Reshoring Initiative®
2022 Data Report

IRA and Chips Act Boost Reshoring to Another All-Time High, Up 53%

EV Battery and Semiconductor investments account for the largest increases in job announcements.

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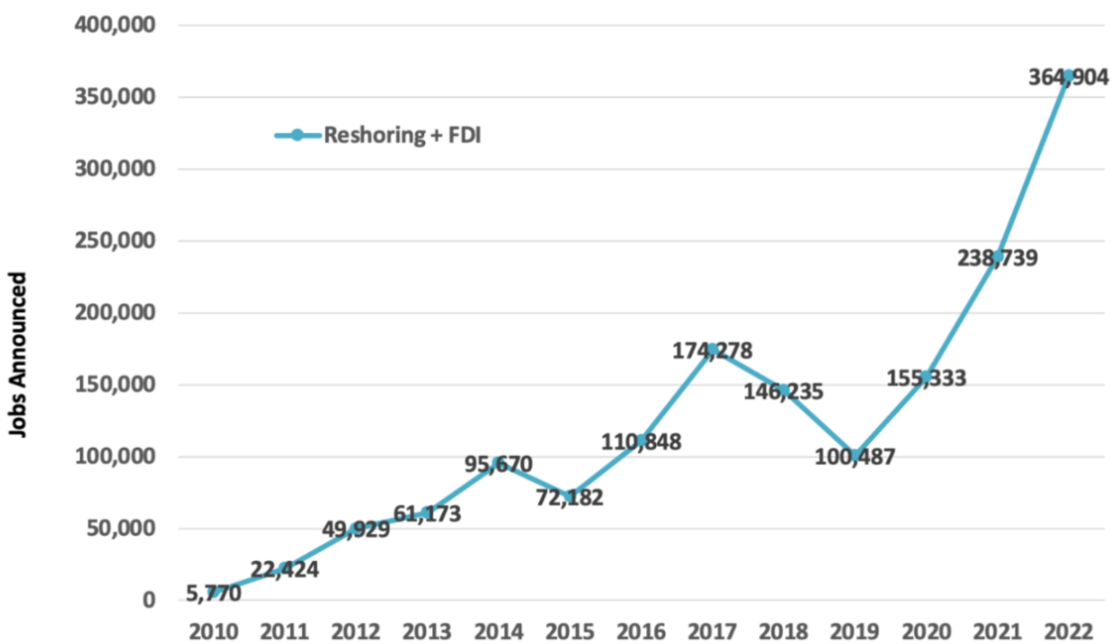
Executive Summary

2022 reshoring + FDI manufacturing job announcements were at the highest rate ever recorded, with a total of 360,000+ jobs, a 53% increase from the 2021 record. A huge surge in EV batteries and chips combined with a continued trend in a broad range of industries enabled the new record.

Manufacturing Job Announcements per Year, Reshoring + FDI, 2010 thru 2022



Source: Reshoring Initiative Library data

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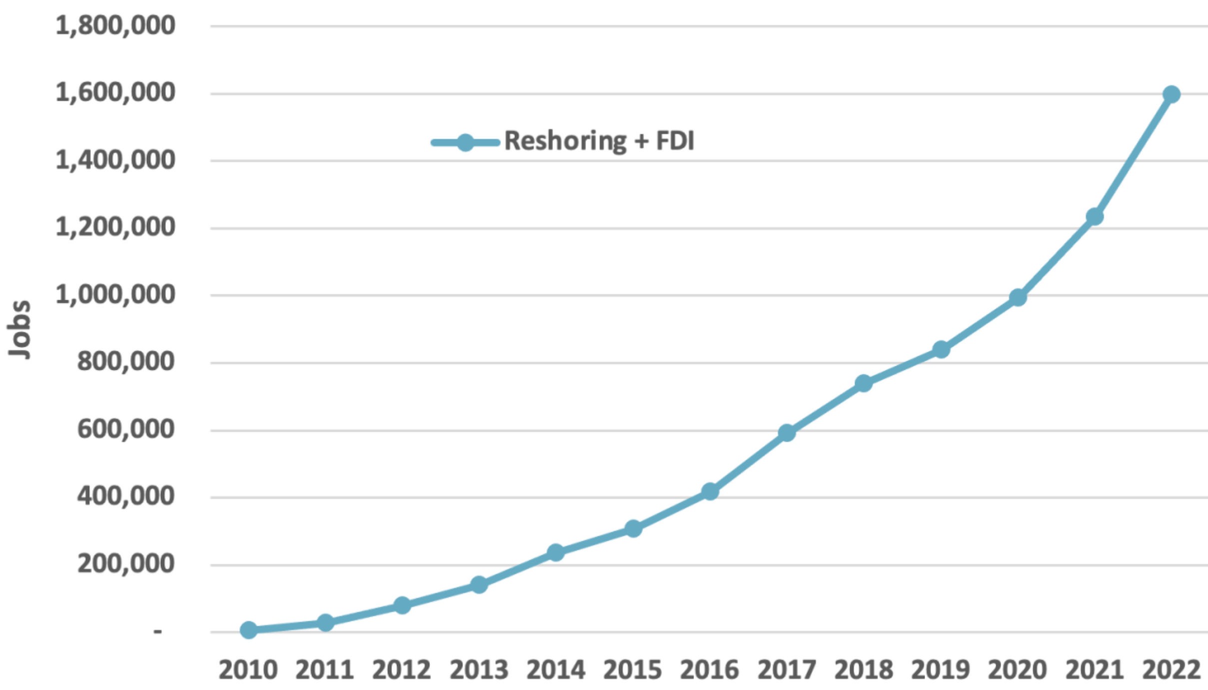
This Report contains data[1] and analysis on trends in U.S. reshoring announcements by U.S. headquartered companies and FDI by foreign companies that are shifting production or sourcing from offshore to the U.S.

[1] Unless otherwise noted, the data for all charts comes from the Reshoring Initiative's Reshoring Library of over 9,000 published articles, privately submitted Reshoring Case Studies, and some other privately documented cases. Reshoring and FDI are both motivated by the same logic: the financial advantages the company achieves by producing near the customer.
Cases must refer to a specific company, product and location to be included. Job numbers are assigned to the year in which the numbers are first announced and can include current hiring, recent prior years 'hiring and future hiring. We estimate that actual hiring lags, on average, 12 to 24 months behind the announcements, i.e. occurs one to two calendar years later.
We include work brought to an OEM's assembly plant and work newly outsourced to the domestic supply chain. The supply chain often receives more jobs than the assembly plant.
Job and company numbers are first tabulated and then adjusted for under-reporting, especially in the domestic supply chain. More information on our calculation process is available on request. Total job and company count varies from chart to chart since we do not have data for all chart topics from all cases.

