

Concentration in the Homebuilding Industry

Trends, Strategies, and Prospects

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Abstract

Although still fragmented, the homebuilding industry has undergone changes in recent years that have increased the share of production by larger builders. The top 100 builders nationally now account for about half of all new single-family home sales, up from just over a third two decades ago. However, most of these gains reflect the growing market share of just two home construction companies – D.R. Horton and Lennar. These two home builders have achieved economies of scale by concentrating their building activity in the nation’s 50 largest metro markets, as well as by making strategic acquisitions. While homebuilding is unlikely to reach the same degree of concentration as many other major industries, large companies that successfully scale their operations in major metro areas will likely generate a disproportionate share of growth in the coming years.

Study Background and Key Findings

The homebuilding industry has traditionally been one of the most fragmented industries in the US economy, with most companies producing only a small number of homes per year. Among the reasons for this fragmentation is the local nature of residential construction. Home builders must respond to local demand and supply conditions, as well as abide by local building codes and zoning ordinances. At the same time, though, they must also have the sophistication to address the complexities of land entitlement, coordinate an extensive set of construction workers and subcontractors, and have an adequate financial position to cover their capital-intensive operations.

In addition to all of these requirements for success, home builders must cope with the cyclical nature of the industry. Homebuilding is highly sensitive to changes in interest rates, household incomes, and the outlook for the broader economy. All these factors make it especially challenging for home builders to scale their operations.

Previous Research on Industry Structure

There has been limited research on the evolving structure of the homebuilding industry, on builder strategies for developing scale, and on the implications of industry concentration on market operations. However, existing studies generally underscore the potential benefits to builders of increasing their scale of operations.

The increasing concentration of the homebuilding industry likely reflects efforts by top companies to achieve the many potential benefits of scale (see Abernathy et al. 2012), including:

- *The financial capacity to assemble and control land*, preferably with positions to cover production for at least five years. Land is typically the biggest constraint for homebuilders and entitling raw land often takes several years.
- *Access to capital at preferential rates through equity markets*. Large builders are able to go public and therefore access a steady flow of capital even when lenders tighten credit.
- *Strong relationships with subcontractors, ensuring a more constant supply of labor*. To assist with periodic labor shortages, larger builders can offer competitive rates and more stable employment to their subcontractors thanks to their high production volume.

- *A dependable supply chain for materials and products, as well as lower prices.* Given their high volume of purchases, larger builders may even buy directly from manufacturers.
- *Established relationships with local officials.* These relationships help to facilitate zoning and development approvals, permitting, and inspections.
- *Wider brand awareness and name recognition.* Larger companies can build model homes with local appeal and develop a recognized brand with associated value attributes.
- *Resources to invest in technology to increase profitability.* High construction volumes encourage the use of technology to streamline overhead operations and improve on-site efficiency.

Tsur Somerville (1999) was one of the earliest researchers to identify the importance and investigate the implications of builder concentration from a local market perspective. His research helped to explain the large variation in the average size of homebuilder establishments across metropolitan-area housing markets. He concluded that the average size of home builders, and the market share for the largest builders, is greater on average in housing markets where there is more construction activity, and where there is a greater supply of readily developed land suitable for large developments. He concluded that more attention needs to be paid to the structure of the homebuilding industry to understand market performance.

Barbara Alexander's (2000) John T. Dunlop lecture documented the major changes to housing and the homebuilding industry since World War II, a period of dramatic growth in the production of smaller starter homes. Strong market fundamentals such as the explosive increase in the number of younger households, coupled with the savings and loan (S&L) crisis in the 1980s and 1990s that constrained credit for smaller, privately owned builders, provided a competitive advantage to public companies that could scale their operations. Alexander concluded that these conditions also encouraged publicly owned builders to focus on larger markets that could support higher volumes of activity.

In summarizing the benefits of scale in homebuilding, a 2002 Andersen Corporate Finance report by Paul DeCain boldly predicted that, over the coming decade, the top 20 home builders nationally would generate three-quarters of US home sales, and the top builder might account for a fifth. This prediction was based on the assumption that housing demand would

slow over the decade, providing acquisition opportunities for a few market leaders in this competitive industry.

In a presentation to large production homebuilder Centex in 2003 (since acquired by Pulte Homes), Michael Porter provided analytical support for the premise that bigger is better in the homebuilding industry. Based on profitability data, Porter argued that the evolving structure of the industry favored larger companies and that multiregional builders enjoyed significant and growing competitive advantages over smaller builders, inevitably leading to more concentration in the industry.

Fred Abernathy, Kermit Baker, Kent Colton, and David Weil tested whether the theoretical benefits of scale in homebuilding were realized in practice in their book *Bigger Isn't Necessarily Better* (2011). Based on extensive surveys of larger builders between 1999 and 2004, their analysis showed that while scale generally produces superior results in areas such as land assembly and access to capital markets, many builders had not leveraged other potential advantages because their day-to-day operations remained decentralized and necessarily responsive to local market conditions. At the time of the study, some of the unrealized benefits included improved buying power from suppliers, investment in technology to manage operations, better coordination of subcontractors, and elimination of supply chain redundancies.

Rather than focus on the impacts of home builder concentration on industry players, Cosman and Quintero (2019) examined how concentration affected consumers and the broader economy in several Northeast coastal markets from 2005 to 2016. The authors suggested that the increase in builder concentration over the previous decade had led to significantly lower housing production nationally and greater price volatility within markets.

Contributions of This Study

Although predicted for several decades, concentration in the homebuilding industry has not materialized on anything like the same scale as in other major industries such as aircraft manufacturing and computer production. Even so, industry structure has in fact changed in recent years as operative builders (often referred to as production builders) have gained market share. Operative companies build homes on land that they own or control and generally strive to develop at higher volumes. In contrast, single-family general contractors (often referred to as

custom builders) generally construct homes on an owner's lot and to an owner's specifications, and generally produce a small number of homes each year.

This study documents trends in home builder concentration over the past two decades and describes the extent and the geographic pattern of this concentration. Annual surveys of both private and public home builders documenting both home closings and revenue conducted by *Builder* magazine through their BUILDER 100 surveys form the basis of the analysis presented in this report. This survey has been conducted since 1984, and in 2000 began including a breakdown of individual builder activity by metropolitan area. US Census Bureau data from the monthly Survey of Construction and the Economic Census for Construction, conducted every five years, provide national totals of homebuilding activity and the number of builders in order to calculate share of activity by individual home builders. For a fuller discussion of data sources used in this paper, see Appendix I.

Our analysis takes a new approach by focusing on the growing presence of individual builders in major metropolitan areas and how well they have been able to scale their operations in those markets. The three key findings from this market-by-market analysis are:

- The overall growth in concentration in the homebuilding industry largely reflects the growth of a few companies. But even with the recent brisk growth of these homebuilders, the industry is likely to remain relatively fragmented in the coming years.
- Major homebuilders that have gained market share nationally have done so by building their presence in the large metropolitan markets that they serve.
- The increase in industry concentration reflects two separate influences. One is the organic growth of large production builders who have been able to successfully scale their operations, often by increasing their market share in key metro markets. Additionally, though, strategic acquisitions have played a role in builders' ability to expand their reach into new markets, as well as to scale up operations in existing markets.

Hopefully, these findings will encourage further investigations into the reasons for the emergence of the firms that have been most successful in gaining market share in several large metros, and into the impacts of their growing dominance on the operations of those housing markets.

Trends in Industry Concentration

According to the latest available Economic Census for Construction, which covers the structure of the homebuilding industry in 2017, the total number of home builder establishments fell about 22 percent between 2002 and 2017, declining from just under 85,000 firms to about 66,000. In 2017, nearly three-quarters of homebuilders were general contractors building single-family homes under contract to homeowners or developers, while about a quarter were operative builders constructing homes on land that they owned or controlled.

Meanwhile, the number of single-family completions plunged after the Great Recession, with a total drop in production between 2002 and 2017 of 40 percent over this period (**Figure 1**). As a result, the average number of single-family completions per homebuilder fell from 15.7 in 2002 to 12.1 in 2017.

Figure 1: The Number of Homebuilder Establishments Declined After the Great Recession, but Single-Family Housing Production Fell Even More

Number of Home Builder Establishments Nationally	2002	2007	2012	2017	% change - 2002-2017
New single-family general contractors	58,472	59,679	30,487	48,673	-16.8%
% of total	69.2%	62.8%	65.2%	74.0%	
New housing for-sale (operative) builders	26,043	35,378	16,271	17,123	-34.3%
% of total	30.8%	37.2%	34.8%	26.0%	
Total homebuilders	84,151	95,057	46,758	65,796	-21.8%
Total single-family completions	1,325,100	1,218,400	483,000	795,300	-40.0%

Source: US Census Bureau, Economic Census for Construction (various years). Calculations from National Association of Home Builders.

Another apparent outcome of the local market focus and cyclical nature of the homebuilding industry is the relatively small size of most companies. Almost 70 percent of single-family general contractors reported less than \$1 million in revenue in 2017, along with about half of operative builders. At the same time, almost a quarter of operative builders reported revenues of \$5 million or more that year, compared with just 7 percent of general contractors (**Figure 2**).

