

Reshoring Initiative 2016 Data Report: The Tide Has Turned

Introduction

This report contains data on trends in U.S. reshoring and FDI (Foreign Direct Investment) by companies that have returned U.S. production or sourcing from offshore. The data is cumulative 2010 through 2016 and is for the U.S. only, unless otherwise noted.

The combined reshoring and related FDI trends increased, adding 77,000 jobs in 2016, with an additional 13,000 reported for the years 2010 thru 2015, bringing the total number of manufacturing jobs brought from offshore to over 338,000, since the manufacturing employment low of 2010.

Reshoring and FDI together were up over 10% in 2016, with much of the increase coming in November and December, presumably due to anticipation of greater U.S. competitiveness following the election. Similar to the last few years, FDI continued to exceed reshoring in terms of total jobs added, but reshoring increased at a higher rate than FDI from 2015 to 2016. Preliminary data from 2017 indicates similar trajectories, with an all-time high of reported jobs per month reported in January 2017.

Data Chart Index

Reshoring Trends, Cumulative 2010-2016 Totals ¹

1. Reshored + FDI Manufacturing Jobs: The Tide Has Turned! – table
2. Reshored + FDI Manufacturing Jobs, cumulative 2010-2016
3. Reshoring + FDI by Tech Level, 2010-2016
4. Reasons Cited for Reshoring + FDI, 2010-2016
5. Reshoring + FDI by Industry, 2010-2016
6. Reshoring + FDI by Country from, 2010-2016
7. Reshoring + FDI by International Region From, 2010-2016
8. Reshoring + FDI Cases by State, 2010-2016
9. Reshoring + FDI by U.S. Region, 2010-2016
10. Nearshoring, Cumulative 2009-2017 Q1
11. Highlights from 2017 Q1 data

¹ The data for these reports comes from: the Reshoring Initiative's Reshoring Library of over 4,000 published articles; privately submitted Reshoring Case Studies; and some other privately documented cases. Reshoring and FDI (Foreign Direct Investment) 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. We recognize cases when they are announced, assigning them to the current year unless implemented in a prior year. Probably, actual hiring lags 6 to 12 months behind the announcements. 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 will vary from chart to chart since we do not have data for all chart topics from all cases.

Reshoring Trends Report, Cumulative Totals 2010-2016

1. Reshored + FDI Manufacturing Jobs: First Positive Gain in Decades

In 2014 and 2015 parity was reached between offshoring and returning jobs, indicating that the net bleeding of manufacturing jobs to offshore had stopped. As of 2016, for the first time, probably since the 1970s, there was a net positive gain in U.S. jobs. The U.S. has gone from losing about 220,000 manufacturing jobs per year at the beginning of the last decade, to adding 30,000 jobs in 2016. Measured by our trade deficit, of about \$500 billion/year, there are still [3 to 4 million U.S. manufacturing jobs offshore](#) at current levels of U.S. productivity, representing a huge potential for U.S. economic growth.

Manufacturing Jobs/Year 2015: The Tide Has Turned			
	2000 – 2003 Annual average	2016	~% Change
New Offshoring	~ 240,000*	~50,000*	-80%
New Reshoring & FDI	12,000*	77,000**	+500%
Net Jobs Gained	~ -220,000	~ +25,000	N/A

* Estimated ** Calculated – Reshoring Library through Dec 31, 2016

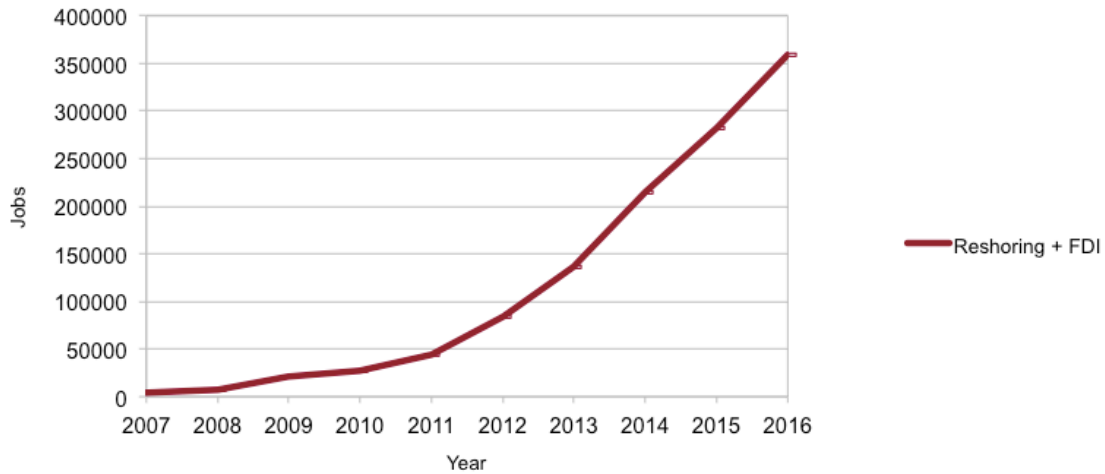
We have found no sources that systematically track offshoring. Our offshoring estimates consider the changes in the level of imports, excluding petroleum.² We encourage any sources of offshoring data to contact us: info@reshorennow.org.

