THE LINNEMAN LETTER

Volume 25, Issue 2 Summer 2025

Pipeline Sensitivity Analysis

Now that we are at or near a full recovery of most key economic indicators after the shutdown, market forces (versus government mandates) are driving supply and demand for most sectors, with office being the notable exception through 2025. Our vacancy rate forecasts are driven by three input factors: historical space usage (in each property sector) per worker, employment forecasts, and construction pipelines. Focusing on the construction assumption, our sensitivity analyses examine which markets have the greatest potential supply-side risk. For each property sector, we start with projected pipeline data from third-party sources and make adjustments based on our assessment of market conditions to arrive at our "base case" vacancy and occupancy forecasts. We also modify these assumptions to assess the relative level of exposure that each MSA has to its respective worst-case scenario construction pipeline. Our "base case" uses the most conservative construction pipeline assumptions, while the "strong case" assumes notably more aggressive pipeline assumptions.

For each property sector, we examined which MSAs had the greatest vulnerability by calculating the difference in projected vacancy or occupancy rates in 2027 between the base and strong cases. Summary results are in Figure 1. Within each sector, the green highlighting (go) indicates those markets with the lowest pipeline exposure, while the yellow highlighting (caution) indicates those markets with the greatest exposure from the strong pipeline scenario. Note that because vacancy rates are compared for the office, industrial, multifamily, and retail sectors, lower or negative numbers are more desirable, indicating minimal increases (or greater declines) in vacancies. On the other hand, higher or positive changes in hotel and seniors housing occupancy rates are more desirable, as they indicate greater increases (or smaller declines) in occupancy. For the office, industrial, multifamily, and retail sectors, the table indicates by how many basis points 2027 vacancy rates would increase from the base case if the strong case pipeline were to occur. Similarly, the table shows how many bps by which hotel and seniors housing occupancy rates would decline relative to the base case, should the strong case pipeline materialize.

Within each property sector, the yellow highlighting indicates the ten markets that have the greatest vulnerability to changes in pipeline assumptions, while the green highlighting indicates the ten markets with the lowest pipeline risk. In the office sector, the greatest potential increases in vacancy rates would occur in Austin, San Antonio, Boston, and Nashville. On the other hand, Minneapolis, Chicago, Washington, D.C., North & Central NJ, and Los Angeles have little to no pipeline risk (based on known conditions).

In the industrial sector, the greatest pipeline risks over the next two years are projected to be in Phoenix, Austin, Las Vegas, Washington, D.C., and Atlanta, while the most insulated will be Fresno, Los Angeles, Boston, Long Island, and Detroit. Of the multifamily markets, those with the greatest pipeline exposure include Miami, Nashville, Orlando, Charleston, and Boston. Atlanta, Los Angeles, Louisville, Detroit, and St. Louis have the smallest multifamily construction pipelines, and therefore, the least exposure to supply-side risk. Retail markets in Austin, Phoenix, Orlando, Houston, and Dallas have the greatest potential change in vacancy rates between the base and strong pipeline scenarios, while, San Francisco, Seattle, Detroit, San Diego, and St. Louis have little to no retail pipeline risk.

In the hotel sector, the markets with the greatest pipeline risk include Nashville, Austin, Phoenix, San Diego, and Dallas. At the other end of the spectrum, Minneapolis, Boston, Los Angeles, and Las Vegas have limited downside from the "strong" pipeline scenarios.

In the seniors housing sector, our base case forecasting model includes only units that are currently under construction and will therefore understate supply-side risks beyond two years. However, our strong pipeline scenario for seniors housing assumes that the pipelines grow through the duration of the 5-year projection period. As such, those markets with active near-term pipelines have the greatest occupancy differential between the base and strong cases. Those markets with no projects under construction register no pipeline risk, even for the strong case.

The IL markets that pose the greatest pipeline risk between the base and strong scenarios include Washington, D.C., San Jose, Tampa Bay, Sacramento, and Cincinnati, while Pittsburgh, Cleveland, the Inland Empire, Phoenix, and Las Vegas have little to no risk between scenarios. The AL markets with relatively high supply-side risk include San Jose, Miami, Denver, Washington, D.C., and the Inland Empire. In contrast, the AL markets with little to no pipeline risk as of the first quarter of 2025 are Las Vegas, San Antonio, Baltimore, and Cleveland.

Should the "strong" scenario pipelines materialize, a number of markets will no longer be balanced at the end of 2027. The only affected office market would be San Jose. In the industrial sector, only Washington, D.C. would fall out of balance in 2027 if the strong pipeline

Strong vs. Base Case Construction Pipeline Sensitivity Analysis
Increase/(Decrease) through 2027 Vacancy/Occupancy Projections (bps)

	Office	Industrial	Multifamily	Retail	Hotel	Indep. Living	Assisted Living
Atlanta	-3	136	10	36	-266	-6	-306
Austin	122	209	151	197	-434	n/a	n/a
Baltimore	6	44	58	n/a	n/a	-82	-165
Boston	79	3	165	10	-104	-194	0
Charleston	93	n/a	141	n/a	n/a	n/a	n/a
Charlotte	59	73	100	29	n/a	n/a	n/a
Chicago	-3	51	83	26	-143	-32	-196
Cincinnati	8	47	92	25	n/a	-539	-93
Cleveland	23	2	62	36	n/a	0	0
Columbus	2	79	145	29	n/a	n/a	n/a
Dallas-Fort Worth	46	130	104	93	-339	-203	-367
Denver	43	97	142	17	-275	-322	-379
Detroit	20	3	40	-12	-245	-122	-170
Fairfield County	-9	n/a	n/a	n/a	n/a	n/a	n/a
Fort Lauderdale	48	n/a	142	n/a	n/a	n/a	n/a
Fresno	34	0	n/a	n/a	n/a	n/a	n/a
Houston	47	139	62	87	-126	-164	-263
Indianapolis	46	23	84	57	n/a	n/a	n/a
Inland Empire	32	n/a	n/a	n/a	n/a	0	-382
Jacksonville	29	n/a	n/a	n/a	n/a	n/a	n/a
Kansas City	n/a	n/a	n/a	n/a	n/a	-154	-434
Las Vegas	n/a	259	n/a	n/a	-129	0	0
Long Island	-4	10	n/a	n/a	n/a	n/a	n/a
Los Angeles	-5	2	35	0	-50	0	-175
Louisville	n/a	n/a	19	n/a	n/a	n/a	n/a
Memphis	0	n/a	n/a	n/a	n/a	n/a	n/a
Miami	86	108	229	39	-366	-265	-290
Minneapolis	-21	32	84	29	-51	-73	-66
Nashville	56	135	184	69	-462	n/a	n/a
New York City	6	n/a	76	25	-250	-235	-220
North & Central NJ	-6	80	n/a	n/a	n/a	n/a	n/a
Orange County	-2	n/a	62	n/a	-144	n/a	n/a
Orlando	54	81	207	110	-221	-346	-161
Palm Beach	92	n/a	n/a	n/a	n/a	n/a	n/a
Philadelphia	2	75	95	38	-164	-98	-147
Phoenix	29	197	111	88	-429	0	-185
Pittsburgh	5	n/a	n/a	n/a	n/a	0	-51
Portland	8	75	46	36	n/a	-208	-110
Raleigh-Durham	24	n/a	125	n/a	n/a	n/a	n/a
Richmond	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Sacramento	n/a	n/a	n/a	n/a	n/a	-425	-99
St. Louis	19	64	51	-16	-178	-56	-269
Salt Lake City	47	113	n/a	n/a	n/a	n/a	n/a
San Antonio	77	102	n/a	n/a	n/a	-347	0
San Diego	18	39	78	0	-364	-17	-295
San Francisco	7	49	46	-2	-106	-60	-328
San Jose	57	49	54	9	n/a	0	-1,189
Seattle	69	67	110	-13	-187	-282	-62
Tampa Bay	17	98	168	31	-185	-436	-145
Washington, D.C.	-10	178	75	36	-126	0	-359

