

2022 Highlights

- Ongoing stresses to the global economy that began during the COVID-19 pandemic continue to pressure supply chains, which has led to increased inflation worldwide. At home, staffing challenges and rising interest rates have impacted both the Wisconsin and the U.S. economies. Even with these challenges, Wisconsin exports have continued to show impressive and consistent growth since 2020, resulting in a record value of goods exported in 2022. Major product categories also hit record levels in 2022, including medical and scientific instruments and plastics. Exports of electrical machinery and industrial machinery also reached their highest levels since 2006 and 2012, respectively.
- Wisconsin firms exported \$27.3 billion worth of products to 207 countries and customs territories in 2022. That amounted to increases of \$2.5 billion (10.3%) and \$6.8 billion (33.6%) vs. 2021 and 2020, respectively. Exports from the U.S. as a whole increased by \$308.6 billion (17.5%) and \$634.4 billion (44.4%) during the same timeframes. Wisconsin ranked 20th among the 50 states in exports, the same as in 2021.
- Almost half (\$12.2 billion, or 44.5%) of Wisconsin's exports in 2022 stayed within North America: 31.3% were shipped to Canada and 13.1% went to Mexico. The 27 members of the European Union (with Germany being the largest single market within the EU) accounted for 16.0% of Wisconsin's exports, and China accounted for 6.5%.
- Wisconsin's imports in 2022 totaled \$41.0 billion, the highest level recorded in the state's history. This represents an increase of \$4.6 billion (12.7%) over 2021 and \$14.4 billion (54.2%) over 2020. Wisconsin ranked 20th among the 50 states for imports; total U.S. imports increased by \$415.3 billion (14.6%) in 2022 vs. 2021.
- According to the International Monetary Fund, global inflation hit 8.8% in 2022, which likely affected the value of the goods both imported to and exported from the state. In 2022, the U.S. dollar also realized its biggest annual jump in the last seven years, which hindered U.S. exports. Although the global inflation rate is forecasted to decrease to 2.9% in 2023, this is still higher than the annual levels of inflation recorded from 2015 through 2020.





2012

\$7,298,480,320

\$2,325,780,384

\$2,301,582,069

\$1,731,650,570

\$8,581,973,325

\$23,118,995,133

\$879,528,465

%**Δ ′12-`22**

-3.30%

10.98%

5.76%

-2.80%

82.30%

40.11%

18.45%

WISCONSIN'S TOP EXPORT PRODUCTS: 2022

Industrial Machinery

Electrical Machinery

PRODUCT

Plastics

Total

Other Products



PERCENTAGE 2022 WI TRADE

WISCONSIN TOP EXPORT DESTINATIONS: 2022



TRADE

COUNTRY	2021	2022	% Δ ′21- `22	2011	%Δ ′11-`22
Canada	\$7,537,858,959	\$8,589,113,057	13.95%	\$7,642,609,533	12.38%
Mexico	\$3,103,182,233	\$3,611,929,716	16.39%	\$2,166,654,084	66.71%
China	\$1,798,055,589	\$1,805,033,160	0.39%	\$1,547,348,491	16.65%
Germany	\$875,397,220	\$1,044,278,069	19.29%	\$715,126,547	46.03%
United Kingdom	\$723,476,666	\$882,316,053	21.96%	\$615,421,190	43.37%
Other Countries	\$10,773,173,205	\$11,450,731,853	6.29%	\$10,431,835,288	9.77%
Total	\$24,811,143,872	\$27,383,401,908	10.37%	\$23,118,995,133	18.45%

2022

\$7,057,542,385

\$2,581,157,988

\$2,434,171,583

\$1,683,203,894

\$1,603,349,879

\$12,023,976,179

\$27,383,401,908

2021

\$5,711,465,004

\$2,123,395,666

\$2,169,074,701

\$1,658,849,095

\$1,447,350,983

\$11,701,008,423

\$24,811,143,872

%**Δ ′21-`22**

23.57%

21.56%

12.22%

1.47%

10.78%

2.76%

10.37%

WISCONSIN'S TOP IMPORT PRODUCTS: 2022

	CATEGORY	2021	2022	% Δ ′21- `22	2012	%Δ ′12-`22
20%	Industrial Machinery	\$7,766,812,705	\$8,137,296,737	4.77%	\$3,985,702,541	104.16%
	Pharmaceuticals	\$5,203,047,519	\$5,761,908,588	10.74%	\$357,641,205	1511.09%
42%	Electrical Machinery	\$4,399,532,617	\$5,105,577,775	16.05%	\$2,836,485,222	80.00%
	Med./Sci. Instruments	\$2,350,054,146	\$2,494,383,852	6.14%	\$1,551,523,146	60.77%
12%	Non-rail Vehicles	\$1,659,788,700	\$2,305,153,111	38.88%	\$1,266,198,651	82.05%
6% 6%	Other	\$15,070,572,093	\$17,286,849,419	14.71%	\$13,200,147,625	30.96%
PERCENTAGE 2022 WI	Total	\$36,449,807,780	\$41,091,169,482	12.73%	\$23,197,698,390	77.13%
TRADE						

WISCONSIN'S TOP IMPORT SOURCES: 2022

	COUNTRY	2021	2022	%Δ ′21-`22	2012	% Δ ′12-`2 2
209	China	\$7,434,464,405	\$8,262,399,098	11.14%	\$5,771,683,210	43.15%
205	Canada	\$5,532,030,864	\$6,128,839,770	10.79%	\$4,189,921,407	46.28%
43%	Mexico	\$3,157,318,110	\$3,892,032,193	23.27%	\$3,005,571,540	29.49%
	15% Germany	\$3,446,250,897	\$2,652,729,899	-23.03%	\$1,332,911,710	99.02%
· / / ·	Wietnam	\$1,994,219,046	\$2,543,357,185	27.54%	\$628,370,319	304.75%
6% 7%	Other	\$14,885,524,458	\$17,611,811,337	18.32%	\$8,269,240,204	112.98%
PERCENTAGE 202	2 WI	\$36,449,807,780	\$41,091,169,482	12.73%	\$23,197,698,390	77.13%



