economy, while a beta of greater than 1.0 indicates that such an MSA experiences swings of greater magnitude (compared to its trend) than the percentage changes at the national level.

With an employment beta of 1.02, Philadelphia's economy reacts to a 2% greater degree than the nation. The MSA has an alpha of -0.56 indicating that the MSA is expected to experience annual employment decline of 0.56% when U.S. job growth is zero. The interaction between the alpha and beta results in a breakeven point of 0.55. That is, the MSA tends to experience positive job growth only when U.S. job growth is at least 0.55% per year. The MSA's R-squared statistic of 0.90 indicates that the forecasting model for Philadelphia explains future job growth with a strong 90% "fit."

During the Financial Crisis recovery, U.S. employment grew by 17.5% from the bottom through February 2020, while MSA employment increased by 14.1% over the same period, strongly pro-cyclical and moderately higher than the predicted 11.5% job growth. Between the April 2020 shutdown low and July 2023, national employment grew by 23.8%, while Philadelphia's job base grew by 19.2% over the same period, again moderately above the projected 17.9%.

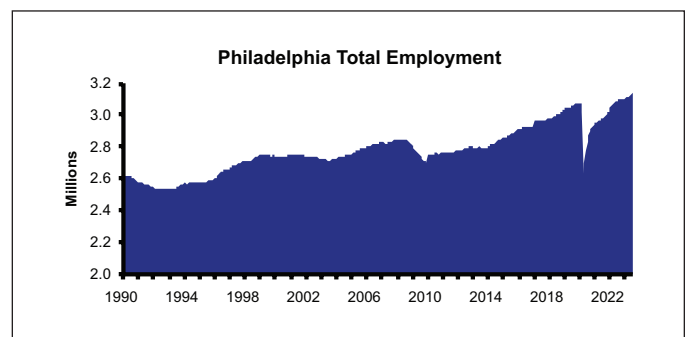


figure 1

The MSA unemployment rate stood at 4% in February 2020, 50 bps above the comparable national unemployment rate of 3.5%. Due to the shutdown, the official MSA unemployment rate spiked to 14.3% in April 2020, while the corresponding national rate (which understated reality) peaked at 14.7%. With the subsequent reopening and rebuilding of the economy, the MSA unemployment rate stood at 3.6% in July 2023 (latest available), 10 bps higher than the comparable U.S. unemployment rate.

**Absorption and Vacancy.** Industrial net absorption in the second quarter of 2023 was 6.1 million square feet. The Gloucester submarket performed best, with 1.9 million square feet absorbed year over year, while South Philadelphia saw the greatest negative net absorption at 778,000 square feet.

The metro area industrial vacancy rate improved during the pandemic, falling from 5.6% in early 2020 to 4.1% in 2021, according to CoStar. The market weakened since but remains healthy and below the pre-pandemic vacancy rate, standing at 4.8% in the second quarter of 2023. The MSA's long-term average (1982-present) industrial vacancy rate is 7.6%, with the high (13.2%) occurring in the fourth quarter of 1992.

**Rental Rates and Leasing.** Based on the CoStar database, two of the MSA's largest industrial lease transactions of the second quarter included a 350,000-square foot lease at 903 Industrial Highway in Eddystone signed by cocoa producer Barry Callebaut in April 2023, and a 252,000-square foot lease at the Tal-Pac Logistics Center by YesWay Logistics. The MSA's long-term vacancy is rising, but according to CoStar, large industrial centers (over 500,000 square feet) are expected to bear the brunt of the rise due to the market's robust construction pipeline.

Real industrial base rents stood at \$10.28 per square foot, an all-time high, in the second quarter of 2023, up 7.8% from \$9.54 one year earlier. The latest real rent is 37.6% above the long-term average and 56.2% above the all-time low.

**Development/Construction Pipeline.** In the second quarter of 2023, there were 24.5 million square feet of industrial space (4% of the stock) under construction in the MSA, versus 3% of stock under construction nationally. The Burlington submarket saw the largest pipeline as of the second quarter of 2023, with 5.2 million square feet under construction.

