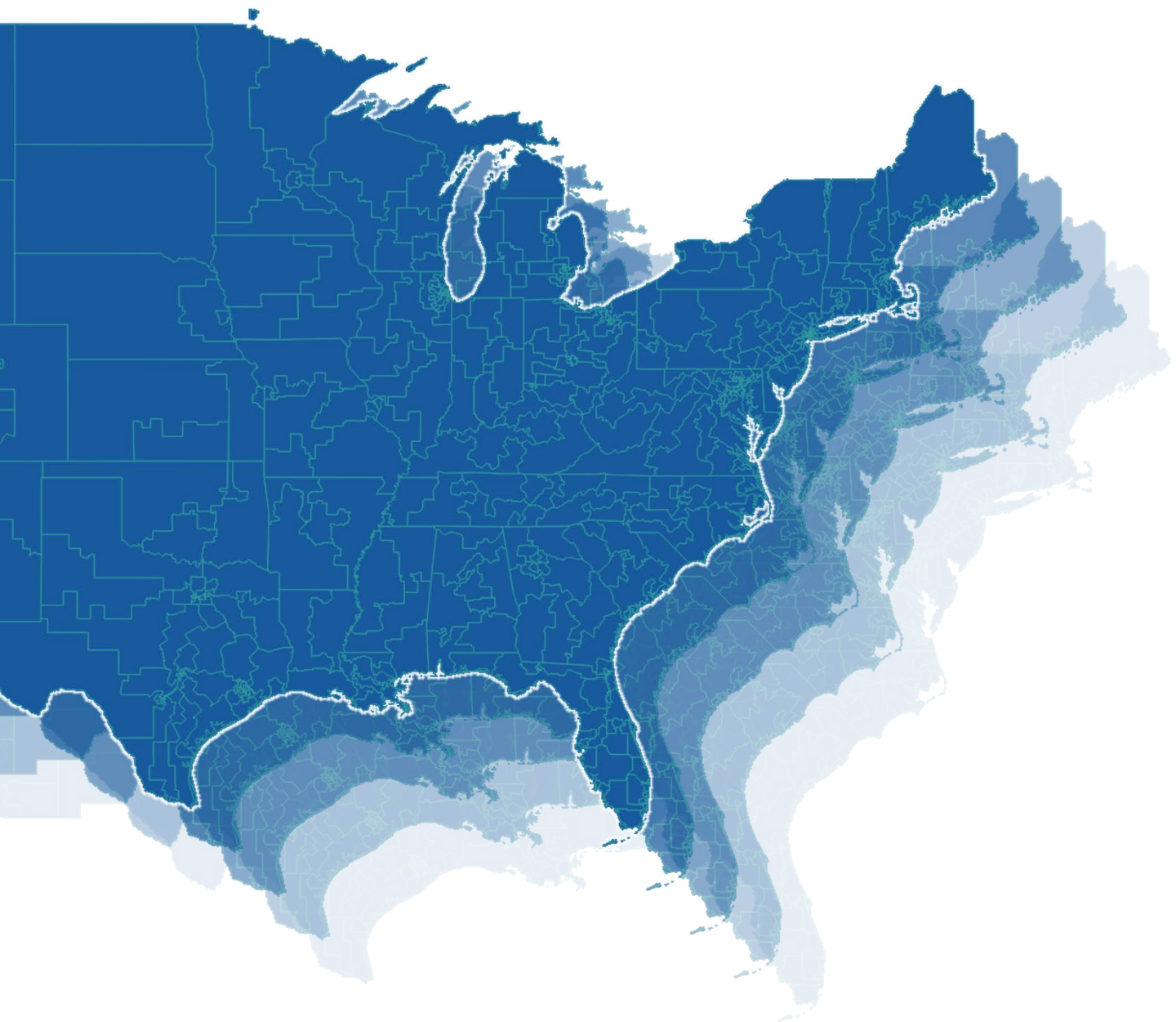


# 2021 District Export Report

US Congressional Districts' Goods and Services Exports to China over the Past Decade | 2021



THE US-CHINA BUSINESS COUNCIL  
美中贸易全国委员会

# 2021 District Export Report

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Exports to China over the Past Decade | 2021

November 2021

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## Executive Summary

Despite heightened tensions between the United States and China and the beginning of a pandemic-induced global recession in 2020, US goods exports to China rebounded after two years of tariff increases on both sides. Early in the year, the United States and China signed the Phase One trade agreement, creating market openings in China. Both sides halted tariff escalations, China instituted a robust system of tariff exclusions to meet its commitments under the agreement, and the United States instituted some of its own.

By comparison, in 2019, steep Chinese retaliatory tariffs caused US goods exports to China to drop sharply by 11.4 percent. That year, services exports—the data for which lag a year behind—also fell, dropping for the first time since 2003. Still, combined exports of goods and services to China supported a significant number of American jobs in 2019.