Legend:
10 MSAs with greatest pipeline exposure (greatest negative impact on vacancy/occupancy rates). (yellow)
10 MSAs with smallest pipeline exposure (smallest negative impact on vacancy/occupancy rates). (green)
n/a indicates no sector forecast for that MSA.

figure 1

occurred. Multifamily markets that would fall out of favor if the strong pipeline occurred include Columbus, Dallas-Fort Worth, Ft. Lauderdale, Las Vegas, Tampa, and Washington, D.C. The relatively large number of affected markets indicates that multifamily developers are still confident about the strength of the sector. In the retail sector, no markets would fall out of balance in 2027 due to the strong pipeline scenario. In the hotel sector, Seattle, Tampa, and Miami will fall out of balance compared to the base case should the strong pipeline come to fruition. Of the IL seniors housing markets, only Boston would fall out of balance under the strong pipeline scenario, while no AL markets would be affected by such conditions.

Pipeline Sensitivity Analysis

We are in a period of exceptional global market circumstances as a result of the COVID-19 pandemic. We remind our readers of the limitations of statistical forecasting models (which rely on historical trends) in such atypical circumstances and urge you to read our fundamental insights in the first article of this issue.

Office Vacancy Rates - Base Case Pipeline

Market	1Q25	YE 2025 Est	YE 2026 Est	YE 2027 Est	YE 2028 Est
Atlanta	16.5%	16.0%	14.3%	13.1%	12.4%
Austin	17.1%	15.9%	13.4%	11.0%	10.6%
Baltimore	12.2%	12.0%	11.6%	11.2%	11.2%
Boston	14.0%	12.1%	12.1%	12.1%	11.2%
Charleston	6.4%	6.3%	6.5%	5.5%	5.7%
Charlotte	14.3%	13.7%	12.9%	12.5%	12.4%
Chicago	16.3%	15.2%	14.2%	13.3%	12.7%
Cincinnati	8.8%	7.9%	7.2%	6.7%	6.8%
Cleveland	9.2%	9.2%	8.3%	7.4%	7.0%
Columbus	9.9%	9.2%	8.4%	7.5%	7.0%
Dallas-Fort Worth	17.8%	16.6%	13.9%	13.2%	13.3%
Denver	17.4%	15.4%	13.6%	11.9%	11.3%
Detroit	12.1%	11.4%	10.7%	10.0%	9.6%
Fairfield County	15.1%	14.9%	14.1%	11.1%	9.8%
Fort Lauderdale	10.4%	9.8%	9.6%	9.3%	9.0%
Fresno	8.1%	7.7%	7.3%	6.7%	6.5%
Houston	19.7%	17.6%	15.6%	15.4%	15.2%
Indianapolis	9.7%	8.6%	7.8%	7.1%	6.8%
Inland Empire	5.1%	4.2%	3.5%	3.0%	2.7%
Jacksonville	10.3%	9.6%	8.9%	7.7%	6.8%
Long Island	8.3%	7.8%	7.3%	6.6%	6.3%
Los Angeles	15.9%	15.5%	14.6%	14.9%	14.2%
Memphis	11.0%	10.3%	9.0%	7.2%	6.0%
Miami	8.8%	7.9%	7.1%	6.0%	5.2%
Minneapolis	11.1%	11.2%	10.6%	9.8%	9.5%
Nashville	12.6%	12.1%	10.3%	8.9%	8.3%
New York City	13.6%	12.9%	12.2%	11.5%	10.7%
North & Central NJ	12.7%	11.3%	11.0%	10.4%	10.1%
Orange County	12.2%	10.8%	8.5%	6.1%	4.6%
Orlando	9.2%	8.2%	7.5%	6.9%	7.1%
Palm Beach	8.5%	7.9%	6.8%	6.8%	6.7%
Philadelphia	10.6%	10.3%	9.9%	9.4%	9.1%
Phoenix	16.7%	15.6%	14.1%	13.6%	13.0%
Pittsburgh	11.9%	10.4%	9.9%	9.3%	8.8%
Portland	13.8%	13.0%	12.3%	11.3%	10.4%
Raleigh-Durham	10.9%	9.7%	8.8%	7.7%	6.5%
St. Louis	9.7%	9.1%	8.3%	5.6%	4.2%
Salt Lake City	10.9%	10.2%	9.4%	8.1%	7.6%
San Antonio	11.3%	9.5%	7.1%	6.5%	7.2%
San Diego	12.5%	11.3%	9.6%	8.5%	7.3%
San Francisco	23.0%	21.3%	19.1%	17.0%	15.4%
San Jose	15.4%	13.8%	12.1%	10.4%	8.8%
Seattle	16.2%	15.8%	14.7%	13.2%	12.3%
Tampa Bay	9.7%	9.2%	8.3%	7.1%	6.4%
Washington, D.C.	17.0%	16.1%	15.4%	14.6%	14.1%

Highlighted entries indicate market at supply-demand balance with vacancy or 10% or better.

** Inland Empire = Riverside/San Bernardino Metropolitan Area; Source: Linneman Associates, CoStar*

Note on Negative Vacancy: In order to calculate estimated vacancy rates, we adjust beginning inventory for new construction completions and compare that to net absorption (including sublease space). If we show negative vacancy rates, it simply means that given the scheduled supply and growth in expected demand, sufficient demand pressure exists to more than absorb all available space. Of course, negative vacancies cannot occur, as in the face of such demand pressure additional development will occur and rents will increase in order to dampen demand. Therefore, forecasts of negative vacancy should be viewed as a strong excess demand indicator.

