Harris Central Appraisal District

2025

Market Trends

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2024 Residential Real Estate Market Overview

During 2024 the Houston housing market maintained steady growth with moderate price appreciation, and fluctuating inventory levels, making Houston one of the best places to invest in real estate in the US.

JOB GROWTH **–** Metro Houston created an estimated 57,800 jobs through December of 2024

Monthly Update: Employment

UNEMPLOYMENT **–** Monthly Update: Unemployment

Dec 2019 – 3.9%

Dec 2020 – 8.0%

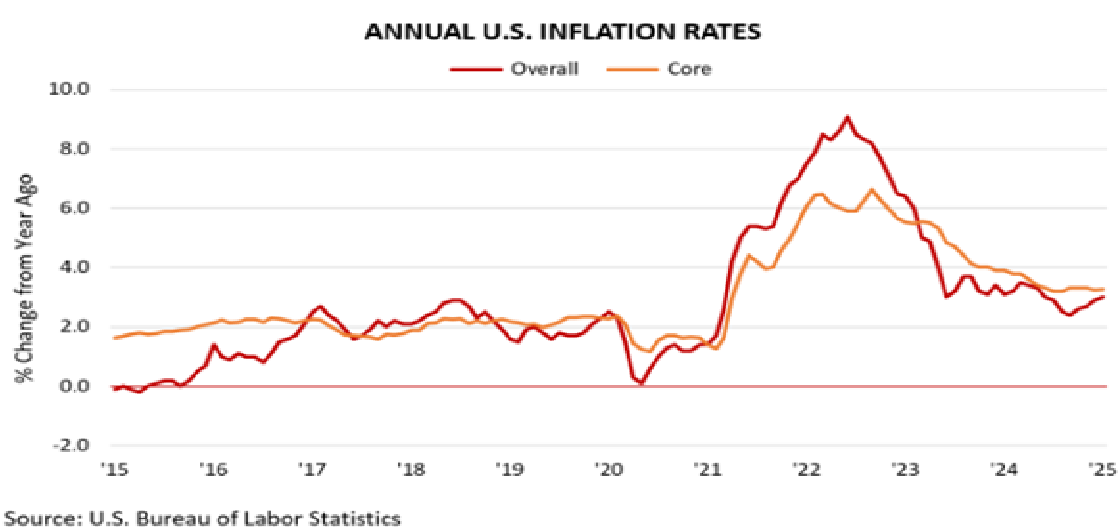
Dec 2021 – 4.8%

Dec 2022 – 3.6%

Dec 2023 – 3.5%

Dec 2024 – 4.1%

INFLATION **–** Inflation is measured by the Consumer Price Index for all Urban Consumers. Inflation rose 3.0% during 2024, which is slightly higher than the expected rate of 2.9%. Core inflation rose 3.3% during the same period. That includes volatile food and energy categories. (Note: The numbers reported here are not seasonally adjusted.)



The Federal Reserve is likely to pause on lowering the interest rate any further until inflation is closer to the 2% target rate.

[Monthly Update: Inflation]

INTEREST RATES – The federal funds rate is the interest rate charged by banks to borrow from each other overnight. The Federal Reserve influences this rate through monetary policy decisions.

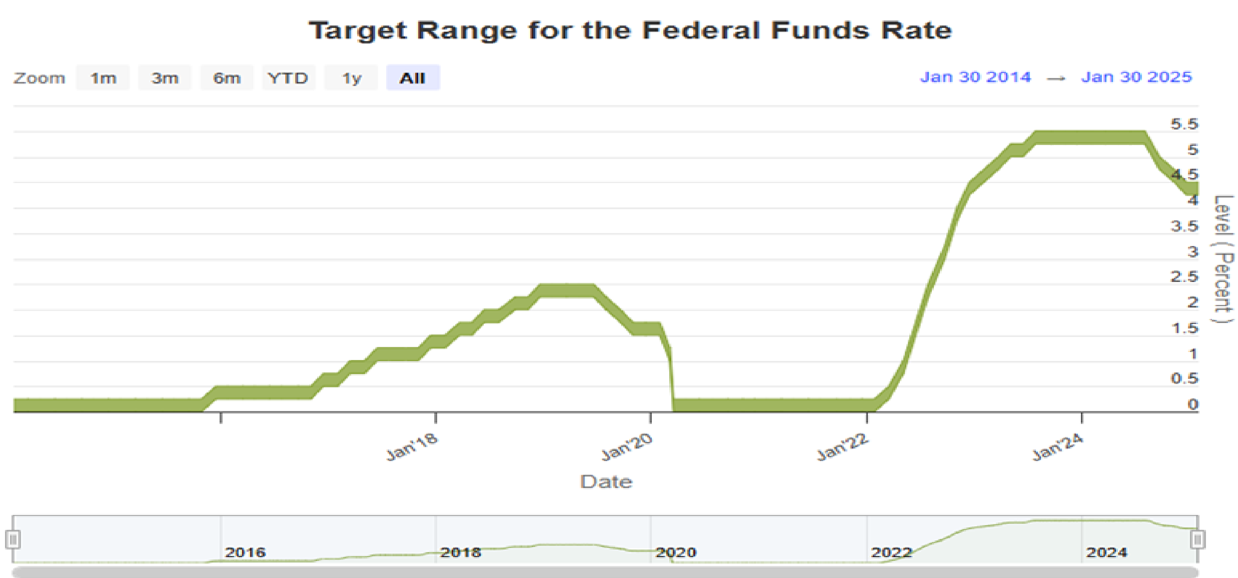
Changes in these rates have implications for economic activity, employment and inflation. Indirectly, prime lending rates along with many other lending rates including mortgage rates are affected.

Federal Funds Rate (2/01/2024 – 1/30/2025)

Effective Date	Federal Funds - Level % (Low)	Federal Funds - Level % (High)
02/01/2024	5.25	5.5
03/21/2024	5.25	5.5
05/02/2024	5.25	5.5
06/13/2024	5.25	5.5
08/01/2024	5.25	5.5
09/19/2024	4.75	5
11/08/2024	4.5	4.75
12/19/2024	4.25	4.5
01/30/2025	4.25	4.5

The Federal Open Market Committee (FOMC) consists of 12 members that meet 8 times a year to determine the target range for the Fed Funds Rate.

Federal Funds Rate (1/1/2014 – 1/1/2025)

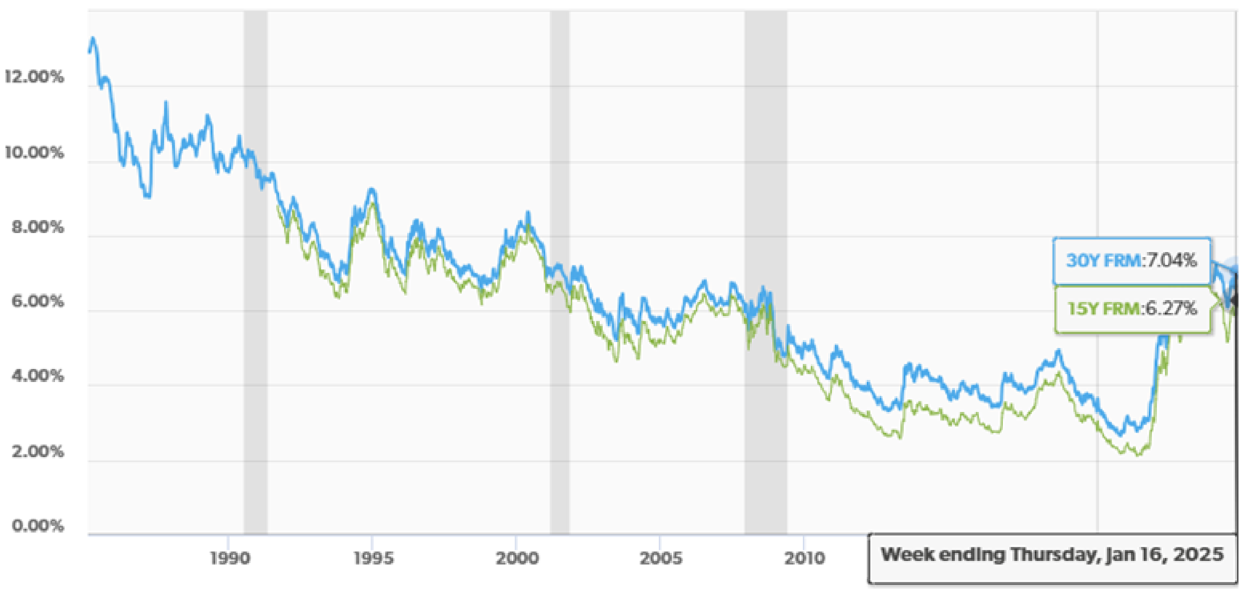


After seeing the Fed Funds Rate increase 11 times between 2/22 – 7/23, we finally started to see the rate reduced in the middle of 2024. As of January 30, 2025, the target rate range was between 4.25% to 4.50%.

[The Fed - Economy at a Glance - Policy Rate]

MORTGAGE RATES – Illustrated in the chart below is how mortgage rates have consistently fallen over a 40-year period prior to 2022 after the Fed Funds Rate was increased to reduce inflation.

Mortgage Rate between 1/1/1985 -1/16/2025



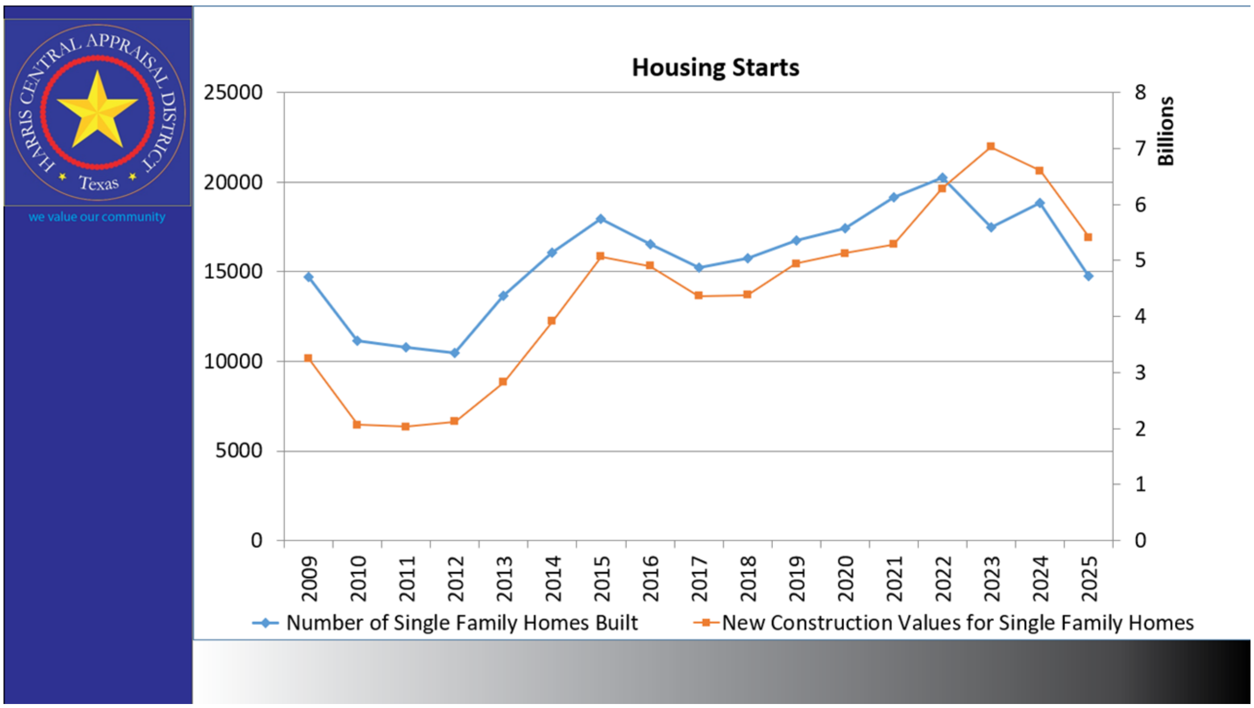
Mortgage Rate as of 1/2/2025

[Mortgage Rates - Freddie Mac]

HOME INVENTORY – According to the Houston Association of Realtors (HAR), the inventory of available homes has increased from 37,606 (3.3 months) in December 2023 to 45,714 (4.0 months) in December 2024. An inventory supply of 4.0 to 6.0 is traditionally considered a "balanced market". The increase in home inventory was a welcomed sight in 2024. We saw growth in the market after experiencing two consecutive years of declining sales.

[Monthly Housing Update - HAR.com]

NEW STARTS – The number of new starts for 2025 are estimated to approach 19,000 homes. The new construction value associated with the new starts will exceed $5.5 billion.

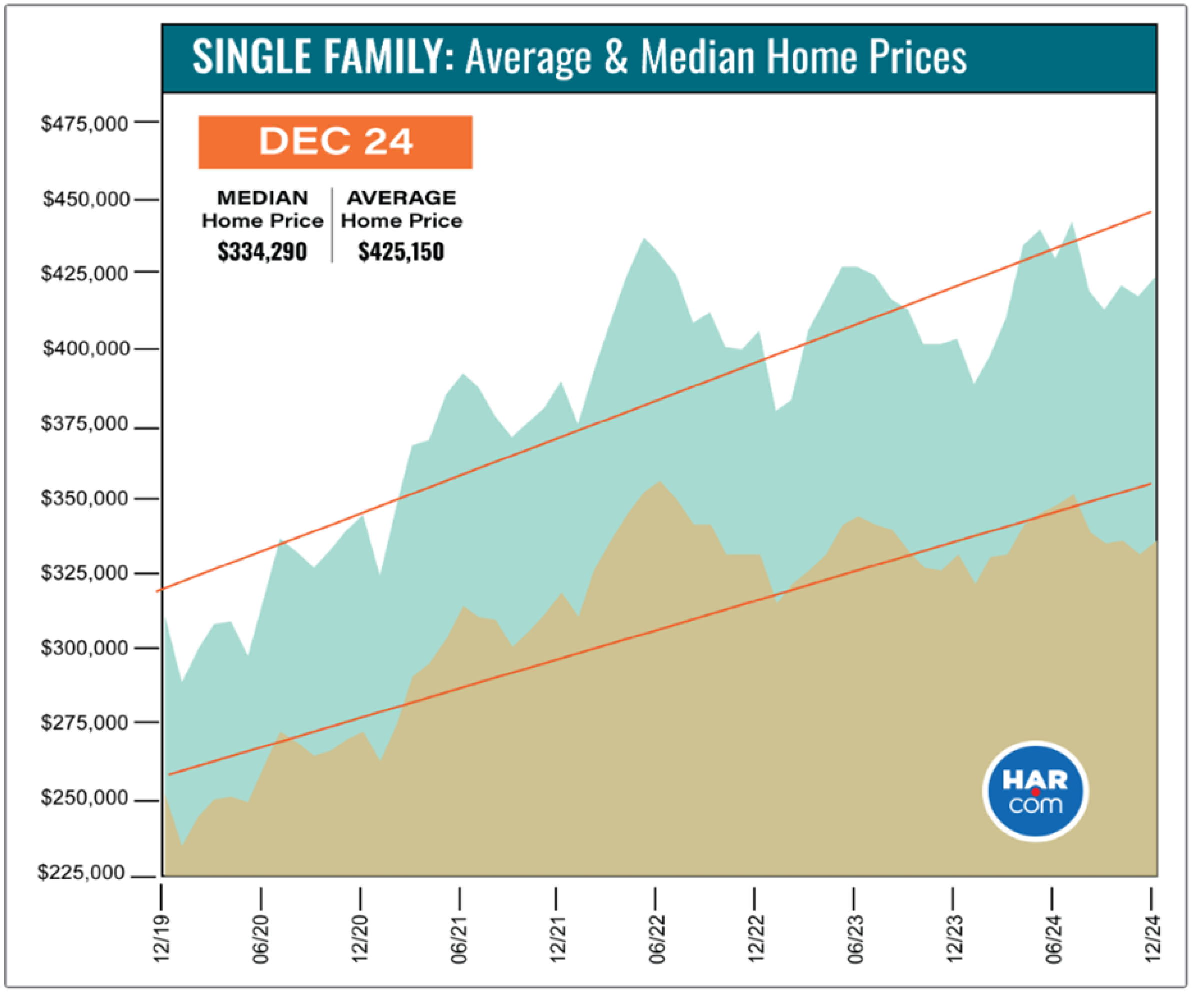


SALES VOLUME – According to HAR, sales volume for single family residential properties for the full year 2024 totaled 85,163 units, which is a 1.3 percent increase versus the 84,038 units sold in 2023.

CATEGORIES	FULL-YEAR 2023	FULL-YEAR 2024	CHANGE
SINGLE-FAMILY HOME SALES	84,038	85,163	1.3%
TOTAL PROPERTY SALES	102,569	101,864	-0.7%
TOTAL DOLLAR VOLUME	$39,863,058,473	$41,113,911,790	3.1%
SINGLE-FAMILY AVERAGE SALES PRICE	$412,161	$422,590	2.5%
SINGLE-FAMILY MEDIAN SALES PRICE	$330,000	$335,000	1.5%

** Months inventory estimates the number of months it will take to deplete current active inventory based on the prior 12 months sales activity. This figure is representative of the single-family homes market.*

SALES PRICES – In a full year's comparison, the median price for a home increased to $335,000 from $330,000 in 2024 representing a 1.5% increase. In a full year's comparison, the average price also increased from $412,161 to $422,590 representing a 2.5% increase. The chart below shows a five-year trend line for both the average home sale price and the median home sale price of single-family homes.