- **Goods exports to China bounced back in 2020.** US goods exports to China grew by roughly 18 percent, marking a sizable rally from a near-decade low in 2019. A total of 278 out of 435 districts saw growth in goods exports to China, and 72 saw growth of over \$100 million.
- **Chinese tariff exclusions in support of Phase One trade commitments helped fuel the recovery.** China's tariff exclusion process encouraged a more normal flow of goods from the United States despite both countries maintaining heightened tariffs on each other's goods. China established these exclusions to support its Phase One commitments to purchase high volumes of US energy, manufacturing, and agricultural products. With the Phase One purchase commitments expiring at the end of 2021, it is unclear whether China will maintain its tariff exclusions. Absent the full removal of tariffs by both sides, it is unlikely that US exports to China will maintain momentum over the long term.

**\$123** billion

US goods exports to China, 2020

**\$54** billion

US services exports to China, 2019

**\$105** billion

US goods exports to China, 2019

**916,000**

US jobs supported by exports to China, 2019

- **Most US districts exported fewer services to China in 2019 than in 2018.** After years of slowing growth, services exports to China fell by 3 percent across the United States, with only 42 districts seeing an increase. Services exports to China have traditionally been a strong point for US export expansion, registering triple-digit growth over the past decade. The decline in 2019 can be largely attributed to fewer travel exports to China, which encapsulate personal and business travel as well as travel for educational purposes, such as enrolling at US universities.
- **China is the United States' third-largest market for goods exports and fourth largest for services exports.** Despite bilateral tensions, the rebound of goods exports to China has helped the country maintain its ranking as the United States' third-largest market. Regarding US services exports, declines in 2019 caused China to slip from third-largest to fourth-largest services market, falling just short of Ireland.
- **Exports to China benefit a wide array of American industries.** The top US goods exports to China are oilseeds and grains, semiconductors and their componentry, oil and gas, and motor vehicles. Many districts, particularly those that represent large metropolitan areas, college towns, or logistics hubs, also generate substantial economic value from service exports such as travel, education, and shipping.

# Methodology

This year's edition of the US-China Business Council's *District Export Report* draws on data obtained from The Trade Partnership, an economic research firm. The report provides a breakdown of each US congressional district's goods and services exports to China, and the national export totals include the export data for each district.

Goods export figures are primarily based on data from the US Census Bureau, the US Department of Agriculture, and Moody's Analytics. Goods export figures are classified according to the US government's North American Industry Classification System. Services export figures are primarily based on data from the US Bureau of Economic Analysis (BEA) and Moody's Analytics. Services export figures are classified according to BEA categories. This year's edition of the *District Export Report* uses the same sector categories for goods and services as last year's. Goods exports cover 2011–2020; services exports cover 2010–2019, the most recent year for which detailed BEA data are available.

Because historical data from each of these sources are revised annually, this edition of the *District Export Report* replaces all prior editions. As in previous editions, this report uses a methodology that credits agricultural exports to districts in which crops are grown as opposed to districts with large ports where bulk commodities are aggregated prior to export. Average annual growth is calculated with an average annual growth rate formula. A detailed explanation of the methodology informing our estimates of goods exports, services exports, and jobs is available on The Trade Partnership's [website](#).

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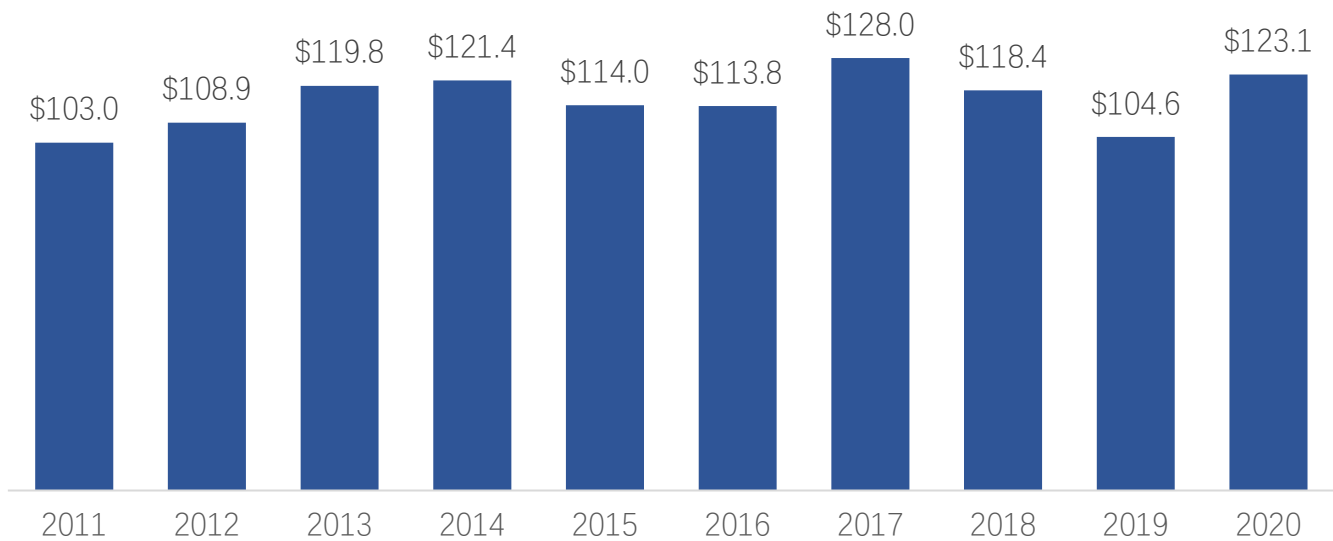
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# Goods