Pipeline Sensitivity Analysis

Office Vacancy Rates - Strong Case Pipeline

Market	1Q25	YE 2025 Est	YE 2026 Est	YE 2027 Est	YE 2028 Est
Atlanta	16.5%	16.0%	14.3%	13.0%	12.3%
Austin	17.1%	16.4%	14.5%	12.2%	12.1%
Baltimore	12.2%	12.0%	11.6%	11.2%	11.4%
Boston	14.0%	12.4%	12.6%	12.8%	11.9%
Charleston	6.4%	6.5%	7.2%	6.5%	6.9%
Charlotte	14.3%	14.0%	13.3%	13.1%	13.3%
Chicago	16.3%	15.2%	14.2%	13.2%	12.6%
Cincinnati	8.8%	7.9%	7.2%	6.8%	7.0%
Cleveland	9.2%	9.5%	8.6%	7.6%	7.3%
Columbus	9.9%	9.3%	8.4%	7.5%	7.1%
Dallas-Fort Worth	17.8%	16.7%	14.1%	13.6%	14.0%
Denver	17.4%	15.5%	14.0%	12.4%	11.9%
Detroit	12.1%	11.5%	10.9%	10.2%	9.9%
Fairfield County	15.1%	14.9%	14.1%	11.0%	9.7%
Fort Lauderdale	10.4%	9.7%	10.0%	9.7%	9.6%
Fresno	8.1%	7.7%	7.5%	7.0%	7.1%
Houston	19.7%	17.7%	15.9%	15.9%	16.0%
Indianapolis	9.7%	8.8%	8.3%	7.6%	7.4%
Inland Empire	5.1%	4.3%	3.7%	3.3%	3.3%
Jacksonville	10.3%	9.7%	9.0%	8.0%	7.2%
Long Island	8.3%	7.8%	7.2%	6.6%	6.3%
Los Angeles	15.9%	15.5%	14.7%	14.9%	14.1%
Memphis	11.0%	10.3%	9.0%	7.2%	6.1%
Miami	8.8%	8.3%	7.7%	6.8%	6.1%
Minneapolis	11.1%	11.2%	10.4%	9.6%	9.3%
Nashville	12.6%	12.6%	10.8%	9.4%	9.0%
New York City	13.6%	13.0%	12.3%	11.5%	10.7%
North & Central NJ	12.7%	11.3%	10.9%	10.3%	10.1%
Orange County	12.2%	10.9%	8.4%	6.1%	4.7%
Orlando	9.2%	8.3%	7.8%	7.5%	7.9%
Palm Beach	8.5%	8.1%	6.9%	7.7%	8.1%
Philadelphia	10.6%	10.4%	10.0%	9.4%	9.1%
Phoenix	16.7%	15.7%	14.2%	13.9%	13.6%
Pittsburgh	11.9%	10.5%	10.0%	9.4%	8.9%
Portland	13.8%	13.1%	12.3%	11.4%	10.5%
Raleigh-Durham	10.9%	9.7%	8.9%	7.9%	7.0%
St. Louis	9.7%	9.1%	8.5%	5.8%	4.5%
Salt Lake City	10.9%	10.3%	9.6%	8.6%	8.5%
San Antonio	11.3%	9.7%	7.6%	7.3%	8.3%
San Diego	12.5%	11.6%	9.8%	8.6%	7.5%
San Francisco	23.0%	21.4%	19.2%	17.1%	15.4%
San Jose	15.4%	14.2%	12.7%	10.9%	9.6%
Seattle	16.2%	16.6%	15.5%	13.9%	13.0%
Tampa Bay	9.7%	9.3%	8.4%	7.3%	6.6%
Washington, D.C.	17.0%	16.1%	15.4%	14.5%	13.9%

Highlighted entries indicate market at supply-demand balance with vacancy or 10% or better.

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Note on Negative Vacancy: In order to calculate estimated vacancy rates, we adjust beginning inventory for new construction completions and compare that to net absorption (including sublease space). If we show negative vacancy rates, it simply means that given the scheduled supply and growth in expected demand, sufficient demand pressure exists to more than absorb all available space. Of course, negative vacancies cannot occur, as in the face of such demand pressure additional development will occur and rents will increase in order to dampen demand. Therefore, forecasts of negative vacancy should be viewed as a strong excess demand indicator.

Pipeline Sensitivity Analysis

Industrial Vacancy Rates - Base Case Pipeline

Market	1Q25	YE 2025 Est	YE 2026 Est	YE 2027 Est	YE 2028 Est
Atlanta	7.9%	8.3%	7.1%	6.7%	7.2%
Austin	11.9%	11.9%	9.9%	8.5%	8.7%
Baltimore	7.7%	7.4%	6.8%	5.8%	5.9%
Boston	7.7%	7.2%	6.9%	6.4%	6.0%
Charlotte	9.3%	9.2%	9.2%	8.9%	9.0%
Chicago	5.7%	4.8%	4.3%	4.0%	4.2%
Cincinnati	5.3%	4.3%	3.5%	3.1%	3.3%
Cleveland	3.7%	3.5%	3.1%	2.9%	2.9%
Columbus	7.2%	5.6%	4.7%	3.8%	3.5%
Dallas-Fort Worth	9.1%	9.0%	7.8%	7.2%	7.8%
Denver	8.0%	7.2%	6.0%	5.2%	5.5%
Detroit	4.6%	4.4%	3.9%	3.4%	3.2%
Ft. Lauderdale	5.3%	5.5%	5.4%	5.6%	5.9%
Fresno	5.3%	4.7%	4.2%	3.6%	3.2%
Houston	6.7%	5.2%	3.7%	4.2%	4.9%
Indianapolis	9.3%	8.3%	7.1%	5.4%	5.1%
Inland Empire*	7.1%	6.2%	5.4%	4.8%	4.7%
Las Vegas	10.1%	9.3%	7.9%	6.5%	7.1%
Long Island	5.7%	5.4%	4.9%	4.3%	4.1%
Los Angeles	5.8%	5.9%	5.7%	5.7%	5.6%
Miami	5.7%	5.1%	4.7%	4.3%	4.6%
Minneapolis	3.8%	4.0%	3.4%	2.6%	2.4%
Nashville	5.1%	4.9%	4.1%	3.5%	3.9%
North & Central NJ	5.4%	4.0%	4.4%	3.9%	3.8%
Orlando	8.0%	6.7%	6.4%	6.4%	6.5%
Philadelphia	7.7%	7.0%	6.3%	5.6%	5.5%
Phoenix	12.4%	11.4%	9.3%	9.2%	9.1%
Portland	6.1%	5.9%	5.6%	5.2%	5.0%
St. Louis	3.8%	3.6%	3.7%	2.9%	2.9%
Salt Lake City	6.9%	7.1%	6.9%	6.0%	6.1%
San Antonio	9.7%	9.0%	8.0%	7.2%	7.1%
San Diego	8.3%	8.6%	8.1%	7.1%	6.2%
San Francisco	12.5%	11.5%	10.6%	9.6%	8.3%
San Jose	12.5%	11.5%	10.6%	9.6%	8.3%
Seattle	7.6%	6.2%	5.8%	5.2%	5.2%
Tampa Bay	5.7%	5.5%	5.4%	4.8%	4.8%
Washington, D.C.	6.0%	6.3%	6.8%	6.8%	6.3%

Highlighted entries indicate market at supply-demand balance with vacancy or 6% or better.