Figure 2: Although the Overall Industry Remains Fragmented, the Operative Homebuilder Segment Is More Concentrated

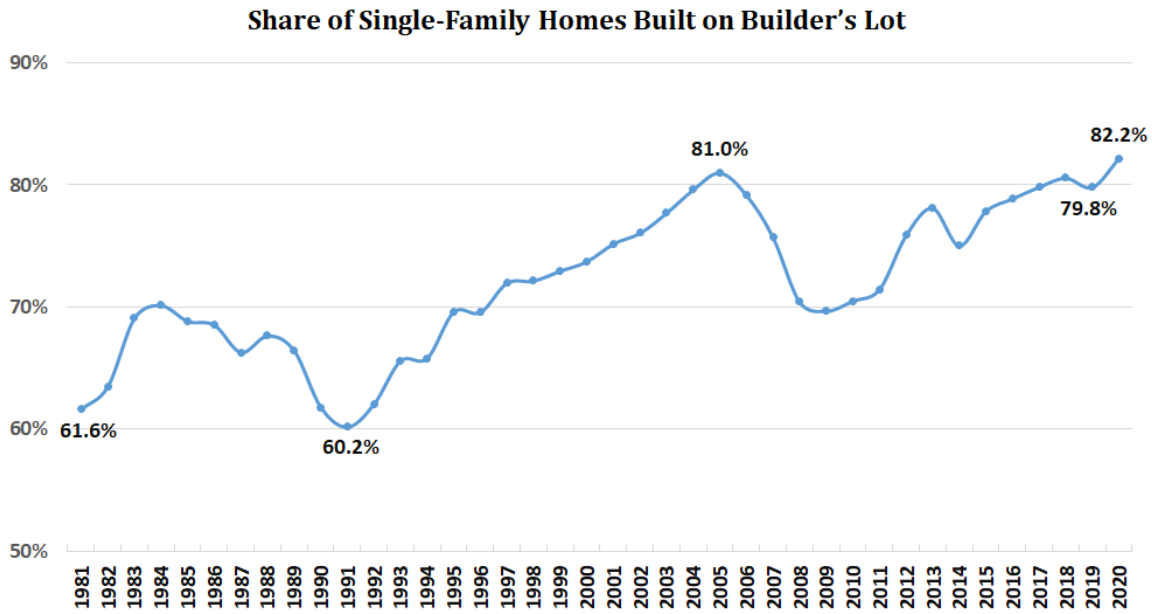
Number and Share of Establishments by Total Sales/Revenue in 2017	2017 Number	Under \$100,000	\$100,000 to \$499,000	\$500,000 to \$999,000	\$1 million to \$4.9 million	\$5 million or more
New single-family general contractors	48,673	12%	44%	12%	24%	7%
New housing for-sale (operative) builders	17,123	9%	32%	9%	27%	24%

Note: Data include only firms operating for the entire year.

Source: US Census Bureau, 2017 Economic Census for Construction.

Operative builders have been somewhat more successful in scaling their operations in part because of their growing market share. In 2020, 82 percent of new single-family homes sold were constructed on land that these builders owned or controlled, up from just over 60 percent four decades earlier (**Figure 3**). However, the share of new homes built by operative builders fluctuates widely with the business cycle, with noticeable declines during the early 1980s and early 1990s recessions and a sharp drop during the Great Recession.

Figure 3: Operative Homebuilders Have Produced a Growing Share of Single-Family Homes Since the 1980s (1981-2020)



Source: US Census Bureau, Survey of Construction.

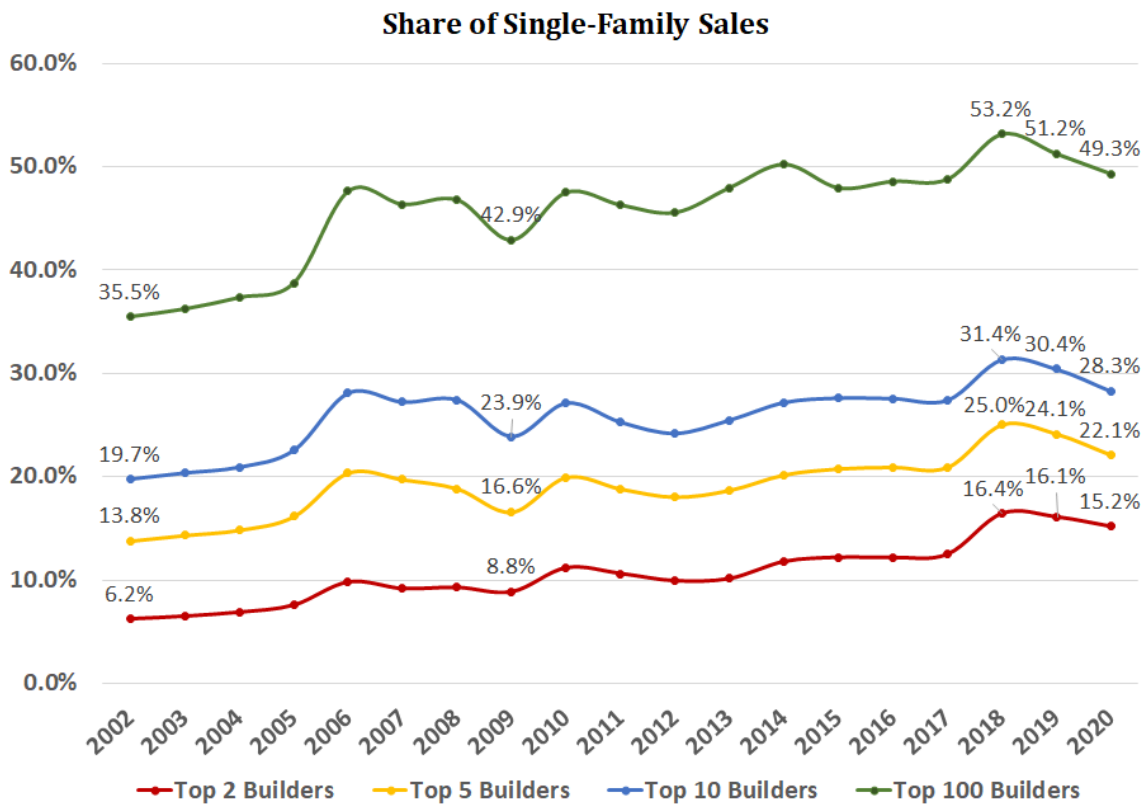
Top Builders' Growing Presence in Major Metro Markets

The growth in the share of homes built by operative builders, who tend to produce homes at a larger scale than custom builders, has also produced greater concentration in this segment of the market. The top 100 builders nationally have accounted for a growing share of new single-family home sales over the past two decades, climbing from about 35 percent in 2002 to more than 50 percent in 2018 and 2019 – although with an increase in the homes built nationwide in 2019 and 2020, the percentage dropped slightly (**Figure 4**).

Although their market share dipped slightly below half in 2020 due to the overall growth in housing production during the pandemic, industry concentration among the top 100 builders remains near an all-time high.

However, just two of the nation's largest builders are responsible for much of this increase (**Figure 4**). Together, D.R. Horton and Lennar grew their market share of new single-family homes sold by some 9.0 percentage points from 2002 to 2020, accounting for about two-thirds of the gains made by the top 100 builders, as well as all of the share increases of the top 10 and top 5 builders.

Figure 4: The Top 100 Homebuilders—and Especially the Two Largest—Have Generated a Growing Share of New Home Sales



Notes: Builder activity is measured by closings as reported by *Builder* magazine. National single-family sales are from the US Census Bureau.

Sources: *Builder* magazine BUILDER 100 surveys and US Census Bureau.

While there are many potential benefits to achieving scale, it can be difficult to do so because of the local nature of the homebuilding industry. Our analysis found that the country’s largest builders have primarily worked to gain market share by focusing on key metro markets—the fifty most populous metro areas where most new homes are sold. In addition, these builders have sought to open up and scale new markets with strategic acquisitions, often to gain access to building lots.

Overall, the majority of the homes in the nation are built in the top 50 metropolitan areas (top 50 markets defined by number of permits for new single-family homes). Indeed, about 60 percent of all new homes sold in 2018 and 2019 were in these major metros. However, the share of sales in the top 50 markets fell in 2020 during the pandemic (**Figure 5**), but it remained a majority at 54 percent.

Figure 5: Most New Homes in the Nation Are Built in the Top 50 Metro Areas

	US Single-Family Sales	New Homes Closed in the Top 50 Metro Markets	% of New Homes Closed in the Top 50 Metro Markets/US Single-Family Homes
2018	617,000	387,103	62.7%
2019	683,000	410,739	60.1%
2020	822,000	441,882	53.8%

Sources: US Census Bureau and *Builder* magazine BUILDER 100 surveys.

Even so, the share of homes built by the top 10 national builders in these major metro markets in 2020 (38 percent) exceeded the share of homes they built in the country as a whole (28 percent). And, despite a decline in the percentage of homes built nationally in the 50 largest markets that year, they still generated the same share of total closings (38 percent) (**Figure 6**).

Figure 6: The Top 10 Builders Held onto Market Share in Large Metros Even in 2020

Share of Homes Closed in the Top 50 Metro Markets by the Top 10 National Builders				
		Top 10 National Builders		
	Total Homes in Top 50 Markets	Total Homes Closed by Top 10	Share of Homes Closed by Top 10 in Top 50 Markets	Share of Homes Closed Nationally by Top 10
2018	387,103	146,937	38.0%	31.4%
2019	410,739	157,883	38.4%	30.4%
2020	441.882	168,115	38.0%	28.3%

Sources: US Census Bureau and *Builder* magazine BUILDER 100 surveys.

