

# WHITE PAPER

Reshoring: It's Not a Myth  
(But It Needs Your Help)

Part 2: A Call to Action



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According to research by A.T. Kearney, leading reasons why companies are bringing their manufacturing back to North America include:

- Shorter delivery time
- Total cost of ownership
- Higher quality
- Reduced freight costs
- Wage cost improvement
- Improved customer responsiveness
- Image/brand
- Higher productivity
- Better innovation/product differentiation
- Inventory management

As pointed out in Part 1, a key factor in making domestic manufacturing competitive is TCO—total cost of ownership.

Companies often make the decision to offshore based on ex-works price or landed cost and ignore, or under-appreciate, other cost factors that have a big impact on the bottom line.

“About 60 percent of OEM manufacturers decide on offshore versus reshore sourcing based on price, or other simple measures,” says Harry Moser, founder and president of the Reshoring Initiative ([www.reshorennow.org](http://www.reshorennow.org)). “This typically results in a 20 to 30 percent miscalculation of actual offshoring costs.”

These decision-makers don’t fully understand TCO. TCO includes inventory carrying costs, travel costs to check on suppliers, intellectual property risks, and opportunity costs from product pipelines being too long. About 30 variables are used to calculate TCO. When an accurate TCO is used, low-cost countries often look less attractive. In fact, for some companies, after running the calculation, staying in the U.S. is closer to a break-even situation (or may even be more profitable), compared to setting up shop overseas.

The takeaway is that when key leaders (executive teams, supply chain managers, manufacturing managers, industrial engineers, and accountants) fully understand TCO, they

can make better source decisions that impact their company’s profitability and strategic objectives.

## A Call to Action

It is already proven that reshoring works—in 2013 alone, about 150 larger companies successfully reshored to the U.S., creating thousands of new jobs. In some cases, however, it may not be feasible to bring back an entire operation (at least, not all at once). In these cases, reshoring can be a phased process—especially if company leaders are a little skittish about change.

Successful reshoring depends on five key steps:

- Use TCO to identify weaknesses that can be eliminated through lean techniques and other quality initiatives, and add the necessary capital investments.
- Shorten and strengthen the supply chain, using domestic suppliers whenever possible.
- Be active in creating a highly-skilled regional workforce that will run your reshored operation.
- Embrace and support “Made in America” initiatives across the country.
- Stay focused on continual improvement and commit to being a re-shoring leader by sharing your knowledge and experience with other manufacturers and organizations.

### **Step 1. Master total cost of ownership.**

Use the Reshoring Initiative’s Total Cost of Ownership Estimator™ to identify gaps/weaknesses in your cost structures. Incorporate a cross-functional team to conduct this analysis. Develop a strategy to narrow or eliminate any gaps that are identified. Undertake lean improvements to make all processes as efficient as possible. Increased efficiencies (even small ones) can be enough to offset the higher costs that might be associated with using local suppliers, compared to outsourcing to low-cost-country suppliers. Invest in



any needed equipment, technology, or workforce training. Consult with experts from manufacturing extension partnerships and other organizations to be sure every part of the operation is being optimized.

Don't be complacent—for example, no process is truly lean until it has gone through lean at least six times. Although gains are progressively less as a process gets leaner, they still add up.

Consider how your company can utilize automation/robotics, which is increasingly essential for being cost-competitive in the global marketplace. Automation increases speed of operation, eliminates worker error, reduces labor costs and labor injury, improves quality, reduces waste and rework, increases customer satisfaction, and reduces overall operational costs—all of which help close the gaps identified by the TCO analysis.

Also, automation doesn't necessarily mean workers will be laid off. In many cases, their skills can be better utilized in other positions, as a result of automation. Even if workers are laid off, chances are better that more workers will be hired in the future as your business expands—the result of the increased efficiencies that automation provides.

For example, Marlin Steel Wire Products in Baltimore recently invested \$3.5 million in new equipment and robotic technology. "Robots make better-quality parts," says Marlin Steel president Drew Greenblatt. "The robots are inside the cage, doing the nasty, carpal-tunnel work. This allows our employees to do safer, more challenging work."

Implementing automation improves the comfort and safety of the workplace—this can be a huge factor in retaining employees. There is already a shortage of skilled manufacturing labor. Skilled workers are a huge asset—if they are satisfied with their work environment, and feel their employer is investing in their well-being by eliminating tedious or dangerous work through automation, they

will be less likely to jump ship when other companies try to lure them away.

Matt Turpin, founder of Zentech Manufacturing, a contract manufacturer based in Baltimore, believes automation is a key factor in bringing manufacturing back to America.

