Average New Home Uses 24 Different Subcontractors

December 2, 2020 Special Study for Housing Economics Paul Emrath, Ph.D. Economics and Housing Policy National Association of Home Builders

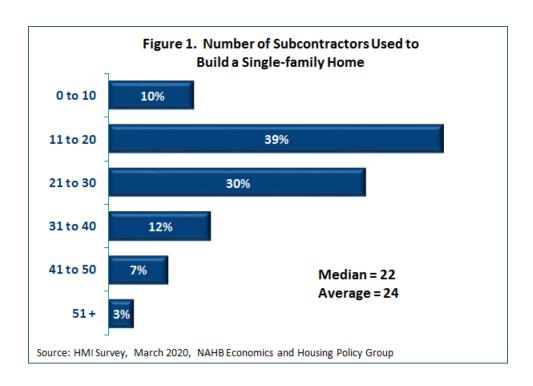
Subcontracting is ubiquitous in residential construction. As well understood as this is inside the industry, it is sometimes overlooked outside of it. For example, blog posts about residential construction workers often fail to account for the owners of small subcontracting businesses that perform a substantial share of the physical work on a project themselves.

This article reports on the subcontracting practices of single-family home builders, based on a recent survey of NAHB's builder members. The top-line results show that subcontracting remains as common as ever, with builders on average employing two dozen different subcontractors and subcontracting out 84 percent of their construction costs in the typical home they build.

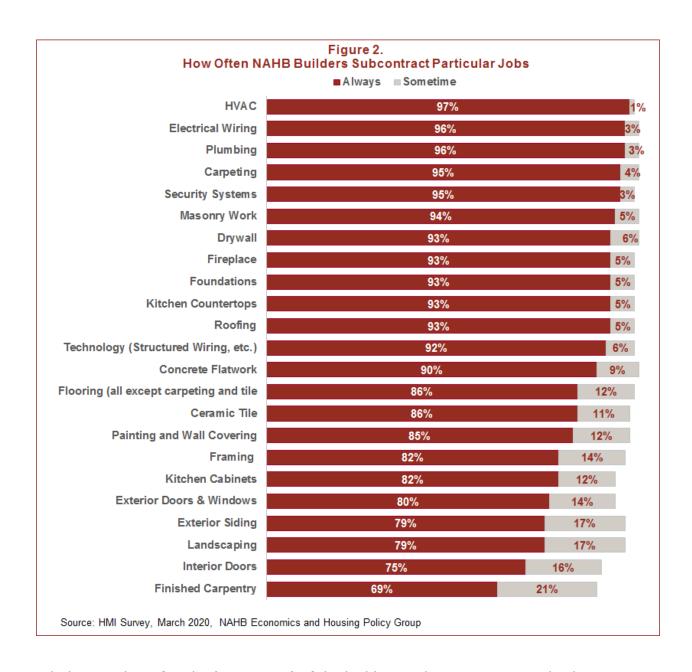
Many Trades, Many Subs

The NAHB survey on subcontracting consisted of special questions on the March 2020 survey for the monthly <u>NAHB/Wells Fargo Housing Market Index</u> (HMI). The HMI survey is based on a national sample of NAHB members who build single-family homes. The sample is stratified by region of the country and size of builder. A total of 354 builders responded to the March 2020 survey.

Results show that 69 percent of builders use somewhere between 11 and 30 subcontractors to build the average single-family home. The median is 22, and the average 24 different subcontractors per home (Figure 1).



The survey also asked builders how often they subcontract 23 different jobs. In every case, the job was always subcontracted by at least two-thirds of the builders. At the low end of the scale, "only" 69 percent of builders said they always subcontract finished carpentry. At the other extreme, subcontracting is nearly ubiquitous for some jobs. At least 95 percent of builders said they always subcontracted five different jobs: HVAC (97 percent), electrical wiring and plumbing (96 percent each), and carpeting and security systems (95 percent each). Even when builders don't always subcontract these jobs all they time, it's common to subcontract them out at least part of the time (Figure 2).