At the same time, the top 10 builders sold about 76 percent of their homes in the nation’s 50 largest metros in both 2018 and 2019, with a small dip to 72 percent in 2020. The fact that these large builders still sold almost three-quarters of their homes in the top 50 metro markets that year highlights their dominant presence in and focus on these markets (**Figure 7**).

Figure 7: Sales by the Top 10 National Builders Remained Highly Concentrated in the Largest Markets in 2020

	Homes Closed by Top 10 National Builders	New Homes Closed by the Top 10 National Builders in the Top 50 Metro Markets	% of New Homes Closed by Top 10 National Builders in the Top 50 Metro Markets
2018	193,456	146,937	75.9%
2019	207,724	157,883	76.0%
2020	232,355	168,115	72.4%

Source: *Builder* magazine BUILDER 100 surveys.

Predominance of the Top Two Home Builders

The top two homebuilding companies, D.R. Horton and Lennar, have a significantly greater presence in the top 50 metro markets than in the nation as a whole (**Figure 8**). In 2018–2020, these two companies produced more than a fifth of the homes sold in these large markets (**Figure 8**), compared with the fewer than one in six that they produced nationally (**Figure 4**).

Figure 8: The Top Two Builders Sold More than a Fifth of the Homes Purchased in the 50 Largest Metro Markets in 2018–2020

	Share of Homes Closed in the Top 50 Metro Markets			
	Total Homes Closed in Top 50 Markets	Top 2 National Builders		
		Total Homes Closed by Top 2	Share of Homes Closed by Top 2 in Top 50 Markets	Share of Homes Closed Nationally by Top 2
2018	387,103	83,771	21.6%	16.4%
2019	410,739	89,454	21.8%	16.1%
2020	441,882	98,625	22.3%	15.2%

Source: *Builder* magazine BUILDER 100 surveys.

Even more significant, 79 percent of the new homes sold by the top two national builders in 2020 were located in the top 50 metro areas. This figure represents only a modest decline from the 81 percent share in 2019 and 83 percent share in 2018 (**Figure 9**). In contrast, only 54 percent of all the new homes sold nationally were in those same fifty markets in 2020.

Figure 9: Four-Fifths of the Homes Sold by the Top Two National Builders in 2018–2020 Were in the Top 50 Metros

Top 2 National Builders			
	Closings by Top 2 National Builders	Closings by the Top 2 National Builders in the Top 50 Metro Markets	% of Closings by Top 2 National Builders in the Top 50 Metro Markets
2018	101,425	83,771	82.6%
2019	109,925	89,454	81.4%
2020	124,668	98,625	79.1%

Source: *Builder* magazine BUILDER 100 surveys.

A Comparison of the Top Builder Activities in the Top 50 Metro Areas

Large national builders not only concentrate their production in major metro areas, but they typically are one of the leading builders in the markets that they serve. This is particularly true for D.R. Horton and Lennar, who rank as the #1 or #2 builder in a majority of the top 50 metro markets that they serve. **Figures 10a and 10b** compare the Top 10 builders' rankings in each of the 50 largest markets in 2019 and 2020.

Figure 10a: D.R. Horton and Lennar Were Ranked in the Top 10 by Closings in Most of the 50 Largest Metro Markets in 2019...

	Total Markets with Top 10 Ranking	Top 1 Rank	Top 2 Rank	Rank #1 or #2	Top 3 Rank	Top 4 Rank	Top 5 Rank	Top 6-10 Rank
D.R. Horton	40	11	11	22	6	4	4	4
Lennar Corp	36	19	11	30	2	1	2	1
Top 2 Builders Combined		30	22	36	8	5	6	5
PulteGroup	32	2	2	4	8	7	6	7
NVR	15	4	3	7	0	1	1	6
KB Home	14	0	2	2	2	4	1	5
Taylor Morrison	13	0	1	1	1	2	1	8
Meritage Homes Corp	5	0	0	0	0	0	5	0
Toll Brothers	12	1	3	4	1	1	0	6
Century Communities	8	0	1	1	0	1	0	6
LGI Homes	10	0	0	0	0	1	1	8

Source: *Builder* magazine BUILDER 100 surveys.

Figure 10b: ...and Again in 2020

	Total Markets with Top 10 Ranking	Top 1 Rank	Top 2 Rank	Rank #1 or #2	Top 3 Rank	Top 4 Rank	Top 5 Rank	Top 6-10 Rank
D.R. Horton	41	15	8	23	6	3	3	6
Lennar Corp	35	15	12	27	6	1	1	0
Top 2 Builders Combined		30	20	33	12	4	4	6
PulteGroup	33	3	1	4	9	7	5	8
NVR	20	5	3	8	0	1	1	10
KB Home	12	0	1	1	1	2	1	7
Taylor Morrison	14	0	0	0	1	4	2	7
Meritage Homes Corp	16	0	1	1	1	2	0	12
Toll Brothers	12	1	4	5	1	1	0	5
Century Communities	8	0	1	1	1	0	0	6
LGI Homes	9	0	0	0	0	1	1	7

Source: *Builder* magazine BUILDER 100 surveys.

As these tables indicate, these two top builders – D.R. Horton and Lennar – stand out from the other top 10 home builders in several ways:

- D.R. Horton was among the top 10 largest homebuilders in 40 of the top 50 markets in 2019 and in 41 in 2020. The company also ranked #1 or #2 in 22 metros (55 percent of top 50 markets in which it ranked among the top 10) in 2019 and in 23 in 2020 (56 percent).
- Although Lennar ranked in the top 10 builders in fewer markets than D.R. Horton, the company held a more dominant position in the markets where it did appear on the top 10 list. The company held the #1 or #2 position in 30 of 36 (83 percent of the top 50 markets where it made the top 10 list) in 2019 and 27 of 35 (77 percent) in 2020.
- While smaller than both D.R. Horton and Lennar, NVR also ranked among the top 10 builders in 15 of the 50 largest markets in 2019, taking the #1 spot in four metros and #2 in three metros (46 percent in total). In 2020, the company expanded into 20 of the top 50 metro markets, ranking #1 in five and #2 in three (40 percent in total).

Regional Builders Still Play a Role

There were only 17 of the top 50 metro areas for homebuilding in 2020 where neither D.R. Horton nor Lennar was ranked #1 or #2 for single-family closings. These 17 markets are

generally smaller, with none listed in the top 9 and seven ranked in the bottom 10. Even so, D.R. Horton and Lennar were still ranked in the #3–5 positions in seven of these smaller markets. In addition, other top 10 builders were ranked #1 in seven of the 17 markets—NVR in four and Pulte Group in three.

However, in 10 of the top 50 markets, 10 different regional builders ranked #1 (**Figure 11**). Regional builders are defined here as top 100 operative builder companies that build in a limited number of markets. Listed by the size ranking of their metro markets, these regional builders include:

- #11: Nashville, Tennessee—Ole South Properties
- #19: New York, New York—Toll Brothers (a national builder, but not in the top 10)
- #22: Boise, Idaho—CBH Homes
- #33: Oklahoma City, Oklahoma—Rausch Coleman Homes
- #35: Salt Lake City, Utah—Ivory Homes
- #36: Kansas City, Missouri—Summit Custom Homes
- #39: Cincinnati, Ohio—The Fischer Group
- #40: Colorado Springs, Colorado—Elite Properties of America
- #42: Columbia, South Carolina—Mungo Homes
- #47 : St. Louis, Missouri—McBride & Son Companies

Figure 11: Regional Builders Are Highly Ranked in the Metro Markets Where the Top 2 National Builders Did Not Dominate in 2020 (Rank)

		#1	#2	#3	#4	#5
10	Washington-Arlington-Alexandria, DC-VA-MD-WV	NVR	Stanley Martin Homes	Lennar Corp.	Toll Brothers	Van Metre Cos
11	Nashville-Davidson-Murfreesboro-Franklin, TN	Ole South Properties	NVR	Goodall Homes	D.R. Horton	Lennar Corp.
19	New York-Newark-Jersey City, NJ-NY-NJ-PA	Toll Brothers	Hovnanian	Lennar Corp.	PulteGroup	D.R. Horton
22	Boise City, ID	CBH Homes	Hubble Homes	Toll Brothers	Hayden Homes	Blackrock Homes
28	Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	NVR	Toll Brothers	Lennar Corp.	Blenheim Homes	D.R. Horton
33	Oklahoma City, OK	Rausch Coleman Homes	Homes by Taber	Home Creations	Ideal Homes	4Corners Homes
35	Salt Lake City, UT	Ivory Homes	Holmes Homes	Lennar Corp.	MDC Holdings	Edge Homes
36	Kansas City, MO-KS	Summit Custom Homes	Don Julian Builders	James Eagle Custom Homes	Country Club Homes	Prieb Homes
39	Cincinnati, OH-KY-IN	The Fischer Group	NVR	Drees Homes	M/I Homes	Arlinghaus Builders
40	Colorado Springs, CO	Elite Properties of America	Saint Aubyn Homes	The Challenger Group	Oakwood Homes	View Homes
42	Columbia, SC	Mungo Homes	Great Southern Homes	Stanley Martin Homes	D.R. Horton	McGuinn Homes
44	Boston-Cambridge-Newton, MA-NH	PulteGroup	Toll Brothers	Thorndike Development	Cottonwood Mgmt.	Back Bay Development
45	Columbus, OH	PulteGroup	M/I Homes	D.R. Horton	The Fischer Group	NVR
47	St. Louis, MO-IL	McBride & Son Cos.	Payne Family Homes	Lombardo Homes	Fischer & Frichtel	Rolwes Homes
48	Virginia Beach-Norfolk-Newport News, VA-NC	NVR	The Dragas Cos.	Chesapeake Homes	Quality Homes of Currituck	Hearndon Const. Corp.
49	Richmond, VA	NVR	HHHunt Corp.	Main Street Homes	Eagle Constr. Of VA	StyleCraft Homes
50	Detroit-Warren-Dearborn, MI	PulteGroup	Lombardo Homes	M/I Homes	MJC Cos.	Robertson Bros. Corp.