1. 2022 Manufacturing Job Announcements

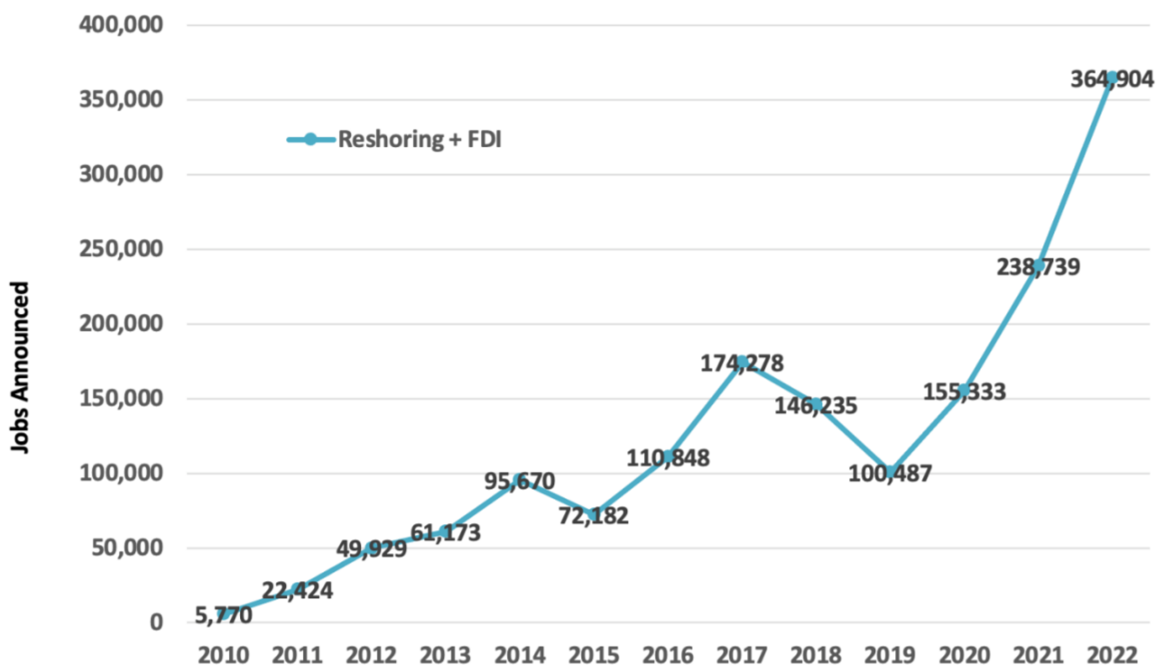
Exhibit 1a | **Cumulative Job Announcements, Reshoring + FDI, 2010 thru 2022**



Source: Reshoring Initiative Library data

Jobs announced in 2022 were a record-breaking **364,000 -** up from 238,000 in 2021. The total number of **jobs announced since 2010 is now nearly 1.6 million.** New investments in U.S. manufacturing by domestic and foreign companies surged after President Biden's Inflation Reduction Act and Chips and Science Act were passed.

Exhibit 1b | **Job Announcements per Year, Reshoring + FDI, 2010 thru 2022**



Source: Reshoring Initiative Library data

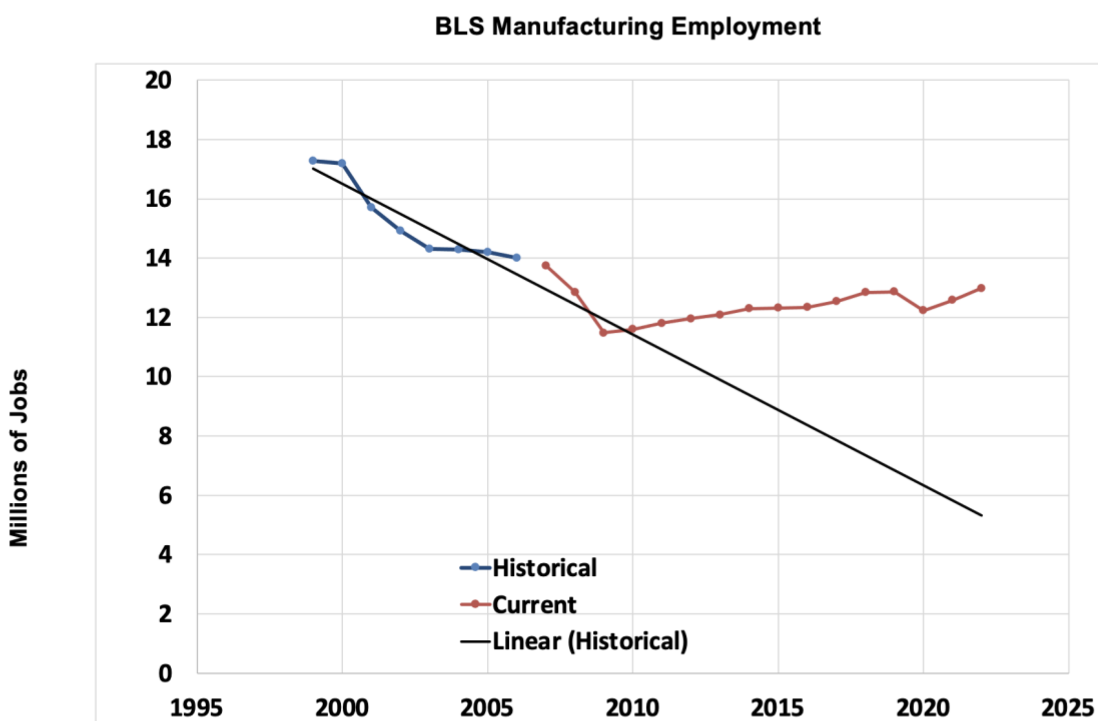
Reshoring plus FDI have followed a strong upward trend for 13 years. The underlying trend is driven by the recognition that, in many cases, the total cost of offshoring exceeds that of sourcing domestically. There have been peaks and valleys in the trend. 2017 was driven by the 2017 tax and regulatory cuts. 2018 and 2019 declined due to the trade war. The trend resurged from 2020 to 2022 driven by companies recognizing their vulnerability to supply chain disruptions and, most recently, to geopolitical events. U.S. investments in chips and EV batteries accounted for 53% of 2022 job announcements.

The U.S. cannot offer $ hundreds of billions of new incentives every year. Removing the chips and EV batteries from 2021 and 2022 results show the underlying trend to be continuing at the recent historically high rate, (≈178,000/year). While the rise in the trend is boosted by the temporary artificial support of federal policy, we expect the stimulus to result in further EV battery investments and FDI of EV assembly plants. The increased chip investments will also motivate more companies to assemble electronic products here. Growing geopolitical uncertainty is driving companies to reshore additional product categories. Increased nearshoring of work from Asia to Mexico will require about 40% U.S. value added. Therefore, we expect 2023 and 2024 to remain strong, continuing at approximately 350,000 job announcements per year.

If the current trajectory continues, the U.S. will reduce the trade deficit, add jobs, and become safer, more self-reliant and resilient. But to be sustainable, the trajectory will require a much broader industrial policy including more aggressive skilled workforce recruitment/training and a lower USD to replace momentum from unsustainable government subsidies.

The trend in U.S. manufacturing employment, Exhibit 1c, is the best evidence that a combination of less offshoring and more reshoring and FDI is working. The chart shows a regression line based on 1997, before China joined the WTO, to 2006, before the Great Recession. If the trend had continued, U.S. manufacturing employment would be seven million jobs lower than the actual level today. Most notably, in past recessions manufacturing employment dropped below the trend line. In the 2020 recession, the surplus above the trend line held approximately constant and increased in 2022.