A little over three-fourths (77 percent) of the builders in the survey reported subcontracting out 75 percent of the construction cost in the average single-family home they build. The average share of construction costs subcontracted was 84 percent (Table 1).

Table 1. Subcontracting by NAHB Single-family Builders: History

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		1999	2003	2005	2012	2015	2020				
	1993						All	Builder Size (2019 Starts)			
								<5	5-24	25-99	100+
A. Number o											
Median			22	21	20	20	22	21	24	27	33
Average			25	24	24	22	24	20	23	25	34
B. Share of construction costs subcontracted											
None	0%	1%	2%	0%	2%	2%	1%	2%	0%	0%	0%
1% to 24%	6	5	2	4	5	5	1	3	0	0	0
25% to 49%	15	13	15	6	11	11	5	10	2	7	0
50% to 74%	16	16	15	9	15	15	16	13	22	22	12
75% to 99%	38	39	37	39	38	38	40	38	52	27	32
100%	25	26	29	41	30	30	37	36	25	44	56
Average	75%	76%	77%	84%	77%	77%	84%	82%	85%	84%	92%

Source: HMI Survey, NAHB Economics and Housing Policy Group.

History

Previous NAHB surveys show that subcontracting has increased over the past three decades, but only modestly. The share of builders subcontracting out at least three-fourths of their construction costs inched up from 63 percent to around two-thirds during the 1993-2003 decade. It then surged to 80 percent in 2005 (during the housing boom) before falling back to roughly two-thirds over the next decade.

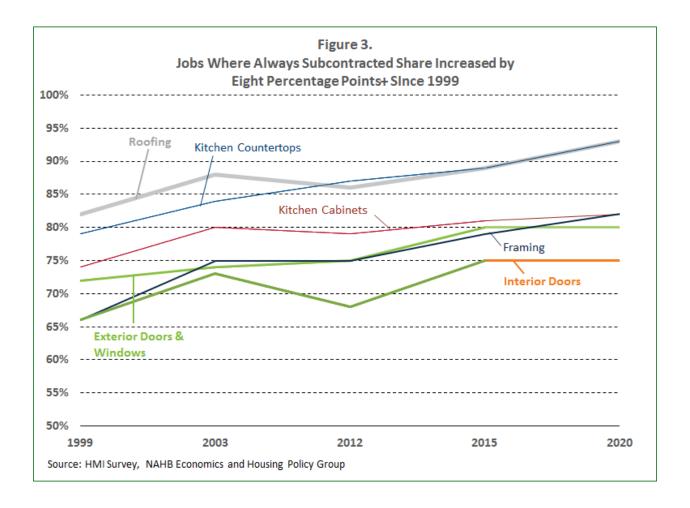
The average share of construction costs subcontracted out mirrored these trends. It inched up from 77 to 77 percent in the 1993-2003 decade, then surged to 84 percent in 2005 before falling back to 77 percent.

The 2020 showed a surge in subcontracting tendencies similar to the one in 2005, with 77 percent of builders subcontracting at least 75 percent of their costs and the average share of builder costs subcontracted out back up to 84 percent.

The similarities between March 2020 and May 2005, when the surges in subcontracting percentages occurred, is that both were periods of growth in home building activity when builder confidence was high. Builder confidence, as measured by the NAHB/Wells Fargo Housing Market Index, was 70 in May of 2005 and 72 in March of 2020 (any number above 50 is considered good). It's important to note that the 2020 survey was conducted one month before the effects of the pandemic hit the industry and builder confidence crashed.

Also, in 2005 single-family starts were in the process of increasing for the fifth year in a row on their way up to a record high. In early 2020, single-family starts had just increased for the eighth consecutive year as they continued the long process of recovery from the 2007-2009 downturn. So it seems that builders subcontract out more of their work when home building activity has gone through an extensive period of expansion. It also agrees with intuition that builders would be less able to satisfy growing demand with their own employees during such periods. As the <u>August Special Study</u> showed, the median NAHB single-family builder members carries only 2 construction workers on payroll.