2. Reshored + FDI Manufacturing Jobs, cumulative 2007-2016

The rate of job announcements accelerated in 2016, tying the 2014 record. Most of the increase occurred in November and December, following the election.

² <https://www.census.gov/foreign-trade/statistics/historical/realpetr.pdf>

Reshoring + FDI Jobs Added
Cumulative 2007-2016



3. Reshoring + FDI by Tech Level

It is generally agreed that high tech manufacturing jobs are more desirable than low-tech: more investment, more R&D, higher pay, less risk of loss to low wage countries, etc. However, we encourage the U.S. to become competitive on all tech levels to balance the trade deficit and employ a broader range of workers. Currently, reshoring and FDI are more prevalent in higher tech. There has been a recent uptick in low tech due to increases in apparel, wood, and plastics and rubber industries.

Reshoring + FDI by Tech Level, 2010-2016						
Product Technology Level	Reshoring		FDI		Reshoring + FDI	
	Jobs	Companies	Jobs	Companies	Jobs	Companies
High	19%	15%	14%	16%	16%	15%
Medium High	47%	28%	51%	44%	50%	35%
Medium Low	12%	28%	25%	24%	21%	27%
Low	22%	29%	9%	16%	13%	23%
H+MH	66%	42%	66%	60%	66%	50%
ML+L	34%	58%	34%	40%	34%	50%

Tech level ratings are based on classifications derived from NSF: <https://www.nsf.gov/statistics/seind12/c6/c6s.htm#sb5> and OECD systems: http://www.oecd-ilibrary.org/science-and-technology/revision-of-the-high-technology-sector-and-product-classification_134337307632).

4. Factors Cited for Reshoring + FDI

Understanding the reasons other companies have given for reshoring helps companies to determine whether those reasons apply to them also.

The factors that influence reshoring and FDI are similar with the following exceptions. Reshoring places higher emphasis on Made in USA image, automation and re-design of the product. FDI places more emphasis on government incentives and skilled workforce. Since reshoring is almost all from low-wage countries, the companies have to minimize labor cost here to enable reshoring and can provide more perceived increase in value by offering Made in USA branding. Since most FDI is primarily from other developed countries, Made in USA is a less powerful sales argument. Shifting from Made in Germany to Made in the USA has less brand value than shifting from Made in China. Foreign companies can be recruited by all 50 states and often have larger projects, thus they receive more government incentives.

In 2016 skilled workforce was reported as a reason at a much higher rate than in previous years. The high ratings for skilled workforce are probably partly due to management wanting to recognize their team. It is also possible the rating is in comparison to developing country alternatives. Skilled workforce is receiving much needed attention and some improvements, but it is clear that our workforce recruiting and training are still not as effective as those in Germany, the source of much of the 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, political instability, etc. Positive Factors are the values that attracted the company to the U.S. and that they achieved here. Companies have consistently reported the positive domestic factors more often, 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. Compared to last year, the factors cited with increased frequency were proximity to customers and skilled workforce.

Factors Cited for Reshoring + FDI, 2010-2016				
Negative Offshore Factor	# of times cited		Positive Domestic Factor	# of times cited
Quality/rework/warranty	125		Proximity to customers/market	251
Freight cost	100		Government incentives	249
Rising wages	78		Skilled workforce availability/training	206
Total cost	72		Eco-system synergies	187
Delivery	56		Lead time/time to market	156
Inventory	41		Image/brand	117
Supply chain interruption risk, including natural disaster risk and political instability	39		Infrastructure	79
Communications	30		Automation/technology	77

Loss of control	26		Manufacturing/engineering joint innovation (R&D)	65
Intellectual property risk	25		Customer responsiveness improvement	61
Travel cost/time	22		Higher productivity	58
Currency variation	21		U.S. price of natural gas/chemicals/electricity	58
Green considerations	20		Walmart's U.S. Manufacturing Program	48
Price	20		Lean/other business process improvement techniques	40
Difficulty of innovation/product differentiation	14		Customization/flexibility	29
Social/ethical concerns	7		Raw materials cost	27
Burden on staff, Emergency air freight, Regulatory compliance	6 each		Impact on domestic economy	25
Product liability	4		Labor concessions	16
Onsite audit cost, Reputation risk, Strained offshore relationships	3 each		Under-utilized capacity	15
Employee turnover, Personnel risk	2 each		Lower real-estate/construction cost	11
Tariffs	1		3D Printing/Additive Mfg.	8

5. Reshoring + FDI by Industry

Only products that have been 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. The most active reshoring is by those that left and probably should not have done so, including machinery, transportation equipment and appliances.

