

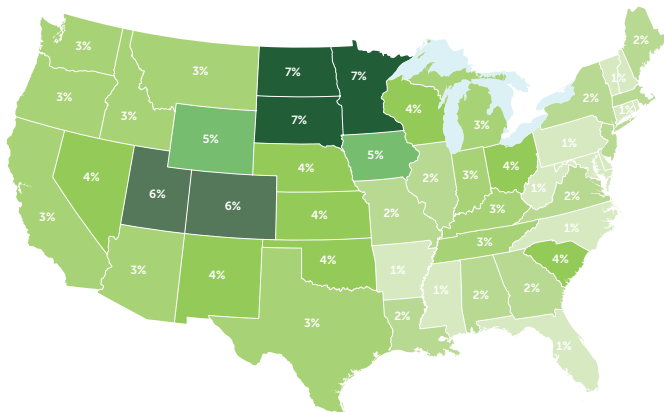
The Future of Wood

Targeting Growth in Non-residential Construction

Throughout 2018 and the first half of 2019, wood's residential market share has seen steady growth – representing nearly two billion board feet (BBF) in both single and multifamily construction. Wood has always been strong in this market and this trend is expected to continue through the end of the year and beyond.

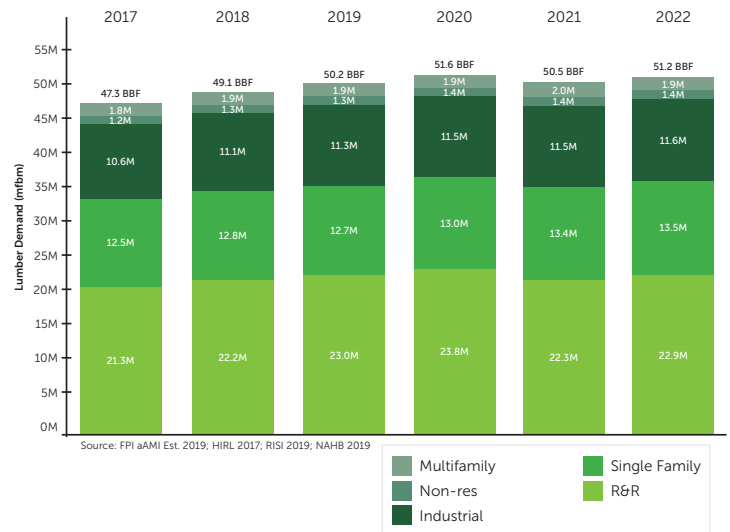
As we look toward the future of wood, we will continue to explore opportunities to grow market share in non-residential builds. In 2018, non-residential construction represented 1.3 BBF of wood consumption across the United States, with the strongest growth in California and Texas, followed by Ohio, Minnesota, and Wyoming. Proportionally, the Midwest (Minnesota, North Dakota, South Dakota, and Iowa) and some Mountain states (Colorado, Utah, and Wyoming) represent the highest proportion of lumber consumption in non-residential sectors. Targeting continued growth in these sectors is essential to increasing non-residential wood demand.

Proportion of All State Consumed Lumber Attributable to Non-residential



Non-residential construction is broken into three categories:

- 1. Conventional** – Unsurprisingly, we've seen the greatest opportunity for growth and success in conventional building types. Offices, dormitories, medical care facilities, hotels/motels, banks, and more are similar in construction to the multifamily sector. Conventional buildings in the 1-4 story and 5-6 story range can leverage light-frame construction and are often more competitive than concrete or steel.



- 2. Large** – This category includes stores, restaurants, community centers, government service, schools, libraries, warehouses, and more. Traditionally, these building types trend toward steel and concrete, due largely to cost and economic considerations. FPIInnovations (FPI) reports that warehouses, for example, can be built for the low value of \$69/square foot. Our non-residential focus as an industry lies in conventional building types with a much higher value per square foot.
- 3. Restricted** – The use of wood in buildings like hospitals, manufacturing facilities, processing plants, or parking garages is often restricted. As such, the opportunity for wood growth in this category is low.