Exhibit 1c | **Manufacturing Employment in Millions, Actual vs 1997 to 2006 Trend**



Source: BLS end-of-year data, Reshoring Initiative calculation

Reshoring vs. FDI

For the third year in a row, reshoring is outpacing foreign direct investment (FDI). There are many cases of joint ventures between domestic and foreign companies, e.g., GM (domestic) partnering with the LG battery plant (South Korea). In such cases, jobs are allocated to the contract manufacturer when listed and otherwise distributed 50/50 between OEM/contract manufacturer or reshoring/FDI.

The high rate of reshoring vs. FDI is in part due to the peaking of globalization and in part to U.S. incentives for reshoring. The high rate indicates that U.S. headquartered companies are understanding the benefits of localized production that many foreign companies have understood for decades.

Exhibit 1d | **Reshoring vs. FDI, % of Jobs, 2022**

	Jobs announced	**% of total**
Reshoring	210,495	58%
FDI	154,409	42%
Reshoring + FDI	364,904	100%

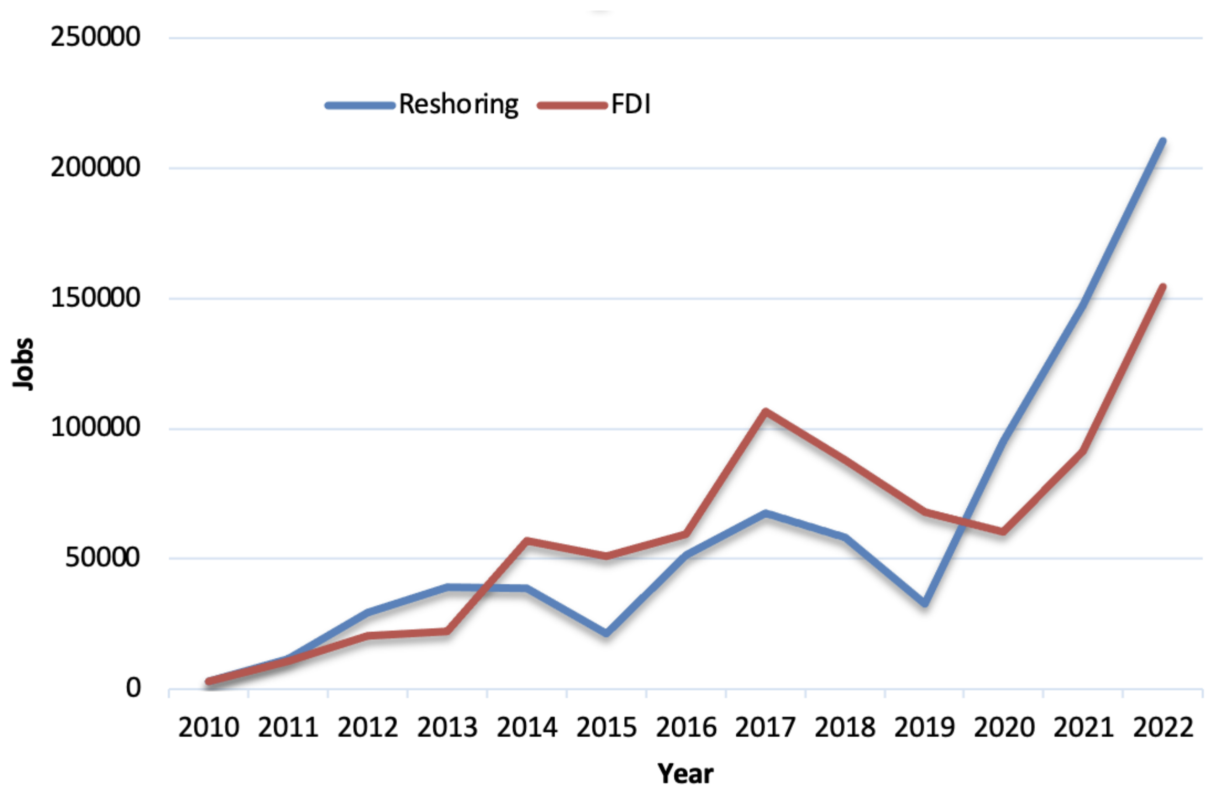
Source: Reshoring Initiative Library data

Globalization can be understood in two major forms: single source, where production is in one location, and supplies the world. For the last 20 years, that single source was mostly China. The second form is localization: to produce in each country or region for that market, transferring more designs and processes between countries and fewer products. Due to the shift towards localization, accelerated by geopolitical tensions, single source global trade has peaked or will peak soon. Localization is driving large cases of FDI in the U.S., primarily for because of three drivers: first, the U.S. remains the biggest market in the world with a healthy economy and stable business climate relative to other countries. Second, the incentives associated with the infrastructure and IRA bills will apply only to products that fit the bills' Made in North America provisions. Third, the risks associated with geopolitical tensions are minimized with U.S. production.

Nearly 1.6 million reshoring and FDI manufacturing jobs have been announced from 2010 thru 2022.

Allowing for a conservative two-year lag from announcement until hiring, we estimate that one million have been hired, equaling 70% of the 1.43 million increase in U.S. manufacturing jobs since the manufacturing employment low of 11.45 million in February 2010 and 8% of total 12/31/22 manufacturing employment of 12.98 million.

Exhibit 1e | **Job Announcements/Year, Reshoring vs. FDI, 2010 thru 2022**



Source: Reshoring Initiative Library data

Reshoring is exceeding FDI in job creation for the third year in a row.

2. Top Industries, and the Products Driving Them

Historically, the most active reshoring is by those industries that left because of companies not doing the math correctly, including machinery, transportation equipment and appliances. More recently, activity has shifted to include essential products which now dominate reshoring and the manufacturing economy. The U.S. government, somewhat belatedly, recognizes these products as too essential to rely so heavily on imports. These include electric vehicle batteries, semiconductors, PPE, pharmaceuticals, and rare earths.

In 2022 Electrical Equipment remained the top industry. Computers and Electronics moved to 2nd, bumping Transportation to 4th place. Chemicals moved up to 3rd place.

Electric vehicle batteries were the most active product to be reshored/FDI'd in 2022. Since they were categorized with the NAICS code of Electrical Equipment, that category has taken the number one ranking from Transportation Equipment, even though it still applies to the transportation industry. Transportation Equipment (mainly cars) was previously driven by FDI and has slowed with FDI since the pandemic and chip shortages. Investments in batteries are booming, in the attempt to obtain needed supply and not be dependent on Asian, especially Chinese, imports. Electrical Equipment's share of jobs announced went from 3% in 2019 to 44% in 2022. In 2022 there were 146 battery-related cases that account for 105,000 jobs announced, including the supply chain.

The second largest industry was Computer and Electronic Products. It continues to grow, pushed in recent years by solar panels, robotics, drones, and most recently, semiconductors. Semiconductors are going to require much larger domestic markets in order to succeed over the long run. In the short term, we expect chip investment and jobs to continue to grow. In 2022 there have been 61 cases of semiconductor/chips, with 28,800 jobs announced - most late in the 3rd and 4th quarters, following the announcement of the Chips Act.

In third place is Chemicals, driven by pharmaceuticals, specifically vaccines and COVID-19 treatments, renewable fuels like Hydrogen, and rare-earth-based chemicals required for batteries.

High prices and shortages of natural gas in Europe and other regions are driving petrochemical refining to the U.S. This trend will likely strengthen plastic processors such as injection molders.