Industrial development in Philadelphia has grown considerably since the onset of the pandemic. Major recent projects include the redevelopment of the former U.S. Steel Plant (a \$1.5 billion development by I-95 in Fairless Hills); speculative construction of 1.8 million industrial square feet in Logan Township (three projects under a mile from I-295 in Gloucester County); DH Property Holding's \$175 million, 750,000 square-foot last mile distribution development at 5000 Richmond Street in Philadelphia; the 525,000 square-foot Tri-State Industrial in Claymont, Delaware; and

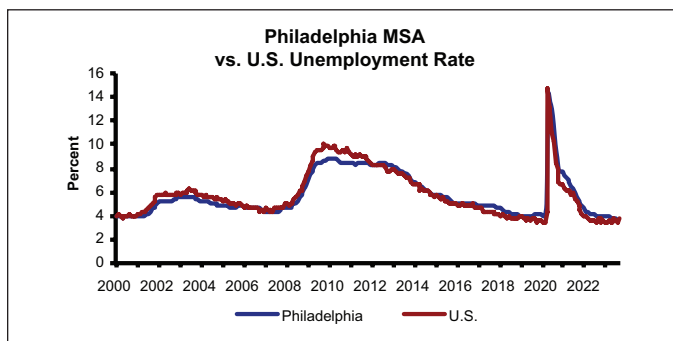


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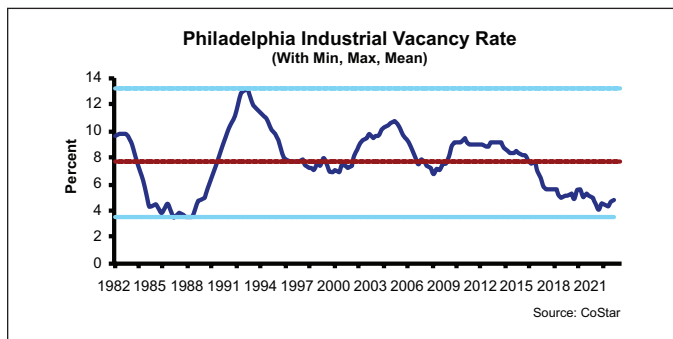


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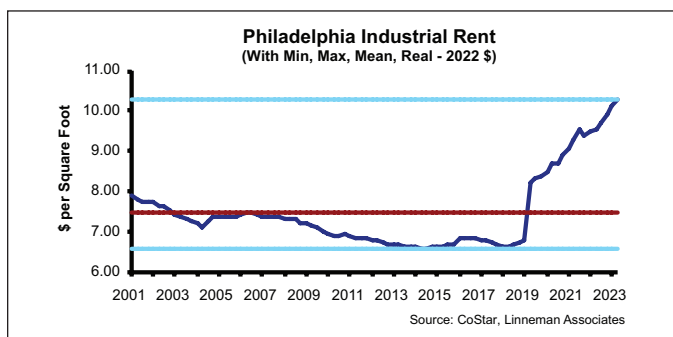


figure 4

Foxfield's 815,000 square-foot Lower Bucks Logistics Hub in Langhorne, PA.

## Submarkets

- **Burlington County, NJ.** This submarket has 72.7 million square feet of inventory and 5.2 million square feet under construction. In the second quarter of 2023, the vacancy rate stood at 11.8%, resulting from net absorption of 1.4 million square feet in the quarter. Inflation-adjusted market rent was \$10.73 per square foot.

- **Bucks County, PA.** The submarket has a total inventory of 76 million square feet and 3.6 million square feet under construction. The vacancy rate was 2% in the second quarter of 2023, with the submarket experiencing net absorption of about 1.9 million square feet during the quarter. The inflation-adjusted market rent per square foot was \$10.57.

- **Delaware County, PA.** This submarket has a total inventory of 34.6 million square feet and 507,000 square feet under construction. In the second quarter, the submarket experienced net absorption of 880,000 square feet, resulting in a vacancy rate of 3%. The inflation-adjusted market rent per square foot was \$11.17.

- **Chester County, PA.** This submarket has a total inventory of 40.9 million square feet and 62,500 square feet under construction in the second quarter. The submarket experienced quarterly net absorption of -134,000 square feet, resulting in a vacancy rate of 4.8%. The inflation-adjusted market rent per square foot was \$13.43.

- **Wilmington County, DE.** This submarket has a total inventory of 16.3 million square feet and 350,000 square feet under construction. The vacancy rate was 3.2%, and net absorption was 63,500 square feet in the second quarter of 2023. The inflation-adjusted market rent per square foot was \$9.88.

- **South Philadelphia.** This submarket has a total inventory of 14.7 million square feet and 202,000 square feet under construction. In the second quarter, net absorption was -778,000 square feet, and the vacancy was 7.7%. The inflation-adjusted market rent per square foot was \$13.57.