"What used to be done in 50 parts is done with one part," says Turpin. "Automation within the assembly area has grown by leaps and bounds. It is light years ahead. So now, when you compare the U.S. to Asia, if your raw-material cost is the same, if your cost to buy the automation equipment is the same, if your cost to finance the capital is the same, and your labor is down to five minutes or ten minutes, you may as well manufacture here."

## **Step 2: Manage the supply chain.**

Supply chains, especially global ones, can be highly variable, with lots of complexity and moving parts. They are often an area of disruption, inefficiency, and higher costs.

As reported in Part 1, outsourcing failure ranks as a key factor in supply chain disruption. "Service issues attributed to outsourcing jumped to third place in the causes of supply chain disruption at 35 percent, up from 17 percent in 2011, highlighting the importance that outsourcing decisions have in supply chain resilience," states a report by the Business Continuity Institute. It also showed that 73 percent of organizations recorded at least one supply chain disruption in 2012, with 39 percent of analyzed disruption originating from below the immediate supplier.

The report concluded that "effectively managing supply chain continuity is critical—not just because of the immediate costs of disruption, but also the longer-term consequences to stakeholder confidence and reputation that may arise following a supply chain failure."

Stabilizing the supply chain is one of the best reasons for bringing operations back to the U.S. The supply chain can often be shortened to include locally manufactured products and components, instead of importing these from offshore. A package is available from the Reshoring Initiative and Datamyne that can assist companies in determining how much of their offshored work can be brought back. “The Datamyne database helps identify all imports by regional companies, generally OEMs,” says Moser. “Economic development groups can then decide which imports are, in aggregate, larger volume and can possibly be replaced by regional existing capacity.”

Part of this process is asking the importing company to consider producing or sourcing locally. “The importers will say they cannot source locally because prices are much lower (typically 30 percent) offshore,” Moser continues. “However, the Total Cost of Ownership (TCO) Estimator will show them how to re-evaluate offshoring versus reshoring costs. Chances are they’ll see there is no TCO difference, or only a slight one, when local sourcing is used.”

Using domestic vendors makes it easier for companies and their suppliers to communicate, collaborate, and evolve together as a team to meet market challenges—especially controlling costs and reacting together to adapt quickly to changing market forces.

### **Step 3: Create a highly-skilled workforce.**

Based on TCO user data, the Reshoring Initiative concludes that about 25 percent of what is offshore would come back today if companies used the correct TCO. More work will also return as the gap between U.S. wages and China wages continues to narrow. However, what might drastically slow down this rate of return is not having enough skilled labor to take on the work.

This is already a critical problem for many manufacturing companies in the U.S.—they have plenty of job openings, but not enough skilled workers to fill them. A 2011 survey conducted by the National Association of Manufacturers showed that 600,000 jobs go unfilled in the industry because of a lack of necessary skills. Availability of skilled labor is often the number-one site-selection criterion for companies seeking to relocate or expand operations. A region with a limited skilled-labor pool will regularly lose out on these new projects.

To create a highly skilled and in-demand workforce, manufacturing companies in a region must support organizations like the National Academies of Sciences and Engineering, Manufacturing Institute/Clinton Global Initiative, and the Association for Manufacturing Excellence and their employee development programs.

The bottleneck to expanding the skilled workforce is recruitment: fewer high-school students are interested in STEM (science, technology, engineering, math) careers, especially in manufacturing. To improve this situation, the Reshoring Initiative recommends two high-impact, minimal-cost programs:

1. Counter the perception that manufacturing is continuing to decline and that all work will eventually go offshore. This can be done through:

- Promoting the success of reshoring to improve the attractiveness of manufacturing careers.
- Working with the National Association of Manufacturing, National Tooling and Machining Association, Association for Manufacturing Excellence, extension partnerships, economic development groups, and community colleges to document local reshoring cases. “These can be published regionally as ‘reshoring stories of the month’ or even marketed nationally,” says Moser. “The Reshoring

Initiative has online case reporting capability already in place.”

- Marketing the success of reshoring to attract new recruits to manufacturing. “As students become more interested in manufacturing careers, high schools will provide skills training,” says Moser. “The competitiveness of a region can also be shown by promoting its reshoring activity.”