EXPORTS BY COUNTRY

- 1. While exports to **Canada** in the amount of \$6.2 billion in 2020 represented a low not seen since 2010, Wisconsin's top export destination saw significant gains the past two years, pushing total exports in 2022 to a record high of \$8.5 billion, an increase of \$1.0 billion (13.9%) vs. 2021. Industrial machinery exports made up 21.6% of all exports to Canada after growing \$183.0 million (10.9%), followed by electrical machinery, which increased by \$222.4 million (40.9%). Vehicles and parts was the third leading product category in 2022, growing by \$79.0 million (12.5%). Wisconsin ranks 13th among the 50 states in total exports to Canada. The 13 states ranking ahead of Wisconsin all saw their exports increase in 2022, with the exception of New York, which reported a decrease of 9.4%. Total U.S. exports to Canada were up by 15.3%.
- Mexico maintained its position as the No. 2 export destination after purchasing a record \$3.6 billion of Wisconsin goods in 2022. Total U.S. exports to Mexico increased by 17.3% vs. 2021, slightly better than Wisconsin's 16.3% growth rate. The top product categories exported from Wisconsin included industrial machinery, electrical machinery, and plastics, which all saw significant increases: \$187.0 million (31.7%), 128.4 million (30.2%), and \$42.0 million (12.2%), respectively. However, exports of vehicles and parts decreased by \$15.8 million (3.8%).
- 3. **China** bought more than \$1.8 billion worth of goods from Wisconsin in 2022, an increase of just \$6.9 million (0.3%) over 2021. Shipments of aircraft, spacecraft, and parts and other products of animal origin, the fourth and fifth leading product categories exported to China, saw the largest growth: \$57.5 million (90.4%) and \$17.1 million (25.6%), respectively.
- 4. Germany continues to rank as Wisconsin's fourth leading export destination and top customer within the EU, realizing purchases in excess of \$1.0 billion for the first time ever in 2022. Much of the growth in exports to this market can be attributed to a \$156.0 million (984.5%) increase in shipments of aircraft, spacecraft, and parts, now the second largest product category after industrial machinery, which grew by \$52.2 million (31.8%). Exports of miscellaneous chemical products, down \$33.1 million (27.6%) and organic chemicals, down \$37.4 million (43.4%), saw the greatest declines among the top 10 product categories exported to Germany in 2022.
- 5. The United Kingdom regained Wisconsin's No. 5 export destination rank after also having purchased a record amount of Wisconsin goods in 2022, including \$235.1 million in industrial machinery, an increase of \$20.8 million (9.7%). Exports of aircraft, spacecraft, and parts, a category whose export levels can vary widely from year to year, represents the second leading product category for this market, after growing an impressive \$120.1 million (172.9%).
- 6. Growth in exports to Australia in the amount of \$163.8 million (27.4%) allowed this market to increase its ranking from ninth in 2021 to sixth just one year later. Most of the growth in exports came from increases in industrial machinery (up \$118.7 million, or 51.6%) and vehicles and parts (up \$24.0 million, or 31.5%), the top two product categories for this market.
- 7. **Japan** was again Wisconsin's seventh leading export destination in 2022, receiving \$699.6 million in goods, amounting to a moderate increase of \$12.4 million (1.8%) vs. 2021. Exports of industrial machinery, up \$20.8 million (16.3%), and medical and scientific instruments, up \$3.6 million (2.9%), together make up 39.1% of Wisconsin's exports to Japan.
- 8. **Belgium** also maintained its 2021 ranking, occupying the No. 8 slot among Wisconsin export destinations in 2022. Although exports hit a record high of \$668.1 million in 2022 (up \$44.8 million, or 7.1%), as the Belgian economy is relatively small, exports to this major logistical port are likely destined for other markets within the EU.
- 9. South Korea moved into the No. 9 position among Wisconsin export destinations after the total value of goods exported hit a record \$653.3 million, up \$82.8 million (14.5%), in 2022. Thanks in part to the Free Trade Agreement between the U.S. and Korea (KORUS), Wisconsin exports a wide array of goods to South Korea, the third-largest economy in East Asia. The top five product categories shipped to this market only constituted 51.4% of total exports, including \$116.3 million of industrial machinery (up \$6.5 million, or 5.9%), \$77.0 million of medical and scientific instruments (up \$13.1 million, or 20.6%), \$62.2 million of meat products (up \$3.1 million, or 5.2%), \$44.9 million of dairy products (up \$12.2 million, or 93.1%), and \$34.6 million in electrical machinery (up \$9.2 million, or 21.3%).