The table below is primarily sorted by industry, as defined by three digit NAICs code. We also break out several active industries at the 4 and 5 digit levels. To get complete data at the three-digit level, add these industries into the relevant three-digit category. See the table below for details. As the data indicates, reshoring is focused on products whose size and weight suggest offshoring never offered great total cost savings.

This year, seven of our top ten industries match the list of seven *Tipping Point Industries*³ that Boston Consulting Group's analytical studies projected to be reshored based on wage rates, productivity, total cost, etc. The three of the top-ten industries not included in the BCG study are:

3

https://www.bcgperspectives.com/content/articles/manufacturing_supply_chain_management_us_manufacturing_nears_the_tipping_point/?chapter=5#chapter5

apparel, doing better than expected as retail tries to deal with stockouts and overstocks; chemicals which are driven by shale gas; and wood/paper products.

FDI is more heavily weighted towards transportation equipment because of the ongoing investment in automotive assembly plants and related suppliers. It also benefits the most from the government incentives.

In 2016, plastics and rubber moved ahead of fabricated metals; primary metals moved ahead of non-metallic minerals; medical equipment moved up 3 spots to #14; and furniture moved up 7 places to #10.

Reshoring + FDI by Industry, 2010-2016				
Ranking by job #s	Industry	NAICS Code(s)	Jobs	Companies
1	Transportation Equipment	336	133963	444
2	Electrical Equipment, Appliances, Components	335	35340	201
3	Plastic/Rubber Products	326	29220	218
4	Fabricated Metal Products	332	18725	245
5	Computer/Electronic Products	334	18393	137
6	Apparel/Textiles	313, 314, 315, 316	17166	287
7	Chemicals	325	16257	136
8	Machinery	333	15619	141
9	Wood & Paper Products	321, 322	10723	64
10	Furniture & Related Products	337	7170	55
11	Food & Beverage	311, 312	6968	64
12	Non-Metallic Mineral Products	327	6132	33
13	Primary Metal Products	331	5381	36
14	Medical Equipment	33911	4525	63
15	Energy, Petroleum & Coal Products	324	3828	19
16	Miscellaneous	339	3805	43
17	Castings & Foundries	3315	3248	30
18	Hobbies, Toys & Sporting Goods	33992, 33993	3222	106

6. Reshoring + FDI by Country From

Reshoring is about 60% from China. FDI is heavily from Germany and Japan.

Reshoring + FDI by Country From, 2010-2016			
Ranking by job #	Country	Jobs	Companies
1	China	79540	745
2	Germany	54306	177
3	Japan	35292	159
4	Mexico	19399	115
5	Canada	15787	120
6	Switzerland	10947	45
7	Korea	10821	32
8	Spain	5708	23
9	United Kingdom	5127	41
10	Denmark	4670	18
11	France	4616	43
12	India	4416	51
13	Italy	4355	64
14	Sweden	4032	12
15	Taiwan	3949	35
16	Brazil	3513	14
17	United Arab Emirates	3258	3
18	Netherlands	2618	24
19	Singapore	2550	4
20	Austria	2375	15
21	Israel	1689	15
22	Australia	1398	17
23	Ireland	1151	14
24	Belgium	1097	14
25	Africa	885	7
26	South Africa	885	3
27	Finland	773	8
28	Thailand	744	6
29	Luxembourg	630	8
30	Norway	620	5
31	Turkey	612	7
32	Portugal	510	6
33	Jordan	405	3
34	Chile	375	6

35	Poland	285	3
36	Latvia	225	2
37	Hungary	189	5
38	Vietnam	158	8
39	Cyprus	132	2
40	Lithuania	128	2
41	Colombia	75	2
42	Lebanon	27	2
43	Pakistan	19	3
44	Sri Lanka	14	3
45	Russia	3	4
	Egypt	0	4
	Indonesia	0	5
	Malaysia	0	7
	Philippines	0	3
	New Zealand	0	3
	Oman	0	2
	Iceland	0	2

7. Reshoring + FDI by International Region From

Most reshoring is from Asia, most FDI is from Western Europe. Between 2015 and 2016, cumulative jobs from Asia increased by 29% and from Western Europe by 31%, basically consistent with overall changes.