Continued on page 6

WHAT'S INSIDE?

- 2** 2nd Quarter Highlights
- 4** Education Update
- 6** The Future of Wood, Cont.
- 7** Upcoming Events
- 8** SLB Impact

Q2 Program Highlights



One de Haro, three stories and 131,000 square feet.
Courtesy: Steelblue.



Fifty West at Plaza Collina, 28,800 square feet.
Courtesy: Fifty West Realty, LLC.

Code:

American Wood Council (AWC)

- Results of the ICC Group B Standard Development Cycle were published, with most standards under consideration being favorable to AWC's goals. A complete list of AWC-submitted proposals and results is available upon request.
- 2019 is AWC's year to undergo an extensive audit by the American National Standards Institute (ANSI). This is a standard process that ANSI conducts; this is the fourth time the AWC has been audited. The first phase of AWC's audit concluded in July with an official report.
- The AWC's second-quarter education efforts engaged more than 6,500 building officials, engineers, and others, with more than 11,500 contact hours, a 19% increase in overall attendance compared with this time last year.

Communications:

Think Wood®

- In Q2, Think Wood made considerable progress in refining existing marketing and PR efforts to include lead generation and lead nurturing. A lead scoring methodology was created, and the model tested. The goal is to deliver qualified leads and projects to the team at WoodWorks™.
- Think Wood completed an audit of continuing the 279 unique, accredited online education courses.
- Think Wood's Association Partnership program participated in two events in Q2. At the American Institute of Architects (AIA) convention, the Think Wood exhibit attracted 177 excellent prospects and high praise.
- A new Contractor Pro Center was developed and resides on thinkwood.com to build further linkages with various resources from partner associations such as NELMA, the WRCLA, the SFPA, and others.



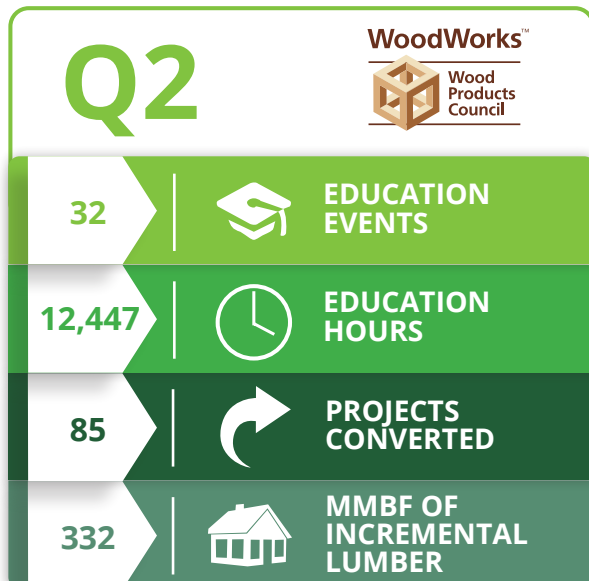


Affordable Housing Project, five stories and 21,900 square feet.
Courtesy: Stevens & Associates.

Construction and Conversion:

WoodWorks™

- There were 588 interactions in Q2 2019, creating 160 new influenced projects (will be reported when they go to construction) and 85 directly influenced projects resulting in 38.2 million board feet (MMBF) of consumption in Q2 2019, a 31% increase year-over-year (YoY).
- WoodWorks hosted another successful Learning Lounge at the national AIA Conference, presenting eight unique sessions over two days—and educating more than 400 design professionals.
- WoodWorks partnered with Microsoft as part of a company-wide commitment to sustainability; Microsoft is building several mass timber structures on its new campus in Redmond, Washington.
- WoodWorks reached 3,345 professionals via a three-part webinar series focused on mid-rise and beyond.
- Five-story buildings have become the largest height segment of projects influenced. In each of the last three years, four-story buildings made up the largest segment of projects reported.