US Goods Exports to China  
(billions USD)



## *Growth in total US goods exports, 2011–2020*

Exports to China: 19.6%

Exports to the rest of the world: -6%

### **US goods exports to China experienced a strong recovery last year**

In 2019, at the height of US-China tariff escalations, the United States exported just under \$105 billion in goods to China. Last year, after China instituted tariff exclusions to meet Phase One purchase commitments, that number jumped to \$123 billion, the second-highest amount in a decade. This was despite the world being in the middle of a pandemic. Oil and gas, oilseeds and grains, and semiconductors and their componentry were all major drivers of growth.



## Growth in US goods exports to China last year significantly outpaced growth in exports to the rest of the world

Exports to China increased by roughly 18 percent in 2020, while exports to the rest of the world fell by 15 percent. This disparity is likely the result of China outpacing the rest of the world in its recovery from the pandemic-induced slowdown.

### Top US Goods Exports to China, 2020

1. Oilseeds & grains	\$17.2 billion
2. Semiconductors & components	\$12.0 billion
3. Oil & gas	\$9.2 billion
4. Motor vehicles	\$6.0 billion
5. Nav. & meas. instruments	\$6.0 billion

## Top US Goods Export Markets, 2020

Market	Total (\$ billion)	Growth (2019–2020)	Avg. Annual Growth (2011–2020)
1. Canada	\$243.6	-14.0%	-1.0%
2. Mexico	\$206.1	-17.1%	+1.2%
<b>3. China</b>	<b>\$123.1</b>	<b>+17.7%</b>	<b>+2.4%</b>
4. Japan	\$62.6	-13.7%	0.0%
5. Germany	\$55.1	-3.3%	+1.8%
6. United Kingdom	\$54.0	-13.4%	+1.0%
7. South Korea	\$50.3	-9.3%	+2.2%
8. Netherlands	\$44.1	-11.3%	+1.1%
9. Brazil	\$34.2	-18.0%	-1.3%
10. Taiwan	\$29.5	-2.5%	+1.9%

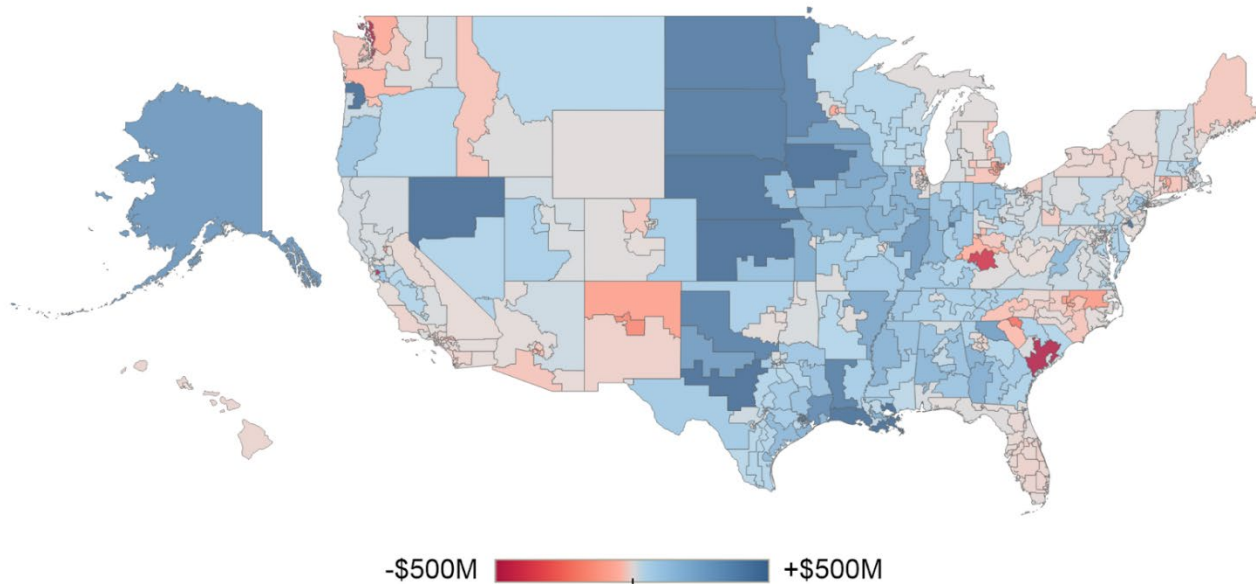
- China remained the United States' third-largest goods export market in 2020.
- The stark contrast between the growth in exports to China and that to the rest of the United States' top trading partners in 2020 can be largely attributed to China's recovering from the pandemic-induced slowdown more quickly than the rest of the world.
- On average, US goods exports to China have been growing by 2.4 percent per year for the last decade, which is faster than the rest of the United States' top goods markets.