TOP DESTINATIONS FOR WISCONSIN EXPORTS

2022			EXPORT VALUE		% CH	% CHANGE		
RANK	COUNTRY	2021	2022	2012	2021- 2022	2012- 2022	2012 RANK	
1	Canada	\$7,537,858,959	\$8,589,113,057	\$7,642,609,533	13.95%	12.38%	1	
2	Mexico	\$3,103,182,233	\$3,611,929,716	\$2,166,654,084	16.39%	66.71%	2	
3	China	\$1,798,055,589	\$1,805,033,160	\$1,547,348,491	0.39%	16.65%	3	
4	Germany	\$875,397,220	\$1,044,278,069	\$715,126,547	19.29%	46.03%	6	
5	United Kingdom	\$723,476,666	\$882,316,053	\$615,421,190	21.96%	43.37%	7	
6	Australia	\$597,887,346	\$761,748,317	\$865,946,897	27.41%	-12.03%	4	
7	Japan	\$687,227,208	\$699,628,059	\$858,185,898	1.80%	-18.48%	5	
8	Belgium	\$623,379,741	\$668,188,912	\$411,586,729	7.19%	62.34%	12	
9	Korea, Republic Of	\$570,428,091	\$653,305,311	\$403,403,805	14.53%	61.95%	13	
10	Netherlands	\$473,774,982	\$563,587,800	\$394,878,143	18.96%	42.72%	14	
11	Chile	\$319,526,352	\$516,452,045	\$555,157,471	61.63%	-6.97%	8	
12	France	\$450,763,009	\$492,275,707	\$508,536,611	9.21%	-3.20%	9	
13	Singapore	\$332,140,815	\$421,340,667	\$329,845,439	26.86%	27.74%	15	
14	Brazil	\$792,270,821	\$395,737,363	\$497,868,356	-50.05%	-20.51%	10	
15	Thailand	\$298,173,564	\$364,510,505	\$184,155,911	22.25%	97.94%	23	
16	Italy	\$241,409,478	\$326,572,552	\$270,780,285	35.28%	20.60%	19	
17	Taiwan	\$225,346,256	\$306,823,580	\$192,380,178	36.16%	59.49%	22	
18	India	\$256,958,894	\$295,406,654	\$456,843,772	14.96%	-35.34%	11	
19	Malaysia	\$176,701,843	\$218,884,859	\$157,166,133	23.87%	39.27%	25	
20	Indonesia	\$208,085,087	\$203,628,632	\$75,176,782	-2.14%	170.87%	30	
21	South Africa	\$103,895,029	\$178,683,032	\$228,372,252	71.98%	-21.76%	21	
22	Czech Republic	\$126,916,913	\$173,637,205	\$57,207,005	36.81%	203.52%	33	
23	Spain	\$137,792,782	\$161,656,339	\$77,383,502	17.32%	108.90%	29	
24	Colombia	\$129,559,872	\$158,654,485	\$174,034,944	22.46%	-8.84%	24	
25	Ireland	\$114,743,905	\$155,974,220	\$101,249,117	35.93%	54.05%	27	
26	Hong Kong	\$169,615,194	\$152,692,083	\$289,732,578	-9.98%	-47.30%	18	
27	United Arab Emirates	\$180,170,712	\$146,752,572	\$305,205,984	-18.55%	-51.92%	17	
28	Costa Rica	\$107,009,617	\$140,675,026	\$45,399,104	31.46%	209.86%	34	
29	Peru	\$200,083,736	\$138,060,708	\$229,509,465	-31.00%	-39.85%	20	
30	Poland	\$122,886,755	\$128,972,672	\$85,340,660	4.95%	51.13%	28	
31	Israel	\$189,028,355	\$127,355,753	\$68,757,795	-32.63%	85.22%	31	
32	Vietnam	\$169,634,004	\$126,993,298	\$60,778,723	-25.14%	108.94%	32	
33	Sweden	\$94,488,022	\$125,837,140	\$116,540,154	33.18%	7.98%	26	
34	Pakistan	\$87,515,279	\$123,638,893	\$22,743,407	41.28%	443.63%	35	
35	Saudi Arabia	\$171,274,106	\$122,075,749	\$312,095,405	-28.72%	-60.89%	16	
	Other	\$2,414,485,437	\$2,400,981,715	\$2,095,572,783	-0.56%	14.57%		
	TOTAL	\$24,811,143,872	\$27,383,401,908	\$23,118,995,133	10.37%	18.45%		