Five-Story Heavy Timber Office – Chicago, IL

WoodWorks helps overcome barrier to the use of engineered wood in Chicago

In 2017, Alyssa Fee, a Senior Engineer with IMEG Corp., was referred to WoodWorks by a colleague who had worked with us in the past. She wanted to discuss the possibility of a five-story office building in Chicago with exposed glulam beams. While this is permitted in most U.S. jurisdictions, the Chicago Building Code doesn't allow structural glulam because of historic concerns related to fire performance and adhesives.

The building is in a historic part of Chicago, once a meatpacking district, with many exposed timber warehouses. The project team felt glulam would honor the district's past, while offering a more slender structural solution, and would be a selling point for renters.

Led by Summit Design + Build and Hartshorne Plunkard Architecture, the team wanted to know if WoodWorks could help demonstrate to the City that glulam is capable of meeting the same requirements as solid timber, which is permitted in the code.

Regional Director Archie Landreman provided a variety of resources and reached out to the AWC for fire test data. WoodWorks and AWC also joined the design team at a meeting with Chicago building and fire officials.

In late 2018, the City gave the project a green light to proceed. The project will include four stories of office space over first-floor retail and underground parking. It will be the first mid-rise building with exposed glulam beams in Chicago.



Photo: Hartshorne Plunkard Architecture

PROJECT DETAILS

Description:	Five-story heavy timber office
Size:	45,000 square feet
Value of construction:	\$7.6 million
Value of wood products:	\$684,260
Volume of lumber:	802,286 board feet (equivalent)
Status:	Under construction

Education Update

The SLB promotes the benefits and uses of softwood lumber products in outdoor, residential, and non-residential construction. Our funded programs continue to influence the market through high-quality educational offerings in a variety of formats. At the end of Q2, each funded program has exceeded projections and increased the number of courses accessed year-over-year. The SLB is very pleased with this progress.

While in-person trainings and presentations have been, and will continue to be, a productive and effective educational tactic, we have been monitoring a trend in the increased demand for online education. The next generation of designers, developers, and builders are looking to online resources for self-serve education. SLB-funded programs are ready to meet this demand with a SLB-funded Wood University for the AWC, Think Wood, and WoodWorks education courses. This Learning Management System (LMS) will house all courses in one easy-to-access location. The Think Wood team is positioned to finalize the LMS software platform for launch in late 2019.

American Wood Council

The AWC's Q2 education efforts included presentations of technical programs and eCourses to over 6,500 building officials, engineers, and others, with over 11,500 contact hours. Year-to-date numbers indicate a 19% increase in overall attendance compared to last year.

Think Wood

Think Wood reached 4,645 CEU test takers in Q2 (up from 2,239 in Q1) resulting in 2,380 new Think Wood contacts from CEUs. Two new Think Wood CEUs are currently under development, and six CEUs are set to be updated and revised in Q3. Think Wood also conducted an initial assessment of possible "learning tracks" for the LMS, finding a number of possible ways for courses to be organized.

WoodWorks

In Q2, a total of 10,800 educational hours were delivered to 5,867 specifiers through 95 WoodWorks-hosted events. The Q2 WoodWorks-hosted events introduced 1,040 new contacts and generated over 1,126 contact leads for the Regional Directors. An additional 1,647 educational hours were delivered through 17 third-party speaking engagements.

Think Wood Launches Online Pro Center

A comprehensive Pro Center for Residential Contractors is now available at thinkwood.com/pro-center. Taking lessons learned from Wood, Naturally, this one-stop library brings together and builds further linkages with the valuable

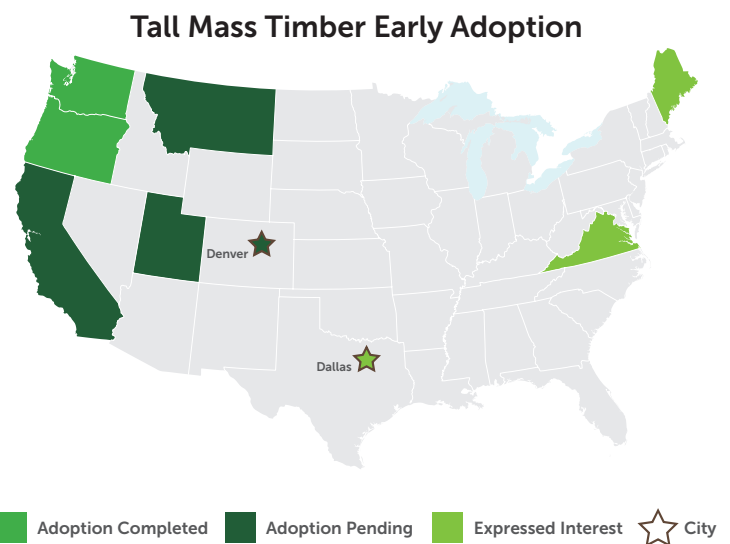
resources of NELMA, WRCLA, SFPA, and others in the Association Partnership Program.

