



## Characteristics of Homes Started in 2012: Size Increase Continues

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Economics and Housing Policy

Every year, the Census Bureau produces a data set on new single-family homes, which includes information on when (or if) the homes were sold, started and completed. This study is based on tabulating the recently released data for homes that were started during a particular calendar year.

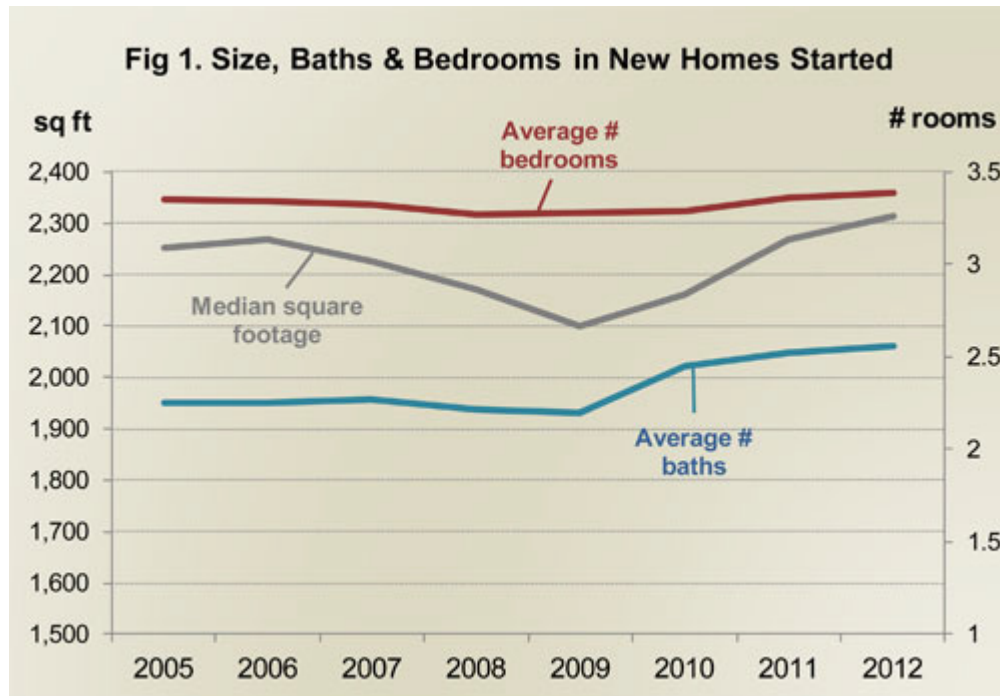
Findings include the following:

- Although the size of new homes declined during the last downturn, that trend reversed itself after 2009.
- Since 2009, the median size of new homes started increased steadily, until it reached more than 2,300 square feet in 2012, the highest the annual number has been since the inception of the series in 1974.<sup>1</sup>
- During the downturn, the share of new homes financed with FHA and VA insured loans increased from 5 percent in 2006 to as high as 27 percent in 2010, indicating that government backed mortgages are sorely needed to prop up activity during a downturn.
- As of 2012, FHA/VA insured loans still account for well over 20 percent of the market for new single-family homes.
- There is a clear geographic pattern to the exterior amenities included with new homes. Patios are currently most common on new homes in the West South Central Census division (where they were included on 73 percent of homes started in 2012). Decks are most common on new homes in New England (72 percent). Porches are most common on new homes in the East South Central division (90 percent).

### Data on Size

The data come from the [Survey of Construction](#) (SOC), which is conducted by the Census Bureau's Manufacturing and Construction Division, partly funded by HUD, and the source of the familiar monthly series on housing starts. In the process of tracking construction, the survey collects some information on characteristics of the homes being built, and the Census Bureau publishes a portion of this on its web site, but mostly based on homes that are completed during a calendar.

An advantage of looking instead at homes **started** is that a start occurs before a completion and can therefore detect changing trends slightly earlier. During the latest downturn, for example, the median size of new single-family homes started began to decline in 2007, a year before the annual trend showed up in homes completed. After 2009, however, that trend reversed itself and the median size of new homes started increased steadily, with the annual number breaking above 2,300 square feet for the first time in 2012 (Figure 1).