Source: *Builder* magazine BUILDER 100 surveys.

It is likely that regional builders operate much like national builders and are making efforts to reap the advantages of scale, including the ability to assemble and control land in their markets and to access capital at preferential rates (see “Previous Research,” above, for discussion of potential benefits of scale). To succeed, they also need to develop a consistent labor force, forge strong subcontractor relationships, and develop close links with suppliers to provide a stable supply chain for materials and products. Furthermore, they must know their market and provide a recognized brand year after year. Their job is to remain at the top of the market where they build, while competing with national and local builders.

Growing Dominance of Top Two Builders

D.R. Horton and Lennar have moved ahead of the other national builders in terms of homes sold in the top 50 metro markets and in the nation. A further comparison of the top two builders with the top five and the top 10 builders provides additional evidence of the growing dominance of these top two builders.

Together, the two companies closed on nearly 100,000 homes in the top 50 metro markets in 2020, with a combined market share exceeding 20 percent. The next largest builder, PulteGroup, held just 4.9 percent of the market—less than half the individual shares of either D.R. Horton or Lennar (**Figure 12**).

Figure 12: The Top Two Builders Together Accounted for a Fifth of the Homes Closed in the Top 50 Metro Markets in 2020

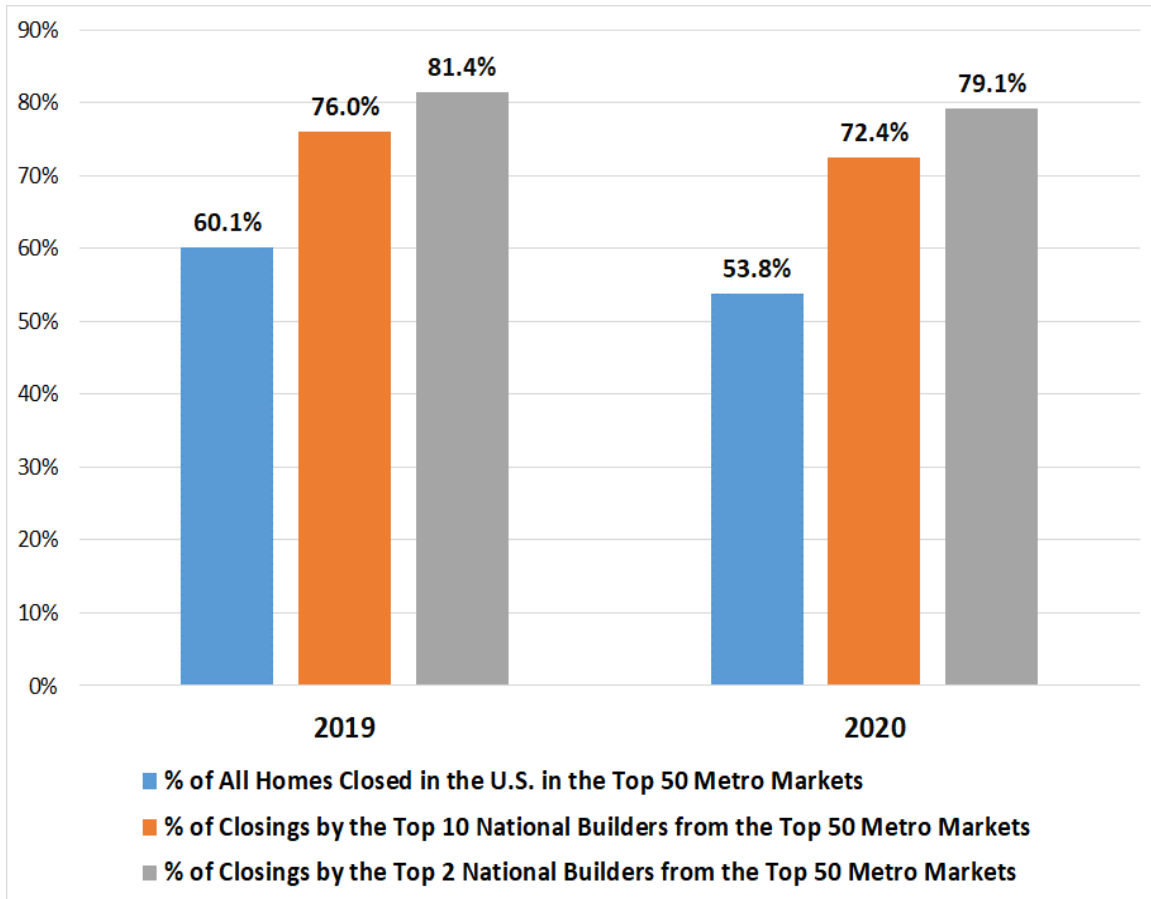
		2018	2019	2020
Total Homes in Top 50 Metro Markets		387,103	410,739	441,882
D.R. Horton	Total Homes	38,615	42,378	51,081
	Market Share	9.9%	10.3%	11.6%
Lennar Corp.	Total Homes	45,156	47,076	47,544
	Market Share	11.7%	11.5%	10.8%
PulteGroup	Total Homes	19,889	19,900	21,540
	Market Share	5.1%	4.8%	4.9%
NVR	Total Homes	11,822	12,008	12,566
	Market Share	3.1%	2.9%	2.8%
Taylor Morrison	Total Homes	9,527	7,108	8,500
	Market Share	2.5%	1.7%	1.9%

		2018	2019	2020
Total Homes in Top 50 Metro Markets		387,103	410,739	441,882
Top 2 National Builders	Total Homes	83,771	89,454	98,625
	Market Share	21.6%	21.8%	22.3%
Top 5 National Builders	Total Homes	125,009	131,103	141,231
	Market Share	32.3%	31.9%	32.0%
Top 10 National Builders	Total Homes	146,937	157,883	168,115
	Market Share	38.0%	38.4%	38.0%

Source: *Builder* magazine BUILDER 100 surveys.

This growing dominance is displayed another way in both 2019 and 2020 by comparing the share of homes closed in the 50 largest markets with the share of closings of the top 10 and top two builders in those same markets. As noted earlier, 54 percent of all the single-family homes sold in 2020 were in the top 50 markets. However, 72 percent of the closings by the top 10 national builders were in those markets, and the share of closings by the top two national builders was even higher at 79 percent (**Figure 13**).

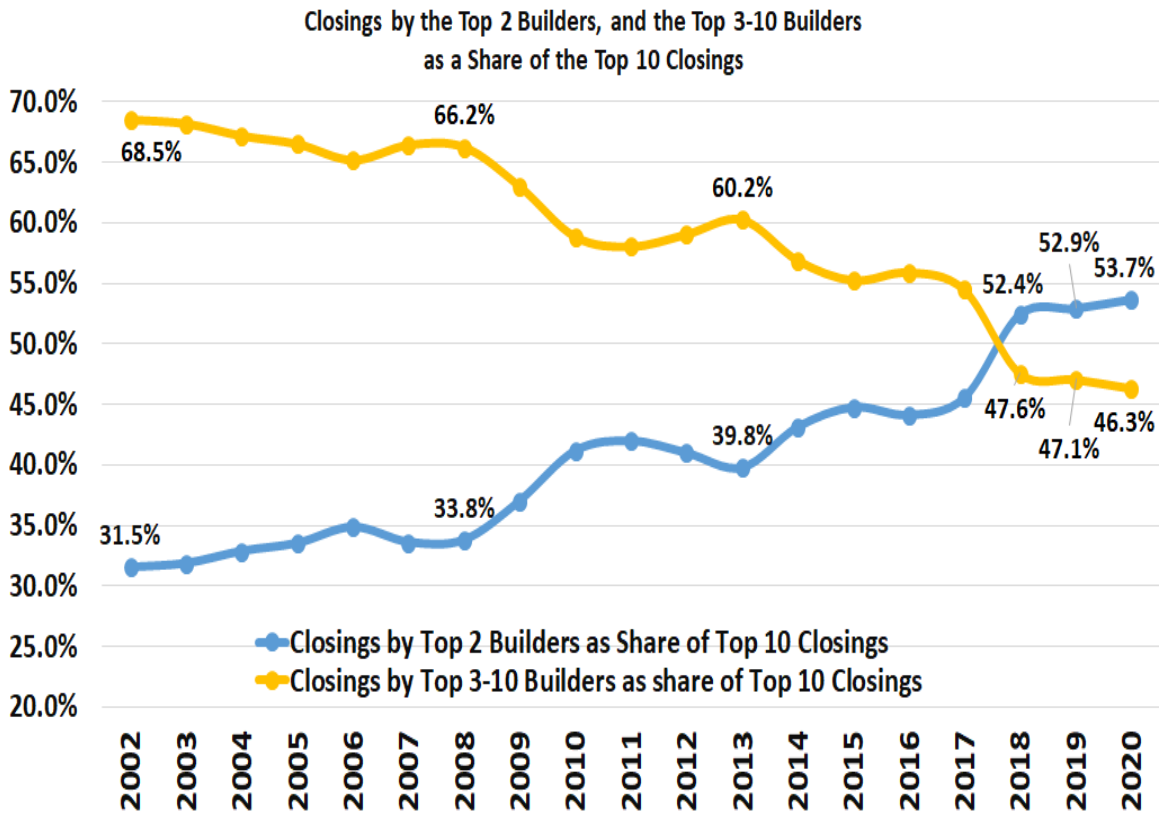
Figure 13: Top 10 and Top Two National Builders Account for a Large and Growing Share of Homes Sold in the 50 Largest Markets



Source: US Census Bureau and *Builder* magazine BUILDER 100 surveys.