Various sections point to inspiration, tools, and guides on installing siding, building a new deck, or tackling creative outdoor projects, such as a gazebo, or pergola. There are also resources to assist visitors with interior projects from ceilings, floors, and trim to walls and framing.

Gaining Momentum: Early Adoption of New Building Codes

At present, most states are only beginning their processes to adopt the 2018 editions of International Code Council (ICC) standards; therefore, 2021 ICC standards adoption will not likely become more the norm until 2022.

Nonetheless, several states have been receptive to accelerated adoption of tall mass timber provisions. In most jurisdictions, building officials have the authority to early-approve tall mass timber buildings in advance of adopting specific provisions by using "alternative means and methods" provisions of the International Building Code (IBC). With the ICC membership having approved the Tall Wood Building (TWB) Ad-Hoc Committee proposals, the SLB expects that building officials will be far more inclined to approve construction of tall mass timber buildings that meet 2021 IBC provisions ahead of the official adoption.



A number of jurisdictions are electing to early-adopt the TWB proposals simply to avoid the analysis required by "alternative means and methods" provisions. The AWC is assisting interested states in early adoption. There are a

number of factors AWC uses in determining what role to play in a jurisdiction's consideration of tall mass timber early adoption. Paramount is state or local building official support for an effort, as the importance of ongoing relationships between AWC, on behalf of the industry, and building officials are determining factors. Where AWC has chosen not to be the proponent, they continue to work behind the scenes to provide technical support.

Tall Timber Building Track at CTBUH 10th World Congress

Think Wood has signed on to be a platinum-level lead sponsor of the Timber Rising program track at the upcoming Council on Tall Buildings and Urban Habitat (CTBUH) 10th World Congress, which will be held in Chicago from October 28 to November 2. CTBUH is the world's leading resource for professionals focused on the inception, design, construction, and operation of tall buildings and future cities. Its member network includes over two million individuals working in over 10,000 offices around the world.

Timber Rising will be one of nine major program tracks at the conference. Over 1,500 delegates are expected to attend. Think Wood is collaborating with CTBUH to develop Timber Rising's program, which will include two days of feature presentations and panel discussions as part of the core conference.

Read more about the upcoming conference, including its impressive list of confirmed speakers, at www.ctbuh2019.com.

AWC Drives Positive Change at 2019 ICC Committee Action Hearings

The cycle for considering changes to the ICC 2021 editions of building standards has been underway for 18 months, and all remaining proposals will be addressed this year as part of "Group B" changes. In addition to 2018 approval of historic tall mass timber provisions under Group A, AWC has been working to develop and support with testimony other changes to 2021 ICC standards that benefit the softwood lumber industry, as well as defeat detrimental proposals by others.

The first official ICC Committee review of Group B proposals took place at the end of April, and AWC was front and center at the 11 consecutive days of meetings. Over 1,300 proposed changes were reviewed and debated, and then received ICC Committee recommendations. Included in the Group B cycle are proposals to change the IBC, International Residential Code (IRC), International Energy Conservation

Code (IECC), International Existing Building Code (IEBC), and International Green Construction Code (IgCC).

