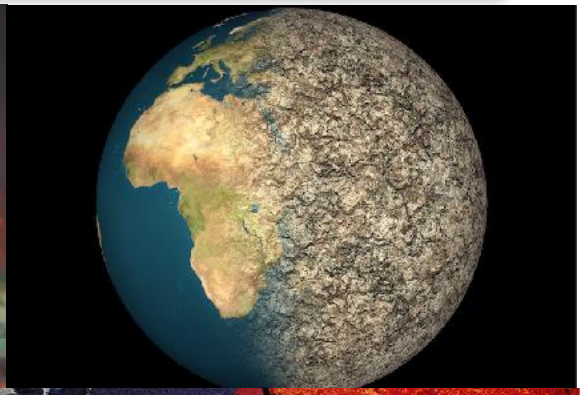
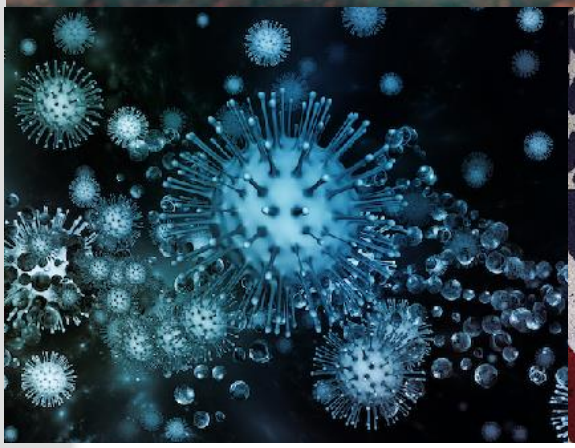
Reshoring Initiative®
2021 Data Report

Essential Product Industries Drive Job Announcements to Record High


Reshoring Initiative | www.reshorenow.org | 847 867 1144 | info@reshorenow.org

Reshoring Initiative® 2021 Data Report: Essential Product Industries Drive Job Announcements to Record High

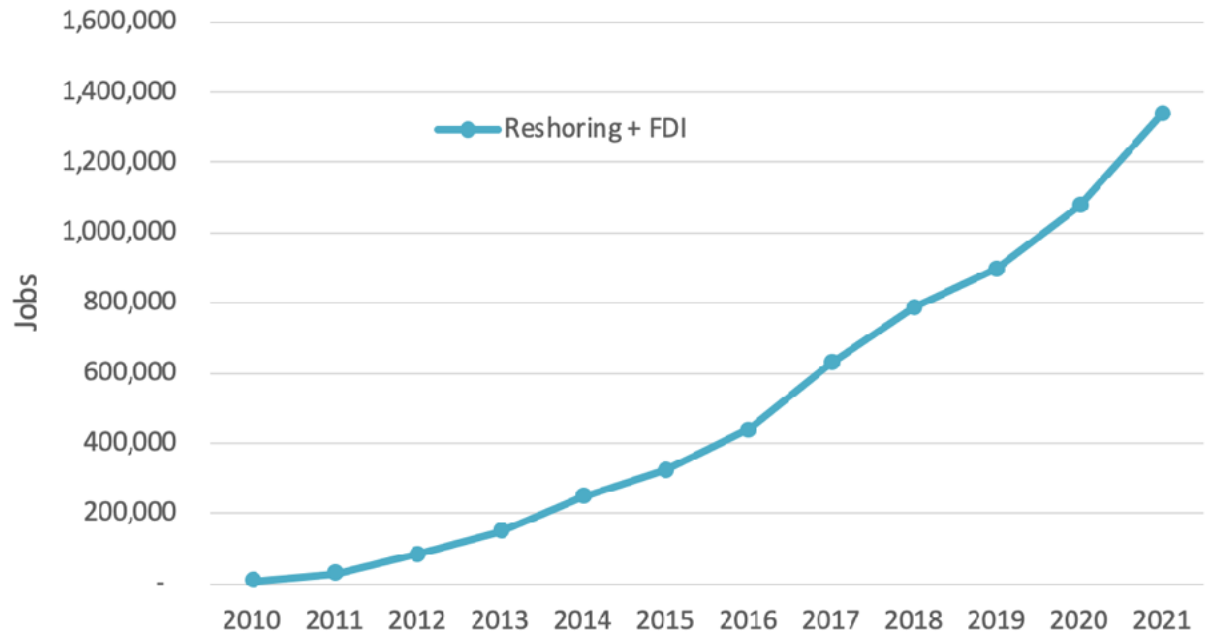
Preface

When the Reshoring Initiative was founded in 2010 the U.S. was finally beginning to recognize the negative impacts of offshoring, like the destruction of the blue-collar middle class, the loss of intellectual property, the reduction of innovation, financial miscalculations from using price instead of total cost, and the peril of accruing a massive national trade deficit. While these issues remain highly relevant, the recent developments of the pandemic, the Russian war on Ukraine (and the free world), risk of China decoupling, and the climate crises present a world that has dramatically changed. A strong U.S. manufacturing base used to signify economic prosperity and competitiveness, but today with the heightened need for national security, sustainability and self-reliance, reshoring of U.S. manufacturing, has become, quite literally, a matter of survival.

Executive Summary

In 2021 the private and federal push for domestic supply of essential goods propelled reshoring and foreign direct investment (FDI) job announcements to a record 261,000, bringing the total **jobs announced since 2010 to over 1.3 million**. For the second year in a row, reshoring exceeded FDI by 100%, continuing a recent trend not seen since 2013. Additionally, the number of companies reporting new reshoring and FDI set a new record of over 1,800 companies. This report discusses the trend and how reshoring will continue to be key to U.S. manufacturing and economic recovery.

Exhibit 1a | **Jobs Announced, Reshoring + FDI, Cumulative 2010-2021**



Data Index

This report contains data on trends in U.S. reshoring announcements by U.S. headquartered companies and FDI by foreign companies that have shifted production or sourcing from offshore to the U.S. The cumulative data includes 2010 - 2021. All data[1] is for reshoring plus FDI, 2010 to 2021, unless otherwise noted.

[1] The data for all reports comes from the Reshoring Initiative's Reshoring Library of over 8,000 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.

1. Cumulative Manufacturing Jobs

Over 1,300,000 reshoring and FDI manufacturing jobs have been announced from 2010 thru 2021.

Allowing for a conservative two-year lag until hiring, we estimate that 860,000 have been hired, equaling 78% of the 1,100,000 increase in U.S. manufacturing jobs since the manufacturing employment low of 11.45 million in February 2010 and 7% of total 12/31/21 manufacturing employment of 12.55 million.

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.