## Top US Districts Exporting Goods to China, 2020

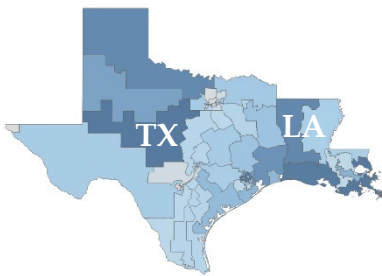
	District	Exports	Growth (2019–2020)	Growth (2011–2020)
1.	Oregon 1st	\$7.5 billion	+36.2%	+377.0%
2.	California 17th	\$2.5 billion	-25.0%	+52.7%
3.	Texas 7th	\$2.0 billion	+130.2%	+367.0%
4.	Texas 11th	\$1.5 billion	+132.9%	+449.0%
5.	South Carolina 4th	\$1.4 billion	-14.7%	+38.1%
6.	Iowa 4th	\$1.3 billion	+85.3%	+34.3%
7.	New Jersey 1st	\$1.2 billion	+260.3%	+457.6%
8.	Alaska	\$1.2 billion	+37.5%	-20.4%
9.	Nevada 2nd	\$1.1 billion	+167.4%	+224.3%
10.	Texas 18th	\$1.1 billion	+84.9%	+68.5%
11.	Minnesota 7th	\$1.0 billion	+66.5%	+31.5%
12.	Nebraska 3rd	\$1.0 billion	+91.5%	+8.7%
13.	Kansas 1st	\$1.0 billion	+157.8%	+87.1%
14.	South Dakota	\$970 million	+86.9%	+68.7%
15.	Texas 36th	\$946 million	+65.8%	+3.9%

## Change in Goods Exports to China (2019–2020)



### Most districts saw healthy growth in goods exports to China in 2020

Of the 278 districts that exported more to China in 2020 than the year prior, two saw exports increase by more than \$1 billion and another 70 saw them increase by more than \$100 million. China was also among the top five markets for the majority of districts. In certain sectors, such as agriculture and fossil fuels, Chinese tariff exclusions in support of Phase One commitments allowed Chinese buyers to resume importing from the United States based on market-driven demand after two years of Chinese retaliatory tariffs. However, districts that rely heavily on exports of aerospace products and parts saw their goods exports to China decrease, in some cases for the second year in a row.

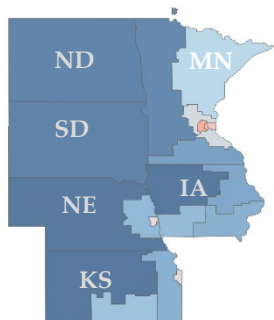
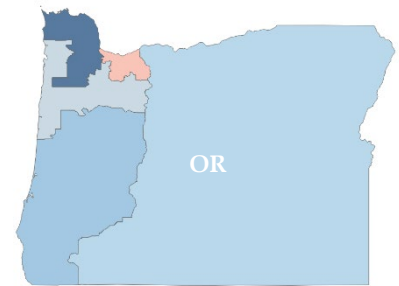


#### Texas and Louisiana districts see rebounds in oil and gas sales

For many of these districts, oil and gas sales to China in 2020 rose dramatically over the year before. In Texas's 7th District, part of Houston, exports to China jumped by more than \$1 billion in the last year of data, driven almost exclusively by oil and gas. Similarly, in the state's 11th District, which is stretched across the vast Permian Basin, an \$845 million jump in goods exports to China was powered by fossil fuel sales. In neighboring Louisiana, the 1st District saw exports of oil and gas to China more than triple, while the 3rd District, which borders Texas, saw its exports of oil and gas double. These sales were driven in part by [significantly higher](#) purchases in 2020 from Chinese state-owned firms aiming to fulfill purchase commitments under the Phase One trade deal.

## Silicon Forest chip exports surge at a moment of geopolitical tension

Semiconductors and their components make up the second-largest category of goods exported to China, and more than half come from Oregon's 1st District. Home to a swath of factories dubbed Silicon Forest, the district saw its exports to China jump by nearly \$2 billion in 2020, driven mostly by booming exports of semiconductors. While these exports support American industry and employment, the surge was likely due to Chinese companies stockpiling chips in response to and in anticipation of restrictive US policies that threaten to cut off their access.