Exhibit 2a | **Reshoring + FDI by Industry, 2022 vs. 2019**

2022					2019
Rank	**Industry**	**Jobs**	**Companies**	**% of jobs**	**% of jobs**
1	Electrical Equipment, Appliances & Components	151,905	381	42%	4%
2	Computer & Electronic Products	93,445	375	26%	13%
3	Chemicals	28,350	303	8%	11%
4	Transportation Equipment	25,938	146	7%	34%
5	Medical Equipment & Supplies	14,468	105	4%	4%
6	Apparel & Textiles	10,674	138	3%	6%
7	Primary Metal Products	9,569	49	3%	3%
8	Machinery	5,971	88	2%	3%
9	Food & Beverage	4,408	44	1%	2%
10	Miscellaneous, Including Hobbies	3,863	25	1%	1%
11	Castings/Foundries - Subset of Primary Metal Products	3,450	20	1%	1%
12	Fabricated Metal Products	2,984	33	1%	5%
13	Plastic & Rubber Products	2,913	36	1%	3%
14	Wood & Paper Products	2,815	21	1%	4%
15	Nonmetallic Mineral Products	2,276	26	1%	1%
16	Furniture and Related Products	1,880	30	1%	3%

Exhibit 2b | **2022 Percent of Total Jobs by Industry**

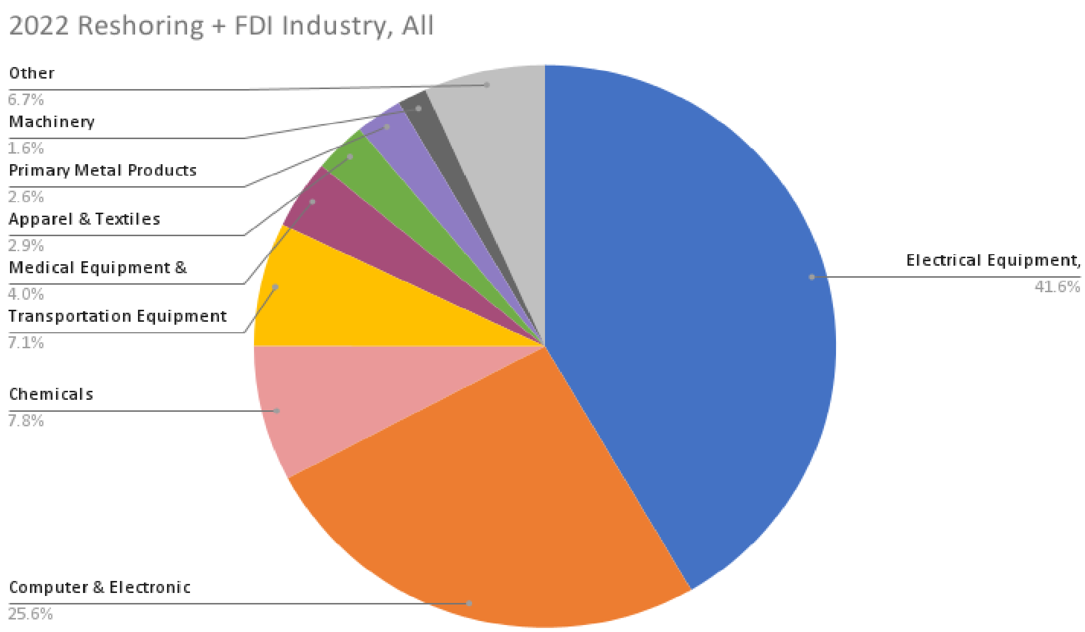
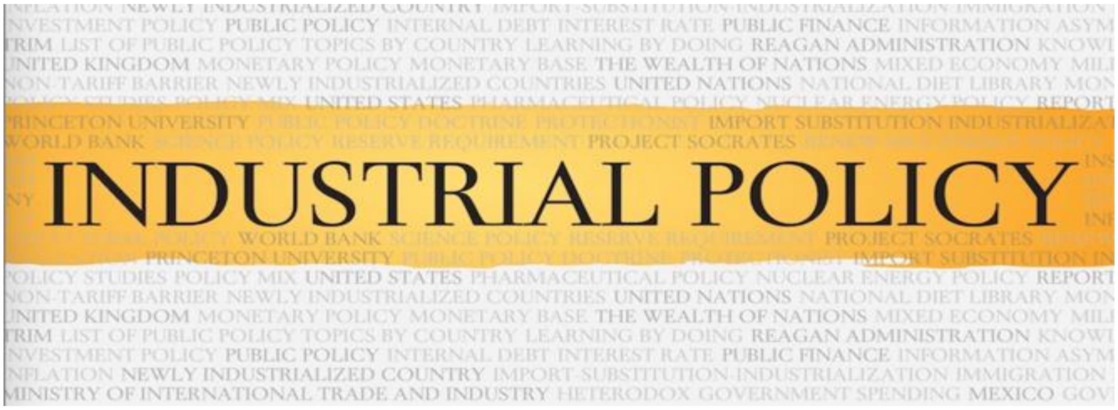


Exhibit 2c| **Essential Products Driving the Top Industries, Reshoring + FDI, 2022**

Industry	**Essential Products Included**	**% of total Jobs**	**% of total Companies**
Electrical Equipment, Appliances & Components	EV Batteries Charging Stations	42%	21%
Computer & Electronic Products	Semiconductor Chips Solar panels Robotics	26%	21%
Chemicals	Pharmaceuticals Hydrogen Fuel Chemicals for Batteries	8%	17%
Transportation Equipment	Drones for FDI only: EV's, Aerospace	7%	8%
Medical Equipment & Supplies	PPE, Gowns, Masks Medical Devices, Ventilators	4%	6%

Source: Reshoring Initiative Library data



3. Factors Cited for Reshoring + FDI

Government Incentives, Supply Chain Interruption Risk, and Skilled Workforce were the top reported factors in 2022, accurately reflecting the underlying forces behind the trend. Federal subsidies, part of Government Incentives, were a new and powerful factor. Exhibit 2b above shows the products most affected by the policies that are outlined in Exhibit 3a.

Exhibit 3a | **Federal Policies Driving Reshoring**

Inflation Reduction Act of 2022
The Inflation Reduction Act (IRA) will have the largest impact on reshoring and FDI, primarily on EVs and EV batteries both of which were previously heavily import dependent, especially batteries from China. $11,500 in total tax credits per eligible vehicle is about 30% of manufacturing cost, making N. American sourcing the only viable solution for U.S. sales.

Bipartisan Infrastructure Bill

Much of the $550 billion in the Bill is probably needed. However, we believe that investing in our industrial infrastructure, factories, machines, robots, etc. would have a larger impact on U.S. cost competitiveness and thus on reshoring and the economy. U.S. goods' transportation cost is much lower than their manufacturing cost so the impact is smaller. Efficient transportation of imported goods also helps reduce the total cost of imports, making the U.S. less competitive.

CHIPS Act

In the short-term it is necessary to select and subsidize specific critical industries such as chips. In the longer run the subsidized industries will fail if their manufacturing costs are not competitive and they do not find a growing domestic market. Already, many chip categories are in excess supply. In a few years there will be a much greater oversupply of chips since so many chip production facilities have been announced worldwide. The U.S. is at risk of going from being dependent on China and Taiwan for chips to being dependent on China to buy our overpriced chips to assemble into infotainment systems, medical devices and servers to ship to us. The solution is to level the broad industrial playing field, to have a tide that lifts all, or most, U.S. industries, as outlined in the Conclusion.