Overall, the share of homes closed nationally by the top two builders outstripped that of the next eight largest builders for the first time in 2018, and that trend continued through 2020 (**Figure 14**). The top two national builders now produce the majority of the homes built nationally by the 10 top national builders.

Figure 14: The Top Two National Builders Now Produce the Majority of Homes Built by All Top 10 Builders

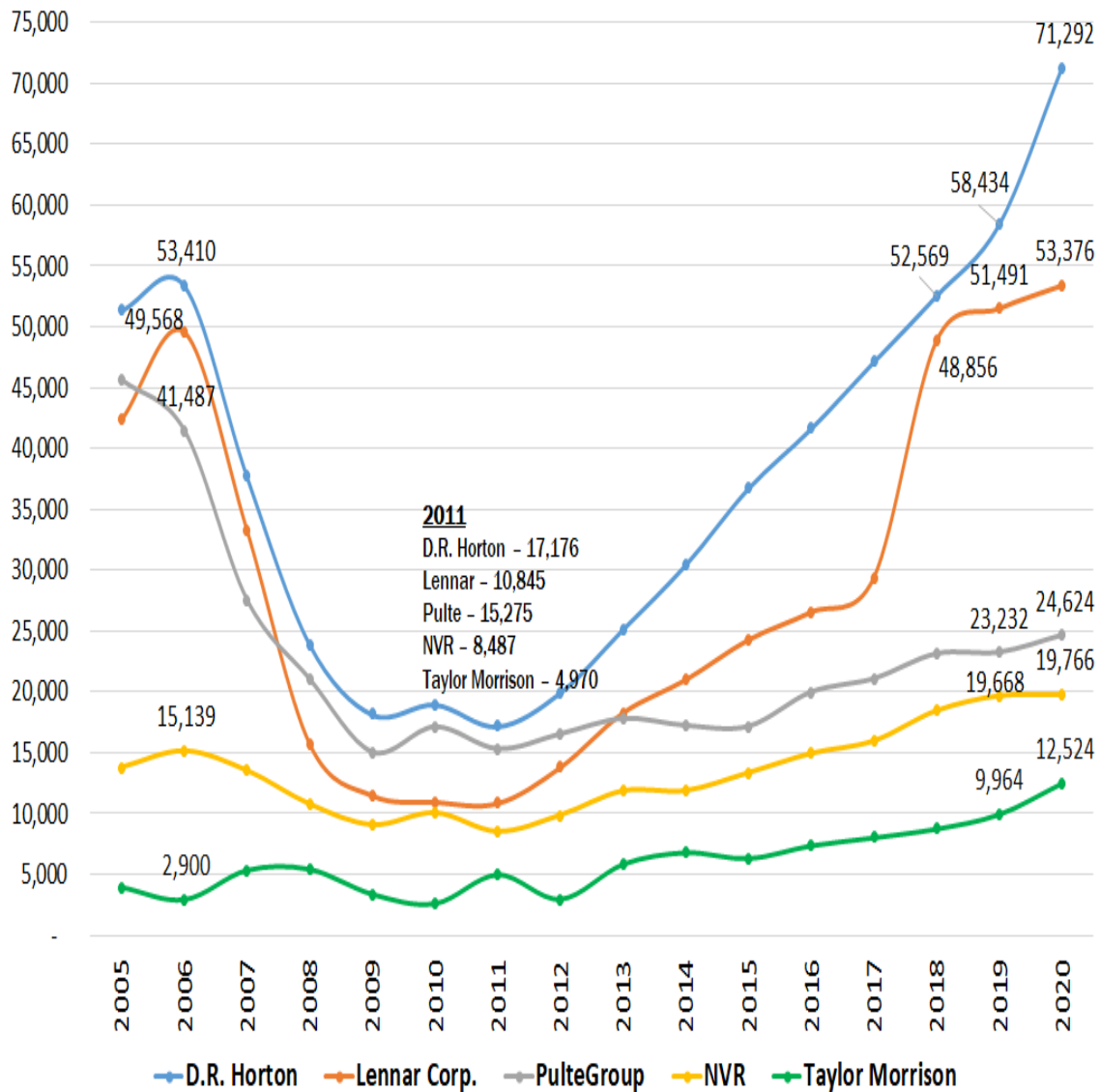


Source: *Builder* magazine BUILDER 100 surveys.

Closings and Revenue for the Top Five Builders

D.R. Horton and Lennar lead the top five national builders in closings, with particularly large gains starting in 2016 (Figure 15).

Figure 15: The Top Two National Builders Have Led the Strong Increases in Closings by the Top Five Builders

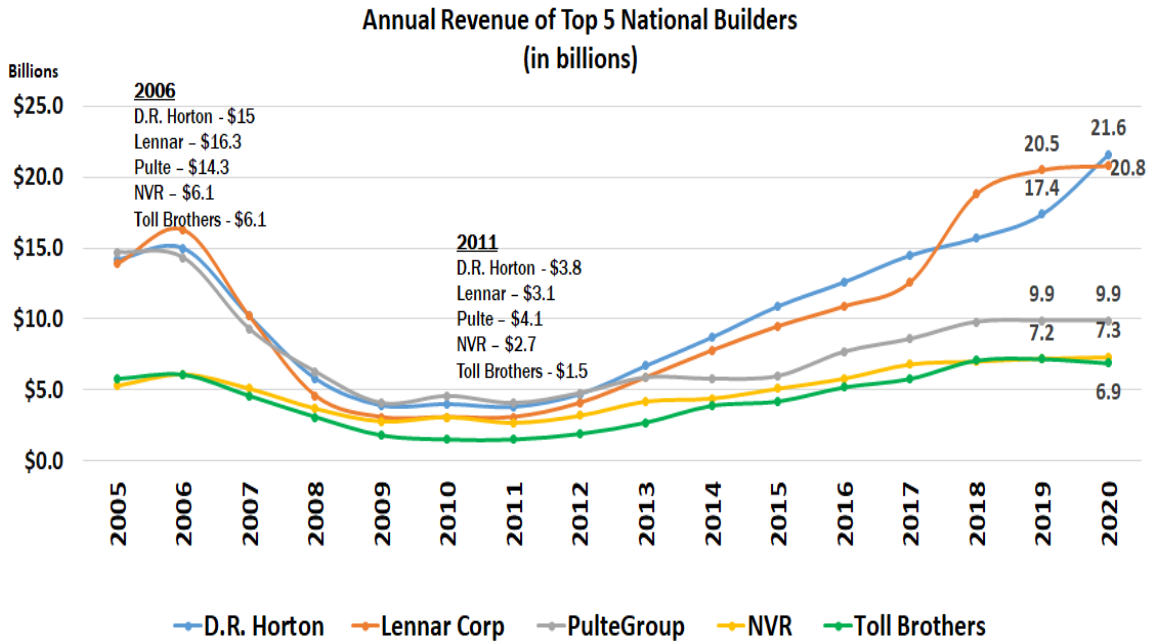


Source: *Builder* magazine BUILDER 100 surveys.

In addition to closings, the top 2 national builders have pulled away from the other top 5 national builders in terms of revenue. The pattern is similar to the increase in sales, with D.R.

Horton and Lennar experiencing much greater revenue growth starting in 2013 than the next three largest national builders (Figure 16).

Figure 16: Revenue Growth of the Top Two Builders Has Outstripped That of Other National Builders



Source: *Builder* magazine BUILDER 100 surveys.

Lennar passed D.R. Horton in revenue growth in 2018, but D.R. Horton edged out Lennar in 2020. Both companies have more than double the revenue of PulteGroup, the #3 national home builder.

However, it is important to remember that although the top two national builders have pulled away from the rest of the top five operative builders in terms of closings and revenue, they still only account for just over 15 percent of single-family home closings nationwide in 2020. As a result, the concentration of the homebuilding industry still remains low relative to other industries. Industries where the four largest firms account for at least 50 percent of activity in that industry include aircraft manufacturing (90 percent), wireless telecom carriers (86 percent), passenger air transportation (71 percent), computer manufacturing (58 percent), and automobile manufacturing (58 percent) according to the 2017 Economic Census.

Comparably, according to BUILDER 100 data, the top four largest firms in the homebuilding industry accounted for 18.5 percent of the homebuilding activity in 2017.

The Role of Acquisitions

Acquisitions have traditionally been a critical engine of growth for large builders during times of rapid industry expansion, but they tend to slow during recessions and periods of economic weakness. This would suggest that acquisitions are a way to accelerate production levels when the market is strong, avoid the challenges of breaking into a new market, and attaining a more dominant presence in an existing market.

The top two national homebuilders each have made significant acquisitions over the past 25 years. Lennar acquired about 20 homebuilding firms over this period, each accounting for at least 100 annual closings at the time of purchase. Of these, five acquisitions represented at least 1,000 annual closings. However, two of Lennar's major acquisitions were significantly larger: U.S. Home Corp in 2000 with more than 9,000 annual closings, and CalAtlantic in 2018 with almost 15,000 annual closings.