WISCONSIN EXPORTS BY TOP PRODUCT CATEGORIES

- 1. Wisconsin rose up the ranks from tenth among U.S. states in **industrial machinery** exports to seventh in 2022 after shipping \$7.0 billion in goods (an increase of \$1.3 billion, or 23.5%), a level not seen since 2012. This compares to an increase of 9.6% for the entire U.S., with only No. 10, Oregon, having a greater percentage gain in 2022 (59.3%).
 - Automatic data processing machine exports rebounded in 2022, surpassing transmission shafts, bearings, and gears to become the state's largest subcategory within the industrial machinery category. With growth of \$330.5 million (115.6%) for this subcategory as a whole, the top three destinations included Belgium, up \$62.8 million (420.4%), Singapore, up \$60.0 million (697.6%), and the Czech Republic, up \$33.9 million (164.2%).
 - Transmission shaft, bearing, and gear exports totaled \$596.9 million in 2022, an increase of \$116.4 million, or 24.2%. Canada alone purchased 21.3% of this volume. which amounted to \$26.4 million (26.2%) more than in 2021. Chile was the next largest destination in 2022, with \$74.6 million, followed by Mexico at \$68.5 million.
 - Spark ignition internal combustion engines, the third leading subcategory in 2022, saw exports grow by \$69.1 million (14.3%), with 40.4% of the total volume (\$222.2 million) destined for Belgium.
- Electrical machinery returns to the No. 2 slot for 2022 after dropping to the No. 3 position in 2020. With growth of \$457.7 million (21.5%) boosting total exports to \$2.5 billion, Wisconsin ranks 19th in the U.S. for this category. Only No. 12 and 13 (Georgia and Minnesota) saw higher growth rates (27.2% and 21.9%, respectively).
 - The largest subcategory in 2022, electric generating sets, saw exports of \$336.9 million, incorporating growth of \$119.5 million (54.9%). Canada was the destination for 80.0% of this subcategory, followed by Italy, which increased its purchases by \$9.8 million (122.6%).
 - Exports of electric transformers and converters totaled \$334.4 million after an increase of \$101.6 million (43.6%). Canada increased its purchases by \$62.3 million (97.2%), which accounted for 61.3% of the total growth of this subcategory, followed by Mexico with an increase of \$18.8 million (44.0%).
- 3. Although exports of **medical and scientific instruments** increased by \$265.0 million (12.2%) in 2022, this category slipped one position, with total exports of \$2.4 billion in 2022. The two top subcategories accounted for 52.2% of this product category's total value of goods exported from Wisconsin.
 - X-ray, alpha, gamma, etc. equipment and parts was the top subcategory, with \$652.3 million in exports after growing \$89.9 million (15.9%) vs. 2021. The top destinations in 2022 included China, France, India, and Japan.
 - Medical, surgical, and dental instruments saw the largest increase among the subcategories, with total exports of \$619.0 million after growing \$95.7 million (18.2%). Top destinations included China, Canada, and Ireland.
- 4. Exports of **vehicles and parts** saw negligible growth of \$24.3 million (1.4%) in 2022; however, this product category recouped the No. 4 position last held in 2020. The subcategory of parts and accessories for motor vehicles, which accounts for 37.9% of this product category (\$638.4 million), saw a decrease in exports of \$2.2 million (0.35%).
- 5. Wisconsin's exports of **plastic products** experienced modest growth, up \$155.9 million (10.7%), which allowed this category to reclaim the No. 5 position in 2022, up one position from the prior year. Canada purchased 38.3% of this volume, followed by Mexico at 24.0%. The top five subcategories, including plates, sheets, etc.; plastic containers; articles of plastic; and self-adhesive plates, sheets, etc., accounted for 82.9% of this category's total growth.
- 6. Exports of **pharmaceutical products** from Wisconsin had grown steadily from \$259.6 million in 2012 to \$315.7 million in 2020. In 2021, this product category experienced growth of massive proportions, reaching \$1.9 billion, an increase of \$1.6 billion (514.1%) vs. 2020, elevating this product category to No. 4 at the time. The primary subcategory responsible for this increase was vaccines for human medicine, specifically COVID-19 vaccines. As global demand for vaccines declined sharply after that spike, Wisconsin's exports of vaccines for human medicine declined by \$688.0 million (54.1%) in 2022. The broader pharmaceutical products category declined by \$833.0 million (42.9%).
- Aircraft, spacecraft, and parts is a historically volatile export category. Strong growth in 2022 in the amount of \$455.9 million (95.8%) put total exports at \$931.6 million, elevating its ranking from the No. 10 position just last year. The primary subcategory, civilian aircraft, engines, and parts, accounted for 95.0% of the total, with top destinations including the UK, Germany, China, and Italy.
- 8. **Paper products** exports are mainly concentrated in toilet paper, paperboard, coated paper, and similar products. Canada was the primary destination, receiving 68.3% of the \$909.1 million in total exports in 2022.



TOP PRODUCTS EXPORTED FROM WISCONSIN

2022			% CHANGE		2012		
RANK	CATEGORY	2021	2022	2012	2021- 2022	2012-2022	RANK
1	Industrial Machinery	\$5,711,465,004	\$7,057,542,385	\$7,298,480,320	23.57%	-3.30%	1
2	Electric Machinery	\$2,123,395,666	\$2,581,157,988	\$2,325,780,384	21.56%	10.98%	2
3	Medical and Scientific Instruments	\$2,169,074,701	\$2,434,171,583	\$2,301,582,069	12.22%	5.76%	3
4	Vehicles and Parts	\$1,658,849,095	\$1,683,203,894	\$1,731,650,570	1.47%	-2.80%	4
5	Plastic Products	\$1,447,350,983	\$1,603,349,879	\$879,528,465	10.78%	82.30%	6
6	Pharmaceutical Products	\$1,939,398,244	\$1,106,336,530	\$259,610,167	-42.95%	326.15%	14
7	Aircraft, Spacecraft & Parts	\$475,777,320	\$931,680,345	\$330,177,720	95.82%	182.18%	11
8	Paper Products	\$766,187,112	\$909,167,752	\$905,983,721	18.66%	0.35%	5
9	Articles of Iron or Steel	\$503,872,885	\$630,107,198	\$477,736,528	25.05%	31.89%	7
10	Misc. Chemical Products	\$594,366,097	\$513,750,478	\$252,385,459	-13.56%	103.56%	15
11	Organic Chemicals	\$437,684,380	\$440,140,099	\$167,180,859	0.56%	163.27%	22
12	Misc. Edible Preparations	\$389,335,599	\$438,493,266	\$289,504,547	12.63%	51.46%	12
13	Dairy Products/Eggs/Honey	\$291,778,183	\$406,021,246	\$281,810,843	39.15%	44.08%	13
14	Beverages/Spirits/Vinegar	\$309,212,407	\$385,556,200	\$399,613,351	24.69%	-3.52%	9
15	Starch/Glue/Enzymes	\$348,214,435	\$354,992,077	\$122,990,841	1.95%	188.63%	26
16	Furniture/Bedding/Lamps	\$260,653,506	\$337,621,056	\$332,626,524	29.53%	1.50%	10
17	Prep Vegetables, Fruit, Nuts	\$404,219,161	\$333,158,538	\$199,975,722	-17.58%	66.60%	18
18	Articles of Wood	\$286,047,351	\$279,488,313	\$200,678,297	-2.29%	39.27%	17
19	Printed Matter	\$301,563,028	\$279,252,444	\$419,090,678	-7.40%	-33.37%	8
20	Essential Oils, Perfumes	\$259,559,070	\$267,876,418	\$168,359,308	3.20%	59.11%	21
21	Misc. Base Metal Products	\$207,573,040	\$246,409,320	\$135,510,869	18.71%	81.84%	25
22	Salt/Stone/Cement/Plaster	\$210,606,060	\$237,836,110	\$74,370,666	12.93%	219.80%	33
23	Prepared Cereal/Flour/Starch	\$174,919,257	\$206,164,405	\$220,255,038	17.86%	-6.40%	16
24	Prepared Meat and Seafood	\$236,138,919	\$205,302,777	\$140,299,457	-13.06%	46.33%	24
25	Other Products Of Animal Origin	\$195,876,104	\$196,854,921	\$61,273,380	0.50%	221.27%	35
26	Food Industry Waste/Animal Feed	\$160,958,595	\$192,981,088	\$117,516,270	19.89%	64.22%	28
27	Meat Products	\$163,751,095	\$179,941,444	\$104,500,744	9.89%	72.19%	30
28	Oil Seeds	\$239,650,794	\$179,877,952	\$178,287,878	-24.94%	0.89%	20
29	Tanning and Dyes/Paint/Ink	\$169,618,800	\$176,745,050	\$146,533,449	4.20%	20.62%	23
30	Cereals	\$102,147,655	\$168,335,519	\$184,793,406	64.80%	-8.91%	19
31	Iron/Steel Products	\$100,964,319	\$150,161,560	\$117,510,019	48.73%	27.79%	29
32	Soap/Waxes/Polishes/Candles	\$148,434,174	\$144,702,719	\$122,201,293	-2.51%	18.41%	27
33	Rubber Products	\$142,103,715	\$143,047,316	\$96,091,903	0.66%	48.87%	31
34	Metal Tools/Cutlery	\$102,948,094	\$131,847,441	\$76,229,160	28.07%	72.96%	32
35	Sugars/Confectionary	\$112,363,172	\$131,788,281	\$73,982,125	17.29%	78.14%	34
	Other	\$1,665,085,852	\$1,718,338,316	\$1,924,893,103	3.20%	-10.73%	
	Total	\$24,811,143,872	\$27,383,401,908	\$23,118,995,133	10.37%	18.45%	