NOTICING –

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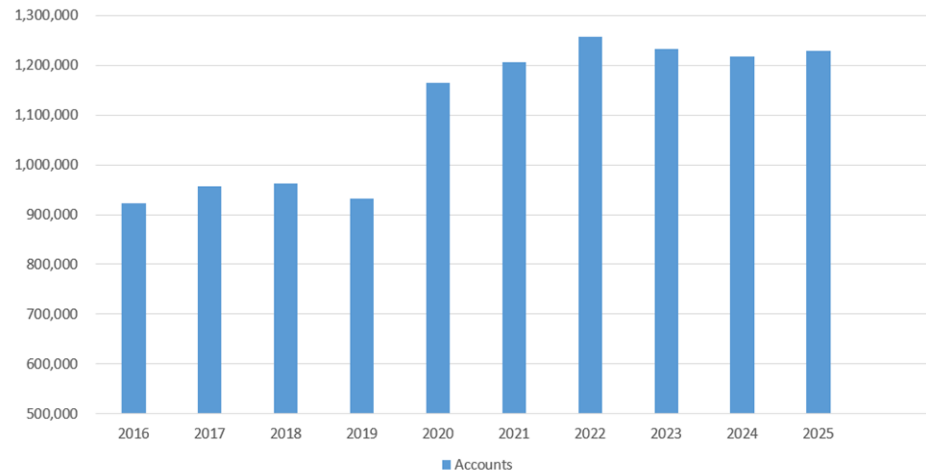
Initial Noticing 2016 - 2025



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2025 Single-family Increase, Decrease, No Change
(as of March)

Market Value	Parcels	Percent of Parcels		
		No Change	Increase	Decrease
Under 124,999	51,369	31.1%	36.7%	32.2%
125,000 - 199,999	167,985	20.2%	41.0%	38.8%
200,000 - 299,999	399,808	14.0%	49.0%	37.1%
300,000 - 449,999	283,302	7.5%	61.7%	30.8%
450,000 - 749,999	138,036	4.9%	74.6%	20.5%
750,000 and up	75,499	3.7%	84.3%	12.1%
Total	**1,115,999**	**12.2%**	**56.0%**	**31.8%**
Tax Year 2024		13.4%	39.2%	47.4%

2025 Single-family Percent Change
(as of March)

Market Value	Average Percent of Change Reappraisal Only	Average Percent of Change with New Construction	Overall Percent of Change
Under 124,999	3.06%	3.56%	1.75%
125,000 - 199,999	1.62%	3.40%	1.20%
200,000 - 299,999	2.33%	7.60%	2.24%
300,000 - 449,999	4.22%	15.09%	4.55%
450,000 - 749,999	6.54%	13.92%	6.70%
750,000 and up	10.70%	14.34%	12.22%
Total	**3.82%**	**9.92%**	**5.95%**

2025 Outlook and Insights

After two years of declining sales and fluctuating mortgage rates, Houston experienced modest growth in 2024. As 2025 gets underway this growth is expected to continue.

- Unemployment remains low
- The fed has dropped rates 3 times during the last quarter of 2024
- The economy & job growth in Texas and nationally remain positive
- Inflation is near the 2.0 percent target
- Inventories are now at what is considered equilibrium
- Barring a "black swan" event, the U.S. is unlikely to slip into a recession in '25

The Fed Explained - Accessible: FOMC's target federal funds rate or range, change (basis points) and level

Economy at a Glance - January 2025

2024 Houston Commercial Real Estate Market Overview

Houston's economy is characterized by its strong ties to the energy sector, particularly oil and gas, along with a growing focus on industries such as healthcare, technology, and manufacturing.

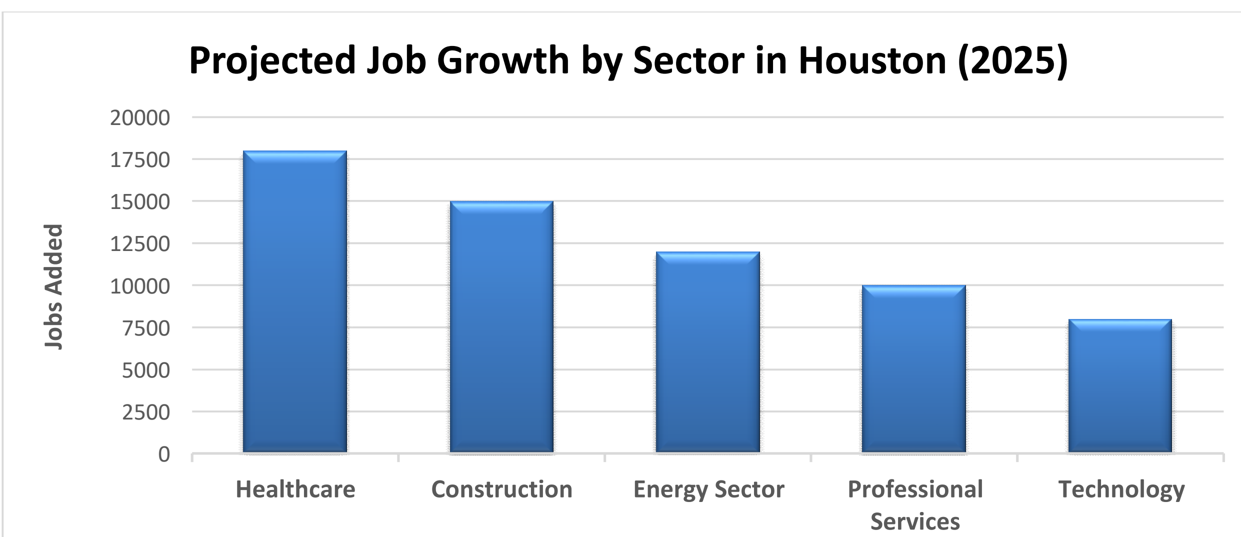
As of early 2025, the economy in Houston, TX is seeing mixed but generally positive trends. The city is benefiting from its role as a major hub for energy, particularly in the oil and gas sectors, which have been more stable in recent years due to rising global oil prices. This has supported job growth and investment in the region.

Economic trends typically include factors such as population growth, job creation, and diversification of the local economy. Houston has seen significant population growth, which often leads to increased demand for housing, services, and infrastructure.

Houston's population growth continues to be strong, partly driven by people moving to the city from other parts of the U.S. for employment and more affordable living costs compared to places like California and New York.

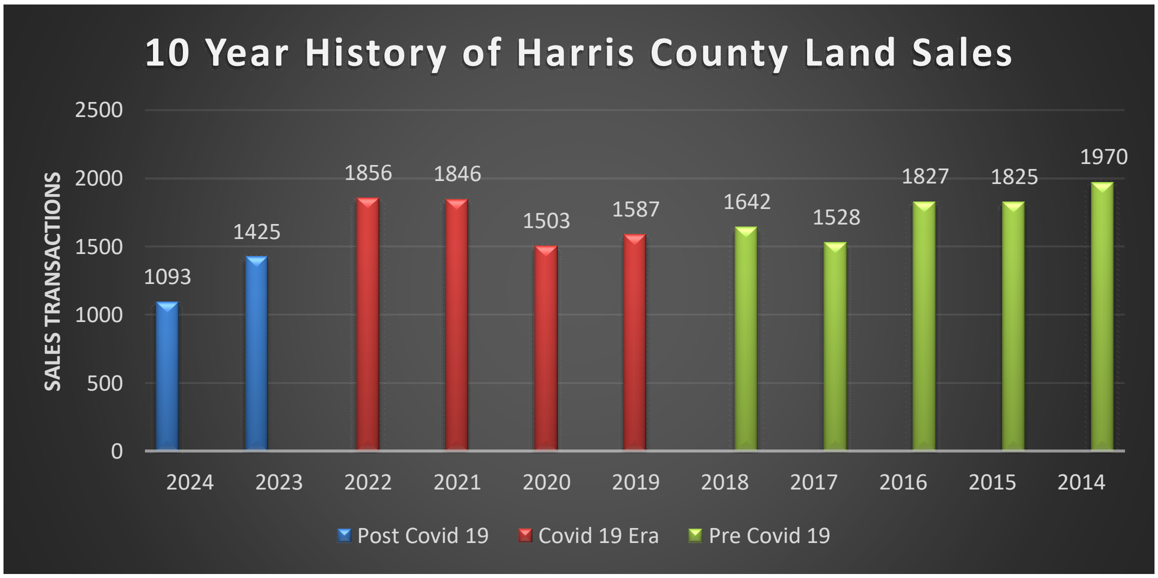
There are also significant challenges, such as inflationary pressures and supply chain disruptions affecting certain industries. However, overall, the outlook for Houston's economy seems solid with steady growth.

Houston's economy is projected to add over 75,000 new jobs in 2025, cementing its status as one of the fastest-growing metropolitan areas in the United States. With industries like energy, healthcare, and technology driving expansion, the influx of employment opportunities will attract more residents to the city, supporting continued housing demand. Houston's strong economic outlook for 2025 suggests a vibrant real estate market, with job creation serving as a catalyst for housing demand.



COMMERCIAL LAND

Land sales transactions in Harris County have been in decline for the last ten years. The sales were somewhat stagnated prior to the Covid 19 Era, but the transaction activity was still better than what we have witnessed in the post-Covid 19 Era. Based on the transactions that took place, it appeared that the land market was making a comeback after Covid, but within the last two years those transactions have fallen dramatically.



Source: Harris Central Appraisal District Sales Ratio Analysis 1.21.2025

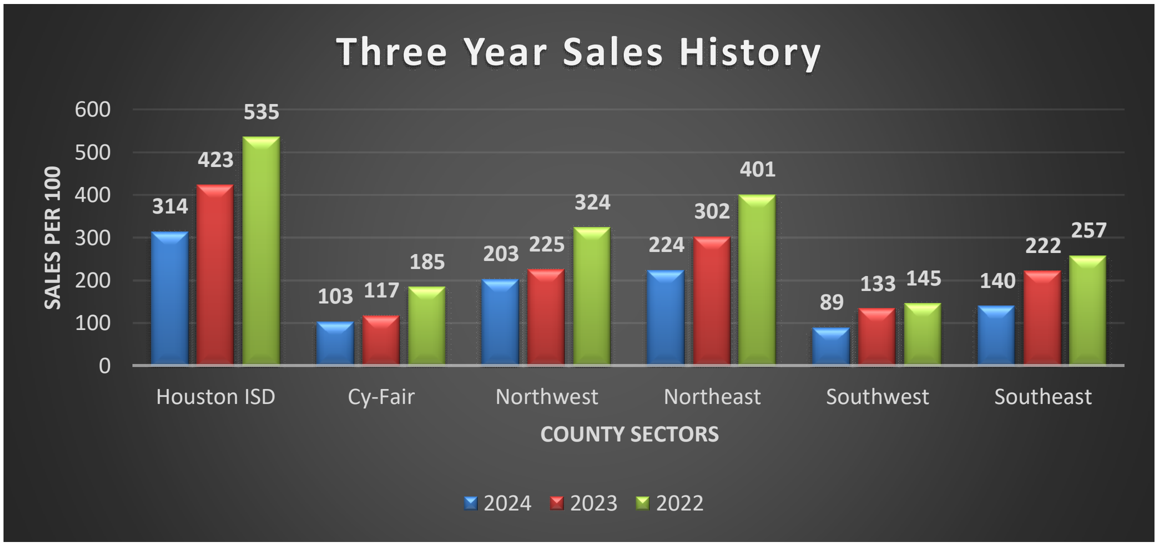
The decrease in the amount of sales transaction activity could probably be attributed to a couple of factors**.** The first factor is the available amount of inventory of commercial vacant land. With the growth Harris County has experienced in the past, are there still quality tracts of land available for development?

A lack of available inventory in Houston ISD, the largest school district land area in Harris County, is understandable. This area is built out of a healthy mix of commercial, residential and industrial properties. The other school districts and sectors of Harris County do still have larger inventories of land ripe for development. This leads us to our second factor.

The second factor is the state of the economy. Are investors willing to buy and develop land in an economy that has been plagued with inflation and uncertainty?

Taking both factors into consideration, it seems investors are probably taking a more educated approach to buying and selling commercial land. The downturns in the office and retail markets may cause investors to steer away from those types of developments. At the same time, multi-family and industrial (warehouse) investors are looking for larger tracts to develop.

A magnified look at the last three years of commercial land sales activity shows a decline in all sectors of Harris County year-over-year. It should be noted that the data used for these charts is as of January 1, 2025. Sales data is collected throughout the year and the numbers listed on the chart could increase before the next report. As of now, the market activity for commercial land is the lowest activity we have witnessed in the last 10 years.



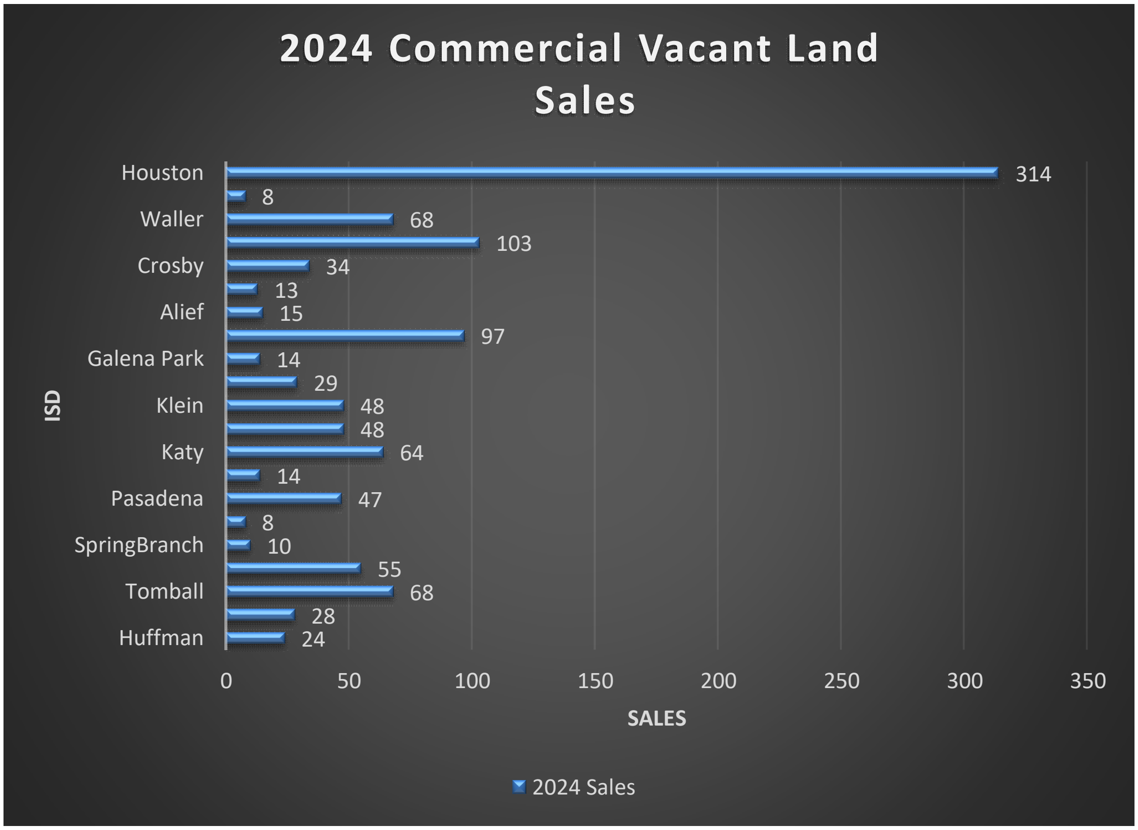
Source: Harris Central Appraisal District Sales Ratio Analysis

The next illustration gives a breakdown by school district of the sales activity in 2024. The illustration does not show land sizes or pricing. Some prices may be confidential and/or not shared with the appraisal district due to non-disclosure laws.

As illustrated by the chart below, Houston ISD has the highest number of sales, in 2024, followed by Cypress Fairbanks ISD and Aldine ISD.

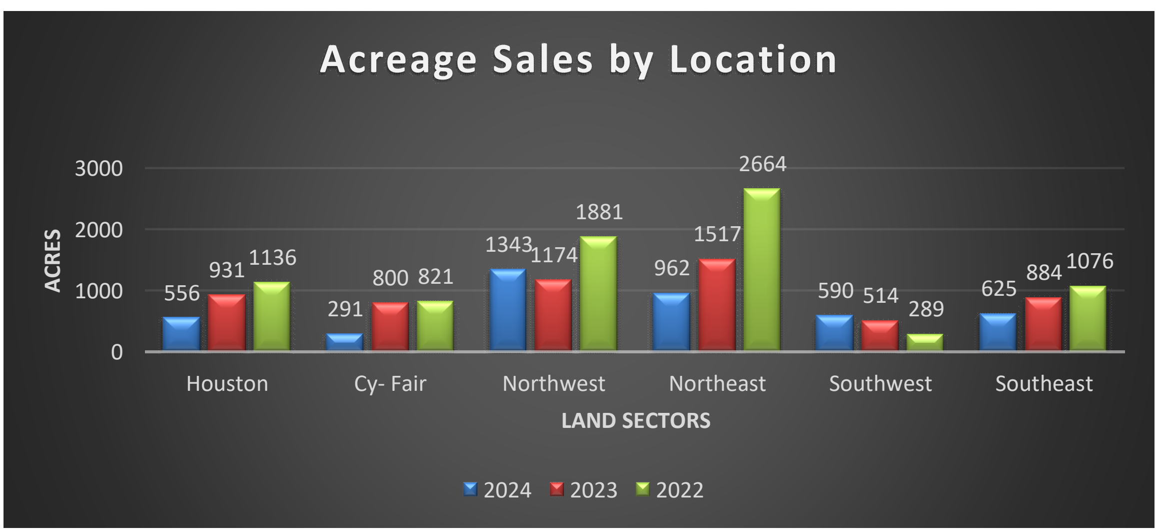
Cypress Fairbanks ISD is the second largest school district in Harris County, behind Houston ISD. This area has been ripe with residential, commercial and industrial growth in the past and is still expanding. The area was mostly agricultural at one point and has been transformed into sprawling neighborhoods with a healthy mix of commercial and industrial.