For its part, D.R. Horton also acquired about 20 homebuilders that accounted for at least 100 closings at the time of acquisition, as well as six that had at least 1,000 closings. Its major acquisitions have been somewhat smaller than Lennar's and include Continental Homes in 1996 (with just under 5,000 closings) and Schuler Homes in 2002 (also with almost 5,000 closings).

The Lennar acquisition of CalAtlantic in early 2018 demonstrates how a strategic acquisition by a major home builder can both increase its presence in markets that it already serves and open new markets. In 2017, prior to this acquisition, Lennar had over 29,000 closings nationally with almost 27,000 in the top 50 metro areas. In 2018, after the acquisition of CalAtlantic, their closings jumped to almost 49,000 with over 45,000 in the top 50 metro areas. Consequently, their operating earnings from homebuilding jumped from \$1.19 billion in 2017 to \$2.26 billion in 2018. Demonstrating the value of this acquisition, Lennar's earnings increased 78.6 percent in 2018, more than the 70.5 percent increase in revenue that they realized that year (Figure 17).

Figure 17: CalAtlantic Acquisition Dramatically Improved Lennar Performance in Top 50 Metro Markets

Summary of Homebuilding Operations for Lennar and CalAtlantic

	Lennar 2017	CalAtlantic 2017	Lennar 2018	Lennar growth 2017-2018
Total closings	29,394	14,602	48,859	+66.2%
Total homebuilding revenue	\$11.2 B	\$6.5 B*	\$19.1 B	+70.5%
Operating earnings from homebuilding	\$1.26 B	\$0.71 B*	\$2.25 B	+78.6%
Closings in top 50 metros	26,630	13,118	45,156	+69.6%
No. metros – top 1	2	2	18	+16
No. metros – top 2	4	2	28	+24
No. metros – top 5	14	14	35	+21
No. metros – top 10	33	25	37	+4

*CalAtlantic revenue and earnings for 2016 since 2017 financial results are not available.
Source: *Builder* magazine BUILDER 100 surveys 2017 and 2018, and company data.

The CalAtlantic acquisition dramatically increased Lennar’s revenue and production levels and pushed it ahead of D.R. Horton in revenue for 2018. However, it also allowed Lennar to establish a significant position in markets where it had a limited presence prior to the acquisition. In 2017, Lennar operated in 33 of the top 50 metro areas. That same year, CalAtlantic operated in 25 of these metro areas, including two where Lennar was not among the top 10 builders (Chicago and Indianapolis), as well as several others where Lennar had only modest levels of production. In 2018, following its acquisition of CalAtlantic, Lennar served 37 of these top 50 metro markets.

Additionally, the acquisition facilitated an increase in market share in most of the key markets that Lennar served. In 2017, it held the top position in terms of number of homes closed in just two of the top 50 metro areas in the country. It was among the top two builders in a total of four metro markets that year and was in the top five builders in 14 markets. By 2018, it held the top position in 18 markets, was among the top two in 28, and in the top five in 35 metro areas. This acquisition allowed Lennar to dramatically increase its presence in several markets, and in return increase its profitability.

D.R Horton’s growth strategy recently has relied more on internal growth than major acquisitions. It has not made a major acquisition in almost two decades. Still, it has been able to achieve significant growth by scaling its operations. While D.R. Horton’s closings were just 7.5

percent above Lennar's in 2018 after the CalAtlantic acquisition, D.R. Horton's margin above Lennar in homes closed increased to 13.5 percent in 2019, and to 33.6 percent by 2020 (Figure 15).

Conclusions and Directions for Future Research

With its local focus and cyclical nature, the homebuilding industry has generally remained fragmented. In spite of predictions to the contrary (see for example DeCain 2002 and Porter 2003), increased concentration has been difficult to achieve despite the many potential advantages of scale.

Even so, the 100 largest homebuilders nationwide increased their share of single-family home sales from a little over a third in 2002 to almost half in 2020. But this increased concentration largely reflects the market share gains of just two builders, D.R. Horton and Lennar Corporation. Indeed, these two companies were responsible for almost two-thirds (9.0 percentage points of the total 13.8 percentage points) of the gain in market share among the top 100 builders from 2002 to 2020.

The strategy these top two companies have used to grow their market share has been to concentrate their efforts in major metro areas across the country. In fact, fully 80 percent of all closings by D.R. Horton and Lennar were in the top 50 largest markets. By comparison, the share of single-family closings in these markets nationwide was much lower at around 60 percent.

The top two homebuilders typically dominate the markets they serve. For example, D.R. Horton ranked in the top 10 in terms of volume in 41 of the largest 50 metropolitan markets in 2020. The company also ranked either #1 or #2 in more than half (23) of the markets where it was among the top 10 homebuilders.

Although Lennar was listed in the top 10 builders in fewer major markets (35 of the top 50), the company tended to be more dominant than D.R. Horton in the markets where it operated. Lennar ranked #1 or #2 in more than three-quarters (27) of markets where it was among the top 10 homebuilders.

In addition to growing their operations internally, both home builders have relied on strategic acquisitions at key points in the construction cycle to reach new markets and expand their overall production levels. The growth of the top two builders has accelerated in recent years and they may achieve an even more commanding position in the industry in the future.

But despite their dominant presence in major metro markets, the overall level of concentration in the homebuilding industry remains well below that in many other major industries.

However, even with the commanding presence of these top two builders in most of the markets that they serve, regional builders have shown that they can compete effectively with national builders, particularly in the smaller top 50 metro areas. Many of the scale benefits of homebuilding – buying power with local suppliers, coordination of subcontractors, investment in technology, and even some elements of the land assembly and entitlement process – play out principally at the local level. As Abernathy et al. (2012) documented, in many instances individual market performance was critical since potential national scale benefits were not realized beyond local operations. This was because of difficulties in coordination across largely independent local divisions of many of the national builders.

Areas for Additional Research

This paper describes trends in home builder concentration in key metropolitan markets. Future studies might expand on this research by analyzing the impacts of recent trends in construction innovation on industry concentration. For example, a recent homebuilder survey by Colton and Ahluwalia (2019) found that companies increasingly use components produced off site, such as wood panels and roof and floor trusses. An area of investigation may be to examine how this trend might accelerate industry concentration or productivity.

There is also the broader question of why industry concentration matters. The common assumption is that builders who operate at a larger scale have higher levels of productivity. Another direction for future research would be to assess just how much more productive these large builders are. Another question is whether scale encourages the use of more sophisticated production methods such as modular or factory-built housing.

Yet another topic for future research would be to assess how industry concentration increases or diminishes the possibility that an outside player could capture a significant share of the homebuilding market given the local nature of residential construction.

Other areas of investigation might be to analyze why industry concentration varies across metro areas, with particular attention to differences in housing markets where there is little concentration, those where regional builders thrive, and those where national builders dominate.

Finally, the work of Cosman and Quintero (2019) suggests that home builder concentration might lead to lower production levels and higher prices. However, there are broad macroeconomic factors at work that also affect homebuilding levels and house prices. Analyzing the impact of these other factors would help to clarify how industry concentration affects housing market operations and competition, and whether it is a net positive for the consumer.

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Appendix I: Data Sources and Methodology

National production and revenue data for individual homebuilders used in this study is from annual BUILDER 100 surveys conducted by *Builder* magazine. *Builder* has conducted comprehensive surveys on annual closings and gross revenue of the top 200 US homebuilders in the country since 1984. Beginning in 2000, the survey began collecting information from these builders on production levels in the top 50 metropolitan areas.

The Census Bureau collects information on homebuilding activity as well as on businesses serving this industry. Census Bureau sources used in this study include:

- **Survey of Construction (SOC).** The Survey of Construction provides national and regional statistics on starts and completions of new single-family and multifamily housing units, as well as sales of new single-family homes. The Department of Housing and Urban Development funds this survey in part. The SOC also provides statistics on the characteristics of new privately owned residential structures, including new single-family homes completed, new multifamily units completed, new single-family houses sold, and new contractor-built houses started.
- **Economic Census, Census of the Construction Industries.** Every five years, the Census Bureau collects statistics about businesses that are essential to understanding the American economy. This official count, known as the Economic Census, provides the most extensive data related to business activity. Nearly 4 million business locations, covering most industries and all geographic areas of the country, receive surveys tailored to their primary business activity.

Definitions Used in This Paper

The following terms related to the homebuilding industry and the sales process are used to describe homebuilding activity in this analysis. “Housing starts” and “home sales” and “completions” are reported in US Census Bureau publications, while “closing” is the measure used by *Builder* magazine for individual home builders as well as metropolitan areas. “Establishment” and “firms” are terms used to describe home builder operations.

- *Housing starts* measure homebuilding activity at the time when excavation begins for the footings of the foundation.
- *Home sales* occur when buyers make a deposit on a home or sign an agreement to buy.

- *Home completions* occur when all finish flooring has been installed.
- *Home closings* is the concept used by *Builder* magazine to measure activity by individual builders, as well as overall activity in a metropolitan area. Closings occur when money and documents transfer ownership of the property to the buyer.
- *Establishment* is a single physical location where one predominant activity occurs, such as a factory, assembly facility, warehouse, retail store, or office. A branch location of an office also can be an establishment. For home builders, the Census Bureau defines an establishment generally as a permanent office, payroll office, or other place where business activities related to construction are conducted. A construction establishment manages one or more projects or jobs and is usually maintained on a continuing basis.
- A *firm* is a legal business consisting of one or more establishments. Under the auspices of the Internal Revenue Service (IRS), a company is categorized as a trade or business, and defined as including “any activity carried on for the production of income from selling goods or performing services.” A firm is an establishment or a combination of establishments with a unique Employer Identification number (EIN).