Exhibit 1b | **Jobs Announced, Reshoring and FDI, Cumulative 2010-2021**

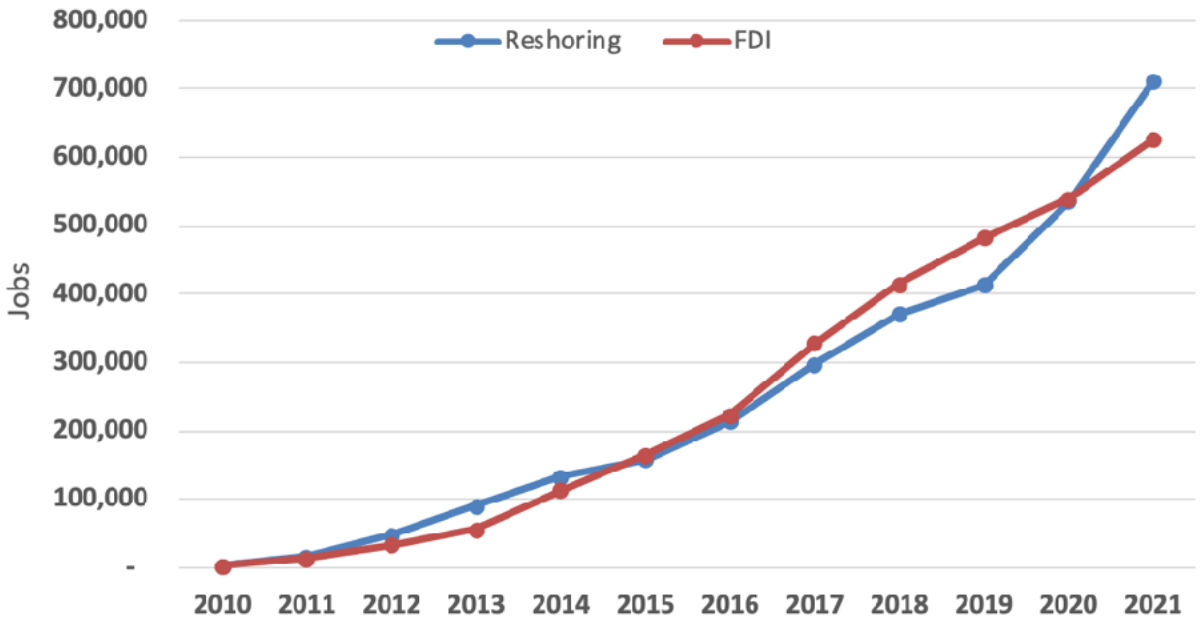
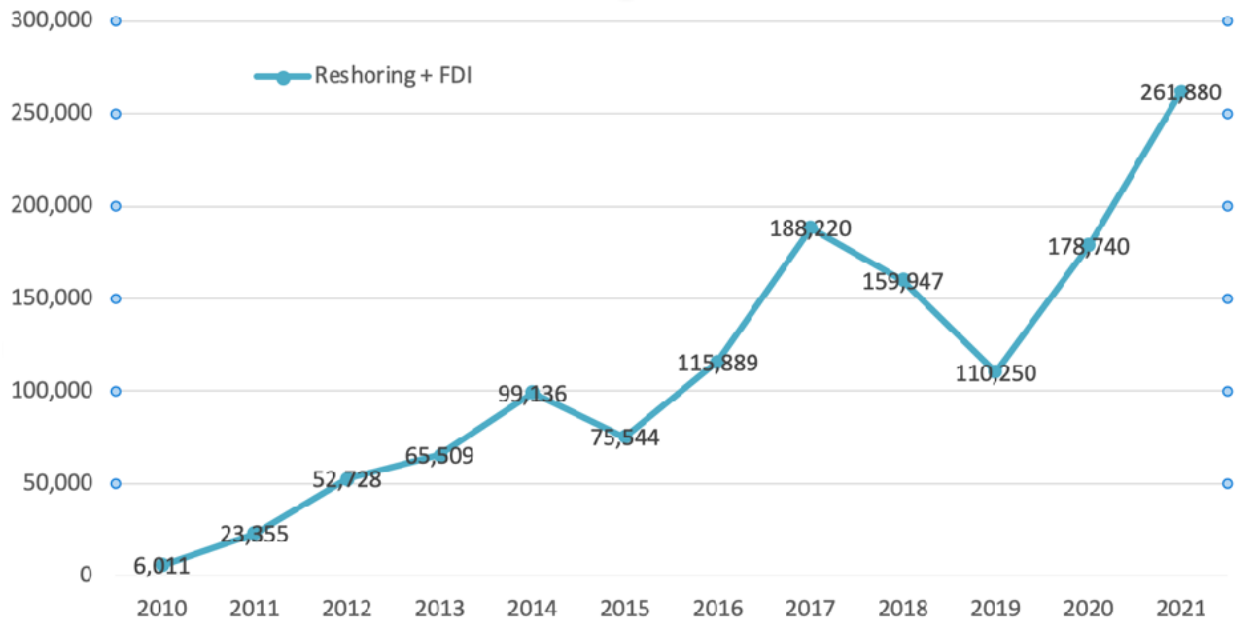


