State of the Industry: Year End 2018

Tabitha Stine, Vice President of Market Development
December 13, 2018

As 2018 comes to a close, we would like to provide an at-a-glance perspective on some of the issues that mattered most over the past year and that will impact 2019. This year has proven to be full of social, political, and economic changes, and our steel design and construction industry has reacted in kind. Below is a snapshot of our year-end State of the Industry which captures updated perspectives on our membership and our markets.

What Do Our Markets Look Like?

Structural steel is currently the leading structural framing material for buildings in the United States, with a 46% market share for 2017 for non-residential and multi-story residential construction. The market share for the closest competing material—reinforced concrete—is only 34%, indicating a strong market preference for structural steel.

Market share values for all structural framing materials over the past nine years for non-residential and multi-story residential building construction based on square footage are as shown in the following table. The overall decrease in steel market share is due to several factors including rising imports of both mill material and fabricated structural steel as well as an increasing proportion of residential construction since 2011.

Non-residential construction represented 37% of the overall demand for structural steel while multi-story residential construction accounted for 8% of the overall demand for structural steel.

The remaining demand for structural steel is comprised of non-building structures (which includes open-air stadiums, process and chemical plants, power plants, petroleum refineries, and other buildings that do not have a roof), and non-structural applications (such as rack systems, marine applications, trailers, transportation and mobile homes). Structural steel maintains a dominant share in these markets with these non-building structures generating approximately 40% of the demand for structural steel.

Market Share by Construction Material

	2009	2010	2011	2012	2013	2014	2015	2016	2017
Structural Steel	56%	58%	56%	51%	47%	49%	48%	49%	46%
Pre-Engineered Buildings (steel)	7%	6%	6%	6%	6%	5%	5%	4%	4%
Wood	7%	7%	8%	8%	9%	8%	8%	9%	10%
Masonry	10%	9%	7%	7%	7%	7%	6%	6%	6%
Reinforced Concrete	20%	21%	22%	28%	31%	31%	33%	32%	34%

Source: Dodge Analytics

How Much Are We Shipping?

AISC estimates that the volume of U.S. shipments of fabricated structural steel in 2017 was approximately 3.5 to 4.0 million tons.

Historically,AISC has broadly estimated the size of the U.S. fabricated structural steel market based on the quantity of parallel flange sections that U.S. mills have shipped. However, those past estimates overstated the market size by not differentiating between parallel flange sections used for construction versus other non-construction related sectors like rack systems, marine applications, trailers, commercial truck beds, and mobile homes mentioned above.

AISC has made additional refinements to more accurately calculate its domestic market size. For example, products such as H-piling, bantam beams and super-light beams are now excluded in the calculation. Because our estimate is based on the amount of steel shipped from the mills, we have also adjusted to account for the steel waste generated during the fabrication process which is documented in our industry average EPD background report. Finally, we have made upward adjustments to account for other steel mill products that are used for fabricated structural steel applications (e.g., angles, channels, plate, hollow structural sections), as well as the quantity of foreign steel mill material that is fabricated domestically.

What Does The Future Hold?

After visiting with the national economist for Dodge Construction in late October, we expect a couple of interesting trends moving forward as we close out 2018 and look into 2019. Non-residential construction should finish this year close to even from last year and possibly down 4% in 2019. Office construction starts in particular will finish up 6% this year but slowing in 2019 to a 1% growth. Tariffs, rising interest rates, and a tight labor market have all provided resistance to growth. A lion's share of the work for our membership in the non-residential market this year has been in office, warehouse/distribution and data centers. When considering all markets on a national basis (including multifamily housing) we anticipate 2019 to be stagnant compared to 2018 gains. With anticipated stagnancy comes concern for a possible downturn in the near future.

Smarter. Stronger. Steel.
American Institute of Steel Construction
312.670.2400 | www.aisc.org

F158-19