The average number of bathrooms in new single-family shows a similar trend—edging down from 2.27 in 2007 to 2.20 in 2009, then turning around and increasing regularly to a high of 2.56 in 2012. The average number of bedrooms also declined during the downturn, reaching a low point in 2008 and increasing thereafter, but the changes were very gradual.

Garage size is another measure that shows the same pattern of decline during the downturn followed by subsequent recovery. The share of new single-family homes started with 3 (or more) car garages dipped to below 16 percent in 2009 before increasing to back over 19 percent in 2012.

The pattern of temporary decline in house size during a downturn followed by recovery and resumption of the upward trend has happened before—the last time coincident with the recession and recovery of the early 1980s. In the 2000s, it seemed likely the decline in home size was due to factors more likely to persist after a downturn ended—such as

increased desire to keep energy costs down, and reduced desire for more floor space simply to achieve appreciation on a larger base.

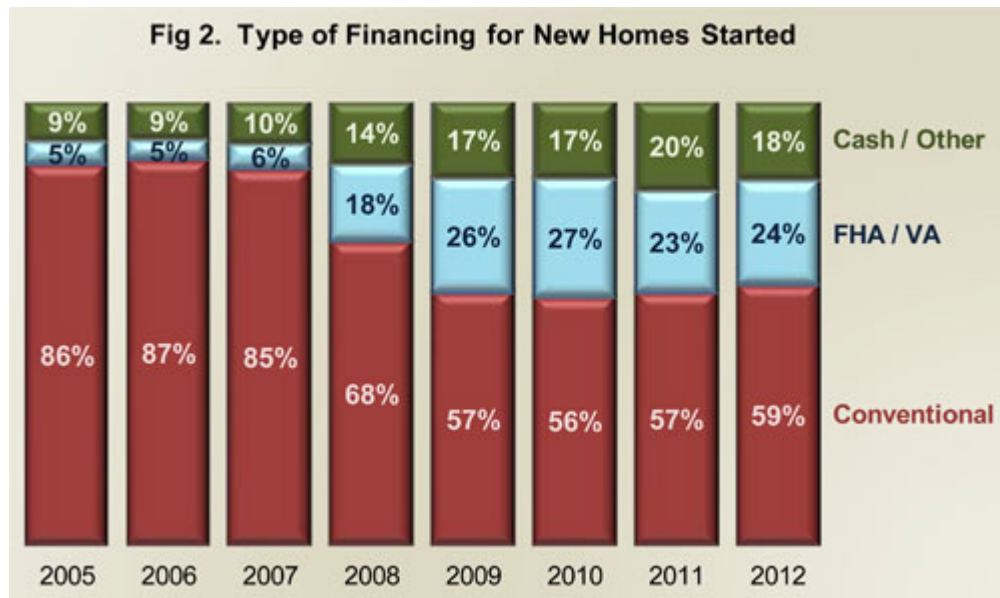
When the size of new homes began to tick up again in 2010, it occurred against a backdrop of historically low housing starts and tight credit conditions; so the increase seemed attributable in part to a historically smaller share of first-time and other marginal buyers in the market for new homes.

By the end of 2012, housing starts had only recovered to a modest extent, so the continued upward trend in size could still be driven partly by an atypical mix of buyers in the market. The longer the upward trend persists while the recovery strengthens, however, the more alternate explanations will be needed. Possibly, energy efficient construction techniques—such as those promulgated in the [National Green Building Standard](#)—are alleviating concerns about conditioning costs associated with a few extra square feet of living space.

### **Financing Trends**

The single-family SOC questionnaire gives builders five options for classifying the type of financing that has been or will be arranged for a new house: a mortgage insured by the Federal Housing Administration (FHA), a mortgage insured by the Veteran's Administration (VA), conventional financing (i.e., a mortgage not insured by a government agency like FHA or VA), cash, and other.<sup>2</sup> The Census Bureau provides no detail on what builders write in for the description when they choose the “other” category.

During most of recent history, conventional loans have accounted for at least 80 percent of new home financing. During the peak years of 2005 and 2006, for example, conventional loans accounted for over 85 percent of the new home market (Figure 2). At that time, the share financed with FHA or VA insured loans shrank to 5 percent, leading some observers to wonder at the time if government insured loans were serving a significant purpose.



