

# 2005

# BUILDER PRACTICES REPORT

Annual Builder and  
Consumer Practices Surveys

**Data on  
Structured Wiring  
by the nine U.S.  
Census Divisions**



**Mission Statement**

The NAHB Research Center's mission is to promote innovation in housing technology to improve the quality, durability, affordability, and environmental performance of homes and home building products.

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Created in 1964 as a subsidiary of the National Association of Home Builders (NAHB), the NAHB Research Center has established itself as the source for reliable, objective information and research on housing construction and development issues. The Research Center's unique relationship with the housing industry, and breadth of technical expertise, provide an unrivaled depth of understanding of the housing industry, and access to its business leaders in fulfilling clients' research needs.

# **BUILDER PRACTICES REPORT**

**UNITED STATES  
NEW RESIDENTIAL CONSTRUCTION DATA**

**2005**

**PREPARED BY:  
THE NAHB RESEARCH CENTER, INC.  
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**ANNUAL BUILDER AND CONSUMER  
PRACTICES SURVEYS**

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## INTRODUCTION

The NAHB Research Center's *Builder Practices Reports* provide a picture of market demand for products and materials purchased by home builders nationwide. Market demand data is obtained through the *Annual Builder Practices Survey*, a nationally disseminated paper survey of home builders. The resulting data are tabulated using a robust methodology to ensure accurate estimates of product demand, quantities purchased, types, styles, sizes, and other characteristics of materials used in new homes built each calendar year.

The *Builder Practices Reports* present data on materials purchased for Single-Family Detached homes and Multifamily dwelling units. Data are shown as "coefficients," or per-house averages, and "product usage," the total volume of products or materials.

Coefficients for single-family detached homes are calculated for 32 separate U.S. geographic areas, referred to as "State-Market-Areas", which are states with similar topography. States with relatively low housing starts have been grouped with another state or states to create a single State-Market-Area, while three states with a high level of new home construction activity are divided between two State-Market-Areas. When a state is split, the dividing line typically occurs along changes in climate or topography, and always along county lines.

The 32 State-Market-Area data for Single-Family Detached dwellings include tabulations by the individual states or combinations of states that comprise each of the State-Market-Areas. Totals are weighted by housing starts for increased accuracy. The total for each of the nine U.S. Census Divisions is a weighted average based on the proportion of housing starts within each State-Market-Area in that Census Division. U.S. totals are weighted by the proportion of housing starts within each Census Division.

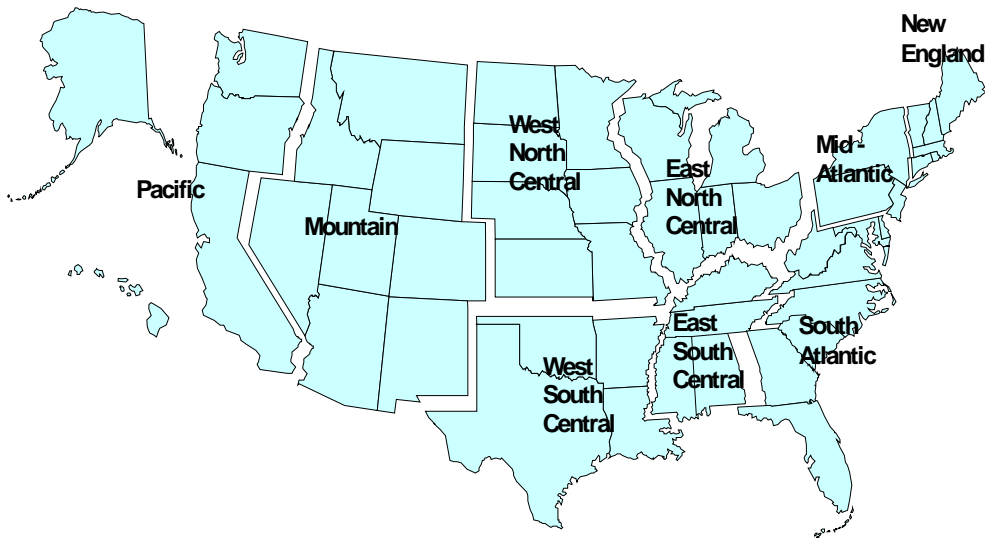
The Multifamily data, which include Single-Family Attached dwellings—Townhouses, Duplexes and Row Houses, as well as low-rise Apartments (up to and including four stories), is tabulated by the nine U.S. Census Divisions. U.S. Totals are weighted by the proportion of housing starts within each Census Division.

This year, the Research Center has an agreement with McGraw Hill Construction Analytics (formerly FW Dodge) to provide new housing start data that previously had been extrapolated from U. S. Census Bureau data by NAHB economists. Since previous housing start collection efforts were complex and time-consuming, this arrangement insures that the Builder Practices Reports will reach industry users in a more timely manner. In addition, since McGraw Hill Construction Analytics enjoys broad recognition as a leading authority on housing start data, the Builder Practices Reports will benefit by including housing start data generated using enhanced methodology.

Product usage is the total estimated volume or amount of material used for both single-family and multifamily dwellings tabulated by State, Census Division, and the U.S. as a whole. These data are estimated using the coefficients described previously, along with the housing start data for each state. Product usage data are calculated for each individual state and summed to produce totals for each Census Division and for the U.S. as a whole. In addition to product usage tabulations for the current year, a five-year market demand projection is made using current year coefficients and state-level housing start forecasts.

## GEOGRAPHIC SAMPLING

The data provided are separated by geographic areas established by the U.S. Census Bureau in 1910, called Census Divisions. The Census Divisions include all 50 states, and the District of Columbia. The nine U.S. Census Divisions are shown in Figure 1 below.



**Figure 1: United States Census Division Map**

The nine U.S. Census Divisions and the 32 State-Market-Areas utilized by the NAHB Research Center are listed below:

**New England**

- Connecticut, Massachusetts, Rhode Island
- Maine, New Hampshire, Vermont

**Mid-Atlantic**

- New Jersey
- New York
- Pennsylvania

**South Atlantic**

- Delaware, Maryland, the District of Columbia
- Georgia
- Northern Florida (Pinellas, Hillsborough, Polk, Osceola, Indian River counties and north)
- Southern Florida (Manatee, Hardee, Highlands, Okeechobee, St. Lucie counties and south)
- North Carolina, South Carolina
- Virginia, West Virginia

**East North Central**

- Illinois
- Indiana
- Michigan
- Ohio
- Wisconsin

**East South Central**

- Alabama, Mississippi
- Kentucky, Tennessee

**West North Central**

- Iowa, Nebraska
- Kansas, Missouri
- Minnesota
- North Dakota, South Dakota

**West South Central**

- Arkansas, Oklahoma
- Louisiana, East Texas (Houston to Corpus Christi, and west to the semi-arid plains)
- West Texas (Dallas to San Antonio and west)

**Mountain**

- Arizona, Nevada, New Mexico
- Colorado, Utah
- Idaho, Montana, Wyoming

**Pacific**

- Northern California (Monterey, Kings, Tulare, Inyo counties and north)
- Southern California (San Luis Obispo, Kern, San Bernardino counties and south), Hawaii
- Oregon
- Alaska, Washington



## METHODOLOGY

In order to gather data for the material usage coefficients, the NAHB Research Center mailed the *Annual Builder Practices Survey* to approximately 49,000 active home building companies nationwide. The sample frame was generated randomly from a pool of NAHB members who indicated that new home construction was their primary occupation. About 1,530 questionnaires were sent to companies in each of the 32 State-Market-Areas. Approximately 2,000 usable responses were received for the 2005 survey—1,915 respondents reported building single-family detached homes and 279 reported building multifamily dwellings (single-family attached—townhouses, row houses, duplexes and apartments). The survey design enabled individual builders to respond to questions about Single Family Detached as well as multifamily dwellings. The number of responses is illustrated in Figure 2.

Number of Responses Received by Census Division and 32 State-Market-Area					
<b>New England</b>	<b>172</b>	<b>West North Central</b>	<b>245</b>	<b>West South Central</b>	<b>133</b>
CT, MA, RI	106	IA, NE	63	AR, OK	60
ME, NH, VT	66	KS, MO	55	LA & East Texas	37
		Minnesota	65	West Texas	36
		ND, SD	62		
<b>Mid-Atlantic</b>	<b>202</b>	<b>South Atlantic</b>	<b>351</b>	<b>Mountain</b>	<b>140</b>
New Jersey	60	DE, MD, DC	60	AZ, NV, NM	39
New York	60	North Florida	68	CO, UT	49
Pennsylvania	82	South Florida	40	ID, MT, WY	52
		Georgia	56		
<b>East North Central</b>	<b>370</b>	NC, SC	74		
Illinois	58	VA, WV	53	<b>Pacific</b>	<b>245</b>
Indiana	71			North California	59
Michigan	93	<b>East South Central</b>	<b>145</b>	South California & Hawaii	65
Ohio	81	AL, MS	72	Oregon	50
Wisconsin	67	KY, TN	73	WA, AK	71

**Figure 2: Survey Responses Received by Census Division and 32 State-Market-Area**

Data for three states—California, Florida, and Texas—are divided because these states have high levels of new home construction activity. The division is made by grouping adjacent counties having similar climate or topography.

Since numerous U.S. home building companies have multiple offices throughout the country, each local building establishment of multi-regional and national firms is recognized as a separate entity. Hence, questionnaires were sent to local home building establishments, not to regional offices or national headquarters. To assure that local offices are reporting only on homes built by their own operations and not the homes constructed by operations in other areas, the programming methodology allows a maximum of 200 single-family detached homes per Census Division built by a respondent's local operation. The number of single-family attached homes and multifamily dwellings are limited to 500 per Census Division.

To encourage participation, respondents were offered both a logo shirt and a report limited to market share data for their Census Division and the U.S. totals. Discounting a percentage of surveys that were undeliverable, that reached non-builders, or multiple persons within a single company, the overall response rate was about four percent.

## STATISTICAL ESTIMATES

The uncertainty in the estimates presented in this report generally decreases as the sample size increases. The underlying distribution of survey responses is either binomial or multinomial in nature, so the standard deviation of any proportion  $p$  estimated from the survey is:

$$\sigma_p = \sqrt{\frac{P \times (1-P)}{n}}$$

where:  $\sigma_p$  = the standard deviation of the estimated proportion,  
 $P$  = the true proportion, and  
 $n$  = the sample size (number of responses).

Based on a normal approximation to the binomial distribution, a symmetrical 95 percent confidence interval estimate of the true proportion  $P$  would be:

$$P = p \pm (1.96 \times \sigma_p)$$

While  $p$  for the sample is known, the true proportion  $P$  is unknown, so  $\sigma_p$  cannot be computed exactly. Still, a reasonable approximation can be made by using the observed proportion  $p$  to estimate  $\sigma_p$ . For example, a 95 percent confidence interval for  $P$ , the inclusion of two car garages in single family detached houses built in the United States, based on a sample size of  $n = 2,003$  builders and an observed usage rate of  $p = 0.638$  (or 63.8 percent), would be computed as follows:

$$\sigma_p = \sqrt{\frac{(0.638)(0.362)}{2003}} = 0.0107$$

As a result, the 95 percent confidence interval is:

$$P = 0.638 \pm (1.96 \times 0.0107), \text{ or } 0.6170 \leq P \leq 0.6590$$

This calculation indicates that the true value of  $P$  is highly likely to be between 0.6170 percent and 0.6590 percent. If the true  $P$  had been outside this range, the probability of observing a value  $p$  as extreme as the value that was actually observed would be five percent or less (based on a 95 percent confidence interval). This approximation is satisfactory where  $n \geq 25$  and  $p$  is not too close to 0 or 100 percent. Other methods can be used to compute confidence intervals where these conditions are not met.

Usage rates can be interpreted as proportions of a total, and confidence limits for the proportion multiplied by the total may be used to derive a confidence limit for the coefficient.

## CHARACTERISTICS OF NEW SINGLE-FAMILY DETACHED HOMES

### STARTER, MOVE-UP, AND LUXURY HOMES

One goal of the *Annual Builder Practices Survey* is to gather information on starter, move-up, and luxury homes built in the survey year. Figure 3 shows the percentage breakdown of all homes built for 2005 compared to the same data for 2004 and 2003.

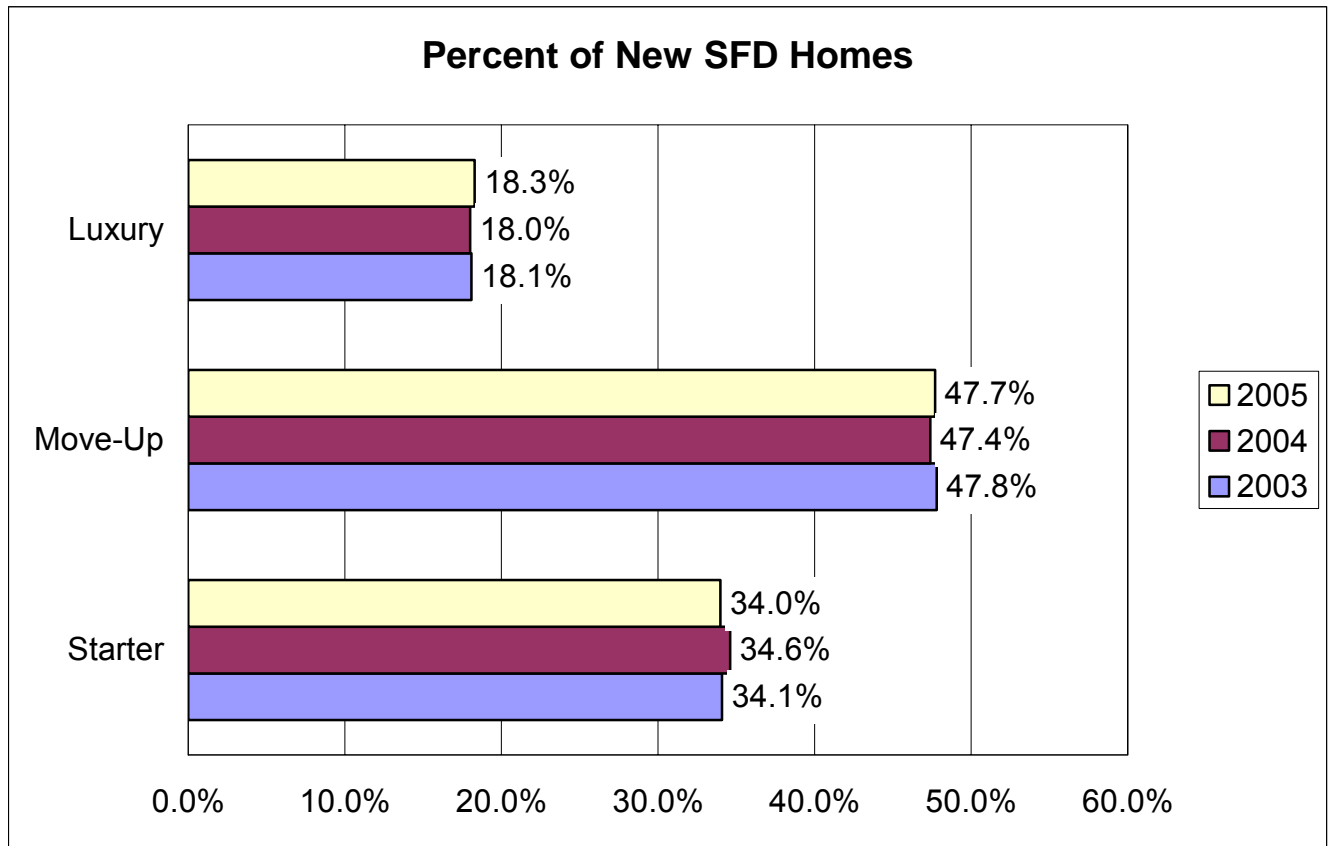


Figure 3: Percent of New SFD Homes

**PRICES OF STARTER, MOVE-UP, AND LUXURY HOMES**

In 2005, a new single-family detached home (including land) averaged \$320,787 compared to \$281,907 in 2004 and \$265,695 in 2003.

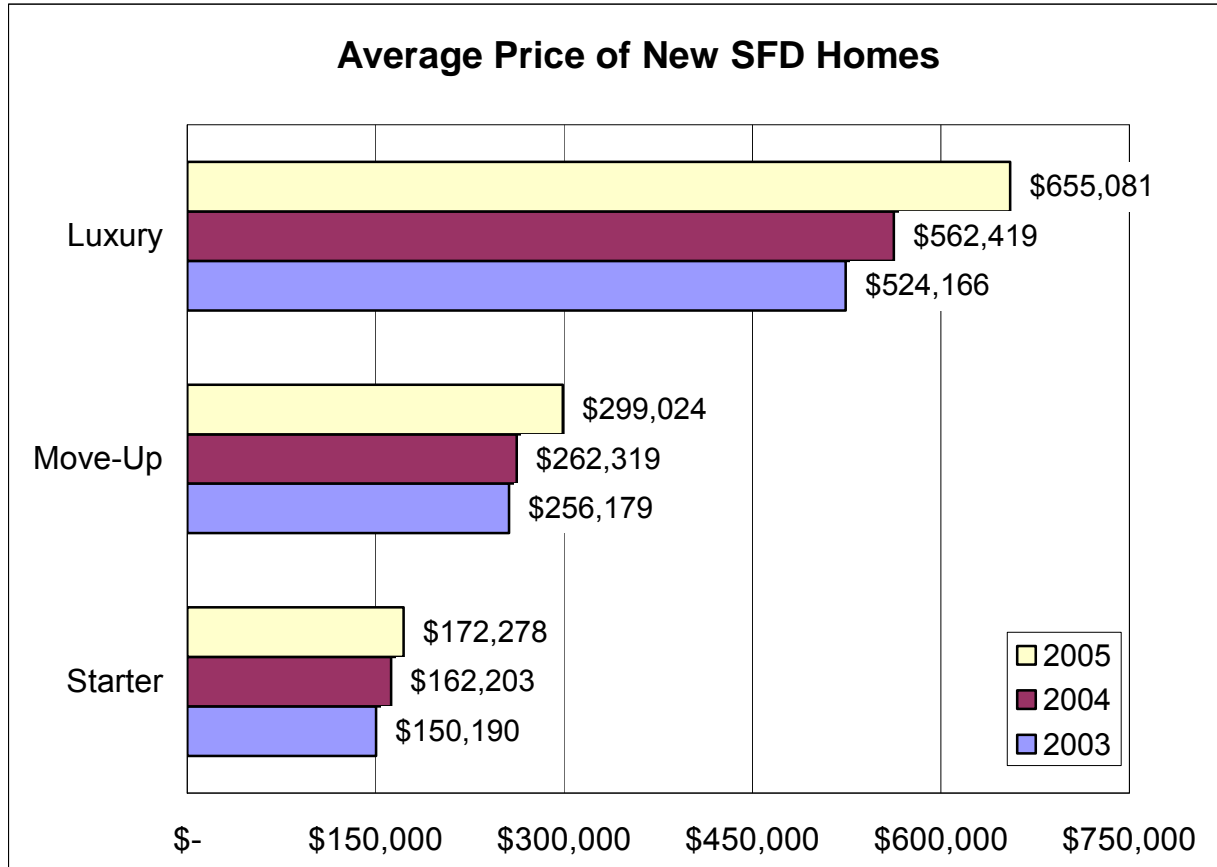


Figure 4: Average Price of New SFD Homes

### SIZES OF STARTER, MOVE-UP, AND LUXURY HOMES

Survey tabulations show that the average square feet of finished floor of all new single-family detached homes in the sample was 2,382 square feet. This indicates an increase in square feet of finished floor, up from 2,282 in 2004 which was almost unchanged from 2003's 2,288 square feet of finished floor. Figure 5 separates the results by starter, move-up, and luxury homes.

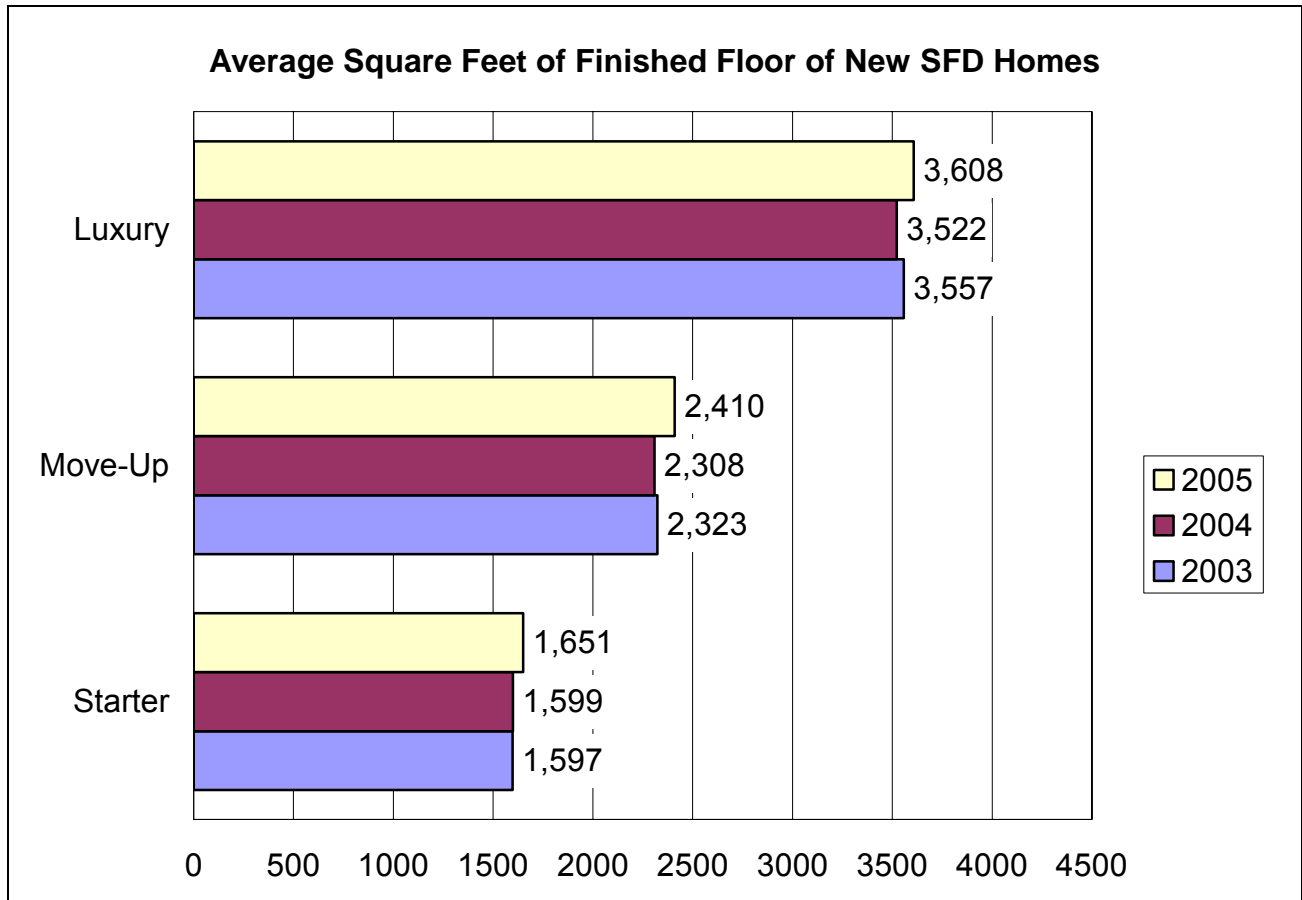


Figure 5: Average Square Feet of Finished Floor of New SFD Homes

## APPENDICES: THE BUILDER PRACTICES REPORTS

Data for the *Builder Practices Reports* are presented in the following appendices:

### APPENDIX A – PRODUCT USAGE

This section contains product usage data, an estimate of the total volume or amount of material used in a geographic area. To calculate this data, the coefficients from Appendices B and C are multiplied by the estimated housing starts data provided by McGraw Hill Construction Analytics.