The Federal Acquisition Regulation (FAR) Buy American Act

Changes the domestic content threshold to 60 percent immediately, then to 65 percent for items delivered starting in calendar year 2024, and then to 75 percent for items delivered starting in calendar year 2029.

Uyghur Forced Labor Prevention Act

Previous law required companies to take reasonable care to avoid products produced with forced labor. This Act requires companies to prove that products from Xinjiang province were not produced with forced labor.

Government Incentives have always topped the list for reasons mentioned by reshoring companies, so it comes as no surprise that the $ billions of expenditures in the Inflation Reduction Act would boost new investments. Historically, incentives have primarily come from cities and states and are enough to influence the U.S. factory site selected but not enough to overcome cost differences vs. low labor cost countries. These federal grants are enough to overcome those differences, at least in the short term. The products and industries that have been most affected are highlighted in Exhibit 2c.

While recent larger government incentives certainly make an impact, high citing of this factor is due to the reality that companies must mention local and state government incentives to acknowledge the funds. They also almost always mention the great workforce they were able to hire. We believe that factors further down the list, such as Supply Chain Interruption, Proximity to Customers and Lead Time, carry heavier weight in companies' bottom line and their decision to reshore.

Filling supply chain gaps and thus achieving greater self-sufficiency are the driving forces behind President Biden's bills. The bills are not an industrial policy, but rather isolated industrial actions, though they are as close as we have come to one for a long time. Destabilizing geopolitical and climate forces have brought to light our vulnerabilities and the need to address them. The possibility of China decoupling, including due to a Taiwan-China conflict, is focusing those concerns.

Breakout factors (those that saw the largest increase in citing) include Manufacturing/Engineering Joint Innovation (R&D) and Automation. These factors reflect necessary aspects of competitiveness: greater automation is required to overcome workforce shortages and offset higher U.S. labor costs; more manufacturing near R&D will increase the efficiency of both departments and help the U.S. not lose more IP to China.

Green Considerations also saw a large increase. Environmental and sustainability issues have been and will continue to be an influencing factor in reshoring because local sourcing is almost always a cleaner and more sustainable option.

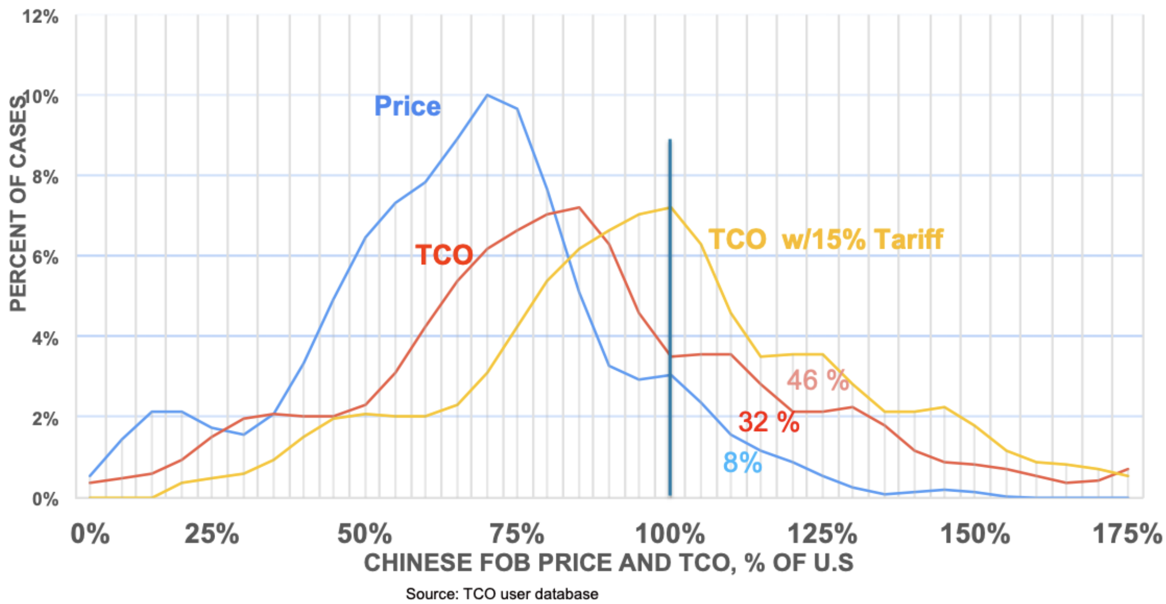
Exhibit 3b |	**Top Factors, 2022 only**	
Rank	**Factor**	**Citing**
1	Government Incentives	348
2	Skilled Workforce Availability/Training	234
3	Supply Chain Interruption Risk/Natural Disaster Risk/Political Instability	218
4	Proximity to Customers/Market	198
5	Eco-System Synergies	163
6	Infrastructure	124
7	Under-Utilized Capacity	110
8	Automation/Technology	107
9	Lead Time/Time to Market	104

10	Manufacturing/Engineering Joint Innovation (R&D)	101
11	Federal Policies - Inflation Reduction and Chips Acts	99
12	Impact on Domestic Economy	90
13	Green Considerations	71
14	Image/Brand	58
15	Raw Materials Cost	54
16	Higher Productivity	53
17	Customer Responsiveness Improvement	46
18	COVID	31
19	Lean/Other Business Process Improvement Techniques	21
20	Customization/Flexibility	13

Source: Reshoring Initiative Library data

About 60% of companies decide whether to offshore based on comparing wage rates, FOB prices or landed costs. Much of the strength of the reshoring trend has been due to more companies becoming familiar with a broad range of factors (costs and risks) they had previously ignored. This change in behavior is partially due to the recent dramatic increase in those costs and risks. Understanding the reasons other companies have given for reshoring helps companies to determine whether those reasons apply to them also. A broad range of costs and risks can be quantified using the free online Total Cost of Ownership Estimator®. The Impact of Using TCO shows that shifting decisions from a price basis to TCO can be expected to drive reshoring of 20 to 30% of what is now imported. In Exhibit 3c the percentage of work that is more profitably sourced domestically rather than imported from China rises from 8% to 32% when the sourcing metric shifts from FOB price to TCO. The reshore-able percentage rises to 46% if a 15% Section 301 tariff applies.

Exhibit 3c | **Chinese Price & TCO As a Percentage of U.S. Price & TCO**



5. Reshoring + FDI by Technology Level[2]

It is generally agreed that manufacturing High-Tech products is more desirable than Low-Tech: more investment, more R&D, higher pay, less risk of loss to low-wage countries, etc.

Reshoring and FDI are continuing to add more High-Tech jobs than Low-Tech, again driven by the essential products push. This trend is important since the U.S. has a trade deficit in High-Tech products. Reshoring is stronger in High-Tech than FDI which is stronger in Medium-High due to the high % of transportation equipment in FDI. The higher-tech companies average more employees/company than do the lower-tech companies.