The effects of the financial crisis and housing downturn show up in the figure as a declining share of conventional financing in favor of the alternatives, beginning in 2008. Even while the new home market contracted, the conventional loan share of the market dropped sharply to under 60 percent. Cash and “other” made up part of the difference, but the increasing share of loans insured by FHA and VA was particularly dramatic—from 5 percent in 2006 to as high as 27 percent in 2010.

The policy implication is clear. During boom times, government insured mortgages may seem unnecessary, but the insurance is sorely needed to prop up activity during a severe downturn.

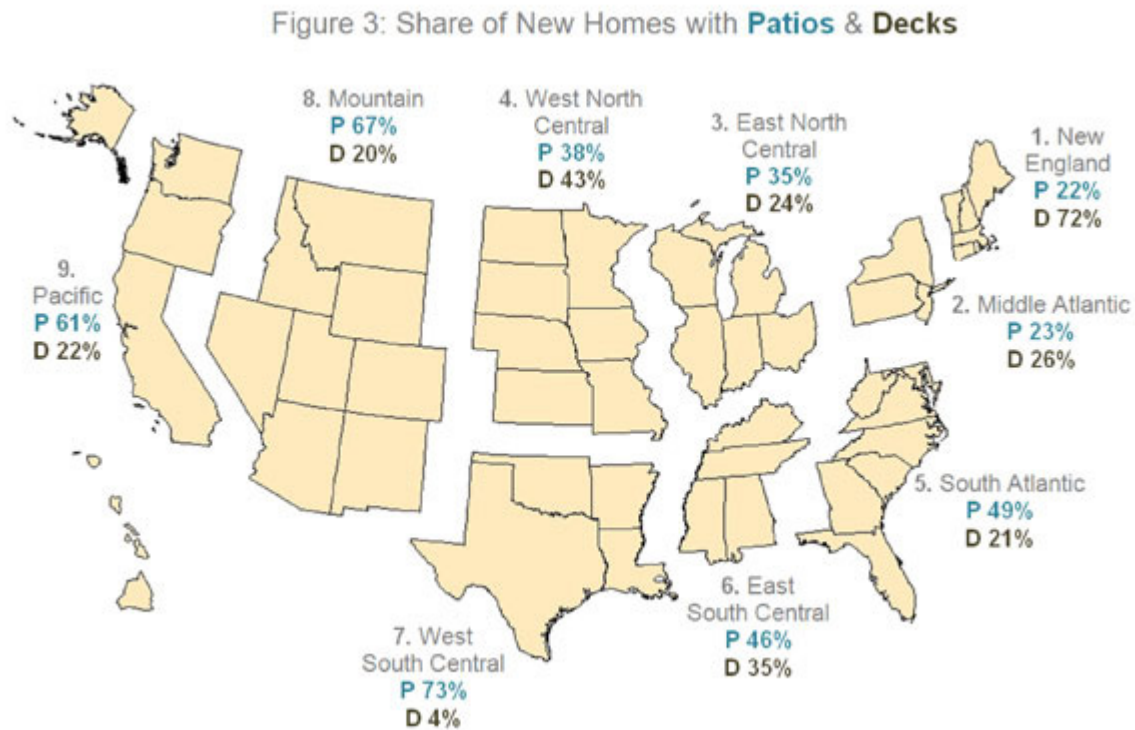
As of 2012, the signs of stress in the new home market, as demonstrated by the type of financing used, have not eased much. Conventional mortgages still account for under 60 percent of the new home market, and the FHA/VA insured share is still well over 20 percent.

### **Exterior Amenities**

Another part of the single-family SOC questionnaires asks builders if the new homes they are building will have decks, patios or porches.

There have been some mild trends in the incidence of these amenities in new homes over time. Since 2005 the share of new homes built with porches increased from 54 to over 63 percent, for example, and the share with decks drifted downward from 26 to 22 percent. The share built with decks was at a relatively high 52 percent in 2012, but has generally hovered right around 50 percent in the recent past.

The real story about these exterior amenities, however, is the geographic pattern to the homes built with them. Beginning in 2009, in a move strongly endorsed by NAHB, the Census Bureau provided slightly more geographic detail in its SOC data file, so it's now possible to tabulate results for new homes started in each of the nine census divisions (Figure 3).



As the figure shows, patios are most common on new homes in the West South Central (where they were included on 73 percent of single-family homes started in 2012) and Mountain (67 percent) states, followed by the Pacific Division (at 61 percent). Patios are least common in New England (22 percent in 2012), the Middle Atlantic (23 percent) and East North Central (35 percent). These rankings have remained relatively stable over the past several years, although the adjacent Mountain and West South Central divisions have changed places at the top of the list since 2009.