The draw for Aldine ISD is George Bush Intercontinental. Centered in the school district, the airport is surrounded by land developed with warehouses and business parks. Located between Interstate 45, Interstate 69 and the Sam Houston Parkway, transit routes are abundant. This makes warehouse development attractive to the area.



Source: Harris Central Appraisal District Sales Ratio Analysis

Updated data shows 7,889 acres were sold in 2022, 5,838 acres sold in 2023, and 4,371 acres sold in 2024. This data is as of January 1, 2025. This data also shows the declining land sales market we are currently enduring.



Source: Harris Central Appraisal District Custom CAMA Real estate System

The chart above gives a breakdown of the acreage sold in the county over the past three years. From the chart, you can see the decline in acres sold in most of the county from 2022 to 2024.

The southwest sector, which includes Alief, Katy and Spring ISD, is the only sector that did not experience decline. This should be attributed more toward development in Katy ISD.

While the land market seems to be in decline, it should be noted there will always be investors looking for quality land parcels to develop in the future. The economy is cyclical and when the time is right, we will see improvement.

MULTI-FAMILY

Price Waterhouse Cooper titled their 4Q2024 Investor Survey as "Positive Trends Unfold Heading into 2025."

Demand in Houston's multifamily market moderately improved throughout 2024, with overall Market Rents increasing 1.0% but with a total absorption of 18,768 units, which is more than 73% above the average amount absorbed annually during the previous year. More affordable suburban areas experienced rent increases, while higher priced central areas saw a downward adjustment for rental rates.

Nevertheless, new deliveries (26,304) in Houston increased from the previous year (24,485). But more significantly, the supply of new units, those under construction is down 37%, due to the recent "hold" in the market due to financing challenges and high interest rates, the supply wave and rent growth will likely moderately increase through most of 2025, with Houston in a Multi-family expansion phase for 2025 to 2027 (according to PwC).

Capital Markets Overview

Houston Multi-Family

Asset Value	12 Mo Sales Volume	Market Cap Rate	Mkt Sale Price/Unit Chg (YOY)
$107.8B	$1.1B	6.6%	-0.5%

12 MO SALES VOLUME	Total	Lowest	Highest
Transactions	207	-	-
Sales Volume	$1.1B	$375K	$213.6M
Properties Sold	201	-	-
Transacted Units	29K	5	810
Average Units	137	5	810

12 MO SALES PRICE	Average	Lowest	Highest	Market
Cap Rate	7.4%	4.6%	13.9%	6.6%
Sale Price/Unit	$38.6K	$62.5K	$765.6K	$145.2K
Sale Price	$25.6M	$375K	$213.6M	-
Sale vs Asking Price	-7.8%	-20.8%	0%	-
% Leased at Sale	93.4%	0%	100%	-

Source: CoStar, Multi-Family Capital Markets Report

After significantly positive rent growth for 2021 into 2022 [14.1% and 5.3% respectfully], the supply of financing became exceedingly more restricted and limit due to a "fractured capital" market. Price inflation and associated increased interest rates pressuring financial institutions' operation are the likely cause of this situation. The lack of financing for purchase or mortgage renewal became difficult, often with lower Loan-To-Value percentage requirements.

With that, interest rates increased for commercial and residential real estate, pressuring an increase in capitalization rates, affecting values. Properties that were purchased at the height of the market before Covid at low cap rates, now had buyers wanting to trade on a higher cap rate, accordingly. With the difficulty in obtaining financing, buyer and seller expectations would not meet, resulting in a lack of transaction activity and some decrease in property values. As a result, 2023 and into part of 2024, the market appeared to be in a "holding" period, with the few sales that occurred appearing to be distressed sales.

The average National Debt Service (Interest) Rate for apartment projects, according to PwC, is 6.63% at the start of 2025. That compares to 5.35% for the Southeast region, Texas included.

Inflation hit its peak in Houston in August 2022 at 7.0%, with another peak at 5.2% in December 2023. The commercial real estate market appears to have stabilized and adapted to the new environment in 2024 going into the current year. The sales volume of Multifamily in Houston in 2024 was "more than double the 2023 figure, though still 65% below the 2015-2019 [pre-Covid] annual average," as indicated by CoStar.

According to CoStar, "In the current high-interest rate environment, private investors, who are typically less dependent on debt than institutional capital, are driving investment activity, often targeting lower-priced assets. Roughly 80% of the transactions involved a private buyer in the past year. Of these, about 70% were properties with less than 50 units."

Overall Capitalization Rates (OAR) for Multifamily in Houston, according to PwC, for 4^{th} Quarter 2024 ranged between 4.50% to 6.25%, for an average of 5.54% nationally at the start of 2025. For the Southeast region, the average cap rate was 5.15%. Please note that these cap rates are OAR and already include property tax expense in the Total Operating Expense.

Currently, year-over-year rent growth in Houston sits at 1.0%, with the previous year at 0.9%, which is at its lowest level since 2020 and is underperforming the market's 10-year average of 3.4%. However, PricewaterhouseCoopers (PwC) indicates that the Multifamily market in Houston was in recovery mode for 2024, while their projection is that it will be in expansion for 2025, 2026 and 2027.

More affordable submarkets with minimal new supply have been among the top performers in the past 12 months. For the last Quarter of 2024, I-69 North area saw an astounding 26% annually calculated Rental Rate Growth, followed by NE Houston/Crosby at 9.8%, Greenspoint 9.4%, Almeda/South Main 6.1%. Meanwhile, for the same period, expensive nodes like Medical Center -11.5%, The Woodlands -9.6%, Katy/Cinco Ranch -8.8%, and Highland/Upper Kirby -8.0% contending with more new supply have posted rent losses during this time.

Houston's pace of development has decreased, 2.6% of inventory is underway, compared to 3.6% at the end of 2023 meaning demand-side pressure should increase in the quarters ahead. This could set the stage for falling vacancies and rent growth in 2025.

Fast-growing suburban areas in Houston to the north and west, as well as areas inside 610 Loop are at the forefront of construction activity.

<u>Key Houston Multifamily Indicators</u>

	Overall	Class A	Class B	Class C	Class D
# of Properties	3,251	788	1,223	877	363
# of Units	771,690	207,439	296,153	211,491	56,607
Avg Price ($/mo.)	$1,274	$1,731	$1,252	$990	$771
Avg Rate ($/sf/mo.)	1.423	1.818	1.408	1.155	0.898
Occupancy	88.6%	84.1%	90.0%	90.3%	88.1%

Trends	Past 3 months	Past 6 months	Past 12 months
Rental Rate Growth (annualized)	-3.7%	-1.3%	+1.0%
Absorption (units)	3,585	8,399	18,768

Source: MRI – Apartment Data Services, January 2025

Leasing momentum improved throughout 2024, while new construction has decreased. In April 2024, there were 21,727 new units under construction, and for January 2025 it was down to 13,769 units. When looking at annual figures, as of the first quarter of 2024, a net of 11,024 units have been absorbed over the past 12 months, versus the 18,768 units that have opened for the 4th quarter 2024, a significant increase. In turn, Houston's current overall vacancy rate of 11.4% is above its 10-year average of 10.6%. However, stabilized vacancies for Class A are 9.2% Class B at 9.0%, and Class C as 9.7%, according to MRI/ADS.

Lower-income households have been under significant stress because of inflation concerns and notable rent increases, which has led some to seek alternative housing choices such as moving in with relatives or finding a roommate. While the Fed has made progress in its effort to curb inflation, the most recent available inflation data in Metro Houston has inflation at 1.0% between Dec 2023 and December 2024, well below the nation's current inflation rate of 2.9%. and the historic 2% seen over the past 20 years. More importantly, core inflation, which excludes food and energy due to their volatility and measures price changes like housing, medical and transportation, started 2025 at 1.3% in Houston, well below last year's 4.0%.

Vacancies are lower in workforce housing heavy areas like Northeast Houston, where supply pressure has been minimal. CoStar does not anticipate the vacancy rate to rise much further in the next couple of years. The long-term outlook is favorable.

Houston regularly ranks as one of the top markets in the country for population growth, along with comparable Sun Belt metros such as Dallas-Fort Worth, Phoenix, and Atlanta. Robust net migration and household growth should continue to fuel demand for Houston-area apartments. Additionally, 20+ year high mortgage rates paired with the rapid increase in single-family home prices have raised the homeownership barrier for many households, directing new housing demand to the rental market as well as fueling greater renter retention rates.

Average asking rents of $1,274 per month in Houston are about 25% below Austin and the U.S. average and roughly 15% below Dallas-Fort Worth. Just 10 years ago, the U.S. held a 15% rent premium, meaning rent gains in Houston have been much slower during this time when compared to the national average. Over the past decade, Houston's multifamily stock has expanded by 32% whereas the national average has been about 25%.

The year-over-year rent growth of 1.0% is marginally above the previous year. Nevertheless, the market is outperforming all three of its Texas Triangle peers, Austin, Dallas-Fort Worth, and San Antonio, which are all currently posting rent losses. These markets are all contending with more elevated amounts of new supply in terms of percentage of inventory than Houston. Looking ahead, stabilized performance in Houston is anticipated to continue into the first half of 2025 as the market absorbs the considerable construction pipeline.

Source: MRI - Apartment Data Services, January 2025

The chart above shows the overall occupancy and effective rental prices over the last 24 months. These statistics are derived from a continuous survey of all apartment communities.

Effective rental prices are calculated net of concessions and utility adjustments. This chart shows the annual cycle of overall Market Rents, with a low point at year end, then peaking around August/September, to return to the low point but slightly higher Year over Year from the previous year end. December 2023 Market Rent was 0.9% higher than December 2022, and in turn increased 1.0% higher by December 2024. From Year 2013 to 2024, a 12-year period, the Market Rent increased on average 4.0%. Of course, Market Rents will grow or increase depending on economic conditions. For example, overall Market Rents decreased on average -0.8% for 2020 Covid year but increased a record +14.1% the following year when the Covid Vaccine was made available in February 2021. Note that Texas does not have rent controls for multifamily, significantly attracting out-of-state and international investors.

The significant increase in property insurance expense has affected property values. Not only have premiums increased, but some properties have had to resort to having higher deductibles and/or reduced coverage. It is undisputed by market participants that construction costs have increased from previous years due to inflation, although in some instances costs have retreated from Covid high costs. This high construction paired with the elevated cost of debt has made it difficult for projects to break ground. Typically, a stabilized market will see about 13,000 units under construction. The rent surge of 2021 fueled a wave of new construction, but as the apartment market cooled in 2023, construction starts declined while absorption picked up toward the end of 2024. This may improve the market in general, including rental rates and occupancy.

Concessions are generally represented by three types of specials: move-in, months free or floor plan. These specials are prorated over a lease term to arrive at a percentage reduction in market or street rents. The chart below displays the concessions as of December 2024. The chart shows overall concessions and a breakdown by class of property.

Concessions

Class	Total Units offering Concessions	% of Total Units	Citywide Effect	ONLY Properties with Concessions, % Effect of Concessions
All	299,703	39%	-3.0%	-7.1%
A	110,662	53%	-4.5%	-8.4%
B	113,825	38%	-2.3%	-5.9%
C	66,739	32%	-1.9%	-5.9%
D	8,478	15%	-0.9%	-5.4%

Source: MRI - Apartment Data Services, January 2025

Although the market has wavered substantially over the past few years, the long-term drivers supporting Houston's multifamily market remain sound: nation leading population growth, a diversifying economy, and average rents of $1,274/month, which remains below national rates and Sun Belt competitors such as Austin, Atlanta, and Miami. Long-term stakeholders within the Houston multifamily market remain positive in its outlook.

Although it came down marginally earlier in 2024, high mortgage rates paired with higher single-family home prices may continue to shift the housing demand toward the rental market. The Houston Apartment Association has indicated that at the start of 2025, renewal rates were flat, and that new leases have moderately lower market rents.

"Looking ahead, while some deals bought at the pandemic peak with floating-rate loans could face hurdles, delinquency rates remain low, regionally and nationally, and widespread distress is not anticipated over the near term. Long term, buyers generally remain optimistic about the outlook for Houston's multifamily market. As the 4th most populous city in the US, Houston's high growth nature should continue to attract students to its 14 major colleges and universities, young professionals to the energy sector and rapidly growing healthcare and biomedical research sectors, and families due to its relative affordability to DRW and Austin," according to CoStar.

The so-called "Trump Effect" (the expectation of return to positive economic times reflective of the First Term before Covid) may have taken hold with the Dow Jones increasing nearly 2,500 points (+5.9%) in just 14 days from Jan. 10 to 24, 2025. Exponentially developing A.I., technology advancements, Immigration policy adjustment, international geopolitical changes and trade will greatly affect the nation's evolving economy and market. Prospects for the Multifamily market in the Houston area at this early stage of the new political and economic scenario are regarded as one of moderately promising optimism.

THE OFFICE MARKET

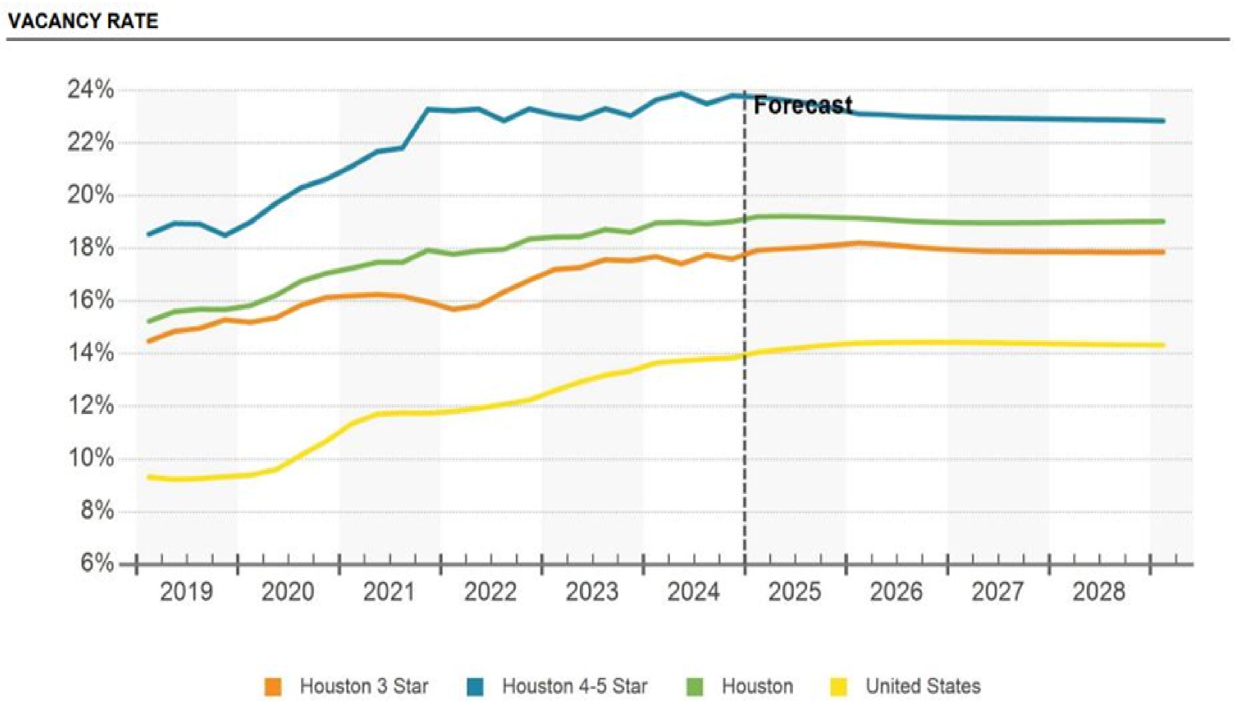
A slowdown in move-outs and new supply, paired with a string of large leases during the first half of 2024 have kept vacancies in Houston's office market stable throughout the year.

Overview

12 Mo Deliveries in SF	12 Mo Net Absorption in SF	Vacancy Rate	Market Asking Rent Growth
1.5M	(988K)	19.3%	1.8%

Vacancy: The vacancy rate as of the first quarter of 2025, remains the nation's second highest behind San Francisco, at 19.3%. This is not a recent trend, however, as Houston has historically carried a high vacancy rate due to overbuilding in the 1980's, and more recently in the mid-2010's, at the height of the shale boom. Office attendance, while below pre-pandemic levels, ranks among the top five in the country across major markets. Houston is less exposed to the tech sector which has adopted workplace arrangements that require less office space.