### APPENDIX B – SINGLE FAMILY DETACHED COEFFICIENTS

This section contains per-house averages of materials usage (coefficients) for single-family detached homes.

### APPENDIX C – MULTIFAMILY COEFFICIENTS

This section contains per-dwelling-unit averages of materials usage (coefficients) for multifamily dwellings (duplexes, townhouses and row houses, as well as low-rise Apartments-up to and including four stories).

### APPENDIX D – GENERAL CHARACTERISTICS

This section contains data on the general characteristics of new homes within the sample built by builders nationwide, separately for single-family detached and multifamily dwellings. The general characteristics tables for single-family detached homes also provide data for starter, move-up, and luxury homes. These terms are understood by builders who market their homes at price points coinciding with these three terms. And, since houses can vary widely in price and size across the United States, the NAHB Research Center does not establish price, size, or price-per-square-foot criteria for homes in these categories, but allows individual builders to categorize their homes based on individual housing market criteria.

Distinctions are made when referring to structures generally categorized as “multifamily dwellings”. One set of general characteristics is included for single-family attached homes (townhouses and duplexes), while another set describes units in apartment or condominium buildings. Single-family attached dwellings are generally defined as sharing one or more common walls, with each unit resting on a separate foundation. On the other hand, units located in apartment or condominium buildings are defined as sharing a common foundation with another unit. Typically, both types of units require fire-rated walls between units.

### APPENDIX E – ANNUAL BUILDER PRACTICES QUESTIONNAIRE

This section contains a copy of the *2005 Annual Builder Practices Questionnaire*.

# **APPENDIX A**

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## **PRODUCT USAGE TABLES**

	2005	2006 <i>(forecast)</i>	2007 <i>(forecast)</i>	2008 <i>(forecast)</i>	2009 <i>(forecast)</i>	2010 <i>(forecast)</i>
<b>UNITED STATES</b>						
All Data in Thousands						
<b>HOUSING STARTS</b>						
Single-Family Detached	1,626.5	1,545.0	1,400.0	1,350.0	1,390.0	1,420.0
Multifamily (SFA & MF)	508.7	494.8	469.7	444.9	450.0	465.0
<b>TOTAL</b>	<b>2,135.2</b>	<b>2,039.8</b>	<b>1,869.7</b>	<b>1,794.9</b>	<b>1,840.0</b>	<b>1,885.0</b>
<b>STRUCTURED WIRING &amp; HOME ELECTRONICS</b>						
<b>SECURITY AND HOME AUTOMATION SYSTEMS</b>						
Systems Installed						
Intercom / Entrance Phone	170.3	162.2	149.4	143.1	146.1	150.3
Video Entrance Phone	36.5	34.3	32.3	31.2	31.6	32.5
Whole home control or automation system	54.1	51.1	46.5	44.7	45.8	46.9
Security system - not monitored by protection service	510.5	485.6	444.9	427.2	437.9	448.5
Security system - monitored by protection service	385.4	369.3	337.8	322.4	329.9	338.0
Lighting control system	76.3	73.1	66.2	62.9	64.2	65.7
Programmable Thermostat	1,162.6	1,110.6	1,019.2	979.0	1,005.1	1,031.5
Communicating Thermostat	19.6	18.8	17.5	16.7	16.9	17.3
Monitored fire / toxic gas alarm system	280.1	265.5	244.7	234.4	239.4	245.7
Whole-house Audio System	184.0	176.0	161.3	155.0	158.9	162.8
Whole-house Video Access	74.8	71.9	66.3	63.3	64.8	66.4
Built-in Home Theater	172.1	164.4	148.5	141.9	145.9	149.5
Electrical Load-monitoring / control System	18.4	17.5	16.0	15.4	15.7	16.1
Multi-line phone system	632.0	605.7	556.9	535.1	549.0	563.4
<b>HOMES WITH STRUCTURED WIRING</b>						
Builders installing structured wiring	1,311.6	1,253.6	1,147.4	1,101.3	1,129.0	1,156.9
All homes	892.3	850.1	778.7	746.7	765.8	786.3
<b>CENTRAL VACUUMS</b>						
Systems Installed						
Central vacuum - full system	179.0	169.7	154.3	149.0	153.4	156.7
Central vacuum - pre-pipe only	68.0	64.0	57.8	56.2	58.1	59.5



	2005	2006 <i>(forecast)</i>	2007 <i>(forecast)</i>	2008 <i>(forecast)</i>	2009 <i>(forecast)</i>	2010 <i>(forecast)</i>
<b>NEW ENGLAND</b>						
All Data in Thousands						
<b>HOUSING STARTS</b>						
Single-Family Detached	37.2	35.9	34.5	33.0	34.1	35.7
Multifamily (SFA & MF)	22.0	19.8	16.7	15.9	15.3	15.8
<b>TOTAL</b>	<b>59.2</b>	<b>55.7</b>	<b>51.2</b>	<b>48.9</b>	<b>49.4</b>	<b>51.5</b>
<b>STRUCTURED WIRING &amp; HOME ELECTRONICS</b>						
<b>SECURITY AND HOME AUTOMATION SYSTEMS</b>						
Systems Installed						
Intercom / Entrance Phone	2.5	2.4	2.3	2.3	2.3	2.4
Video Entrance Phone	0.8	0.8	0.8	0.7	0.8	0.8
Whole home control or automation system	2.6	2.5	2.4	2.4	2.4	2.6
Security system - not monitored by protection serv	8.3	7.9	7.4	7.1	7.2	7.6
Security system - monitored by protection service	14.4	13.7	12.7	12.2	12.4	12.9
Lighting control system	1.9	1.9	1.8	1.8	1.8	1.9
Programmable Thermostat	24.7	23.5	22.1	21.2	21.6	22.6
Communicating Thermostat	0.8	0.8	0.8	0.7	0.8	0.8
Monitored fire / toxic gas alarm system	11.3	10.7	9.9	9.4	9.6	10.0
Whole-house Audio System	7.8	7.4	6.9	6.7	6.8	7.1
Whole-house Video Access	3.0	3.0	2.9	2.8	2.9	3.1
Built-in Home Theater	2.4	2.3	2.2	2.1	2.1	2.2
Electrical Load-monitoring / control System	0.5	0.5	0.5	0.5	0.5	0.5
Multi-line phone system	22.4	21.1	19.4	18.6	18.8	19.6
<b>HOMES WITH STRUCTURED WIRING</b>						
Builders installing structured wiring	35.1	33.1	30.4	29.0	29.4	30.6
All homes	29.1	27.3	24.9	23.8	23.9	24.9
<b>CENTRAL VACUUMS</b>						
Systems Installed						
Central vacuum - full system	10.4	10.1	9.7	9.4	9.7	10.2
Central vacuum - pre-pipe only	8.0	7.5	6.8	6.5	6.5	6.8

	2005	2006 <i>(forecast)</i>	2007 <i>(forecast)</i>	2008 <i>(forecast)</i>	2009 <i>(forecast)</i>	2010 <i>(forecast)</i>
<b>MID-ATLANTIC</b>						
All Data in Thousands						
<b>HOUSING STARTS</b>						
Single-Family Detached	74.5	72.7	69.6	66.0	67.5	69.4
Multifamily (SFA & MF)	58.0	52.6	48.6	43.5	43.5	44.0
<b>TOTAL</b>	<b>132.6</b>	<b>125.3</b>	<b>118.2</b>	<b>109.5</b>	<b>110.9</b>	<b>113.5</b>
<b>STRUCTURED WIRING &amp; HOME ELECTRONICS</b>						
<b>SECURITY AND HOME AUTOMATION SYSTEMS</b>						
Systems Installed						
Intercom / Entrance Phone	5.8	5.5	5.2	4.9	5.0	5.1
Video Entrance Phone	1.2	1.2	1.1	1.0	1.1	1.1
Whole home control or automation system	3.8	3.6	3.4	3.3	3.3	3.4
Security system - not monitored by protection service	10.2	9.6	9.1	8.4	8.5	8.6
Security system - monitored by protection service	23.6	22.4	21.1	19.7	20.0	20.5
Lighting control system	6.6	6.3	6.0	5.7	5.8	5.9
Programmable Thermostat	72.8	68.8	65.1	60.7	61.5	63.0
Communicating Thermostat	1.0	1.0	0.9	0.9	0.9	0.9
Monitored fire / toxic gas alarm system	23.6	22.3	21.1	19.6	19.9	20.4
Whole-house Audio System	12.2	11.8	11.2	10.4	10.6	10.9
Whole-house Video Access	9.3	9.0	8.5	7.9	8.0	8.2
Built-in Home Theater	4.1	4.0	3.8	3.6	3.7	3.8
Electrical Load-monitoring / control System	0.2	0.2	0.2	0.2	0.2	0.2
Multi-line phone system	32.2	31.1	29.7	27.9	28.4	29.2
<b>HOMES WITH STRUCTURED WIRING</b>						
Builders installing structured wiring	69.6	66.0	62.3	58.1	58.9	60.4
All homes	58.9	55.6	52.5	48.4	49.0	50.1
<b>CENTRAL VACUUMS</b>						
Systems Installed						
Central vacuum - full system	16.3	15.8	15.2	14.5	14.8	15.3
Central vacuum - pre-pipe only	3.6	3.5	3.3	3.1	3.1	3.2

	2005	2006 <i>(forecast)</i>	2007 <i>(forecast)</i>	2008 <i>(forecast)</i>	2009 <i>(forecast)</i>	2010 <i>(forecast)</i>
<b>EAST NORTH CENTRAL</b>						
All Data in Thousands						
<b>HOUSING STARTS</b>						
Single-Family Detached	170.0	167.9	153.0	152.6	158.2	160.8
Multifamily (SFA & MF)	55.9	51.1	44.6	43.0	45.7	47.8
<b>TOTAL</b>	<b>225.9</b>	<b>218.9</b>	<b>197.7</b>	<b>195.7</b>	<b>203.9</b>	<b>208.6</b>
<b>STRUCTURED WIRING &amp; HOME ELECTRONICS</b>						
<b>SECURITY AND HOME AUTOMATION SYSTEMS</b>						
Systems Installed						
Intercom / Entrance Phone	11.5	10.8	9.6	9.4	9.8	10.1
Video Entrance Phone	1.6	1.5	1.3	1.3	1.4	1.4
Whole home control or automation system	7.0	6.6	5.9	5.8	6.0	6.2
Security system - not monitored by protection serv	19.9	19.5	17.7	17.6	18.4	18.8
Security system - monitored by protection service	21.9	21.4	19.4	19.4	20.1	20.6
Lighting control system	5.5	5.4	4.8	4.7	4.9	5.0
Programmable Thermostat	112.3	109.5	99.2	98.4	102.4	104.7
Communicating Thermostat	0.8	0.8	0.7	0.7	0.8	0.8
Monitored fire / toxic gas alarm system	24.7	23.6	21.0	20.7	21.7	22.3
Whole-house Audio System	16.7	16.4	14.7	14.6	15.1	15.4
Whole-house Video Access	6.7	6.6	5.9	5.8	6.1	6.2
Built-in Home Theater	7.8	7.6	6.8	6.8	7.0	7.2
Electrical Load-monitoring / control System	2.9	2.7	2.4	2.4	2.4	2.5
Multi-line phone system	40.6	39.6	35.8	35.5	36.9	37.6
<b>HOMES WITH STRUCTURED WIRING</b>						
Builders installing structured wiring	133.3	129.4	116.7	115.5	120.1	122.8
All homes	79.0	76.9	69.4	68.8	71.7	73.4
<b>CENTRAL VACUUMS</b>						
Systems Installed						
Central vacuum - full system	11.2	11.0	10.0	10.0	10.3	10.5
Central vacuum - pre-pipe only	4.7	4.6	4.3	4.3	4.4	4.5

	2005	2006 <i>(forecast)</i>	2007 <i>(forecast)</i>	2008 <i>(forecast)</i>	2009 <i>(forecast)</i>	2010 <i>(forecast)</i>
<b>WEST NORTH CENTRAL</b>						
All Data in Thousands						
<b>HOUSING STARTS</b>						
Single-Family Detached	94.4	91.1	80.5	78.2	79.1	79.8
Multifamily (SFA & MF)	23.8	25.6	25.9	23.9	23.2	24.0
<b>TOTAL</b>	<b>118.3</b>	<b>116.7</b>	<b>106.3</b>	<b>102.1</b>	<b>102.3</b>	<b>103.8</b>
<b>STRUCTURED WIRING &amp; HOME ELECTRONICS</b>						
<b>SECURITY AND HOME AUTOMATION SYSTEMS</b>						
Systems Installed						
Intercom / Entrance Phone	8.1	8.1	7.5	7.2	7.2	7.3
Video Entrance Phone	1.0	1.0	0.9	0.9	0.9	0.9
Whole home control or automation system	2.2	2.1	1.9	1.8	1.9	1.9
Security system - not monitored by protection serv	12.6	12.6	11.7	11.2	11.2	11.4
Security system - monitored by protection service	12.8	12.4	11.3	11.0	11.2	11.3
Lighting control system	2.2	2.2	2.0	1.9	1.9	2.0
Programmable Thermostat	57.3	55.8	49.7	48.1	48.4	48.9
Communicating Thermostat	1.4	1.4	1.3	1.2	1.2	1.2
Monitored fire / toxic gas alarm system	11.7	11.5	10.5	10.2	10.3	10.5
Whole-house Audio System	14.0	13.5	12.1	11.8	12.0	12.1
Whole-house Video Access	4.4	4.2	3.8	3.7	3.7	3.8
Built-in Home Theater	8.1	7.7	7.0	6.9	7.0	7.0
Electrical Load-monitoring / control System	0.7	0.7	0.6	0.6	0.6	0.6
Multi-line phone system	46.0	45.6	42.2	40.4	40.4	41.1
<b>HOMES WITH STRUCTURED WIRING</b>						
Builders installing structured wiring	71.7	70.6	64.3	61.8	62.0	62.9
All homes	38.2	37.3	33.8	32.7	33.0	33.4
<b>CENTRAL VACUUMS</b>						
Systems Installed						
Central vacuum - full system	8.8	8.5	7.6	7.4	7.5	7.6
Central vacuum - pre-pipe only	2.3	2.2	2.0	2.0	2.0	2.0

	2005	2006 <i>(forecast)</i>	2007 <i>(forecast)</i>	2008 <i>(forecast)</i>	2009 <i>(forecast)</i>	2010 <i>(forecast)</i>
<b>SOUTH ATLANTIC</b>						
All Data in Thousands						
<b>HOUSING STARTS</b>						
Single-Family Detached	480.8	455.1	416.3	401.6	412.1	420.2
Multifamily (SFA & MF)	163.3	150.8	147.2	143.2	143.3	148.3
<b>TOTAL</b>	<b>644.1</b>	<b>605.9</b>	<b>563.5</b>	<b>544.8</b>	<b>555.4</b>	<b>568.5</b>
<b>STRUCTURED WIRING &amp; HOME ELECTRONICS</b>						
<b>SECURITY AND HOME AUTOMATION SYSTEMS</b>						
Systems Installed						
Intercom / Entrance Phone	69.0	64.4	60.7	58.8	59.5	61.1
Video Entrance Phone	25.0	23.2	22.3	21.6	21.8	22.5
Whole home control or automation system	17.7	16.7	15.6	15.1	15.3	15.7
Security system - not monitored by protection service	204.1	191.0	178.6	173.1	176.3	180.4
Security system - monitored by protection service	132.1	124.4	115.9	112.1	114.4	117.3
Lighting control system	24.2	22.6	21.1	20.4	20.7	21.3
Programmable Thermostat	282.5	265.8	247.2	239.3	244.3	250.0
Communicating Thermostat	6.3	5.9	5.6	5.4	5.5	5.7
Monitored fire / toxic gas alarm system	109.1	101.9	95.2	92.0	93.4	95.7
Whole-house Audio System	56.7	53.8	49.7	48.0	49.2	50.3
Whole-house Video Access	20.3	19.3	17.9	17.4	17.8	18.2
Built-in Home Theater	33.0	31.3	28.9	27.9	28.6	29.3
Electrical Load-monitoring / control System	9.8	9.2	8.6	8.3	8.5	8.7
Multi-line phone system	168.9	159.5	149.1	144.4	147.4	151.1
<b>HOMES WITH STRUCTURED WIRING</b>						
Builders installing structured wiring	391.7	368.6	342.3	330.8	337.4	345.2
All homes	231.1	218.0	203.8	197.1	200.8	205.9
<b>CENTRAL VACUUMS</b>						
Systems Installed						
Central vacuum - full system	49.6	47.0	42.9	41.3	42.3	43.2
Central vacuum - pre-pipe only	15.8	15.2	14.0	13.5	14.0	14.3

	2005	2006 <i>(forecast)</i>	2007 <i>(forecast)</i>	2008 <i>(forecast)</i>	2009 <i>(forecast)</i>	2010 <i>(forecast)</i>
<b>EAST SOUTH CENTRAL</b>						
All Data in Thousands						
<b>HOUSING STARTS</b>						
Single-Family Detached	106.3	105.6	98.4	90.2	90.9	90.7
Multifamily (SFA & MF)	18.2	18.6	16.9	16.7	16.9	17.0
<b>TOTAL</b>	<b>124.6</b>	<b>124.2</b>	<b>115.3</b>	<b>106.9</b>	<b>107.9</b>	<b>107.7</b>
<b>STRUCTURED WIRING &amp; HOME ELECTRONICS</b>						
<b>SECURITY AND HOME AUTOMATION SYSTEMS</b>						
Systems Installed						
Intercom / Entrance Phone	5.0	5.0	4.7	4.4	4.4	4.4
Video Entrance Phone	0.8	0.8	0.8	0.7	0.7	0.7
Whole home control or automation system	2.7	2.7	2.5	2.4	2.4	2.4
Security system - not monitored by protection service	32.0	31.8	29.1	26.6	26.8	26.7
Security system - monitored by protection service	32.3	32.3	30.3	28.1	28.4	28.4
Lighting control system	1.4	1.4	1.3	1.2	1.3	1.3
Programmable Thermostat	41.2	41.0	37.7	34.6	34.9	34.8
Communicating Thermostat	3.3	3.3	3.0	2.7	2.7	2.7
Monitored fire / toxic gas alarm system	13.0	13.0	12.0	11.2	11.3	11.3
Whole-house Audio System	7.8	7.8	7.3	6.7	6.8	6.8
Whole-house Video Access	3.5	3.5	3.2	3.0	3.0	3.0
Built-in Home Theater	5.9	5.8	5.5	5.1	5.2	5.2
Electrical Load-monitoring / control System	0.9	0.9	0.9	0.8	0.8	0.8
Multi-line phone system	28.1	27.9	25.9	23.8	24.0	23.9
<b>HOMES WITH STRUCTURED WIRING</b>						
Builders installing structured wiring	68.4	68.2	63.3	58.7	59.2	59.1
All homes	39.6	39.3	36.3	33.5	33.7	33.6
<b>CENTRAL VACUUMS</b>						
Systems Installed						
Central vacuum - full system	13.4	13.3	12.5	11.6	11.7	11.7
Central vacuum - pre-pipe only	2.9	2.9	2.7	2.5	2.5	2.5

	2005	2006 <i>(forecast)</i>	2007 <i>(forecast)</i>	2008 <i>(forecast)</i>	2009 <i>(forecast)</i>	2010 <i>(forecast)</i>
<b>WEST SOUTH CENTRAL</b>						
All Data in Thousands						
<b>HOUSING STARTS</b>						
Single-Family Detached	230.9	224.1	192.4	175.6	178.7	183.5
Multifamily (SFA & MF)	50.9	53.7	48.9	48.0	50.8	51.8
<b>TOTAL</b>	<b>281.8</b>	<b>277.9</b>	<b>241.3</b>	<b>223.6</b>	<b>229.5</b>	<b>235.3</b>
<b>STRUCTURED WIRING &amp; HOME ELECTRONICS</b>						
<b>SECURITY AND HOME AUTOMATION SYSTEMS</b>						
Systems Installed						
Intercom / Entrance Phone	30.4	29.7	25.6	23.3	23.6	24.2
Video Entrance Phone	3.1	3.0	2.6	2.4	2.4	2.5
Whole home control or automation system	6.1	6.0	5.1	4.7	4.8	4.9
Security system - not monitored by protection serv	111.7	110.2	95.9	89.4	92.2	94.6
Security system - monitored by protection service	88.8	87.1	75.4	69.4	71.0	72.7
Lighting control system	22.1	21.7	18.6	16.9	17.2	17.6
Programmable Thermostat	157.7	154.9	134.3	123.9	126.7	129.8
Communicating Thermostat	1.3	1.3	1.1	1.0	1.0	1.1
Monitored fire / toxic gas alarm system	32.6	31.8	27.2	24.8	25.2	25.9
Whole-house Audio System	20.5	19.9	17.2	15.8	16.1	16.6
Whole-house Video Access	10.3	10.0	8.5	7.8	8.0	8.3
Built-in Home Theater	56.2	54.9	47.7	43.9	44.6	45.5
Electrical Load-monitoring / control System	2.0	1.9	1.7	1.5	1.5	1.6
Multi-line phone system	92.1	91.4	79.5	73.9	76.2	78.2
<b>HOMES WITH STRUCTURED WIRING</b>						
Builders installing structured wiring	189.9	186.7	162.1	149.8	153.3	157.0
All homes	136.8	133.5	115.2	105.8	108.2	111.0
<b>CENTRAL VACUUMS</b>						
Systems Installed						
Central vacuum - full system	12.2	11.7	10.0	9.1	9.3	9.6
Central vacuum - pre-pipe only	0.7	0.7	0.6	0.6	0.6	0.6