While patios are less popular on new homes in New England than in other divisions, New England is where decks turn out to be most popular, being included on 72 percent of single-family homes started in that division in 2012. New England is followed at a distance by the West North Central (43 percent) and East South Central (35 percent). In contrast, decks are quite uncommon in the West South Central, where they were included on only 4 percent of the new homes started in 2012. In the other Census Divisions, the deck percentages are clustered together in the low to mid 20s. These geographic tendencies have remained relatively stable since 2009.

In terms of porches included on new homes, two divisions have been at the extremes since 2009. Consistently, at least 90 percent of homes started in the East South Central division have had porches. At the other extreme, the share of new homes with porches in the Middle Atlantic has been under 50 percent every year—often far under, such as the 38 percent for homes started in that division in 2012.

A table showing all the numbers discussed above, plus many others, for new homes started at the national level from 2005 through 2012, and broken down by Census Division for 2012, is available in a file that can be opened or downloaded from the “other resources” box that appears at the top of this article when viewed on NAHB’s website.

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<sup>1</sup> The Census Bureau publishes size of new homes started by quarter on its web site. The median size of new homes started was as high as 2,336 square feet in the first quarter of 2011, but 2012 is the first time the annual number has been over 2,300.

<sup>2</sup> In some venues, the term “conventional” is applied to loans that are eligible for purchase by Fannie Mae and Freddie Mac. In addition to government insured loans, these exclude “jumbo” mortgages that exceed the Fannie/Freddie conforming limit. In the SOC, however, the Census Bureau uses conventional as described above—i.e., for all mortgages not government insured.