## Soybean, wheat, and corn exports from the heartland bounced back

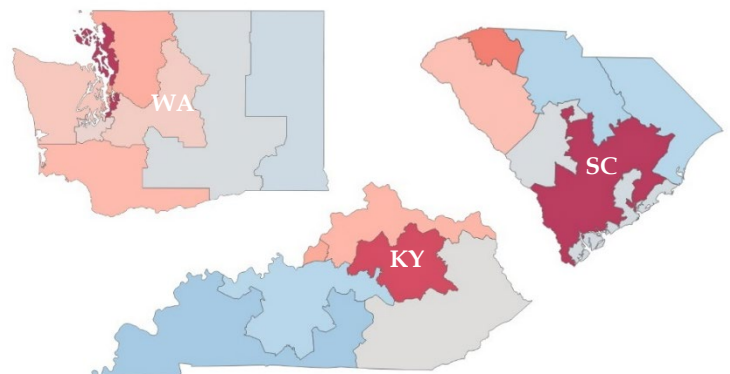
China went on a purchasing spree of US agricultural products in 2020, leading to a record-breaking year in an attempt to satisfy its commitment to purchase a significant amount of US these goods over 2020 and 2021. For example, US exports of soybeans [increased](#) by 77 percent in just one year.

This also came during a spike in demand for these exports, which are used as animal feed, as China's pig herd recovered from African Swine Fever, a disease that has wiped out millions of China's pigs since 2018. While China only [satisfied](#) 82 percent of its target for agricultural purchases in 2020, the significant jump in purchases—made possible by tariff exclusions—boosted the exports of agriculture-oriented states, such as North and South Dakota, Nebraska, Kansas, Minnesota, and Iowa. Nebraska's 3rd District saw its goods exports to China double in 2020. Both Dakotas, whose exports to China are mostly comprised of oilseeds and grains, increased their goods exports by more than \$440 million.

## Airplane exports to China plummeted

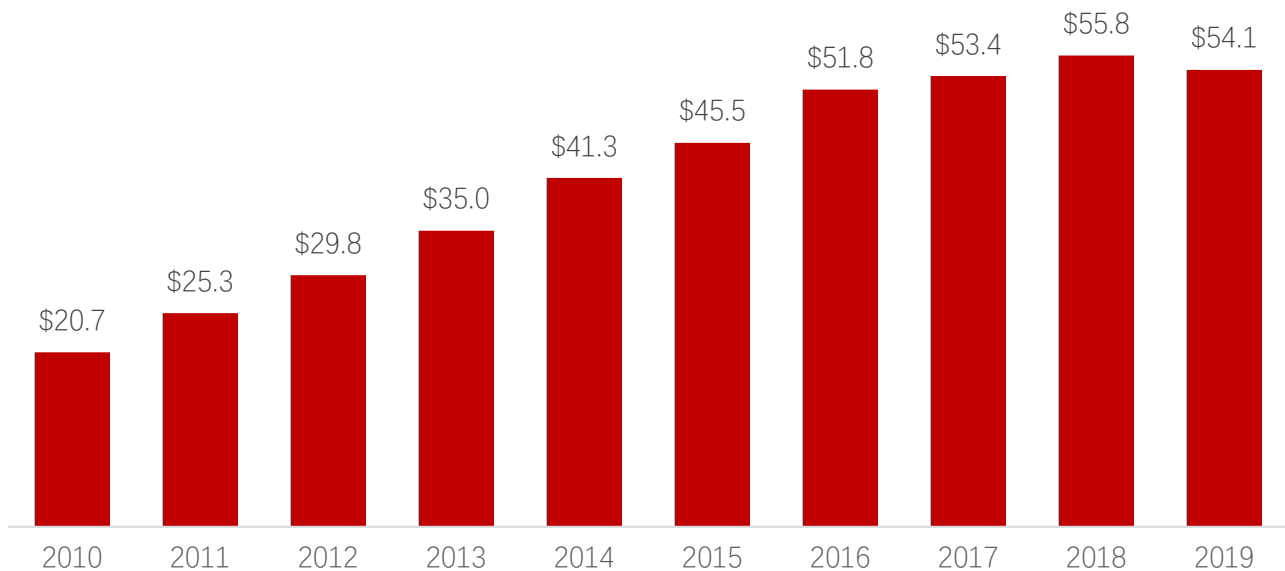
South Carolina, Washington, and Kentucky were some of the outliers when it came to their goods exports to China in 2020. In 2019, aerospace products and parts were South Carolina's 6th District's top export to China; at \$2.4 billion, they dwarfed the district's second-largest export, motor vehicles. In 2020, the district's exports of aerospace products fell dramatically, by more than

99 percent, to \$2.8 million. On the other side of the country, Washington's 2nd District, once a major exporter of aerospace products to China, exported \$1 billion less of goods to China in 2020 than in 2019, and this after having fallen by 73 percent the year prior. The data for Washington's 9th District and Kentucky's 6th District, also aerospace hubs, tell a similar story.



# Services

US Services Exports to China  
(billions USD)



## *Growth in total US services exports, 2010–2019*

Exports to China: 161.9%

Exports to the rest of the world: 46.1%

### **US services exports to China contracted in 2019, the first time in a decade**

Growth in services exports to China has been slowing for several years. In 2019, the most recent full year of data, services exports fell slightly to just over \$54 billion. Contractions in exports of industrial processes and declining numbers of Chinese travelers to the United States for business, pleasure, and education helped fuel the decline. That said, services exports to China have more than doubled over the last decade.

