

NOVEMBER 2022

Multifamily Renovations a Small but Stable Part of Construction Activity

Multifamily construction projects primarily come in three categories: New Construction, Renovation Only (renovation), and Additions Only (additions), where additional units are added to an existing property. As expected, new construction is the largest category by far, with renovation representing less than a third of all construction projects annually. In 2021, renovation represented about 24 percent of all construction projects, totaling just under \$3 billion. (Most of the data discussed in this report does not include federally assisted projects, except as noted.)

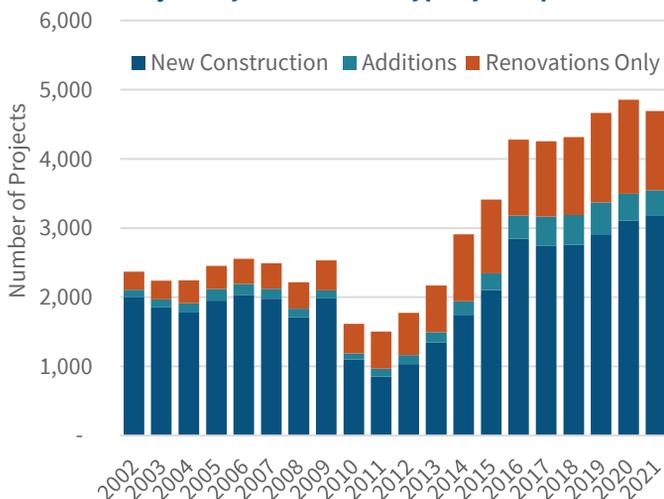
Renovation Projects Tend to Be Recession-Proof

According to Dodge Data & Analytics' Supply Track construction pipeline data, which distinguishes between multifamily apartment and condominium construction, prior to the end of the Great Recession in 2009, the number of multifamily renovation projects averaged just under 350 per year, as shown in the left-hand chart below. This represented just under 15 percent of all multifamily construction projects annually, as shown in the right-hand chart below.

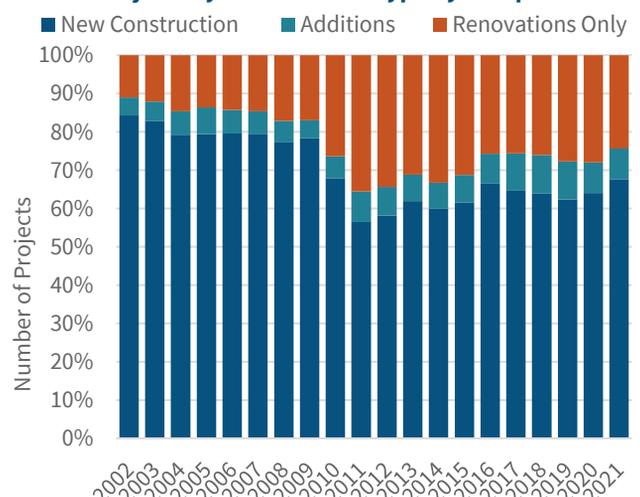
Interestingly, while banks pulled back from construction lending during the Great Recession, which affected new projects after 2010, the pullback did not appear to affect funding for renovation projects. This is most likely because renovating an existing property tends to be less risky than building a new property from the ground up. In fact, renovation projects almost doubled over the five-year period ending in 2014, averaging just under 650 projects per year and jumping to just under a third of all construction projects.

As the economy returned closer to pre-Great Recession job levels after 2014, spurring demand for all types of housing including rental apartments, new multifamily construction rebounded. However, renovation projects also increased, averaging about 1,200 projects annually or about one-quarter of all multifamily construction projects.

Number of Projects by Construction Type by Completion Year



Share of Projects by Construction Type by Completion Year



Source: Dodge Data & Analytics Supply Track, August 20, 2022, based on multifamily apartment construction projects valued at \$500,000 or higher. Excludes federally-assisted renovation projects such as those associated with federal Low Income Housing Tax Credits (LIHTC)

NOTE: Supply Track data is not an actual forecast of activity, it is a monitor of activity reported on to-date. As more projects are planned and tracked, figures in future periods might go up.