Exhibit 1c | **Jobs Announced, Reshoring + FDI by Year 2010-2021**



Trade Deficit Grew in 2021

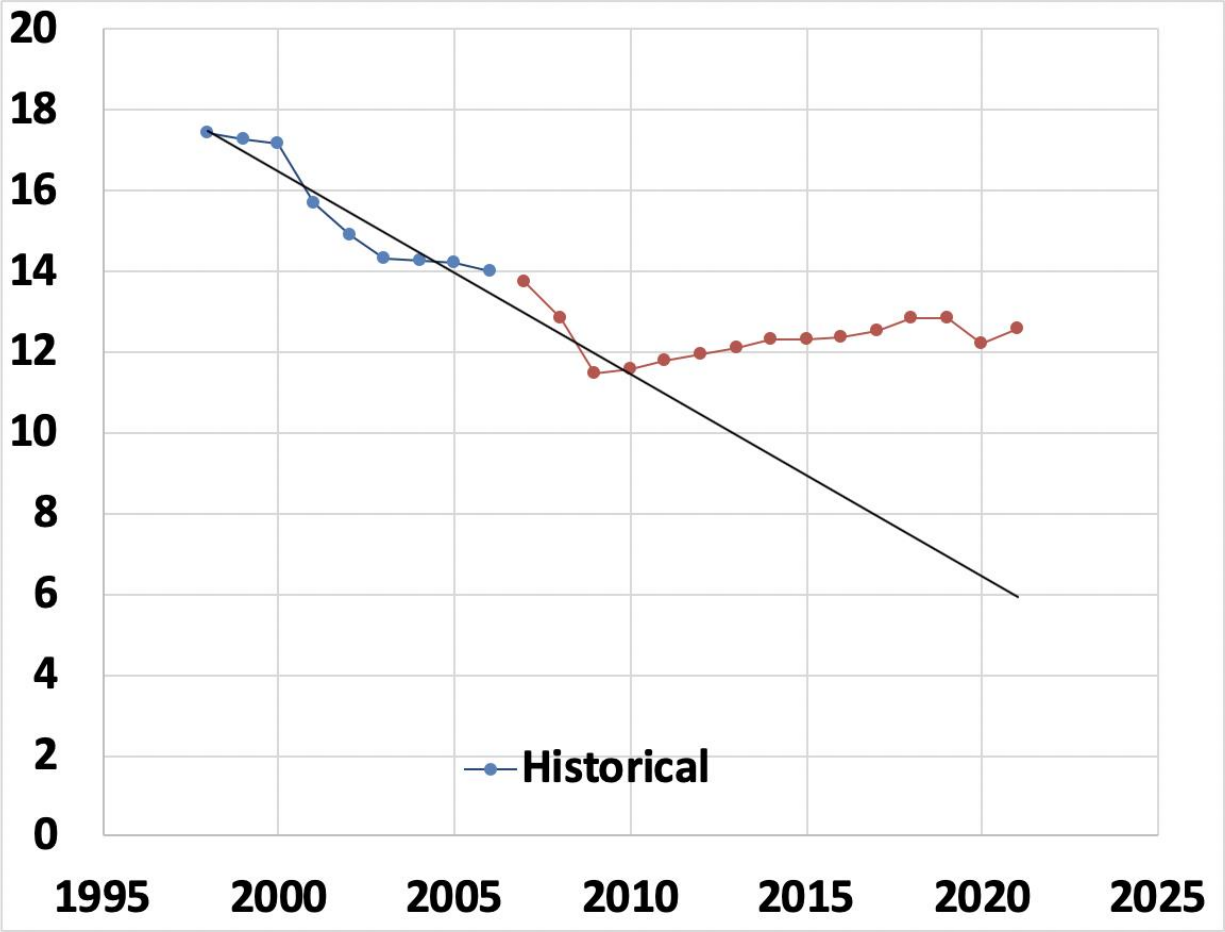
In 2021 non-petroleum goods imports increased about 18% and exports increased about 20 percent. Sounds good, except that imports are about 70% more than exports so the result was an 18% increase in the goods trade deficit to $1.070 trillion. The large increase in imports was largely due to increased imports of PPE and of "stay at home" products, also driven by the COVID pandemic[2].

There is no measure of offshoring announcements or implementation. We did not observe a high rate of announcements of offshoring. When measured by our overall trade deficit of about $859 billion/year, there are still five million U.S. manufacturing jobs offshore at current levels of U.S. productivity, representing a huge potential for U.S. economic growth. Measured by our $1.1 trillion non-petroleum goods trade deficit there are about six million still offshore.

The trend in U.S. manufacturing employment, as per Exhibit 1d, 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 more than five 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 is clearly increasing in 2022.

[2] Real Exports, Imports, and Balance of Goods https://www.census.gov/foreign-trade/statistics/historical/realpetr.pdf

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



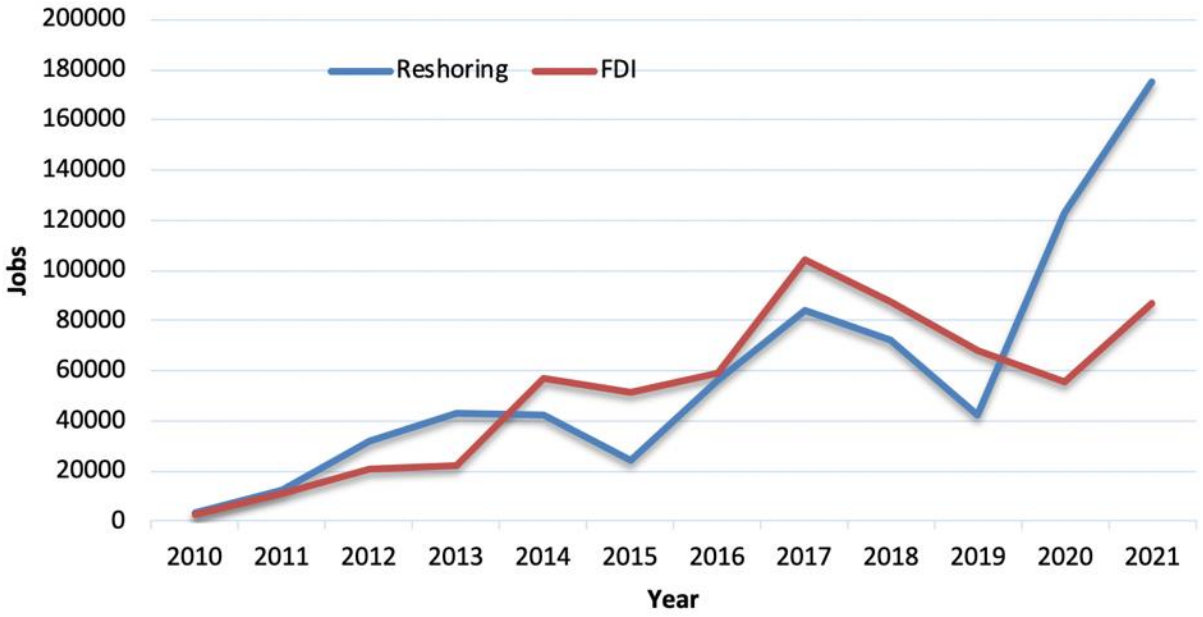
2. Job Announcements by Year, Reshoring and FDI

Reshoring exceeded FDI in job creation by 100% for the second year in a row.

In 2021 reshoring surged to a record high of 261,000 jobs announced. The strength of the trends in recent years is based on a combination of factors. Large announcements in 2021 were driven by government support for U.S. production of essential products driven by import shortages observed during the pandemic and by the dramatic increases in freight cost and delivery time. Other important forces included greater U.S. competitiveness due to residual effects of the 2017 corporate tax and regulatory cuts, increased recognition of the total cost of offshoring and rising concern over U.S. dependency on China.

The high rate of 2020 and 2021 reshoring vs. FDI also indicates that U.S. headquartered companies are starting to understand the same benefit to localized production that many foreign companies have understood over the last decade.