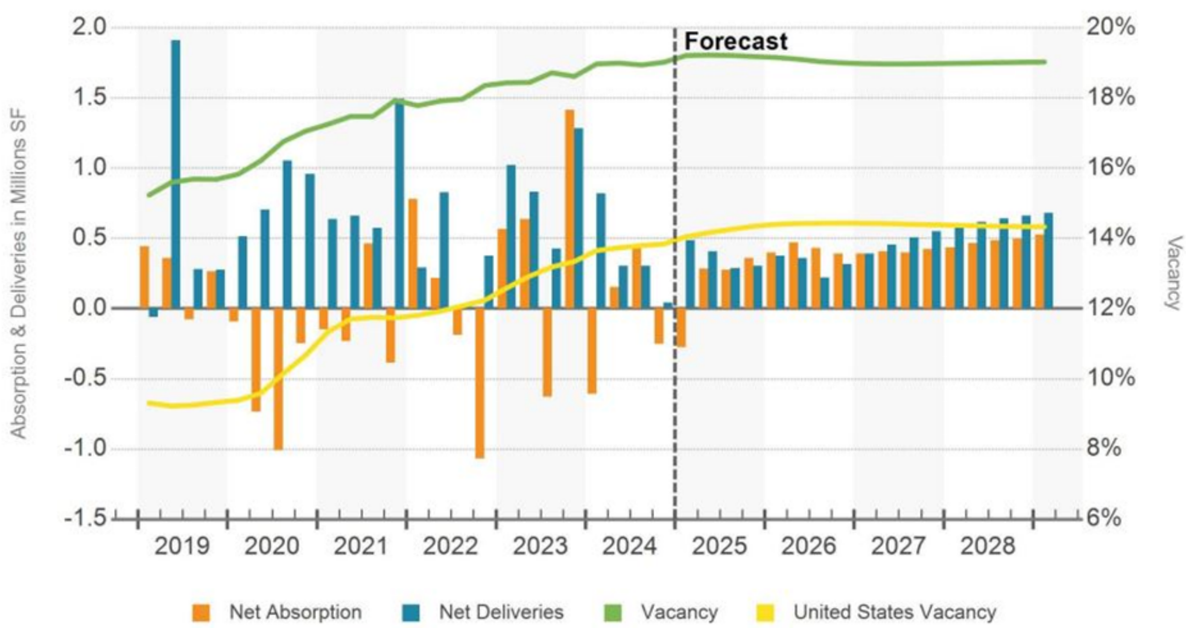
Office-use job growth has slowed but remains above the national average. Also, the pace of downsizing has slowed significantly from the activity in 2023. With plenty of available space, Houston remains a tenant's market aside from high quality amenity rich buildings in mixed use settings. With office attendance stable and office-using job growth slowing, demand conditions are not expected to change meaningfully over the next year or two.



Source: CoStar

Net Absorption & Leasing: While the preference for high-end, quality space and amenities continues, market participants note that the shrinking of office footprint trend has tapered off in Houston and expansions are slowly making their way back. In the 12-month period ending in 24Q3, about 17 million SF was leased, which is above the average from 2015 to 2019 of 15 million SF per year. Still, there are headwinds. Annually, net absorption is at -1.6 million SF, the worst mark since mid-2023. Should office users respond to stable attendance and slow employment growth in office-used sectors by reducing their footprints, vacancies could again expand. While net absorption in the best-quality, 5-Star office buildings, has remained positive since 2020, older properties are struggling to backfill space. Annual absorption in buildings constructed between the 1970's and 1980's, which combined make up half of Houston's office inventory—has been negative since 2015. Though the office sector has shown signs of improvement, a near-term recovery is unlikely.

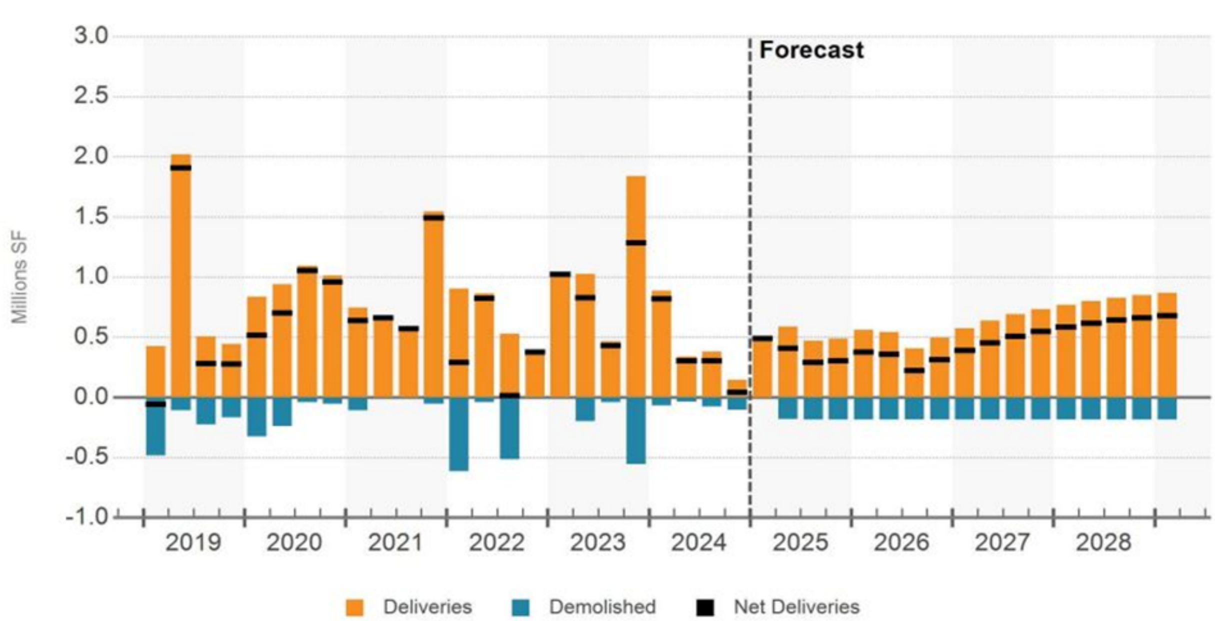
NET ABSORPTION, NET DELIVERIES & VACANCY



Source: CoStar

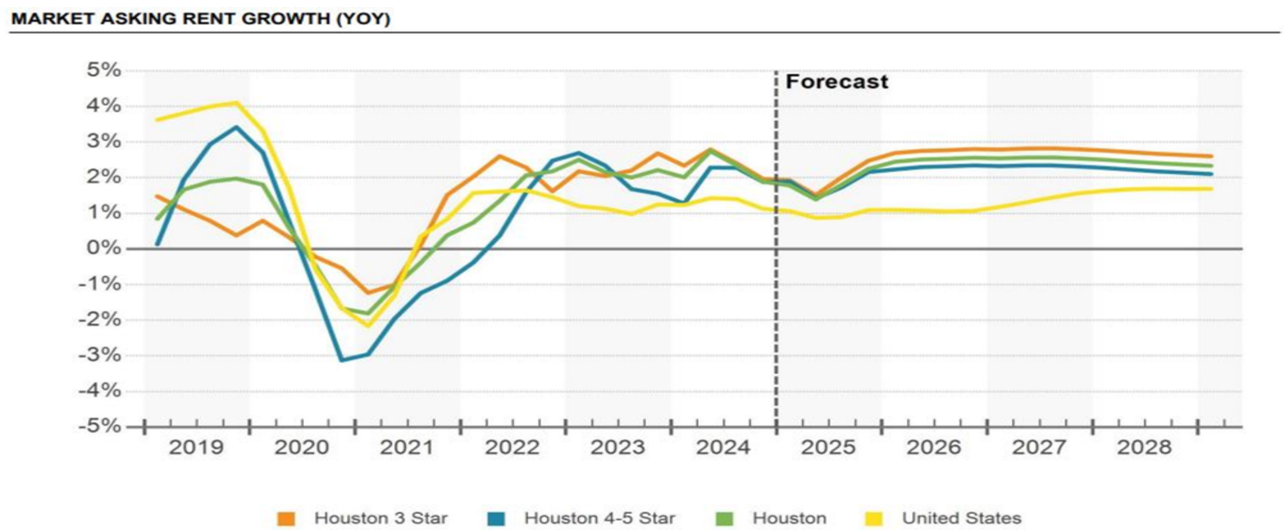
Construction: Under construction, we currently have about 1.5 million sq ft, equal to .4% of Houston's total inventory, significantly less than the 10-year average, of 5.2 million sq ft. Of that space, 80% has been pre-leased. Most of the space is higher tier properties, with investors continuing to bet on the trend of 'flight to quality'. Construction starts are at all-time lows and the new supply in 2025 is projected to be the lowest on record.

DELIVERIES & DEMOLITIONS

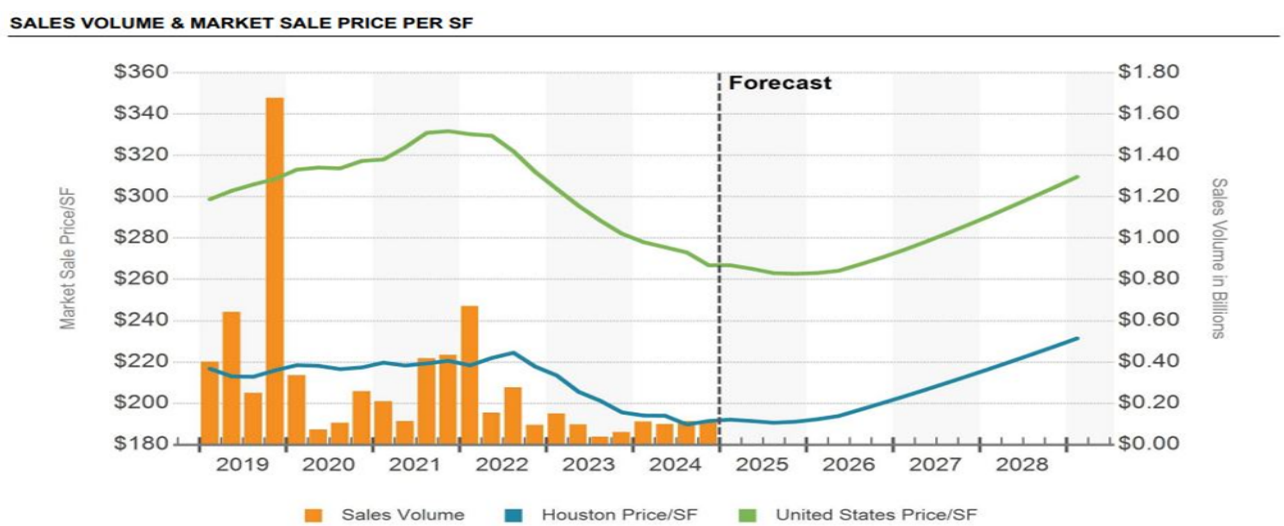


Source: CoStar

Rents: Overall year over year, rents have increased by approximately 1.8%. Rent growth in Houston has held steady in the 1.5%-2% range over the past two years as landlords have preferred to offer generous concession and tenant improvement packages rather than reduce rents. New or recently renovated buildings within mixed-use settings like City Centre and Memorial City are in high demand and offer little concessions. Some buildings have seen rental rate increases of 10%-20% over the past 18-20 months. Outside these pockets of strength, given the significant amount of available space, landlords will unlikely be able to raise rents meaningfully over the near term. Accordingly, rent growth is expected to be below 2% through the foreseeable future.



Sales: Houston's office investment remains suppressed. Disclosed sales volume totaled $325 million during the first three quarters of 2024. This was like last year's mark and near 2009 lows. It was more than 75% below the five-year pre-pandemic average during that same period. The number of deals fell to the slowest first three-quarter period since 2020. Despite the recent rate cuts, sales activity is anticipated to remain tepid in 2025 due to lackluster demand.



Key Office Indicators

Current Quarter	RBA	Vacancy Rate	Market Asking Rent	Availability Rate	Net Absorption SF	Deliveries	Under Construction
4 & 5 Star	147,797,133	24.2%	$37.31	25.5%	(615,992)	40,000	2,026,864
3 Star	163,290,397	17.8%	$26.35	18.0%	(269,006)	24,605	574,878
1 & 2 Star	48,197,998	9.2%	$24.92	10.4%	(22,187)	0	26,200
Market	**359,285,528**	**19.3%**	**$30.70**	**20.1%**	**(907,185)**	**64,605**	**2,627,942**

Annual Trends	12 Month	Historical Average	Forecast Average	Peak	When	Trough	When
Vacancy	0.6% (YOY)	13.6%	19.1%	19.3%	2025 Q1	8.6%	1999 Q1
Net Absorption SF	(988K)	2,581,747	1,451,087	9,806,068	2014 Q2	(3,238,340)	2017 Q3
Deliveries SF	1.5M	5,014,984	2,498,296	13,600,080	2015 Q2	1,247,814	2010 Q4
Market Asking Rent Growth	1.8%	1.7%	2.3%	14.5%	2008 Q1	-6.2%	2010 Q2
Sales Volume	$431M	$1.6B	N/A	$4.9B	2013 Q3	$258.1M	2009 Q4

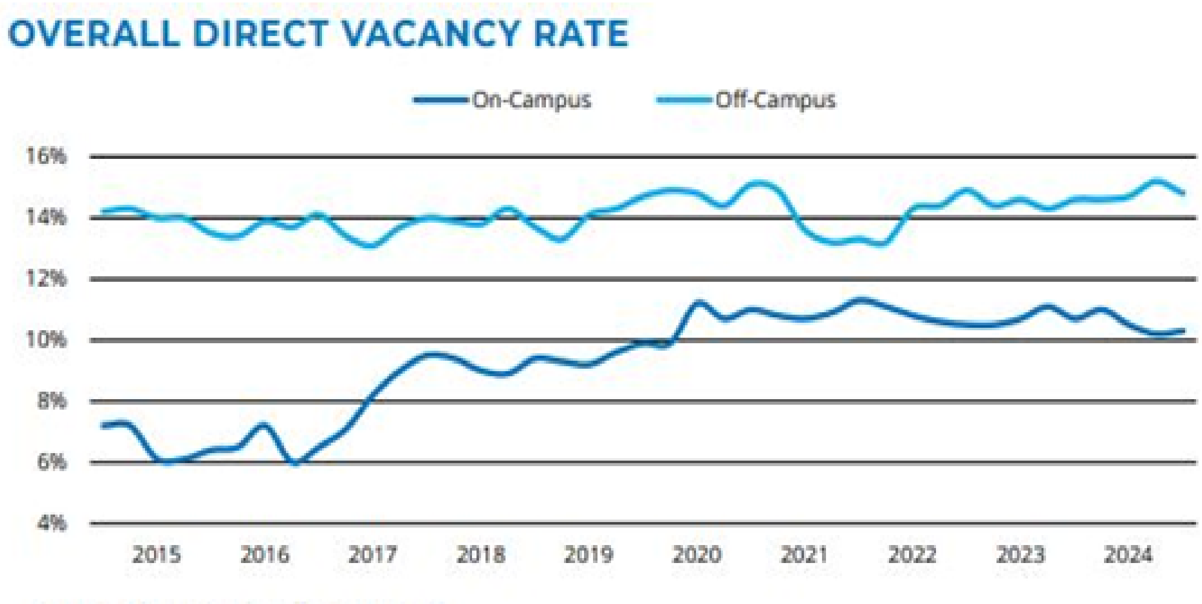
Source: CoStar

MEDICAL OFFICE

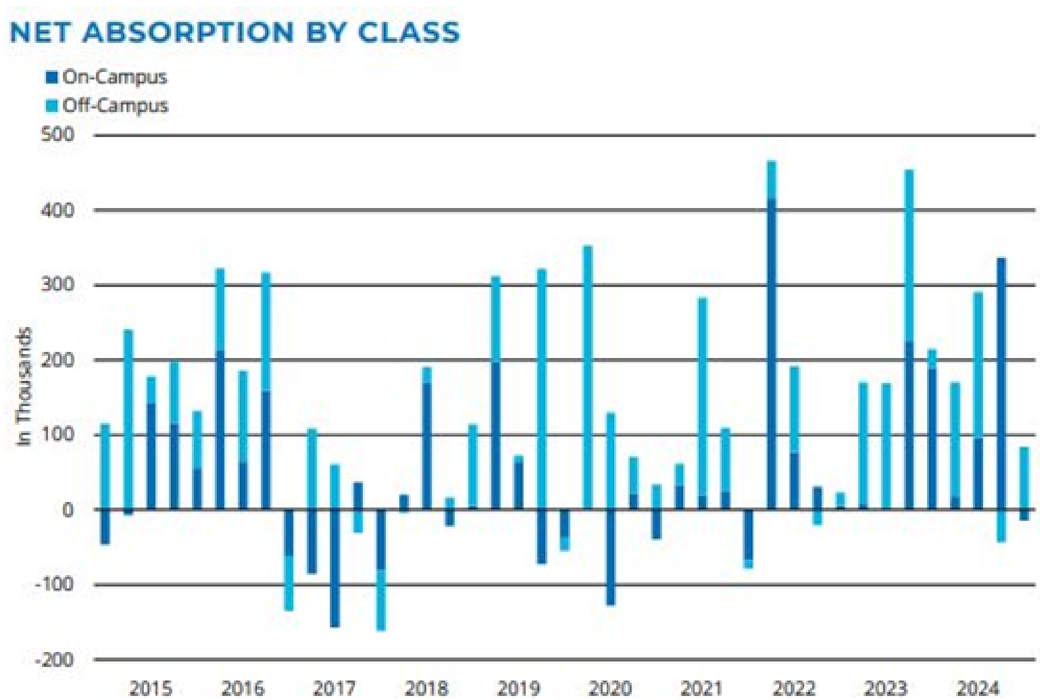
Suppressed requirements for quality space within urban centers coupled with growing patient demand in the suburbs, cuts in interest rates, and stabilizing construction costs incentivize new growth into 2025 for Houston's healthcare sector. Major health systems continue to expand their facilities in both on campus and off campus outpatient settings to accommodate Houston's expanding population and robust job growth.