[2] Tech level ratings are based on classifications derived from: https://www.oecd.org/sti/ind/48350231.pdf, and https://read.oecd-ilibrary.org/science-and-technology/revision-of-the-high-technology-sector-and-product-classification_134337307632#page1

We encourage the U.S. to become competitive on all tech levels to balance the trade deficit and employ a broader range of workers. High-Tech products represent too small a percentage of our consumption to allow the U.S. or any country to focus only on High-Tech. For example, we have a huge dependency on China for consumer goods and personal electronics. A central challenge/goal is to upskill our workforce such that they can work competitively on more highly automated production of lower-tech products.

Exhibit 5 |	Technology Levels, Reshoring + FDI, 2022					
	Reshoring		FDI		Reshoring + FDI	
Product Technology Level:	**Jobs**	**Companies**	**Jobs**	**Companies**	**Jobs**	**Companies**
High	64%	52%	50%	37%	58%	47%
Medium-High	23%	21%	36%	33%	28%	26%
Medium-Low	7%	13%	11%	20%	9%	16%
Low	5%	14%	4%	9%	5%	12%
H+MH	87%	73%	85%	71%	87%	72%
ML+L	13%	27%	15%	29%	13%	28%

Source: Reshoring Initiative Library data

We encourage the U.S. to become competitive on all tech levels to balance the trade deficit and employ a broader range of workers.

6. Top 20 Countries From

China is the source of 51% of reshoring, cumulative from 2010 to 2022. The rate of reshoring from China has been dropping in recent years, probably because the most obvious jobs have already been reshored. 2022 saw an increase in reshoring from China in response to the supply chain risks revealed by the pandemic and geopolitical tensions.

Cumulatively, only about 20% of reshoring cases report Country From. We see three factors contributing to this reporting trend: 1.) Historically, companies haven't wanted to report/advertise leaving China for fear of retaliation. 2.) Rather than stating the country from, many cases simply refer to "Asia" or "returned from offshore." 3.) "Automatic reshoring" – cases where new investments are displacing imports of products that are disproportionately made abroad do not frequently report on Country From. Subsequently, we expect the true percentage from China/Asia to be much higher than what is reported.

China reshoring cases are broadly distributed across industry categories.

FDI is heavily from Japan (16%), and Germany (15%) both driven by transportation equipment, and more recently from China (13%), driven by a broad range of industries. We know the country of origin in 100% of FDI cases because we know the home country of the parent company.

Exhibit 6 | Reshoring and FDI by Country From, 2010-2022									
Reshoring					**FDI**				
Rank	**Country**	**Jobs***	**Companies**	**% of jobs****	**Rank**	**Country**	**Jobs**	**Companies**	**% of jobs**
1	China	86,640	950	51%	1	Japan	130,847	599	16%
2	Mexico	28,003	110	17%	2	Germany	117,318	639	15%
3	Canada	11,663	75	7%	3	China	104,729	404	13%
4	Korea	10,650	35	6%	4	Korea	80,445	239	10%
5	India	6,830	25	4%	5	Canada	57,753	389	7%

6	Japan	6,425	38	4%	6	United Kingdom	28,026	218	3%
7	Singapore	4,000	10	2%	7	Italy	27,629	171	3%
8	Germany	1,950	30	1%	8	Switzerland	23,681	164	3%
9	Honduras	1,875	8	1%	9	Taiwan	22,647	68	3%
10	Russian Federation	1,625	8	1%	10	Mexico	22,622	48	3%
11	Switzerland	1,425	10	1%	11	France	18,111	200	2%
12	Jordan	1,125	5	1%	12	Australia	16,679	65	2%
13	Spain	1,125	5	1%	13	Sweden	16,115	102	2%
14	United Kingdom	1,053	15	1%	14	Netherlands	16,013	105	2%
15	Taiwan	1,038	23	1%	15	Austria	13,592	59	2%
16	Luxembourg	575	5	0%	16	India	13,197	95	2%
17	Italy	435	20	0%	17	Vietnam	12,863	8	2%
18	Sri Lanka	345	5	0%	18	Spain	10,548	65	1%
19	Portugal	328	3	0%	19	Denmark	9,308	53	1%
20	Turkey	313	5	0%	20	Israel	8,841	74	1%

Source: Reshoring Initiative Library data

*The difference between the total of these numbers and the 1.6 million is due to the automatic reshoring cases, which are companies closing supply chain gaps in EV batteries, chips, rare earths, etc. Country From is generally not reported in these cases, but the work is reshored from a variety of countries that have dominated these products, especially China.
This is **% of jobs of cases reporting Country From.

7. Reshoring + FDI by International Regions From

At 72%, most Reshoring is from Asia.

The numbers here illustrate two power shifts: 1.) The U.S. is successfully taking back a greater share of manufacturing from Asia. 2022 reshoring job announcements from Asia were so great that they moved cumulative reshoring from Asia up by 9% points from last year -from 63% to 72%. 2.) By way of FDI, Asia has increasing involvement in the U.S. economy, especially in relation to Western Europe's involvement. For the first time, Asia accounted for more than 50% of all new job announcements (53%), beating Western Europe by 10% in FDI in the U.S.

Exhibit 7a | Reshoring by International Region, 2010 thru 2022				
Region from	**Jobs**	**Companies**	**Jobs/Company**	**% of reporting**
Asia	140,562	1,193	118	72%
North America	41,723	181	231	21%
Western Europe	9,809	135	73	5%
Middle East	1,771	27	66	1%
Eastern Europe	1,134	8	140	1%
South/Central America	405	8	50	0%
Africa	70	3	26	0%
Australia/Oceania	0	5	0	0%
Unknown Country	627,650	4,979	126	N/A

Source: Reshoring Initiative Library data

FDI used to come primarily from Western Europe and Japan. With the increase in Chinese investment starting in the mid 2010's, and in recent years Korea and Japan, Asia has surpassed Europe for FDI.

Exhibit 7b | FDI by International Region, 2010 thru 2022				
Region from	**Jobs**	**Companies**	**Jobs/Company**	**% of total**
Asia	373,295	1,416	264	48%
Western Europe	297,243	1,980	150	38%
North America	67,755	426	159	9%
Middle East	17,702	122	146	2%
Australia/Oceania	10,263	21	489	1%
South/Central America	8,331	56	150	1%
Eastern Europe	5,874	35	170	1%
Africa	2,163	11	206	0%

Source: Reshoring Initiative Library data

Exhibit 7c | FDI + Reshoring by International Region, 2010 thru 2022					
Rank by Jobs	**Region from**	**Jobs**	**Companies**	**Jobs/Company**	**% of total jobs with region reported**
1	Asia	513,857	2,609	197	53%
2	Western Europe	307,052	2,115	145	31%
3	North America	109,478	607	180	11%
4	Middle East	19,473	149	131	2%
5	South America	8,736	64	137	1%
6	Eastern Europe	7,008	43	165	1%
7	Australia/Oceania	10,263	26	389	1%
8	Africa	2,233	13	169	0%
	Unknown Country	627,650	4,979	126	N/A

Source: Reshoring Initiative Library data

Comparing reshoring and FDI across regions and countries provides an insight into the trends and what is feasible. China is the source of as much FDI as Germany, but about 40X as much reshoring. Asia and Western Europe have a similar contrast.