	2005	2006 <i>(forecast)</i>	2007 <i>(forecast)</i>	2008 <i>(forecast)</i>	2009 <i>(forecast)</i>	2010 <i>(forecast)</i>
<b>MOUNTAIN</b>						
All Data in Thousands						
<b>HOUSING STARTS</b>						
Single-Family Detached	212.9	194.3	172.6	171.6	180.8	186.5
Multifamily (SFA & MF)	42.1	44.5	41.4	37.7	39.3	42.4
<b>TOTAL</b>	<b>255.1</b>	<b>238.7</b>	<b>214.1</b>	<b>209.3</b>	<b>220.1</b>	<b>228.9</b>
<b>STRUCTURED WIRING &amp; HOME ELECTRONICS</b>						
<b>SECURITY AND HOME AUTOMATION SYSTEMS</b>						
Systems Installed						
Intercom / Entrance Phone	21.5	20.2	18.3	18.1	19.1	20.1
Video Entrance Phone	1.3	1.2	1.0	1.0	1.1	1.1
Whole home control or automation system	7.9	7.2	6.1	5.9	6.1	6.2
Security system - not monitored by protection service	42.0	38.5	34.5	34.2	36.0	37.2
Security system - monitored by protection service	27.2	25.5	23.0	22.6	23.8	24.8
Lighting control system	4.3	4.0	3.5	3.4	3.6	3.7
Programmable Thermostat	179.2	169.2	152.1	148.2	156.0	162.7
Communicating Thermostat	1.5	1.4	1.3	1.3	1.3	1.4
Monitored fire / toxic gas alarm system	18.4	17.3	15.6	15.3	16.1	16.8
Whole-house Audio System	16.4	15.1	13.4	13.1	13.8	14.2
Whole-house Video Access	4.5	4.1	3.6	3.6	3.7	3.9
Built-in Home Theater	33.6	31.1	27.8	27.5	29.0	30.0
Electrical Load-monitoring / control System	0.7	0.7	0.6	0.6	0.6	0.7
Multi-line phone system	89.2	83.9	75.2	73.3	77.1	80.2
<b>HOMES WITH STRUCTURED WIRING</b>						
Builders installing structured wiring	174.9	164.0	147.3	143.9	151.4	157.6
All homes	137.4	128.5	115.3	112.9	118.8	123.5
<b>CENTRAL VACUUMS</b>						
Systems Installed						
Central vacuum - full system	36.6	33.2	29.0	28.7	30.1	30.8
Central vacuum - pre-pipe only	22.4	20.6	18.0	17.9	18.8	19.4



	2005	2006 <i>(forecast)</i>	2007 <i>(forecast)</i>	2008 <i>(forecast)</i>	2009 <i>(forecast)</i>	2010 <i>(forecast)</i>
<b>PACIFIC</b>						
All Data in Thousands						
<b>HOUSING STARTS</b>						
Single-Family Detached	219.4	198.3	182.7	181.2	188.6	193.3
Multifamily (SFA & MF)	74.4	78.2	79.5	73.1	71.8	74.0
<b>TOTAL</b>	<b>293.8</b>	<b>276.4</b>	<b>262.2</b>	<b>254.2</b>	<b>260.5</b>	<b>267.3</b>
<b>STRUCTURED WIRING &amp; HOME ELECTRONICS</b>						
<b>SECURITY AND HOME AUTOMATION SYSTEMS</b>						
Systems Installed						
Intercom / Entrance Phone	16.6	16.0	15.5	14.8	15.1	15.5
Video Entrance Phone	1.7	1.5	1.4	1.4	1.5	1.5
Whole home control or automation system	4.1	3.8	3.5	3.5	3.6	3.7
Security system - not monitored by protection serv	69.5	64.4	60.9	59.6	61.4	63.2
Security system - monitored by protection service	32.3	30.3	28.7	28.0	28.7	29.5
Lighting control system	8.1	7.6	7.1	6.9	7.0	7.2
Programmable Thermostat	234.9	222.0	211.7	204.7	209.3	215.0
Communicating Thermostat	3.0	2.9	2.8	2.7	2.7	2.8
Monitored fire / toxic gas alarm system	35.6	33.6	32.2	31.2	31.9	32.9
Whole-house Audio System	32.0	30.3	28.9	28.0	28.6	29.4
Whole-house Video Access	12.7	12.4	11.9	11.4	11.5	11.8
Built-in Home Theater	21.1	19.7	18.7	18.3	18.7	19.3
Electrical Load-monitoring / control System	0.7	0.6	0.6	0.6	0.6	0.6
Multi-line phone system	112.5	105.7	100.2	97.3	99.7	102.4
<b>HOMES WITH STRUCTURED WIRING</b>						
Builders installing structured wiring	177.0	167.2	158.7	153.6	157.2	161.2
All homes	142.2	133.8	127.6	123.8	126.7	130.4
<b>CENTRAL VACUUMS</b>						
Systems Installed						
Central vacuum - full system	20.5	18.9	17.3	17.0	17.6	17.9
Central vacuum - pre-pipe only	7.4	6.8	6.1	6.0	6.2	6.2

# **APPENDIX B**

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## **SINGLE-FAMILY DETACHED USAGE COEFFICIENT TABLES**

	NEW ENG	MID ATL	E N CEN	W N CEN	S ATL	E S CEN	W S CEN	MTN	PAC	US TOTAL
<b>STRUCTURED WIRING &amp; HOME ELECTRONICS</b>										
SECURITY AND HOME AUTOMATION SYSTEMS										
Systems Installed										
Intercom / Entrance Phone	0.062	0.053	0.030	0.062	0.072	0.043	0.131	0.088	0.044	0.071
Video Entrance Phone	0.021	0.015	0.008	0.010	0.012	0.008	0.013	0.006	0.008	0.010
Whole home control or automation system	0.067	0.039	0.024	0.023	0.022	0.021	0.026	0.036	0.016	0.026
Security system - not monitored by protection	0.152	0.073	0.091	0.091	0.299	0.291	0.363	0.191	0.263	0.241
Security system - monitored by protection serv	0.255	0.192	0.107	0.126	0.193	0.273	0.345	0.109	0.113	0.187
Lighting control system	0.050	0.071	0.028	0.019	0.029	0.009	0.096	0.017	0.030	0.037
Programmable Thermostat	0.530	0.559	0.532	0.561	0.452	0.365	0.604	0.668	0.763	0.560
Communicating Thermostat	0.021	0.012	0.005	0.012	0.006	0.031	0.006	0.007	0.007	0.009
Monitored fire / toxic gas alarm system	0.197	0.172	0.073	0.106	0.137	0.098	0.141	0.074	0.114	0.118
Whole-house Audio System	0.155	0.132	0.087	0.143	0.102	0.061	0.082	0.069	0.102	0.095
Whole-house Video Access	0.082	0.098	0.032	0.041	0.032	0.031	0.042	0.020	0.032	0.036
Built-in Home Theater	0.054	0.050	0.039	0.082	0.060	0.048	0.237	0.146	0.076	0.096
Electrical Load-monitoring / control System	0.011	0.003	0.010	0.007	0.013	0.009	0.009	0.003	0.003	0.008
Multi-line phone system	0.388	0.366	0.210	0.358	0.258	0.248	0.297	0.340	0.387	0.300
HOMES WITH STRUCTURED WIRING										
Builders installing structured wiring	0.601	0.557	0.615	0.616	0.625	0.558	0.712	0.679	0.585	0.629
All homes	0.454	0.419	0.355	0.353	0.329	0.337	0.548	0.546	0.478	0.420
Starter builders installing structured wiring	0.363	0.451	0.593	0.536	0.417	0.511	0.605	0.523	0.490	0.499
Starter homes	0.238	0.378	0.282	0.229	0.204	0.209	0.557	0.371	0.289	0.306
Moveup builders installing structured wiring	0.548	0.548	0.605	0.581	0.619	0.497	0.655	0.660	0.546	0.603
Moveup homes	0.442	0.363	0.339	0.370	0.380	0.352	0.518	0.675	0.563	0.457
Luxury builders installing structured wiring	0.701	0.678	0.733	0.796	0.764	0.680	0.777	0.829	0.691	0.752
Luxury homes	0.551	0.590	0.555	0.665	0.613	0.500	0.623	0.623	0.646	0.607
CENTRAL VACUUMS										
Systems Installed										
Central vacuum - full system	0.267	0.206	0.064	0.091	0.100	0.107	0.053	0.170	0.085	0.105
Central vacuum - pre-pipe only	0.115	0.043	0.027	0.021	0.033	0.023	0.003	0.105	0.034	0.039

# **APPENDIX C**

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## **MULTIFAMILY USAGE COEFFICIENT TABLES**

	NEW ENG	MID ATL	E N CEN	W N CEN	S ATL	E S CEN	W S CEN	MTN	PAC	US TOTAL
<b>STRUCTURED WIRING &amp; HOME ELECTRONICS</b>										
<b>SECURITY AND HOME AUTOMATION SYSTEMS</b>										
Systems Installed										
Intercom / Entrance Phone	0.008	0.032	0.114	0.095	0.209	0.027	0.001	0.068	0.094	0.108
Video Entrance Phone	0.000	0.001	0.005	0.005	0.117	0.000	0.000	0.002	0.000	0.039
Whole home control or automation system	0.004	0.016	0.052	0.000	0.043	0.027	0.001	0.004	0.009	0.024
Security system - not monitored by protection	0.123	0.083	0.079	0.168	0.369	0.059	0.549	0.034	0.159	0.233
Security system - monitored by protection serv	0.225	0.161	0.064	0.038	0.240	0.181	0.178	0.097	0.100	0.161
Lighting control system	0.004	0.023	0.014	0.018	0.062	0.027	0.000	0.013	0.021	0.030
Programmable Thermostat	0.227	0.536	0.391	0.181	0.398	0.135	0.358	0.879	0.906	0.496
Communicating Thermostat	0.002	0.002	0.000	0.011	0.020	0.000	0.000	0.000	0.019	0.010
Monitored fire / toxic gas alarm system	0.181	0.185	0.221	0.072	0.266	0.141	0.000	0.063	0.141	0.173
Whole-house Audio System	0.092	0.041	0.035	0.022	0.048	0.070	0.031	0.039	0.128	0.056
Whole-house Video Access	0.000	0.035	0.024	0.023	0.030	0.010	0.014	0.007	0.077	0.031
Built-in Home Theater	0.018	0.007	0.020	0.013	0.025	0.043	0.028	0.061	0.058	0.030
Electrical Load-monitoring / control System	0.007	0.000	0.021	0.003	0.023	0.000	0.000	0.003	0.000	0.010
Multi-line phone system	0.362	0.085	0.088	0.514	0.274	0.091	0.461	0.401	0.370	0.284
<b>HOMES WITH STRUCTURED WIRING</b>										
Builders installing structured wiring	0.579	0.484	0.516	0.565	0.558	0.500	0.500	0.722	0.654	0.566
All homes	0.556	0.476	0.332	0.204	0.446	0.202	0.204	0.501	0.503	0.410
Starter builders installing structured wiring	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Starter homes	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Moveup builders installing structured wiring	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Moveup homes	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Luxury builders installing structured wiring	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Luxury homes	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>CENTRAL VACUUMS</b>										
Systems Installed										
Central vacuum - full system	0.022	0.017	0.007	0.010	0.010	0.107	0.000	0.007	0.024	0.015
Central vacuum - pre-pipe only	0.170	0.006	0.000	0.012	0.000	0.025	0.000	0.003	0.000	0.010

# **APPENDIX D**

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## **GENERAL CHARACTERISTICS**

**GENERAL CHARACTERISTICS**

of

**SINGLE-FAMILY  
DETACHED DWELLINGS**

	NEW ENG	MID ATL	E N CEN	W N CEN	S ATL	E S CEN	W S CEN	MTN	PAC	US TOTAL
<b>GENERAL CHARACTERISTICS</b>										
<b>ALL SINGLE FAMILY DETACHED HOMES</b>										
ALL SINGLE FAMILY DETACHED HOMES										
Builders in Sample	168	190	353	233	330	144	126	134	237	1,915
Units in Sample	777	1,750	4,656	2,752	5,111	1,370	2,721	2,064	4,400	25,601
Average Square Feet of Finished Floor	2,712	2,578	2,286	2,045	2,395	2,386	2,662	2,209	2,322	2,382
Average Sales Price Including Land	\$480,542	\$388,380	\$282,925	\$294,316	\$320,332	\$254,898	\$266,220	\$336,200	\$386,894	\$320,787
Average Lot Size in Square Feet	60,133	32,909	24,109	21,584	24,590	28,690	13,227	14,731	15,467	21,693
Average SF of Finished Basement	107	207	201	391	74	121	2	53	87	104
Percent Homes w/Finished Basement	16.2%	21.2%	21.7%	41.1%	5.6%	12.1%	0.2%	3.4%	8.7%	10.1%
STARTER HOMES										
Builders in Sample	44	57	122	91	101	56	37	36	76	620
Units in Sample	180	517	1,332	1,093	1,870	392	602	709	1,501	8,196
Average Square Feet of Finished Floor	1,730	1,771	1,567	1,619	1,684	1,557	1,674	1,680	1,598	1,651
Average Sales Price Including Land	\$210,511	\$186,146	\$167,035	\$195,124	\$162,852	\$134,179	\$143,236	\$204,670	\$193,567	\$172,278
Average Lot Size in Square Feet	46,649	19,607	18,616	15,586	23,266	24,000	9,262	7,870	15,043	17,636
Average SF of Finished Basement	122	90	78	314	25	92	2	20	2	50
Percent Homes w/Finished Basement	25.5%	11.0%	13.5%	41.0%	2.1%	11.5%	0.2%	2.2%	0.2%	6.6%
MOVE-UP HOMES										
Builders in Sample	83	111	221	142	164	79	62	65	114	1,041
Units in Sample	292	853	2,518	1,366	2,259	755	1,534	1,015	2,015	12,607
Average Square Feet of Finished Floor	2,389	2,582	2,325	2,010	2,505	2,508	2,686	2,070	2,379	2,410
Average Sales Price Including Land	\$387,280	\$344,332	\$265,299	\$278,995	\$306,418	\$244,087	\$239,614	\$297,603	\$377,754	\$299,024
Average Lot Size in Square Feet	57,041	27,808	22,613	20,737	22,777	22,565	10,427	10,931	9,965	18,609
Average SF of Finished Basement	151	373	286	463	135	102	1	32	161	150
Percent Homes w/Finished Basement	21.6%	36.9%	30.1%	50.6%	9.9%	10.7%	0.0%	2.6%	16.1%	14.4%
LUXURY HOMES										
Builders in Sample	89	90	170	96	182	63	80	74	126	970
Units in Sample	305	380	806	293	982	223	585	340	884	4,798
Average Square Feet of Finished Floor	3,651	3,719	3,457	3,481	3,775	3,478	3,619	3,657	3,374	3,608
Average Sales Price Including Land	\$738,821	\$744,808	\$558,211	\$666,484	\$677,090	\$508,174	\$489,831	\$775,303	\$760,781	\$655,081
Average Lot Size in Square Feet	72,307	61,178	35,943	48,067	32,180	56,146	27,251	42,356	35,617	38,404
Average SF of Finished Basement	54	11	182	653	39	235	4	160	26	110
Percent Homes w/Finished Basement	4.2%	0.8%	13.7%	31.9%	2.5%	17.1%	0.7%	8.2%	2.1%	6.7%
AGGREGATION BY TYPE										
By Units										
Starter	23.5%	30.4%	29.7%	38.3%	41.2%	28.9%	22.4%	38.6%	32.8%	34.0%
Move-up	38.6%	48.3%	52.8%	51.2%	40.2%	54.7%	57.9%	46.2%	47.1%	47.7%
Luxury	37.9%	21.4%	17.4%	10.5%	18.6%	16.4%	19.7%	15.2%	20.1%	18.3%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

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	NEW ENG	MID ATL	E N CEN	W N CEN	S ATL	E S CEN	W S CEN	MTN	PAC	US TOTAL
<b>ALL HOMES</b>										
<b>TYPE OF FOUNDATION</b>										
Percent of new homes										
Full basement	95.5%	84.3%	69.4%	91.0%	22.4%	21.9%	0.2%	23.7%	1.6%	30.0%
Partial basement & crawl space	2.1%	6.9%	16.7%	3.4%	2.1%	4.6%	0.2%	3.6%	12.5%	5.4%
Partial basement & slab	1.0%	2.9%	1.3%	0.6%	1.4%	1.1%	1.6%	0.9%	1.3%	1.3%
Crawl space, continuous wall	0.0%	2.6%	6.0%	2.4%	16.5%	19.8%	0.3%	14.4%	29.6%	13.0%
Slab	0.9%	3.1%	6.4%	2.6%	56.7%	52.3%	96.8%	57.3%	54.6%	49.8%
Piers	0.4%	0.2%	0.2%	0.0%	1.0%	0.3%	0.9%	0.0%	0.4%	0.5%
<b>TOTAL</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
<b>NUMBER OF STORIES</b>										
Percent of new homes										
One	19.7%	21.6%	44.3%	62.5%	58.6%	67.1%	56.2%	61.4%	48.3%	53.9%
Two	74.6%	78.2%	55.2%	37.1%	40.1%	31.7%	43.7%	37.5%	51.1%	45.2%
Three	5.7%	0.2%	0.5%	0.3%	1.3%	1.2%	0.1%	1.1%	0.7%	0.9%
<b>TOTAL</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
<b>GARAGES</b>										
Percent of new homes										
One car garages	8.4%	6.1%	0.9%	2.8%	7.9%	3.2%	2.8%	1.9%	3.4%	4.4%
Two car garages	63.3%	67.8%	62.3%	41.8%	68.9%	72.4%	61.7%	59.1%	64.7%	63.8%
Three or more car garages	21.1%	20.4%	35.5%	54.5%	16.7%	15.8%	26.8%	38.5%	31.0%	27.3%
One car carport	0.3%	0.1%	0.1%	0.1%	0.3%	0.7%	3.8%	0.0%	0.2%	0.7%
Two car carport	0.0%	0.1%	0.2%	0.1%	0.8%	0.8%	2.8%	0.0%	0.0%	0.7%
No garage	6.9%	5.4%	1.0%	0.6%	5.4%	7.1%	2.0%	0.4%	0.6%	3.0%
<b>TOTAL</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
<b>AVERAGE NUMBER OF ROOMS</b>										
Per Home										
Bedrooms	3.69	3.72	3.52	3.37	3.48	3.55	3.44	3.44	3.66	3.51
Full or 3/4 Bathrooms	2.39	2.17	2.08	2.12	2.48	2.15	2.36	2.05	2.27	2.28
Half Bathrooms	1.08	0.96	0.80	0.78	0.59	0.69	0.57	0.78	0.70	0.70
Total Rooms	8.19	8.40	7.82	7.91	7.56	7.95	7.66	7.96	8.17	7.83
Closets	7.60	6.91	6.38	6.02	6.43	6.00	6.06	6.15	5.85	6.25
<b>PURPOSE OF BUILDING</b>										
Percent of New Homes										
For speculation on builder's land	31.4%	23.9%	26.0%	27.4%	27.4%	49.9%	42.5%	32.8%	51.2%	34.7%
Presold on builder's land	28.5%	47.2%	40.3%	45.2%	45.7%	21.3%	47.9%	55.7%	31.1%	42.9%
For the owner on the owner's land	37.3%	23.8%	29.8%	20.5%	24.6%	25.9%	9.0%	10.5%	13.4%	19.7%
For builder's personal occupancy	0.4%	0.3%	0.2%	6.4%	0.1%	0.4%	0.1%	0.3%	0.2%	0.6%
For rent	0.3%	0.4%	0.3%	0.3%	0.8%	2.5%	0.3%	0.0%	1.7%	0.7%
Not reported	2.2%	4.4%	3.4%	0.2%	1.3%	0.0%	0.2%	0.6%	2.4%	1.5%
<b>TOTAL</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
<b>HOMES FOR OLDER BUYERS</b>										
Percent of New Homes										
Built in "active adult" / age-restricted commun	4.3%	2.9%	2.5%	8.8%	5.5%	4.8%	5.2%	19.4%	2.3%	6.5%
Sold to occupants over the age of 55	21.5%	18.6%	26.9%	25.2%	39.6%	21.6%	33.8%	32.4%	28.4%	31.6%
<b>AVERAGE UNITS PER BUILDER</b>										
All Single-Family Detached Homes	5.0	9.9	15.0	14.7	17.5	10.3	28.4	22.2	22.9	18.9

	NEW ENG	MID ATL	E N CEN	W N CEN	S ATL	E S CEN	W S CEN	MTN	PAC	US TOTAL
<b>STARTER HOMES</b>										
<b>TYPE OF FOUNDATION</b>										
Percent of new homes										
Full basement	92.5%	73.4%	62.5%	79.7%	9.0%	11.6%	0.2%	19.3%	0.3%	22.7%
Partial basement & crawl space	1.8%	14.8%	18.2%	10.5%	1.3%	8.0%	0.0%	3.7%	7.8%	5.7%
Partial basement & slab	2.6%	2.8%	0.4%	0.6%	0.0%	2.5%	0.0%	2.0%	0.6%	0.8%
Crawl space, continuous wall	0.0%	1.1%	7.9%	3.5%	22.7%	32.7%	0.4%	10.5%	36.2%	16.2%
Slab	2.5%	7.6%	10.9%	5.7%	66.9%	44.7%	98.6%	64.4%	54.7%	54.4%
Piers	0.5%	0.2%	0.0%	0.0%	0.1%	0.5%	0.8%	0.0%	0.3%	0.2%
<b>TOTAL</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
<b>NUMBER OF STORIES</b>										
Percent of new homes										
One	42.7%	40.2%	56.6%	77.0%	71.3%	88.4%	74.3%	56.1%	57.2%	65.7%
Two	56.6%	59.8%	43.4%	23.0%	27.9%	10.1%	25.7%	43.9%	42.8%	34.0%
Three	0.7%	0.0%	0.0%	0.0%	0.8%	1.5%	0.0%	0.0%	0.0%	0.4%
<b>TOTAL</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
<b>GARAGES</b>										
Percent of new homes										
One car garages	25.9%	15.4%	2.8%	5.4%	13.8%	4.7%	7.9%	8.5%	9.5%	9.8%
Two car garages	52.8%	67.6%	87.3%	62.6%	69.4%	66.8%	75.4%	77.5%	81.9%	73.8%
Three or more car garages	0.8%	2.2%	7.2%	30.4%	2.8%	2.1%	2.4%	13.6%	6.9%	6.7%
One car carport	0.5%	0.0%	0.0%	0.2%	0.4%	2.1%	0.2%	0.0%	0.3%	0.4%
Two car carport	0.1%	0.1%	0.2%	0.1%	0.3%	0.7%	8.7%	0.0%	0.0%	1.4%
No garage	20.0%	14.7%	2.4%	1.4%	13.3%	23.5%	5.3%	0.4%	1.3%	7.9%
<b>TOTAL</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
<b>AVERAGE NUMBER OF ROOMS</b>										
Per Home										
Bedrooms	3.15	3.17	3.00	2.96	3.18	3.08	3.00	3.23	3.23	3.13
Full or 3/4 Bathrooms	1.60	1.71	1.70	1.88	2.09	1.79	1.97	1.77	2.00	1.92
Half Bathrooms	0.78	0.85	0.53	0.44	0.34	0.28	0.19	0.68	0.42	0.43
Total Rooms	6.33	6.44	6.28	7.34	6.29	6.31	6.54	7.02	6.37	6.50
Closets	6.45	5.35	5.44	5.31	5.59	5.19	4.68	5.18	5.06	5.29
<b>PURPOSE OF BUILDING</b>										
Percent of New Homes										
For speculation on builder's land	42.4%	24.6%	28.7%	26.5%	28.4%	51.3%	50.9%	29.5%	59.3%	37.5%
Presold on builder's land	27.8%	36.3%	33.5%	54.4%	52.3%	20.3%	40.1%	63.1%	21.3%	42.6%
For the owner on the owner's land	25.5%	25.0%	32.5%	18.5%	18.4%	19.5%	8.6%	7.0%	14.0%	16.9%
For builder's personal occupancy	0.0%	0.4%	0.2%	0.4%	0.0%	0.8%	0.1%	0.4%	0.0%	0.2%
For rent	0.3%	0.8%	0.2%	0.1%	0.8%	8.0%	0.2%	0.0%	1.6%	1.1%
Not reported	4.0%	12.9%	4.9%	0.0%	0.2%	0.0%	0.0%	0.0%	3.8%	1.8%
<b>TOTAL</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