Exhibit 2 | **Job Announcements by Year, Reshoring and FDI, 2010-2021**

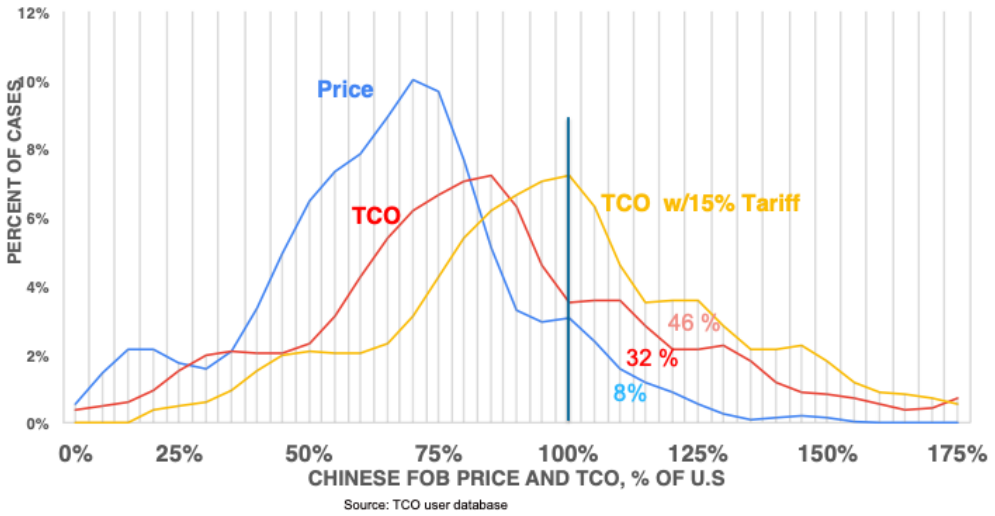


3. Factors Cited for Reshoring + FDI

About 60% of companies decide 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 3a 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.

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



1

The Reshoring Initiative records Positive and Negative Factors cited for reshoring. Positive Factors are the values that attracted the company to their U.S. site and that they achieved here. These factors are similar for reshoring and FDI with the following exceptions.

- Reshoring places higher emphasis on Made-in-USA image, Redesign of the product, Impact on domestic economy, Lead time/Time to market and Walmart's US supplier initiative. (If other large retailers would make similar efforts as Walmart, they could have equal or greater impact, and if there were many, a compounded impact.)
- Since most FDI is primarily from other developed countries, Made-in-USA branding is a less powerful sales argument. Shifting from Made-in-Germany to Made-in-USA has less brand value than shifting from Made-in-China.
- FDI places more emphasis on Government incentives, Skilled workforce, Proximity to customers, Infrastructure, Ecosystem synergies.
- Foreign companies can be recruited by all 50 states and often have larger projects; thus, they receive more government incentives. This may be shifting to include reshoring, with the essential products push by the U.S. government.
- Since reshoring is almost all from low-wage countries, reshoring companies have increased automation to make up for higher domestic hourly labor cost. This trend more recently also applies to FDI.

Negative Factors are the negative issues experienced offshore. Most of the issues are related to distance: freight, delivery, inventory, etc. Others are country specific: rising wages, IP risk, geo-political risk, etc. Reshoring reports more negative factors because they are more frequently coming from less developed countries. Reshoring accounts for 75% of all negative factor citings. The top negative factors for reshoring in 2021 were Supply chain interruption, Green considerations and Quality/rework/warranty.

Companies have consistently reported Positive Factors more often than Negative, probably because the companies place more value on demonstrating the wisdom of their current reshoring decision than on what went wrong with their earlier offshoring decision. Companies also do not want to offend the country they are leaving.

The largest shifts in factor reporting in 2021 were pandemic related. Covid-19 itself remained in the top 5 factors in 2021. Negative Offshore Factors with substantial changes included: Supply chain disruption (1500% increase in annual rate since 2019), Green considerations, and Total cost. Citings of Tariffs as a factor dropped off sharply in 2021. It is unclear if companies have adjusted to the tariffs, are waiting for them to be removed or view the topic as too politically charged.

We predicted Green considerations to become more relevant due to the new emission reduction initiative by the International Maritime Organization, along with other imminent mandates related to climate change. With heightened public awareness of climate change issues, consumers are increasingly demanding environmental, social and governance (ESG) responsibility. Local sourcing is intrinsically conducive to clean, sustainable sourcing.

Quality/rework/warranty remained the highest reported negative factor, cumulatively and has seen consistent levels of reporting over the years.

There were a number of large increases in reporting of positive factors including the following: Lead Time to market, Underutilized capacity, Eco-system synergies, Infrastructure, Manufacturing/engineering joint innovation (R&D), Skilled workforce, and the largest increase: Government Incentives. Reduced lead time is prioritized due to the current drastically extended delivery time and cost for container freight.

Other factors mentioned, but not recorded in these Exhibits, include: national security, price gouging, Chinese ban on imports of recyclables, investing to improve competitiveness, sustainability, Biden initiatives and essential products supply.

Exhibit 3b | Cumulative Influencing Factors, Reshoring + FDI, 2010-2021				
Negative Offshore Factor	**# of times cited**		**Positive Domestic Factor**	**# of times cited**
Quality/rework/warranty	399		Government Incentives	1594
Supply chain interruption risk/Natural disaster risk/Political instability	370		Proximity to customers/market	1533
Freight cost	218		Skilled workforce availability/training	1331
Total cost	199		Eco-system synergies	1126
Green considerations	166		Impact on domestic economy	963
Tariffs	158		Image/Made in USA brand	912
Delivery	112		Lead time/Time to market	784
Inventory	103		Infrastructure	763
Rising Wages	97		Under-utilized capacity	599
Intellectual property risk	86		Automation/technology	479
Loss of control	84		Customer responsiveness improvement	457
Travel cost/time	77		Higher productivity	406
Communications	64		Manufacturing/engineering joint innovation (R&D)	320
Currency variation	47		U.S. price of natural gas/chemicals/electricity	244
Price	41		Customization/Flexibility	236
Difficulty of innovation/product differentiation	32		Raw Materials Cost	233
Strained offshore relationships	30		Lean/other business process improvement techniques	221
Social/ethical concerns	27		Walmart	138

Burden on staff, Employee turnover, Personnel risk	27		3D Printing/Additive Manufacturing	65
Product liability	22		Labor concessions	37
Regulatory compliance	18		Lower real-estate/construction cost	34
Emergency air freight	12			
Onsite audit cost	7			
Corruption	6			
Reputation risk	5			