"SUPER-CATEGORIES" EXPORTED FROM WISCONSIN

(Super-categories combine multiple two-, four-, and six-digit HS code categories.)

2022 RANK			% CHANGE		2012		
	CATEGORY	2021	2022	2012	2021- 2022	2012- 2022	RANK
1	Water Technology	\$5,013,256,318	\$5,358,812,653	\$4,542,572,188	6.89%	17.97%	2
2	Energy, Power, & Controls	\$4,012,450,093	\$5,019,052,214	\$4,690,697,664	25.09%	7.00%	1
3	Agricultural Products	\$3,943,361,413	\$4,217,534,238	\$3,118,881,697	6.95%	35.23%	3
4	Biotech & Life Sciences	\$4,294,284,410	\$3,408,460,318	\$2,664,125,726	- 20.63%	27.94%	4
5	Aviation/Aerospace	\$571,077,424	\$1,013,965,740	\$383,376,163	77.55%	164.48%	5

Several major sectors of Wisconsin's economy produce goods that fall into related categories as defined by the Harmonized System (HS) of codes used to classify exports. When combined into "super-categories," several of these could rank among Wisconsin's top export categories, after industrial machinery.

- The water technology sector includes a wide variety of equipment used in the filtering, distribution, measuring, and use of water. Top markets for Wisconsin exports within this category match the state's overall export ranking—Canada with \$1.3 billion (24.7% of the total), Mexico with \$1.0 billion (18.8%), Germany with \$300.0 million (5.5%), and China with \$290.9 million (2.1%). Exports of products within this category to Canada and Mexico grew by \$86.9 million (7.0%) and \$131.9 million (14.9%), respectively, while Germany and China decreased their purchases by \$18.1 million (5.7%) and \$16.2 million (5.2%) in 2022.
- The energy, power, and controls super-category grew by the largest dollar value in 2022, increasing \$1.0 billion (25.0%). Outboard engines is the sector's largest product subcategory, posting exports of \$427.5 million in 2022, up \$81.3 million (23.4%). Multi-year growth in ethanol exports puts this subcategory in the No. 2 position with \$302.2 million. Spark ignition internal combustion piston engines is the No. 3 subcategory in the sector, with \$284.5 million in exports. A full 49.9% of this super-category was exported to Canada and Mexico in 2022.
- The agricultural products super-category returned to the No. 3 position in 2022 and includes both bulk commodities and processed foods as well as some specialty products. Miscellaneous edible preparations is the sector's largest subcategory, accounting for 10.3% of the super-category. Dairy products/bird eggs/honey rose to become the second largest subcategory with growth of \$114.2 million (39.1%). Beverages, spirits, and vinegar increased by 24.6% continuing as the No. 3 subcategory. Canada is the dominant market for Wisconsin agricultural products, accounting for 41.0% of the total. China ranked No. 2; however, exports to this market decreased \$53.9 million (12.6%) in 2022. For further information on agricultural trade, visit the Department of Agriculture, Trade and Consumer Protection website.
- The **biotech and life sciences products** super-category includes vaccines, which, as stated previously, saw massive increases in exports from 2020 to 2021. The subsequent decline in vaccine exports in 2022 weighed heavily on this category, which, on the whole, declined by \$885.8 million (20.6%), dropping it to the No. 4 position from No. 2 among the super-categories the year prior. The top destinations in 2022 included Canada, with 19.6% of the total share, followed by China and France, with 11.4% and 5.6%, respectively.
- Aircraft, spacecraft, and parts make up the vast majority of the **aviation/aerospace** super-category. As mentioned previously, that product category grew an impressive 95.8% in 2022. In addition, a number of smaller subcategories of instrumentation, navigation, and communication systems saw significant increases as well, contributing to the 77.5% increase in total exports for this super-category. Top export destinations in 2022 included the United Kingdom, up \$115.0 million (146.0%), Germany, up \$155.5 million (922.5%), and China, up \$54.8 million (81.1%).



WISCONSIN'S EXPORTS COMPARED TO OTHER STATES

- Only eight states saw their exports decline in 2022, with Utah dropping the most with an 8.63% reduction.
- Among Midwestern states, Wisconsin ranked in the middle in terms of growth, with four states having faster growth and three states with slower growth.
- The graphic to the right shows Midwest states with their overall rank among the 50 states as well as their 2022 percentage growth.