	Q3 2024	Q3 2023	ONE-YEAR TRAILING	FIVE-YEAR AVERAGE	12-MONTH FORECAST
UNEMPLOYMENT RATE (%)	4.8	4.7	↑	5.5	↑
NET ABSORPTION (Thousands SF)	69.8	214.9	↓	155.5	↑
DIRECT VACANCY RATE (All Space)	12.7%	12.8%	↓	12.7%	←→
TOTAL AVAILABILITY RATE (All Space)	15.2%	16.4%	↓	16.1%	↑
UNDER CONSTRUCTION (MSF)	0.7	1.2	↓	1.0	↑
ASKING RENT, FULL SERVICE (PSF)	$31.40	$30.52	↑	$28.81	↑
SALES VOLUME (Millions)	$84.5	$85.3	↓	$51.9	↑

Vacancy: Vacancy, which has hovered around 12.8 percent since 2022, tightened slightly to 12.7 percent by the end of Q3 2024, with the most notable declines seen in North and Northwest Houston.

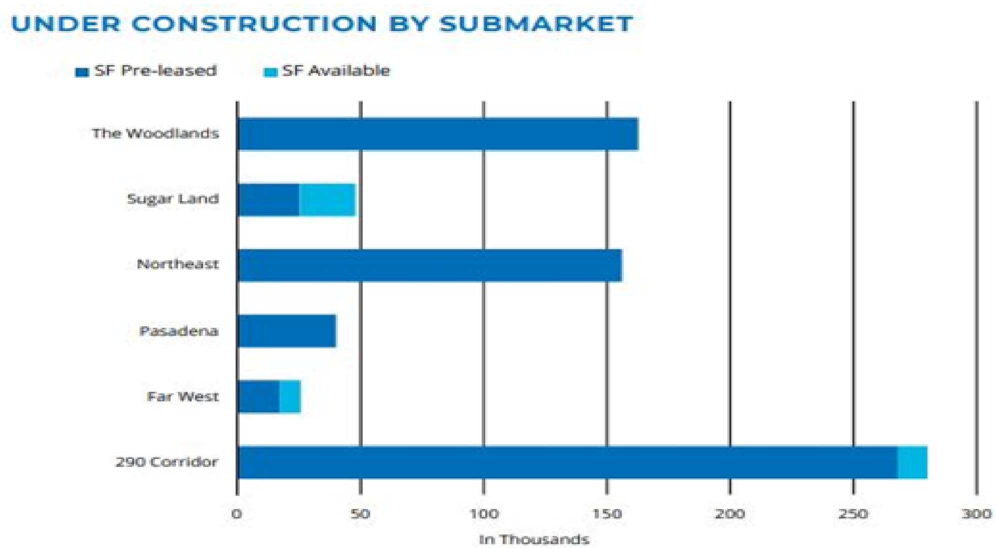


Net Absorption & Leasing: In Q3 2024, Houston's healthcare sector witnessed an overall net absorption of approximately 69,789 square feet, marking the first quarter since Q3 2022 that the metro has seen less than 150,000 square feet of demand, largely because of two market dynamics: tight vacancy, especially in quality buildings, and a dearth of new product being delivered with overall pre-leasing at 94%.

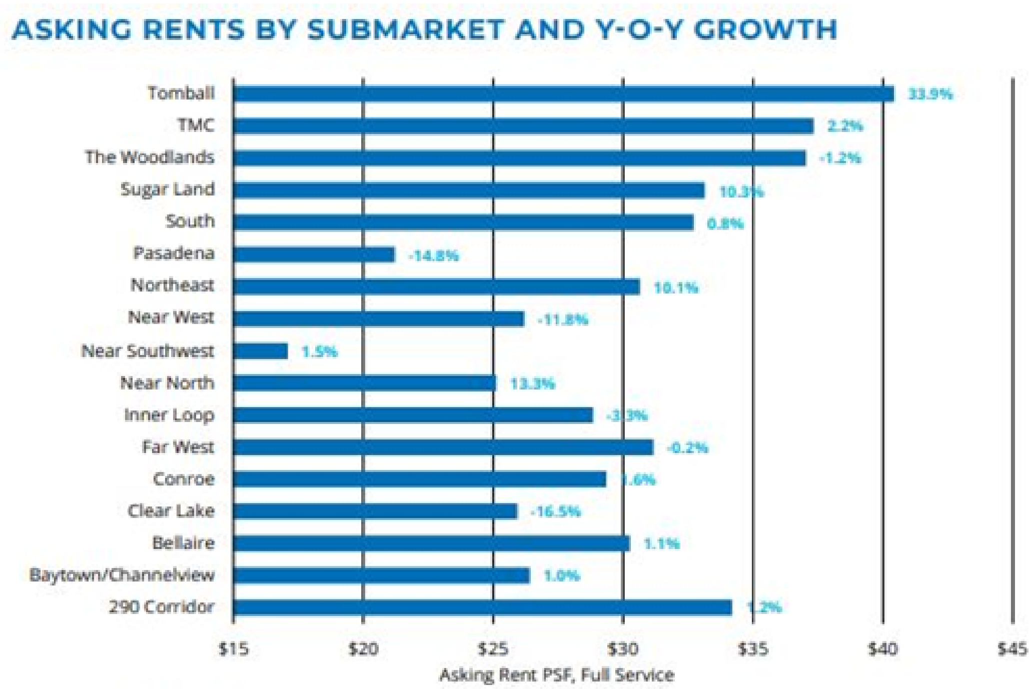


Construction: Houston's medical office construction pipeline grew to 712,473 square feet in Q3, concentrated in the growing suburbs of the metro. While no product delivered, several new projects are underway and multiple health systems announced expansion projects.

The construction pipeline has a pre-lease commitment rate of 94 % with built to suit product for major health systems such as Houston Methodist, Memorial Hermann and Kelsey-Seybold comprising 551,134 square feet or 77.4 percent of projects currently under development.



Rents: Houston's medical office's overall asking rents increased by 2.9 percent from this time last year when average asking full-service rents weighed in at $30.52 PSF/YR as new high-quality product with substantial prelease commitments came online coupled with an overall rise in operating expenses.



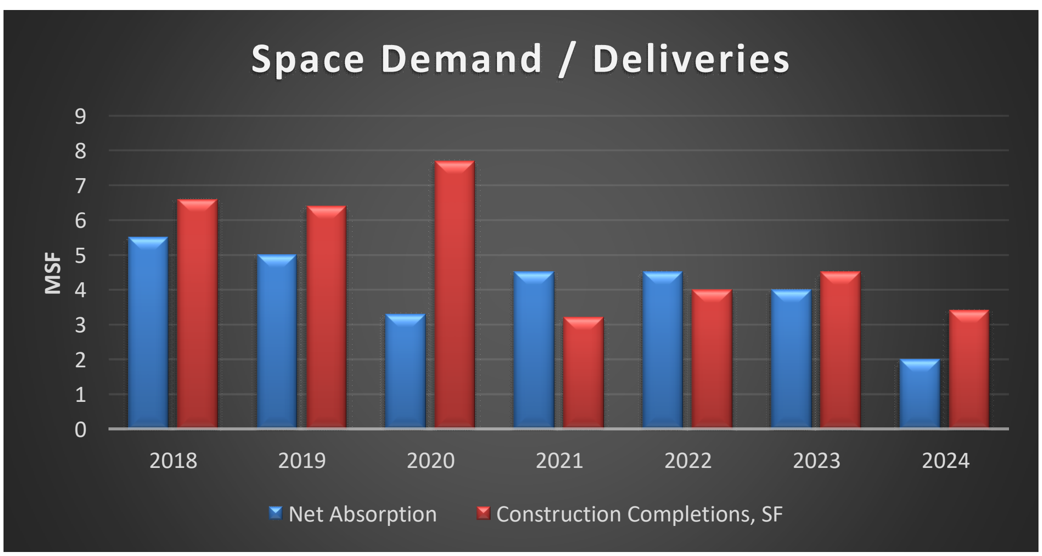
Sales: Healthcare and medical office investors completed four property sales throughout Houston during the third quarter of 2024 with an estimated median acquisition price of $305 per square foot, an increase of $37 per square foot from last quarter and an increase of $28 per square foot from this time last year, according to Real Capital Analytics (RCA).

RETAIL

The Houston retail real estate market ended Q4 2024 with a stable outlook, driven by robust suburban expansion and constrained construction activity. While rental rates grew modestly and vacancy rates held steady, the divergence between suburban and urban market performance became more pronounced. Retailers remained focused on meeting demand in growth corridors, but urban cores grappled with reduced leasing activity and structural challenges.

Net Absorption & Leasing Activity:

Net absorption totaled 201,228 sq. ft. in Q4, with an annual figure of 1.9 million square feet. Despite slowing to the lowest on record, according to some reports, absorption remained positive, reflecting healthy demand in key submarkets (Cushman & Wakefield). Annual leasing activity totaled between 8.3 - 8.7 million sq. ft., which is on par with the past five years averaging 8.4 million square feet. This is largely due to continued momentum in suburban regions in the Far North, Northwest and Far Southwest (Colliers).



Source: Cushman & Wakefield

Historic Comparison

	23 Q4	24Q3	24Q4
Total Inventory (in Millions of SF)	380.4	383.1	383.5
New Supply (in Thousands of SF)	1,161.8	1,002.9	472.3
Net Absorption (in Thousands of SF)	1,356.7	400.9	256.3
Overall Vacancy	5.1%	5.4%	5.4%
Under Construction (in Thousands of SF)	4,356.0	3,212.6	2,982.5
Overall Asking Lease Rates (NNN)	$20.13	$20.64	$20.63

Source: Colliers

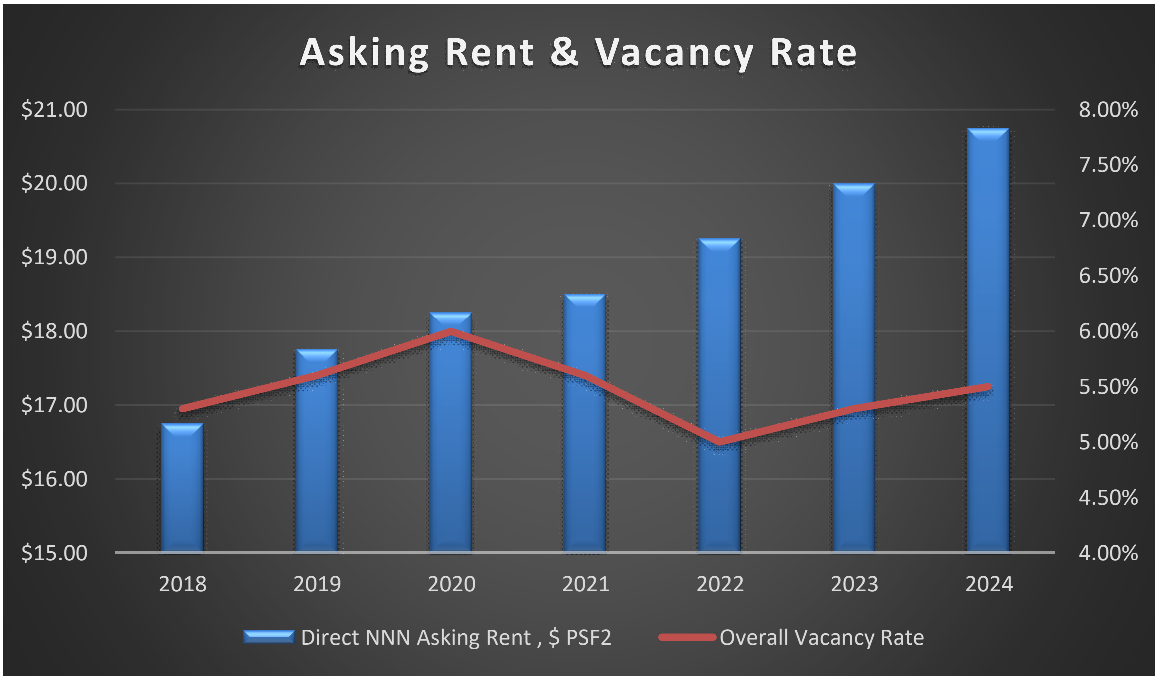
Grocery-anchored centers, fitness users, and quick-service restaurants drove a significant share of leasing activity, however average lease size has been shrinking since 2022, with spaces of 3000sf or smaller accounting for almost 75% of all signings in the past year. (Marcus & Millichap, CoStar).

Vacancy Rates:

Overall vacancy remained stable at 5.4% in Q4 of 2024 about 30 basis points higher than Q4 2023, as a result suburban submarkets maintaining tight conditions. Far North (Q4 5.6%) and Far Southwest (Q4 4.9%) submarkets continue to record vacancy rates below the market average due to strong tenant demand near fast growing residential neighborhoods (Cushman & Wakefield, Colliers). Urban core submarkets such as the CBD and Inner Loop faced increased vacancies due to persistent challenges like lower foot traffic and shifting consumer preferences (Marcus & Millichap, CoStar).

Rental Rates:

Average asking rents rose 3.3% year-over-year, reaching $20.86 per square foot. The Southwest ($21.15/sf) and Far Northwest ($24.11/sf) submarkets saw the highest growth with 19.5% and 21.9% increases respectively. (Cushman & Wakefield) CBD experienced negative growth year-over-year as the area continues to struggle with shifting working arrangements and in turn foot traffic.



Source: Cushman & Wakefield

Due to the high concentration of upscale restaurants, stores, and shopping centers, the highest rents in the metro area are in Uptown/Galleria and Inner Loop River Oaks with more than $50/sf. Over the past decade, these two sub-markets have been the epicenter of an influx of luxury retailers in Houston.

In the near-term retail rent growth is expected to remain flat as the broader economy slows. However, tenants may still face rent increases both during and at the end of their lease terms, as rents have risen by 15% over the past five years (the typical lease duration) and landlords continue to push for annual escalations of around 3%.

Construction Activity

Retail completions totaled 499,502 sq. ft. in Q4, bringing the 2024 total to 2.7 million sq. ft., a 24.6% decrease from the previous year. (Cushman & Wakefield) However, the Houston Metro ended the year with 3.4 million SF in retail space under construction, much of which is expected to be leased before being able to hit the market. (CoStar) High interest rates and construction cost have led to record low groundbreaking in the past few years which has kept the impact of the new supply low given the demand for quality retail space.

Developers prioritized smaller neighborhood and strip centers over larger projects, adapting to demand for localized retail options (Marcus & Millichap).

Smaller projects like pad sites also support higher rent that can support development. Retail development has largely continued to follow the fast-growing exurban submarkets where land is readily available. The North (415k sf) and Far South (928k sf) have among the most space underway.

Much of the Inner Loop development can be found in mixed-use projects such as Autry Park and Regent Square, which are blocks away from each other from the new Allen Parkway, and redevelopment in gentrifying areas. Notably, Midway is redeveloping what will eventually be 60 city blocks, into its East River project. The project will include 1 million SF of new construction including retail, multi-family, office, and restaurant space.

Investment Activity

Retail investment sales totaled $600 million in 2024, slightly above 2023 but 20% below pre-pandemic averages. Cap rates averaged 6.5%, reflecting continued investor caution amid higher borrowing costs (CoStar, Marcus & Millichap). Net-leased properties and grocery-anchored centers remained popular investment targets. Notable deals included the $178 million sale of River Oaks District (Colliers). Private investors dominated the market, accounting for over 85% of transactions, while institutional activity slowed due to tighter financing conditions (Marcus & Millichap).

Outlook for 2025

Developers are expected to proceed cautiously in 2025 due to high construction and financing costs, limiting new supply in the near term. Suburban retail will remain a primary growth area, supported by ongoing population increases and infrastructure improvements. Urban retail recovery will depend on the success of adaptive reuse projects and efforts to increase foot traffic in key districts. Rental growth is projected to stabilize, with a potential uptick in late 2025 as vacancy rates decline and demand strengthen.

HOTELS

The Houston hospitality sector demonstrated resilience in 2024, marked by robust RevPAR growth, strong demand for leisure and group travel, and steady gains in occupancy and ADR. With an occupancy rate of 64.4%, average daily rate (ADR) at $120.94, and (revenue per room) RevPAR increasing by 15.1% year-over-year, Houston's market shows its best performance since the pandemic.

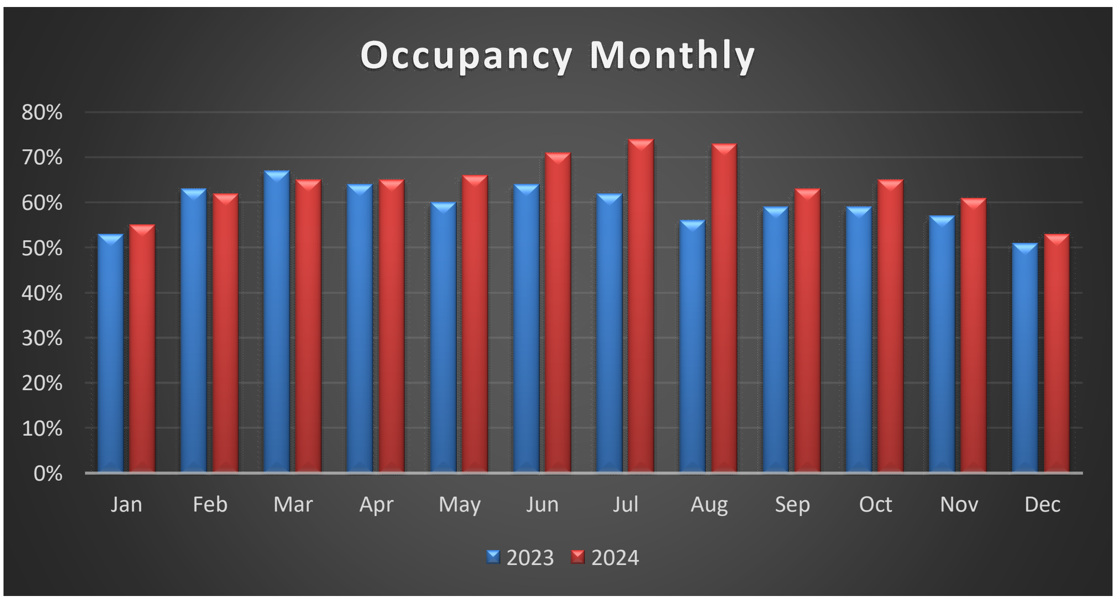
Overview

12 Mo Occupancy	12 Mo ADR	12 Mo RevPAR	12 Mo Supply	12 Mo Demand
64.4%	$120.94	$77.92	39M	25.1M

Occupancy & Demand:

Occupancy rose by 7.7% over the year, with significant weekend leisure and group travel demand contributing to growth. Submarkets like East/Baytown and Hobby Airport/NASA saw the largest RevPAR growth, at 24% and 23% respectively. RevPAR increases were notable across all submarkets, led by Galleria/Greenway Plaza and Katy Freeway West, with year-over-year gains of 10% or more.