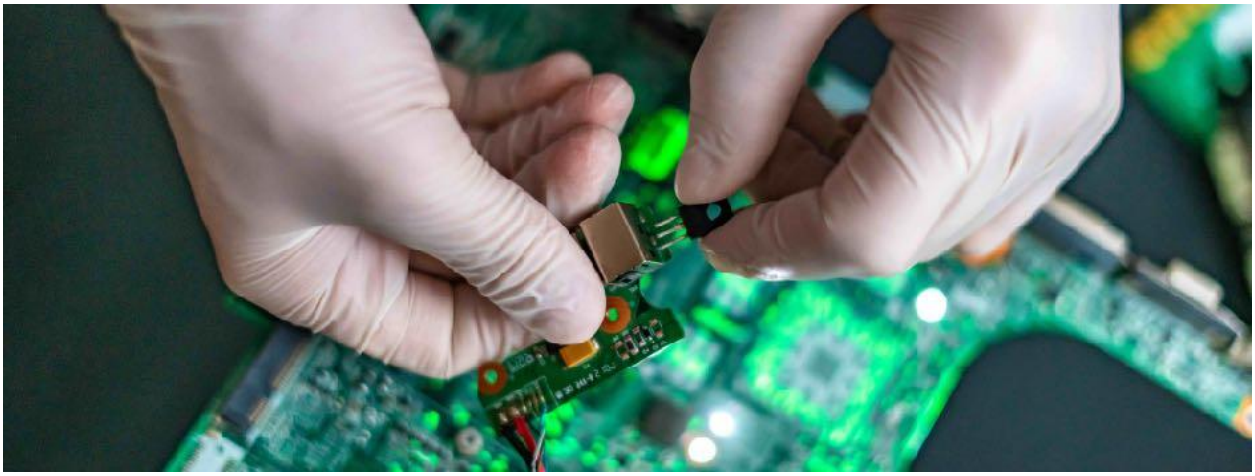
Exhibit 3c | **Top 20 Factors (positive and negative together) in 2021**

Rank	Factor	% of citings
1	Government Incentives	13%
2	Skilled workforce availability/training*	11%
3	Under-utilized capacity	9%
4	Lead time/Time to market	9%
5	Covid	8%
6	Impact on domestic economy	8%
7	Proximity to customers/market	6%
8	Supply chain interruption risk/Natural disaster risk/Political instability	6%
9	Infrastructure	6%
10	Eco-system synergies	5%

11	Image/Made in USA brand	3%
12	Green considerations	2%
13	Customer responsiveness improvement	2%
14	Manufacturing/engineering joint innovation (R&D)	2%
15	Lean/other business process improvement techniques	2%
16	Quality/rework/warranty	1%
17	Higher productivity	1%
18	Automation/technology	1%
19	Total cost	1%
20	Raw Materials Cost	1%

*Skilled Workforce is sometimes reported as a positive, available factor, and sometimes as a challenge to overcome, often reported as skilled workforce training that is to be included in new investments.

4. Reshoring + FDI by Industry[3]



[3] The table is sorted by industry, as defined by three-digit NAICs code. We also break out several active industries at the four and five-digit levels. To get complete data at the three-digit level, add these industries into the relevant three-digit category.

Only products that have been offshored/imported can be reshored. Thus, the products least suitable for offshoring never left, such as heavy, high volume minerals, high mix/low volume items or customized automation systems.

Historically, the most active reshoring is by those that left and probably should not have done so, including machinery, transportation equipment and appliances. More recently, we added to that list essential products of which the U.S. relies too heavily on imports, such as electric batteries, semiconductors, PPE, pharmaceuticals and rare earths. In 2021 President Biden ordered a review of four classes of essential products where America relies excessively on imports. Both 2020 and 2021 have seen a jump in cases in these industries and we expect that trend to accelerate in the coming years, as we discuss more broadly in *Chapter 12. 2022 Trends and Projections.* In 2022, congress is pursuing the COMPETES Act and USICA to make the U.S. more competitive. This legislation has value but misses the root cause of the problem, U.S. lack of price/cost competitiveness. Our Competitiveness Toolkit is available to help quantify the impact of policy alternatives, including a stronger skilled workforce, competitive corporate tax rates and a lower U.S. dollar.

As the data indicates, reshoring is focused on products whose size and weight, e.g. transportation equipment, or frequency of design change/volatility of demand, e.g. some apparel or electronics, suggest that offshoring never offered great total cost savings.

FDI has traditionally brought about 2/3 of the Transportation Equipment jobs. With FDI off 50% from 2017 and auto plants distracted by COVID, the Transportation Equipment industry saw a 25% reduction of reshoring + FDI job announcements in 2020, and stayed at that level through 2021.

The second and third largest industries, Computer and Electronic Products and Electrical Equipment, Appliances & Components continue to grow, pushed in recent years by solar panels, lithium ion batteries, robotics, drones and most recently, semiconductors.

Chemicals also continued to grow, driven by the pandemic-revealed U.S. dependencies on pharmaceuticals in general, and the specific need for vaccines and COVID-19 treatments.

Exhibit 4a | Reshoring + FDI, Comparison of Top 10 Industries by % by year										
		2021			2020			2019		
Rank	Industry	Jobs	Companies	% of Jobs	Jobs	Companies	% of Jobs	Jobs	Companies	% of Jobs
1	Transportation Equipment	50,212	220	19%	29,185	141	19%	38,798	162	37%
2	Computer & Electronic Products	43,194	223	17%	13,989	101	9%	10,575	114	10%
3	Electrical Equipment, Appliances & Components	35,994	184	14%	19,677	122	13%	5,534	71	5%
4	Chemicals	35,534	328	14%	20,020	224	13%	3,630	54	3%
5	Medical Equipment & Supplies	29,510	185	11%	21,421	277	14%	3,094	67	3%
6	Machinery	24,235	71	9%	10,949	77	7%	15,400	126	14%
7	Food & Beverage	10,034	59	4%	4,877	33	3%	5,024	53	5%
8	Fabricated Metal Products	7,948	86	3%	6,438	62	4%	3,000	92	3%
9	Primary Metal Products	5,936	71	2%	4,493	36	3%	1,529	17	1%
10	Furniture and Related Products	4,451	40	2%	4,158	45	2%	3531	40	3%

Exhibit 4b | By Industry, Reshoring + FDI, Cumulative 2010-2021				
Rank	**Industry**	**Jobs**	**Companies**	**Industry % of jobs**
1	Transportation Equipment	368,522	1,285	27%
2	Computer & Electronic Products	184,496	800	14%
3	Machinery	152,659	893	11%
4	Medical Equipment & Supplies	139,451	1,191	10%
5	Furniture and Related Products	85,416	685	6%
6	Primary Metal Products	78,294	495	6%
7	Electrical Equipment, Appliances & Components	60,434	611	4%
8	Apparel & Textiles	50,797	826	4%
9	Chemicals	48,326	587	4%
10	Plastic & Rubber Products	47,766	184	4%
11	Fabricated Metal Products	39,078	277	3%
12	Nonmetallic Mineral Products	31,976	251	2%
13	Energy, Petroleum & Coal Products	26,146	303	2%
14	Wood & Paper Products	14,715	154	1%
15	Castings/Foundries - Subset of Primary Metal Products	12,172	94	1%
16	Miscellaneous	10,874	153	1%
17	Hobbies (subset of Miscellaneous)	8,704	289	1%
18	Food & Beverage	3,084	22	<1%

5. Reshoring + FDI by Technology Level[4]

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.