Exhibit 7d | Comparison of European and Asian Reshoring and FDI (cumulative thru 2022)		
Region	**Reshoring Jobs**	**FDI Jobs**
Austria	0	13,592
Germany	1,950	117,318
Switzerland	1,425	23,681
DACH Total (Deutschland, Austria and Switzerland (CH)	3,375	154,591
Western Europe	9,617	297,000
Asia, including China	140,562	370,595
China	86,640	104,729

Source: Reshoring Initiative Library data

8. Reshoring + FDI Cases by State

In 2022 New York had the highest job announcements. Every year top states are driven by catching large "elephants." In this case, NY scored big projects by Micron and EV battery manufacturer Imperium3. Ohio, Georgia and Tennessee ranked 2nd, 3rd and 4th for jobs. California had the most individual company cases but was only #13 on jobs, not catching many "elephants."

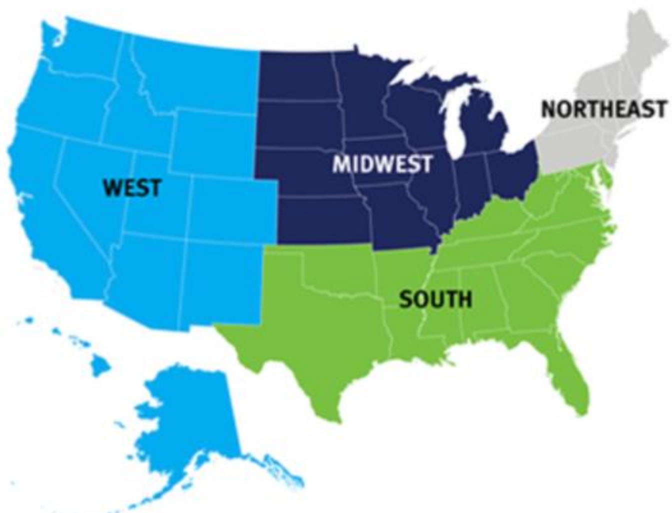
Exhibit 8 | Reshoring + FDI by State, 2022 only				
Rank	**State**	**Jobs**	**Companies**	**% of jobs**
1	NY	43,491	75	12%
2	OH	29,561	103	8%
3	GA	27,522	57	8%
4	TN	27,397	69	8%
5	NC	26,965	93	7%
6	MI	25,267	115	7%
7	AZ	22,436	73	6%
8	KY	16,195	44	4%
9	SC	14,883	81	4%
10	AL	13,564	51	4%
11	TX	12,751	121	3%
12	ID	12,500	7	3%
13	CA	10,494	175	3%
14	KS	9,415	19	3%
15	IN	8,665	58	2%
16	MD	8,000	18	2%
17	WV	7,165	28	2%
18	OK	5,475	18	2%
19	VA	4,689	50	1%
20	PA	4,581	49	1%
21	WI	4,351	45	1%
22	IA	3,480	11	1%
23	LA	3,083	27	1%
24	IL	2,775	15	1%
25	AR	2,768	14	1%
26	MS	2,587	14	1%

27	FL	1,939	35	1%
28	WA	1,750	30	0%
29	MO	1,690	14	0%
30	CO	1,500	21	0%
31	NM	1,325	13	0%
32	DE	1,044	11	0%
33	MA	843	51	0%
34	CT	838	14	0%
35	NJ	825	8	0%
36	NV	750	19	0%
37	ME	500	5	0%
37	MT	500	5	0%
39	UT	328	14	0%
40	ND	263	7	0%
41	RI	225	4	0%
42	MN	150	22	0%
43	NE	125	4	0%
44	VT	120	12	0%
45	SD	75	2	0%
46	OR	0	27	0%
47	NH	0	7	0%
48	HI	0	3	0%
49	WY	0	3	0%
50	PR	0	0	0%
51	AK	0	0	0%

Source: Reshoring Initiative Library data

9. Reshoring + FDI by U.S. Region

The South has historically attracted the most jobs because of Right to Work laws, slightly lower wages, lower land costs and higher incentives. The Midwest has been a solid #2, aided by legacy factories and skilled workforces. In 2022 the legacy auto assembly plants attracted EV battery plants.



The South and Midwest continue to dominate over the 13 years measured.

Exhibit 9 | Reshoring + FDI by U.S. Region, 2010-2022				
U.S. Region	**Jobs**	**Companies**	**Average jobs/company**	**% of total jobs**
South	859,811	4,718	182	54%
Midwest	342,576	2,325	147	22%
Northeast	202,268	1,774	114	13%
West	175,920	1,709	103	11%

Source: Reshoring Initiative Library data

11. Nearshoring

Reshoring should always be the country's first choice if the U.S. is sufficiently competitive. For some products, the components and skills are not available here or labor costs are not able to be overcome sufficiently by automation. Near, right, friend and allied shoring are all better alternatives to work being done far away, especially by adversaries. Choice of shores should be based primarily on U.S. economic self-interest and not be a means of building other countries or advancing democracy, as was the case since WWII.

Exports from Mexico to the U.S. have 40% U.S. content whereas exports from China have only 5% U.S. content. Transportation Equipment and Appliances nearshore the most. More companies nearshore to Mexico than to Canada due to greater cost advantage.

Our data on Canada and Mexico is much less comprehensive than on the U.S. since we do not cover either country's media. Probably reality is 3X as high in both countries as shown in Exhibit 10.

Nearshoring to Mexico or Canada is better for the U.S. than work staying further offshore, e.g., in Asia.

Exhibit 10 | Nearshoring, 2010-2022				
Country	**Jobs**	**Companies**	**% from Asia**	**% from Western Europe**
Canada	10,075	38	78%	22%
Mexico	41,325	148	80%	20%

Source: Reshoring Initiative Library data

12. Trends and 2023 Projections

There are many reasons to be optimistic. COVID's lesson about the country's lack of self-sufficiency will continue to spur growth in local sourcing. Survey results consistently show a surge in reshoring plans in 2022. Training a skilled workforce to fill the new positions will remain a challenge and barrier to further growth. To meet this challenge, companies, trade associations and states have been ramping up training programs.

While the upward trend is sustaining momentum now, at some point companies will become more focused on fulfilling the giant commitments already made before announcing more. We may see a bump in smaller firm contract manufacturing jobs as they help fulfill the objectives of the recent large investments. It is also a hope that current supply chain improvements will foster ease and expand opportunities for more industries that previously couldn't justify local production.

Below are some factors that will impact 2023 relative to 2022.

Forces likely to slow reshoring and FDI:

1. **Continued workforce shortages –** Companies won't be able to fulfill their job announcements if there is no skilled labor force to hire.
2. **Continued increase in industrial capabilities in SE Asia and Mexico –** Attracting work that would otherwise come back to the U.S.
3. **Lack of sufficient investment in U.S. automation** to offset high wages and improve delivery. U.S. ranks 7th in the number of robots/10,000 industrial workers, 73% behind S. Korea and 15% behind China.

4. **U.S. inflation rate is higher than in most other countries** - Further reducing competitiveness. The resulting higher interest rates from the Fed's effort to reduce inflation increases the cost of needed automation.
5. **Higher USD** - Reducing competitiveness. Fortunately, the USD has come down about 9% from its September 26, 2022 high.
6. **Possible Section 301 tariff reduction** – The 25% tariff makes most Chinese imports uncompetitive. Reduction would be unwise and seems unlikely now.