## China was not the only services export market in decline in 2019

Overall, US services exports to the world increased by an anemic 1 percent in 2019, compared to about 5 percent in 2018. Services exports to the United Kingdom and Canada, the top two purchasers of US services, also fell by a margin similar to China's.

### Top US Services Exports to China, 2019

1.	Travel (education)	\$14.0 billion
2.	Travel (other personal)	\$9.4 billion
3.	Industrial processes	\$3.7 billion
4.	Travel (business)	\$3.6 billion
5.	Passenger fares	\$2.3 billion

## Top US Services Export Markets, 2019

	Market	Total (\$ billion)	Growth (2019–2020)	Avg. Annual Growth (2011–2020)
1.	United Kingdom	\$77.8	-2.7%	3.9%
2.	Canada	\$67.1	-1.9%	2.0%
3.	Ireland	\$57.5	+11.7%	9.5%
4.	<b>China</b>	<b>\$54.1</b>	<b>-3.0%</b>	<b>11.6%</b>
5.	Japan	\$49.0	+7.5%	1.5%
6.	Switzerland	\$46.8	+11.9%	8.9%
7.	UK Islands, Caribbean	\$39.8	+3.6%	8.4%
8.	Germany	\$36.3	+1.8%	3.7%
9.	Mexico	\$32.4	-0.6%	3.7%
10.	Brazil	\$24.3	-8.7%	4.0%

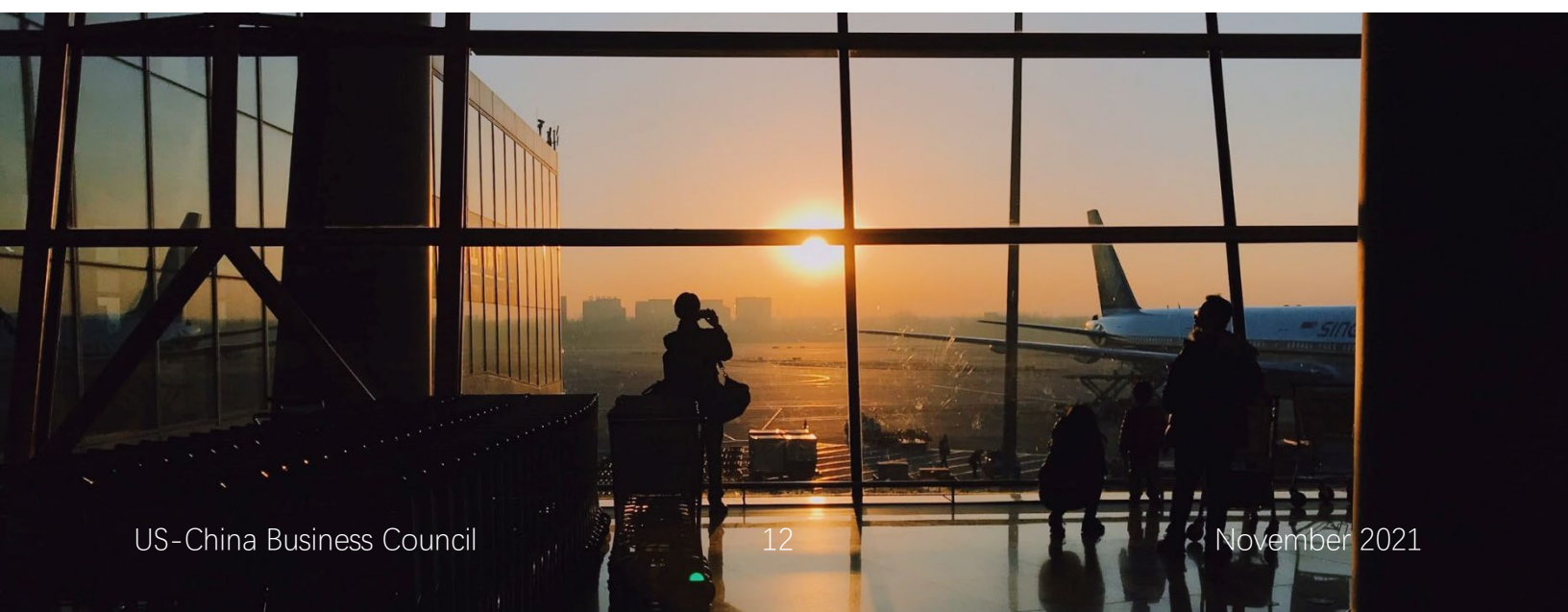
*Note: Full-year services export data are available only through year-end 2019.*

- China fell from the United States' third- to fourth-largest services export market, mostly due to nearly 12 percent growth in exports to Ireland, which took the third spot.
- Of the United States' top 10 services export markets in 2019, China had the highest average annual growth rate over the previous decade: 11.6 percent. By comparison, the top two markets of the United Kingdom and Canada have grown by an average of less than 4 percent since 2011.

