Window and Door Market Trends & Opportunities

Review of Home Innovation Research Lab’s Builder & Consumer Practices Data
Home Innovation Research Labs

- Founded in 1964 as a wholly-owned subsidiary of NAHB
- Independent, for-profit researchers assisting development and commercialization of new building technologies
  - Engineering research & development
  - Market & field research
  - Laboratory testing
- #1 in green home building certification (NGBS)
- Building codes and standards developers
- Partners with ICC-ES to fast-track issuance of ESRs
Annual Builder & Consumer Practices Surveys

• Home Innovation has been tracking annual materials purchases since 1995
  – Builder Practices Survey of 1,500 U.S. Builders
  – Consumer Practices Survey of 100,000+ U.S. households

• Reports comprise residential U.S. new homes and home remodeling markets for building materials

• Data development methods includes balancing by 1) geographic area 2) builder size 3) purchase volumes and 4) homeowner demographics
U.S. New Housing Mix

Source: Annual Builder Practices Reports
## Forecasted Growth for Housing Starts, Average Annual Growth, 2017 - 2022

<table>
<thead>
<tr>
<th>Region</th>
<th>SFD Starts</th>
<th>MF Starts</th>
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<tbody>
<tr>
<td>NEW ENGLAND</td>
<td>2%</td>
<td>-1%</td>
</tr>
<tr>
<td>MID- ATLANTIC C</td>
<td>2%</td>
<td>1%</td>
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<tr>
<td>EAST NORTH CENTRAL</td>
<td>3%</td>
<td>1%</td>
</tr>
<tr>
<td>WEST NORTH CENTRAL</td>
<td>2%</td>
<td>-1%</td>
</tr>
<tr>
<td>SOUTH ATLANTIC C</td>
<td>5%</td>
<td>2%</td>
</tr>
<tr>
<td>EAST SOUTH CENTRAL</td>
<td>3%</td>
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<tr>
<td>WEST SOUTH CENTRAL</td>
<td>4%</td>
<td>0%</td>
</tr>
<tr>
<td>MOUNTAIN</td>
<td>5%</td>
<td>0%</td>
</tr>
<tr>
<td>PACIFIC</td>
<td>5%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Source: Annual Builder Practices Reports
Exterior Foam Wall Sheathing by Thickness, New SF Homes

Source: Annual Builder Practices Reports
Wall Heights in New SF Homes

Source: Annual Builder Practices Reports
Average Number of Windows per New Home

Source: Annual Builder Practices Reports
New Home and Remodeling Window Installations, 2017 (1000’s)

An estimated 58 million windows were installed in residential properties in 2017

Pacific
- New Home Windows: 2,388
- Home Remodeling Windows: 4,081

Mountain
- New Home Windows: 2,117
- Home Remodeling Windows: 2,700

W S Central
- New Home Windows: 2,740
- Home Remodeling Windows: 3,364

E S Central
- New Home Windows: 1,313
- Home Remodeling Windows: 2,191

S Atlantic
- New Home Windows: 4,951
- Home Remodeling Windows: 8,097

W N Central
- New Home Windows: 1,093
- Home Remodeling Windows: 3,640

E N Central
- New Home Windows: 1,710
- Home Remodeling Windows: 6,962

Mid-Atlantic
- New Home Windows: 1,214
- Home Remodeling Windows: 5,254

New England
- New Home Windows: 494
- Home Remodeling Windows: 2,170

Source: Annual Builder & Consumer Practices Reports
Trend in **New Home Window Frame Materials**

Source: Annual Builder Practices Reports
Window Purchases by New Home Price-Point

Source: Annual Builder Practices Reports
New Home Window Purchases by Size of Home Builder

Source: Annual Builder Practices Reports
Geographic Differences in New Home Window Purchases

Source: Annual Builder Practices Reports
Venting Styles in New Home Windows, 2017

- Single hung, 37%
- Double hung, 31%
- Casement, 11%
- Sliding, 12%
- Fixed - rectangular, 6%
- Fixed - round-top, 1%
- Awning, 1%

Source: Annual Builder Practices Reports
Venting Styles in New Home Windows, 2017

Source: Annual Builder Practices Reports
Characteristics of Window Glazing, New Homes

Source: Annual Builder Practices Reports
Characteristics of Window Glazing, New Homes 2017

- Single glazed, 5%
- Double glazed, 90%
- Triple glazed or more, 4%
- Heat-mirror, 1%

Source: Annual Builder Practices Reports
Trends in Home Remodeling
Window Frame Materials

Source: Annual Consumer Practices Reports
Geographic Differences in Window Purchases for Home Remodeling, 2017

Source: Annual Consumer Practices Reports
Window Venting Styles in Home Remodeling, 2017

- Single-hung, 26%
- Double-hung, 41%
- Sliding, 15%
- Casement, 7%
- Awning, 2%
- Transom, 0%
- Curved-top fixed, 1%
- Rectangular fixed, 5%
- Skylight, 1%