Committee recommendations on some notable proposals affecting lumber were:

- Three companion proposals submitted by the ICC Tall Wood Ad Hoc Committee in support of tall wood were all recommended for approval. AWC testimony was key to all three approvals, while a competitor proposal to require unnecessary special inspections was recommended for disapproval.
- A proposal that comprehensively updates references to AWC's newest editions of design standards was recommended for approval.
- A competitor material proposal calling for unneeded and expensive special inspections of routine elements in light-frame wood construction was recommended for disapproval.
- An AWC proposal providing for inspection of prefabricated construction (in-plant) was recommended for disapproval. However, recognizing the difficulty building officials have inspecting hidden elements in prefab construction, ICC has created a new Off-Site and Modular Construction Standard Committee to develop two new standards that will facilitate greater use of this increasingly used method of construction, an acceptable resolution to AWC.

Changing ICC residential energy standard provisions proved to be more of a challenge. Although AWC aggressively engaged in IECC deliberations, only one of the AWC's four submitted changes was recommended for approval. In a hearing environment apparently unwilling to change residential provisions, the AWC was in good company as very few proposals were accepted. Notably, 14 of 18 changes identified as threats to wood product use were recommended for disapproval.

Committee recommendations now move to the Public Comment Hearing stage, which will culminate with debate at ICC's final hearings on 2021 standards in October. AWC will be determining which proposals to strategically challenge in advance of the hearings and will be in full attendance at the hearings protecting the interests of the wood products industry.

The Future of Wood, Cont.

Continued from page 1

Moving Toward Mass Timber

Today the softwood lumber industry holds over 80% of the market in 1-4 story multifamily builds, and 55% of 5-6 story multifamily builds. As more builds move into 7+ stories, light frame wood construction is no longer an option. After the AWC's diligent work in influencing code changes, the 2021 IBC is making tall mass timber construction a viable option for both residential and conventional non-residential projects.

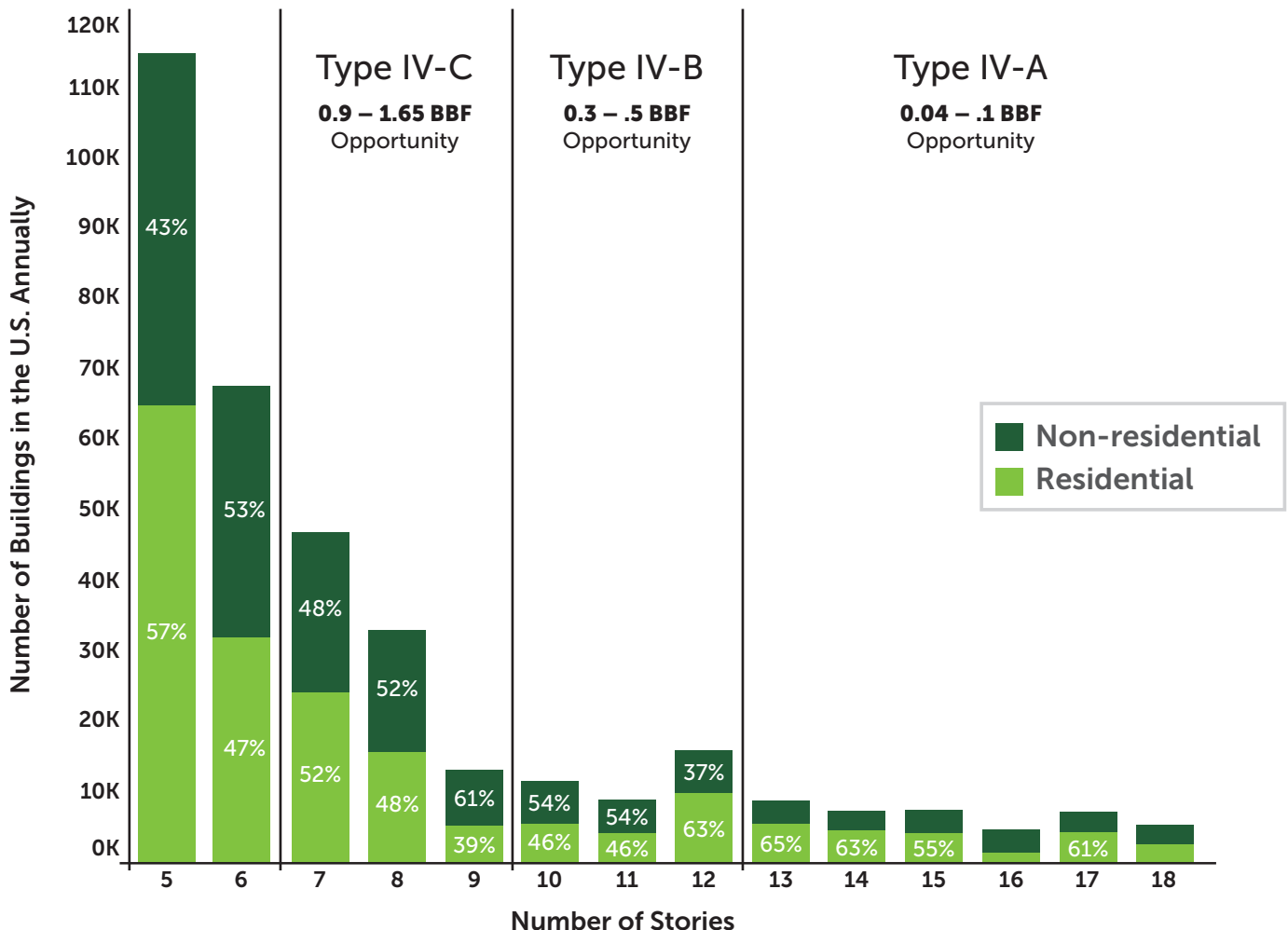
Driving cities throughout North America toward early adoption of the 2021 IBC is key to unlocking an additional 15% market share for wood, leaving only the tallest 9% out of code for wood.