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Note on Negative Vacancy: In order to calculate estimated vacancy rates, we adjust beginning inventory for new construction completions and compare that to net absorption (including sublease space). If we show negative vacancy rates, it simply means that given the scheduled supply and growth in expected demand, sufficient demand pressure exists to more than absorb all available space. Of course, negative vacancies cannot occur, as in the face of such demand pressure additional development will occur and rents will increase in order to dampen demand. Therefore, forecasts of negative vacancy should be viewed as a strong excess demand indicator.

Pipeline Sensitivity Analysis

Industrial Vacancy Rates - Strong Case Pipeline

Market	1Q25	YE 2025 Est	YE 2026 Est	YE 2027 Est	YE 2028 Est
Atlanta	7.9%	8.8%	8.1%	8.1%	9.1%
Austin	11.9%	12.7%	11.5%	10.5%	11.3%
Baltimore	7.7%	7.6%	7.1%	6.3%	6.5%
Boston	7.7%	7.3%	7.0%	6.4%	6.0%
Charlotte	9.3%	9.5%	9.8%	9.6%	10.0%
Chicago	5.7%	5.0%	4.5%	4.5%	5.1%
Cincinnati	5.3%	4.4%	3.7%	3.6%	4.1%
Cleveland	3.7%	3.6%	3.1%	2.9%	3.0%
Columbus	7.2%	5.7%	5.2%	4.6%	4.7%
Dallas-Fort Worth	9.1%	9.5%	8.7%	8.5%	9.6%
Denver	8.0%	7.6%	6.7%	6.2%	6.9%
Detroit	4.6%	4.4%	3.9%	3.4%	3.3%
Ft. Lauderdale	5.3%	5.5%	5.4%	5.6%	5.9%
Fresno	5.3%	4.7%	4.2%	3.6%	3.2%
Houston	6.7%	5.6%	4.7%	5.6%	6.8%
Indianapolis	9.3%	8.4%	7.1%	5.7%	5.8%
Inland Empire*	7.1%	6.4%	5.8%	5.4%	5.7%
Las Vegas	10.1%	10.2%	9.7%	9.1%	10.5%
Long Island	5.7%	5.5%	5.0%	4.4%	4.2%
Los Angeles	5.8%	6.0%	5.7%	5.8%	5.7%
Miami	5.7%	5.5%	5.5%	5.4%	6.0%
Minneapolis	3.8%	4.1%	3.6%	2.9%	3.0%
Nashville	5.1%	5.4%	5.1%	4.9%	5.7%
North & Central NJ	5.4%	4.3%	5.0%	4.7%	4.8%
Orlando	8.0%	7.1%	7.0%	7.2%	7.4%
Philadelphia	7.7%	7.3%	6.9%	6.4%	6.5%
Phoenix	12.4%	12.1%	10.7%	11.2%	11.8%
Portland	6.1%	6.1%	6.1%	5.9%	6.1%
St. Louis	3.8%	3.8%	4.2%	3.6%	3.8%
Salt Lake City	6.9%	7.5%	7.6%	7.1%	7.8%
San Antonio	9.7%	9.4%	8.7%	8.2%	8.6%
San Diego	8.3%	8.9%	8.6%	7.5%	6.7%
San Francisco	12.5%	11.8%	11.1%	10.1%	8.6%
San Jose	12.5%	11.8%	11.1%	10.1%	8.6%
Seattle	7.6%	6.6%	6.3%	5.9%	6.2%
Tampa Bay	5.7%	5.9%	6.1%	5.8%	6.1%
Washington, D.C.	6.0%	6.9%	8.1%	8.6%	8.6%

Highlighted entries indicate market at supply-demand balance with vacancy or 6% or better.

** Inland Empire = Riverside/San Bernardino Metropolitan Area; Source: Linneman Associates, CoStar*

Note on Negative Vacancy: In order to calculate estimated vacancy rates, we adjust beginning inventory for new construction completions and compare that to net absorption (including sublease space). If we show negative vacancy rates, it simply means that given the scheduled supply and growth in expected demand, sufficient demand pressure exists to more than absorb all available space. Of course, negative vacancies cannot occur, as in the face of such demand pressure additional development will occur and rents will increase in order to dampen demand. Therefore, forecasts of negative vacancy should be viewed as a strong excess demand indicator.

Pipeline Sensitivity Analysis

Multifamily Vacancy Rates - Base Case Pipeline

Market	1Q25	YE 2025 Est	YE 2026 Est	YE 2027 Est	YE 2028 Est
Atlanta	12.5%	12.1%	10.7%	9.8%	9.3%
Austin	14.9%	14.1%	10.9%	9.3%	9.5%
Baltimore	7.2%	6.7%	5.3%	4.9%	5.2%
Boston	5.6%	3.7%	4.1%	4.7%	4.8%
Charleston	12.2%	13.1%	10.9%	7.4%	7.1%
Charlotte	12.9%	12.3%	12.0%	10.9%	10.3%
Chicago	4.9%	4.3%	4.2%	4.4%	5.0%
Cincinnati	7.5%	7.1%	6.0%	4.3%	4.5%
Cleveland	9.0%	8.7%	6.9%	5.5%	5.2%
Columbus	8.7%	8.6%	8.3%	7.5%	7.5%
Dallas-Fort Worth	11.6%	11.0%	8.3%	7.4%	8.1%
Denver	11.5%	10.9%	10.2%	9.8%	10.2%
Detroit	7.1%	7.1%	6.3%	5.8%	6.0%
Fort Lauderdale	7.4%	7.6%	7.6%	8.4%	8.6%
Houston	11.5%	9.8%	7.9%	7.8%	7.9%
Indianapolis	9.8%	9.3%	8.4%	7.0%	6.6%
Inland Empire*	6.2%	6.4%	6.7%	6.4%	6.4%
Jacksonville	13.5%	12.2%	11.8%	10.5%	9.9%
Las Vegas	9.9%	9.1%	7.6%	6.2%	6.2%
Los Angeles	4.9%	5.0%	4.5%	5.4%	5.4%
Louisville	8.7%	9.0%	8.7%	8.8%	8.8%
Miami	6.1%	5.7%	4.7%	5.0%	5.5%
Minneapolis	7.0%	7.8%	7.4%	5.9%	5.8%
Nashville	11.5%	12.2%	10.6%	9.3%	9.0%
New York City	2.7%	2.5%	2.7%	2.8%	3.0%
Orange County	4.2%	4.2%	3.9%	3.2%	3.1%
Orlando	9.9%	8.2%	7.0%	4.7%	5.1%
Palm Beach	7.4%	6.6%	6.0%	5.3%	5.1%
Philadelphia	7.5%	6.5%	5.9%	5.4%	5.3%
Phoenix	11.9%	11.1%	9.4%	8.9%	7.8%
Portland	7.6%	6.3%	5.9%	5.4%	5.3%
Raleigh-Durham	12.2%	11.7%	10.6%	10.4%	10.3%
Richmond	9.1%	8.0%	9.2%	7.2%	6.7%
St. Louis	10.1%	10.0%	9.1%	7.8%	7.3%
Salt Lake City	10.8%	10.9%	11.0%	9.2%	9.0%
San Antonio	14.6%	13.5%	10.9%	9.2%	8.3%
San Diego	5.2%	5.3%	5.3%	5.0%	4.2%
San Francisco	5.1%	4.6%	3.8%	2.9%	2.7%
San Jose	5.6%	5.3%	4.2%	3.9%	4.2%
Seattle	7.5%	6.0%	5.7%	5.3%	5.4%
Tampa Bay	9.4%	9.5%	9.3%	7.8%	8.0%
Washington, D.C.	7.4%	7.4%	6.7%	5.8%	5.7%

Highlighted entries indicate market at supply-demand balance with vacancy or 5% or better.

