



Introduction to the U.S. Fastener Industry

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Data note:

The data for this article is derived from the US Census trade statistics. US Census trade statistics analysis import and export on all modes of transportation. That value is calculated in USD by general CIF for imports and FOB for exports. Fasteners in this article are defined as any product under HS Code 7318 [screws, bolts, nuts, coach screws, screw hooks, rivets, cotters, cotter pins, washers and similar articles of iron or steel].

The U.S. imports anywhere between 5 billion USD and 6 billion USD of foreign manufactured fastener products every single year. Despite global shortages on foreign goods due to COVID-19 in 2020 and the current supply chain disruptions in 2021, the U.S. still managed to source 5 billion USD from its foreign trading partners in 2020 (1.4 billion kilograms) and a total of 4.2 billion USD (1.1 billion kilograms) during the first 8 months of 2021. It's a staggering amount of fastener goods that are being imported into the U.S. which leads one to believe the U.S. has an incredible dependency on not only its foreign trading partners but also on a fluid and organized supply chain.

To truly understand the fastener industry within the U.S., let's start by understanding the major manufacturers of goods that require fastener pieces and where these companies are located. What do the annual trade statistics of fasteners in the U.S. reveal about the market? Can we determine the trade flows of fasteners in and out of the U.S., including domestic trade of fasteners? When it comes to establishing supply chain relations, it's evident to understand the locations the manufacturers set up operations, including distribution warehouses.

The Midwest is home to most of the country's largest manufacturing plants, many of which manufacture automobiles. Companies like Stelfast, ITW Brands and Lindstrom Metric import fasteners from foreign countries to use for manufacturing. Hubbell Electrical Products, Star Stainless Screw and American Bolt & Screw also import fasteners, although they are located within the eastern and western coasts of the country. The region around The Great Lakes is known for farming and manufacturing despite the younger generations of workers that were believed to be more inclined to other industries. The Midwestern region has traditionally been known to pay its workers high wages for their labor due to the lower cost of living. Companies are able to offer lifetime opportunities to its employees including benefits which in turn produce a loyal and devoted workforce. Companies have maintained their operations knowing the work ethics of the type of employees they will attract. States like Pennsylvania, Virginia and West Virginia are also known for the number of manufacturing plants; however, the industries in these states are primarily mining, steel and iron ore. Politically speaking, the different presidential administrations have always promised to maintain and increase manufacturing jobs within these region as they want to boost U.S. made products and U.S exports.



Traditionally the U.S. has imported most fasteners from Taiwan. In 2021 alone 41% of the total quantity of U.S. fastener imports were imported from Taiwan, followed by China (26%) and Japan (7%). Fastener imports into the U.S. primarily enter the country via the Midwest region (Chicago, Illinois) and southern California (Los Angeles, California). While the U.S. district of entry for imported cargo may purely be for economical and strategic reasons, it could also reflect the geographical relativity of the imports. **Several of the larger fastener companies are located on the west coast and the Midwest region of the U.S. which concludes why these two districts of entry show the highest volume of fastener imports year after year. Of these imports, the U.S. primarily imports fastener commodities within harmonized tariff 731815, followed by 731814 and 731816. These three subsets of 7318 have accounted for nearly 87% of the total fastener imports during the first 8-months of 2021.**

On the other hand, the U.S. has shown to have a lack of expansion or development. The volume and value of fastener exports has remained stagnant since 2017 demonstrating an overall yearly value of around 4.3 billion USD and quantity of 780 million kilograms. In 2020 the total value dropped to 3.5 billion USD (722 million kilograms) and during the first 8-months of 2021 the total value is up to 2.7 billion USD (4.8 million kilograms). Foreign exports of U.S. fasteners are primarily destined to Mexico (28% in 2019) and Canada (59% in 2019). It's no surprise that the primary district of loading for fasteners are Laredo, Texas and Detroit, Michigan both of which are extremely close to the borders with Canada and Mexico. **Exports of fasteners are largely within harmonized tariff code 731815 and 731816. During the first 8-months of 2021, the U.S. has exported 54% of 731815 and only 7% of 731816.** Of fastener exports, most of the exports being made in the U.S. are domestically as in amongst the different states in the country. In 2020, nearly 84% of all fastener exports in the U.S. was considered domestic trade, and only 15% was considered international trade.