**Table 1. Characteristics of New Single-Family Homes Started**

	Total U.S. 2005 to 2012								2012 By Census Division								
	2005	2006	2007	2008	2009	2010	2011	2012	1. NE	2. MA	3. ENC	4. WNC	5. SA	6. ESC	7. WSC	8. MT	9. PA
<b>Total starts (000s)</b>	1,731	1,465	1,037	627	446	473	431	537	14	33	51	42	138	35	106	62	56
Built for sale (or sold)	79.2%	76.5%	72.6%	65.3%	66.4%	64.8%	66.6%	69.5%	57.3%	54.0%	49.3%	66.9%	75.7%	57.2%	67.4%	84.6%	81.3%
Contractor built	11.4%	12.9%	14.4%	17.2%	18.6%	17.5%	17.3%	15.3%	26.1%	21.7%	28.4%	15.1%	12.6%	17.8%	16.3%	8.8%	8.0%
Owner built	7.5%	8.1%	10.0%	12.0%	11.4%	11.6%	11.0%	8.8%	12.5%	10.4%	14.9%	8.4%	8.4%	13.7%	7.4%	4.7%	6.6%
Built for rent	1.9%	2.5%	3.0%	5.5%	3.6%	6.1%	5.1%	6.4%	4.1%	13.8%	7.4%	9.6%	3.3%	11.3%	8.9%	1.9%	4.2%
In a community association	na	na	na	na	47.6%	48.0%	51.8%	53.7%	26.2%	31.1%	33.2%	29.0%	66.0%	43.8%	61.0%	72.4%	52.8%
Age restricted	na	na	na	na	2.0%	2.7%	3.0%	2.8%	6.5%	8.5%	1.5%	1.0%	4.6%	0.5%	1.1%	2.4%	1.4%
Median sales price (\$000)	\$241	\$256	\$250	\$228	\$211	\$225	\$234	\$245	\$395	\$326	\$239	\$223	\$252	\$216	\$192	\$245	\$300
Median contract price (\$000)	\$200	\$200	\$206	\$217	\$195	\$191	\$208	\$206	\$260	\$220	\$200	\$232	\$220	\$172	\$150	\$265	\$276
Median lot size (sq.ft.)	10,000	10,000	10,400	10,875	10,220	10,500	10,210	9,450	32,670	12,690	16,608	10,003	10,890	17,424	7,700	7,910	6,138
Median lot value (\$000)	\$40	\$43	\$42	\$40	\$40	\$40	\$40	\$43	\$125	\$50	\$45	\$37	\$40	\$37	\$30	\$45	\$64
Median square footage	2,253	2,268	2,227	2,170	2,100	2,160	2,268	2,315	2,160	2,322	2,242	2,001	2,592	2,084	2,261	2,274	2,297
Avg no. bathrooms	2.25	2.25	2.27	2.22	2.20	2.45	2.52	2.56	2.51	2.59	2.34	2.43	2.71	2.44	2.50	2.58	2.61
Avg no. bedrooms	3.35	3.34	3.32	3.27	3.28	3.29	3.36	3.38	3.05	3.29	3.12	3.20	3.56	3.23	3.37	3.41	3.56
<b>Share built with</b>																	
Basement (full or partial)	29.3	28.0	29.3	28.8	29.2	29.6	29.8	30.2	17.5	17.3	28.6	40.7	42.1	13.9	75.7	26.5	75.9
3+ car garage	19.4	18.3	18.4	17.3	15.8	16.2	18.4	19.7	8.8	9.7	33.7	40.2	10.9	13.5	14.6	34.6	19.3
Heat pump (for main heating)	31.4	33.2	32.2	37.0	38.0	38.9	38.9	37.2	2.6	11.2	20.3	12.1	74.0	58.7	42.9	10.4	8.6
Fireplace	54.8	51.8	51.6	51.9	48.8	48.3	50.3	49.2	62.4	50.7	49.4	44.9	47.0	48.5	49.3	43.0	61.9
Central air conditioning	89.5	89.5	89.5	89.0	89.1	88.7	89.1	90.4	68.6	89.9	89.2	98.6	99.8	97.8	98.9	79.9	54.4
Patio	48.1	50.4	48.8	46.6	44.8	45.0	48.2	52.4	22.1	22.9	34.9	37.7	48.8	45.6	72.9	67.3	61.0
Porch	54.1	56.4	59.4	60.0	63.0	63.6	65.7	63.9	60.7	37.7	72.0	46.9	62.4	90.5	61.9	72.2	66.9
Deck	26.1	25.1	27.0	27.0	24.5	24.6	23.6	22.2	72.0	25.9	24.2	43.2	21.4	35.0	4.0	20.4	21.5
<b>Primary siding material (percent)</b>																	
Vinyl	31.1	29.3	31.2	33.0	36.2	37.3	34.4	32.3	74.8	81.8	62.3	62.5	42.5	21.7	4.9	9.3	1.1
Brick	20.9	22.4	23.2	23.8	23.2	23.3	24.1	24.5	0.3	5.8	20.9	1.8	18.3	66.9	64.7	1.3	0.2
Stucco	22.2	21.3	21.5	19.7	17.5	17.3	17.9	20.1	0.7	2.8	1.2	2.1	26.5	0.4	7.2	56.6	46.2
Fiber cement	9.9	12.7	12.1	11.9	13.1	13.0	14.5	16.5	7.2	5.9	6.1	18.1	10.8	5.5	15.8	25.9	45.4
Wood / wood product	8.5	7.7	8.2	9.4	8.3	7.6	7.0	5.0	16.0	3.1	7.5	13.3	1.5	3.0	3.4	6.2	6.9
Other	1.1	1.4	1.8	2.2	1.8	1.4	2.0	0.3	0.0	0.0	0.1	1.4	0.1	1.0	0.3	0.0	0.0
<b>Type of financing (percent)</b>																	
Conventional	85.7	86.7	84.8	68.2	56.7	55.9	56.8	58.6	60.4	72.9	79.6	61.1	61.9	63.6	48.2	45.5	53.5
FHA	3.5	2.9	3.3	13.7	19.9	18.9	15.0	15.9	4.2	3.7	5.0	5.7	17.0	13.4	20.2	23.3	24.0
VA	1.9	1.7	2.4	4.1	6.2	8.0	8.2	7.9	1.9	0.4	0.8	12.0	10.6	3.6	4.3	17.6	6.4
Cash	7.4	7.5	7.9	11.1	10.4	10.2	12.3	11.1	31.3	20.2	11.6	17.1	5.7	13.1	11.9	10.0	10.7
Other	1.5	1.2	1.6	3.0	6.8	7.0	7.7	6.5	2.2	2.7	3.0	4.0	4.8	6.3	15.4	3.7	5.5

Source: NAHB tabulations of the [Survey of Construction Microdata Files](#) U.S. Census Bureau.