Because mass timber includes structure, floors, walls, and ceilings, every square foot of construction in taller categories represents 1.5-2x more wood consumption than light frame construction. Using prefabricated mass timber products also speeds construction timelines while increasing efficiencies and safety on job sites.

Strategic Steps for Increased Market Share

An important component of planning for strategic growth is knowing where (and where not) to invest. FPI's comprehensive analysis of market sectors and opportunities for wood shows the greatest potential in conventional, non-residential markets, and relatively low potential for growth in the restricted and large categories. Moving forward, the SLB will continue to focus on protecting wood's use in the residential segment while exploring opportunities to grow wood's market share in 1-8 story buildings, in both non-residential and multifamily segments.

For more information, download the Softwood Lumber Board's U.S. Market Outlook webinar, presented by Dr. David Fell, FPI Lead Researcher at <https://www.softwoodlumberboard.org/webinars/>.



Upcoming Events

Upcoming Think Wood Mobile Tour Events



This fall, the Think Wood Mobile Tour will hit the road. The mobile experience is a beautiful and compelling museum-quality display that showcases the environmental and economic benefits of different softwood lumber products and their many uses in both residential and commercial construction.

Planned Locations Include:

- National Building Museum, Washington, D.C., October 22, 2019
- Council on Tall Building and Urban Habitats 10th World Congress, Chicago, October 28-30, 2019
- Remodeling Show & Deck Expo, Louisville, November 6-8, 2019
- JLC Live Residential Construction Show – Northwest, Portland, December 4-6, 2019
- International Builder Show, Las Vegas, January 21-23, 2020
- Mass Timber Conference, Portland, March 24-26, 2020
- A'20 - AIA Conference on Architecture, Los Angeles, May 14-16, 2020

For details on upcoming events visit www.softwoodlumberboard.org/tour

2019 Webinar Schedule

In June, the SLB launched a series of webinars to provide better awareness of, and insight for, the lumber industry into the U.S. Market, the SLB-funded program investments, and the performance measurement of these programs. Each of the webinars are presented live and available on-demand for you and your employees.