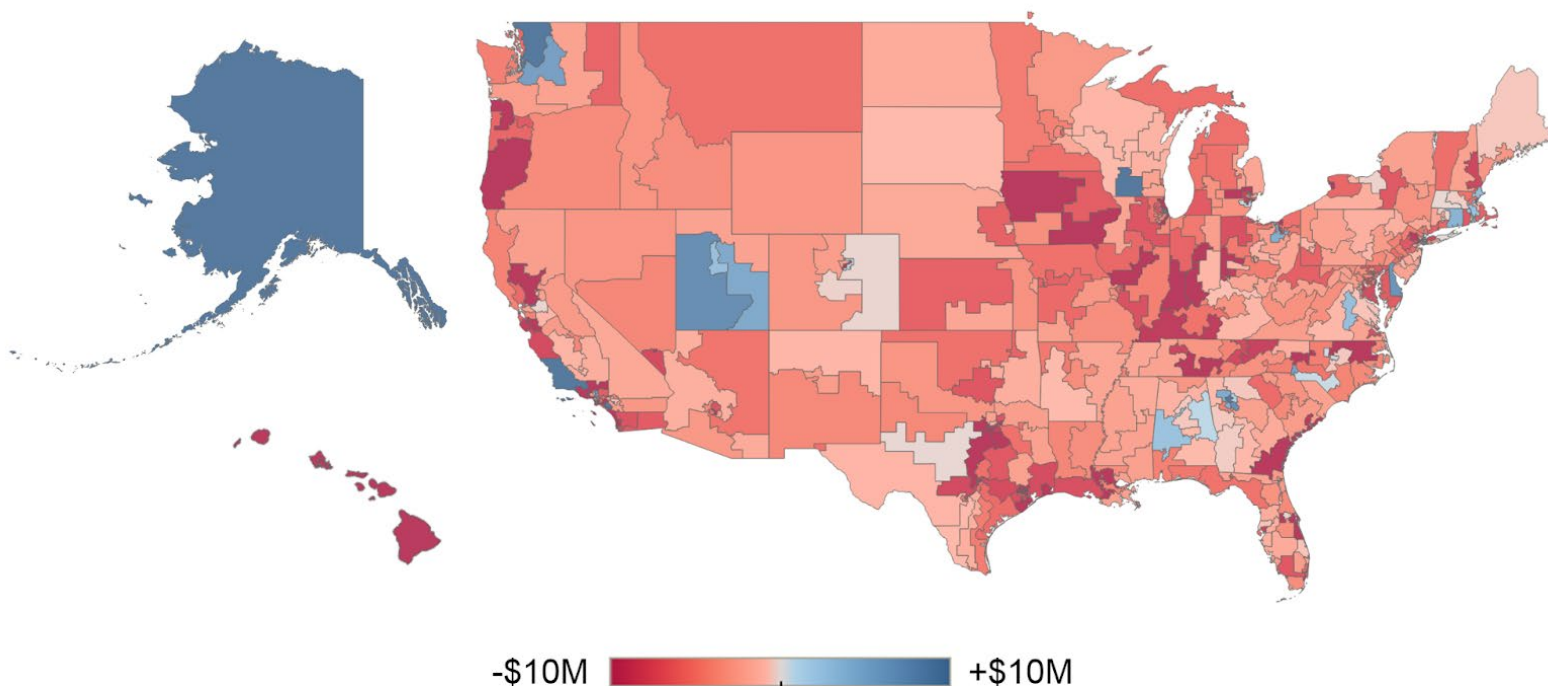


## Top US Districts Exporting Services to China, 2019

	District	Exports	Growth (2018–2019)	Growth (2010–2019)
1.	New York 10th	\$1.4 billion	+2.4%	+280.7%
2.	New York 12th	\$1.4 billion	+2.9%	+149.2%
3.	Massachusetts 7th	\$877 million	+1.8%	+309.6%
4.	Illinois 5th	\$806 million	+9.5%	+206.2%
5.	California 12th	\$649 million	+2.4%	+207.4%
6.	California 33rd	\$616 million	-1.9%	+265.9%
7.	Washington 7th	\$560 million	+4.9%	+122.4%
8.	California 47th	\$547 million	-11.9%	+14.8%
9.	Georgia 5th	\$463 million	+1.0%	+136.5%
10.	California 43rd	\$459 million	+8.6%	+150.3%
11.	District of Columbia	\$455 million	+1.9%	+202.9%
12.	Washington 9th	\$433 million	+11.5%	+105.3%
13.	California 37th	\$422 million	-0.3%	+334.5%
14.	California 18th	\$421 million	-2.2%	+224.8%
15.	California 17th	\$418 million	-3.9%	+231.1%



## Change in Services Exports to China (2018–2019)



### Widespread declines in services exports to China affected most congressional districts

In 2019, following years of slowing growth, US services exports to China fell for the first time in a decade. At the district level, the decreases were widespread; 85 percent of all congressional districts' services exports to China decreased by \$1 million or more. Further, only 42 out of 435 congressional districts exported more services to China in 2019 than in the year prior. Those increases were concentrated in just a few, if any, districts per state and tended to reflect strong exports of shipping services or sizable education exports in the form of university tuition paid by Chinese students.