Currently, 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.

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. One challenge is to upskill our workforce so that more of them can work on more highly automated production of lower tech products.

4 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

Exhibit 5 | Technology Levels, Reshoring + FDI, 2010-2021						
	Reshoring		FDI		Reshoring + FDI	
Product Technology Level:	**Jobs**	**Companies**	**Jobs**	**Companies**	**Jobs**	**Companies**
High	34%	21%	20%	21%	**25%**	**21%**
Medium-High	34%	21%	48%	40%	**42%**	**30%**
Medium-Low	17%	23%	19%	25%	**18%**	**24%**
Low	15%	36%	14%	14%	**14%**	**25%**
H+MH	67%	42%	67%	61%	67%	51%
ML+L	33%	58%	33%	39%	33%	49%

6. Countries From: Reshoring and FDI

China is the source of 44% of reshoring, cumulative 2010 to 2021. The rate of reshoring from China has been dropping over recent years. There are a number of possible reasons for this trend. One explanation is that the many jobs which have already reshored can't be reshored again. While it is true that the rate and percentage of jobs from China is going down, we suspect the overall actual number returning from China is actually much greater that what is reported. Cumulatively, only about 30% of reshoring cases report Country From. We see two main factors driving 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."

China reshoring cases are broadly distributed across industry categories.

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

As a result of the Coronavirus pandemic, FDI slowed relative to reshoring in 2020. See more in *Chapter 12. 2022 Trends and Projections*.

Exhibit 6a | **Reshoring and FDI Top 20 by Country, 2010-2021**

Reshoring					FDI				
Rank	**Country**	**Jobs**	**Companies**	**%**	**Rank**	**Country**	**Jobs**	**Companies**	**%**
1	China	59,643	964	44%	1	Germany	98,058	525	15%
2	Mexico	28,347	116	21%	2	China	95,169	366	15%
3	Canada	12,825	81	10%	3	Japan	94,307	486	15%
4	India	7,376	27	5%	4	Korea	51,078	176	8%
5	Japan	6,750	43	5%	5	Canada	44,487	321	7%
6	Singapore	4,320	8	3%	6	United Kingdom	24,281	177	4%
7	Germany	2,106	30	2%	7	Mexico	22,142	45	3%
8	Honduras	1,890	5	1%	8	Italy	22,059	149	3%
9	Russian Federation	1,755	5	1%	9	Switzerland	22,026	141	3%
10	Switzerland	1,539	11	1%	10	Sweden	14,664	86	2%
11	Spain	1,215	5	1%	11	Australia	14,156	38	2%
12	Korea	1,202	19	1%	12	France	13,598	159	2%
13	United Kingdom	1,137	14	1%	13	Austria	13,520	51	2%
14	Taiwan	1,121	24	1%	14	India	11,537	84	2%
15	Luxembourg	621	5	0%	15	Netherlands	11,508	86	2%

16	Italy	470	22	0%	16	Taiwan	10,217	41	2%
17	Jordan	405	3	0%	17	Spain	9,876	57	2%
18	Sri Lanka	373	5	0%	18	Israel	8,466	62	2%
19	Turkey	338	5	0%	19	Brazil	6,831	41	1%
20	Honduras	324	3	0%	20	Denmark	6,468	48	1%

7. Reshoring + FDI by International Regions From

At 63%, most Reshoring is from Asia.

About 75% of Reshoring cases do not report Country or International Region From. We expect the true percentage from Asia is higher, due to the risks and resulting silence about leaving China. Also, automatic reshoring cases – which count as reshoring because they are replacing imports - generally do not report from where the displacement originates.

FDI used to come primarily from Western Europe and Japan. With the increase in Chinese investment in the mid 2010's, Western Europe and Asia are cumulatively about equal for FDI.

Exhibit 7a | Reshoring by International Region, 2010- 2021					
Rank by jobs	**Country**	**Jobs**	**Companies**	**Jobs/Company**	**% of jobs of total reporting**
1	Asia	89,969	1,096	82	63%
2	North America	39,039	175	223	27%
3	Western Europe	9,264	124	75	7%
4	Eastern Europe	1,134	5	210	1%
5	Middle East	961	16	59	1%
6	South/Central America	405	8	50	<1%
7	Africa	70	3	26	<1%
8	Australia/Oceania	0	5	0	<1%

Exhibit 7b | FDI by International Region, 2010-2021					
Rank by jobs		**Jobs**	**Companies**	**Jobs/Company**	**% of jobs of total reporting**
1	Asia	269,178	1,169	230	44%
2	Western Europe	254,988	1,646	155	41%
3	North America	52,835	359	147	9%
4	Middle East	15,939	104	154	3%
5	South America	7,266	50	147	1%
6	Eastern Europe	5,312	27	197	1%
7	Australia/Oceania	10,263	21	489	2%
8	Africa	2,127	9	236	<1%

Exhibit 7c | FDI + Reshoring by International Region, 2010-2021					
Rank by jobs	**Region**	**Jobs**	**Companies**	**Jobs/Company**	**% jobs of total reporting**
1	Asia	359,147	2,265	159	47%
2	Western Europe	264,252	1,770	149	35%
3	North America	92,892	537	173	12%
4	Middle East	16,900	120	141	2%
5	South America	7,671	58	133	1%
6	Eastern Europe	6,446	32	199	1%
7	Australia/Oceania	10,263	26	389	1%
8	Africa	2,197	12	188	<1%

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 30X as much reshoring. Asia and Western Europe have a similar contrast.

Exhibit 7d | 2021 Comparison of European and Asian Reshoring and FDI		
Region	**Reshoring Jobs**	**FDI Jobs**
Austria	0	13,520
Germany	2,106	98,058
Switzerland	1,539	22,026
DACH Total (Deutschland, Austria and Switzerland (CH)	3,645	133,604
Western Europe	9,264	254,628
Asia, including China	89,969	269,178
China	59,643	95,169

8. Reshoring + FDI Cases by State

In 2021 Texas had the most job announcements of all the states. Tennessee moved up to 2nd. Arizona jumped from 15th for 2010 thru 2020 to 6th for 2021, driven strongly by chip foundry announcements.

