

Survey of Market Absorption of New Multifamily Units

***Third Quarter 2016 –ABSORPTIONS
(Completions in Second Quarter 2016)***

H130/16-Q3
Issued December 2016

U.S. Department of Commerce
Economics and Statistics Administration
U.S. Census Bureau
U.S. Department of Housing
and Urban Development

INTRODUCTION

This report presents data on how soon privately financed, nonsubsidized, unfurnished units in buildings with five or more units were rented (absorbed) in the third quarter of 2016 for units that were completed in the second quarter 2016.¹ The data are based on information collected in the Survey of Market Absorption of Multifamily Units (SOMA), which has been measuring market absorption for over forty years.

The SOMA is conducted by the U.S. Census Bureau, U.S. Department of Commerce, for the Department of Housing and Urban Development. The sample consists of approximately 1,000 buildings with five or more housing units. As with all surveys, estimates vary from actual values because of sampling variations or other factors. See the section on the *Accuracy of the Estimates*, at the end of this report, for more details.

Report Release Schedule

SOMA produces and releases Quarterly Reports three months after the end of the absorption quarter. For example, the units in this report were completed in the second quarter (April, May, and June) and had their initial absorptions recorded in the third quarter (July, August and September). In October and November, the data were analyzed and this report was released to the public the first week of December. For additional information, see [SAMPLE DESIGN](#).

In early April, an Annual Report is released that details information on all privately financed, nonsubsidized, unfurnished units in buildings with five or more units *absorbed* in the previous year. That report provides details on all construction and breaks down absorption in 3-month, 6-month, 9-month, and 12-month categories. Then in early July, a Characteristics Report is released which provides an overview of all privately financed, nonsubsidized, unfurnished units in buildings with five or more units *constructed* in the previous year. That report, along with construction data, includes details exclusive to the 3-month absorption rates for all of those units.

Seasonally Adjusted Data

This report presents both seasonally and non-seasonally adjusted estimates.

The construction of new housing units is typically higher during certain times of the year. For example, construction in the Northeast is lowest in December, January and February, when it is curtailed due to weather conditions (cold, snow, etc.). In contrast, new construction tends to rise during the summer.

¹ Most of the estimates presented in this report are based on unfurnished rental units. Some estimates of absorption rates include both rented and sold units, and are clearly labeled.

These seasonal changes in the number of new constructions reflect typical weather patterns that have a tendency to be repeated year after year. These changes make it difficult to determine whether changes from one month to the next are a measurement of normal seasonal patterns or to varying economic conditions. To adjust for these seasonal changes, a statistical technique called “seasonal adjustment” is used. Seasonally adjusting brings into play the history of the series to identify the seasonal movements and to calculate the size and direction of these movements. A seasonal adjustment factor is then developed and applied to the estimates to eliminate the effects of regular seasonal fluctuations on the data. When a statistical series has been seasonally adjusted, the normal seasonal fluctuations are smoothed out and data for any month may be more meaningfully compared with data from any other month or with an annual average. Many time series that are based on monthly data are seasonally adjusted.

HIGHLIGHTS²

- *NEW CONSTRUCTION, PRIVATE, UNFURNISHED:* During the second quarter of 2016, there were approximately 62,600 privately financed, nonsubsidized, unfurnished, rental apartments completed in buildings with five units or more. This represents 8,000 more units than the revised estimate of 54,600 units constructed in the previous quarter. However, the 62,600 units completed in the second quarter of 2016 were 5,000 fewer than the 67,600 constructed in the second quarter of 2015. (Tables 1 and 11; Figures 3 and 6).

Of the 268,100 total number of new unfurnished rental construction in buildings with five units or more completed in the previous four quarters, 159,500 units were rented prior to the third quarter of 2016. There were 62,400 units rented in the third quarter of 2016 with approximately 46,200 units remaining in the market available to rent at the end of the third quarter 2016 (Tables 9 and 9a).

- *ABSORPTION - SEASONALLY ADJUSTED:* Fifty-three percent of seasonally adjusted new completed, unfurnished rental apartments built in the second quarter of 2016 were rented within the first three months after completion. The 53 percent seasonally adjusted rate in the second quarter of 2016 was lower than both the revised rate of 58 percent for the first quarter 2016, as well as the 60 percent recorded in the second quarter 2015 (Table 1).
- *ABSORPTION - NOT SEASONALLY ADJUSTED:* Fifty-eight percent of the not-seasonally-adjusted new completed, unfurnished rental apartments built in the second quarter of 2016 were rented within three months of completion. There was no significant difference detected between the 2016 second quarter not seasonally-adjusted rate and the 57 percent from the first quarter 2016. The 58 percent of not-seasonally-adjusted 3-month absorptions in the second quarter 2016 was eight percentage points lower than the 66 percent recorded in the second quarter 2015 (Table 1; Figure 3).