Methodology for Computing Industry Concentration

The Census Bureau data on total home sales and completions are used to calculate the market shares of the top 1, top 5, top 10, and top 100 builders.

Evaluating the level of national concentration requires two data series:

1. Number of units closed by each of the top builders as reported by *Builder* magazine (x_1 = units closed by builder ranked #1; x_2 = units closed by builder ranked #2, etc.)
2. Number of units sold nationally as reported by the US Census Bureau = y

Market share of builders ranked #1 = $x_1/y \times 10 = B_1$

Market share of builders ranked #2 = $x_2/y \times 100 = B_2$...

Increases in market share among the top builders indicate rising industry concentration and decreases in market share indicate falling concentration.

Every year in June, *Builder's* "Local Leaders" survey ranks the top 10 builders in each of the country's 50 largest new-home markets based on closings. To evaluate concentration at the local level, two data series are required:

1. Number of units closed by each of the top 10 leaders in each metro area.
2. Number of units sold/closed in each metro area. Since these data are unavailable, permit levels are used.

Appendix II:

The following tables show the changes in housing closings that have occurred over the past several years. To reflect the dynamics of these changes, Tables A1 and A3 present builders as ranked by their 2020 volume of closings and revenue and show the growth in the current largest builders. Tables A2 and A4 start with the 10 largest builders in 2005 and set forth their volume of activity and revenue over this period.

Table A1:

Rank & Closings of Top 10 Builders												
		2020		2019		2018		2017		2016		2015
D.R. Horton	(1)	71,292	(1)	58,434	(1)	52,569	(1)	47,135	(1)	41,652	(1)	36,736
Lennar Corp.	(2)	53,376	(2)	51,491	(2)	48,856	(2)	29,394	(2)	26,563	(2)	24,292
PulteGroup	(3)	24,624	(3)	23,232	(3)	23,107	(3)	21,052	(3)	19,951	(3)	17,127
NVR	(4)	19,766	(4)	19,668	(4)	18,447	(4)	15,961	(4)	14,928	(4)	13,326
Taylor Morrison	(5)	12,524	(6)	9,964	(6)	8,760	(7)	8,032	(7)	7,369	(8)	6,311
Meritage Homes Corp.	(6)	11,834	(7)	9,267	(7)	8,531	(8)	7,709	(8)	7,355	(7)	6,522
KB Home	(7)	10,672	(5)	11,871	(5)	11,317	(6)	10,909	(6)	9,829	(6)	8,196
Clayton	(8)	9,475	(11)	7,369	(20)	3,999	(29)	1,951	(55)	857		N/A
Century Communities	(9)	9,453	(9)	8,000	(9)	7,092	(16)	4,281	(19)	2,825	(21)	2,401
LGI Homes	(10)	9,339	(10)	7,690	(10)	6,512	(11)	5,845	(15)	4,163	(15)	3,404
Toll Brothers	(11)	8,496	(8)	8,107	(8)	8,265	(9)	7,151	(10)	6,098	(10)	5,525
CalAtlantic Group		N/A		N/A		N/A	(5)	14,602	(5)	14,229	(5)	12,560
Hovnanian Enterprises	(14)	6,414	(14)	5,713	(14)	5,758	(10)	6,115	(9)	6,687	(9)	5,757
Beazer Homes	(17)	5,492	(15)	5,500	(13)	5,767	(13)	5,525	(11)	5,649	(11)	5,010
The Ryland Group		N/A		N/A		N/A		N/A		N/A		N/A
Standard Pacific		N/A		N/A		N/A		N/A		N/A		N/A
Habitat for Humanity	(20)	3,466	(20)	3,841	(17)	4,334	(21)	3,016	(18)	3,202	(16)	3,237
Centex		N/A		N/A		N/A		N/A		N/A		N/A
M.D.C. Holdings	(12)	8,158	(12)	6,974	(11)	6,197	(12)	5,541	(12)	5,054	(12)	4,390

Rank & Closings of Top 10 Builders										
		2014		2013		2012		2011		2010
D.R. Horton	(1)	30,455	(1)	25,161	(1)	19,954	(1)	17,176	(1)	18,983
Lennar Corp.	(2)	21,003	(2)	18,290	(3)	13,802	(3)	10,845	(3)	10,955
PulteGroup	(3)	17,196	(3)	17,766	(2)	16,505	(2)	15,275	(2)	17,095
NVR	(4)	11,859	(4)	11,834	(4)	9,843	(4)	8,487	(4)	10,030
Taylor Morrison	(7)	6,796	(8)	5,829	(14)	2,933	(14)	2,327	(14)	2,570
Meritage Homes Corp.	(9)	5,862	(9)	5,259	(9)	4,238	(10)	3,268	(10)	3,700
KB Home	(6)	7,215	(5)	7,145	(5)	6,282	(5)	5,812	(5)	7,346
Clayton		N/A		N/A		N/A		N/A		N/A
Century Communities	(23)	2,059	(68)	544	(96)	337	(99)	252	(97)	253
LGI Homes	(21)	2,356	(24)	1,617	(32)	1,062	(44)	627	(58)	439
Toll Brothers	(10)	5,397	(13)	3,286	(13)	3,286	(13)	2,611	(13)	2,642
CalAtlantic Group		N/A		N/A		N/A		N/A		N/A
Hovnanian Enterprises	(8)	5,896	(7)	5,927	(6)	5,356	(7)	4,216	(7)	5,009
Beazer Homes	(12)	4,951	(10)	5,056	(8)	4,428	(9)	3,597	(9)	4,233
The Ryland Group	(5)	7,677	(6)	7,027	(7)	4,809	(8)	3,664	(8)	4,245
Standard Pacific	(11)	4,956	(12)	4,627	(12)	3,329	(13)	2,563	(12)	2,700
Habitat for Humanity	(15)	3,323	(16)	3,367	(10)	3,766	(6)	4,970	(6)	6,032
Centex		N/A		N/A		N/A		N/A		N/A
M.D.C. Holdings	(13)	4,366	(11)	4,710	(11)	3,740	(11)	2,762	(11)	3,245

Rank & Closings of Top 10 Builders											
		2009		2008		2007		2006		2005	
D.R. Horton	(1)	18,164	(1)	23,915	(1)	37,717	(1)	53,410	(1)	51,383	
Lennar Corp.	(3)	11,478	(4)	15,735	(2)	33,283	(2)	49,568	(3)	42,359	
PulteGroup	(2)	15,013	(2)	21,022	(4)	27,540	(3)	41,487	(2)	45,630	
NVR	(4)	9,042	(7)	10,741	(7)	13,513	(9)	15,139	(10)	13,787	
Taylor Morrison	(13)	3,347	(12)	5,421	(15)	5,343	(19)	4,347	(19)	4,921	
Meritage Homes Corp.	(11)	4,039	(10)	5,627	(12)	7,687	(12)	10,487	(13)	9,406	
KB Home	(5)	8,488	(5)	12,438	(5)	23,743	(5)	32,124	(5)	31,009	
Clayton Century Communities		N/A		N/A		N/A		N/A		N/A	
LGI Homes	(57)	433	(68)	475		N/A		N/A		N/A	
Toll Brothers	(15)	2,965	(14)	4,743	(13)	6,687	(14)	8,601	(14)	8,769	
CalAtlantic Group		N/A		N/A		N/A		N/A		N/A	
Hovnanian Enterprises	(7)	5,659	(6)	11,281	(6)	14,928	(6)	20,201	(7)	17,783	
Beazer Homes	(10)	4,411	(9)	6,624	(8)	11,366	(7)	17,500	(6)	18,401	
The Ryland Group	(9)	5,129	(8)	7,352	(9)	10,319	(8)	15,392	(8)	16,673	
Standard Pacific	(12)	3,581	(13)	5,025	(11)	8,051	(11)	10,763	(11)	11,694	
Habitat for Humanity	(8)	5,294	(11)	5,459	(14)	5,619	(16)	5,820	(18)	4,993	
Centex	(6)	6,900	(3)	18,241	(3)	30,684	(4)	37,539	(4)	37,022	
M.D.C. Holdings	(14)	3,013	(15)	4,488	(10)	8,195	(10)	13,123	(9)	15,307	

Table A2:

Rank & Closings of Top 10 Builders												
	2005		2006		2007		2008		2009		2010	
D.R. Horton	(1)	51,383	(1)	53,410	(1)	37,717	(1)	23,915	(1)	18,164	(1)	18,983
PulteGroup	(2)	45,630	(3)	41,487	(4)	27,540	(2)	21,022	(2)	15,013	(2)	17,095
Lennar Corp.	(3)	42,359	(2)	49,568	(2)	33,283	(4)	15,735	(3)	11,478	(3)	10,955
Centex	(4)	37,022	(4)	37,539	(3)	30,684	(3)	18,241	(6)	6,900		N/A
KB Home	(5)	31,009	(5)	32,124	(5)	23,743	(5)	12,438	(5)	8,488	(5)	7,346
Beazer Homes Hovnanian Enterprises	(6)	18,401	(7)	17,500	(8)	11,366	(9)	6,624	(10)	4,411	(9)	4,233
	(7)	17,783	(6)	20,201	(6)	14,928	(6)	11,281	(7)	5,659	(7)	5,009
The Ryland Group	(8)	16,673	(8)	15,392	(9)	10,319	(8)	7,352	(9)	5,129	(8)	4,245
M.D.C. Holdings	(9)	15,307	(10)	13,123	(10)	8,195	(15)	4,488	(14)	3,013	(11)	3,245
NVR	(10)	13,787	(9)	15,139	(7)	13,513	(7)	10,741	(4)	9,042	(4)	10,030
Standard Pacific Meritage Homes Corp.	(11)	11,694	(11)	10,763	(11)	8,051	(13)	5,025	(12)	3,581	(12)	2,700
	(13)	9,406	(12)	10,487	(12)	7,687	(10)	5,627	(11)	4,039	(10)	3,700
Toll Brothers Habitat for Humanity	(14)	8,769	(14)	8,601	(13)	6,687	(14)	4,743	(15)	2,965	(13)	2,642
	(18)	4,993	(16)	5,820	(14)	5,619	(11)	5,459	(8)	5,294	(6)	6,032
Taylor Morrison	(19)	4,921	(19)	4,347	(15)	5,343	(12)	5,421	(13)	3,347	(14)	2,570
CalAtlantic Group		N/A		N/A		N/A		N/A		N/A		N/A
Clayton Century Communities		N/A		N/A		N/A		N/A		N/A		N/A
		N/A		N/A		N/A		N/A		N/A		N/A
LGI Homes		N/A		N/A		N/A	(68)	475	(57)	433	(58)	439

Rank & Closings of Top 10 Builders										
		2011		2012		2013		2014		2015
D.R. Horton	(1)	17,176	(1)	19,954	(1)	25,161	(1)	30,455	(1)	36,736
PulteGroup	(2)	15,275	(2)	16,505	(3)	17,766	(3)	17,196	(3)	17,127
Lennar Corp.	(3)	10,845	(3)	13,802	(2)	18,290	(2)	21,003	(2)	24,292
Centex		N/A		N/A		N/A		N/A		N/A
KB Home	(5)	5,812	(5)	6,282	(5)	7,145	(6)	7,215	(6)	8,196
Beazer Homes	(9)	3,597	(8)	4,428	(10)	5,056	(12)	4,951	(11)	5,010
Hovnanian Enterprises	(7)	4,216	(6)	5,356	(7)	5,927	(8)	5,896	(9)	5,757
The Ryland Group	(8)	3,664	(7)	4,809	(6)	7,027	(5)	7,677		N/A
M.D.C. Holdings	(11)	2,762	(11)	3,740	(11)	4,710	(13)	4,366	(12)	4,390
NVR	(4)	8,487	(4)	9,843	(4)	11,834	(4)	11,859	(4)	13,326
Standard Pacific	(13)	2,563	(12)	3,329	(12)	4,627	(11)	4,956		N/A
Meritage Homes Corp.	(10)	3,268	(9)	4,238	(9)	5,259	(9)	5,862	(7)	6,522
Toll Brothers	(13)	2,611	(13)	3,286	(13)	3,286	(10)	5,397	(10)	5,525
Habitat for Humanity	(6)	4,970	(10)	3,766	(16)	3,367	(15)	3,323	(16)	3,237
Taylor Morrison	(14)	2,327	(14)	2,933	(8)	5,829	(7)	6,796	(8)	6,311
CalAtlantic Group		N/A		N/A		N/A		N/A	(5)	12,560
Clayton		N/A		N/A		N/A		N/A		N/A
Century Communities	(99)	252	(96)	337	(68)	544	(23)	2,059	(21)	2,401
LGI Homes	(44)	627	(32)	1,062	(24)	1,617	(21)	2,356	(15)	3,404

Rank & Closings of Top 10 Builders										
		2016		2017		2018		2019		2020
D.R. Horton	(1)	41,652	(1)	47,135	(1)	52,569	(1)	58,434	(1)	71,292
PulteGroup	(3)	19,951	(3)	21,052	(3)	23,107	(3)	23,232	(3)	24,624
Lennar Corp.	(2)	26,563	(2)	29,394	(2)	48,856	(2)	51,491	(2)	53,376
Centex		N/A		N/A		N/A		N/A		N/A
KB Home	(6)	9,829	(6)	10,909	(5)	11,317	(5)	11,871	(7)	10,672
Beazer Homes	(11)	5,649	(13)	5,525	(13)	5,767	(15)	5,500	(17)	5,492
Hovnanian Enterprises	(9)	6,687	(10)	6,115	(14)	5,758	(14)	5,713	(14)	6,414
The Ryland Group		N/A		N/A		N/A		N/A		N/A
M.D.C. Holdings	(12)	5,054	(12)	5,541	(11)	6,197	(12)	6,974	(12)	8,158
NVR	(4)	14,928	(4)	15,961	(4)	18,447	(4)	19,668	(4)	19,766
Standard Pacific		N/A		N/A		N/A		N/A		N/A
Meritage Homes Corp.	(8)	7,355	(8)	7,709	(7)	8,531	(7)	9,267	(6)	11,834
Toll Brothers	(10)	6,098	(9)	7,151	(8)	8,265	(8)	8,107	(11)	8,496
Habitat for Humanity	(18)	3,202	(21)	3,016	(17)	4,334	(20)	3,841	(20)	3,466
Taylor Morrison	(7)	7,369	(7)	8,032	(6)	8,760	(6)	9,964	(5)	12,524
CalAtlantic Group	(5)	14,229	(5)	14,602		N/A		N/A		N/A
Clayton	(55)	857	(29)	1,951	(20)	3,999	(11)	7,369	(8)	9,475
Century Communities	(19)	2,825	(16)	4,281	(9)	7,092	(9)	8,000	(9)	9,453
LGI Homes	(15)	4,163	(11)	5,845	(10)	6,512	(10)	7,690	(10)	9,339

Table A3:

**Gross Revenue of Top 10 Builders
(Homebuilding revenues in billions)**

		2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005
1	D.R. Horton	21.6	17.4	15.7	14.5	12.6	10.9	8.7	6.7	4.7	3.8	4.0	3.9	5.8	10.2	15.0	14.2
2	Lennar Corp.	20.8	20.5	18.8	12.6	10.9	9.5	7.8	5.9	4.1	3.1	3.1	3.1	4.6	10.2	16.3	13.9
3	PulteGroup	9.9	9.9	9.8	8.6	7.7	6.0	5.8	5.7	4.8	4.1	4.6	4.1	6.3	9.3	14.3	14.7
4	NVR	7.3	7.2	7.0	6.8	5.8	5.1	4.4	4.2	3.2	2.7	3.1	2.8	3.7	5.1	6.1	5.3
5	Toll Brothers	6.9	7.2	7.1	5.8	5.2	4.2	3.9	2.7	1.9	1.5	1.5	1.8	3.1	4.6	6.1	5.8
6	Taylor Morrison	6.1	4.6	4.1	3.9	3.6	3.0	3.1	2.3	1.4	1.4	1.5	1.3	1.8	2.5	1.4	1.6
7	Meritage Homes Corp.	4.4	3.6	3.5	3.2	3.0	2.6	2.2	1.8	1.2	0.9	0.9	1.0	1.5	2.3	3.5	3.0
8	KB Home	4.2	4.5	4.5	4.4	3.6	3.0	2.4	2.1	1.6	1.3	1.6	1.8	3.0	6.4	11.0	9.4
9	M.D.C. Holdings	3.8	3.2	3.0	2.6	2.3	1.9	1.7	1.7	1.2	0.8	1.0	0.9	1.5	2.9	4.8	4.9
10	Tri Pointe Homes	3.3	3.1	3.3	2.8	2.4	2.4	1.7	0.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

N/A: Not applicable-Not on Top 100 list

Table A4:

**Gross Revenue of Top 10 Builders
(Homebuilding revenues in billions)**

		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
1	PulteGroup	14.7	14.3	9.3	6.3	4.1	4.6	4.1	4.8	5.7	5.8	6.0	7.7	8.6	9.8	9.9	9.9
2	Centex Corp.	14.7	14.4	9.7	5.3	**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3	D.R. Horton	14.2	15.0	10.2	5.8	3.9	4.0	3.8	4.7	6.7	8.7	10.9	12.6	14.5	15.7	17.4	21.6
4	Lennar Corp.	13.9	16.3	10.2	4.6	3.1	3.1	3.1	4.1	5.9	7.8	9.5	10.9	12.6	18.8	20.5	20.8
5	KB Home	9.4	11.0	6.4	3.0	1.8	1.6	1.3	1.6	2.1	2.4	3.0	3.6	4.4	4.5	4.5	4.2
6	Hovnanian Enterprises	5.9	7.0	5.3	3.6	1.7	1.5	1.3	1.8	2.2	2.2	2.3	2.9	2.8	2.5	2.4	2.7
7	Toll Brothers	5.8	6.1	4.6	3.1	1.8	1.5	1.5	1.9	2.7	3.9	4.2	5.2	5.8	7.1	7.2	6.9
8	NVR	5.3	6.1	5.1	3.7	2.8	3.1	2.7	3.2	4.2	4.4	5.1	5.8	6.8	7.0	7.2	7.3
9	Beazer Homes	5.2	5.2	**	1.8	1.0	0.9	0.8	1.0	1.3	5.0	1.6	1.8	1.9	2.1	3.2	2.1
10	M.D.C. Holdings	4.9	4.8	2.9	1.5	0.9	1.0	0.8	1.2	1.7	1.7	1.9	2.3	2.6	3.0	3.2	3.8

** Data not available

N/A: Not applicable-Not on Top 100 list