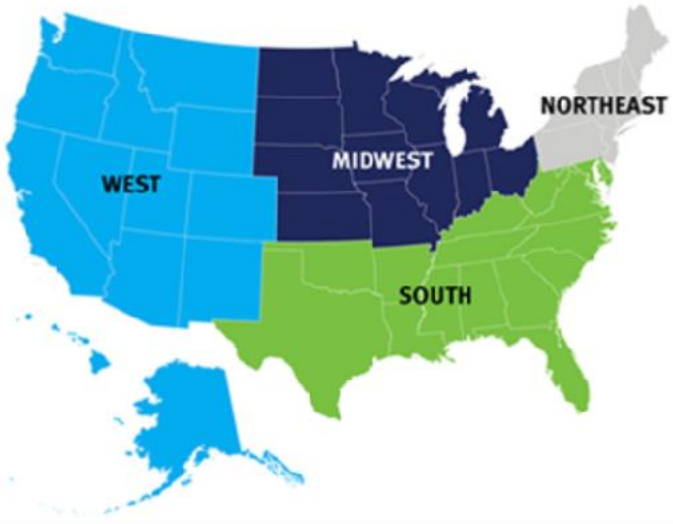
Exhibit 8a | **Jobs by State, Top 10, 2021 Only**

	Reshoring			FDI			Reshoring + FDI		
Rank	State	Jobs	Companies	State	Jobs	Companies	State	Jobs	Companies
1	MI	17,299	70	KY	9,339	32	TX	21,671	105
2	TX	15,026	78	NC	7,619	47	TN	18,705	88
3	TN	13,649	62	GA	7,524	32	MI	18,694	88
4	AZ	11,273	30	AL	6,954	29	KY	17,787	59
5	NC	9,150	108	TX	6,645	27	NC	16,769	155
6	VA	8,994	46	SC	5,555	41	AZ	15,053	46
7	IL	8,843	46	TN	5,057	26	VA	11,680	73
8	KY	8,448	27	IN	4,853	15	GA	11,493	67
9	OH	7,827	38	MO	4,388	17	IL	9,960	52
10	CA	7,746	97	AZ	3,780	17	OH	9,236	56

Exhibit 8b | Reshoring + FDI by State, 2010 - 2021					
Rank	**State**	**Jobs**	**Companies**	**Average Jobs/ Company**	**% of Jobs**
1	SC	103,887	579	179	8%
2	TX	95,968	612	157	7%
3	TN	90,559	410	221	7%
4	NC	89,290	647	138	7%
5	MI	80,012	462	173	6%
6	GA	72,770	427	170	6%
7	AL	66,391	341	195	5%
8	OH	65,816	448	147	5%
9	KY	51,297	270	190	4%
10	NY	45,908	562	82	3%
11	AZ	43,586	139	314	3%
12	CA	41,221	713	58	3%
13	VA	40,016	287	139	3%
14	LA	37,680	164	230	3%
15	IN	36,976	333	111	3%
16	NV	28,766	62	461	2%
17	MA	26,925	324	83	2%
18	WI	26,784	202	132	2%
19	IL	26,237	253	104	2%
20	MS	25,318	131	193	2%
21	FL	23,195	200	116	2%
22	PA	20,103	345	58	2%
23	MO	16,061	141	114	1%

24	NJ	13,103	142	92	1%
25	AR	12,384	111	112	1%
26	WV	10,692	51	210	1%
27	OR	9,799	98	100	1%
28	CO	9,590	173	55	1%
29	MD	9,567	115	83	1%
30	KS	9,186	48	193	1%
31	NH	9,142	41	221	1%
32	SD	8,535	22	384	1%
33	UT	8,485	86	98	1%
34	IA	7,827	56	140	1%
35	NM	7,004	32	216	1%
36	NE	5,756	47	123	<1%
37	ME	5,483	90	61	<1%
38	WA	5,246	114	46	<1%
39	RI	4,965	42	118	<1%
40	MN	4,078	162	25	<1%
41	OK	3,995	33	122	<1%
42	CT	3,498	88	40	<1%
43	PR	2,670	21	129	<1%
44	DE	2,511	32	80	<1%
45	VT	2,490	50	50	<1%
46	ID	619	37	17	<1%
47	ND	485	17	29	<1%
48	MT	269	33	8	<1%
49	WY	206	15	13	<1%
50	HI	27	3	10	<1%

9. Reshoring + FDI by U.S. Region



The South and Midwest continue to dominate over the 12 years measured.

Exhibit 9 | Reshoring + FDI by U.S. Region, 2010-2021				
U.S. Region	**Jobs**	**Companies**	**Average jobs/company**	**% of total jobs**
South	737,999	4,445	166	56%
Midwest	294,697	2,188	135	22%
West	155,221	1,507	103	12%
Northeast	132,064	1,697	78	10%

10. Nearshoring

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

For example, 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 is not as complete for nearshoring, which is less often reported in U.S. news sources. The nearshoring data includes cases in Canada and Mexico by companies headquartered in the U.S. or outside of N. America.

Exhibit 10 | Nearshoring, 2010-2021				
Country	**Jobs**	**Companies**	**% from Asia**	**% from Western Europe**
Canada	4131	32	86%	14%
Mexico	44631	146	80%	20%

11. 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 to help them identify firms with opportunities for outsize gains by selling or buying smarter.

12. 2022 Trends and Predictions

Based on the first quarter of 2022 we project that 2022 reshoring + FDI jobs announced will be upwards of 400,000. However, at some point, companies will become more focused on fulfilling the giant commitments already made before announcing more.

Exhibit 11a |	Rate of Jobs Announced			
	2022 Q1		2022 full year projection	
	Jobs	Companies	Jobs	Companies
Reshoring	73,786	281	295,142	1123
FDI	27,613	132	110,454	528
Reshoring + FDI	123,490	413	405,596	1651

We anticipate the strength of reshoring vs. FDI to continue, consistent with a multi-year slowing in global FDI. COVID and geo-political induced business uncertainty is causing companies to emphasize operations in their home countries. Training a skilled workforce to fill the new positions will be a challenge and barrier to further growth. To meet this challenge, companies, trade associations and states have been ramping up training programs.

Survey results showed a surge in reshoring plans in 2021, subject to the emotion of the

pandemic, and have continued in 2022. Perceptions of manufacturing jobs are also improving.