	NEW ENG	MID ATL	E N CEN	W N CEN	S ATL	E S CEN	W S CEN	MTN	PAC	US TOTAL
<b>MOVE-UP HOMES</b>										
<b>TYPE OF FOUNDATION</b>										
Percent of new homes										
Full basement	97.1%	91.6%	68.3%	96.2%	26.1%	20.5%	0.2%	24.8%	1.0%	31.6%
Partial basement & crawl space	2.5%	3.6%	18.6%	1.9%	2.4%	2.1%	0.1%	3.1%	16.2%	5.7%
Partial basement & slab	0.4%	2.6%	1.7%	0.1%	2.2%	0.5%	0.0%	0.1%	2.0%	1.3%
Crawl space, continuous wall	0.0%	1.6%	6.5%	1.0%	14.9%	11.5%	0.1%	11.6%	26.6%	11.1%
Slab	0.0%	0.5%	4.7%	0.8%	54.1%	65.2%	99.4%	60.4%	54.0%	50.1%
Piers	0.0%	0.1%	0.3%	0.0%	0.3%	0.2%	0.2%	0.0%	0.2%	0.2%
<b>TOTAL</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
<b>NUMBER OF STORIES</b>										
Percent of new homes										
One	14.3%	12.9%	38.1%	56.3%	61.2%	61.5%	54.5%	70.9%	39.8%	52.7%
Two	85.3%	87.1%	61.8%	43.6%	38.4%	38.5%	45.4%	29.1%	59.9%	47.1%
Three	0.4%	0.0%	0.1%	0.2%	0.4%	0.0%	0.1%	0.0%	0.3%	0.2%
<b>TOTAL</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
<b>GARAGES</b>										
Percent of new homes										
One car garages	4.5%	0.9%	0.1%	0.2%	4.4%	3.2%	0.9%	0.0%	0.9%	1.9%
Two car garages	86.3%	82.6%	59.9%	33.9%	76.3%	82.3%	67.2%	52.5%	63.0%	66.8%
Three or more car garages	4.8%	15.8%	39.4%	65.4%	17.1%	13.9%	23.9%	47.2%	35.6%	29.1%
One car carport	0.0%	0.2%	0.1%	0.0%	0.0%	0.1%	6.0%	0.0%	0.0%	0.9%
Two car carport	0.0%	0.2%	0.1%	0.2%	1.2%	0.5%	0.7%	0.0%	0.0%	0.5%
No garage	4.3%	0.3%	0.5%	0.4%	1.0%	0.1%	1.4%	0.3%	0.5%	0.8%
<b>TOTAL</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
<b>AVERAGE NUMBER OF ROOMS</b>										
Per Home										
Bedrooms	3.55	3.84	3.67	3.61	3.51	3.65	3.34	3.26	3.75	3.53
Full or 3/4 Bathrooms	2.14	2.06	2.07	2.16	2.47	2.06	2.27	1.96	2.24	2.23
Half Bathrooms	1.02	1.03	0.84	0.86	0.67	0.79	0.54	0.63	0.82	0.73
Total Rooms	7.81	8.60	8.23	7.85	7.78	8.43	7.40	7.90	8.73	8.00
Closets	7.75	7.10	6.43	6.26	6.41	5.89	5.92	6.21	5.85	6.26
<b>PURPOSE OF BUILDING</b>										
Percent of New Homes										
For speculation on builder's land	31.7%	19.6%	24.8%	29.8%	28.5%	52.1%	40.9%	32.1%	46.5%	34.0%
Presold on builder's land	34.9%	58.1%	46.3%	41.1%	39.2%	22.7%	53.4%	63.0%	41.3%	45.2%
For the owner on the owner's land	32.6%	19.5%	25.1%	19.7%	29.5%	24.8%	5.4%	4.4%	10.7%	18.5%
For builder's personal occupancy	0.0%	0.1%	0.2%	9.1%	0.2%	0.2%	0.1%	0.1%	0.1%	0.7%
For rent	0.3%	0.3%	0.4%	0.4%	1.7%	0.2%	0.2%	0.0%	0.3%	0.7%
Not reported	0.6%	2.4%	3.1%	0.0%	0.9%	0.0%	0.0%	0.3%	1.1%	0.9%
<b>TOTAL</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

	NEW ENG	MID ATL	E N CEN	W N CEN	S ATL	E S CEN	W S CEN	MTN	PAC	US TOTAL
<b>LUXURY HOMES</b>										
<b>TYPE OF FOUNDATION</b>										
Percent of new homes										
Full basement	95.9%	86.4%	82.6%	92.8%	34.4%	43.8%	0.1%	26.6%	9.4%	38.0%
Partial basement & crawl space	1.6%	0.5%	4.4%	1.1%	3.0%	7.0%	0.5%	6.0%	6.7%	3.7%
Partial basement & slab	0.6%	4.8%	1.7%	1.8%	0.8%	1.1%	7.0%	3.0%	1.3%	2.4%
Crawl space, continuous wall	0.1%	7.6%	2.3%	2.1%	13.9%	23.7%	0.4%	36.7%	24.0%	14.5%
Slab	1.1%	0.6%	8.6%	2.2%	43.3%	23.6%	89.4%	27.7%	57.0%	39.4%
Piers	0.8%	0.2%	0.4%	0.0%	4.6%	0.8%	2.6%	0.0%	1.6%	2.1%
<b>TOTAL</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
<b>NUMBER OF STORIES</b>										
Percent of new homes										
One	11.0%	11.1%	42.4%	59.3%	37.3%	45.9%	47.8%	60.1%	55.3%	44.8%
Two	76.2%	88.3%	54.7%	39.0%	59.0%	49.4%	52.0%	35.0%	41.9%	52.1%
Three	12.8%	0.6%	2.9%	1.7%	3.6%	4.7%	0.2%	4.9%	2.8%	3.2%
<b>TOTAL</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
<b>GARAGES</b>										
Percent of new homes										
One car garages	1.9%	2.2%	0.0%	0.5%	2.7%	0.4%	2.8%	0.0%	0.2%	1.4%
Two car garages	47.4%	41.0%	25.3%	16.8%	42.8%	50.0%	33.7%	24.1%	39.3%	35.8%
Three or more car garages	49.0%	56.7%	73.4%	82.7%	51.5%	47.1%	61.3%	74.7%	59.4%	61.0%
One car carport	0.4%	0.0%	0.3%	0.0%	0.6%	0.1%	0.1%	0.0%	0.3%	0.3%
Two car carport	0.0%	0.0%	0.3%	0.0%	0.5%	2.3%	2.0%	0.2%	0.2%	0.7%
No garage	1.3%	0.0%	0.7%	0.0%	2.0%	0.0%	0.1%	1.0%	0.6%	0.9%
<b>TOTAL</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
<b>AVERAGE NUMBER OF ROOMS</b>										
Per Home										
Bedrooms	4.17	4.20	3.91	3.96	4.11	4.05	4.18	4.05	4.26	4.10
Full or 3/4 Bathrooms	3.15	2.92	2.80	2.87	3.35	3.11	3.03	2.91	2.80	3.05
Half Bathrooms	1.33	1.13	1.16	1.43	1.05	1.10	1.10	1.11	0.81	1.08
Total Rooms	9.74	10.77	9.26	10.02	9.72	9.34	9.32	9.42	9.72	9.62
Closets	8.11	8.71	7.85	7.51	8.12	7.77	7.94	7.32	7.28	7.82
<b>PURPOSE OF BUILDING</b>										
Percent of New Homes										
For speculation on builder's land	23.0%	31.3%	24.5%	26.0%	24.6%	41.8%	39.0%	27.8%	51.5%	32.2%
Presold on builder's land	22.3%	35.9%	34.5%	23.3%	27.6%	19.3%	38.2%	18.5%	17.7%	26.8%
For the owner on the owner's land	51.2%	30.3%	38.6%	46.6%	41.8%	38.7%	20.8%	51.0%	23.0%	36.9%
For builder's personal occupancy	1.0%	0.4%	0.3%	2.1%	0.4%	0.1%	0.3%	0.7%	0.5%	0.5%
For rent	0.3%	0.0%	0.1%	0.4%	0.0%	0.0%	0.9%	0.1%	3.7%	0.7%
Not reported	2.3%	2.1%	2.1%	1.7%	5.5%	0.0%	0.7%	2.1%	3.6%	2.9%
<b>TOTAL</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

	NEW ENG	MID ATL	E N CEN	W N CEN	S ATL	E S CEN	W S CEN	MTN	PAC	US TOTAL
ALL HOMES										
DISTRIBUTION BY SIZE OF BUILDER										
Percentage of Builders in Sample										
1 to 10 homes	91.6%	76.3%	77.6%	77.4%	73.6%	77.8%	64.6%	78.7%	79.7%	77.5%
11 to 25 homes	6.2%	14.3%	13.3%	12.6%	13.0%	18.1%	18.9%	9.2%	7.4%	12.5%
26 to 100 homes	2.2%	9.4%	6.5%	8.3%	10.4%	3.5%	9.0%	5.5%	7.0%	6.9%
Over 100 homes	0.0%	0.0%	2.6%	1.7%	3.0%	0.7%	7.5%	6.6%	6.0%	3.1%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
DISTRIBUTION BY SIZE OF BUILDER										
Percentage of Homes in Sample										
1 to 10 homes	61.5%	22.3%	26.0%	24.4%	19.4%	33.6%	15.1%	18.1%	18.7%	26.6%
11 to 25 homes	23.2%	25.9%	18.4%	18.9%	14.9%	33.4%	16.5%	8.8%	11.1%	19.0%
26 to 100 homes	15.3%	51.7%	27.1%	30.8%	36.6%	23.0%	17.5%	27.7%	22.8%	28.1%
Over 100 homes	0.0%	0.0%	28.6%	25.9%	29.2%	10.0%	50.9%	45.3%	47.3%	26.4%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

**GENERAL CHARACTERISTICS**  
of  
**MULTIFAMILY DWELLINGS**

	NEW ENG	MID ATL	E N CEN	W N CEN	S ATL	E S CEN	W S CEN	MTN	PAC	US TOTAL
<b>GENERAL CHARACTERISTICS</b>										
<b>ALL MULTIFAMILY HOMES</b>										
ALL MULTIFAMILY HOMES										
Builders in Sample	19	31	65	46	52	10	12	18	26	279
Units in Sample	329	956	1,997	832	3,670	204	202	921	965	10,075
Average Square Feet of Finished Floor	1,501	1,491	1,321	1,341	1,447	1,196	1,403	1,358	1,358	1,402
Average Sales Price Including Land	\$352,576	\$279,390	\$194,782	\$179,459	\$255,869	\$157,283	\$151,663	\$187,343	\$195,431	\$223,972
TOWNHOUSES (SINGLE-FAMILY ATTACHED)										
Builders in Sample	11	22	44	40	28	7	8	10	16	186
Units in Sample	180	705	623	377	809	72	116	229	338	3,449
Average Square Feet of Finished Floor	1,801	1,574	1,543	1,563	1,682	1,452	1,502	1,548	1,792	1,633
Average Sales Price Including Land	\$422,161	\$304,149	\$205,788	\$220,874	\$258,840	\$118,470	\$152,112	\$213,342	\$251,870	\$242,969
Average Lot Size in Square Feet	3,015	5,526	4,318	4,789	3,110	5,028	4,144	3,367	2,889	3,754
Average SF of Finished Basement	57	47	359	266	0	0	4	37	421	125
Percent Homes w/Finished Basement	8.89%	8.23%	45.39%	30.64%	0.00%	0.00%	0.86%	4.37%	59.77%	16.93%
APARTMENTS										
Builders in Sample	10	13	39	13	32	4	7	15	12	145
Units in Sample	149	251	1,373	455	2,861	132	86	692	627	6,625
Average Square Feet of Finished Floor	1,140	1,260	1,220	1,157	1,380	1,056	1,269	1,295	1,125	1,261
Average Sales Price Including Land	\$268,570	\$209,739	\$189,785	\$145,143	\$255,029	\$178,518	\$151,057	\$178,735	\$165,022	\$205,508
AGGREGATION BY TYPE										
By Units										
Townhouses	54.7%	73.8%	31.2%	45.3%	22.0%	35.4%	57.4%	24.9%	35.0%	37.6%
Apartments	45.3%	26.2%	68.8%	54.7%	78.0%	64.6%	42.6%	75.1%	65.0%	62.4%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
DISTRIBUTION BY SIZE OF BUILDER										
Percentage of Builders in Sample										
1 to 10 homes	57.9%	48.4%	60.0%	60.9%	38.5%	60.0%	50.0%	38.9%	57.7%	52.5%
11 to 25 homes	31.6%	29.0%	15.4%	21.7%	15.4%	10.0%	25.0%	11.1%	15.4%	19.4%
26 to 100 homes	5.3%	16.1%	15.4%	13.0%	23.1%	30.0%	25.0%	33.3%	19.2%	20.1%
Over 100 homes	5.3%	6.5%	9.2%	4.4%	23.1%	0.0%	0.0%	16.7%	7.7%	8.1%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
DISTRIBUTION BY SIZE OF BUILDER										
Percentage of Homes in Sample										
1 to 10 homes	14.4%	8.4%	8.7%	14.9%	3.0%	13.7%	12.4%	5.5%	4.8%	9.5%
11 to 25 homes	29.1%	19.3%	8.4%	15.8%	4.0%	5.5%	26.0%	3.3%	7.2%	13.2%
26 to 100 homes	17.0%	24.6%	28.2%	34.8%	17.4%	80.8%	61.6%	26.0%	28.5%	35.4%
Over 100 homes	39.5%	47.7%	54.8%	34.5%	75.6%	0.0%	0.0%	65.2%	59.4%	41.9%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

	NEW ENG	MID ATL	E N CEN	W N CEN	S ATL	E S CEN	W S CEN	MTN	PAC	US TOTAL
<b>ALL HOMES</b>										
TYPE OF FOUNDATION -- ALL MULTIFAMILY										
Percent of new homes										
Full basement	90.2%	53.0%	44.9%	32.7%	3.2%	0.0%	0.0%	3.3%	0.2%	17.8%
Partial basement & crawl space	7.1%	8.1%	0.1%	11.9%	0.0%	0.0%	0.0%	9.0%	23.0%	5.9%
Partial basement & slab	0.0%	6.5%	1.0%	6.3%	6.2%	0.0%	0.5%	0.9%	5.7%	4.1%
Crawl space, continuous wall	2.0%	2.2%	4.2%	2.9%	3.0%	0.5%	1.6%	13.2%	23.0%	6.5%
Slab	0.7%	30.2%	49.7%	46.2%	82.3%	99.5%	97.8%	69.5%	48.2%	63.7%
Piers	0.0%	0.0%	0.0%	0.0%	5.3%	0.0%	0.0%	4.3%	0.0%	2.0%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
NUMBER OF STORIES -- ALL MULTIFAMILY										
Percent of new homes										
One	32.5%	7.9%	28.4%	51.4%	9.4%	21.7%	73.6%	18.4%	14.0%	22.6%
Two	57.2%	33.7%	38.0%	20.0%	40.3%	44.0%	7.5%	29.7%	68.5%	39.2%
Three	5.6%	47.9%	24.2%	27.9%	33.3%	34.3%	16.2%	24.9%	13.9%	27.3%
Four	4.7%	10.6%	9.4%	0.7%	17.0%	0.0%	2.8%	27.1%	3.6%	11.0%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
GARAGES										
Percent of new homes										
One car garage	21.3%	54.1%	12.0%	28.0%	27.2%	24.1%	27.5%	32.3%	19.7%	27.6%
Two car garage	52.6%	23.2%	56.1%	40.3%	16.8%	9.7%	50.9%	29.8%	60.2%	35.1%
Three or more car garages	0.0%	0.0%	1.5%	2.2%	0.0%	0.0%	1.5%	3.3%	0.1%	0.7%
One car carport	0.0%	0.0%	0.0%	0.0%	0.0%	9.1%	3.5%	0.0%	11.3%	2.3%
Two car carport	0.0%	0.0%	0.0%	0.0%	2.3%	0.0%	0.0%	0.0%	1.5%	1.0%
No garage or carport	26.2%	22.7%	30.3%	29.6%	53.7%	57.1%	16.6%	34.6%	7.2%	33.3%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
AVERAGE NUMBER OF ROOMS										
Per Home										
Bedrooms	2.31	2.55	2.17	2.24	2.37	2.32	2.40	2.40	2.61	2.40
Full or 3/4 Bathrooms	1.80	1.94	1.76	1.73	1.77	1.87	2.02	1.90	1.82	1.84
Half Bathrooms	0.66	0.74	0.45	0.30	0.27	0.34	0.29	0.49	0.19	0.37
Total Rooms	6.43	5.84	5.10	5.70	5.03	5.35	6.11	5.52	5.61	5.47
Closets	5.07	5.20	4.37	4.29	4.54	5.03	4.92	4.84	3.94	4.60
PURPOSE OF BUILDING										
Percent of New Homes										
For speculation on builder's land	20.0%	48.1%	29.5%	31.1%	15.6%	21.1%	48.1%	30.7%	16.8%	26.6%
Presold on builder's land	56.5%	20.5%	23.9%	14.1%	31.3%	18.2%	23.0%	38.7%	16.9%	26.7%
For the owner on the owner's land	5.9%	11.0%	10.5%	18.9%	38.3%	1.0%	9.9%	6.1%	40.1%	23.2%
For builder's personal occupancy	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
For rent	8.0%	14.7%	19.4%	25.7%	12.2%	51.5%	15.3%	0.5%	23.9%	16.2%
Not reported	9.7%	5.8%	16.8%	10.3%	2.7%	8.3%	3.8%	24.0%	2.3%	7.3%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
HOMES FOR OLDER BUYERS										
Percent of New Homes										
Built in "active adult" / age-restricted commur	11.0%	4.3%	8.5%	3.1%	15.1%	0.0%	56.6%	5.9%	8.4%	14.2%
Sold to occupants over the age of 55	39.1%	36.7%	54.5%	42.2%	55.3%	24.3%	64.0%	22.5%	25.7%	44.5%
AVERAGE UNITS PER BUILDER										
All Multifamily Homes	17.3	30.8	30.7	18.1	70.6	20.4	16.8	51.1	37.1	32.6

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	NEW ENG	MID ATL	E N CEN	W N CEN	S ATL	E S CEN	W S CEN	MTN	PAC	US TOTAL
<b>TOWNHOUSES</b>										
TYPE OF FOUNDATION										
Percent of Townhouses										
Full basement	98.9%	55.5%	74.4%	64.4%	7.5%	0.0%	0.0%	5.2%	0.6%	24.7%
Partial basement & crawl space	0.0%	10.5%	0.3%	1.0%	0.1%	0.0%	0.0%	0.0%	62.0%	10.4%
Partial basement & slab	0.0%	4.5%	1.9%	0.0%	15.5%	0.0%	1.0%	2.6%	15.2%	8.2%
Crawl space, continuous wall	0.0%	2.8%	0.3%	6.1%	7.7%	1.4%	2.9%	7.4%	17.7%	6.6%
Slab	1.1%	26.7%	23.0%	28.6%	69.2%	98.6%	96.2%	71.6%	4.5%	48.9%
Piers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	13.1%	0.0%	1.1%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
NUMBER OF STORIES										
Percent of Townhouses										
One	29.7%	9.5%	47.3%	77.5%	10.7%	26.4%	89.0%	32.8%	26.5%	31.1%
Two	70.3%	28.1%	49.7%	21.2%	54.6%	73.6%	10.6%	48.4%	68.1%	47.9%
Three	0.0%	56.7%	0.6%	1.2%	32.8%	0.0%	0.4%	18.8%	5.4%	19.5%
Four	0.0%	5.7%	2.4%	0.0%	2.0%	0.0%	0.0%	0.0%	0.0%	1.5%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
GARAGES										
Percent of Townhouses										
One car garage	7.8%	64.1%	8.8%	6.1%	42.9%	31.3%	43.1%	29.3%	5.0%	31.3%
Two car garage	80.6%	28.8%	83.6%	66.6%	17.2%	23.6%	54.3%	44.5%	93.9%	48.3%
Three or more car garages	0.0%	0.0%	2.3%	4.8%	0.0%	0.0%	2.6%	13.1%	0.3%	1.9%
One car carport	0.0%	0.0%	0.0%	0.0%	0.0%	25.7%	0.0%	0.0%	0.0%	0.9%
Two car carport	0.0%	0.0%	0.0%	0.0%	6.7%	0.0%	0.0%	0.0%	0.0%	2.1%
No garage or carport	11.7%	7.1%	5.3%	22.6%	33.3%	19.4%	0.0%	13.1%	0.9%	15.5%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
AVERAGE NUMBER OF ROOMS										
Per Townhouse										
Bedrooms	2.17	2.72	2.21	2.43	2.88	2.81	2.22	2.44	2.98	2.65
Full or 3/4 Bathrooms	1.93	1.99	1.67	1.97	1.85	1.83	2.05	1.99	1.96	1.90
Half Bathrooms	0.89	0.88	0.65	0.39	0.72	0.82	0.50	0.52	0.27	0.62
Total Rooms	6.77	6.17	5.75	6.20	5.62	6.07	6.27	5.76	7.66	6.17
Closets	5.16	5.34	4.81	4.48	4.94	6.64	4.84	4.63	4.52	4.92
PURPOSE OF BUILDING										
Percent of Townhouses										
For speculation on builder's land	20.4%	57.6%	55.9%	38.5%	47.6%	40.3%	62.0%	26.8%	34.2%	45.5%
Presold on builder's land	72.1%	26.7%	31.9%	30.3%	32.5%	51.4%	16.5%	55.8%	47.9%	36.6%
For the owner on the owner's land	6.7%	14.4%	5.4%	4.9%	17.8%	2.8%	17.2%	16.6%	13.2%	13.6%
For builder's personal occupancy	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
For rent	0.3%	1.3%	6.8%	9.6%	1.1%	5.6%	2.6%	0.8%	1.2%	2.4%
Not reported	0.6%	0.0%	0.0%	16.7%	1.0%	0.0%	1.7%	0.0%	3.6%	1.8%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

	NEW ENG	MID ATL	E N CEN	W N CEN	S ATL	E S CEN	W S CEN	MTN	PAC	US TOTAL
<b>APARTMENTS</b>										
TYPE OF FOUNDATION										
Percent of New Apartments										
Full basement	75.2%	44.3%	27.9%	11.0%	1.8%	0.0%	0.0%	2.4%	0.0%	12.7%
Partial basement & crawl space	19.5%	0.0%	0.0%	19.4%	0.0%	0.0%	0.0%	13.3%	0.0%	2.9%
Partial basement & slab	0.0%	13.1%	0.5%	10.7%	3.2%	0.0%	0.0%	0.0%	0.0%	3.1%
Crawl space, continuous wall	5.4%	0.0%	6.5%	0.7%	1.4%	0.0%	0.0%	15.9%	26.1%	6.6%
Slab	0.0%	42.6%	65.1%	58.3%	86.6%	100.0%	100.0%	68.4%	73.9%	72.6%
Piers	0.0%	0.0%	0.0%	0.0%	7.0%	0.0%	0.0%	0.0%	0.0%	2.2%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
NUMBER OF STORIES										
Percent of New Apartments										
One	36.0%	3.5%	19.8%	29.7%	9.0%	19.2%	52.9%	13.6%	7.2%	16.6%
Two	41.4%	49.3%	32.6%	19.1%	36.3%	27.8%	3.3%	23.5%	68.7%	36.8%
Three	12.4%	22.8%	35.0%	49.9%	33.4%	53.0%	37.4%	27.0%	18.5%	30.6%
Four	10.3%	24.4%	12.6%	1.3%	21.3%	0.0%	6.5%	36.0%	5.6%	15.9%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
GARAGES										
Percent of New Apartments										
One car garage	37.6%	26.0%	13.5%	46.1%	22.8%	20.2%	6.5%	33.4%	27.7%	23.7%
Two car garage	18.8%	7.3%	43.6%	18.5%	16.6%	2.1%	46.3%	24.9%	42.1%	25.6%
Three or more car garages	0.0%	0.0%	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
One car carport	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	8.1%	0.0%	17.4%	3.4%
Two car carport	0.0%	0.0%	0.0%	0.0%	1.1%	0.0%	0.0%	0.0%	2.2%	0.7%
No garage or carport	43.7%	66.8%	41.7%	35.4%	59.5%	77.7%	39.0%	41.7%	10.6%	46.5%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
AVERAGE NUMBER OF ROOMS										
Per Apartment										
Bedrooms	2.48	2.07	2.15	2.09	2.23	2.05	2.63	2.38	2.41	2.28
Full or 3/4 Bathrooms	1.64	1.79	1.80	1.54	1.75	1.89	1.99	1.87	1.75	1.78
Half Bathrooms	0.38	0.36	0.35	0.22	0.14	0.09	0.00	0.48	0.14	0.22
Total Rooms	6.02	4.89	4.80	5.28	4.86	4.95	5.89	5.44	4.51	5.03
Closets	4.97	4.80	4.17	4.14	4.42	4.15	5.04	4.90	3.62	4.42
PURPOSE OF BUILDING										
Percent of New Apartments										
For speculation on builder's land	19.5%	21.2%	17.5%	24.9%	6.5%	10.6%	29.3%	32.0%	7.4%	15.5%
Presold on builder's land	37.6%	3.1%	20.3%	0.6%	30.9%	0.0%	31.7%	33.1%	0.2%	20.1%
For the owner on the owner's land	4.9%	1.1%	12.8%	30.5%	44.0%	0.0%	0.0%	2.6%	54.6%	25.5%
For builder's personal occupancy	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
For rent	17.4%	52.6%	25.1%	39.1%	15.4%	76.6%	32.5%	0.4%	36.2%	27.6%
Not reported	20.7%	22.1%	24.4%	4.9%	3.1%	12.8%	6.5%	31.9%	1.7%	11.3%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

# **APPENDIX E**

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## **ANNUAL BUILDER PRACTICES QUESTIONNAIRE**

# 2005 Builder Practices Survey



January 16, 2006

Dear Home Builder,

We need your input! For more than 20 years, the NAHB Research Center has relied upon your support for getting the information needed to improve America's housing industry. Past participation in our survey efforts has been vital to our continued progress. Please complete and return this questionnaire as soon as possible.