² Details may not sum to totals because of rounding.

- *RENT:* The median asking rent for all privately financed, nonsubsidized, unfurnished rental units completed in buildings with five units or more in the second quarter of 2016 was \$1,445. There were no significant differences detected in the 2016 second quarter median asking rent and the revised median figure of \$1,442 for the first quarter 2016, nor the \$1,398 median asking rent in the second quarter of 2015 (Tables 2, 2a, and 3; Figure 1).

The 3-month absorption rate by asking rent ranged from 48 percent (Units renting for less than \$850) to 67 percent (\$1,250 to \$1,449). The median asking rent for units absorbed after three months was \$1,436 (Table 2).

- *NUMBER OF BEDROOMS:* During the second quarter of 2016, the largest percentage of new unfurnished rental construction in buildings with five units or more (47 percent) had one bedroom. Two-bedroom units accounted for 41 percent of new construction followed by three-or-more bedrooms with 7 percent. Efficiency (no bedroom) units accounted for the final five percent (Table 2; Figure 5).

After three months, 60 percent of the units with fewer than two bedrooms and 57 percent of the units with two bedrooms or more were absorbed (Table 2)

- *REGIONS:* The South led the nation in new unfurnished rental construction in buildings with five units accounting for approximately 51 percent of the total production. The next highest percentage was in the West with 24 percent. The Midwest was next with 14 percent followed by the Northeast with 11 percent of the new construction during the second quarter of 2016 (Table 4).

After three months, the absorption rate ranged from 54 percent each in the Midwest and South to 69 percent in the West.

- *CONDOMINIUM/COOPERATIVE UNITS:* An estimated 2,800 condominium/cooperative apartments in buildings with five units or more were completed in the second quarter of 2016. There was no significant difference detected between the 2,800 units and the revised estimate of 3,200 units constructed in the previous quarter, nor the 2,700 constructed in the second quarter of 2015. (Table 5, Figure 6). Condominium and Cooperative units accounted for approximately four percent of all completions in buildings with five units or more during the second quarter in 2016. (Table 5; Figure 2).
- *CONDOMINIUM UNITS ONLY:* Of the 2,800 condominium/cooperative apartments completed in the second quarter of 2016, condominium only units accounted for 2,600. Approximately 63 percent of those condominiums were sold within three months of completion. No significant differences were detected between the 63 percent three-month absorption rate and the revised figure of 64 percent in the previous quarter. The median asking price for new condominiums in 2016 exceeded our upper limit of

\$700,000 for the second quarter in a row (Tables 6 and 7).³

Of the 13,300 total number of new condominium units in buildings with five units or more completed in the past four quarters, 8,400 units were sold prior to the third quarter of 2016. There were 3,000 units sold in the third quarter of 2016 and approximately 1,900 units remained on the market for sale at the end of the third quarter (Tables 10 and 10a).

- *ALL APARTMENTS:* An estimated 71,400 apartments were constructed in all buildings with five units or more in the second quarter of 2016. This is approximately 5,700 units more than the 65,700 number of total units built in the previous quarter. However the 71,400 total units was 9,500 fewer than the 80,900 built in the second quarter of 2015 (Table 11; Figures 3 and 4).
- *OTHER UNITS:* Of the remaining apartments completed in all buildings with five units or more in the second quarter of 2016, there were 700 available as furnished units and approximately 4,700 units were federally subsidized or receiving a tax credit. There were 600 units which were classified as out of scope (i.e., dormitories, townhouses, timeshare, continuing-care, retirement units) (Table 11; Figures 7 and 8).

CHARACTERISTICS OF THE DATA

All statistics from the SOMA refer to apartments in newly constructed buildings with five units or more. Absorption rates reflect the first time an apartment is rented after completion or the first time a condominium or cooperative apartment is sold after completion. If apartments initially intended to be sold as condominium or cooperative units are, instead, offered by the builder or building owner for rent, they are counted as rental apartments. Units categorized as federally subsidized or receiving tax credits include the units subsidized under the following Department of Housing and Urban Development (HUD) or Federal Housing Administration (FHA) programs --Sections 8, 202, 811, 221(d)(3) or 221 (d)(4). In addition, units receiving Low Income Housing Tax Credit (LIHTC) through the Internal Revenue Service program are included in this category. The data on privately financed units include privately-owned housing subsidized by state and local governments. Time-share units, continuing-care retirement units, and turnkey units (privately built for and sold to local public housing authorities after completion) are outside the scope of the survey.

Tables 1, 2, 2a, 3, 4, 9 and 9a provide information about privately financed, nonsubsidized, unfurnished, rental apartments. Table 5 provides information about privately financed, nonsubsidized condominium and cooperative apartments, while Tables 6, 7, 8, 10, and 10a provide information about condominium apartments only. Table 11 summarizes the totals for all types of newly constructed apartments in buildings with five units or more.