U.S. Fastener Import Origins 2019-2020

Country of Origin	2019				2020				Volume Change			
	General Total Value CIF (USD)	%	General Quantity (kg)	%	General Total Value CIF (USD)	%	General Quantity (kg)	%	General Total Value CIF (USD)	%	General Quantity (kg)	%
Taiwan	2,017,113,212	34.53	647,320,640	39.50	1,878,810,525	37.04	611,967,110	41.03	-138,302,687	-6.86	-35,353,530	-5.47
China	1,207,846,153	20.68	516,843,311	31.54	906,334,869	17.87	417,921,776	28.02	-301,511,284	-24.97	-98,921,535	-19.14
Japan	648,298,263	11.10	100,429,867	6.13	524,511,802	10.34	82,099,225	5.51	-123,786,461	-19.10	-18,330,642	-18.26
Germany	381,542,652	6.54	46,957,565	2.87	343,044,039	6.77	41,671,866	2.80	-38,498,613	-10.10	-5,285,699	-11.26
Canada	315,553,400	5.41	73,544,433	4.49	264,497,330	5.22	54,444,523	3.66	-51,056,070	-16.18	-19,099,910	-25.98
S. Korea	197,953,133	3.39	43,288,996	2.65	182,819,205	3.61	67,151,608	4.51	-15,133,928	-7.65	23,862,612	55.13
India	155,067,539	2.66	61,184,524	3.74	116,556,900	2.30	55,992,096	3.76	-38,510,639	-24.84	-5,192,428	-8.49
Italy	150,498,031	2.58	19,697,076	1.21	143,541,776	2.83	16,625,921	1.12	-6,956,255	-4.63	-3,071,155	-15.60
Mexico	132,206,656	2.27	12,899,674	0.79	114,068,791	2.25	13,485,743	0.91	-18,137,865	-13.72	586,069	4.55
U.K.	89,547,877	1.54	5,784,994	0.36	84,450,915	1.67	6,415,441	0.44	-5,096,962	-5.70	630,447	10.90
Total	5,841,885,221	100.00	1,638,796,650	100.00	5,073,308,249	100.00	1,491,564,174	100.00	-768,576,972	-13.16	-147,232,476	-8.99

U.S. Fastener Import Origins in the First 8 Months of 2021

Most recently there has been an overwhelming number of disruptions within the supply chain causing a more analytical and strategic approach to mitigating risk. In the next few months, supply chain analytics firms are predicting companies will be forced to make difficult decisions when it comes to logistics, procurement, and management of their supply chains. One of the more problematic logistics distributions occurring in the U.S. is the backlogs at the ports. Ocean vessels are being halted at the harbors of ports unable to dock at the terminals due to these backlogs. One of the hardest hit ports is Los Angeles, which we saw earlier is one of the major ports for fasteners imports into the U.S. This backlog is believed to be caused by a shortage of truck drivers as well as an increased demand in goods. The U.S. has traditionally been seen as a consumerist market, demanding high supplies of household goods, apparel, vehicles, food

Country of Origin	01/01/2021 - 08/31/2021			
	General Total Value CIF (USD)	%	General Quantity (kg)	%
Taiwan	1,611,190,623	37.98	477,517,815	41.29
China	744,442,962	17.55	299,319,673	25.89
Japan	458,766,285	10.82	79,442,871	6.87
Germany	260,700,310	6.15	31,137,186	2.70
Canada	218,862,193	5.16	48,663,024	4.21
S, Korea	159,850,729	3.77	43,867,582	3.80
India	126,056,463	2.98	51,957,263	4.50
Italy	121,960,778	2.88	16,749,470	1.45
Mexico	90,763,936	2.14	11,290,729	0.98
Vietnam	62,591,341	1.48	31,654,793	2.74
Total	4,243,132,354	100.00	1,156,526,916	100.00



U.S. Top Imported Fastener Items in 2021

Product HS (6)	2021			
	General Total Value CIF (USD)	%	General Quantity (kg)	%
731815 - threaded screws and bolts others, with or without their nuts or washers, of iron or steel	1,728,389,393	40.74	512,566,007	44.32
731814 - self-tapping screws, threaded, of iron or steel	884,622,902	20.85	300,240,927	25.97
731816 - nuts, threaded, of iron or steel	880,500,379	20.76	201,797,255	17.45
731829 - nonthreaded articles (fasteners) others, of iron or steel	260,211,617	6.14	29,610,613	2.57
731822 - washers, other than lock washers, of iron or steel	203,727,550	4.81	58,535,181	5.07
731819 - threaded articles of iron or steel others	78,507,589	1.86	11,465,121	1.00
731821 - spring washers and other lock washers, of iron or steel	52,542,809	1.24	5,846,399	0.51
731823 - rivets of iron or steel	51,709,042	1.22	8,497,997	0.74
731824 - cotters and cotter pins, of iron or steel	46,568,530	1.10	5,230,692	0.46
731812 - wood screws other than coach screws, threaded, of iron or steel	26,396,239	0.63	8,360,905	0.73
Total	4,243,132,354	100.00	1,156,526,916	100.00