We understand there are many demands on your time and at first glance this questionnaire may appear long and complicated, but it uses checkmarks and percentages to make it easy to describe your typical construction practices – not an exact accounting of building materials.

Once we receive your completed survey, we will send your free pouchable wind & rain jacket embroidered with the NAHB Research Center logo.

Please be assured that all information about your firm will remain confidential. If you have any questions or would like an additional copy of this questionnaire for a fellow builder, please contact Joanne McAlpin at 1-800-638-8556, ext. 6306, or send an e-mail to [jmcalpin@nahbrc.org](mailto:jmcalpin@nahbrc.org).

Thank you in advance for your assistance!

Sincerely,

A handwritten signature in black ink that reads "Michael Luzier".

Michael Luzier  
President  
NAHB Research Center, Inc.

Once we receive your completed survey, we will ship your **FREE Pouchable Wind & Rain Shirt**

*Please indicate shirt size*

- Medium  Large  
 X-Large  XX-Large



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NUMBER OF ROOMS PER HOUSE OR UNIT	SFD Starter	SFD Move-up	SFD Luxury	SFA Townhouse, Duplex	MF Multifamily
	# ROOMS ↓	# ROOMS ↓	# ROOMS ↓	# ROOMS ↓	# ROOMS PER LIVING UNIT ↓
Bedroom(s) .....	22	45	68	88	105
Half Bathroom(s) .....	23a	46a	69a	89a	106a
Full or ¾ Bathroom(s) .....	23	46	69	89	106
<b>Total Rooms (Exclude Bathrooms)...</b>	24	47	70	90	107
Closets ( <b>Include</b> Coat / Linen / Pantry) .....	25	48	71	91	108

**GARAGES AND CARPORTS**

	# HOUSES ↓	# HOUSES ↓	# HOUSES ↓	# UNITS ↓	# UNITS ↓
1 Car Garage .....	18	41	64	766	773
2 Car Garage .....	19	42	65	767	774
3 or more Car Garage .....	20	43	66	767a	774a
1 Car Carport .....	20a	43a	66a	768	775
2 or more Car Carport .....	20b	43b	66b	769	776
No Garage or Carport .....	21	44	67	769a	776a

**FOUNDATIONS**

**FOUNDATION TYPE:** *How many homes did your firm construct with the following foundation types?*

	SFD Starter	SFD Move-up	SFD Luxury	SFA Townhouse, Duplex	MF Multifamily
	# HOUSES ↓	# HOUSES ↓	# HOUSES ↓	# UNITS ↓	# BUILDINGS ↓
Full basement .....	9	32	55	78	96
Partial basement & crawl space .....	10	33	56	79	97
Partial basement & slab .....	11	34	57	80	98
Crawl space, continuous wall .....	12	35	58	81	99
Concrete slab on grade or pilings .....	13	36	59	82	100
Piers or raised pilings .....	14	37	60	83	101

**BASEMENT / CRAWL SPACE WALL MATERIAL**

*What percent of your homes or multifamily buildings had basement or crawlspace walls made of the following materials?*

*Do not include brick veneer.*

	SFD HOUSES	SFA UNITS	MF BUILDINGS
Poured concrete, reusable forms .....	109	109a	109b
Concrete block (CMU) .....	110	110a	110b
Precast concrete (e.g., Superior Walls®) .....	111	111a	111b
Insulated concrete forms (ICFs) .....	112	112a	112b
Pressure treated wood .....	113	113a	113b
Other .....	114	114a	114b
(PLEASE SPECIFY)	<b>100%</b>	<b>100%</b>	<b>100%</b>

**SUBSLAB PREPARATION**

*What did you place under your concrete slabs? If you placed concrete directly onto the soil, indicate "Nothing under slab."*

	(✓ all you use)	SLAB- ON-GRADE	BASEMENT SLAB
4" or greater layer of stone or gravel .....	[ ] 121_1	[ ] 121_2	
Less than 4" layer of stone or gravel .....	[ ] 122_1	[ ] 122_2	
Sand .....	[ ] 122c_1	[ ] 122c_2	
Strips or layers of geotextile drainage mat .....	[ ] 123_1	[ ] 123_2	
Rigid foam insulation .....	[ ] 124_1	[ ] 124_2	
Perforated plastic pipe .....	[ ] 125_1	[ ] 125_2	
Plastic sheet (vapor barrier, 6 mil poly) .....	[ ] 125c_1	[ ] 125c_2	
Other .....	[ ] 126_1	[ ] 126_2	
(PLEASE SPECIFY)			
Nothing under slab .....	[ ] 127_1	[ ] 127_2	

## STRUCTURAL SYSTEMS: WALL, FLOOR, AND ROOF STRUCTURES

### MATERIAL OF EXTERIOR ABOVE GRADE WALLS

What **percent** of your homes' **above-grade** exterior walls had the following as a **primary** structural material?

**Do not include** foundation walls or brick veneer finish.

	FIRST STORY	UPPER STORIES
Concrete or masonry .....	128	131
Wood (all types) .....	129	132
Steel (all types) .....	130	133
	<b>100%</b>	<b>100%</b>

### CONCRETE AND MASONRY ABOVE GRADE WALLS

If any of your homes had concrete or masonry **above-grade** walls, what **percent** were each of the following types?

**Do not include** basement walls or brick veneer finish.

Poured concrete, reusable forms .....	146
Concrete block (CMU) .....	147
Precast concrete (e.g., Superior Walls®) .....	148
Insulated concrete forms (ICFs) .....	149
Autoclaved aerated concrete (AAC) .....	150
Structural brick (brick wall supports roof) .....	151
Other concrete or masonry _____ <small>(PLEASE SPECIFY)</small>	152
	<b>100%</b>

### TYPES OF EXTERIOR WOOD AND STEEL WALLS

What **percent** of your homes with wood and steel walls used the following types of construction?

Site-built light-frame (2x4s, 2x6s, etc.) .....	134
Panelized light-frame (factory-built wall panels) .....	135
Modular (factory-built structure) .....	136
Structural insulated panels (SIPs) .....	137
Post and beam or "timber frame" .....	138
Logs .....	139
	<b>100%</b>

### LIGHT-FRAME EXTERIOR WALL SIZE AND SPACING

What **percent** of all your exterior light-frame walls were:

	WOOD	STEEL
2x4s at 16" o.c. ....	140	140a
2x4s at 24" o.c. ....	141	141a
2x6s at 16" o.c. ....	142	142a
2x6s at 24" o.c. ....	143	143a
Other _____ <small>(PLEASE SPECIFY)</small>	144	144a
	<b>100%</b>	<b>100%</b>

### PRE-FABRICATED SHEAR WALLS

What **percent** of your homes or living units had pre-fabricated shear walls or panels (e.g., Hardy Frame, TJ®-Shear Panel, Simpson Strong-Wall)?

**Percent** of homes .....

In homes where you used pre-fabricated shear walls or panels, what was the **average** number of panels you used?

**Average number** of panels per house or living unit: .....

### TYPE OF EXTERIOR WOOD WALL STUDS

What is the most common type or species of wood for your **exterior wall studs**? (✓one)

Timberstrand® or laminated strand lumber (LSL) .....	[ ] <sub>1</sub>
Wooden I-joists .....	[ ] <sub>2</sub>
Southern yellow pine (SYP) .....	[ ] <sub>3</sub>
Douglas fir .....	[ ] <sub>4</sub>
Hem-fir or other western woods .....	[ ] <sub>5</sub>
Spruce / Pine / Fir (SPF) or eastern spruce .....	[ ] <sub>6</sub>
LVL (laminated veneer lumber) .....	[ ] <sub>7</sub>
Other _____ <small>(PLEASE SPECIFY)</small>	[ ] <sub>8</sub>
Don't know .....	[ ] <sub>9</sub>
	145

### WALL HEADERS:

#### WINDOWS, DOORS, AND FIREPLACES

What **percent** of the (1) single window, door, and fireplace openings, (2) multiple window and door openings, and (3) garage door openings were spanned by headers of the following materials?

	SINGLE MULTIPLE		
	Window / Door / Fireplace Headers	Window / Door Headers	Garage Door Headers
Built-up dimensional lumber .....	153	153a	167
Solid wood (4xs, etc.) .....	154	154a	168
Glulam .....	155	155a	169
Wooden I-joists used singly .....	156	156a	170
Wooden I-joists doubled .....	157	157a	171
LVL single .....	158	158a	172
LVL doubled .....	159	159a	173
Parallam® .....	160	160a	174
Concrete .....	161	161a	175
Steel (all types) .....	162	162a	176
Glued & nailed box headers .....	163	163a	177
Wood truss .....	164	164a	178
Timberstrand® (LSL) .....	165	165a	179
Fitch plate beams (lumber with steel plate, bolted) .....	166	166a	180
	<b>100%</b>	<b>100%</b>	<b>100%</b>

### WALL HEIGHT

What **percent** of your interior walls had the following heights? **Exclude** two-story foyers from your estimates.

	FIRST STORY	UPPER STORIES
7' or less .....	501	508
7-1/2' .....	502	509
8' .....	503	510
8½' .....	504	511
9' .....	505	512
10' .....	506	513
12' or more .....	507	514
	<b>100%</b>	<b>100%</b>

**EXTERIOR WALL SHEATHING**

Please consider "sheathing" to be the panel product that is fastened directly to wall studs. What **percent** of your total exterior wall area was sheathed with:

None (SIP's, masonry or log walls, etc.) .....	_____	182
Plywood, 3/8" .....	_____	183
Plywood, 1/2" .....	_____	184
Plywood, 5/8" .....	_____	185
Plywood, 3/4" .....	_____	186
OSB, 3/8" .....	_____	187
OSB, 7/16" or 1/2" .....	_____	188
OSB, 5/8" .....	_____	189
OSB, 3/4" .....	_____	190
Fiberboard (including Homosote & Built-Rite®) .....	_____	191
Cement board (glass mesh reinforced, Durock®). .....	_____	192
Fiber Cement (Hardipanel®, etc.) .....	_____	192a
Gypsumboard (including Dens-Glass®, FibeRock®) .....	_____	193
1/8" foil faced 3-ply kraft paper (Thermoply®)....	_____	194
Lumber board sheathing .....	_____	195
Extruded polystyrene – XPS (blue Dow Styrofoam®, pink Owens Corning) .....	_____	196
Expanded polystyrene – EPS, or "bead board" ....	_____	197
Polyisocyanurate / urethane with foil / other facing (Celotex Tuff-R®, Thermax®, R-Max®, etc.) ....	_____	198
Other _____	_____	199
(PLEASE SPECIFY)		<b>100%</b>

**TWO LAYERS OF EXTERIOR WALL SHEATHING**

What **percent** of your homes had a layer of foam sheathing placed over a layer of structural sheathing material?

Do not include layer of foam for EIFS finish. \_\_\_\_\_ %

181

**THICKNESS OF FOAM**

What was the **typical thickness** of the foam you used? (✓one)

1 [ ] 1/2"	4 [ ] 1-1/2"
2 [ ] 5/8 or 3/4"	5 [ ] 2" or greater
3 [ ] 1"	200

**INTERIOR WALLS**

What **percent** of all your interior walls were:

Masonry or concrete .....	_____	522
Steel (all spacing) .....	_____	521a
Lumber: 2x3s at 16" o.c. ....	_____	515
Lumber: 2x3s at 24" o.c. ....	_____	516
Lumber: 2x4s at 16" o.c. ....	_____	517
Lumber: 2x4s at 24" o.c. ....	_____	518
Lumber: 2x6s at 16" o.c. ....	_____	519
Lumber: 2x6s at 24" o.c. ....	_____	520
Lumber: Other dimensions / spacing.....	_____	520a
<b>100%</b>		

**INTERIOR WALL & CEILING FINISH**

What **percent** of your typical home's total wall and ceiling area had the following interior finishes?

	WALLS	CEILINGS
1/4" plywood paneling .....	_____ 523	_____ 532
1/4" hardboard paneling .....	_____ 524	_____ 533
3/8" gypsum drywall (all types) .....	_____ 525	_____ 534
1/2" gypsum drywall (all types) .....	_____ 526	_____ 535
Cement board (glass-reinforced) .....	_____ 527	_____ 536
Fiber cement (Hardibacker®, etc) ....	_____ 530a	_____ 539a
5/8" gypsum drywall (all types) .....	_____ 528	_____ 537
3/4" gypsum drywall (all types) .....	_____ 529	_____ 538
Lumber boards or shingles .....	_____ 530	_____ 539
Acoustical ceiling tiles .....	_____ 540	
Other .....	_____ 531	_____ 541
(PLEASE SPECIFY)		
	<b>100%</b>	<b>100%</b>

**MATERIAL OF STRUCTURAL FLOOR SYSTEM**

What **percent** of your above-grade (first and upper stories) floor structures were:

Do not include <b>basement floor.</b>	GROUND FLOOR	UPPER FLOORS
Cast-in-place concrete .....	_____ 212	_____ 216
Precast concrete .....	_____ 213	_____ 217
Wood, lumber, or beams .....	_____ 214	_____ 218
Steel (all types) .....	_____ 215	_____ 219
	<b>100%</b>	<b>100%</b>

**DEPTH OF STRUCTURAL FLOOR**

For each material you used, ✓the **most common depth** of your floor framing:

	LUMBER JOISTS	WOODEN I-JOISTS	OPEN-WEB JOISTS	STEEL JOISTS
8" .....	[ ]	[ ]	[ ]	[ ] 1
10" (or 9-7/8") .....	[ ]	[ ]	[ ]	[ ] 2
12" (or 11-7/8") ....	[ ]	[ ]	[ ]	[ ] 3
14" or greater .....	[ ]	[ ]	[ ]	[ ] 4
	1033	1034	1035	1035a

**TYPES OF WOOD FLOOR FRAMING**

What **percent** of your structural wood floors on ground and upper floors were:

Do not include <b>support beams.</b>	GROUND FLOOR	UPPER FLOORS
Lumber joists .....	_____ 220	_____ 225
Wooden I-joists .....	_____ 221	_____ 226
Open web joists (wood floor truss) .	_____ 222	_____ 227
Structural insulated panels (SIPS) ...	_____ 223	_____ 228
Other .....	_____ 224	_____ 229
(PLEASE SPECIFY)		
	<b>100%</b>	<b>100%</b>



## SPACING OF FLOOR FRAMING

What **percent** of your framed floor area had joists spaced at:

	LUMBER JOISTS	WOODEN I-JOISTS	OPEN-WEB JOISTS	STEEL JOISTS
12" o.c. ....	1036	1042	1048	1048a
16" o.c. ....	1037	1043	1049	1049a
19.2" o.c. ....	1038	1044	1050	1050a
24" o.c. ....	1039	1045	1051	1051a
32" o.c. ....	1040	1046	1052	1052a
Other spacing	1041	1047	1053	1053a
	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

## SPECIES OF WOOD FLOOR FRAMING

What species of dimensional lumber joist (**not** I-joists) did you **most commonly** use for your floor framing?

(✓one only)

Southern yellow pine (SYP) .....	[ ] <sub>1</sub>
Douglas fir or hem-fir .....	[ ] <sub>2</sub>
Spruce / Pine / Fir (SPF), or eastern spruce .....	[ ] <sub>3</sub>
Other _____ (PLEASE SPECIFY)	[ ] <sub>4</sub>
Don't know .....	[ ] <sub>5</sub> 230

## FLOOR SHEATHING (SUBFLOORING)

What **percent** of your total floor area used each of the following sheathing (sub-flooring) materials?

	GROUND FLOOR	UPPER FLOORS
Concrete slab or SIPS .....	231	246
1/2" plywood .....	232	247
5/8" plywood .....	233	248
3/4" plywood .....	234	249
1-1/8" plywood .....	235	250
7/16" or 1/2" OSB .....	236	251
5/8" OSB (including Advantech) ..	237	252
3/4" OSB (including Advantech) ..	238	253
7/8" OSB .....	239	254
1" OSB .....	240	255
1-1/8" or thicker OSB .....	241	256
1x boards (3/4" actual, including T&G)	243	258
2x boards (1-1/2" actual, including T&G)	244	259
Other _____ (PLEASE SPECIFY)	245	260
	<b>100%</b>	<b>100%</b>

## RIMBOARD FOR WOODEN I-JOISTS

What **percent** of your I-joist floor systems used each of the following **rimboard** materials?

NO rimboard used (sheathing only) .....	1117h
Timberstrand® (Trus-Joist) .....	1117a
OSB (G-P Fiberstrong®, L-P Solid Start®, etc.)	1117b
Wooden I-joists with blocking .....	1117c
Plywood .....	1117d
Dimension lumber (2x10's, etc.) .....	1117e
LVL (laminated veneer lumber) .....	1117f
Re-sawn glulam .....	1117g
	<b>100%</b>

## FLOOR BEAMS: SUPPORT, FLUSH, AND FLOOR-EDGE BEAMS

Floor beams may include 1) **support beams**, which provide a bearing point for floor joists, 2) **flush beams**, which provide support and are recessed into the floor, and 3) **floor-edge beams** that typically support the edge of a loft or stairway.

About how many linear feet (LF) of floor beams did you use in a **typical** house or multifamily living unit?

**Do not include** rimboard as a floor beam..

	GROUND FLOOR	UPPER FLOORS
Single-family detached (SFD)		
floor beams: LF per <b>house</b> ..	LF <sub>1061</sub>	LF <sub>1064</sub>
Single-family attached (SFA)		
floor beams: LF per <b>UNIT</b> ..	LF <sub>1061a</sub>	LF <sub>1064a</sub>
Multifamily		
floor beams: LF per <b>UNIT</b> ..	LF <sub>1062</sub>	LF <sub>1065</sub>

## FLOOR BEAM MATERIAL

What **percent** of your floor beams were:

	GROUND FLOOR	UPPER FLOORS
Built-up dimension lumber....	1099	1108
Solid wood beams (4xs or greater)	1100	1109
Glulam .....	1101	1110
LVL .....	1102	1111
Parallam® .....	1103	1112
Timberstrand® .....	1103a	1112a
Open Web Joist .....	1104	1113
Steel (all types) .....	1105	1114
I-Joist (multiple) .....	1106	1115
Other _____ (PLEASE SPECIFY)	1107	1116
	<b>100%</b>	<b>100%</b>

## ROOF BEAMS AND CEILING SUPPORT BEAMS

For a **typical** house or multifamily **building**, how many **linear feet (LF)** of roof beams (ridge, hip, and valley) and beams located on the ceiling assembly did you use?

**Do not include** wall headers that support roofs.

Single-family detached (SFD) roof beams	_____ LF	1080
Single-family attached (SFA) roof beams	_____ LF	1080a
Multifamily <b>building</b> roof beams	_____ LF	1080b

What **percent** of your roof and ceiling assembly beams were:

Built-up dimension lumber	_____	1081
Solid wood beams (4xs or greater)	_____	1082
Glulam	_____	1083
LVL	_____	1084
Parallam®	_____	1085
Timberstrand®	_____	1085a
Girder truss	_____	1086
Steel (all types)	_____	1087
I-Joist (multiple)	_____	1088
Other _____	_____	1089
	(PLEASE SPECIFY)	<b>100%</b>

## ROOF FRAMING

What **percent** of the total roof area on your homes were the following shapes?

Gable	_____	261
Hip	_____	262
Gambrel	_____	263
Flat	_____	264a
Other _____	_____	264
	(PLEASE SPECIFY)	<b>100%</b>

## TURNED GABLES AND DORMERS

**How many** turned gables (gables perpendicular to the main ridge of the roof) and dormers did your **typical** house or multifamily building have?