³ The questionnaire asks twelve range categories of selling price from less than \$200,000 to \$700,000 or more.

Additionally, SOMA tabulates and reports absorption rates for units based on their Core Based Statistical Area (CBSA). CBSAs include an urban center of at least 10,000 people and adjacent areas that are socioeconomically tied to the urban center by commuting. The term "CBSA" refers collectively to both metropolitan statistical areas and micropolitan areas. Micropolitan areas are based around Census Bureau-defined urban clusters of at least 10,000 and fewer than 50,000 people. Absorption rates within the CBSAs are further divided into Inside Principal City and Outside Principal City.

Principal Cities of a CBSA are the largest incorporated places with a population of at least 10,000 in the CBSA. If there is no such place present in the CBSA, the largest incorporated place or census designated place (CDP) in the CBSA is termed the Principal City. Principal cities also include any additional incorporated place or CDP with a population of at least 250,000 or in which 100,000 or more persons work.

Geographic regions. The four major regions of the United States for which data are presented in this report represent groups of States as follows:

Northeast: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont, New Jersey, New York, Pennsylvania.

Midwest: Illinois, Indiana, Michigan, Ohio, Wisconsin, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota.

South: Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia, Alabama, Kentucky, Mississippi, Tennessee, Arkansas, Louisiana, Oklahoma, Texas.

West: Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming, Alaska, California, Hawaii, Oregon, Washington.

NOTE TO DATA USERS:

In April of 2014, the Survey of Market Absorption of New Multifamily Units (SOMA) began using interviewing software on laptop computers to collect data for January 2014 completions. At the same time, we revised the asking rent and selling cost ranges for residential buildings containing five or more units.

SOMA adopted new ratio estimation procedures in 1990 to derive more accurate estimates of completions (See [ESTIMATION](#)). Please use caution when comparing the number of completions in 1990 and following years with those in earlier years.

SAMPLE DESIGN

The Census Bureau designed the survey to provide data concerning the rate at which privately financed, nonsubsidized, unfurnished units in buildings with five or more units are rented or sold (absorbed). In addition, the survey collects data on characteristics such as number of bedrooms, asking rent, and asking price.

Buildings for the survey come from those included in the Census Bureau's Survey of Construction (SOC).⁴ For the SOC, the United States is first divided into primary sampling units (PSUs), which are stratified based on population and building permits. The PSUs to be used for the survey are then randomly selected from each stratum. Next, a sample of geographic locations that issue permits is chosen within each of the selected PSUs. All newly constructed buildings with five units or more within sampled places and a subsample of buildings with one to four units are included in the SOC.

For SOMA, each quarter the Census Bureau selects a sample of buildings with five or more units that have been reported in the SOC sample as having been completed during that quarter. The SOMA does not include buildings completed in areas that do not issue permits.⁵

In each of the subsequent four quarters, the proportion of units in the quarterly sample that are sold or rented (absorbed) are recorded, providing data for absorption rates 3, 6, 9, and 12 months after completion.

An annual SOMA report is produced at the end of the first quarter of every year and details absorption information for all privately financed, nonsubsidized, unfurnished units in buildings with five or more units from the previous year. Additionally, every five years a comprehensive report is produced that includes ten (10) additional tables that provide historical data that is restricted to privately financed, nonsubsidized, unfurnished rental apartments and condominium/cooperative units.

ESTIMATION

The Census Bureau publishes preliminary estimates for a given quarter and may revise these estimates in ensuing quarters. Each quarter, some of the absorption data for some buildings arrive after the deadline for that quarter's report; these late data appear as revised in tables released in the next quarterly report. Final data appear in the Census Bureau's H-130 report series, *Survey of Market Absorption of New Multifamily Apartments* annual report. Beginning with data on completions in the fourth quarter of 1990 (which formed the basis for

⁴ See Section V (sample design) http://www.census.gov/construction/nrc/how_the_data_are_collected/soc.html for further details on the SOC sample design.

⁵ The U.S. Census Bureau Building Permits Survey provides data on the number of new housing units authorized by building permits. Data are available monthly, year- to- date, and annually at the national, state, and selected metropolitan area levels. See: <https://www.census.gov/construction/bps/>.

absorptions in the first quarter of 1991), the Census Bureau modified the estimation procedure and applied the new procedure to the data for the other three quarters of 1990, so that annual estimates using the same methodology for four quarters could be derived. The Census Bureau did not perform any additional re-estimation of past data.