There has been a significant, consistent trend in subcontracting for only a few of the 23 individual jobs in Figure 2. For six of them (framing, kitchen countertops, roofing, interior doors, kitchen cabinets, exterior doors and windows) the share of builders always subcontracting the job increased by at least eight percentage points between 1999 and 2020. For example, 66 percent of builders always subcontracted framing in 1999, compared to 82 percent in 2020—an increase of 16 percentage points (Figure 3).



The details of the trends differed somewhat. For interior doors and exterior doors and windows, a large share of the increased tendency to subcontract occurred between 1999 and 2003 and plateaued in 2015. For the other four jobs in Figure 3, the tendency to subcontract continued to increase after 2015.

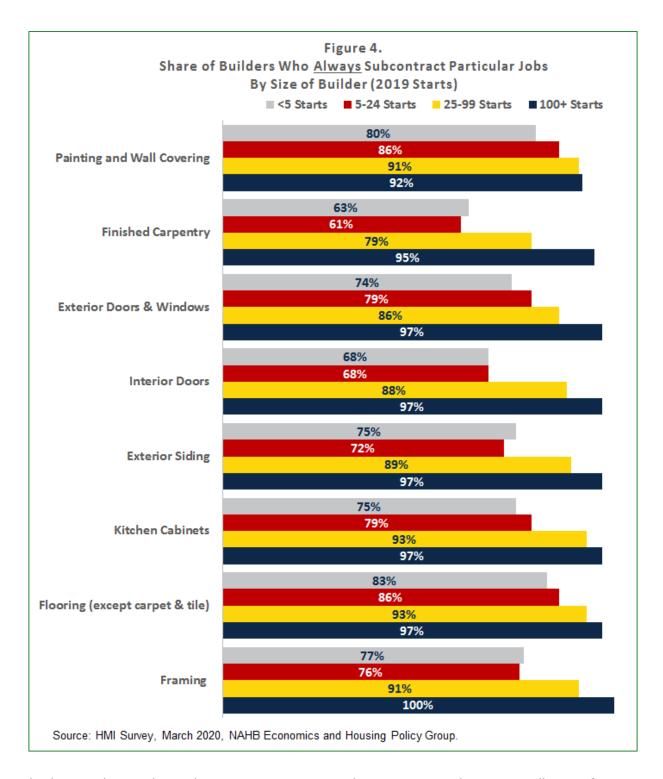
Builder Size

As reported in the August Special Study, half NAHB's single-family builder members build 6 or fewer homes a year. It may seem that these relatively small companies would be more likely to subcontract out their work, under the argument that building six or fewer homes a year wouldn't generate enough work to justify carrying a full-time electrician or carpet installer on payroll.

However, in practice the reverse is true. As Table 1 demonstrated, larger builders tend to use subcontracting to an even greater extent. Builders with at least 100 starts on average subcontract 92 percent of the construction work, compared to 84 percent for builders with 25-99 starts, 85 percent for builders with 5-24 starts, and 82 percent for builders with fewer than 5 starts.

The tendency of larger home builders to use more subcontracting is not due to the jobs most commonly subcontracted. The jobs at the top of Figure 2, that are always subcontracted out by at least 90 percent of builders, tend to be subcontracted out by nearly all builders, regardless of their size.

Rather, the difference in subcontracting between small and large builders is due to jobs that tend to be performed more often in-house. Figure 4 shows the eight jobs for which there is at least a 10 percentage point spread between builders with fewer than 5 and 100-plus starts. All are in the bottom half of the jobs in Figure 2. For example, 69 percent of single-family builders overall always subcontract out finished carpentry work. But the percentage is 63 percent of builders with fewer than 5 starts, compared to 95 percent of builders with 100-plus starts—a difference of 32 percentage points.



The bottom line is that subcontracting is extremely pervasive and economically significant in the home building industry. Working with subcontractors, maintaining relationships with them, and being able to schedule a relatively large number of them to complete projects on time while maintaining control over quality takes time is a substantial challenge and an important part of being a successful home builder.