	SFD	SFA	MF BUILDINGS
Turned gables	_____ 265	_____ 265a	_____ 265b
Dormers	_____ 266	_____ 266a	_____ 266b

## TYPE OF ROOF FRAMING

What **percent** of your houses had roofs framed with:

Combination of trusses and rafters	_____	270
Rafters only	_____	268
Trusses only	_____	269
Structural insulated panels (SIPs)	_____	271
Beams and purlins	_____	272
Other _____	_____	273
	(PLEASE SPECIFY)	<b>100%</b>

## SPECIES OF ROOF FRAMING LUMBER

What **percent** of your trusses or rafters / ceiling joists were:

	TRUSSES	RAFTERS
Southern yellow pine (SYP)	_____ 280	_____ 285
Douglas fir or hem-fir	_____ 281	_____ 286
Spruce / Pine / Fir (SPF)	_____ 282	_____ 287
Don't know	_____ 283	_____ 288
Other _____	_____ 284	_____ 289
	(PLEASE SPECIFY)	<b>100%</b>

## COMBINATION TRUSS & RAFTER ROOFS

For all roofs framed with both trusses and rafters, what **percent** of the roof was typically framed with each?

Trusses	_____	274
Rafters	_____	275
		<b>100%</b>

## RAFTER ROOFS

If you built with rafters, what **percent** of your rafters were:

Lumber	_____	276
I-joists	_____	277
Steel	_____	278
		<b>100%</b>

## TRUSS ROOFS

If you built with roof trusses, what **percent** of your trusses were:

Lumber	_____	276a
I-joists	_____	277a
Steel	_____	278a
		<b>100%</b>

## CEILING TYPE

What **percent** of the ceiling area **directly under the roof** was:

Sloped (i.e., cathedral or vaulted)	_____	296
Flat	_____	297
		<b>100%</b>

## OVERHANG / EAVES

How deep was the eave or overhang of your typical house?

<b>Inches</b>	_____	267
---------------	-------	-----

## ROOF PITCH

What **percent** of your roofs had pitches of:

Flat to 1/2 / 12"	_____	290
1/2 / 12" to 4/12"	_____	291
5/12" or 6/12"	_____	292
7/12" or 8/12"	_____	293
9/12" or 10/12"	_____	294
11/12" or greater	_____	295
		<b>100%</b>

**ROOFING MATERIAL**

What **percent** of your typical home’s total roof area was roofed with:

Asphalt shingle, three tab, standard weight .....	_____	310
Asphalt shingle, "Architectural" or laminated .....	_____	311
Cedar shingles (sawn) .....	_____	312
Cedar shakes (split) .....	_____	313
Clay or ceramic roof tiles .....	_____	315
Concrete roof tiles .....	_____	316
Fiber-cement shingles .....	_____	317
Slate (natural) .....	_____	318
Steel .....	_____	319
Aluminum .....	_____	320
Copper .....	_____	314
Built-up roof (e.g., hot-mopped asphalt) .....	_____	321
Single ply (e.g., EPDM, vinyl) .....	_____	322
Composite shingles (plastic or recycled rubber) ..	_____	322b
Other _____	_____	322a
(PLEASE SPECIFY)		<b>100%</b>

**ROOF VENTILATION**

What **percent** of your homes and multifamily buildings had:

	SFD	SFA	MF BUILDINGS
Ridge vents .....	_____ 329	_____ 329a	_____ 329b
Roof vents – not powered .....	_____ 330	_____ 330a	_____ 330b
Wind turbine roof vents. ....	_____ 331	_____ 331a	_____ 331b
Roof mounted attic fans .....	_____ 332	_____ 332a	_____ 332b
Gable wall louvers.....	_____ 333	_____ 333a	_____ 333b
Gable mounted attic fans .....	_____ 334	_____ 334a	_____ 334b
Whole house fans .....	_____ 335	_____ 335a	_____ 335b
Soffit vents .....	_____ 336	_____ 336a	_____ 336b
<b>Totals need not add to 100%</b>			

**ROOF SHEATHING**

What **percent** of your total roof area was sheathed with:

<b>NONE</b> (roofing attached directly to framing, or SIPs) ...	_____	298
3/8" plywood .....	_____	299
1/2" plywood .....	_____	300
5/8" plywood .....	_____	301
3/4" plywood .....	_____	302
7/16" or 1/2" OSB (including Advantech) .....	_____	303
5/8" OSB (including Advantech) .....	_____	304
3/4" OSB (including Advantech) .....	_____	305
1"x boards (3/4" actual) – no spacing .....	_____	306
1"x boards (3/4" actual) – spaced .....	_____	307
2"x lumber (1-1/2" actual – including T&G) .....	_____	308
Other _____	_____	309
(PLEASE SPECIFY)		<b>100%</b>

**SOFFIT & FASCIA MATERIAL – EAVES & RAKES**

What **percent** of your soffit and fascia material was made of:

	SOFFIT	FASCIA
<b>NO</b> soffit or fascia installed .....	_____ 358	_____ 366
Solid wood / Lumber .....	_____ 359	_____ 367
Plywood / LVL .....	_____ 360a	_____ 368a
Hardboard or MDF (e.g., Miratec®, PrimeTrim®, engineered wood trim) .....	_____ 361	_____ 369
OSB (LP SmartSide®).....	_____ 362	_____ 370
Stucco on foam board (EIFS, or synthetic stucco) .....	_____ 363	_____ 371
Vinyl (wrap for fascia) .....	_____ 364	_____ 372
Aluminum (wrap for fascia) .....	_____ 365	_____ 373
Steel .....	_____ 365b	_____ 373b
Fiber Cement .....	_____ 365c	_____ 373c
Urethane / Polyurethane plastic ..	_____ 365d	_____ 373d
Cellular PVC or solid vinyl .....	_____ 365e	_____ 373e
Wood / Plastic composite .....	_____ 365f	_____ 373f
Other _____	_____ 365a	_____ 373a
(PLEASE SPECIFY)		<b>100%</b>

**EXTERIOR FINISH MATERIAL (SIDING)**

What **percent** of the total exterior wall area for all the homes you built, including garages and dormers, was finished (sided) with the following materials?

**Wood-based Siding**

Plywood panels (e.g., T-111) .....	_____	341
Hardboard (e.g., Masonite®, ABTCO) .....	_____	342
Lumber boards (cedar or pine clapboards, etc.) .....	_____	343
Cedar shingles (sawn) or shakes (split) .....	_____	344
OSB (e.g., LP SmartLap®, LP SmartPanel®) ..	_____	345
Other type of wood siding _____	_____	346
(PLEASE SPECIFY)		

**Masonry and Cement Materials**

Brick .....	_____	347
Natural stone .....	_____	348
Manufactured stone ("synthetic stone") .....	_____	349
Cement stucco .....	_____	350
Synthetic stucco or EIFS (e.g., Dryvit®, STO®) ..	_____	351
Architectural concrete block (split-face, etc.) ..	_____	352
Fiber-cement siding (e.g., Hardiplank®, CertainTeed) .....	_____	353

**Plastic & Metal Siding**

Vinyl .....	_____	354
Aluminum .....	_____	355
Steel .....	_____	356
Other _____	_____	357
(PLEASE SPECIFY)		<b>100%</b>

**EXTERIOR TRIM TYPE**

Considering your typical house, what style of exterior trim / molding do you **most commonly** apply?

	EAVES	FRONT DOOR	FRONT WINDOWS	OTHER DOORS OR WINDOWS
Board only, no crown .... [ ]	[ ]	[ ]	[ ]	[ ] <sub>1</sub>
Board and crown ..... [ ]	[ ]	[ ]	[ ]	[ ] <sub>2</sub>
Crown only ..... [ ]	[ ]	[ ]	[ ]	[ ] <sub>3</sub>
Dentil molding ..... [ ]	[ ]	[ ]	[ ]	[ ] <sub>4</sub>
Pediments ..... [ ]	[ ]	[ ]	[ ]	[ ] <sub>5</sub>
Pilasters ..... [ ]	[ ]	[ ]	[ ]	[ ] <sub>6</sub>
Arches ..... [ ]	[ ]	[ ]	[ ]	[ ] <sub>7</sub>
Other special moldings .. [ ]	[ ]	[ ]	[ ]	[ ] <sub>8</sub>
None (part of door / window) . [ ]	[ ]	[ ]	[ ]	[ ] <sub>9</sub>
	N76	N77	N78	N79

**EXTERIOR TRIM MATERIAL**

What **percent** of the total exterior ornamental trim you installed was made of:

**Exclude** soffit & fascia.

<b>NO</b> exterior ornamental trim installed .....	_____	719
Solid wood / Lumber .....	_____	720
Plywood / LVL .....	_____	721
Hardboard or MDF (e.g., Miratec <sup>®</sup> , PrimeTrim <sup>®</sup> engineered wood trim) .....	_____	722
OSB (LP SmartSide <sup>®</sup> ) .....	_____	723
Stucco on foam board (EIFS, or synthetic stucco) .....	_____	723a
Vinyl (wrap) .....	_____	723b
Aluminum (wrap) .....	_____	723c
Steel .....	_____	725
Fiber Cement .....	_____	725a
Urethane / Polyurethane plastic .....	_____	725b
Cellular PVC or solid vinyl .....	_____	725c
Wood / Plastic composite .....	_____	725d
Other _____ (PLEASE SPECIFY) .....	_____	724
		<b>100%</b>

**WINDOWS**

**AVERAGE WINDOW OPENINGS PER HOUSE**

What was the **average number** of window **openings** (in the wall framing) in your typical house?

**Exclude** openings for doors and non-prime windows.

SFD Starter	SFD Move-up	SFD Luxury	SFA Per UNIT	MF Per UNIT
_____ 374a	_____ 374b	_____ 374c	_____ 375	_____ 376

**AVERAGE WINDOW UNITS PER HOUSE**

Considering that some window **openings** have more than one window **unit** per opening: how many window **units** were in your **typical** home?

Include both operable (venting) and fixed units.

Average number of window **units** per new home:

SFD Starter	SFD Move-up	SFD Luxury	SFA Per UNIT	MF Per UNIT
_____ 377a	_____ 377b	_____ 377c	_____ 378	_____ 379

**MATERIAL OF WINDOW FRAMES**

What **percent** of all the window **units** you installed had the following frame material?

	SFD	SFA	MF UNITS
Wood (no cladding) .....	_____ 380	_____ 387	_____ 394
Wood, aluminum clad .	_____ 381	_____ 388	_____ 395
Wood, vinyl clad .....	_____ 382	_____ 389	_____ 396
Aluminum .....	_____ 383	_____ 390	_____ 397
Vinyl .....	_____ 384	_____ 391	_____ 398
Composite (fiberglass).	_____ 385	_____ 392	_____ 399
Other _____ (PLEASE SPECIFY)	_____ 386	_____ 393	_____ 400
	<b>100%</b>	<b>100%</b>	<b>100%</b>

**WINDOW TYPE**

What **percent** of all the window **units** you installed were of the following types:

	SFD	SFA	MF UNITS
Casement .....	_____ 401	_____ 408	_____ 415
Awning .....	_____ 402	_____ 409	_____ 416
Double hung .....	_____ 403	_____ 410	_____ 417
Single hung .....	_____ 404	_____ 411	_____ 418
Sliding (side-by-side) ....	_____ 405	_____ 412	_____ 419
Fixed (rectangular) .....	_____ 406	_____ 413	_____ 420
Fixed (curved / round top) .....	_____ 407	_____ 414	_____ 421
Other _____ (PLEASE SPECIFY)	_____ 407a	_____ 414a	_____ 421a
	<b>100%</b>	<b>100%</b>	<b>100%</b>

**GLAZING**

What **percent** of your windows were:

Single glazed .....	_____ 422
Double glazed .....	_____ 423
Triple glazed .....	_____ 424
Heat-Mirror <sup>®</sup> .....	_____ 425
	<b>100%</b>

**GLASS TYPE**

What type of glass did your windows **most commonly** have?

Clear .....	_____ 426
Low-E .....	_____ 427
Argon filled Low-E .....	_____ 427a
Tinted .....	_____ 428
	<b>100%</b>

## SKYLIGHTS AND ROOF WINDOWS

*How many skylights and roof windows did your typical house have?*

	SFD	SFA	MF Per BUILDING
Skylights .....	_____ 323	_____ 325	_____ 327
Tubular Skylights .....	_____ 323a	_____ 325a	_____ 327a
Roof windows .....	_____ 324	_____ 326	_____ 328

## SHUTTERS

*How many shutters did your typical house have?*

	SFD	SFA	MF Per UNIT
	_____ 731	_____ 731a	_____ 731b

*What percent of the shutters were made of:*

Wood (any type) .....	_____ 732	_____ 732a	_____ 732b
Plastic (including polyurethane and PVC) .....	_____ 733	_____ 733a	_____ 733b
Other .....	_____ 734	_____ 734a	_____ 734b
	<b>100%</b>	<b>100%</b>	<b>100%</b>

*What percent of the shutters were of the following styles?*

Raised panel .....	_____ 735	_____ 735a	_____ 735b
Louvered .....	_____ 736	_____ 736a	_____ 736b
Board and Batten .....	_____ 737	_____ 737a	_____ 737b
Other .....	_____ 738	_____ 738a	_____ 738b
	<b>100%</b>	<b>100%</b>	<b>100%</b>

## PATIO DOORS

*How many patio door openings did your typical house have? Please include both sliding and hinged patio doors.*

SFD Starter	SFD Move-up	SFD Luxury	SFA Per UNIT	MF Per UNIT
_____ 429a	_____ 429b	_____ 429c	_____ 430	_____ 431

## PATIO DOOR TYPE

*What percent of all your patio doors were:*

	SFD	SFA	MF
Swinging (hinged) .....	_____ 432	_____ 434	_____ 436
Sliding .....	_____ 433	_____ 435	_____ 437
	<b>100%</b>	<b>100%</b>	<b>100%</b>

## PATIO DOOR MATERIAL

*What percent of all your patio doors were made of:*

	HINGED	SLIDING
Wood (no cladding) .....	_____ 438	_____ 446
Wood, aluminum clad .....	_____ 439	_____ 447
Wood, vinyl clad .....	_____ 440	_____ 448
Steel .....	_____ 441	_____ 449
Aluminum .....	_____ 442	_____ 450
Vinyl .....	_____ 443	_____ 451
Composite (fiberglass, etc.) .....	_____ 444	_____ 452
Other _____ (PLEASE SPECIFY)	_____ 445	_____ 453
	<b>100%</b>	<b>100%</b>

## ENTRY DOORS

*How many exterior entry door OPENINGS were in your typical house?*

*Exclude patio doors.*

SFD Starter	SFD Move-up	SFD Luxury	SFA Per UNIT	MF Per UNIT
_____ 454a	_____ 454b	_____ 454c	_____ 455	_____ 456

## MATERIAL OF ENTRY DOOR

*What percent of all your exterior doors were made of the following?*

	FRONT	OTHER
<i>Exclude patio doors.</i>		
Solid wood – raised panel .....	_____ 457	_____ 462
Wood – flush .....	_____ 458	_____ 463
Steel – raised panel .....	_____ 459	_____ 464
Steel – flush .....	_____ 460	_____ 465
Fiberglass .....	_____ 461	_____ 466
Other _____ (PLEASE SPECIFY)	_____ 461a	_____ 466a
	<b>100%</b>	<b>100%</b>

## SIDELITES

*What percent of your front doors had sidelites?*

Sidelites on one side .....	_____ 468
Sidelites on both sides .....	_____ 469
NO sidelites .....	_____ 470
	<b>100%</b>

## DOUBLE FRONT DOORS

*What percent of your front doors were double doors? \_\_\_\_\_ 467*

## MULTIFAMILY COMMON ENTRY DOORS

In some multifamily buildings, the individual living units have entry doors opening directly to the outside. Other buildings have common entry doors opening to hallways leading to entry doors for the individual living units.

*What percent of your multifamily buildings used common entry doors? \_\_\_\_\_ 471a*

*Of the new multifamily buildings with common entry doors, how many common entry doors, including double doors, did a typical building have? \_\_\_\_\_ 471b*

## INTERIOR DOORS

*Interior doors include bedroom, bathroom, closet, and all other interior doors. What percent of your interior doors were:*

Single interior hinged door(s) .....	_____ 477a
Double interior hinged door(s) .....	_____ 477b
Single bi-fold door(s) .....	_____ 477c
Double bi-fold door(s) .....	_____ 477d
Sliding / Pocket door(s) .....	_____ 477e
Other door(s) _____ (PLEASE SPECIFY)	_____ 477f
	<b>100%</b>

## MATERIAL OF INTERIOR DOORS

What **percent** of all your interior doors were made of:

	PASSAGE	CLOSET
Solid wood panel door .....	478	487
Solid wood with louvers .....	479	488
Solid wood, glass unit(s) .....	479a	488a
Hardboard panel, hollow core .....	480	489
Hardboard panel, solid core .....	480a	489a
Hardboard flush, hollow core .....	481	490
Plywood flush, hollow core .....	482	491
Particleboard / MDF, solid core .....	482a	491a
Mirror on steel frame .....	483	492
Steel (no mirror) .....	484	493
Hardboard panel on steel frame .....	485	494
Other _____ (PLEASE SPECIFY)	486	495
	<b>100%</b>	<b>100%</b>

## CABINETS & COUNTERTOPS

Indicate the **number** of cabinets and the **linear feet** of kitchen countertop you installed in a typical home.

	SFD & SFA	MF
<b>Number</b> of Kitchen cabinets .....	542	558
<b>Number</b> of Vanity cabinets .....	543	559
<b>Number</b> of Other cabinets .....	544	560
<b>Linear feet</b> of Kitchen countertops..	545	561

## KITCHEN AND VANITY COUNTERTOP MATERIAL

What **percent** of your kitchen and bathroom vanity countertops were made of:

	KITCHEN	VANITY
Solid Surface (e.g., Corian <sup>®</sup> , Surell <sup>®</sup> ) .....	584	590
Laminate (e.g., Formica <sup>®</sup> ) .....	585	591
Ceramic tile .....	586	592
Cultured marble .....	587	593
Engineered stone (Zodiak <sup>®</sup> , Avon <sup>®</sup> ) .....	587a	593a
Solid wood (butcher block) .....	588	594
Granite .....	589	594a
Marble, slate, or other natural stone.	589a	595a
Other _____ (PLEASE SPECIFY)	589b	595b
	<b>100%</b>	<b>100%</b>

## MATERIAL OF CABINET BOX

What **percent** of the cabinets you installed had sides and shelves made of:

	SFD & SFA	MF
Wood veneer on particleboard or MDF .....	576	580
Solid Wood .....	576a	580a
Plastic or paper overlay, or laminate on particleboard or MDF .....	577	581
Plywood (all types) .....	578	582
Other _____ (PLEASE SPECIFY)	579	583
	<b>100%</b>	<b>100%</b>

## CABINET DOOR TYPE

What **percent** of the cabinets you installed had the following types of doors?

	SFD & SFA	MF
Wood finish, raised panel in frame..	563	570
Wood finish, flat panel in frame .....	564	571
Glass panel in wood frame .....	564a	571a
Laminate with raised panel look .....	567	574
Wood finish, flat panel, no frame ...	565	570
Laminate finish, flat panel, no frame	566	573
Other _____ (PLEASE SPECIFY)	568	575
	<b>100%</b>	<b>100%</b>

## CABINET FRAME TYPE

What **percent** of the cabinets you installed had the following types of face frames?

	SFD & SFA	MF
Frameless (European style) .....	562a	569a
Face-framed (Traditional) .....	562b	569b
Other: _____ (PLEASE SPECIFY)	562c	569c
	<b>100%</b>	<b>100%</b>

## DRIVEWAYS AND PARKING SPACES

What **percent** of your **typical** units had the following **individual** driveways and parking spaces?

	SFD	SFA	MF UNITS
<b>Individual Driveways</b> .....	777	777a	777b
<b>Parking Spaces Only</b>			
Parking for one car ...	770	770a	770b
Parking for two cars ..	771	771a	771b
<b>NO</b> parking spaces ...	772	772 a	772 b
	<b>100%</b>	<b>100%</b>	<b>100%</b>

## DRIVEWAY MATERIAL

What **percent** of your driveways were made of the following materials?

	INDIVIDUAL DRIVEWAYS	SHARED DRIVES & PARKING LOTS
Asphalt .....	780	780s
Poured concrete (including stamped or stenciled) .....	781	781s
Brick .....	763	763s
Concrete paver .....	782	782s
Gravel (crushed stone) <b>with</b> concrete parking pad .....	783	783s
Gravel (crushed stone) <b>no</b> concrete parking pad .....	784	784s
No driveway .....	785	785s
Other _____ (PLEASE SPECIFY)	786	786s
	<b>100%</b>	<b>100%</b>

## DRIVEWAY SIZE

What was the **most common** size of your **individual** driveways?

	LENGTH	X	WIDTH
<b>SFD</b> driveways: .....	FT 787_L	X	FT 787_w
<b>Individual SFA</b> driveways: .....	FT 787_al	X	FT 787_aw
<b>Shared MF</b> driveways, (per BUILDING) .....	FT 787_bl	X	FT 787_bw

**GARAGE DOORS**

What **percent** of your garages had the following types of doors?

One double door .....	_____	750
Two single doors .....	_____	751
One double door, one single door .....	_____	752
Three single doors .....	_____	753
Other configuration .....	_____	753a
	<b>100%</b>	

**GARAGE DOOR OPTIONS**

What **percent** of your garage doors were of the following types?

Sectional .....	_____	739
One-piece .....	_____	740
Side hinged .....	_____	741
Other .....	_____	742
	<b>100%</b>	

What **percent** of your garage doors were made of the following materials?

Steel .....	_____	754
Wood .....	_____	755
Fiberglass or Plastic .....	_____	756
Other .....	_____	757
	<b>100%</b>	

What **percent** of your garage doors were the following styles?

Raised panel .....	_____	759
Flat panel .....	_____	760
Other .....	_____	761
	<b>100%</b>	

What **percent** of your garage doors were insulated? \_\_\_\_\_ 821a

What **percent** of your garage doors had windows? .. \_\_\_\_\_ 824a

What **percent** of your garage doors had openers? .. \_\_\_\_\_ 745

**LIGHTING**

How many lighting fixtures did you install in, or within the property lines of, your **typical** homes:

<b>INTERIOR LIGHTING</b>	<b>SFD &amp; SFA</b>	<b>MF</b>
Attic Light .....	_____ 1142	_____ 1143
Bath Fan With Light .....	_____ 1144	_____ 1145
Bath Fan Without Light .....	_____ 1146	_____ 1147
Bath Vanity .....	_____ 1148	_____ 1149
Ceiling Fans .....	_____ 1150	_____ 1151
Ceiling Mount .....	_____ 1152	_____ 1153
Chandelier .....	_____ 1154	_____ 1155
Pendant .....	_____ 1156	_____ 1157
Recessed Cans (standard) .....	_____ 1158	_____ 1159
Recessed Cans (Energy Star rated) .	_____ 1158	_____ 1159
Track .....	_____ 1160	_____ 1161
Under-Counter .....	_____ 1162	_____ 1163
Wall Sconce .....	_____ 1164	_____ 1165
Architectural .....	_____ 1166	_____ 1167

<b>EXTERIOR LIGHTING</b>	<b>SFD &amp; SFA</b>	<b>MF</b>
Porch .....	_____ 1168	_____ 1169
Pathway / Walkway .....	_____ 1170	_____ 1171
Post-Mounted Electric .....	_____ 1172	_____ 1173
Post-Mounted Gas .....	_____ 1174	_____ 1175
Floods .....	_____ 1176	_____ 1177
Landscape .....	_____ 1178	_____ 1179
Spotlights .....	_____ 1180	_____ 1181

**LIGHTING SPECIFICATIONS**

What **percent** of the lighting fixtures and bulbs, in your **typical** homes, were specified by:

	<b>FIXTURES</b>	<b>BULBS</b>
Homebuilder .....	_____ 1182	_____ 1183
Homeowner .....	_____ 1184	_____ 1185

**FINISHED FLOORING TYPE**

What type of flooring do you **most commonly** install in the following rooms?