Using the original estimation procedure, the Census Bureau created design-unbiased estimates by multiplying the counts for each building by its base weight (the inverse of its probability of selection) and then summing over all buildings. Multiplying the design-unbiased estimate by the following ratio estimate factor for the country as a whole provided the final estimate:

*“total units in buildings with five units or more in permit-issuing areas as estimated by the SOC for that quarter⁶ **divided by** total units in buildings with five units or more as estimated by the SOMA for that quarter.”*

In the modified estimation procedure, instead of applying a single ratio-estimate factor for the entire country, the Census Bureau computes separate ratio-estimate factors for each of the four census regions. Multiplying the unbiased regional estimates by the corresponding ratio-estimate factors provides the final estimate for regions. The Census Bureau obtains the final estimate for the country by summing the final regional estimates.

This procedure produces estimates of the units completed in a given quarter that are consistent with the published figures from the SOC and reduces, to some extent, the sampling variability of the estimates of totals.

Absorption rates and other characteristics of units not included in the interviewed group or not accounted for are assumed identical to rates for units about which data were obtained. The noninterviewed and not accounted for cases constitute less than two percent of the sample housing units in this survey.

A survey interview is complete once the Field Representative collects information for the bedrooms. SOMA does not collect the characteristics for subsidized units, therefore, if any unit that is a Section 8 or receives any government assistance the interview is then complete.

An interview is considered a sufficient partial interview when at least the building type (Unfurnished Rental, Furnished Rental, Cooperative, Condominium, or Owned or Leased by a Public Housing Agency) is recorded.

⁶ Beginning with January 2001 completions, the SOC revised its methodology for estimating the number of units completed for 5+ multi-unit structures. See http://www.census.gov/ftp/pub/const/www/new_methodology_const.html for these changes. Thus, caution is advised when comparing data from 2001 and forward to any estimates prior to 2001.

The response rates for SOMA are calculated by dividing the number of building interviews by the number of eligible buildings:

$$\frac{\text{Interviews}}{\text{Interviews plus Type A's (e.g. refusals)}} \times 100$$

Out of Scope cases (i.e., dormitories, townhouses, group quarters, timeshare, continuing-care, retirement unit) are excluded in this calculation.

The response rate for 2016 Third Quarter Absorptions (2016 Second Quarter Completions) interviewing was 82.6 percent.

ACCURACY OF THE ESTIMATES

The SOMA is a sample survey and consequently all statistics in this report are subject to sampling variability. Estimates derived from different samples would likely differ from these.

Two types of possible errors are associated with data from sample surveys: nonsampling and sampling.

Nonsampling Errors

In general, nonsampling errors can be attributed to many sources: inability to obtain information about all cases in the sample, difficulties with definitions, differences in interpreting questions, inability or unwillingness of the respondents to provide correct information, and data processing errors. Although no direct measurements of any bias that might result from nonsampling errors have been obtained, the Census Bureau employs quality control procedures throughout the process to minimize this type of error.

Sampling Errors

The particular sample used for this survey is one of many possible samples of the same size that could have been selected using the same design. Even if the same questionnaires, instructions, and interviewers were used, estimates from different samples would likely differ from each other. The deviation of a sample estimate from the average of estimates from all possible samples is defined as the sampling error. The standard error of a survey estimate provides a measure of this variation and, thus, is a measure of the precision with which an estimate from a sample approximates the average result from all possible samples.

If all possible samples were selected, if each was surveyed under the same general conditions, and if an estimate and its estimated standard error were calculated from each sample, then:

Approximately 90 percent of the intervals from 1.645 standard errors below the estimate to 1.645 standard errors above the estimate (i.e., the 90 percent confidence interval) would include the average result from all possible samples.

This report uses a 90-percent confidence level as its standard for statistical significance.⁷ The estimates in this report show the totals, percentages, and medians with the 90-percent confidence interval.

For very small estimates, the lower limit of the confidence interval may be negative. In this case, a better approximation to the true interval estimate can be achieved by restricting the interval estimate to positive values, that is, by changing the lower limit of the interval estimate to zero.

The average result from all possible samples either is or is not contained in any particular computed interval. However, for a particular sample, one can say with specified confidence that the average result from all possible samples is included in the constructed interval.

For example, Table 2 of this report illustrates that during the second quarter of 2016 (April - June), the median asking rent for an apartment with two or more bedrooms was \$1,540. The 90-percent confidence interval around this estimate is \$1,540 +/- \$59. Thus, the 90-percent confidence interval shown by these data is from \$1,481 to \$1,599. A conclusion that the estimate derived from all possible samples lies within a range computed in this way would be correct for roughly 90 percent of all possible samples.

⁷ Beginning with data for completions in the third quarter of 1999, the Census Bureau implemented a new procedure for computing standard errors. The new procedure may result in differences in standard errors derived using the prior methodology, so standard errors were revised back to the third quarter of 1998.