While the energy sector remains foundational, Houston benefited from its expanding healthcare, tech, and convention sectors in 2024. Events like the Gaming Con and increased activity at the George R. Brown Convention Center boosted group travel. In addition, performance was lifted substantially between July and September as displaced residents and recovery crews took refuge after the derecho and Hurricane Beryl.

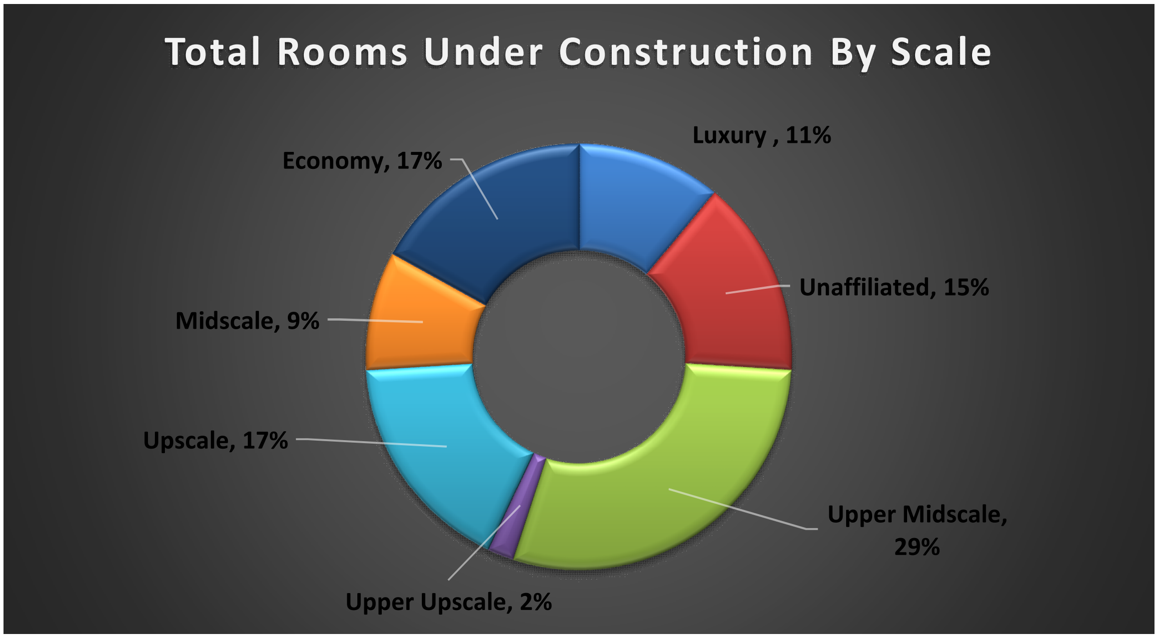


Source: CoStar

Development & Construction

Over 2,000 rooms were delivered in 2024 with 2,400 rooms under construction, primarily in the Galveston-Texas City, CBD, and Hobby Airport-NASA submarkets. A pipeline of 3,800 rooms is in the planning stages for 2025, with mid-tier developments accounting for most new supply.

The Houston CBD, which has historically consisted of mostly upper-tier hotels, will account for 500 new rooms as 5 new mid-tier hotels come online in 2025. Fourteen hundred (1,400) rooms are planned for completion by the end of 2025 with 850 scheduled for opening.



Source: CoStar

Investment Trends

Higher interest rates affected hotel sales activity in 2024; however, the market maintained a steady pace, only dropping from 71 trades in 2023 to 64 in 2024. Institutional buyers accounted for 66% of transactions typically trading on larger branded hotels. For 2025, investors are looking at key areas like George Bush Airport, where terminal expansions are set to be completed, and South-Central Houston, near Rice University's Ion District and the University of Houston, whose arrival in the Big 12 Conference in 2023 boosted stadium attendance by 45%.

WAREHOUSE (INDUSTRIAL) MARKET

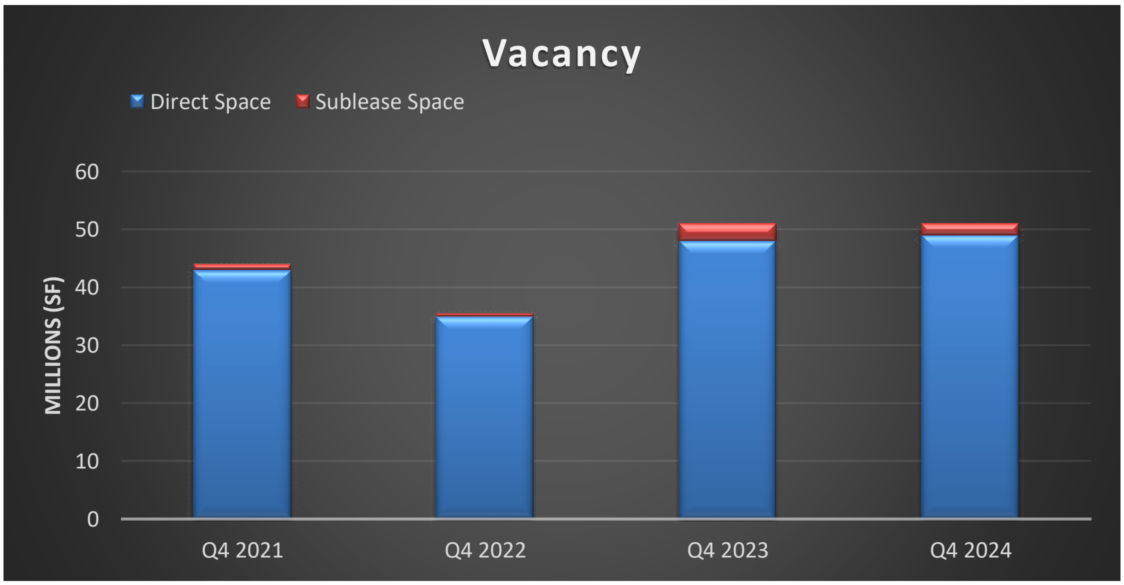
The Houston Industrial Market demonstrated resilience and stability in 2024, despite challenges such as slowing leasing activity and a declining construction pipeline. With strong net absorption, a slight decrease in vacancy rates, and steady rental growth, Houston solidified its position as a key hub for industrial activity.

Q4 2024 net absorption varied across reports but remained positive, ranging from 2.8 million sq. ft. (Transwestern) to 5.0 million sq. ft. (JLL), bringing the annual totals to approximately 19.1 million square feet, just shy of last year's 20.6 million square feet.

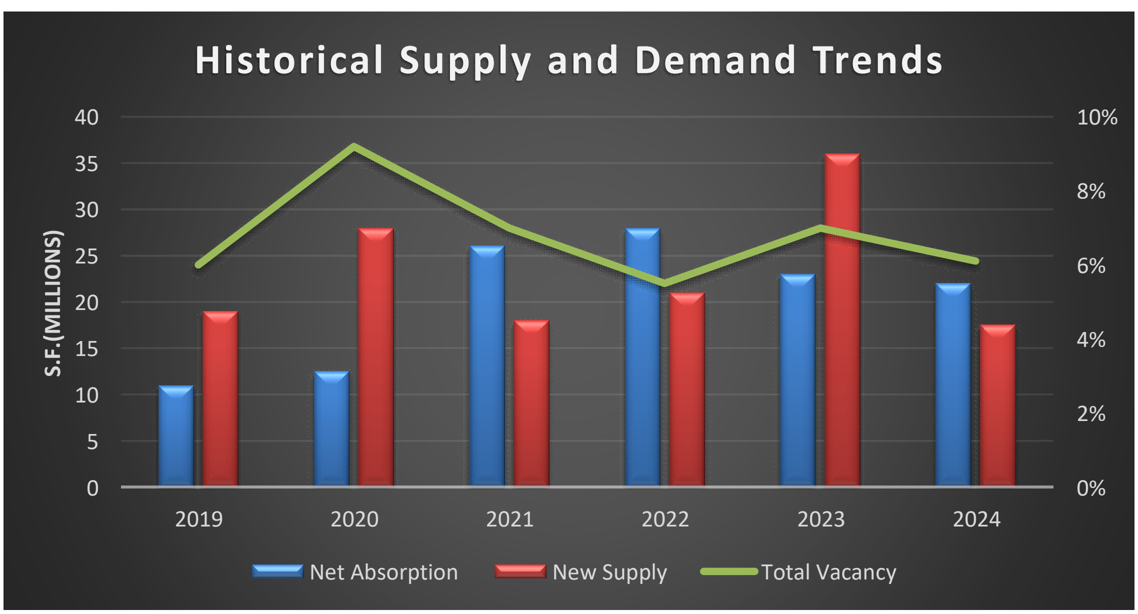
Vacancy rates decreased slightly, ending the year at 6.5% (JLL) or 6.7% (Partners and Colliers), driven by constrained supply and consistent demand. Direct vacancy rates in specific submarkets remained low, particularly for manufacturing and warehouse/distribution spaces at with averages

2.3% and 7.2% respectively. Year-over-year overall vacancy is down by 10-basis points to 6.8%. (Partners)

Lower vacancy rates reflect the slowdown in construction in 2024 that marked the end of a major development wave between 2020 and 2023, where the metro marked 4 consecutive years of record new deliveries. Active construction fell year-over-year, totaling 13.4-16.2 million square feet by the end of Q4. New deliveries also slowed significantly, with Q4 contributions ranging from 2.4 to 2.5 million square feet, approximately a 66% drop from Q4 of 2023 (Partners). Construction starts in 2024 fell to their lowest level since 2017 and are expected to decline further in 2025, as interest rates and construction costs show little sign of a significant decrease.

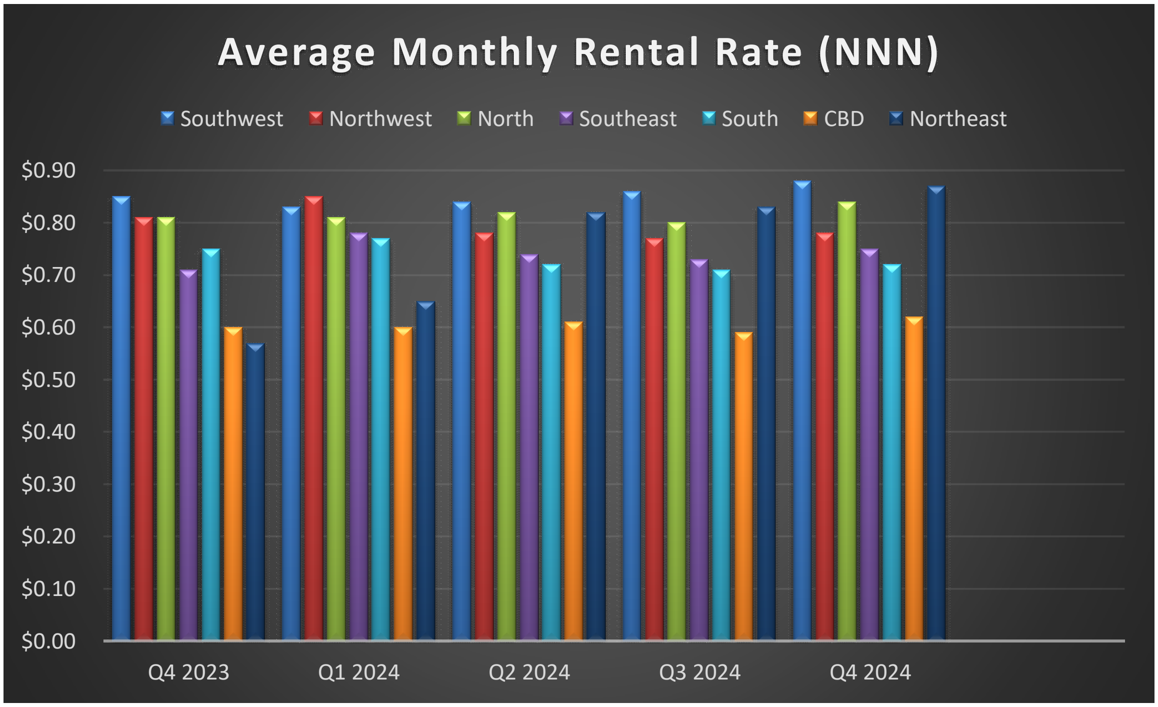


Source: Costar, Partners Research



Source: Jones Lang Lassale

Average asking rents increased slightly (2.6%), reaching $0.79 per sq. ft. monthly, reaching a record high for Houston's industrial sector (Partners). Rent growth was primarily observed in warehouse/distribution and Flex/R&D spaces.



Source: Partners

Investment Activity

Investment sales remained strong, with $724 million in transactions for 719 properties (Partners). Notable deals included the acquisition of Fairway North Logistics Park by KKR and Independence Logistics Park by Stonepeak (Transwestern, Partners). Institutional investors dominated acquisitions, highlighting sustained confidence in Houston's industrial market. Developers are cautiously managing supply to avoid market saturation, with 5.1 million square feet of new deliveries projected in Q1 2025 (Colliers). Houston's role as a global trade and energy hub positions Houston for continued investment and tenant interest.

Summary

While we can't predict the future, we can provide an analysis based on current trends and factors that typically influence commercial real estate markets. Here are some expectations for the Houston commercial real estate market for 2025:

1. **Economic Recovery and Growth:** If the economy continues to rebound from any downturns caused by external factors (like the pandemic), Houston's commercial real estate

market may see growth. The city’s economy, driven by industries like energy, healthcare, and technology, could contribute to increased demand for commercial properties.

2. **Diversification:** Houston's economic diversification efforts may lead to growth in sectors beyond oil and gas, such as technology, life sciences, and renewable energy. This could have a positive impact on commercial real estate, with increased demand for office spaces and industrial properties tailored to these sectors.
3. **Office Space Trends:** The shift towards remote and hybrid work models may continue to influence the office space market. There may be an increased demand for flexible office arrangements and co-working spaces, as companies adjust their real estate strategies to accommodate changing workforce preferences.
4. **Retail Evolution:** The retail sector might continue to adapt to e-commerce trends. While challenges remain, successful retailers that focus on experiential offerings and omnichannel strategies may thrive, leading to a selective recovery in retail spaces.
5. **Industrial Growth:** Demand for industrial real estate, particularly logistics and warehousing, may remain strong due to ongoing growth in e-commerce and supply chain adjustments. Houston’s strategic location and infrastructure support could further boost this sector.
6. **Sustainability and Green Building:** There is likely to be a continued emphasis on sustainability in commercial real estate. Properties that meet green building standards and offer energy-efficient features may see higher demand and potentially command premium rents.
7. **Challenges:** Economic uncertainties, interest rate fluctuations, and potential regulatory changes could pose challenges for the commercial real estate market. Investors may need to navigate these factors carefully to make informed decisions.
8. **Investment Trends:** Investors might continue to explore opportunities in Houston, drawn by potentially favorable returns and the city’s diverse economy. The market may attract both local and out-of-state investors, particularly in strong submarkets.

Overall, the outlook for Houston's commercial real estate market in 2025 will depend on various internal and external factors, including economic conditions, demographic trends, and policy developments. Keeping an eye on market indicators and local economic trends will be crucial for stakeholders looking to make informed decisions.

Commercial Personal Property

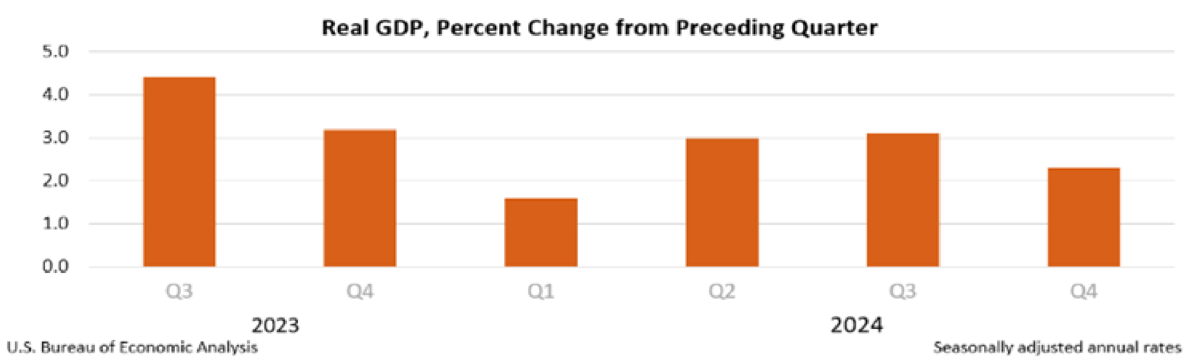
Harris County, a key economic hub in Texas, continues to experience dynamic shifts in business personal property trends driven by broader economic conditions and local market factors. In 2024, sectors such as manufacturing, retail, and energy saw increased investments in business assets, supported by stabilizing demand and pro-business policies. However, financial constraints, supply chain uncertainties, and interest rate fluctuations influenced capital expenditures, leading to cautious investment strategies among businesses.