U.S. Fastener Export Destinations 2019-2020

Country of Destination	2019				2020				Volume Change			
	FOB Value (USD)	%	Quantity (kg)	%	FOB Value (USD)	%	Quantity (kg)	%	FOB Value (USD)	%	Quantity (kg)	%
Mexico	1,528,570,326	34.77	218,810,790	28.27	1,216,036,841	33.57	167,065,567	23.12	-312,533,485	-20.45	-51,745,223	-23.65
Canada	1,142,383,822	25.99	456,623,732	59.00	939,556,124	25.94	473,885,439	65.56	-202,827,698	-17.76	17,261,707	3.79
China	183,175,516	4.17	9,689,066	1.26	183,080,439	5.06	12,644,021	1.75	-95,077.	-0.06	2,954,955	30.50
U.K.	160,267,016	3.65	7,519,342	0.98	127,209,982	3.52	5,587,940	0.78	-33,057,034	-20.63	-1,931,402	-25.69
Germany	123,712,184	2.82	8,101,157	1.05	98,187,380	2.72	5,376,840	0.75	-25,524,804	-20.64	-2,724,317	-33.63
Brazil	109,464,772	2.49	10,875,768	1.41	90,407,063	2.50	9,125,876	1.27	-19,057,709	-17.41	-1,749,892	-16.09
Singapore	104,546,228	2.38	3,654,153	0.48	76,825,029	2.13	2,448,890	0.34	-27,721,199	-26.52	-1,205,263	-32.99
Japan	98,481,641	2.24	3,307,978	0.43	83,679,269	2.31	2,702,268	0.38	-14,802,372	-15.04	-605,710	-18.32
France	89,890,788	2.05	2,293,625	0.30	79,427,768	2.20	1,887,147	0.27	-10,463,020	-11.64	-406,478	-17.73
S. Korea	88,427,189	2.02	3,487,393	0.46	76,834,479	2.13	3,085,856	0.43	-11,592,710	-13.11	-401,537	-11.52
Total	4,396,938,196	100.00	774,017,702	100.00	3,622,489,339	100.00	722,896,941	100.00	-774,448,857	-17.62	-51,120,761	-6.61

and most recently lumber and other materials required for the housing development market. As we are approaching the holidays, the demand for consumer goods increases as stores are required to stock up for the upcoming surge. This is a recurring situation faced in the supply chain during the holiday season; however, it's become more apparent in the last two years due to the pandemic and all of the secondhand impacts of the pandemic.

Unfortunately supply chain complications do not discriminate based on the type of commodity that is being transported. While fasteners can be seen as prominent commodities needed in the completion of manufacturing automobiles, medical devices, and construction equipment, when there is a disruption in the supply chain it can lead to a shortage in fasteners which can end up increasing the cost on

U.S. Fastener Export Destinations in the First 8 Months of 2021

Country of Destination	01/01/2021 - 08/31/2021			
	FOB Value (USD)	%	Quantity(kg)	%
Mexico	990,595,222	36.39	132,484,084	27.13
Canada	718,443,793	26.39	292,957,031	59.99
China	152,665,379	5.61	11,662,201	2.39
U. K.	73,535,645	2.71	4,746,510	0.98
S. Korea	62,736,038	2.31	1,975,587	0.41
Brazil	62,074,744	2.29	6,136,181	1.26
Germany	57,169,242	2.10	3,818,294	0.79
Singapore	56,601,607	2.08	1,687,896	0.35
Japan	44,882,010	1.65	1,511,801	0.31
Australia	44,687,596	1.65	2,242,112	0.46
Total	2,722,429,851	100.00	488,344,944	100.00



U.S. Top **Exported** Fastener Items in 2021

Product HS (6)	2021			
	FOB Value (USD)	%	Quantity (kg)	%
731815 - threaded screws and bolts others, with or without their nuts or washers, of iron or steel	1,295,349,706	47.59	266,491,028	54.58
731816 - nuts, threaded, of iron or steel	407,074,317	14.96	35,012,487	7.17
731829 - nonthreaded articles (fasteners) others, of iron or steel	291,305,668	10.71	25,984,724	5.33
731819 - threaded articles of iron or steel others	263,437,584	9.68	53,113,475	10.88
731822 - washers, other than lock washers, of iron or steel	160,329,292	5.89	20,591,088	4.22
731824 - cotters and cotter pins, of iron or steel	91,210,178	3.36	8,739,309	1.79
731814 - self-tapping screws, threaded, of iron or steel	86,383,122	3.18	65,831,593	13.49
731823 - rivets of iron or steel	60,443,018	2.23	5,650,102	1.16
731821 - spring washers and other lock washers, of iron or steel	41,058,749	1.51	2,546,938	0.53
731811 - coach screws, threaded, of iron or steel	10,943,506	0.41	2,002,779	0.42
Total	2,722,429,851	100.00	488,344,944	100.00

the end consumer. While this is not a simple solution and will continue to be a difficult situation to navigate, there are objectives and strategies foreign companies can consider. Developing warehouses near these established U.S. importers of fasteners with enough supply will alleviate supply chain issues when it comes to transporting cargo overseas and facilitate surges of fastener demand. **Considering how many companies are located in the general vicinity of the Midwestern region of the U.S. (Ohio, Michigan, Illinois), developing warehouses in this region as well as relationships with logistics providers to transport the goods are key to being a fastener distributor for these companies.** ■