Multifamily Economic and Market Commentary

More than One Million Units Renovated in Past Two Decades

As shown in the table below, over the past 20 years, an estimated 14,100 multifamily apartment renovation projects have been completed, representing approximately 21 percent of all completed multifamily apartment construction projects, according to Dodge Data & Analytics. On average, the projects contained an estimated 75 units, suggesting that an estimated 1.1 million apartment units have undergone renovation over the past 20 years, with about 55,000 apartment units undergoing some sort of renovation each year. This represents about 18 percent of the total estimated 6 million apartment units, including federally assisted units, in properties that underwent construction over the past 20 years.

Summary of Completed Renovation Only Results Past 20 Years

Statistic	Estimated Number/Share
Total Completed Multifamily Construction Projects	66,000
Number of Conventional Renovation Only Projects	14,100
Renovation Only Project Share of Total	21%
Weighted Average Units in Renovation Only Projects	75
Estimated Units for All Renovation Projects	1,060,000
Total Estimated Completed Units All Construction	6,020,000
Estimated Renovation Only Unit Share of Total	18%

Source: Fannie Mae analytics based on Dodge Data & Analytics Supply Track data as of August 20, 2022. Based on multifamily apartment construction projects valued at \$500,000 or higher from January 1, 2002 – December 31, 2021. Total includes federally-assisted projects such as LIHTC projects.

Note: Unit information available for a subset of conventional renovation only projects annually. Total units based on sum of total projects per year multiplied by the average number of units per renovation only project where unit information is available.

Renovations Undertaken for Several Reasons

Renovations at multifamily properties are frequently undertaken to maintain both a property's condition and appeal. These renovations may include facade improvement, as well as more minor projects, such as updating kitchen cabinets or bathroom fixtures. These maintenance renovations tend to be more modest in scope. Simply painting or recarpeting is not generally substantial enough to be considered a renovation.

Renovation may also be part of an investment strategy. Value-Add investing involves purchasing an underperforming multifamily asset at a discount, implementing significant renovations, and then raising rents. Value-Add investing tends to be more substantial and may include things like changing a unit's layout to create an open floor plan for instance or redoing a kitchen or bathroom entirely, in addition to the renovations noted above.

Most data vendors do not track the reason for a renovation project generally. Often, the data is gathered from sources that do not provide such granular information, especially since renovations tend to have a short duration. However, renovations do vary greatly in construction dollar values, giving a hint as to the extent of the type of renovation that took place.



Multifamily Economic and Market Commentary

A Significant Share of Renovations Under \$1 Million

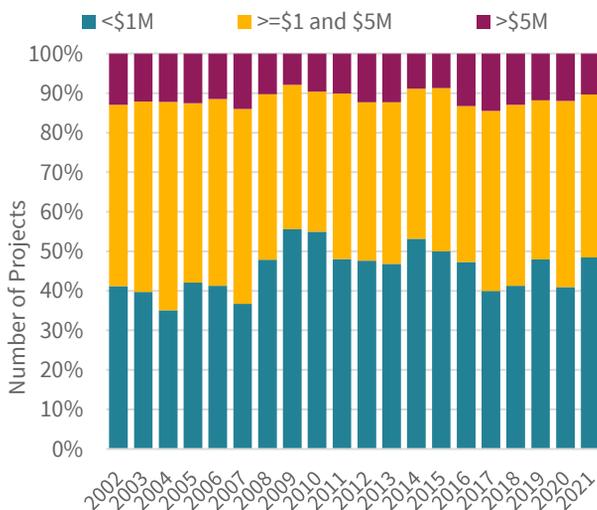
As shown in the left-hand chart below, a significant number of multifamily renovations have a construction value of under \$1 million. The share of renovations valued under \$1 million averaged about 38 percent of such projects in the run-up to the Great Recession, which started in December 2007. Given the relatively low value of these projects, it's possible that these reflect maintenance renovations to maintain property condition and appeal.

From the start of the Great Recession through approximately 2013, however, the number of renovations under \$1 million rose slightly to about half of all renovation projects annually. This uptick likely reflects the willingness of lenders to finance smaller, less risky projects during a period of economic uncertainty. It also reflects the importance placed on maintenance renovation projects to keep up a property's value as the share of such projects remained stable during this period.