Reshoring + FDI by International Region From, 2010-2016			
Ranking by job #	Country	Jobs	Companies
1	Asia	138450	1112
2	Western Europe	103879	528
3	North America	35186	235
4	Middle East	5991	34
5	South America	3963	21
6	Australia/Oceania	1398	20
7	Eastern Europe	1045	21
8	Africa	885	7

8. Reshoring + FDI Cases by State

The Southeast and Texas get the most and, on average, the largest projects. The Midwest is second based on reshoring to its strong industrial base. Ohio moved up from #8 to #4 based on moves within the automotive and appliance industries, including Whirlpool and Fiat Chrysler. Alabama dropped from #5 to #8.

Reshoring + FDI, Cases by State, 2010-2016			
Rank by job #'s	State	Jobs	Companies
1	SC	51468	152
2	TN	36109	112
3	GA	23849	91
4	OH	18755	139
5	NC	18009	119
6	TX	17536	104
7	MI	16002	115
8	AL	14366	62
9	NY	13487	98
10	VA	13235	49
11	MS	12402	53
12	KY	9482	68
13	FL	8361	50
14	IN	8046	76
15	KS	6803	11
16	CO	5401	47
17	CA	5229	126
18	LA	4753	26
19	UT	4095	29
20	AR	3663	45
21	AZ	3570	11
22	PA	3401	69
23	MO	3219	36
24	MA	3203	61
25	WV	2595	5
26	WA	1939	17
27	NV	1725	8
28	VT	1424	19
29	IL	1302	67
30	NJ	1187	31
31	OR	1184	21
32	DE	1123	15
33	IA	1067	21
34	MD	1034	30

35	CT	1007	22
36	NH	988	14
37	WI	927	49
38	SD	750	5
39	MN	732	38
40	NM	600	6
41	PR	600	4
42	RI	540	11
43	ME	389	29
44	MX	322	10
45	ID	169	7
46	WY	98	6
47	NE	75	9
48	ND	0	4
49	OK	0	3
50	HI	0	0

9. Reshoring + FDI by U.S. Region

Reshoring + FDI by U.S. Region, 2010-2016				
U.S. Region	Jobs	Companies	% of Total	Average Jobs/Facility
South	218589	838	67	261
Midwest	57677	430	18	134
Northeast	25025	255	8	98
West	24706	206	8	120
Total	325996	1729	100	189

10. Nearshoring

Nearshoring from Asia to Mexico or Canada is better for the U.S. than work staying further offshore. 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 are the most frequent industries to nearshore. Currently more companies nearshore to Mexico than to Canada due to greater cost advantages. Our data is not as complete for nearshoring, which is less often reported in U.S. news sources.

Nearshoring, 2009- 2017 Q1

Country to	Jobs	Companies	Average Jobs/facility
Mexico	7480	19	536
Canada	1530	8	219

11. Highlights From 2017 First Quarter Data

- GM announced that over 15,000 jobs have been reshored in the past 6 years.
- January 2017 had the all time highest monthly rate of job announcements:
- In the first quarter of 2017 job reporting is double compared to the same quarter last year, and slightly above the reported number during the fourth quarter of 2016.

Conclusion

Reshoring is still in the early stages of a decades long trend. The purpose of this report is to provide trend data, which should motivate companies to reevaluate their sourcing and siting decisions and make better decisions that consider all of the cost, risk and strategic impacts flowing from those decisions. FDI has continued to be stronger than reshoring. Both trends are based on the logic of localization: producing in or near the market.

2017 Projections

2017 results will depend largely on actual policy changes (taxes, regulations, trade) implemented by the administration. The recent upswing in activity is in response to anticipation of such changes, which are expected to positively impact U.S. competitiveness. If and when the policy changes occur, reshoring and FDI will accelerate.

Other factors that will continue to influence jobs and the trade deficit include the strength of the U.S. dollar, relative to competitor countries. The strong USD and low oil prices hurt both trends, but probably hurt reshoring more than FDI as foreign companies act to increase their position in the strong U.S. market. In contrast, U.S. companies are still largely making sourcing decisions on an ex-works price basis. There is probably a 12-month lag time between these economic changes and a significant response in the trends. Balancing those headwinds, reshoring and FDI continue to gain credibility - companies are becoming more aware of TCO (Total Cost of Ownership), and skilled workforce recruitment and training are improving. In conclusion, we have moderate confidence that policy changes and increased use of TCO will balance low oil prices and high USD. Best guess forecast: 2017 reshoring and FDI will be flat to slightly up vs. 2016's record level. We encourage readers to use our data and tools to help the U.S. improve on our forecast.

Supplements to this report will be published as they become available.

Data refinement is ongoing.

- To see a full list of companies in the database [click here](#).
- 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.
- 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, or go to the Reshoring Initiative's [database entry form](#).