WISCONSIN LEADS THE U.S. IN THE EXPORT OF:

- Parts of Milking Machines and Dairy Machinery (HS 843490) 100.0% of the U.S. total
- Machines for Working Wire (HS 846330) 74.3% of the U.S. total
- Mink Fur Skins, Raw, Whole (HS 430110) 74.2% of the U.S. total
- Outboard Engines for Marine Propulsion (HS 840721) 67.4% of the U.S. total
- Machines and Apparatus for Arc Welding of Metals (HS 851539) 66.6% of the U.S. total
- Passenger Motor Vehicles, Diesel Engines, Not Over 1500 Cc (HS 870331) 64.1% of the U.S. total
- Bovine Semen (HS 51110) 60.8% of the U.S. total
- Washing Machines Automatic W Dry Line Cap Not Over 10kg (HS 845011) 60.6% of the U.S. total
- Inboard Engines for Marine Propulsion (HS 840729) 57.1% of the U.S. total
- Generating Set W Spark-Ignition Internal Combustion Engines (HS 850220) 49.3% of the U.S. total
- Tablecloths and Table Napkins of Paper, Paper Pulp Etc. (HS 481830) 48.0% of the U.S. total
- Railway/Tramway Sleepers, of Non-coniferous Wood, Nesoi (HS 440692) 47.9% of the U.S. total
- Sweet Corn, Prepared/Preserved Nesoi, Not Frozen (HS 200580) 45.0% of the U.S. total
- Fire Fighting Vehicles (HS 870530) 42.8% of the U.S. total
- Newspapers Etc. Appearing Less Than 4 Times Per Week (HS 490290) 42.5% of the U.S. total
- Gummed/Adhesive Paper and Paperboard, Nesoi (HS 481149) 41.8% of the U.S. total
- Silica Sands and Quartz Sands, Natural (HS 250510) 38.5% of the U.S. total
- Mowers for Lawns Excluding Powered w/ Horizontal Rotating Cutter (HS 843319) 38.4% of the U.S. total
- Bicycles and Other Cycles (Inc Delivery Tricycle) No Motor (HS 871200) 38.1% of the U.S. total
- Generating Sets, Electric, Diesel, =< 75kva Output (HS 850211) 36.8% of the U.S. total
- Cranberries, Lingonberries, Prepared Preserved Nes (HS 200893) 34.8% of the U.S. total
- Parts of Locks, Base Metal (HS 830160) 34.4% of the U.S. total
- Parts for Machinery for Making or Finishing Paper Or Paperboard (HS 843999) 34.1% of the U.S. total
- Handkerchiefs, Tissues, and Towels of Paper Pulp Etc. (HS 481820) 27.9% of the U.S. total
- Table, Kitchen Etc. Articles and Parts, Stainless Steel (HS 732393) 27.1% of the U.S. total
- Snowplows and Snowblowers (HS 843020) 26.6% of the U.S. total
- Bed Sheets and Similar Household/Hospital Articles of Paper Nesoi (HS 481890) 26.2% of the U.S. total
- Parts of Machines for Make Up Paper Pulp, Paper/Paperboard, Cut (HS 844190) 26.1% of the U.S. total
- Malt, Not Roasted (HS 110710) 24.5% of the U.S. total
- Parts and Accessories of Motorcycles (HS 871410) 21.5% of the U.S. total
- Trade Advertising Material, Commercial Catalog, Etc. (HS 491110) 20.5% of the U.S. total
- Sausage Etc. of Meat, Offal, Blood, Insects; Food Preps (HS 160100) 20.2% of the U.S. total
- Whey and Modified Whey Whet/Not Concentrated or Containing Added Sweetener (HS 40410) 20.1% of the U.S. total
- Mowers For Lawns, Parks, Etc. Cut Horizontal Plane (HS 843311) 19.5% of the U.S. total
- X-Ray Parts (HS 902290) 15.4% of the U.S. total
- Paper, Paperboard, Cellulose Wadding, Etc., Coat Etc. Nesoi (HS 481190) 13.0% of the U.S. total
- Parts of Machines for Sorting Etc. Earth Stone Ores Etc. (HS 847490) 12.6% of the U.S. total
- Plates, Sheets, Etc., Non-Cell Etc., Polymer (HS 392010) 11.4% of the U.S. total
- Machinery for Public Works, Building or the Like (HS 847910) 11.1% of the U.S. total