- **Northeast Philadelphia.** This submarket has a total inventory of 15.4 million square feet and 889,000 square feet under construction in the second quarter of 2023. The vacancy rate was 6.1%, and net absorption

was 322,000 square feet in the quarter. The inflation-adjusted market rent per square foot was \$7.84.

**Investment and Sales.** The Philadelphia MSA real rolling four-quarter industrial sales volume through the second quarter of 2023 was \$2.8 billion, down from \$2.7 billion a year earlier. The lowest four-quarter rolling real sales volume of \$193.2 million was seen in the MSA in the first quarter of 2001. The current level is 91.9% above the long-term average of \$1.5 billion and 50.1% below the all-time high seen in the first quarter of 2022.

The second-quarter 2023 real average sales price in the MSA was \$112 per square foot (in real 2023 dollars), a new all-time high. It is 54.4% higher than the long-term average of \$72 per square foot. The current level is 112.8% higher than the twenty-year low seen in the second and third quarters of 2010. In comparison, the real average U.S. industrial price was \$149 per square foot in the second quarter of 2023, up about 16% from a year earlier.

The largest recent MSA sales transactions, according to CoStar, include the Glendale Warehouse and Distribution Corp's purchase of a 345,600 square-foot distribution center in Burlington County for \$83 million from the Rockefeller Group in February 2023; DRA Advisor's purchase of Twinbridge Industrial Park in Pennsauken, a 1.3 million square-foot, a 37-building portfolio, for \$194.5 million from Wharton Industrial and Walton Street Capital in July 2023; and, as part of a portfolio purchase from Blackstone, Prologis purchased the one million-square foot Port Logistics Center at Logan, in Logan Township, NJ, for \$209.4 million

In the second quarter of 2023, the average CoStar cap rate in the Philadelphia industrial market was 6.9%,

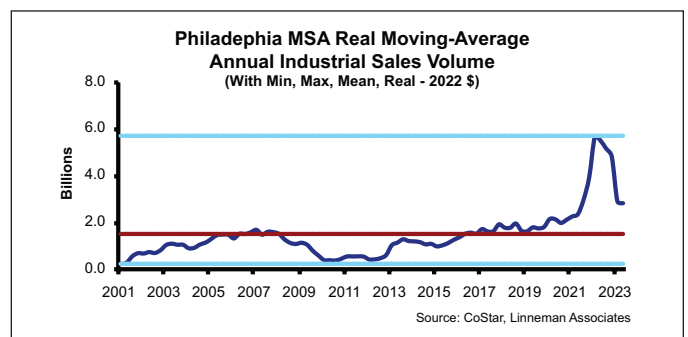


figure 5

200 bps lower than the historical mean of 8.9% and up 50 bps year-over-year. The current level is 50 bps above the all-time low and is 410 bps below the historical high of 11%. The MSA industrial market has had lower than average cap rates for nearly 14 years.

**Opportunities and Challenges.** Philadelphia's diversified economy is centered around education, healthcare, technology, and financial services. While recent decades have seen economic decline and uncertainty in Philadelphia, the industrial market is strong. However, an aggressive pipeline is beginning to outpace demand, resulting in a slight increase in the vacancy rate.

As discussed, our research indicates that the MSA's employment breakeven statistic is 0.55, indicating that Philadelphia employment growth is only expected to be positive if U.S. employment rises by at least 0.55% per year. This is driven by the MSA's low employment alpha (independent growth) and high beta (correlation) relative to national growth. While both the national and MSA economies may slow modestly, depending on Fed actions among other factors, we do not predict a recession.

With the Biden administration's federal infrastructure package approved in 2021, Philadelphia will receive nearly \$1 billion over the next five years for relevant projects. Over the first two years of the Bipartisan Infrastructure Law (BIL), significant funding has been allocated to water system upgrades for the Philadelphia Water Department (\$753.2 million), street and sidewalk and other transportation infrastructure to the Department of Streets and the Office of Transportation, Infrastructure, and Sustainability (\$138.4 million), and airfield improvements and cargo development and terminal upgrades for the Philadelphia Airport (\$146.9 million). The City's proposed budget features \$22 million a year for five years to complete important infrastructure projects that require a robust amount of federal funding. These investments will generate near-term jobs by creating about 170 city-level staff positions and lead to employment for more construction laborers, electricians, operating engineers, and other skilled and unskilled positions.