** Inland Empire = Riverside/San Bernardino Metro Area; Source: Linneman Assoc, CoStar*

Note on Negative Vacancy: In order to calculate estimated vacancy rates, we adjust beginning inventory for new construction completions and compare that to net absorption (including sublease space). If we show negative vacancy rates, it simply means that given the scheduled supply and growth in expected demand, sufficient demand pressure exists to more than absorb all available space. Of course, negative vacancies cannot occur, as in the face of such demand pressure additional development will occur and rents will increase in order to dampen demand. Therefore, forecasts of negative vacancy should be viewed as a strong excess demand indicator.

Pipeline Sensitivity Analysis

Multifamily Vacancy Rates - Strong Case Pipeline

Market	1Q25	YE 2025 Est	YE 2026 Est	YE 2027 Est	YE 2028 Est
Atlanta	12.5%	12.2%	10.8%	9.9%	9.5%
Austin	14.9%	14.6%	11.9%	10.8%	11.5%
Baltimore	7.2%	6.8%	5.7%	5.5%	6.0%
Boston	5.6%	4.2%	5.3%	6.4%	6.9%
Charleston	12.2%	13.7%	11.9%	8.8%	9.0%
Charlotte	12.9%	12.7%	12.7%	11.9%	11.6%
Chicago	4.9%	4.5%	4.7%	5.2%	6.1%
Cincinnati	7.5%	7.5%	6.6%	5.2%	5.7%
Cleveland	9.0%	9.0%	7.4%	6.1%	6.0%
Columbus	8.7%	9.1%	9.4%	8.9%	9.4%
Dallas-Fort Worth	11.6%	11.4%	9.1%	8.4%	9.5%
Denver	11.5%	11.5%	11.2%	11.2%	12.0%
Detroit	7.1%	7.3%	6.6%	6.2%	6.6%
Fort Lauderdale	7.4%	8.1%	8.6%	9.8%	10.3%
Houston	11.5%	10.0%	8.3%	8.4%	8.8%
Indianapolis	9.8%	9.6%	9.0%	7.8%	7.7%
Inland Empire*	6.2%	6.8%	7.4%	7.2%	7.4%
Jacksonville	13.5%	12.5%	12.7%	12.1%	12.1%
Las Vegas	9.9%	9.5%	8.2%	7.0%	7.3%
Los Angeles	4.9%	5.1%	4.7%	5.7%	5.9%
Louisville	8.7%	9.1%	8.9%	9.0%	9.1%
Miami	6.1%	6.6%	6.1%	7.3%	8.2%
Minneapolis	7.0%	8.1%	8.0%	6.8%	6.9%
Nashville	11.5%	13.0%	12.1%	11.2%	11.2%
New York City	2.7%	2.7%	3.2%	3.6%	4.0%
Orange County	4.2%	4.5%	4.5%	3.8%	3.9%
Orlando	9.9%	9.0%	8.5%	6.8%	7.7%
Palm Beach	7.4%	7.1%	7.0%	6.8%	7.1%
Philadelphia	7.5%	6.9%	6.5%	6.3%	6.6%
Phoenix	11.9%	11.6%	10.1%	10.0%	9.1%
Portland	7.6%	6.5%	6.2%	5.9%	6.1%
Raleigh-Durham	12.2%	12.3%	11.6%	11.6%	11.9%
Richmond	9.1%	8.8%	10.6%	8.9%	8.9%
St. Louis	10.1%	10.3%	9.5%	8.3%	7.9%
Salt Lake City	10.8%	11.8%	12.4%	11.0%	11.2%
San Antonio	14.6%	14.0%	11.7%	10.4%	10.0%
San Diego	5.2%	5.5%	5.8%	5.8%	5.1%
San Francisco	5.1%	4.9%	4.2%	3.3%	3.4%
San Jose	5.6%	5.6%	4.6%	4.5%	5.0%
Seattle	7.5%	6.4%	6.5%	6.4%	6.8%
Tampa Bay	9.4%	10.2%	10.5%	9.5%	10.0%
Washington, D.C.	7.4%	7.7%	7.2%	6.6%	6.7%

Highlighted entries indicate market at supply-demand balance with vacancy or 5% or better.

** Inland Empire = Riverside/San Bernardino Metro Area; Source: Linneman Assoc, CoStar*

Note on Negative Vacancy: In order to calculate estimated vacancy rates, we adjust beginning inventory for new construction completions and compare that to net absorption (including sublease space). If we show negative vacancy rates, it simply means that given the scheduled supply and growth in expected demand, sufficient demand pressure exists to more than absorb all available space. Of course, negative vacancies cannot occur, as in the face of such demand pressure additional development will occur and rents will increase in order to dampen demand. Therefore, forecasts of negative vacancy should be viewed as a strong excess demand indicator.

Pipeline Sensitivity Analysis

Retail Vacancy Rates - Base Case Pipeline

Market	1Q25	YE 2025 Est	YE 2026 Est	YE 2027 Est	YE 2028 Est
Atlanta	3.9%	3.8%	3.0%	2.6%	2.5%
Austin	3.1%	3.4%	2.7%	3.0%	3.6%
Boston	2.5%	2.1%	1.9%	1.8%	1.6%
Charlotte	3.2%	3.2%	3.1%	3.2%	3.5%
Chicago	4.7%	4.3%	3.8%	3.5%	3.3%
Cincinnati	5.2%	4.4%	3.7%	3.0%	2.9%
Cleveland	4.3%	4.0%	3.3%	2.9%	2.9%
Columbus	3.9%	3.7%	3.3%	3.1%	3.0%
Dallas-Fort Worth	4.6%	4.2%	3.2%	3.0%	3.4%
Denver	4.1%	3.6%	3.0%	2.6%	2.5%
Detroit	5.6%	5.4%	4.8%	4.2%	3.9%
Houston	5.1%	4.2%	3.4%	3.5%	3.7%
Indianapolis	2.7%	2.7%	2.3%	1.7%	1.5%
Los Angeles	5.8%	5.7%	5.3%	5.3%	5.1%
Miami	2.8%	3.0%	2.7%	2.4%	2.5%
Minneapolis	2.6%	2.7%	2.6%	2.3%	2.2%
Nashville	3.1%	3.0%	2.3%	1.7%	1.6%
New York City	3.9%	4.3%	4.3%	4.3%	4.4%
Orlando	3.5%	3.5%	3.2%	2.7%	2.8%
Philadelphia	4.1%	3.6%	2.9%	2.5%	2.2%
Phoenix	4.8%	4.7%	4.3%	4.2%	4.1%
Portland	4.1%	3.8%	3.6%	3.2%	2.9%
St. Louis	4.1%	4.0%	3.6%	3.2%	3.0%
San Diego	4.2%	4.0%	3.4%	2.7%	2.0%
San Francisco	6.5%	5.9%	5.3%	4.6%	4.2%
San Jose	4.2%	3.7%	3.4%	3.0%	2.6%
Seattle	3.4%	3.2%	2.9%	2.6%	2.4%
Tampa Bay	3.2%	2.8%	2.6%	2.1%	1.9%
Washington, D.C.	4.4%	4.2%	3.9%	3.7%	3.7%