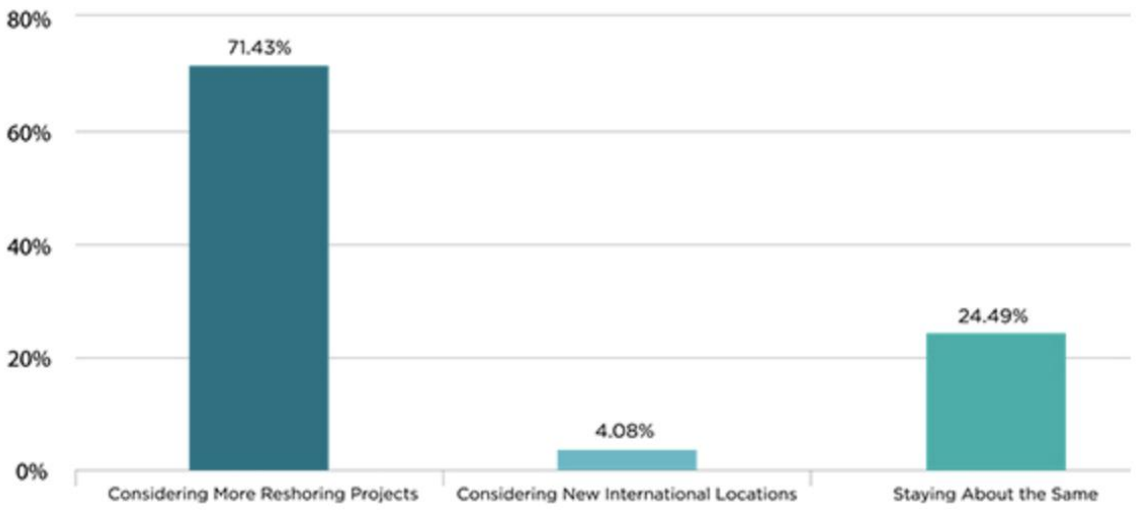
McKinsey "How Covid Is Reshaping Supply Chains," November 2021:

1. Almost 90 percent expect to pursue some degree of regionalization during the next three years
2. 100 percent from the healthcare and the engineering, construction, and infrastructure sectors said regionalization was relevant to their sector.

Article re McKinsey report:

- In a new report, McKinsey says the world is set to see "a once-in-a-lifetime" wave of capital spending on physical assets between now and 2027 around US$130tn, as businesses seek to decarbonize, renew critical infrastructure and invest in mitigating supply chain risk by -among other things - reshoring.
- Reshoring chip production is an example of asset investment: The McKinsey report also references government involvement in capital expenditure programs, citing US legislation - the Creating Helpful Incentives to Produce Semiconductors (CHIPS) for America Act. CHIPS includes $52 billion for domestic semiconductor production.
- A surge of investment in hard assets will pressure already strained supply chains and project delivery systems. CEOs who transform their capital strategy fast—and first—may win a competitive edge.

Jan 2022 Site Selection Magazine reported that 71% of companies are considering more reshoring projects vs. only 4% considering international locations.



There is a substantial pipeline of huge projects that have been announced but are not firm enough to be included in our database. These projects include: Foxconn in Wisconsin, Apple, SoftBank and numerous shale gas refinery projects. Foxconn is now considering producing EV's instead of display panels in the Wisconsin facility. It remains to be seen whether the political and economic climates that motivated the earlier announcements are still strong enough to enable follow through.

Results in 2022 will depend largely on economic recovery from the COVID crisis and inflationary problems that are building for the Russian Ukraine war. Re the pandemic, there are two forces that will conflict. On the negative side, the virus 'continued impact on the economy and business uncertainty. On the positive front, the virus 'lesson about the country's lack of self-sufficiency will spur growth in local sourcing.

The Biden administration offers both head and tail winds for progress. Corporate tax rates, regulations, tariffs, skilled workforce, etc. could play an important role. The 2017 upswing in activity was in response to lower tax rates and regulations. Below are some factors that may impact 2022 relative to 2021.

Forces likely to slow reshoring and FDI:

1. **Disrupted supply chains causing lack of availability of components**
2. **Continued workforce shortages**
3. **Continued increase in industrial capabilities in SE Asia and Mexico, attracting work that would otherwise come back to the U.S.**
4. **U.S. inflation rate higher than in other countries, further reducing competitiveness.**
5. **Higher USD**

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 in current supply chain gaps. President Biden is prioritizing reshoring highly, applying different methods than President Trump.
2. **Continued growth in efforts by MEPs (Manufacturing Extension Partnerships), EDOs (economic development organizations) and states to enable reshoring** - The Reshoring Initiative is deeply involved in these efforts.
3. **Environmental, Social and Governance (ESG) trend:**
    b. **Corporate 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 the most effective and least expensive way to fulfill their commitments. Companies can strengthen the three new stakeholder constituencies while increasing the return to shareholders if they do the math correctly.
    c. **Climate crisis and Increasing environmental consciousness** - Domestic supply chains are more transparent than offshore and less polluting, cutting the world's environmental impact by up to 25%, depending on the product. Sustainability practices will continue to increase as a corporate strategy and will help drive reshoring and FDI.
4. **Risk of aggressive "decoupling" by China.** As tensions grow over Taiwan and any Chinese support of Russia in Ukraine, the likely of an abrupt termination of shipments of a broad range of products increases.
5. **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.
6. **Continued improvement in skilled workforce programs**
7. **Automation, IoT, Industry 4.0, AI shrinking the unit labor cost gap**
8. **Russian/Ukrainian 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 geo-politics.

Ambiguous:

1. **Higher interest rates** - Has raised the value of the USD (headwind) but will surely increase the carrying cost of inventory (tailwind), which is increased by offshoring.
2. **Possible actions on tariffs, trade with China, etc.** - Likely to be long-term favorable but temporarily disruptive.
3. **Oil prices and environmental regulations -** Higher 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.
4. **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, 20% lower USD and adding a VAT.

There is probably an average 12-month lag time between the announcement or implementation of policy changes and a significant response in the trends. Best guess forecast: 2022 reshoring will reach a new record and FDI will recover moderately. The biggest challenge will be bolstering our skilled workforce, which is not adequate to support a much higher rate of reshoring.

Conclusion

The rate of reshoring plus FDI job announcements in 2021 was up 46% from 2020 and over 4000% from the 2010 rate. The resulting cumulative 860,000 incremental hires represent about 7% 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.'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. The Reshoring Initiative can help government policy makers project the impact of applying industrial policy to bring millions more jobs back.

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 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 that 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.

Harry Moser, President
Reshoring Initiative
Tel: 847.867.1144
Harry.Moser@ReshoreNow.org

Millar Kelley
Senior Research Analyst
reshorenow@gmail.com

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

Contact us: 1 (847) 867-1144 | info@reshorenow.org