<i>(✓ only one box per row)</i>	Wall-	Hardwood	Hardwood	Vinyl	Vinyl	Laminate	Ceramic	Slate	Marble	Other
	to-Wall	(solid)	(engineered)	Sheet	Tile	(Pergo, <sup>®</sup> Wilsonart <sup>®</sup> )	Tile			
	Carpet									
	1	2	3	4	5	6	7	8	9	10
Entry foyer (✓one) .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 642
Living room (✓one) .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 643
Dining room (✓one) .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 644
Family room, den, rec room (✓one) .	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 645
Kitchen (✓one) .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 646
Bedrooms (✓one) .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 647
Half bathrooms (✓one) .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 648
Full bathrooms (✓one) .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 649
Hallway (✓one) .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 651
Finished basement (✓one) .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 651a

## LIGHTING WITH ENERGY-SAVING FEATURES

What **percent** of lighting fixtures and bulbs had energy-saving features in your **typical** homes?

	FIXTURES	BULBS
Interior .....	_____ 1186	_____ 1187
Exterior .....	_____ 1188	_____ 1189

## ROOMS WITH FLOORING UNDERLAYMENT

Underlayment is a second layer of sheet goods over the structural floor sheathing or concrete slab. In which rooms did you **typically** use underlayment? (**✓ all that apply**)

<b>None</b> .....	[ ] 661a
All Rooms .....	[ ] 661b
Entry foyer .....	[ ] 652
Living room .....	[ ] 653
Dining room .....	[ ] 655
Family room, den, rec room .....	[ ] 656
Kitchen .....	[ ] 657
Bedrooms .....	[ ] 658
Half bathrooms .....	[ ] 659
Full bathrooms .....	[ ] 661
Hallway .....	[ ] 661c
Other rooms _____ (PLEASE SPECIFY)	[ ] 662

## FLOORING UNDERLAYMENT MATERIAL

What **percent** of all the flooring underlayment you used was:

Lauan plywood .....	_____ 668
1/4" OSB .....	_____ 669
3/8" OSB .....	_____ 670
7/16" or 1/2" OSB .....	_____ 671
5/8" OSB .....	_____ 672
3/4" OSB .....	_____ 673
1/4" plywood (other than lauan) .....	_____ 674
3/8" plywood .....	_____ 675
1/2" plywood .....	_____ 676
5/8" plywood .....	_____ 677
3/4" plywood .....	_____ 678
1/4" particleboard .....	_____ 679
3/8" particleboard .....	_____ 680
1/2" particleboard .....	_____ 681
5/8" particleboard .....	_____ 682
3/4" particleboard .....	_____ 683
1/4" hardboard .....	_____ 684
Fiber-cement (e.g., Hardibacker®) .....	_____ 685a
Cement board (glass fiber reinforced, Durock®) .....	_____ 685
Gypsum panel (FibeRock® or Dens-Shield®) ..	_____ 686
Poured lightweight concrete (Gypcrete®, etc.) .	_____ 686a
Other _____ (PLEASE SPECIFY)	_____ 687
	<b>100%</b>

## INSULATION

### FLAT CEILINGS / ATTIC INSULATION MATERIAL

What **percent** of your total **flat** ceiling areas (e.g., attics) were insulated with the following materials, and what was the typical R-value?

	% FLAT CEILINGS INSULATED	R-VALUE
<b>NOT</b> insulated .....	_____ 820	
Fiberglass batt and blown .....	_____ 812	_____ 812r
Fiberglass batt .....	_____ 813	_____ 813r
Fiberglass blown .....	_____ 814	_____ 814r
Rockwool batt .....	_____ 815	_____ 815r
Rockwool blown .....	_____ 816	_____ 816r
Cellulose blown .....	_____ 817	_____ 817r
Foam plastic (e.g., Icynene) .....	_____ 818	_____ 818r
Other _____ (PLEASE SPECIFY)	_____ 819	_____ 819r
	<b>100%</b>	

### CATHEDRAL CEILING INSULATION MATERIAL

What **percent** of your **cathedral / sloped** ceilings were insulated with the following materials, and what was the typical R-value?

	% CATHEDRAL CEILINGS INSULATED	R-VALUE
<b>NOT</b> insulated .....	_____ 831	
Fiberglass batt .....	_____ 827	_____ 827r
Rockwool batt .....	_____ 828	_____ 828r
Foam plastic (spray or board) .....	_____ 829	_____ 829r
Other _____ (PLEASE SPECIFY)	_____ 830	_____ 830r
	<b>100%</b>	

### SLAB-ON-GRADE FOUNDATION INSULATION

What type of insulation did you **typically** use with slab-on-grade foundations, beneath the slab and / or around the perimeter?

	<b>One ✓ per column:</b>	
	BENEATH SLAB	PERIMETER
Extruded polystyrene (e.g., Dow-Styrofoam®, etc.) .....	[ ]	[ ] <sub>1</sub>
Expanded polystyrene (bead board) .....	[ ]	[ ] <sub>2</sub>
Polyisocyanurate (e.g., Thermax®) .....	[ ]	[ ] <sub>3</sub>
Fiberglass .....	[ ]	[ ] <sub>4</sub>
No insulation used for slab .....	[ ] <sub>843</sub>	[ ] <sub>844</sub>

### THICKNESS OF SLAB INSULATION MATERIAL

What was the **typical thickness** of the insulation you used with slab-on-grade foundations, beneath the slab and / or around the perimeter?

	<b>One ✓ per column:</b>	
	BENEATH SLAB	PERIMETER
3/4" .....	[ ]	[ ] <sub>1</sub>
1" .....	[ ]	[ ] <sub>2</sub>
1-1/2" .....	[ ]	[ ] <sub>3</sub>
2" or more .....	[ ] <sub>845</sub>	[ ] <sub>846</sub>



**BASEMENT AND CRAWL SPACE INSULATION**

What method did you **typically** use to insulate the foundations of homes with basements or crawl spaces? (One ✓ per column)

	BASE- MENTS	CRAWL SPACES
Between floor joists of the ground floor .....	[ ]	[ ] <sub>1</sub>
Entire <b>interior</b> and <b>exterior</b> surfaces of the foundation wall .....	[ ]	[ ] <sub>2</sub>
Entire <b>interior</b> surface of foundation wall .....	[ ]	[ ] <sub>3</sub>
Only above-grade <b>interior</b> .....	[ ]	[ ] <sub>4</sub>
Entire <b>exterior</b> surface of foundation wall .....	[ ]	[ ] <sub>5</sub>
Only below-grade portion of foundation wall <b>exterior</b> .....	[ ]	[ ] <sub>6</sub>
Only above-grade portion of foundation wall <b>exterior</b> .....	[ ]	[ ] <sub>7</sub>
Foundation wall cavity .....	[ ]	[ ] <sub>8</sub>
<b>NO</b> foundation insulation used .....	[ ] <sub>847</sub>	[ ] <sub>848</sub>

**FOUNDATION WALL INSULATION TYPE**

What material did you **typically** use to insulate your basement or crawl space walls, and what was the R-value?

If you insulated **both the interior and exterior** surfaces, you may ✓ **two** materials; otherwise ✓ **only one**.

	MATERIAL	R-VALUE
Fiberglass batt or blanket .....	[ ] <sub>851_1</sub>	_____ 851_1r
Rockwool batt .....	[ ] <sub>851_2</sub>	_____ 851_2r
Fiberglass / rockwool board .....	[ ] <sub>851_3</sub>	_____ 851_3r
Extruded polystyrene (XPS) .....	[ ] <sub>851_4</sub>	_____ 851_4r
Expanded polystyrene (EPS) .....	[ ] <sub>851_5</sub>	_____ 851_5r
Polyisocyanurate .....	[ ] <sub>851_6</sub>	_____ 851_6r
Other _____ (PLEASE SPECIFY) [ ] <sub>851_7</sub>	[ ] <sub>851_7</sub>	_____ 851_7r

**HOUSES INSULATED BETWEEN FLOOR JOISTS**

What material did you **typically** use to insulate between ground floor joists and what was the **typical** R-value?

	MATERIAL	R-VALUE
Fiberglass batt or blanket .....	[ ] <sub>1</sub>	_____
Rockwool batt .....	[ ] <sub>2</sub>	_____
Fiberglass blown .....	[ ] <sub>3</sub>	_____
Cellulose blown .....	[ ] <sub>4</sub>	_____
Foam plastic (e.g., Icynene) .....	[ ] <sub>849</sub>	_____ 850

**GARAGE INSULATION**

What **percent** of your garages had insulation installed in the:

Ceilings .....	_____ 853
All walls .....	_____ 854
Only walls shared with living space .....	_____ 855

**Total need not add to 100%**

**WALL CAVITY INSULATION MATERIAL**

What **percent** of your homes had the following wall cavity insulation materials, and what were their R-values?

**Do not include** foam exterior wall sheathing.

	% HOMES	R-VALUE
<b>NO</b> wall cavity insulation .....	_____ 840	
Fiberglass batt .....	_____ 832	_____ 832r
Rockwool batt .....	_____ 833	_____ 833r
Fiberglass blown behind mesh .....	_____ 834	_____ 834r
Fiberglass blown-in, no mesh .....	_____ 835	_____ 835r
Cellulose blown behind mesh .....	_____ 836	_____ 836r
Cellulose blown-in, no mesh .....	_____ 837	_____ 837r
Foam plastic (spray or board) .....	_____ 838	_____ 838r
Other _____ (PLEASE SPECIFY)	_____ 839	_____ 839r
	<b>100%</b>	

**SOUND INSULATION**

What **percent** of your homes had some insulation in their interior partition walls and / or floors-between-stories to dampen sound?

	SFD	SFA	MF BUILDINGS
Homes with <b>wall</b> sound insulation	_____ 806	_____ 807	_____ 808
Homes with <b>floor</b> sound insulation	_____ 806a	_____ 807a	_____ 808a

Of your homes with **wall sound insulation**, how many linear feet (LF) of interior partition wall did you insulate in your **typical** house or unit?

<b>LF</b> of <b>wall</b> with sound insulation	_____ 809	_____ 810	_____ 811
--	-----------	-----------	-----------

Of your homes with **floor sound insulation**, how many square feet (SF) of floor area did you insulate in your **typical** house or unit?

<b>Sq.Ft.</b> of <b>floor</b> with sound insulation	_____ 809a	_____ 810a	_____ 811a
---	------------	------------	------------

**AIR INFILTRATION BARRIERS / HOUSE WRAP**

What **percent** of your homes and multifamily buildings were wrapped with **air infiltration barrier** material?

**Exclude** roofing felt.

	SFD	SFA	MF BUILDINGS
<b>Percent</b> wrapped: .....	_____ 856	_____ 856a	_____ 856b

**RADIANT BARRIERS**

Radiant barriers are materials that are installed in buildings to reduce summer heat gain and winter heat loss, and hence to reduce building heating and cooling energy usage.

What **percent** of your houses had radiant barriers in the wall, roof, or ceiling assembly?

Roof or ceiling .....	_____ 857
Wall .....	_____ 858

**Total need not add to 100%**

**AIR (HVAC) DUCTS**

What **percent** of your houses with ducted HVAC systems had the main duct and run-outs located in the:

Basement, crawl space or in framed floors only	_____	1008
Attic only	_____	1009
Both attic and basement or crawlspace	_____	1010
In or under concrete floor slab	_____	1011
Both in attic and concrete floor slab	_____	1011a
	<b>100%</b>	

**AIR DUCT MATERIAL**

What **percent** of your houses with ducted HVAC systems had the following types of duct material?

**MAIN DUCTS**

Metal	_____	912
Flexible	_____	913
Fiberglass, rigid (foil-faced fiberglass board)	_____	914
Other	_____	914a
	(PLEASE SPECIFY)	<b>100%</b>

**RUN-OUT DUCTS**

Metal	_____	915
Flexible	_____	916
Fiberglass, rigid (foil-faced fiberglass board)	_____	917
Other	_____	917a
	(PLEASE SPECIFY)	<b>100%</b>

**WALL STACKS**

Metal	_____	918
Fiberglass, rigid (foil-faced fiberglass board)	_____	919
NONE (wall cavity)	_____	920
Other	_____	920a
	(PLEASE SPECIFY)	<b>100%</b>

**DUCT WRAP THICKNESS**

If you used any duct insulation wrap, what was the typical thickness? (**✓one**)

1 inch	[ ] <sub>1</sub>
2 inches	[ ] <sub>2</sub>
More than 2 inches	[ ] <sub>3</sub> 925

**RIGID FIBERGLASS DUCTS**

If you used any rigid fiberglass ducts, what was the typical thickness of the fiberglass board used. (**✓one**)

1 inch	[ ] <sub>1</sub>
2 inch	[ ] <sub>2</sub>
Other	[ ] <sub>3</sub> 926
	(PLEASE SPECIFY)

**METAL DUCT INSULATION**

If you used any metal duct, what **percent** of all the metal ducting was insulated by the following methods, if any?

Lined with insulation (insulation inside the duct)	_____	921
Wrapped with insulation	_____	922
NOT insulated	_____	924
Other	_____	923
	(PLEASE SPECIFY)	<b>100%</b>

**FIREPLACES**

What **percent** of your homes had fireplaces (or chimneys for wood stoves)?

	SFD	SFA	MF UNITS
NO fireplaces / chimneys	_____ 712	_____ 712a	_____ 712b
One fireplace / chimney	_____ 713	_____ 713a	_____ 713b
Two fireplaces / chimneys	_____ 714	_____ 714a	_____ 714b
Three or more	_____ 715	_____ 715a	_____ 715b
	<b>100%</b>	<b>100%</b>	<b>100%</b>

What **percent** of your fireplaces and stoves were:

Site-built brick or stone	_____	705
Site-built concrete masonry units	_____	706
Factory-built steel – open-front	_____	708
Factory-built steel – closed front	_____	709
Stoves – wood or pellet burning	_____	710
Chimney only – ready for stove	_____	711
Other	_____	711a
		<b>100%</b>

What **percent** of your fireplaces and stoves were:

Gas	_____	716a
Wood, pellet, or corn	_____	716b
Electric	_____	716c
Jel / Gel	_____	716d
Other or not operational	_____	716e
		<b>100%</b>

**DECKS, PATIOS, PORCHES, & FLATWORK**

What **percent** of your homes had the following structures, and what was their typical size in square feet?

	PERCENT	SQ. FT.
Deck (outside)	_____ 927	_____ 928
Patio	_____ 929	_____ 930
Breezeway	_____ 931	_____ 932
Front porch	_____ 933	_____ 934
Front stoop	_____ 935	_____ 936
Side porch	_____ 937	_____ 938
Screened-in porch	_____ 939	_____ 940

**Totals need not add to 100%**

**TYPE OF PATIO**

What **percent** of your patios had surfacing material made of:

Poured concrete (include stamped or stenciled)	_____	955
Concrete pavers	_____	956
Brick pavers	_____	957
Tiles – brick or clay	_____	957a
Natural stone	_____	958
Treated wood block	_____	959
Other	_____	960
	(PLEASE SPECIFY)	<b>100%</b>

**DECK AND PORCH MATERIAL**

What **percent** of the decks and porches you built had decking or surface material made of:

	DECKS	PORCHES
Treated wood .....	_____ 961	_____ 968
Cedar .....	_____ 964	_____ 971
Redwood .....	_____ 965	_____ 972
Other untreated wood .....	_____ 966	_____ 973
Wood / Plastic composite (Trex, etc.) .....	_____ 966a	_____ 973a
PVC, vinyl, or fiberglass .....	_____ 967	_____ 974
Brick .....		_____ 975a
Tiles – brick or clay .....		_____ 975b
Concrete (include stamped and stenciled) .....		_____ 975
Natural stone .....		_____ 975c
	<b>100%</b>	<b>100%</b>

**DECK AND PORCH RAILINGS**

What **percent** of your porches and decks had railings?

Porches \_\_\_\_\_ % 1120      Decks \_\_\_\_\_ % 1121

What **percent** of your porch and deck railings consisted primarily of the following materials?

	PORCHES	DECKS
Treated wood .....	_____ 1122	_____ 1123
Cedar .....	_____ 1124	_____ 1125
Redwood .....	_____ 1126	_____ 1127
Other untreated wood .....	_____ 1128	_____ 1129
Wood / plastic composite (Trex) ..	_____ 1130	_____ 1131
PVC, vinyl, or fiberglass .....	_____ 1132	_____ 1133
Aluminum .....	_____ 1134	_____ 1135
Wrought iron or steel .....	_____ 1136	_____ 1137
Masonry or concrete (all types) ..	_____ 1138	_____ 1139
Other .....	_____ 1140	_____ 1141
(PLEASE SPECIFY)	<b>100%</b>	<b>100%</b>

**WALKWAYS & SIDEWALKS**

How many **linear feet** of walkways and sidewalk did your typical home have?

\_\_\_\_\_ LF  
976

What **percent** of all your sidewalks and walkways were:

Poured concrete .....	_____ 977
Concrete paver .....	_____ 978
Asphalt .....	_____ 978a
Brick paver .....	_____ 979
Brick or clay tiles .....	_____ 979a
Natural stone .....	_____ 980
Treated wood block .....	_____ 981
Other .....	_____ 982
(PLEASE SPECIFY)	<b>100%</b>

**FENCING AND LANDSCAPE WALLS**

What **percent** of your homes or living units had fencing / privacy walls or landscape / retaining walls installed on the lot as part of their sales contract?

	Fence / Privacy Wall	Landscape / Retaining Wall
SF Detached Houses .....	_____ % 987	_____ % 998
SF Attached Houses .....	_____ % 987a	_____ % 988a
Multifamily Buildings .....	_____ % 987b	_____ % 998b
	<b>Totals need not add to 100%</b>	

For houses with fencing or walls, what was the typical **length** of fence or wall? (per building if multifamily)

	Fence / Privacy Wall	Landscape / Retaining Wall
SF Detached Houses .....	_____ LF 988	_____ LF 999
SF Attached Houses .....	_____ LF 988a	_____ LF 999a
Multifamily Buildings .....	_____ LF 988b	_____ LF 999b
	<b>Totals need not add to 100%</b>	

What was the **typical or average** fence / wall height?

	Fence / Privacy Wall	Landscape / Retaining Wall
SF Detached Houses .....	_____ FT 989	_____ FT 1000
SF Attached Houses .....	_____ FT 989a	_____ FT 1000a
Multifamily Buildings .....	_____ FT 989b	_____ FT 1000b
	<b>Totals need not add to 100%</b>	

**FENCING AND LANDSCAPE WALL MATERIAL**

What **percent** of the fences or walls were:

	Fence / Privacy Wall	Landscape / Retaining Wall
Wood – vertical boards on alternating sides .....	_____ 990	
Wood – vertical boards on one side .....	_____ 991	
Wood with horizontal rails / boards .....	_____ 992	
Metal (chain link, wire w/ steel posts) .....	_____ 993	
Wrought iron .....	_____ 993b	
Aluminum .....	_____ 993c	
Wood / Plastic composite (Trex, etc.) .....	_____ 993a	
Vinyl, PVC, or other plastic .....	_____ 994	
Stone (natural or synthetic) .....	_____ 995	_____ 1001
Brick .....	_____ 996	_____ 1002
Pre-cast concrete .....	_____ 997	_____ 1005
Poured concrete .....	_____ 997a	_____ 1004
Mortared concrete block .....	_____ 997b	_____ 1003
Stacked concrete block (NO mortar) .....	_____ 997c	_____ 1003a
Stucco on wood frame .....	_____ 997d	_____ 1006a
Wood timbers (for landscape walls) .....		_____ 1006
	<b>100%</b>	<b>100%</b>

**INDIVIDUAL SWIMMING POOLS**

What **percent** of your homes included their own swimming pool as **part of the sales contract**?

	<b>SFD</b>		<b>SFA</b>		<b>MF BUILDINGS</b>
	_____ % 983		_____ % 983a		_____ % 983b
Average size of SF <b>Detached</b> pool:	_____ FT.	x	_____ FT.		
	984		985		
Average size of SF <b>Attached</b> pool:	_____ FT.	x	_____ FT.		
	984a		985a		
Average size of Multifamily pool:	_____ FT.	x	_____ FT.		
	984b		985b		

**POOL CONSTRUCTION METHOD**

What was the **primary method** used for constructing swimming pools?

(✓one)

Cast-in-place concrete .....	[ ] <sub>1</sub>
Shotcrete (gunnite) .....	[ ] <sub>2</sub>
Other _____	[ ] <sub>3</sub>
(PLEASE SPECIFY)	986

**PRACTICES REGARDING RADON GAS**

Please answer even if you used **NO radon-reducing practices**.

**SUB-SLAB OR SUB-MEMBRANE VENTILATION**

What **percent** of the houses you built had the following types of ventilation systems to reduce radon:

	<b>BASEMENTS OR SLABS</b>	<b>CRAWL SPACES</b>
<b>NO</b> venting installed to reduce radon _____	791	_____ 795
A rough-in for ventilation (not a complete system, e.g., capped pipe riser in basement) .....	_____ 788	
Passive stack ventilation .....	_____ 789	_____ 792
Fan-driven (active) depressurization _____	790	_____ 793
Foundation wall vents .....	_____ 794	_____ 794
	<b>100%</b>	<b>100%</b>

**SEALING METHODS OF HOUSES WITH SLAB OR BASEMENT FOUNDATIONS**

How do you seal your slabs?  
If you **don't seal**, ✓"NO slab sealing method used."  
(✓all that apply)

<b>NO</b> slab sealing method used .....	[ ] 803
Polyethylene or other membrane under slab .....	[ ] 796
Membrane on foundation walls below grade .....	[ ] 797
Caulk around slab, wall openings and slab joints ....	[ ] 798
Seal interior of foundation walls .....	[ ] 799
Locate sump access outside of basement .....	[ ] 800
Install air tight sump pit covers .....	[ ] 801
Other _____	[ ] 802
(PLEASE SPECIFY)	

**PASSIVE vs. ACTIVE SUBSLAB VENTILATION**

If you installed **PASSIVE** sub-slab or sub-membrane ventilation (without a fan), what was the typical additional cost for you to include these features per home? (✓one)

Less than \$200 .....	[ ] <sub>1</sub>
\$200 to \$299 .....	[ ] <sub>2</sub>
\$300 to \$399 .....	[ ] <sub>3</sub>
\$400 to \$499 .....	[ ] <sub>4</sub>
\$500 to \$599 .....	[ ] <sub>5</sub>
\$600 to \$799 .....	[ ] <sub>6</sub>
\$800 or more .....	[ ] <sub>7</sub>
	v114

If you installed **ACTIVE** sub-slab or sub-membrane ventilation (with a fan), what was the typical additional cost for you to include these features per home? (✓one)

Less than \$450 .....	[ ] <sub>1</sub>
\$450 to \$549 .....	[ ] <sub>2</sub>
\$550 to \$649 .....	[ ] <sub>3</sub>
\$650 to \$749 .....	[ ] <sub>4</sub>
\$750 to \$849 .....	[ ] <sub>5</sub>
\$850 to \$1049 .....	[ ] <sub>6</sub>
\$1050 or more .....	[ ] <sub>7</sub>
	v120

**RADON TESTING**

What **percent** of your homes were tested for radon? \_\_\_\_\_ %  
804

Of the houses tested for radon, what **percent** needed further work to reduce radon to less than 4 pCi/L? ..... \_\_\_\_\_ %  
805

**PLUMBING FIXTURES**

What was the typical **number** of plumbing fixtures installed in each home your firm built?