As we move into 2025, the outlook for business personal property in Houston remains optimistic yet tempered by potential policy shifts and economic headwinds. This report will explore the key factors shaping market trends and their impact on business investments in the region.

This report will identify the correlation between the economic changes in the federal, state, and local government levels and their impact on business personal property.

United States Economic Overview

In 2024, the United States economy demonstrated steady growth, with real GDP increasing by 2.8% for the year. The fourth quarter saw a 2.3% annualized GDP growth rate, reflecting continued expansion but at a slightly slower pace than the third quarter's 3.1%. The deceleration was primarily due to downturns in investment and exports, although consumer and government spending provided counterbalancing strength. Inflation remained relatively moderate, with the personal consumption expenditures (PCE) price index rising by 2.5% for the year and core PCE (excluding food and energy) increasing by 2.8%.



A key driver of economic activity was consumer spending, which remained resilient despite higher interest rates. However, investment slowed in the latter part of the year, impacting sectors that rely heavily on capital expenditures, including business personal property investments. While overall economic conditions remained positive, businesses exercised caution regarding expansion, particularly given uncertainties surrounding trade policies and regulatory shifts following the November election.

Texas Economic Performance

Texas continued its strong economic trajectory in 2024, reinforcing its status as a business-friendly state with pro-growth policies. Under Governor Abbott's leadership, Texas launched initiatives such as the Texas Space Commission and the Governor's Small Business Freedom Council, further stimulating business activity. Texas maintained its position as the Best State for Business for the 20th consecutive year and received multiple awards for economic development, including the Governor's Cup and the Gold Shovel Award.

Despite these positive indicators, job growth in Texas slowed to an annualized rate of 1.6%, down from 2.4% in 2023. The slowdown was particularly evident in the first half of the year, with the second quarter's job growth revised down to just 0.4%. However, hiring rebounded in November, particularly in the manufacturing and retail sectors, supporting business personal property investments in those industries.

A notable trend was the improvement in business outlooks. The Texas Business Outlook Surveys (TBOS) showed increased optimism, particularly after the Federal Reserve's initial policy rate cut in September. Large firms expressed greater confidence in economic conditions than smaller businesses, and industries such as energy-related manufacturing and hospitality experienced significant outlook improvements.

Harris County Business Personal Property Trends

As one of Texas' largest economic hubs, Harris County experienced similar economic trends to the State as a whole. Business investment in personal property showed signs of cautious optimism, influenced by broader economic trends and local factors, such as continued population growth and infrastructure investments.

Retail and manufacturing sectors demonstrated increased business personal property acquisitions in the latter half of the year, benefiting from stabilizing demand expectations. Additionally, energy-related businesses in Harris County gained momentum, partly due to increased oil and gas production and favorable policy expectations under the incoming administration.

However, financial constraints, including slightly declining bank lending, limited aggressive capital expenditures among small businesses. Additionally, uncertainties related to trade policies and interest rates created hesitation in some sectors, moderating the growth of business personal property investments.

2025 Business Personal Property Market Outlook

Looking ahead to 2025, the business personal property market in Harris County is expected to experience moderate growth. The improved business sentiment seen in late 2024 is likely to persist, especially if the new federal administration implements pro-business policies as anticipated by many industry leaders.

Key factors influencing business personal property trends in 2025 include:

- **Economic Growth Moderation**: National GDP growth is projected to slow slightly compared to 2024, aligning with Blue Chip forecasts. However, Texas is likely to outperform the national average due to its business-friendly environment.
- **Continued Investment in Key Sectors**: Manufacturing, energy, and retail sectors are expected to drive demand for business personal property, particularly in Harris County.
- **Interest Rate Uncertainty**: While initial rate cuts by the Federal Reserve in 2024 provided some relief, businesses will monitor long-term interest rate trends closely before making significant capital investments.
- **Government Initiatives**: State and local economic initiatives, such as the Texas Space Commission and pro-business regulatory changes, may provide additional tailwinds for business investment.

The incoming administration's policy agenda includes deregulation and tax cuts, which businesses generally favor. However, potential risks in 2025 stem from proposed tariff increases, stricter immigration policies, and reductions in government spending. These could disrupt supply chains, increase costs for manufacturing, retail, and hospitality sectors, and limit workforce availability, particularly in agriculture, construction, and food production. Additionally, cuts to public services could negatively impact industries reliant on government contracts.

Impact on Business Personal Property Market Trends in Harris County, Texas

Harris County, home to a diverse economy with strong industrial, retail, and hospitality sectors, could see shifts in its business personal property market due to these policy changes.

1. **Increased Costs & Uncertainty:** Tariff hikes could raise costs for businesses reliant on imported goods, leading to lower capital expenditure on equipment, machinery, and inventory—key components of business personal property valuation.
2. **Slowdown in Expansion & Investment:** Concerns over supply chain stability and labor shortages may lead to delayed or canceled expansion plans, reducing new business asset purchases.
3. **Real Estate & Construction Impact:** A shortage of construction workers and higher raw material costs could slow commercial property development, affecting demand for business-related assets in the county.

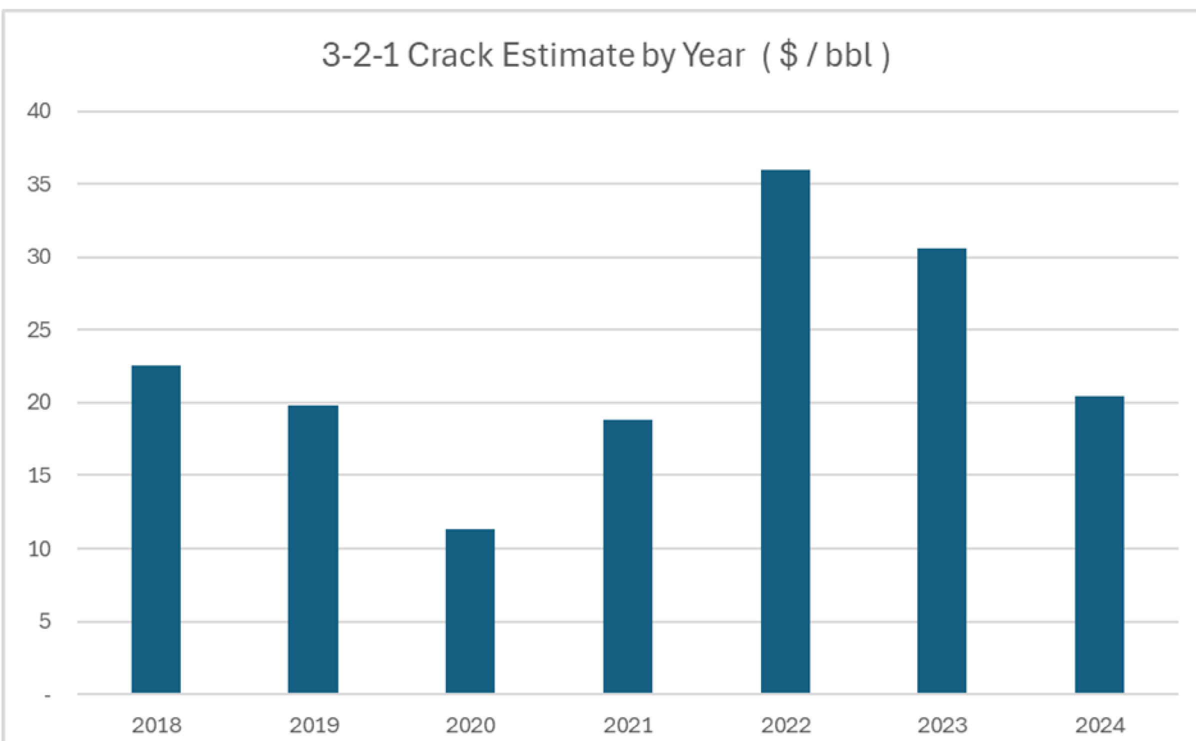
4. **Sector-Specific Risks:** Industries like manufacturing, retail, and hospitality—significant in Harris County—may face operational challenges, reducing investment in business assets and potentially impacting tax revenues linked to business personal property.

Overall, while deregulation may provide some relief, trade policy and immigration shifts could introduce financial strain, causing businesses to be more cautious in their investments and potentially affecting the growth trajectory of the business personal property market in Harris County.

Refineries

Since their peak in 2022, refining margins have been falling back toward pre-pandemic levels and now lie somewhere around the 2018-2019 historical level. New capacity has come online in the U.S. and around the world serving to enhance competition for transportation fuels. In addition, other macroeconomic factors contributing to the margin decline include rising average vehicle fuel mileage, workers not commuting 5 days per week, and some softening in the general economy. On the first trading day of 2025, the price of West Texas Intermediate (WTI) crude oil was about $73.79 per barrel compared to last year at $70.62 (NYMEX; first trading day 2024).

The Gulf Coast refinery's average annual capacity utilization, as defined by the Department of Energy, for 2024 was 90.6 percent compared to 90.8 percent in 2023.



Data source: U.S. Energy Information Administration, online, data through November 2024

The graphic above shows a historical refining margin proxy using a 3-2-1 crack spread as an estimate of earnings and highlights the magnitude of the 2022 and 2023 markets relative to the COVID year (2020) and pre-pandemic. For 2024, margins are now back in the realm of where they were pre-COVID. Last year represented about a 30% decline in margins. The decline has also been highlighted in multiple refiner earnings calls.

Refiner margins will be site-specific depending on configuration, crude diet, and utilization, but in general, it was a big decline from the previous year for the segment. The U.S. EIA anticipates that '24 margins will remain mostly flat through 2025 even with a decrease in production. This year LyondellBasell entity, Houston Refining, will cease production by the 3rd quarter removing about 264,000 barrels per capacity, and Phillips 66 announced that it will shut down 138,700 barrels per day at its Los Angeles refinery.

The price of D6, or ethanol-based, RINs (Renewable Identification Numbers; the renewable fuels trading/compliance mechanism) fell 56% on average for 2024 versus 2023. Diesel RINs (D4) costs were also down 56% in 2024 compared to 2023. In late 2023 and early 2024, an over-supply of biomass-based diesel (with numerous companies producing) has been responsible for the large decline in RIN prices. There were no sale transactions for U.S.-based refineries in 2024.

Chemicals

We have made it to the halfway point in the decade of the 2020s and it's been a very tumultuous ride for most of us. Each year of the decade has had a substantial direct impact on the American public. The decade opened with a worldwide pandemic (COVID-19) in 2020 that caused us all to go home, throwing our travel-based economy spinning. If people aren't driving, is oil worth anything? It only lasted a few hours, but that question was monumental when oil prices went negative for the first time in history. Moving on to the next year, we had a statewide shutdown due to winter storm Uri for 2021. Travel was less restrictive in 2021, and we did get a vaccine that calmed the masses, but the economy struggled from the losses in 2020. Finally, we reached 2022 and things appeared to be getting better… then the Ukraine/Russia conflict began in Feb 2022. Suddenly Europe stopped buying Russian oil and other goods which led to higher demand for other countries such as the Middle East and USA. The inflated prices were good for our economy and helped to jumpstart us out of the Covid slump. The economy appeared to be on a stable recovery from Covid going into 2024, but it was an election year and that always causes unrest in the markets as investors try to guess what will happen next. The results of the 2024 election have led us to where we are now in 2025 with each day carrying stories of new developments within our US government: stories about everything from immigration to tariffs on goods.

To say the least, the 2020 decade has been a wild ride that has had the industry reeling. The weather events alone have been a rollercoaster ride. The Gulf Coast finally had a handle on how to handle a hurricane that was heading right for you, but then we were blindsided by freezes that caused power failures and burst pipes. It's been a time of tremendous downturn and recovery both economically and weather. Fortunately, it has also been a time of tremendous investment and growth in the Gulf Coast. This growth has been good for Texas long-term, but the US markets are mature, and these growth projects are aimed at exports to other countries. Those investments have oversupplied the world economy and led to depressed pricing based on the current world demand. In addition, the US chemicals industry is facing stiff competition with China's infrastructure investments. How long this economic trough will last is anyone's guess, but it is causing Europe to shut down roughly 4 billion pounds per year of ethylene production. Anything can happen to sway public opinion and cause markets to become more or less appealing. Russia's invasion caused their products to be considered toxic in 1st world markets. It remains to be seen how some of the proposed tariffs will impact the global response to US exports.

Domestically the chemicals industry is heavily dependent on auto manufacturing and home building and, as the economy goes, so goes the chemical industry. GDP is up 2.8% for 2024 and expectations are that it should be up in 2025. In 2023 the Fed was concerned about a potential recession and to try and counteract heavy inflation in the market increased the interest rate from 0.25% to 5.5% between March and July of 2023. Inflation appears to have been curtailed, and the Fed has lowered the interest rate to 4.5%, which is still high above the 0.25% rate a few years ago. Expectations are that the Fed will ease up and lower interest rates in 2025, but the Fed is cautious to adjust the rates due to US tariffs and will likely wait a while before making any moves.

Housing starts peaked in 2021 and were down about 14.7% from 2021 to 2024, year-on-year starts were only down 3.8%. Starts continued to build along with the economy coming out of Covid until the Federal Reserve began its crusade against inflation. However, vehicle sales have increased, selling nearly 16.0 million units in 2024. This was a 2% increase, beating out the modest expectations of a 1% increase in 2024, but still well below pre-pandemic sales of 17 million units.

Texas has been blessed with an abundance of oil and natural gas fields that continue to be developed. West Texas has been the most recent boom area with massive volumes of gas and natural gas liquids (NGLs). The glut of natural gas that has been in place since 2008 has caused a tremendous amount of new construction to process the gas and the natural gas liquids have been piped to the Texas Gulf Coast to be fractionated into Ethanes, Propanes, Butanes, and heavier components which can be sold domestically or liquified (LNGs) for exports. A new pipeline and potentially new fractionators are slated to be built between West Texas and Corpus for an outlet of NGLs outside of the current major hub of Mont Belvieu, Texas.

Many companies have begun exporting natural gas through LNG liquefaction terminals. Expansion of existing facilities and construction of new projects is ongoing with natural gas going out to the world market. Natural gas prices have been relatively stable in 2024 and are expected to be cheaper than other markets in the world, making US LNG desirable for exports. Prices are expected to stay steadily low until the next weather event, war, pandemic or other world-changing event occurs.

The economics of the large commodities chemical units built on the Gulf Coast started strong but hit some substantial headwinds in 2022 and continued through 2024. Increased raw material costs from natural gas derivatives along with an increase in global capacity over the last 5 years put a heavy squeeze on margins. Operation rates for olefin units have decreased by 1.9% for the year. Altogether this industry appears to have peaked in 2015 for the current 5–15-year cycle and is not likely to get to those levels again for a while.

Chemical-related inventory volumes are likely to be down on 1/1/2025. Many plants are trying to control their inventory as much as they can without creating new supply chain issues. Values on older facilities will likely have a slight decrease for 2025, but the newer facilities are still depreciating heavier than the established plants. Specialty chemicals may be up or down depending on the products.

Utilities

NATURAL GAS DISTRIBUTION

Natural Gas Distribution utility companies are always requesting that regulators allow them higher returns (through the rates they are allowed to charge their customers) to pay for the cost of expansion when needed, repair storm damage at times, and maintain reliable service overall. However, the main goal of regulators is to make sure gas distribution companies remain operational while keeping service costs as low as possible, in return for the monopoly power given to these companies over designated service areas. Because both revenues and expenses tend to be held in line with this process, the values of property owned by these natural gas distribution businesses tend to be rather stable. Other factors that augur well for continued healthy future demand for utility services are: a) the nation's population appears to be on a steady upward growth course; b) limited practical alternatives exist for consumers seeking a steady supply of natural gas; and c) natural gas supplies in this country are abundant thanks to proficient drilling and extraction technologies. Unseasonably warm or cold weather (eg: Winter Storm Uri in Feb. 2021) can always cause substantial volatility in quarterly operating results; however, companies strive to counteract this exposure through long-term oriented temperature-adjusted rate mechanisms.

For 2025, the market values of the companies in this sector should remain stable if not improve slightly, due to a continued increase in customer base in their operational areas and higher rate cases being approved in certain service areas. Natural gas prices have exhibited strength in the last quarter of 2024, with a driving force being the colder-than-usual winter weather. Although that scenario augurs well for the financial performance of companies that produce this commodity, regulated utility units are at a disadvantage. That's partially because increased gas pricing tends to lead to higher bills for customers, made worse by the fact that prices for other living expenses, including groceries and child-related costs, remain at troublesome levels. Consequently, there may be an increase in bad debt expenses for companies in this category in the coming months. It's worth noting that, from a historical perspective, current natural gas prices are still nowhere near the heights that were reached in the early 2000s. Moreover, there is an increased possibility that homeowners will convert from alternative fuel sources, such as propane or oil, to natural gas. (At present, it's estimated that over half of all households in this country use natural gas.) The market is optimistic, in general, about the sector's operating performance over the long term. Natural gas ought to remain an abundant resource in the United States, so a shortage does not seem probable anytime soon; however, there are some risks to keep in mind. There are no guarantees that petitions for rate hikes will be accepted or that certain favorable provisions (such as temperature-adjusted rate mechanisms) will continue indefinitely. To further complicate matters, an economic slowdown might prompt customers to conserve natural gas and push up bad debt expenses. Lastly, operational difficulties created by leaks and other unfortunate events may result in huge financial losses if not sufficiently covered by insurance.