Forces likely to help reshoring and FDI:

1. **Government actions to reduce national dependence on imports of key products** - This effort is starting aggressively with medical products, chips, rare earth minerals, EV batteries, etc. to fill current supply chain gaps. President Biden is highly prioritizing reshoring, applying different methods than President Trump.
2. **Risk of aggressive "decoupling" by China.** As tensions grow over Taiwan the probability of an abrupt termination of shipments of a broad range of products increases. Many companies are shifting work out of China to avoid this risk. A slightly higher total cost now is inexpensive insurance to avoid the existential risk of being completely cut off from components and products.
3. **Russia/Ukraine war.** Nickel, argon and neon are a few of the materials whose supply is severely disrupted by the war. Equally important, companies can now better appreciate the possible impact of geopolitics.
4. **Shift in Wall Street**
   Wall Street's focus on short-term profits was a major force driving offshoring for the last 40 years. Major banks, financial institutions and private equity companies are now sensing the rewards of reshoring. The Initiative is working with several firms to help them identify companies with opportunities for outsize gains by selling or buying smarter and filling supply chain gaps.

5. **Massive publicity about reshoring.** AT Kearney's March 2022 survey showed that "Eighty-one percent of manufacturing executives say they might be influenced by seeing other American companies reshore or nearshore." The Reshoring Initiative is the largest source of reshoring publicity.
6. **Continued growth in efforts by MEPs (Manufacturing Extension Partnerships), EDOs (economic development organizations) and states to enable reshoring** - The Reshoring Initiative has key tools for such efforts.
7. **Environmental, Social and Governance (ESG) trend:**
   a. **Corporate social responsibility expands -**The Business Roundtable's August 2019 Statement on the Purpose of a Corporation expanded the definition of stakeholders from just shareholders to now include employees, suppliers and community. We anticipate companies will recognize that reshoring is often the most effective and least expensive way to fulfill their commitments. Companies can strengthen the three new stakeholder constituencies while increasing the expected return to shareholders if they do the math correctly. Reshoring is the best way to "Do well" while doing good.
   b. **Climate crisis and increasing environmental consciousness** - Domestic supply chains are more transparent than offshore and less polluting, cutting the environmental impact by up to 25% vs. imports, depending on the product. Sustainability practices will continue to increase as a corporate strategy and will help drive reshoring and FDI. The Initiative has done comparative studies on aluminum die castings, apparel and paper products and is working on tires, steel, plastic, aluminum, solar cells and injection molding.
8. **Continued increases in usage of TCO (Total Cost of Ownership)** instead of price in making sourcing decisions. Universal TCO usage, alone, would reshore about 1.5 million jobs.
9. **Continued improvement in skilled workforce programs** The biggest challenge will be bolstering our skilled workforce, which is not adequate to support a much higher rate of reshoring. There are signs of positive change. Awareness of the problem is growing. Perceptions of manufacturing jobs are improving. More companies and governments are adding programs. The Initiative has ideas for governments and companies to accelerate recruitment.

Ambiguous:

1. **Higher interest rates** - Has raised the value of the USD and the financing cost of automation (headwinds) but will surely increase the carrying cost of inventory (tailwind), which is increased by offshoring.
2. **Oil prices and environmental regulations -** Higher oil prices increase freight costs and tend to make U.S. shale gas more of an advantage for making plastics and for having competitive electricity rates.
3. **Biden administration policy -** Has placed a high priority on reshoring. Tends to apply tourniquets and Band-Aids to high-profile problems, rather than systematically attacking the underlying problem: lack of cost/price competitiveness, which could be more directly dealt with by massive skilled workforce investment, 25% lower USD and adding a VAT.

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Conclusion

The primary tools should be a dramatic increase in skilled workforce recruitment and training, a 25% lower USD, and a competitive corporate tax policy, including maintaining immediate expensing of capital equipment.

The rate of reshoring plus FDI job announcements in 2022 was up 53% from 2021 and almost 6000% from the 2010 rate. The resulting cumulative one million incremental hires represent over 8% of U.S. manufacturing employment. The acceleration of jobs coming back combined with the decline in the rate of offshoring has resulted in a 12-year steady uptrend in U.S. manufacturing jobs. The COVID crisis has revealed the U.S.' over-dependence on imports. The Ukraine/Russian war and geo-political tension with China will drive ongoing supply chain shifts, further accelerating reshoring and nearshoring.

This Data Report should motivate companies to further reevaluate their sourcing and siting decisions by considering all of the cost, risk and strategic impacts flowing from those decisions.

Reshoring's success has occurred despite uncompetitive U.S. manufacturing costs. Presently, shifting forces are creating more incentives and opportunities for companies to produce at home. The Reshoring Initiative can help government policymakers project the impact of applying industrial policy to bring millions more jobs back. The continuation of the trend depends on companies reevaluating their offshoring. Acceleration of the trend depends on the government leveling the playing field, making the United States more price competitive. The primary tools should be a dramatic increase in skilled workforce recruitment and training, a 25% lower USD and a competitive corporate tax policy, including maintaining immediate expensing of capital equipment. The Reshoring Initiative offers many tools and resources, which are listed below. Please contact us for help driving reshoring for your company, your region and our country.

RESHORING INITIATIVE RESOURCES

Total Cost of Ownership Estimator® - Free online tool helps companies account for all relevant factors — overhead, balance sheet, risks, corporate strategy, green and other external and internal business considerations — to determine the true total cost of ownership. It can be used by companies to make smarter sourcing decisions and to sell against imports. Analysis of TCO Estimator user data shows that 20 to 30% of imported products can be made here more profitably. Call on the Reshoring Initiative for help using this and other tools.

Import Substitution Program (ISP) - Manufacturers select the products at which they excel. ISP identifies and qualifies the major relevant importers of those products. The manufacturers then use TCO to convince the importers to reshore. Offered directly to manufacturers and thru MEPs, EDOs (economic development organizations), trade associations and equipment sellers.

Supply Chain Gap Program - Identifies U.S. supply chain gaps. Helps U.S. manufacturers fill the gaps. Helps EDOs find foreign firms to fill the gaps.
Competitiveness Toolkit - Designed to quantify and select the optimal national policy changes to bring back a desired number of jobs.
Reshoring Library – You can use Advanced Search to identify companies that have reshored or done FDI in relevant industries or regions. Search for potential customers.
Reshoring Initiative Data Report – Annual reports track the drivers, impact and momentum of the trend.

Data refinement is ongoing

1. Companies, industry associations, states, EDOs and others are encouraged to send us information on reshoring and FDI cases. Send us links to articles and announcements.
2. To see a full list of companies in the database click here.
3. If your company is listed, email us to request your company's data to review, edit and return. Please include your company name and detailed contact info.

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About Us

Reshoring is gaining momentum throughout the country. Many companies have already repatriated some of their manufacturing efforts, and the Reshoring Initiative is continuing to spread the "return-manufacturing-home" message to help other manufacturers realize America is an advantageous place to produce goods.

The Reshoring Initiative, founded in early 2010, takes action by helping manufacturers realize that local production, in some cases, reduces their total cost of ownership of purchased parts and tooling. The Initiative also trains suppliers how to effectively meet the needs of their local customers, giving the suppliers the tools to sell against lower priced offshore competitors.

Reshoring Initiative®

www.ReshoreNow.org

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