Bristol Group, Inc. announced in September plans to construct a new 261,000 square foot cargo facility at the Philadelphia International Airport (PHL). The project will be constructed on a 16.8-acre vacant parcel of land on the northeast side of PHL property, situated east of Island Avenue along Escort Street. The project's unique multi-modal logistics location is adjacent to the PHL tarmac with immediate access to a four-way interchange of Interstate-95 and less than five miles from the Port of Philadelphia. The cost of the project has not yet been disclosed, but it is projected to be completed in 2025.

After a two-year wait, Amazon has committed to opening their 140,000 square foot warehouse on an Elmwood Ave. site in Southwest Philadelphia.

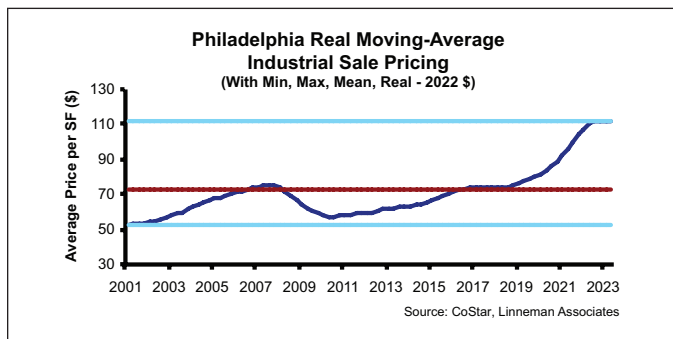


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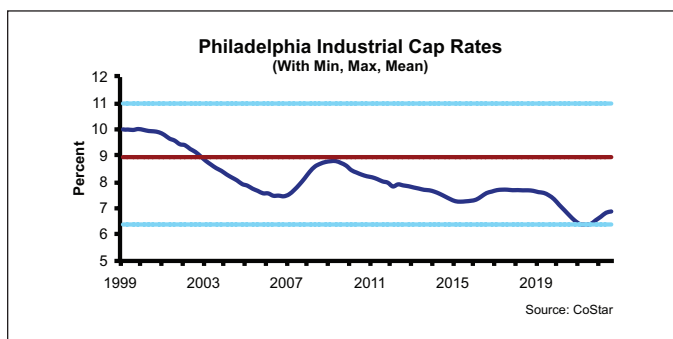


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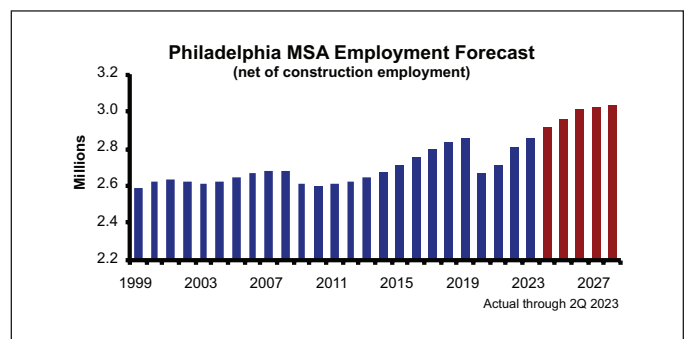


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The last mile distribution site is expected to handle 20,000-25,000 packages a day and create at least 200 jobs. The company views the facility as a key driver of their goal of adding approximately 4,800 employees to the Philadelphia MSA. The new facility comes after Amazon paused their development pipeline to achieve greater efficiencies.

**Outlook.** Our statistical employment forecasts are net of construction jobs due to the volatility and short-term nature of that sector. We forecast that the Philadelphia MSA will add about 56,000 non-construction jobs per year in 2023-2028, or 325,000 jobs in aggregate. We expect that the current vacancy rate of 4.8% will increase to 5.1% (given the known pipeline) by the fourth quarter of 2024 before decreasing slightly to 3.5% by the end of 2028.

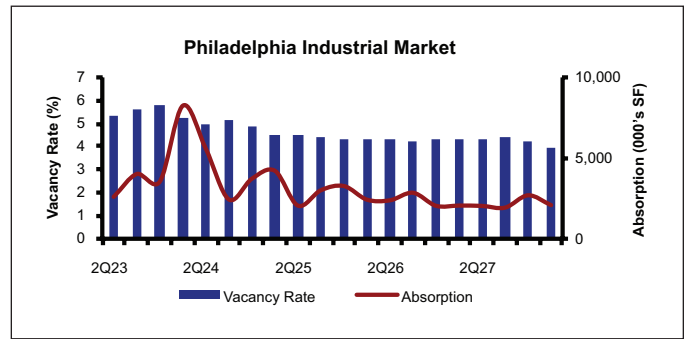


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