Highlighted entries indicate market at supply-demand balance with vacancy of 8.5% or better.
Source: Linneman Associates, CoStar

Note on Negative Vacancy: In order to calculate estimated vacancy rates, we adjust beginning inventory for new construction completions and compare that to net absorption (including sublease space). If we show negative vacancy rates, it simply means that given the scheduled supply and growth in expected demand, sufficient demand pressure exists to more than absorb all available space. Of course, negative vacancies cannot occur, as in the face of such demand pressure additional development will occur and rents will increase in order to dampen demand. Therefore, forecasts of negative vacancy should be viewed as a strong excess demand indicator.

Pipeline Sensitivity Analysis

Retail Vacancy Rates - Strong Case Pipeline

Market	1Q25	YE 2025 Est	YE 2026 Est	YE 2027 Est	YE 2028 Est
Atlanta	3.9%	4.0%	3.2%	3.0%	3.1%
Austin	3.1%	4.2%	4.0%	5.0%	6.1%
Boston	2.5%	2.3%	2.0%	1.9%	1.7%
Charlotte	3.2%	3.3%	3.3%	3.5%	4.0%
Chicago	4.7%	4.5%	4.0%	3.7%	3.7%
Cincinnati	5.2%	4.5%	3.9%	3.2%	3.2%
Cleveland	4.3%	4.2%	3.5%	3.3%	3.4%
Columbus	3.9%	3.8%	3.5%	3.4%	3.5%
Dallas-Fort Worth	4.6%	4.5%	3.9%	3.9%	4.6%
Denver	4.1%	3.7%	3.1%	2.7%	2.8%
Detroit	5.6%	5.5%	4.7%	4.1%	3.8%
Houston	5.1%	4.5%	4.0%	4.4%	5.0%
Indianapolis	2.7%	3.0%	2.7%	2.3%	2.3%
Los Angeles	5.8%	5.7%	5.3%	5.3%	5.1%
Miami	2.8%	3.3%	3.0%	2.8%	3.0%
Minneapolis	2.6%	2.8%	2.8%	2.6%	2.6%
Nashville	3.1%	3.3%	2.8%	2.4%	2.5%
New York City	3.9%	4.5%	4.5%	4.6%	4.7%
Orlando	3.5%	4.1%	4.1%	3.8%	4.2%
Philadelphia	4.1%	3.8%	3.2%	2.8%	2.7%
Phoenix	4.8%	5.0%	4.9%	5.1%	5.3%
Portland	4.1%	3.9%	3.9%	3.6%	3.3%
St. Louis	4.1%	4.0%	3.5%	3.0%	2.8%
San Diego	4.2%	4.1%	3.4%	2.7%	2.0%
San Francisco	6.5%	5.8%	5.3%	4.6%	4.2%
San Jose	4.2%	3.6%	3.5%	3.1%	2.8%
Seattle	3.4%	3.2%	2.8%	2.4%	2.2%
Tampa Bay	3.2%	2.9%	2.8%	2.4%	2.3%
Washington, D.C.	4.4%	4.4%	4.1%	4.0%	4.2%

Highlighted entries indicate market at supply-demand balance with vacancy of 8.5% or better.
Source: Linneman Associates, CoStar

Note on Negative Vacancy: In order to calculate estimated vacancy rates, we adjust beginning inventory for new construction completions and compare that to net absorption (including sublease space). If we show negative vacancy rates, it simply means that given the scheduled supply and growth in expected demand, sufficient demand pressure exists to more than absorb all available space. Of course, negative vacancies cannot occur, as in the face of such demand pressure additional development will occur and rents will increase in order to dampen demand. Therefore, forecasts of negative vacancy should be viewed as a strong excess demand indicator.

Pipeline Sensitivity Analysis

Hotel Occupancy Rates - Base Case Pipeline

Market	YE 2025 Est	YE 2026 Est	YE 2027 Est	YE 2028 Est	YE 2029 Est
Atlanta	63.9%	65.0%	65.1%	64.5%	65.1%
Austin	67.0%	69.7%	70.4%	69.2%	71.2%
Boston	75.6%	75.7%	75.9%	76.6%	77.5%
Chicago	65.5%	65.2%	64.8%	64.3%	64.6%
Dallas-Fort Worth	64.7%	64.6%	63.6%	62.2%	62.6%
Denver	67.4%	67.1%	66.6%	65.4%	65.0%
Detroit	58.5%	58.9%	59.4%	59.0%	59.5%
Houston	65.5%	66.5%	66.2%	66.0%	66.3%
Las Vegas	81.4%	84.0%	86.5%	87.5%	89.1%
Los Angeles	71.4%	71.9%	71.4%	71.9%	72.3%
Miami	74.6%	74.3%	73.9%	72.7%	73.8%
Minneapolis	59.1%	59.7%	60.9%	61.4%	62.0%
Nashville	66.5%	68.9%	69.9%	69.5%	70.0%
New York City	84.9%	84.4%	83.9%	83.3%	83.8%
Orange County	73.1%	74.5%	76.1%	77.0%	78.7%
Orlando	73.8%	75.3%	77.2%	77.1%	78.3%
Philadelphia	65.2%	65.3%	65.2%	64.9%	65.6%
Phoenix	68.4%	69.0%	67.9%	67.6%	69.1%
St. Louis	58.2%	57.9%	59.0%	59.0%	59.0%
San Diego	74.8%	75.1%	75.9%	77.2%	81.1%
San Francisco	67.1%	68.4%	69.3%	69.8%	70.8%
Seattle	71.6%	71.4%	71.6%	71.4%	72.3%
Tampa Bay	74.5%	74.6%	75.4%	75.6%	76.7%
Washington, D.C.	68.8%	69.1%	69.4%	69.3%	70.0%

Highlighted entries indicate market at supply-demand balance with occupancy of 70% or better.

Source: Linneman Associates, CoStar/STR, LVCVA.

Note on Occupancy greater than 100%: In order to calculate estimated occupancy rates, we adjust beginning inventory for new construction completions and compare that to net absorption (including sublease space). If we show 100%+ occupancy rates, it simply means that given the scheduled supply and growth in expected demand, sufficient demand pressure exists to more than absorb all available space. Of course, 100%+ occupancy cannot occur, as in the face of such demand pressure additional development will occur and rents will increase in order to dampen demand. Therefore, forecasts of 100%+ occupancy should be viewed as a strong excess demand indicator.