WISCONSIN IMPORTS

- Wisconsin's total imports increased by \$4.6 billion (12.7%) in 2022 after having jumped by \$9.8 billion (36.7%) in 2021. By comparison, total U.S. imports increased by 17.5% in 2022 and 22.8% in 2021. Wisconsin ranks 20th in the U.S. for total imports by state.
- Goods imported from China—Wisconsin's top supplier, accounting for 17.8% of the total—increased by \$827.9 million (11.1%) in 2022 after increasing \$1.9 billion (35.7%) in 2021.
 - Industrial machinery imports, at \$2.0 billion, constituted a full 24.5% of total imports from China even after a decline of \$49.8 million (2.4%) in 2022.
 - Electrical machinery, the second largest product category imported from China, increased by \$107.2 million (7.6%), while medical and scientific instruments, the third largest product category, decreased by \$2.0 million (0.3%).
 - Imports of pharmaceuticals jumped \$479.1 million (1,764.1%) to become the fourth largest product category.
- Canada ranks as the No. 2 source for Wisconsin imports at \$6.1 billion, an increase of \$596.8 million (10.7%) vs. 2021. Plastic products account for 10.8% of the total, followed by mineral fuel/oil at 9.9%, industrial machinery at 9.2%, and wood products at 8.4%. Iron and steel saw the largest increase in import value, rising \$138.0 million (81.6%).
- Mexico retook the No. 3 position after imports from this USMCA member increased by \$734.7 million (23.2%) in 2022. After an increase of \$222.3 million (29.7%), electrical machinery imports reached \$969.7 million, representing 24.9% of the total volume sourced from Mexico. Imports of vehicles and parts saw the second highest increase, \$183.8 million (50.9%). Ceramic products saw the highest percentage increase (6,744.8%) after imports jumped \$41.5 million.
- Germany reclaimed the No. 4 rank even after imports declined by \$793.5 million (23.0%) due to a massive decrease (\$915.4 million, or 67.3%) in pharmaceutical products imports. Imports of industrial machinery, at \$889.7 million, represents 33.5% of all goods imported from Germany, followed by medical and scientific instruments at 16.7%.
- Industrial machinery, at \$8.1 billion, accounted for 19.8% of Wisconsin's imports in 2022. Hand tools were the largest subcategory at \$1.4 billion, representing 17.4% of the total. Transmission shafts, bearings, and gears is the second largest subcategory, at \$515.1 million (up 4.8%), followed by taps, cocks, and valves at \$481.9 million (up 16.2%). China ranks as the top supplier of industrial machinery imported into Wisconsin, followed by Vietnam, Germany, and Italy.
- Starting in 2015, Wisconsin imported large quantities of pharmaceutical products from Ireland. These imports peaked in 2017 at \$3.3 billion, but only amounted to \$195.2 million in 2020. Starting in 2020, Belgium moved ahead of Ireland, supplying \$2.2 billion that year, up from just \$160 million in 2019, an increase of 1,296.93%. In 2021, this pattern reversed, with Ireland once again supplying about half of these imports (\$2.7 billion), while Germany jumped up to the No. 2 spot with \$1.3 billion, and Belgium dropped to third place with \$427.8 million. In 2022, Ireland maintained its position as the top supplier at \$2.3 billion, followed by Belgium at \$1.5 billion. In total, imports of this product category grew by \$558.8 million (10.7%) in 2022.
- Electrical machinery imports, the third leading product category, grew by \$706.0 million (16.0%) to reach \$5.1 billion in 2022. Subcategories include electrical transmission, static induction/power adapters, etc., batteries, and insulated wire/cable. China ranks as the top supplier of electrical machinery imported into Wisconsin, with 29.5% of the total, followed by Mexico, Vietnam, and Malaysia.



TOP SOURCES OF WISCONSIN IMPORTS

2022			IMPORT VALUE		% CHANGE		2012	
2022 RANK	COUNTRY	2021	2022	2012	2021- 2022	2012- 2022	RANK	
1	China	\$7,434,464,405	\$8,262,399,098	\$5,771,683,210	11.14%	43.15%	1	
2	Canada	\$5,532,030,864	\$6,128,839,770	\$4,189,921,407	10.79%	46.28%	2	
3	Mexico	\$3,157,318,110	\$3,892,032,193	\$3,005,571,540	23.27%	29.49%	3	
4	Germany	\$3,446,250,897	\$2,652,729,899	\$1,332,911,710	-23.03%	99.02%	4	
5	Vietnam	\$1,994,219,046	\$2,543,357,185	\$628,370,319	27.54%	304.75%	8	
6	Ireland	\$2,865,649,103	\$2,540,091,751	\$55,556,766	-11.36%	4472.07%	31	
7	Belgium	\$785,424,803	\$2,061,403,677	\$78,385,246	162.46%	2529.84%	30	
8	Italy	\$1,038,749,028	\$1,350,802,906	\$692,713,717	30.04%	95.00%	6	
9	Taiwan	\$1,335,750,083	\$1,259,241,089	\$499,132,985	-5.73%	152.29%	9	
10	India	\$933,229,646	\$1,239,490,774	\$659,617,781	32.82%	87.91%	7	
11	Japan	\$734,753,482	\$727,787,314	\$824,668,971	-0.95%	-11.75%	5	
12	United Kingdom	\$554,462,812	\$715,731,294	\$265,709,221	29.09%	169.37%	14	
13	Malaysia	\$577,697,054	\$608,377,553	\$226,092,452	5.31%	169.08%	15	
14	Korea, Republic Of	\$643,973,174	\$583,106,133	\$356,961,995	-9.45%	63.35%	12	
15	France	\$521,165,490	\$538,879,251	\$477,883,537	3.40%	12.76%	10	
16	Turkey	\$338,072,632	\$475,671,448	\$127,723,268	40.70%	272.42%	23	
17	Spain	\$372,890,692	\$436,088,814	\$113,263,181	16.95%	285.02%	26	
18	Bangladesh	\$275,797,828	\$420,960,548	\$202,695,972	52.63%	107.68%	16	
19	Thailand	\$258,334,545	\$357,003,124	\$103,562,725	38.19%	244.72%	27	
20	Switzerland	\$289,383,313	\$320,717,418	\$201,294,140	10.83%	59.33%	17	
21	Indonesia	\$203,095,048	\$293,879,188	\$419,283,929	44.70%	-29.91%	11	
22	Netherlands	\$241,174,774	\$279,232,006	\$181,770,414	15.78%	53.62%	19	
23	Cambodia	\$175,892,098	\$257,047,941	\$175,414,145	46.14%	46.54%	20	
24	Philippines	\$236,919,865	\$253,701,825	\$124,974,940	7.08%	103.00%	25	
25	Finland	\$210,457,438	\$242,178,705	\$291,996,101	15.07%	-17.06%	13	
26	Austria	\$251,368,637	\$238,275,167	\$182,379,158	-5.21%	30.65%	18	
27	Denmark	\$201,363,143	\$222,970,633	\$93,810,808	10.73%	137.68%	29	
28	Sweden	\$146,546,210	\$210,344,984	\$98,288,343	43.53%	114.01%	28	
29	Brazil	\$136,429,788	\$161,378,573	\$127,438,607	18.29%	26.63%	24	
30	Dominican Republic	\$64,055,979	\$149,652,483	\$27,178,230	133.63%	450.63%	35	
31	Israel	\$124,347,786	\$149,203,311	\$170,204,036	19.99%	-12.34%	21	
32	Poland	\$144,076,513	\$139,562,999	\$44,361,691	-3.13%	214.60%	33	
33	Czech Republic	\$97,299,762	\$139,475,205	\$52,656,485	43.35%	164.88%	32	
34	Peru	\$76,189,708	\$108,149,359	\$38,906,764	41.95%	177.97%	34	
35	Australia	\$91,399,567	\$106,566,617	\$168,066,810	16.59%	-36.59%	22	
	Other	\$959,574,457	\$1,024,839,247	\$1,187,247,786	6.80%	-13.68%		
	Total	\$36,449,807,780	\$41,091,169,482	\$23,197,698,390	12.73%	77.13%		



