Reinvesting in the USA

A Case Study of Reshoring and Expanding in the United States

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Investment Research
SelectUSA

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EXECUTIVE SUMMARY

Reshoring and investment expansion have been popular subjects in discussion of the U.S. economy, though little formal research exists on the topic. As SelectUSA renews its commitment to U.S.-owned businesses that are reinvesting in the United States rather than abroad, it is important to understand this knowledge gap.

This report uses qualitative analysis to explore the experiences of six companies that chose to reinvest in the United States. It also illuminates lessons learned by each company to serve as examples for other investors considering U.S. reinvestment as well as policymakers who seek to support reshoring and investment expansion in the United States rather than other markets.

OVERVIEW OF COMPANY CASES

Carey Manufacturing is a metal parts manufacturer producing catches, latches, and handles. Carey Manufacturing reshored much of its manufacturing operations to its facility in Cromwell, Connecticut.

Edgewell Personal Care produces consumer goods for a variety of well-known U.S. brands. Edgewell reshored manufacturing from Canada to Dover, Delaware.

Lincoln Electric designs and manufactures welding and cutting solutions. The company expanded its historic Lincoln Electric Welding School into a new Welding Technology and Training Center in Euclid, Ohio.

Quality Electrodynamics manufactures radiofrequency coils used in magnetic resonance imaging (MRI) scanners. The company expanded its Mayfield Village, Ohio headquarters to enhance manufacturing and R&D.

Sherrill Manufacturing is a flatware manufacturer in upstate New York. Sherrill Manufacturing reshored operations from Mexico to Oneida's historic manufacturing facility in the city of Sherrill.

System76 is a computer manufacturer based in Denver, Colorado. The company's new facility hosts manufacturing operations that were reshored from China.

KEY FINDINGS

DRIVERS

Company philosophy: A commitment to "Made-in-the-U.S.A." products or a do-it-yourself mentality motivated many companies to manufacture in the United States.

Product and design control: Increased ability to manage product quality influenced decisions to return or expand production in the United States.

Efficiency: Companies were motivated to decrease the time between customer orders and product deliveries.

CHALLENGES

Workforce: Some companies faced challenges finding qualified U.S. employees for manufacturing roles.

Regulatory and trade policy environment: Uncertainty posed a challenge for these investments in the United States, whether in maintaining regulatory compliance or in potential effects of tariffs on imports and exports.

BENEFITS

Transportation and connectivity: Most of the companies noted that stronger relationships with suppliers and community partners were a benefit of these reshoring and expansion investments.

Greater innovations: By increasing control over production, companies were able to innovate and improve the quality of their products.

Intellectual property protections: Some companies noted that the United States had stronger intellectual property protections than did some overseas markets.

LESSONS LEARNED

Consider costs and time: Most of the companies found that the reshoring process was more expensive and time consuming than expected, and they had to adapt.

Collaborate with local partners: Almost all the case study participants indicated that local partners such as state or local economic development organizations (EDOs) provided valuable resources and guidance for the reshoring or expansion investment.

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INTRODUCTION

Substantial research is available on factors important to foreign firms' direct investment decisions. However, less research is available that examines key factors of investment for domestic firms that are contemplating reinvesting in the United States by either expanding operations domestically instead of abroad or repatriating operations. The SelectUSA organization, as the official U.S. federal-level investment-promotion agency, is mandated to both attract and retain investment in the United States. SelectUSA's objective to support reinvestment activities has underscored the need for an independent research project to fill the knowledge gap. This report explores the experiences of six companies that have chosen to reinvest in the United States, the factors that enabled them to do so, and the impact of those decisions. It also seeks to illuminate the lessons learned by each company and provide context for the development of strategic services delivered by SelectUSA, economic development organizations (EDOs), and U.S. Export Assistance Centers (USEACs) to domestic firms looking to relocate or expand.