2. Counter the perception that manufacturing jobs don’t pay well and are low prestige. Many high-school graduates believe that vocational or trades training is not as beneficial as a university degree, which is commonly promoted as the best way to achieve good-paying careers. Changing this misperception can be done by:

- Eliminating the “vocation” and “trade” description.
- Referring to the skilled occupations as “professions” and the skilled workers as “professionals,” as they do in Germany and Switzerland. “As manufacturing employees take on more mental and less physical responsibilities, the ‘professional’ reference is increasingly appropriate,” says Moser. “This will increase the attractiveness of skills training and careers.”
- Enlisting the cooperation of the K-12 educational system, community colleges, media, employers, and economic development organizations in supporting these goals.
- Documenting that training pays. Include in Bureau of Labor Statistics (BLS) data the incomes of workers who have passed apprenticeships, or have a strong portfolio of credentials. Moser presented this idea to the Department of Labor in 2012. Based on that discussion, the BLS has added a note regarding apprenticeships and training, and changed the heading

from ‘Education Pays’ to more neutral text. “They have also started a survey to collect apprentice graduate income data,” Moser adds. “Making this data available to guidance counselors and school administrators will attract higher-caliber recruits to the field of manufacturing.”

## **Step 4. Make it in America.**

Make every effort to let Americans know that purchasing products made in America is the best way to strengthen U.S. manufacturing and provide good-paying, rewarding careers for our younger generations.

This is happening at the federal level with the “Make It in America Challenge,” which was issued by the Obama administration in 2013. The program supports reshoring efforts by creating conducive environments for business growth, as well developing skilled workforces for specific industries. Recently a total of \$20.5 million in grants was awarded to ten projects that stimulate regional economic development, advanced skills training, and improved supply chain access.

“Given our competitive advantages in energy costs, research and development, labor productivity, and intellectual property protection, there is no better place to do business than the United States,” said U.S. Secretary of Commerce Penny Pritzker. The Make It in America Challenge supports innovative, regionally-based strategies that will encourage businesses to capitalize on those advantages.”

According to the Alliance for American Manufacturing (AAM), more than 30 states have introduced “Buy America” bills that pledge to use American-made building materials in their construction projects. Further, AAM indicates that the American public’s interest in buying American-made products is starting to influence

manufacturers' sourcing and production decisions.

States, and especially economic development organizations, tend to compete against each other for factories and jobs. A better approach is collaborating regionally to convince companies not to offshore (or at least reshore with local suppliers). "Getting OEMs to outsource locally is just as important as getting OEMs to locate new facilities," says Moser.

The Reshoring Initiative has also trained unions (IUE-CWA and AFL-CIO) to discuss TCO with employers, with the goal of creating conditions that make the U.S. the most profitable place to manufacture (which, by the way, does not mean the lowest wage)—especially for companies producing for the North American market. "Unions must recognize that unions are stronger, and member jobs more secure, if companies have strong domestic sourcing of components, even to non-union suppliers, than if the components are outsourced overseas or even produced in-house overseas," adds Moser. "The biggest payoff is getting companies to reshore and maintain both components and final assembly in the U.S."

Moser also believes that any company or local government that gets government contracts should at least be required to use TCO to make sure any decision to offshore is not hurting the country or company. "Otherwise, I would insist on reciprocity," says Moser. "Countries that have domestic sourcing rules would not be eligible for U.S. government work."

## **Step 5: Make it happen.**

Every movement needs leaders. The first wave of reshoring has already hit U.S. shores. These leaders have proven it can be done—they have brought back work, hired workers,

and are making money, staying competitive, and contributing to the U.S. economy.

More companies need to follow their lead by doing their own TCO analyses, designing a plan of action, and implementing that plan to address cost issues and bottlenecks, including becoming as lean and efficient as possible. They must also be proactive and tenacious in supporting U.S. quality. In fact, this must become a cultural way of thinking—for every employee, all the time.

The U.S. even looks like the "Promised Land" to Chinese manufacturers, who once lured American companies to their shores. According to Robin Lewis in the Huffington Post, some China-based manufacturers are now sending these operations back to the U.S. (so far mostly in the textile and yarn industries). They are locating in the Southeast, where highly-skilled labor is available, with textile experience. For example, Keer Group, a China-based yarn manufacturer, recently built a new factory in North Carolina.

"With energy costs lower than in China, and non-union labor costs low enough to be offset by the ability to ship yarn to manufacturers in Central America, where finished garments can be sent back to the U.S. duty free, the total cost for yarn production is now less in the U.S. than in China," says Lewis. "A kilogram of yarn spun in the U.S. in 2003 cost \$2.86 vs. \$2.76 in China. By 2010, the U.S. cost was \$3.45 per kilogram vs. \$4.13 in China."

If other U.S. manufacturers can become efficient enough to outperform China in cost by 5-10 percent or more, these savings could be invested in new equipment, training, and other improvements to further maximize their competitiveness. Reshoring in the U.S. is off to a good start—with proper support, it will continue to expand and take U.S. manufacturing to levels we haven't seen in decades.