Upcoming SLB Webinars

- October 23, 2019 at 1:30 p.m. ET / 10:30 a.m. PT – Codes & Standards, American Wood Council
- November 6, 2019 at 1:30 p.m. ET / 10:30 a.m. PT – Communications, Think Wood
- December, Think Wood Mobile Tour, Softwood Lumber Board

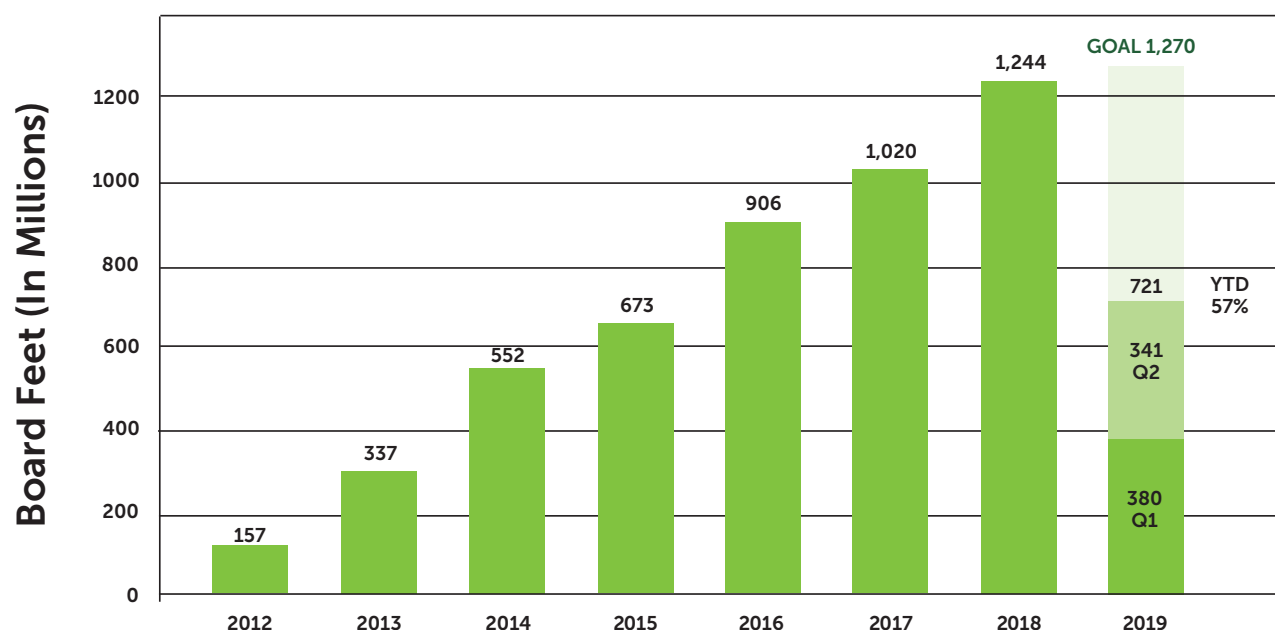
To register for an upcoming live webinar or download a webinar for on-demand viewing, visit www.softwoodlumberboard.org/webinars

SLB Impact

On Track to Meet Incremental Demand Goal

In Q2 2019, SLB-funded programs generated 341 MMBF of incremental demand which represents a 16% increase over the same period last year. Year-to-date programs account for a total of 721 MMBF, representing 57% of the SLB's 2019 goal.

5.6 BBF of Demand Generated by SLB Investments



In the second quarter, the WoodWorks team directly converted 85 projects, five more than Q2 2018, and for the year they have directly influenced 172 projects; a 12% increase YoY.

Throughout the first six months of 2019, California, Texas, Florida, Washington, and Colorado are the top five states for direct project conversions.

Don't Miss SLB Communications

Ensure our updates reach your inbox by adding info@softwoodlumberboard.org to your contacts list. Additionally, you can update your contact information by filling out our data verification form online, available at <https://info.softwoodlumberboard.org/contact-data-verification>.



About the SLB

The Softwood Lumber Board (SLB) is an industry-funded initiative established to promote the benefits and uses of softwood lumber products in outdoor, residential, and non-residential construction and to increase demand for appearance and softwood lumber products.

www.softwoodlumberboard.org | info@softwoodlumberboard.org | [@LumberBoard](https://twitter.com/LumberBoard)