Pipeline Sensitivity Analysis

Hotel Occupancy Rates - Strong Case Pipeline

Market	YE 2025 Est	YE 2026 Est	YE 2027 Est	YE 2028 Est	YE 2029 Est
Atlanta	63.5%	63.7%	62.4%	60.0%	60.0%
Austin	66.3%	67.5%	66.1%	62.1%	63.1%
Boston	75.5%	75.3%	74.9%	74.8%	75.4%
Chicago	65.3%	64.5%	63.4%	61.8%	61.8%
Dallas-Fort Worth	64.2%	62.9%	60.2%	56.7%	56.4%
Denver	67.0%	65.8%	63.9%	60.8%	59.9%
Detroit	58.2%	57.8%	57.0%	54.9%	54.9%
Houston	65.4%	65.9%	64.9%	63.7%	63.8%
Las Vegas	81.2%	83.4%	85.2%	85.2%	86.4%
Los Angeles	71.1%	71.4%	70.9%	71.4%	71.8%
Miami	74.0%	72.5%	70.2%	66.7%	67.0%
Minneapolis	59.0%	59.4%	60.4%	60.5%	61.0%
Nashville	65.8%	66.7%	65.3%	61.9%	61.6%
New York City	84.5%	83.2%	81.4%	79.0%	78.9%
Orange County	72.9%	73.9%	74.7%	74.4%	75.7%
Orlando	73.5%	74.3%	74.9%	73.3%	73.9%
Philadelphia	64.9%	64.5%	63.5%	62.0%	62.4%
Phoenix	67.8%	66.9%	63.6%	60.6%	61.2%
St. Louis	58.0%	57.1%	57.2%	55.9%	55.5%
San Diego	74.3%	73.3%	72.3%	71.0%	73.8%
San Francisco	67.0%	67.9%	68.3%	67.9%	68.6%
Seattle	71.3%	70.5%	69.7%	68.2%	68.6%
Tampa Bay	74.3%	73.7%	73.5%	72.4%	73.0%
Washington, D.C.	68.6%	68.5%	68.2%	67.1%	67.5%

Highlighted entries indicate market at supply-demand balance with occupancy of 70% or better.

Source: Linneman Associates, CoStar/STR, LVCVA.

Note on Occupancy greater than 100%: In order to calculate estimated occupancy rates, we adjust beginning inventory for new construction completions and compare that to net absorption (including sublease space). If we show 100%+ occupancy rates, it simply means that given the scheduled supply and growth in expected demand, sufficient demand pressure exists to more than absorb all available space. Of course, 100%+ occupancy cannot occur, as in the face of such demand pressure additional development will occur and rents will increase in order to dampen demand. Therefore, forecasts of 100%+ occupancy should be viewed as a strong excess demand indicator.

Pipeline Sensitivity Analysis

Independent Living Occupancy Rates - Base Case Pipeline

Market	YE 2025 Est	YE 2026 Est	YE 2027 Est	YE 2028 Est	YE 2029 Est
Atlanta	88.6%	92.5%	95.2%	96.9%	98.4%
Baltimore	92.3%	93.3%	94.8%	95.2%	96.0%
Boston	95.2%	95.1%	94.9%	94.9%	94.9%
Chicago	88.4%	89.5%	90.5%	91.2%	92.1%
Cincinnati	92.3%	91.4%	90.5%	88.4%	86.0%
Cleveland	88.8%	90.6%	91.6%	92.2%	92.8%
Dallas-Fort Worth	89.5%	90.3%	90.5%	90.3%	90.1%
Denver	89.1%	89.9%	90.3%	89.8%	88.4%
Detroit	89.8%	91.0%	92.3%	92.9%	93.2%
Houston	88.9%	90.7%	90.9%	91.2%	91.4%
Inland Empire	87.9%	89.8%	91.7%	93.2%	95.0%
Kansas City	86.5%	86.9%	88.7%	89.1%	89.9%
Las Vegas	87.4%	88.4%	89.4%	90.0%	90.6%
Los Angeles	91.5%	93.0%	92.7%	93.6%	94.4%
Miami	87.5%	90.0%	92.1%	93.0%	94.5%
Minneapolis	89.2%	90.1%	91.8%	92.7%	93.4%
New York City	90.5%	90.5%	90.5%	90.3%	90.1%
Orlando	88.5%	88.0%	87.7%	86.7%	85.8%
Philadelphia	92.6%	93.3%	93.8%	94.2%	94.7%
Phoenix	90.0%	90.7%	91.2%	91.7%	92.3%
Pittsburgh	94.9%	97.1%	99.7%	102.1%	104.7%
Portland	88.6%	89.0%	89.5%	90.2%	91.2%
Sacramento	84.3%	83.6%	83.1%	83.9%	83.5%
St. Louis	88.3%	89.0%	90.7%	91.7%	91.9%
San Antonio	88.6%	88.4%	87.9%	87.3%	86.1%
San Diego	88.1%	88.7%	89.4%	90.2%	91.1%
San Francisco	92.4%	93.1%	93.6%	94.0%	94.3%
San Jose	93.8%	95.0%	96.5%	98.2%	99.7%
Seattle	90.7%	90.8%	91.4%	91.6%	91.9%
Tampa Bay	90.6%	90.0%	90.2%	89.9%	89.4%
Washington, D.C.	90.4%	91.5%	92.5%	93.3%	94.2%

Highlighted entries indicate market at supply-demand balance with occupancy of 95% or better.
Source: Linneman Associates.

Note on Occupancy greater than 100%: In order to calculate estimated occupancy rates, we adjust beginning inventory for new construction completions and compare that to net absorption (including sublease space). If we show 100%+ occupancy rates, it simply means that given the scheduled supply and growth in expected demand, sufficient demand pressure exists to more than absorb all available space. Of course, 100%+ occupancy cannot occur, as in the face of such demand pressure additional development will occur and rents will increase in order to dampen demand. Therefore, forecasts of 100%+ occupancy should be viewed as a strong excess demand indicator.