TOP PRODUCTS IMPORTED INTO WISCONSIN

2022			IMPORT VALUE		% CI	HANGE	2012
RANK	CATEGORY	2021	2022	2012	2021- 2022	2012- 2022	RANK
1	Industrial Machinery	\$7,766,812,705	\$8,137,296,737	\$3,985,702,541	4.77%	104.16%	1
2	Pharmaceutical Products	\$5,203,047,519	\$5,761,908,588	\$357,641,205	10.74%	1511.09%	16
3	Electric Machinery	\$4,399,532,617	\$5,105,577,775	\$2,836,485,222	16.05%	80.00%	2
4	Medical and Scientific Instruments	\$2,350,054,146	\$2,494,383,852	\$1,551,523,146	6.14%	60.77%	4
5	Vehicles and Parts	\$1,659,788,700	\$2,305,153,111	\$1,266,198,651	38.88%	82.05%	5
6	Plastic Products	\$1,713,322,454	\$1,804,820,333	\$973,047,898	5.34%	85.48%	7
7	Knit or Crochet Apparel	\$1,095,343,826	\$1,305,398,371	\$1,733,315,639	19.18%	-24.69%	3
8	Furniture/Bedding/Lamps	\$1,030,312,125	\$1,081,632,743	\$880,467,697	4.98%	22.85%	8
9	Special Classifications	\$805,824,750	\$982,460,479	\$553,084,190	21.92%	77.63%	10
10	Non-Knit Apparel	\$557,412,533	\$824,144,740	\$1,004,130,005	47.85%	-17.92%	6
11	Iron/Steel Products	\$678,663,206	\$777,499,995	\$429,215,383	14.56%	81.14%	13
12	Paper Products	\$570,267,394	\$730,411,411	\$455,304,328	28.08%	60.42%	12
13	Iron & Steel	\$381,307,182	\$686,267,217	\$301,048,592	79.98%	127.96%	18
14	Mineral Fuel/Oil	\$495,456,005	\$630,404,565	\$158,600,936	27.24%	297.48%	25
15	Wood Products	\$684,853,769	\$613,902,559	\$319,218,804	-10.36%	92.31%	17
16	Toys/Games/Sporting Goods	\$446,714,337	\$574,187,863	\$478,807,353	28.54%	19.92%	11
17	Metal Tools/Cutlery	\$499,162,565	\$515,470,488	\$167,678,882	3.27%	207.42%	24
18	Textiles/Needlecraft Sets	\$450,572,287	\$465,344,420	\$386,231,597	3.28%	20.48%	15
19	Aluminum Products	\$390,395,689	\$461,772,111	\$174,606,427	18.28%	164.46%	23
20	Misc. Base Metal Products	\$414,576,079	\$460,604,491	\$291,475,466	11.10%	58.03%	19
21	Footwear	\$318,274,708	\$432,683,801	\$624,205,765	35.95%	-30.68%	9
22	Wood Pulp	\$334,265,876	\$377,950,769	\$409,396,370	13.07%	-7.68%	14
23	Organic Chemicals	\$317,511,667	\$306,400,719	\$196,653,041	-3.50%	55.81%	22
24	Misc. Chemical Products	\$288,618,625	\$279,101,806	\$266,501,259	-3.30%	4.73%	20
25	Rubber Products	\$359,370,685	\$257,057,302	\$243,157,084	-28.47%	5.72%	21
26	Starch/Glue/Enzymes	\$197,208,213	\$228,762,393	\$105,331,640	16.00%	117.18%	28
27	Misc. Edible Preparations	\$178,336,326	\$224,328,800	\$135,831,190	25.79%	65.15%	27
28	Fertilizers	\$124,270,670	\$181,669,545	\$151,197,121	46.19%	20.15%	26
29	Leather Products	\$117,646,931	\$135,720,093	\$97,058,756	15.36%	39.83%	29
30	Stone/Plaster/Cement Items	\$131,026,748	\$128,206,570	\$85,442,153	-2.15%	50.05%	30
31	Glass Products	\$113,086,520	\$122,343,205	\$80,737,629	8.19%	51.53%	33
32	Edible Vegetables/Roots/Tubers	\$121,247,541	\$119,475,698	\$33,129,650	-1.46%	260.63%	35
33	Beverages/Spirits/Vinegar	\$84,017,084	\$113,732,491	\$66,296,467	35.37%	71.55%	34
34	Copper Products	\$89,052,586	\$109,555,844	\$81,084,891	23.02%	35.11%	31
35	Ceramic Products	\$47,408,459	\$109,523,454	\$80,869,288	131.02%	35.43%	32
	Other	\$2,035,045,253	\$2,246,015,143	\$2,237,022,124	10.37%	0.40%	
	Total	\$36,449,807,780	\$41,091,169,482	\$23,197,698,390	12.73%	77.13%	

DATA SOURCE: The U.S. Census Bureau is the official source for U.S. export and import data, including data by individual state. WEDC subscribes to WISERTrade, an online service from the World Institute for Strategic Economic Research in Leverett, MA, that converts the raw census data into a more user-friendly format, <u>http://www.wisertrade.org/</u>.