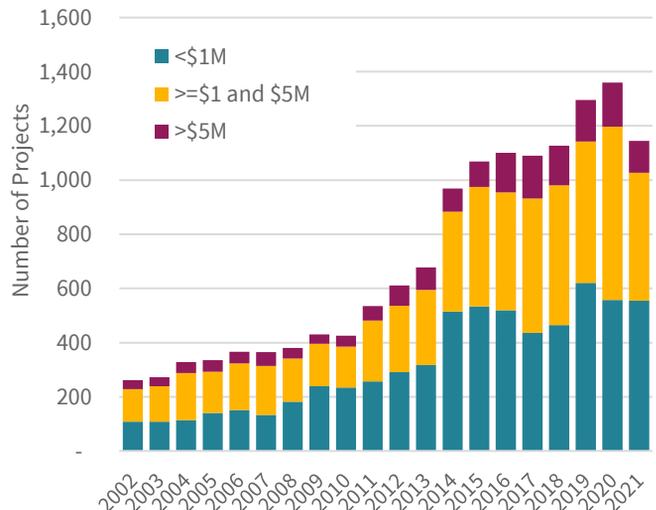
Share of Smaller Projects Remained Consistent Until 2014

However, what may be most interesting is that the share of projects estimated at under \$1 million has remained relatively stable. Since the start of 2014, the share of renovations has averaged about 45 percent of all projects, higher than the pre-Great Recession share. This is surprising as rising construction costs coupled with inflation suggest that the share of smaller renovation projects should have declined. And yet, as shown on the right-hand chart below, the number of renovations increased by about 300 projects to nearly 1,000 projects starting in 2014 and has remained at this number or higher annually since.

Share of Projects by Project Value by Completion Year



Number of Projects by Project Value by Completion Year



Source: Source: Dodge Data & Analytics Supply Track, August 20, 2022, based on multifamily apartment construction projects valued at \$500,000 or higher. Excludes federally-assisted renovation projects such as those associated with LIHTC.

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Multifamily Economic and Market Commentary

Mid-Range Renovation Projects On the Rise

Renovations valued under \$1 million saw the largest percentage increase in 2014, jumping over 60 percent to 515 projects, while renovations in the \$1 million to \$5 million range increased by 33 percent to about 370 projects.

However, from 2013 to 2020, renovations above \$1 million more than doubled to an estimated 800 projects compared to just an estimated 75 percent increase for projects valued at under \$1 million, or about 560 projects annually.

While a component of this increase is attributable to higher construction costs, increased investor appetite for multifamily due to rising demand for apartments likely also played a role. With rising construction costs making it more costly to build new apartment properties from the ground up, some investors likely found it easier to purchase existing properties and renovate them.

Most Renovation Projects Have a Construction Value Over \$1 Million

As shown in the table below, over the past 20 years, an estimated 14,100 multifamily renovations have been completed, impacting an estimated 1.1 million apartments. About 6,450 projects containing an estimated 360,000 units were for renovations valued under \$1 million, consistent with the annual data on the previous page. Another 6,000 projects containing an estimated 450,000 units were for renovations costing at least \$1 million but less than \$5 million. Just 1,650 projects containing an estimated 230,000 units were in renovations costing \$5 million or higher.

Still, over the past 20 years, the majority of renovations were valued at more than \$1 million. These totaled 7,650 over the past 20 years and contained an estimated 680,000 units, averaging just under 35,000 units per year.

Summary of Completed Multifamily Renovations Over Past 20 Years by Construction Project Value

Construction Project Value	Number	Share	Average Number of Units	Estimated Units
Under \$1M	6,450	46%	55	360,000
\$1M but less than \$5M	6,000	42%	75	450,000
\$5M and up	1,650	12%	140	230,000
Total	14,100	100%	75	1,060,000

Source: Source: Dodge Data & Analytics Supply Track, August 20, 2022, based on multifamily apartment construction projects valued at \$500,000 or higher from January 1, 2002 – December 31, 2021. Excludes federally-assisted projects such as LIHTC projects.