	<b>SFD Starter</b>	<b>SFD Move-up</b>	<b>SFD Luxury</b>	<b>SFA Per UNIT</b>	<b>MF Per UNIT</b>
	↓	↓	↓	↓	↓
Lavatory sinks .....	_____ v1	_____ v10	_____ v19	_____ v28	_____ v37
Bathtubs (both standard and whirlpool) .....	_____ v2	_____ v11	_____ v20	_____ v29	_____ v38
Separate shower Stalls .....	_____ v3	_____ v12	_____ v21	_____ v30	_____ v39
Toilets .....	_____ v4	_____ v13	_____ v22	_____ v31	_____ v40
Bidets .....	_____ v5	_____ v14	_____ v23	_____ v32	_____ v41
Kitchen sinks .....	_____ v6	_____ v15	_____ v24	_____ v33	_____ v42
Bar sinks .....	_____ v7	_____ v16	_____ v25	_____ v34	_____ v43
Laundry tubs / sinks .....	_____ v8	_____ v17	_____ v26	_____ v35	_____ v44
Other _____	_____ v9	_____ v18	_____ v27	_____ v36	_____ v45
(PLEASE SPECIFY)					

### KITCHEN SINK TYPE

What **percent** of your kitchen sinks were:

Drop-in .....	_____	v95
Under-counter .....	_____	v96
Other _____	_____	v97
(PLEASE SPECIFY)		<b>100%</b>

### KITCHEN SINK MATERIAL

What **percent** of your kitchen sinks installed were:

Stainless steel .....	_____	v58
Enameled cast iron .....	_____	v59
Enameled steel .....	_____	v60
Cultured marble .....	_____	v61
Solid-surface (e.g., Corian <sup>®</sup> , etc.) .....	_____	v62
Granite / Stone (e.g., Moenstone <sup>®</sup> , Silgranit <sup>®</sup> , Kindred Granite <sup>®</sup> , etc.) .....	_____	v62c
Acrylic .....	_____	v62a
Other _____	_____	v62b
(PLEASE SPECIFY)		<b>100%</b>

### KITCHEN SINK BASINS

What **percent** of your kitchen sinks had the following number of basins?

Single basin .....	_____	v90
Double basin .....	_____	v91
Triple basin .....	_____	v92
Other _____	_____	v93
(PLEASE SPECIFY)		<b>100%</b>

### KITCHEN SINK FAUCETS

What **percent** of your kitchen sink faucets had the following control types:

Single control (handle or lever) .....	_____	v201
Two controls (one for hot and one for cold) .....	_____	v202
		<b>100%</b>

What **percent** of your kitchen sink faucets had the following finishes:

Chrome .....	_____	v203
Polished brass .....	_____	v204
Hand-rubbed bronze .....	_____	v205
Solid color (almond, white, black, biscuit, etc.) ..	_____	v206
Nickel .....	_____	v207
Stainless steel .....	_____	v208
Other _____	_____	v209
(PLEASE SPECIFY)		<b>100%</b>

### LAVATORY SINK TYPE

What **percent** of the lavatory sinks you installed were:

One-piece sink and countertop .....	_____	v46
Drop-in (self-rimming) .....	_____	v47
Wall-hung .....	_____	v48
Pedestal .....	_____	v50
Undermount .....	_____	v49
		<b>100%</b>

### LAVATORY SINK MATERIAL

What **percent** of all the lavatory sinks you installed were:

Vitreous china (ceramic) .....	_____	v51
Enameled cast iron .....	_____	v52
Enameled steel (include Americast <sup>®</sup> ) .....	_____	v53
Cultured marble .....	_____	v54
Coated fiberglass .....	_____	v55
Acrylic .....	_____	v56
Solid-surface (e.g., Corian <sup>®</sup> , Swanstone <sup>®</sup> , etc.) .....	_____	v57
Other _____	_____	v57a
(PLEASE SPECIFY)		<b>100%</b>

### LAVATORY SINK FAUCETS

What **percent** of your lavatory sink faucets had the following control types:

Single control (handle or lever) .....	_____	v211
Two controls (one for hot and one for cold) .....	_____	v212
		<b>100%</b>

What **percent** of your lavatory sink faucets had the following finishes:

Chrome .....	_____	v213
Polished brass .....	_____	v214
Hand-rubbed bronze .....	_____	v215
Solid color (almond, white, black, biscuit, etc.) .....	_____	v216
Nickel .....	_____	v217
Stainless steel .....	_____	v218
Other _____	_____	v219
(PLEASE SPECIFY)		<b>100%</b>

### BATHTUB AND WHIRLPOOL SURROUNDS

What **percent** of the separate bathtubs and whirlpool baths you installed had **site-constructed** surrounds of the following materials?

<b>NO</b> separate bathtub surrounds were constructed .....	_____	% v76
Ceramic tile .....	_____	% v71
Marble, slate, or other natural stone .....	_____	% v71a
Solid surface (e.g., Corian <sup>®</sup> , Avonite <sup>®</sup> , etc.) .....	_____	% v72
High-pressure laminate (e.g., Formica, Wilsonart) .....	_____	% v73
Fiberglass / Plastic .....	_____	% v73a
Cultured marble .....	_____	% v74
Other _____	_____	% v75
(PLEASE SPECIFY)		<b>100%</b>

**BATHTUBS (NON-WHIRLPOOL)**

What **percent** of all the non-whirlpool bathtubs you installed were:

**Tub / Shower Combination**

Coated fiberglass, one-piece .....	_____	v63
Coated fiberglass, multi-piece .....	_____	v63m
Acrylic, one-piece .....	_____	v64
Acrylic, multi-piece .....	_____	v64m
Other _____	_____	v64a
	(PLEASE SPECIFY)	

**Tub only**

Enameled cast iron .....	_____	v65
Enameled steel .....	_____	v66
Cultured marble .....	_____	v67
Coated fiberglass .....	_____	v68
Acrylic .....	_____	v69
Solid-surface (e.g., Swanstone®, Avonite®, etc.) .....	_____	v70
Other _____	_____	v70a
	(PLEASE SPECIFY)	
		<b>100%</b>

**WHIRLPOOL BATHTUBS**

What **percent** of your homes had whirlpool baths?

<b>SFD</b>	<b>SFD</b>	<b>SFD</b>	<b>SFA</b>	<b>MF</b>
<b>Starter</b>	<b>Move-up</b>	<b>Luxury</b>	<b>Units</b>	<b>Units</b>
↓	↓	↓	↓	↓

Whirlpool bathtubs _____	_____	_____	_____	_____
	v2w	v11w	v20w	v29w
				v38w

What **percent** of all the whirlpool baths you installed were:

**Tub / Shower Combination**

Coated fiberglass, one-piece .....	_____	v63w
Coated fiberglass, multi-piece .....	_____	v63wm
Acrylic, one-piece .....	_____	v64w
Acrylic, multi-piece .....	_____	v64wm
Other _____	_____	v64aw
	(PLEASE SPECIFY)	

**Tub only**

Enameled cast iron .....	_____	v65w
Enameled steel .....	_____	v66w
Cultured marble .....	_____	v67w
Coated fiberglass .....	_____	v68w
Acrylic .....	_____	v69w
Solid-surface (e.g., Swanstone®, Avonite®, etc.) .....	_____	v70w
Other _____	_____	v70aw
	(PLEASE SPECIFY)	
		<b>100%</b>

**TUB / SHOWER DOORS**

What **percent** of the tubs, showers, and whirlpool baths you installed had shower doors?

Bathtubs (non-whirlpool) .....	_____	v231
Showers .....	_____	v232
Whirlpool baths .....	_____	v233

**Total need not add to 100%**

**SEPARATE SHOWER STALLS**

What **percent** of all the shower stalls you installed were:

**Fabricated on-site from:**

Ceramic tile .....	_____	v77
Marble, slate, or other natural stone .....	_____	v77a
Solid surface (e.g., Corian®, Avonite®, etc.) .....	_____	v78
High pressure laminate (e.g., Formica®, Wilsonart®) .....	_____	v79
Cultured marble .....	_____	v80
Other _____	_____	v81
	(PLEASE SPECIFY)	

**Manufactured units of:**

Coated fiberglass, one-piece .....	_____	v82
Coated fiberglass, multi-piece .....	_____	v82m
Acrylic, one-piece .....	_____	v83
Acrylic, multi-piece .....	_____	v83m
Other _____	_____	v84
	(PLEASE SPECIFY)	
		<b>100%</b>

**SHOWER BASES**

What **percent** of the fabricated on-site showers you installed had manufactured bases or pans? .....

\_\_\_\_\_ v256

**BATHTUB / SHOWER FAUCETS**

What **percent** of your bathtub / shower faucets used the following control types:

Single control, pulled or lifted to turn on water ..	_____	v221
Single control, twisted to turn on water .....	_____	v222
Two controls (one for hot and one for cold) .....	_____	v223
		<b>100%</b>

What **percent** of your bathtub / shower sink faucets had the following finishes:

Chrome .....	_____	v224
Polished brass .....	_____	v225
Hand-rubbed bronze .....	_____	v226
Solid color (almond, white, black, biscuit, etc.) .....	_____	v227
Nickel .....	_____	v228
Stainless steel .....	_____	v229
Other _____	_____	v230
	(PLEASE SPECIFY)	
		<b>100%</b>

**STEAM GENERATORS**

What **percent** of all the tubs, showers, and whirlpool baths you installed had Steam Generators?

Bathtubs .....	_____	v234
Showers .....	_____	v235
Whirlpools .....	_____	v236

**100%**

## SHOWERHEADS

What **percent** of the bathtubs and showers you installed had showerheads of the following types:

Standard / Fixed showerhead .....	_____	v249
Hand-held showerhead .....	_____	v250
Massaging showerhead .....	_____	v251
Thermostatic valves .....	_____	v252
Body sprays .....	_____	v253
Steam head .....	_____	v254
Other _____	_____	v255
	(PLEASE SPECIFY)	

What **percent** of the bathtubs and showers you installed had the following:

More than 1 Standard showerhead .....	_____	v257
More than 1 Hand-held showerhead .....	_____	v258

**Total need not add to 100%**

## WATER PIPES

What **percent** of your homes had water or sewage pipes that were:

	WATER SERVICE	DISTRIBUTION	WASTE
Copper .....	_____ v210s	_____ v210d	_____ v210w
PVC or CPVC .....	_____ v211s	_____ v211d	_____ v211w
Polyethylene (PE) ...	_____ v212s	_____ v212d	_____ v212w
PEX (Cross linked PE) .....	_____ v213s	_____ v213d	_____ v213w
PEX-AL-PEX (Kitec®) .....	_____ v214s	_____ v214d	_____ v214w
Steel / Cast iron .....	_____ v215s	_____ v215d	_____ v215w
ABS .....	_____ v216s	_____ v216d	_____ v216w
	<b>100%</b>	<b>100%</b>	<b>100%</b>

If you used **PEX** piping, who was the **primary** manufacturer of the piping?

CPI .....	[ ]	1
Vanguard .....	[ ]	2
Wirsbo .....	[ ]	3
Quest PEX .....	[ ]	4
RTI .....	[ ]	5
Rehau .....	[ ]	6
Other _____	[ ]	7
	(PLEASE SPECIFY)	v240

## TOILETS

What **percent** of the toilets installed in your new homes were:

One piece (bowl and tank one casting) .....	_____	v85_1
Two piece .....	_____	v85_2
	<b>100%</b>	

What **percent** of the toilets had the following bowl styles?

Elongated .....	_____	v85_3
Standard .....	_____	v85_4
	<b>100%</b>	

What **percent** of your toilets were dual flush?

Percent of toilets with Dual Flush .....	_____	v85_5
--	-------	-------

## TOILET BRANDS

Of all the toilets you installed last year, what **percent** were the following brands?

	Percent
American Standard .....	_____ v85
Briggs .....	_____ v85a
Crane .....	_____ v85b
Eljer .....	_____ v85c
Gerber .....	_____ v86
Kohler .....	_____ v86a
Mansfield .....	_____ v86b
Sterling .....	_____ v86c
Toto .....	_____ v87
Universal-Rundle .....	_____ v87a
St. Thomas Creations .....	_____ v87b
Other _____	_____ v87c
	(PLEASE SPECIFY)
	<b>100%</b>

## MOUNTED BATH ACCESSORIES

**How many** of the following are installed in your typical bathroom?

Towel Bar .....	_____	v241
Towel Ring .....	_____	v242
Robe Hook .....	_____	v243
TP Holder .....	_____	v244
Toothbrush/Tumbler holder .....	_____	v245
Shelf .....	_____	v246
Soapdish .....	_____	v247
Grab bars .....	_____	v248

## HOMES FOR OLDER BUYERS

What **percent** of your homes were:

Constructed in "active adult" or age-restricted communities .....	_____	746
Sold to occupants over the age of 55 .....	_____	747

## APPLIANCES

### RANGES, COOKTOPS & OVENS

What **percent** of your homes were equipped with ranges or cooktops and ovens that were:

	SFD	SFA	MF UNITS
Freestanding .....	_____ a1	_____ a6	_____ a11
Slide-in .....	_____ a2	_____ a7	_____ a12
Drop-in .....	_____ a3	_____ a8	_____ a13
Cooktop & wall oven(s) .....	_____ a4	_____ a9	_____ a14
<b>NO</b> range / cooktop / oven .....	_____ a5	_____ a10	_____ a15
	<b>100%</b>	<b>100%</b>	<b>100%</b>

## WALL OVEN CONFIGURATION

What **percent** of your new homes with built-in wall ovens had:

A single wall oven .....	_____	a34
Two separate wall ovens .....	_____	a35
Stacked double ovens in a single unit .....	_____	a36
	<b>100%</b>	

## BURNER TYPE

What **percent** of the cooking appliances you installed had the following types of burners?

	RANGES	COOKTOPS
<b>Electric</b>		
Halogen burner / smoothtop .....	_____ a22	_____ a28
Smoothtop, not halogen .....	_____ a23	_____ a29
Conventional heat coils .....	_____ a24	_____ a30
Modular units for grill .....	_____ a25	_____ a31
<b>Gas</b>		
Sealed gas burners .....	_____ a26	_____ a32
Conventional gas .....	_____ a27	_____ a33
	<b>100%</b>	<b>100%</b>

## FUEL TYPE

What **percent** of the equipment you installed used the following fuel types?

	RANGES	COOKTOPS	WALL OVENS	WATER HEATERS
Gas .....	_____ a16	_____ a18	_____ a18a	_____ a20
Electric.....	_____ a17	_____ a19	_____ a19a	_____ a21
Oil .....	_____	_____	_____	_____ a21a
	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

## VENTING METHODS FOR COOKING

What **percent** of your new homes used the following methods to vent cooking odors?

	SFD	SFA	MF UNITS
Over-the-range microwave with venting .....	_____ a37	_____ a44	_____ a51
Downdraft venting in range .....	_____ a38	_____ a45	_____ a52
Ductless range hood .....	_____ a39	_____ a46	_____ a53
Ducted range hood .....	_____ a40	_____ a47	_____ a54
Through-the-wall fan .....	_____ a41	_____ a48	_____ a55
Ducted ceiling exhaust vent .....	_____ a42	_____ a49	_____ a56
<b>NO venting .....</b>	_____ a43	_____ a50	_____ a57
	<b>100%</b>	<b>100%</b>	<b>100%</b>

## MICROWAVE OVENS

What **percent** of your homes were equipped with microwave ovens that were:

	SFD	SFA	MF UNITS
Built-in with range .....	_____ a58	_____ a62	_____ a66
Built into cabinet .....	_____ a58a	_____ a62a	_____ a66a
Over-the-range .....	_____ a59	_____ a63	_____ a67
Countertop or hung under cabinets .....	_____ a60	_____ a64	_____ a68
Top unit of double wall oven .....	_____ a60a	_____ a64a	_____ a68a
<b>NO microwave oven .....</b>	_____ a61	_____ a65	_____ a69
	<b>100%</b>	<b>100%</b>	<b>100%</b>

## REFRIGERATORS

What **percent** of your homes were equipped with refrigerators that were:

	SFD	SFA	MF UNITS
Freezer on top, refrigerator below .....	_____ a70	_____ a74	_____ a78
Refrigerator on top, freezer below .....	_____ a71	_____ a75	_____ a79
Side-by-side refrigerator / freezer ...	_____ a72	_____ a76	_____ a80
Refrigerator with no freezer .....	_____ a72a	_____ a76a	_____ a80a
<b>NO refrigerator .....</b>	_____ a73	_____ a77	_____ a81
	<b>100%</b>	<b>100%</b>	<b>100%</b>

## DISHWASHERS

What **percent** of your homes were equipped with:

	SFD	SFA	MF UNITS
Dishwashers with timing cycles .....	_____ a82	_____ a85	_____ a88
Dishwashers with cleaning sensors .....	_____ a83	_____ a86	_____ a89
<b>NO dishwasher .....</b>	_____ a84	_____ a87	_____ a90
	<b>100%</b>	<b>100%</b>	<b>100%</b>

## CLOTHES WASHERS

What **percent** of your homes were equipped with clothes washers that were:

	SFD	SFA	MF UNITS
Top loading washing machine .....	_____ a91	_____ a94	_____ a97
Front loading washing machine .....	_____ a92	_____ a95	_____ a98
<b>NO washing machine ...</b>	_____ a93	_____ a96	_____ a99
	<b>100%</b>	<b>100%</b>	<b>100%</b>

## CLOTHES DRYERS

What **percent** of your homes were equipped with clothes dryers that were:

	SFD	SFA	MF UNITS
Electric dryer .....	_____ a100	_____ a103	_____ a106
Gas powered dryer .....	_____ a101	_____ a104	_____ a107
<b>NO clothes dryer .....</b>	_____ a102	_____ a105	_____ a108
	<b>100%</b>	<b>100%</b>	<b>100%</b>

## OTHER APPLIANCES

What **percent** of your homes were equipped with the following appliances?

	SFD	SFA	MF UNITS
Garbage disposal .....	_____ a113	_____ a117	_____ a121
Trash compactor .....	_____ a114	_____ a118	_____ a122
Hot water dispenser .....	_____ a115	_____ a119	_____ a123
Central vacuum – full system .....	_____ a116	_____ a120	_____ a124
Central vacuum – pre-pipe only .....	_____ a141	_____ a142	_____ a143
Elevator .....	_____ a144	_____ a145	_____ a146
Chair lift .....	_____ a147	_____ a148	_____ a149

**Totals need not add to 100%**



**TYPE OF STAIRS**

Which of the following describes the *typical* stairs you use?

	TO BASEMENT	TO UPPER STORIES
Prefabricated .....	[ ] <sub>1</sub>	[ ] <sub>1</sub>
Fabricated on-site .....	[ ] <sub>2</sub> 501a	[ ] <sub>2</sub> 501b

**MATERIAL OF STAIRS**

What materials did you use in your *typical* stairs:

	TO BASEMENT	TO UPPER STORIES
<b>TREAD MATERIAL</b>		
Softwood lumber .....	[ ] <sub>1</sub>	[ ] <sub>1</sub>
Hardwood lumber .....	[ ] <sub>2</sub>	[ ] <sub>2</sub>
Plywood .....	[ ] <sub>3</sub>	[ ] <sub>3</sub>
OSB .....	[ ] <sub>4</sub>	[ ] <sub>4</sub>
Particleboard .....	[ ] <sub>5</sub>	[ ] <sub>5</sub>
Metal or other .....	[ ] <sub>6</sub> 503a	[ ] <sub>6</sub> 503b

**RISER MATERIAL**

Softwood lumber .....	[ ] <sub>1</sub>	[ ] <sub>1</sub>
Hardwood lumber .....	[ ] <sub>2</sub>	[ ] <sub>2</sub>
Plywood .....	[ ] <sub>3</sub>	[ ] <sub>3</sub>
OSB .....	[ ] <sub>4</sub>	[ ] <sub>4</sub>
Particleboard .....	[ ] <sub>5</sub>	[ ] <sub>5</sub>
Metal or other .....	[ ] <sub>6</sub> 504a	[ ] <sub>6</sub> 504b

**STRINGER MATERIAL**

Softwood lumber .....	[ ] <sub>1</sub>	[ ] <sub>1</sub>
Hardwood lumber .....	[ ] <sub>2</sub>	[ ] <sub>2</sub>
Plywood .....	[ ] <sub>3</sub>	[ ] <sub>3</sub>
Metal or other .....	[ ] <sub>4</sub> 502a	[ ] <sub>4</sub> 502b

**UPDATES**

Would you like to receive periodic updates on NAHB

Research Center testing results and programs via e-mail?

No [ ]<sub>1</sub>      Yes [ ]<sub>2</sub>      a160

**STRUCTURED WIRING AND HOME NETWORKS**

Structured wiring, or “home networks,” consist typically of a central distribution panel that connects cable for audio / video signals (coaxial cable, or RG6) and wiring for data / voice outlets throughout the house.

What *percent* of the homes you built in 2005 had structured wiring, or “home networks” with outlets in 3 rooms or more?

\_\_\_\_\_ %  
a140

**HOME ELECTRONICS**

What *percent* of your homes were equipped with the following home electronics systems?

**Percent of HOMES**

Intercom / Entrance phone .....	_____ a125
Video entrance phone .....	_____ a126
Whole home control or automation system .....	_____ a127
Security system – <b>not</b> monitored by protection service .....	_____ a128
Security system – monitored by protection service .....	_____ a129
Lighting control system .....	_____ a130
Programmable thermostat .....	_____ a131
Communicating thermostat .....	_____ a132
Monitored fire / toxic gas alarm system .....	_____ a133
Whole-house audio system .....	_____ a134
Whole-house video access .....	_____ a135
Built-in home theater .....	_____ a136
Electrical load-monitoring / control system .....	_____ a137
Multi-line phone system .....	_____ a138

**Total need not add to 100%**

(PLEASE SPECIFY E-MAIL ADDRESS)

**Thank You for Your Time and Cooperation!**

Completing and returning this questionnaire entitles you to a free report summarizing the results from this survey nationally with a special tabulation of respondents from your area. Reports will be available in the late summer of this year. Please call Joanne McAlpin at 1-800-638-8556 ext. 6306 to request your copy.

**Returning the Questionnaire**

1. Fold back cover over to expose the **Business Reply Mail** label.
2. **Tape closed** at top and bottom where indicated.
3. If your name and address differ from the mailing label, please **fill in correct name and address**.
4. **Place in return mail** – postage paid by NAHB Research Center, Inc.