US travel exports to China—historically the United States' largest services export to China—fell by 10 percent in 2019, suggesting that Chinese citizens, including tourists, students, and business travelers, are either coming to the United States in smaller numbers or are spending less while they are in the country. The decline in travelers could have been the result of the trade war and other bilateral tensions, which might have made the United States an undesirable destination in the eyes of Chinese travelers.



## **Districts with Asia-Pacific shipping hubs saw strong services exports in 2019**

In stark contrast to most of the country, Alaska's At-Large District and Washington's 9th District—homes to the ports of Anchorage and Tacoma, respectively—posted major increases in shipping and ocean and air freight services exports to China. Alaska, which saw a boost of \$20 million in services exports, exported \$198 million in air freight and shipping services in 2019. Washington's 9th District exported a sizable \$81 million in combined shipping and ocean and air freight the same year, though those services were buoyed by its top services export: software distribution royalties. California's 44th and 47th districts, home to the ports of Los Angeles and Long Beach, respectively, still managed to export hundreds of millions in ocean freight and port services to China in 2019, though both saw a decrease from 2018.

Illinois's 5th District, which includes part of Chicago, had the largest overall increase in services exports of all districts in 2019: \$70 million. That year, its combined exports of air freight, miscellaneous freight, and other port services to China increased by an impressive \$169 million.

## **Universities kept certain districts' services exports to China afloat**

Despite the decrease in national exports to China, the United States' educational exports to China reached \$14 billion in 2019, up \$500 million from the year prior. Several of the congressional districts that registered an increase in services exports to China did so through exports of education services via the university tuition payments of Chinese students. For example, in Wisconsin, every district exported fewer services to China in 2019 except for the state's 2nd District, home to the University of Wisconsin-Madison. The 2nd District's exports to China increased by \$17 million in 2019, and education services, at \$110 million, were its top services export to China. Other districts around the nation that increased their services exports to China and maintained strong education exports were Utah's 2nd and 3rd districts, California's 24th District, and Georgia's 4th District.

However, not all education centers were as fortunate. In Tennessee's 4th District, education exports to China—the top export—fell by \$12 million, roughly 50 percent, and its overall services exports to China fell by one quarter.



# Exports and US Jobs

In several districts, exports to China significantly contribute to the livelihoods of thousands of Americans across an array of industries. Estimates of jobs supported by exports to China take both goods and services into account; with services data lagging a year behind goods data, the most recent job estimates are from 2019. That year, US goods exports to China fell for the second year in a row as the United States and China leveled steep tariffs against each other and services exports plateaued. As a result, the number of jobs supported by exports to China fell to 916,000, down from 1.1 million in 2017.

## **The impact of US exports to China on US employment in 2019 varied across districts**

A hundred districts saw jobs supported by exports to China increase, while the other 335 saw them decline. Thirteen districts saw jobs supported by exports to China fall by more than 1,000, and one—Washington’s 2nd District—saw a decline of more than 20,000. However, 15 districts saw more than 1,000 new jobs added.

Job losses tended to be tied to fluctuations in specific industry sectors. Take Texas, for example, where in 2019, goods exports—predominantly driven by oil and gas sales—fell from over \$16 billion to just under \$11 billion. Tariffs on US petroleum products and their impacts on energy prices helped depress the state’s exports to China and the jobs that they supported. In the 7th District, outside Houston, the number of exports-supported jobs fell from 5,600 to 3,300, and in the 11th District, jobs supported by those exports were nearly 1,700 fewer in 2019 than the year before.

In Washington, the situation turned even more grim in 2019. While Washington’s exports of motor vehicles and software royalties to China had a strong year, it was not enough to make up for an \$8.7 billion decline in the export of aerospace products and parts to China, which fell by roughly 76 percent from the previous year. Nationwide, the three districts that saw the greatest contraction in jobs supported by exports to China were all in Washington, with the state’s 2nd District taking a particularly hard hit. In 2019, the area north of Seattle saw the number of supported jobs go from more than 29,000, the highest in the United States, to less than 8,000.

## Agricultural and high-tech exports offer a silver lining

An increase in exports of oilseeds and grains in 2019 helped boost jobs supported by exports to China in the US heartland, where agricultural exports are key pillars of the economy. Illinois, Iowa, Minnesota, Nebraska, and the Dakotas saw exports of oilseeds and grains more than double in 2019 as China made goodwill purchases during trade negotiations. In 2019, districts in those states saw the number of jobs supported by exports to China rise—Iowa's 4th District saw its number roughly double to over 6,000, South Dakota saw an additional 2,500, and North Dakota added 2,200. Further west, Oregon continued its rapid growth of exports in semiconductors and parts, helping Oregon's 1st District's exports support over 24,500 jobs, roughly 9,000 more than in 2018.

### Change in Jobs Supported by Exports to China (2018–2019)