Note: Unit information available for a subset of conventional renovation only projects annually. Estimated units based total projects for each construction project value category multiplied by the average number of units per renovation only project where unit information is available, rounded up.



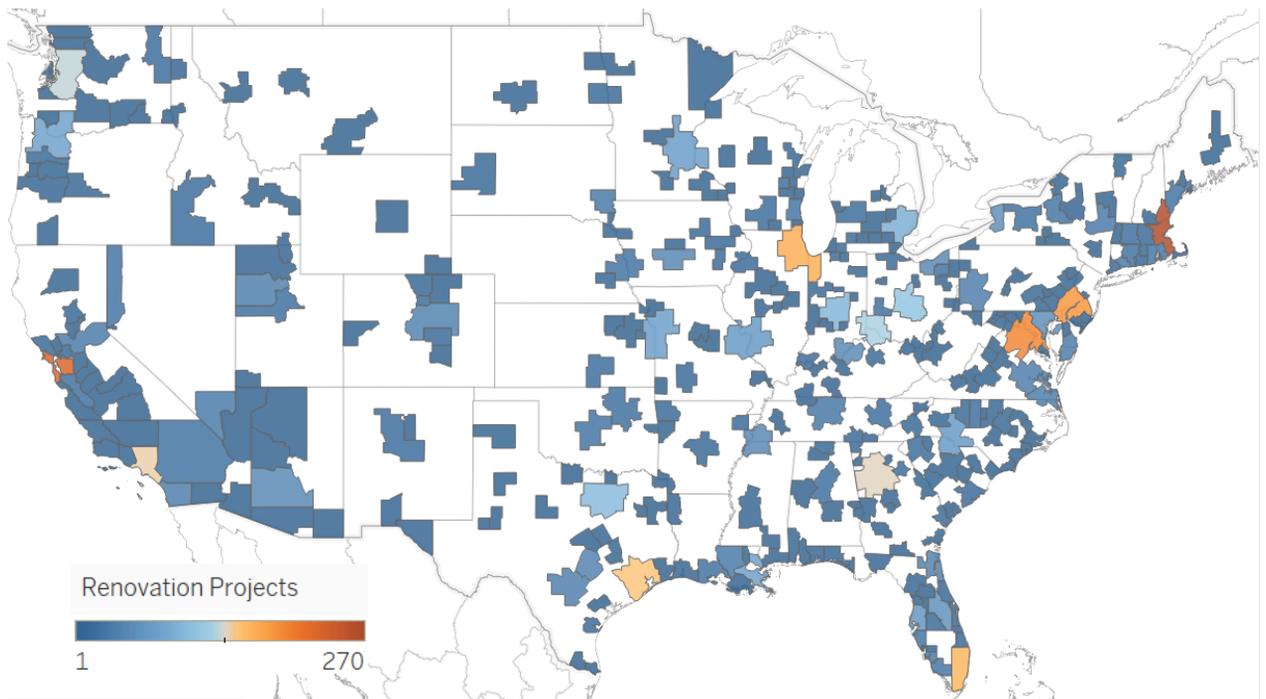
Multifamily Economic and Market Commentary

Most Renovations Occur in Larger Metros

Most multifamily renovations have occurred in older and larger metros, which tend to have many barriers to entry for new multifamily construction projects. With over 5,000 renovations since 2010 after the end of the Great Recession, the New York Metro area, which includes parts of New Jersey and Pennsylvania, is the clear leader in renovations. This is consistent with the metro area's status of having the nation's largest renter population, as well as being one of the most densely-populated.

Excluding the large New York metro area, many of the metro areas with the largest number of multifamily renovations over the past decade can also be found in some of the nation's oldest and largest metro areas, as shown below. The top five renovation metros since 2010 are **Boston, San Francisco, Washington, D.C., Philadelphia, and Chicago**. Interestingly, the **Miami** and **Houston** metro areas are also among the nation's top 10 metro areas for renovations. This is most likely due to the renovations necessary after several hurricanes. For instance, Houston saw a jump in renovations in 2017 and 2018 after Hurricane Harvey, while Miami saw a jump after Hurricane Irma in 2017.