Pipeline Sensitivity Analysis

Independent Living Occupancy Rates - Strong Case Pipeline

Market	YE 2025 Est	YE 2026 Est	YE 2027 Est	YE 2028 Est	YE 2029 Est
Atlanta	88.6%	92.5%	95.1%	96.8%	98.2%
Baltimore	92.3%	93.0%	93.9%	93.3%	92.5%
Boston	95.1%	94.5%	93.0%	90.8%	87.3%
Chicago	88.4%	89.4%	90.2%	90.5%	90.7%
Cincinnati	92.1%	89.5%	85.1%	77.7%	68.6%
Cleveland	88.8%	90.6%	91.6%	92.2%	92.8%
Dallas-Fort Worth	89.4%	89.6%	88.5%	86.0%	82.2%
Denver	89.0%	88.8%	87.1%	83.0%	76.7%
Detroit	89.8%	90.6%	91.1%	90.2%	88.2%
Houston	88.9%	90.2%	89.3%	87.7%	84.8%
Inland Empire	87.9%	89.8%	91.7%	93.2%	95.0%
Kansas City	86.4%	86.4%	87.2%	85.8%	83.7%
Las Vegas	87.4%	88.4%	89.4%	90.0%	90.6%
Los Angeles	91.5%	93.0%	92.7%	93.6%	94.4%
Miami	87.4%	89.1%	89.5%	87.4%	84.2%
Minneapolis	89.2%	89.9%	91.1%	91.1%	90.3%
New York City	90.4%	89.7%	88.1%	85.3%	81.1%
Orlando	88.4%	86.8%	84.3%	79.6%	73.4%
Philadelphia	92.6%	93.0%	92.8%	92.0%	90.6%
Phoenix	90.0%	90.7%	91.2%	91.7%	92.3%
Pittsburgh	94.9%	97.1%	99.7%	102.1%	104.7%
Portland	88.5%	88.3%	87.4%	85.7%	83.0%
Sacramento	84.1%	82.1%	78.9%	75.2%	68.5%
St. Louis	88.3%	88.8%	90.1%	90.4%	89.5%
San Antonio	88.4%	87.2%	84.4%	80.1%	73.7%
San Diego	88.1%	88.7%	89.3%	89.8%	90.4%
San Francisco	92.4%	92.9%	93.0%	92.6%	91.8%
San Jose	93.8%	95.0%	96.5%	98.2%	99.7%
Seattle	90.6%	89.8%	88.6%	85.6%	81.2%
Tampa Bay	90.4%	88.5%	85.9%	80.9%	74.1%
Washington, D.C.	90.4%	91.5%	92.5%	93.3%	94.2%

Highlighted entries indicate market at supply-demand balance with occupancy of 95% or better.

Source: Linneman Associates.

Note on Occupancy greater than 100%: In order to calculate estimated occupancy rates, we adjust beginning inventory for new construction completions and compare that to net absorption (including sublease space). If we show 100%+ occupancy rates, it simply means that given the scheduled supply and growth in expected demand, sufficient demand pressure exists to more than absorb all available space. Of course, 100%+ occupancy cannot occur, as in the face of such demand pressure additional development will occur and rents will increase in order to dampen demand. Therefore, forecasts of 100%+ occupancy should be viewed as a strong excess demand indicator.

Pipeline Sensitivity Analysis

Assisted Living Occupancy Rates - Base Case Pipeline

Market	YE 2025 Est	YE 2026 Est	YE 2027 Est	YE 2028 Est	YE 2029 Est
Atlanta	80.9%	82.1%	83.2%	84.0%	84.9%
Baltimore	89.7%	91.0%	93.1%	94.0%	95.5%
Boston	90.6%	91.5%	92.5%	93.7%	94.9%
Chicago	85.9%	86.4%	87.2%	87.9%	88.7%
Cincinnati	89.1%	90.5%	91.9%	92.7%	93.2%
Cleveland	86.7%	87.9%	88.9%	89.6%	90.4%
Dallas-Fort Worth	85.2%	85.9%	86.8%	87.5%	88.3%
Denver	85.7%	86.9%	88.5%	89.5%	89.9%
Detroit	82.4%	83.2%	84.4%	85.3%	86.0%
Houston	82.3%	84.0%	84.8%	85.8%	86.7%
Inland Empire	86.7%	87.6%	89.1%	90.4%	92.0%
Kansas City	85.4%	85.3%	86.9%	87.8%	89.0%
Las Vegas	85.4%	86.7%	88.0%	88.9%	89.7%
Los Angeles	86.5%	87.2%	87.0%	87.8%	88.5%
Miami	85.1%	87.5%	90.2%	92.1%	94.6%
Minneapolis	88.3%	89.1%	90.4%	90.9%	91.4%
New York City	88.5%	89.1%	90.0%	90.5%	90.9%
Orlando	85.9%	87.8%	89.7%	90.5%	91.2%
Philadelphia	84.4%	85.7%	87.0%	88.2%	89.7%
Phoenix	88.1%	88.9%	89.6%	90.5%	91.4%
Pittsburgh	83.1%	84.9%	87.1%	89.2%	91.5%
Portland	89.3%	90.6%	92.2%	93.0%	93.9%
Sacramento	89.0%	89.9%	91.1%	93.2%	94.5%
St. Louis	81.2%	81.8%	83.9%	85.3%	85.9%
San Antonio	85.3%	87.2%	88.9%	90.3%	91.2%
San Diego	86.8%	87.8%	89.5%	91.7%	94.3%
San Francisco	85.8%	86.5%	87.6%	88.5%	89.5%
San Jose	72.8%	70.8%	71.8%	73.8%	75.7%
Seattle	85.7%	86.9%	88.5%	89.8%	91.2%
Tampa Bay	90.2%	90.8%	92.0%	93.0%	93.9%
Washington, D.C.	82.5%	82.9%	84.0%	84.8%	86.0%

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Source: Linneman Associates

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Chicago	85.6%	85.3%	85.2%	85.1%	85.3%
Cincinnati	89.0%	90.0%	91.0%	91.4%	91.5%
Cleveland	86.7%	87.9%	88.9%	89.6%	90.4%
Dallas-Fort Worth	84.8%	84.0%	83.1%	82.4%	81.9%
Denver	85.3%	84.9%	84.7%	84.2%	83.3%
Detroit	82.2%	82.3%	82.7%	82.9%	83.0%
Houston	82.0%	82.6%	82.1%	82.0%	82.0%
Inland Empire	86.2%	85.5%	85.3%	85.0%	85.3%
Kansas City	84.9%	83.0%	82.5%	81.7%	81.4%
Las Vegas	85.4%	86.7%	88.0%	88.9%	89.7%
Los Angeles	86.3%	86.3%	85.3%	85.3%	85.4%
Miami	84.7%	85.9%	87.3%	88.0%	89.4%
Minneapolis	88.3%	88.8%	89.8%	90.0%	90.2%
New York City	88.3%	87.9%	87.8%	87.4%	87.1%
Orlando	85.7%	86.9%	88.1%	88.2%	88.4%
Philadelphia	84.2%	84.9%	85.6%	86.1%	87.1%
Phoenix	87.9%	87.9%	87.7%	87.9%	88.1%
Pittsburgh	83.0%	84.6%	86.6%	88.5%	90.6%
Portland	89.2%	90.0%	91.1%	91.4%	91.9%
Sacramento	88.8%	89.4%	90.1%	91.7%	92.7%
St. Louis	80.9%	80.3%	81.2%	81.5%	81.2%
San Antonio	85.3%	87.2%	88.9%	90.3%	91.2%
San Diego	86.5%	86.2%	86.6%	87.5%	88.9%
San Francisco	85.5%	84.8%	84.3%	83.8%	83.7%
San Jose	71.1%	63.9%	59.9%	57.7%	56.2%
Seattle	85.7%	86.5%	87.8%	88.9%	90.1%
Tampa Bay	90.0%	90.0%	90.5%	90.9%	91.3%
Washington, D.C.	82.1%	81.0%	80.4%	79.8%	79.7%

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