TELECOMMUNICATIONS

Within the telecommunications industry, while the pace of inflation has slowed, the rate of the slowdown is much less than expected. This has resulted in inflation remaining higher than the target, producing continued margin pressure. At the same time, consumer pricing is continuing to be exposed to discounting as many companies compete for new customers via deals or discounts. In addition, there has now been a general pullback on capital spending across the telecommunications industry. Capital spending was high until recently as many companies aggressively worked to increase the speed and reliability of their networks for competitive purposes. However, the previous capital spending appears to have been less profitable than expected as companies have chosen to spend their high levels of cash flow in other areas. For example, T-Mobile cut its capital spending for 2024 to its lowest level in years and is using its current cash flow for share buybacks. However, T-Mobile is also standing out from the industry by being on pace to break last year's record financial results by another 38%. Furthermore, continuing high interest rates are resulting in additional margin pressure. This appears to disproportionately affect the smaller regional carriers. In conclusion, the lower capital spending will take some time, but should lead to higher capacity utilization, increased incentives to raise prices, and thus, higher margins. This suggests that the Telecommunications Industry is near the bottom of this long period of stagnant results.

Increased government spending continued in 2024, with round three funding of $1.667 billion from the National Telecommunications and Information Administration (NTIA) and the fifth round of $350 million of funding for the Rural Development Broadband ReConnect Program from the USDA both announced.

Merger and acquisition (M&A) activity is slowing but continues to be a feature of the telecommunications industry. Similar to the shift away from capital spending, companies are also reducing their spending on mergers and acquisitions, but it remains a strong factor. For example, Vodafone, which has recently sold, or has agreed to sell, has assets valued at over half of its $29 billion market capitalization with much of the proceeds expected to go to share repurchases and debt reduction. In another deal, T-Mobile agreed in May to buy U.S. Cellular's wireless operations for $4.4 billion.

For the traditional portion of Telephone Utilities, the number of phone lines in the United States continues to decrease. However, the copper line business percentage appears to have reached a small enough amount to cause a low to no noticeable impact on the overall picture. In addition, in May of 2024, AT&T combined all of its previously unit-allocated assets belonging to AT&T and SWBT into one internal company called AT&T Wireline Holdings, LLC.

CABLE TV

The Cable TV Group stocks rallied with the broader markets following the November 5th re-election of Donald J. Trump to the highest office in the land. In the four trading sessions immediately after Mr. Trump's victory, the seven names within our pay-tv group rose an average of 3.6%, roughly in line with the benchmark S&P 500 Index's advance. Like other industries, the Cable group stands to benefit from what promises to be a more business-friendly administration that is likely to prioritize cutting corporate taxes and removing taxes on stock buybacks. Charter Communications, the country's second-largest broadband provider and a good proxy for the Cable group as a whole, suffered modest subscriber losses. The losses were less than those estimated for the mid-year expiration of a $30-a-month federal subsidy that helped low-income households better afford broadband service. However, the new, affordably priced, service offers could result in slimmer profit margins. In conclusion, this group still faces competition from inexpensive streaming services and the fixed wireless and fiber-optic expansions on the broadband side.

ELECTRIC POWER

The EIA, in their January 2025 Short-Term Energy Outlook, reports that electricity consumption grew by 2% in the United States in 2024 after almost two decades of mostly static growth. Furthermore, they predict that the reported consumption increase will continue for the next two years, based on the expected growing power demand from the commercial and industrial sectors. However, they also note that demand could additionally be significantly affected by weather. In addition, solar power continued to comprise the majority of the increase in US power generation. It is expected to produce 26 gigawatts (GW) of new solar capacity in 2025 and 22 GW in 2026. This will support the increase of US solar generation by 34% in 2025 and 17% in 2026. Furthermore, it is expected that rising renewable generation will result in a 3% decline in natural gas generation in 2025 and an additional 1% decrease in 2026. Generation from coal-fired plants is predicted to fall by 1% in 2025 and then increase slightly in 2026 as coal generators become more competitive with natural gas generators, which are expected to see rising fuel costs.

ERCOT's August 2024 maximum peak demand was 85,199 MW on 8/20/2024. This was 309 MW less than the new all-time maximum peak demand record for ERCOT in August 2023 of 85,508

MW for the system on 8/10/2023. In addition, ERCOT set a new record of 60,170 MW for November on 11/4/2024, which was 3,635 MW more than the November 2023 demand of 56,535 MW. Approximately half of the supply of 49,268 GWh in August 2024 is generated using gas, with the balance provided by coal, wind, solar, and nuclear. There continue to be, by far, the most planned solar and battery installations in the next 7 years. Currently, ERCOT is tracking 1,886 active generation interconnection requests totaling 371,313 MW as of 8/31/2024. This includes 154,770 MW of solar, 33,853 MW of wind, 154,799 MW of battery storage, and 25,328 MW of gas projects. There were endorsed transmission projects totaling $2.817 billion in 2024 as of August 31, 2024. Finally, there were approximately $2.160 billion transmission projects energized in 2024 as of June 1, 2024.

The U.S. Department of the Treasury released the final rules for the technology-neutral clean electricity credits on January 7, 2025. The existing Production Tax Credit (PTC) and Investment Tax Credit will be available to projects that began construction before 2025. Qualifying projects placed in service after December 31, 2024, will be eligible for the new Clean Electricity Credits. The National Labs are currently analyzing the lifecycle emissions of electricity production using certain biomass technologies, based on the requirements in the final rules. The Treasury will provide additional clarity for taxpayers when the analysis is complete.

UNDERGROUND STORAGE

Natural gas–a colorless, odorless, gaseous hydrocarbon–as well as liquid hydrocarbons, may be stored in several different ways. These commodities are commonly held as inventory underground under pressure in three types of facilities:

- depleted reservoirs in oil and/or natural gas fields;
- salt dome caverns or salt formations; and
- aquifers.

Harris County currently has underground storage facilities operating in two depleted gas reservoirs (Bammel and West Clear Lake) and in several caverns within a salt dome (Pierce Junction).

Each storage type has its physical characteristics (porosity, permeability, retention capability) and economics (site preparation and maintenance costs, deliverability rates, and cycling capability), which govern its suitability for particular applications. Two key characteristics of underground storage facilities that drive market value are the capacity to hold natural gas or liquids for future use and deliverability, the rate at which the inventory can be withdrawn from the facility. Injection is the opposite of deliverability and is assumed to be commensurate in scope.

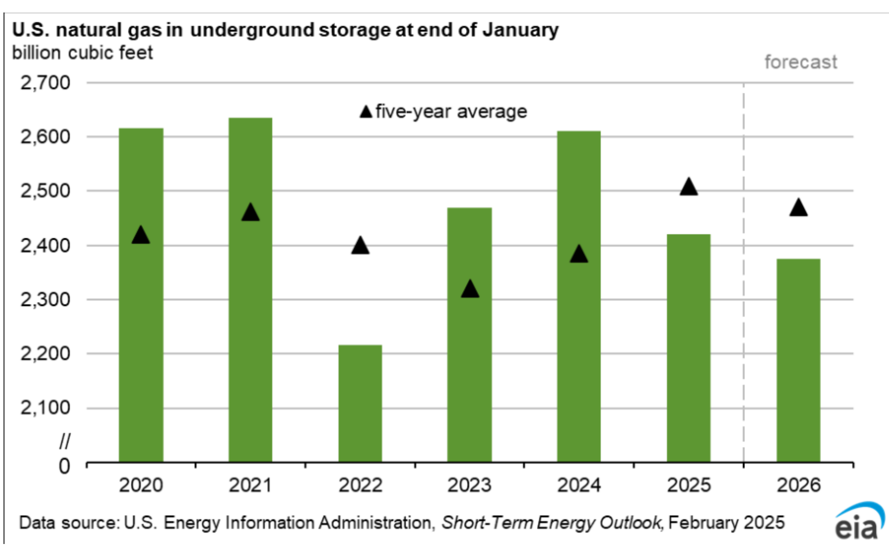
The principal owners/operators of underground storage facilities are interstate pipeline companies, intrastate pipeline companies, local distribution companies (LDCs), and independent storage service providers. If a storage facility serves interstate commerce as a transmission utility business, it is subject to the jurisdiction of the Federal Energy Regulatory Commission (FERC); otherwise, it is state regulated. Most working gas (the volumes that are injected into and withdrawn from the storage facilities) is held under lease with shippers, LDCs, or end users who own the gas. In the case of salt dome caverns, storage usage is not generally associated with regulated utility operations.

Underground gas storage serves a variety of purposes. Pipeline companies, both interstate and intrastate, rely heavily on underground storage to facilitate load balancing and system supply management on their long-haul transmission lines. Local gas distribution companies generally use underground storage exclusively to serve various customer needs directly. Independent storage service providers build and own underground storage facilities to almost exclusively serve third-party customers like marketers and electricity generators on an "open access" basis.

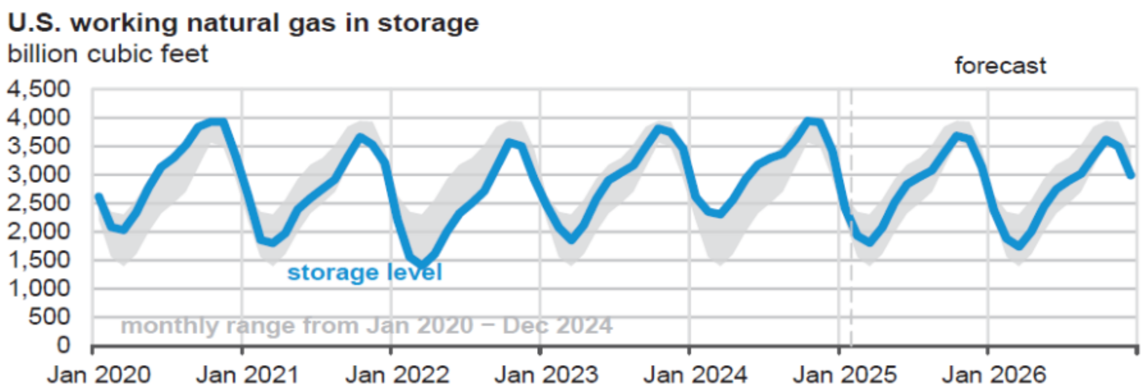
The storage operations in Pierce Junction Salt Dome revolve around the storage of "purity" natural gas liquids (propane, butane, etc.), derivative liquid products of ethane and propane (ethylene, polypropylene, etc.), and crude oil. These products are both internally and commercially held by salt dome cavern operators.

The value of underground gas storage in Texas has the potential to increase as the population here keeps growing and the associated need for electricity ramps up, especially if gas production itself doesn't commensurately increase and renewable sources of energy (wind, solar, commercial battery storage, etc.) can't reliably fill the breach.

Per the U.S. Energy Information Administration (EIA) in their February 2025 *Short-Term Energy Outlook* (STEO) report, U.S. natural gas storage inventories at the end of January totaled 2,421 Bcf, or 4% less than the five-year average. Because of increased consumption and relatively flat production expected in the remainder of the first quarter of 2025, EIA forecasts natural gas inventories at the end of the withdrawal season on March 31 to be 4% below the five-year average. EIA expects this slightly depressed storage level to continue into 2026.



Storage and consumption of natural gas is methodically cyclical. The graphic below from EIA's February 2025 STEO report shows how storage and withdrawal periods happen in a predictable pattern:

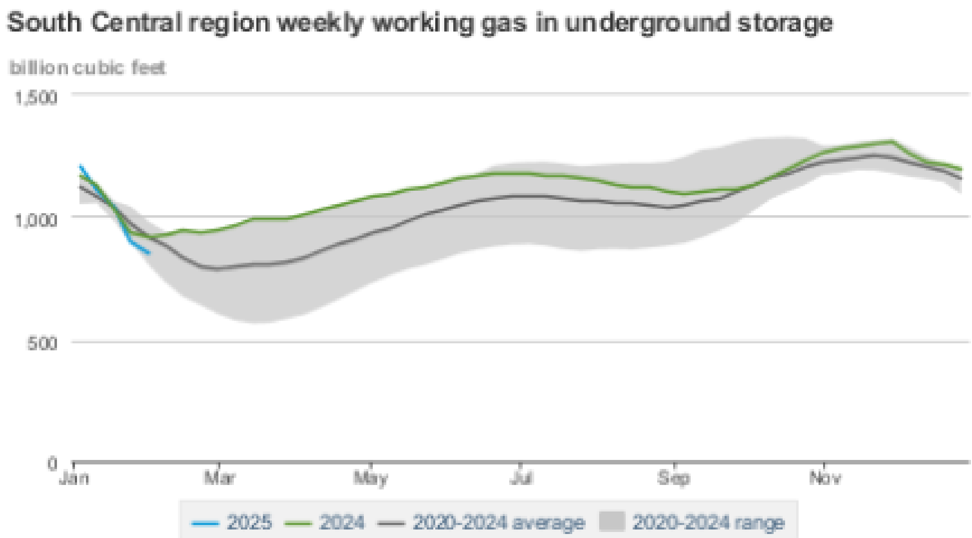


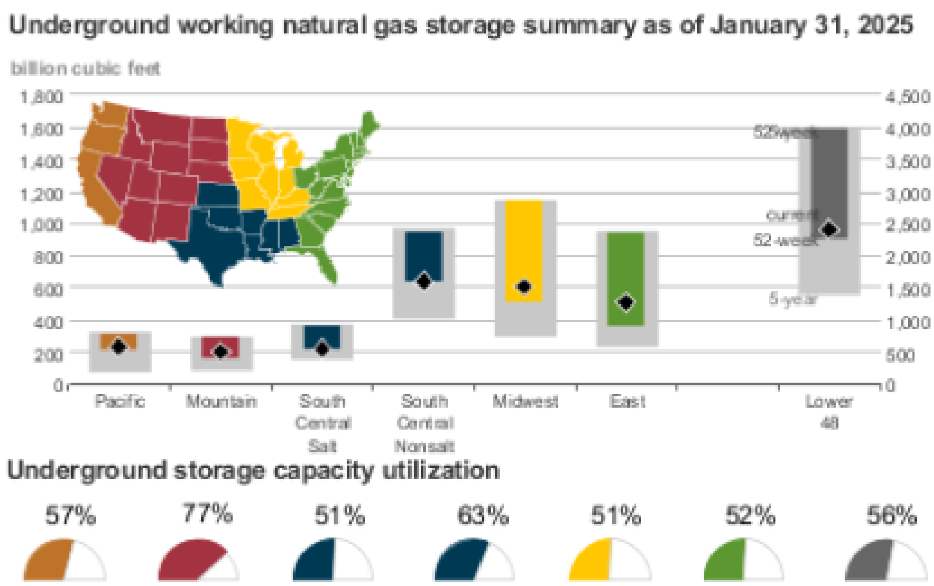
Per this February STEO report, natural gas will continue to be a dominant source of U.S. electricity generation through 2024. However, as the share of U.S. generation from solar grows from 5% in 2024 to 8% in 2026 because of an expected 45% increase in the amount of solar generating capacity between 2024 and 2026, EIA expects the share of U.S. generation from natural gas to fall from 43% in 2024 to 39% in 2026. Nonetheless, the volumes of natural gas in storage will not be materially declining, and in fact may increase, because the total amount of electricity generation, particularly in Texas, is forecasted to rise significantly in the near to mid-term for uses related to data centers, virtually currency manufacturing, and the like.

Electricity generation is hardly the only use for natural gas. Any declines in residential and commercial sectors will likely be offset by increases in industrial sector consumption. As always, winter weather plays a leading role in how much gas is ultimately withdrawn from storage for domestic heating purposes. But a significant and growing use of domestically produced natural gas is as export volumes to the world at large in the form of liquefied natural gas (LNG).

Per the EIA's *Natural Gas Storage Dashboard* released on January 31, 2025, total working gas in storage for the Lower 48 states (the amount of gas owned by the third-party customers of the storage facility operators) was estimated to be 2,397 BCF (2.4 trillion cubic feet), which is in the lower portion of the most recent 5-year range.

Of more interest to Harris County, the reported storage figures for the U.S. South Central region show total volumes in January 2025 (854 BCF) to be about 7% below the level in January 2024 (917 BCF), at the lower end of the most recent 5-year range. Storage volumes in salt dome caverns are slightly below the most recent 5-year average. However, storage volumes within depleted gas reservoirs (non-salt dome cavern) are within the most recent 5-year range. Most gas storage in the U.S. South Central Region is via depleted gas reservoirs, at almost three times the volumes stored in salt dome caverns.





The liquid hydrocarbon storage volumes at Pierce Junction salt dome caverns, or the depleted gas field storage facilities at Bammel and West Clear Lake, do not necessarily follow overall U.S. trends all the time. They each have unique markets, shippers, and end-users. In any event, inventories present on the inventory owner's chosen lien date (either January 1 or September 1) will be appraised with the prevailing market price at that time. Oil or other liquid hydrocarbon prices briefly climbed during CY2024 but notably deteriorated since mid-year. It was the opposite story for natural gas prices which fell to basement levels for much of CY2024 but notably improved towards the end of the year. The crude oil storage business at Pierce Junction Salt Dome has seen dimming prospects over the last year or so as new pipelines and export terminals in Corpus Christi have essentially stolen the unique purpose and lofty profit potential once envisioned for these caverns in Harris County when built a few years ago. On the other hand, the storage prospects for natural gas and its derived purity products look bright, particularly with the new administration in Washington which is more fossil-fuel-friendly than the previous administration.

The storage facilities themselves (including salt dome caverns as man-made structures, as well as base gas amounts) will be appraised with analysis and consideration of the most appropriate methods and techniques applicable to each property, in conjunction with and adherence to Property Tax Code Sec. 23.01(b) regarding uniformity of appraisal for similarly situated properties.