Source: Annual Consumer Practices Reports
Purpose of Window Installation in Home Remodeling, 2017

For replacement, 90%

For new addition or window opening, 10%

Source: Annual Consumer Practices Reports
Grills on Home Remodeling

Windows

Source: Annual Consumer Practices Reports
Characteristics of Window Glazing in Home Remodeling, 2017

- Tinted: 7%
- Argon filled: 40%
- Low-E: 65%
- Plain (clear): 27%

Source: Annual Consumer Practices Reports
Share of Pro Installations in Home Remodeling – Fenestration

Source: Annual Consumer Practices Reports
Window Place of Purchase in Home Remodeling Windows, 2017

Source: Annual Consumer Practices Reports
Brand Decision for Windows in Home Remodeling, 2017

- Homeowner, 58%
- Contractor, 24%
- Friend or relative, 11%
- Other, 8%

Source: Annual Consumer Practices Reports
Exterior Door Purchases in New Homes, 2017 (thousands)

- Fiberglass: 673 (Front Entry), 786 (Other Entry)
- Steel -- flush: 218
- Steel -- raised panel: 293 (Front Entry), 570 (Other Entry)
- Wood -- flush: 100
- Wood -- raised panel: 253 (Front Entry), 149 (Other Entry)
- Other: 149 (Other Entry)

An estimated 8 million entry doors were installed in residential properties in 2017 (new homes + remodel)

Source: Annual Builder Practices Reports
Exterior Entry Door Purchase Trends, New Homes

Source: Annual Builder Practices Reports
Front Entry Doors, New U.S. Homes 2017

- Fiberglass, 50%
- Steel -- raised panel, 22%
- Steel -- flush, 2%
- Wood -- raised panel, 19%
- Wood -- flush, 4%
- Other, 2%

Source: Annual Builder Practices Reports
Other Entry Doors, New U.S. Homes 2017

- Fiberglass, 42%
- Steel -- flush, 12%
- Steel -- raised panel, 31%
- Wood -- flush, 5%
- Wood -- raised panel, 8%
- Other, 1%

Source: Annual Builder Practices Reports
Features of Front Entry Doors, New Single Family Homes

Source: Annual Builder Practices Reports
Front Entry Doors by Builder Size, New Single Family Homes 2017

Source: Annual Builder Practices Reports
Front Entry Doors by Price-Point of New Single-Family Home 2017

Source: Annual Builder Practices Reports
Other Entry Doors by Builder Size, New Single-Family Homes 2017

Source: Annual Builder Practices Reports
Other Entry Doors by Price-Point of New Single-Family Home 2017

Source: Annual Builder Practices Reports
Exterior Doors in U.S. Home Remodeling, 2017

Steel: 41%
Wood: 32%
Fiberglass: 26%

Raised panel and woodgrain more popular on Front Entry
Smooth and flush more popular on Other Entry

Source: Annual Consumer Practices Reports
Front Entry Doors, Home Repair & Remodeling 2017

Source: Annual Consumer Practices Reports
Other Entry Doors, Home Repair & Remodeling 2017

Source: Annual Consumer Practices Reports
Place of Purchase – Exterior Entry Doors in Home Remodeling

- Home Improvement Warehouse, 70%
- Specialty Store or Other, 22%
- Lumber Yard, 4%
- Hardware Store, 3%

Source: Annual Consumer Practices Reports
Shares of Remodeling Exterior Door Purchases at HIWs

Source: Annual Consumer Practices Reports
Share of Professional Installations in Home Remodeling, 2017

- Exterior Doors: 60%
- Windows: 84%
- Patio Door: 68%

Source: Annual Consumer Practices Reports
An estimated **3.6 million** patio doors were installed in residential properties in 2017.

Source: *Annual Builder & Consumer Practices Reports*
Patio Door Operation in New Homes & Remodeling

Source: Annual Builder & Consumer Practices Reports
Patio Door Frame Materials in New Homes

Source: Annual Builder Practices Reports
Geographic Differences in Patio Doors for New Homes, 2017

Source: Annual Builder Practices Reports
Patio Doors in Home Remodeling

Source: Annual Consumer Practices Reports
Place of Purchase – Patio Doors in Home Remodeling

Source: Annual Consumer Practices Reports
HIW Patio Door Place of Purchase in Home Remodeling, 2017

- Home Depot, 56%
- Lowe's, 32%
- Menards, 8%
- Other, 3%

Source: Annual Consumer Practices Reports
Labor Shortage Impact Affecting Windows & Doors

• Overall impact of labor shortage – fewer skilled workers on-site, higher cost of labor
• Builders favor more foolproof, those that can be installed by lower-skilled employees
• Quicker installations also will be preferred
• Potentially supports installation by framing crew
• Demographics + higher cost of installation may pressure increase in DIY installations
THANK YOU!

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