Number of Completed Multifamily Renovation Projects Since 2010 by Metro Area*



Source: Source: Dodge Data & Analytics Supply Track, August 20, 2022, based on multifamily apartment construction projects valued at \$500,000 or higher from January 1, 2002 – December 31, 2021. Excludes federally-assisted projects such as LIHTC projects.

*Excludes the New York Metro Area with 5,300 projects since the start of 2010 to remove distortion from map.

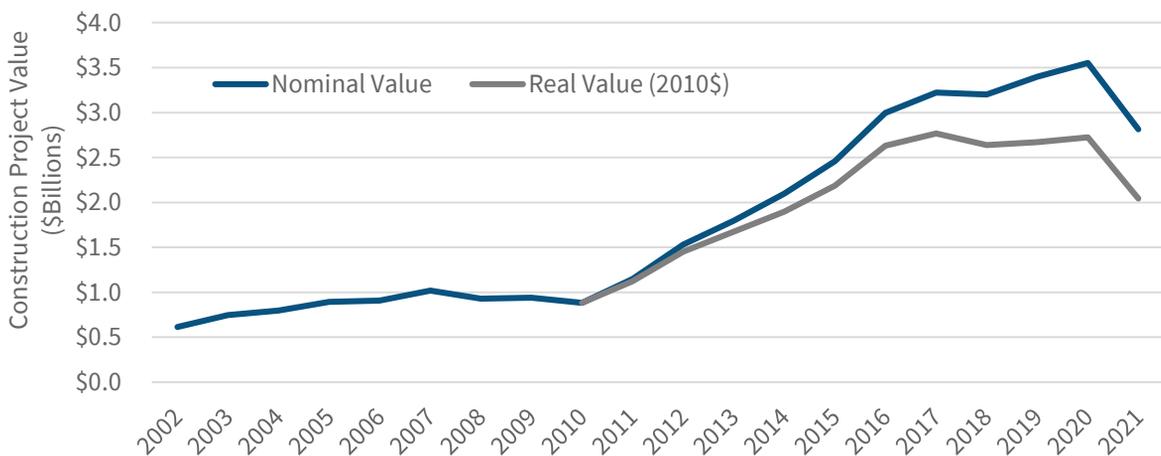
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Cost of Renovations Trended Downward in 2021

Since 2010, the cost of multifamily renovations has grown, averaging a total of \$2.4 billion annually. In 2020, the cost soared to \$3.6 billion – about four times the value recorded in 2010– before trending downward in 2021 to \$2.8 billion. Undoubtedly, rising construction costs coupled with labor shortages and supply chain disruptions likely contributed to the substantial increase, which since then appears to be moderating.

However, even taking into account the cost of rising materials, in real terms, the cost of multifamily renovations has increased steadily since 2010 and soared to an estimated \$2.7 billion in 2020 before declining to \$2.0 billion in 2021.

Total Construction Value of Completed Multifamily Renovation Projects Since 2002 Nominal and Real Value



Source: Source: Dodge Data & Analytics Supply Track, August 20, 2022, based on multifamily apartment construction projects valued at \$500,000 or higher from January 1, 2002 – December 31, 2021. Excludes federally-assisted projects such as LIHTC projects.

Real Value Index Source: U.S. Bureau of Labor Statistics (BLS): Producer Price Index (PPI) [Series ID = WPSFD431] - Final demand - Construction for private capital investment

Renovation Projects Staying Consistent

New multifamily properties built from the ground up have become more expensive over the past few years due to the increased cost of construction materials and the shortage of trained construction workers. In addition, the average new multifamily property can take between 18 and 36 months, if not longer, to complete. By contrast, many renovation projects are generally turned around in less than a year and require fewer workers and materials. Hence, they tend to be considered less risky for property owners and lenders alike. As a result, the level of renovation projects is much more stable from year to year than new construction.

Indeed, the share of renovations since 2015 has averaged about a quarter of all multifamily construction projects, higher than the 15 percent share prior to the Great Recession, and has provided a steady supply of updated apartments for renters over the past several years.



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