There are many academic and political interpretations of the definition of reshoring activity. For the purposes of this analysis, reshoring investment is when a U.S. firm previously established a production task in its value chain in an international location and then elected to return some or all of its production back to the United States. Expansions explored in this case study exclusively consider investment activity where a U.S. company elected to expand operations in the United States instead of another country. 'Reinvesting' is used to refer to both reshoring and expansion. In all cases, a U.S. firm is defined as a company whose ultimate beneficial owner (UBO) is a U.S. person or entity. Consistent with its work in foreign direct investment (FDI), SelectUSA remains geographically neutral in its support of U.S. states and regions in economic development.

EXISTING RESEARCH

RESHORING AND EXPANSION IN THE DATA

The concept of reshoring gained prominence in the early 21st century as a reversal of the late 20th-century trend of offshoring. The business press frequently depicted this as a groundswell movement of manufacturing firms returning to the United States. Reports such as the 2011 BCG study "Made in America, Again: Why Manufacturing Will Return to the U.S." further stoked economists' and policymakers' expectations for a surge of domestic investment.[i]

The idea of reshoring became popular in the United States among those who saw such potential investments as supporting the U.S. economy in the same way FDI does: by creating U.S. jobs, fostering research and development (R&D) in key industries, and supporting U.S. exports, among other benefits. According to the U.S. Bureau of Economic Analysis, FDI directly supported almost 7.1 million U.S. jobs, provided $60.1 billion of R&D and contributed $370 billion in U.S. exports in 2016 alone.[ii]

Unlike FDI, however, it is difficult to find specific research on the subject of reshoring and expansion in the United States, since these projects are challenging to systemically identify. Instead, researchers have sought to capture these trends in macroeconomic data. Several attempts to quantify the magnitude of this reshoring story in data show that reshoring to the United States or other developed economies is not a widespread trend.[iii] [iv] [v] One study by A.T. Kearney compared the growth in imports of manufactured goods from countries with lower costs of manufacturing labor relative to U.S. manufacturing output growth. That analysis found that manufactured imports to the United States from low-cost countries were growing more quickly than U.S. domestic manufacturing output.[vi]

Nonetheless, across the literature, experts acknowledge that anecdotal evidence of hundreds of reshoring cases is very real. These cases can be found compiled in curated libraries such as the Reshoring Initiative, which culls and catalogues thousands of public announcements of reshoring and expansion investments.[vii]

DETERMINANTS OF RESHORING AND EXPANSION

Exploring the determinants of investment decisions is a quest often revisited by thought leaders across academia. The breadth of research is as diverse as the universe of investment decisions itself. Factors most important to investors can be very temporal and reflect the evolving requirements of competitive customer and production demands. However, the subset of literature

specifically dedicated to examining the determinants of reshoring and expansion activity is limited. Thematic factors of this literature relating to why a company may want to reshore to or expand in the United States largely fall into two main areas: cost changes and market loyalty.

Cost changes refer to a change in the factors of production that alter an operation's calculus of location profitability. These changes may encourage a firm to reconsider operating in the United States. On the one hand, the cost of operations in emerging economies is rising due to increasing wages and increased automation. On the other hand, policy changes including the recent reduction in U.S. federal corporate tax rate can contribute to a reshored investment or a decision to expand further within the United States. In addition, other factors may have gained prominence in the calculus of profitability, such as the total cost of ownership factors. Companies have begun taking into consideration the opportunity costs associated with offshoring, whether in the quality of the product, increased delivery or transportation time, intellectual property (IP) challenges, or impacted customer service.

Market loyalty, or a sense of patriotism internalized in the company or the customer base to produce domestically, is a factor that should not be undervalued in determining why a firm may elect to reshore. Campaigns such as Walmart's "Made in America" program incentivize firms and smaller suppliers to manufacture in the United States. The enhanced brand value of domestic manufacturing, particularly for retail products, may translate to additional market value for each firm.

U.S Competitive Advantage and Looking Ahead

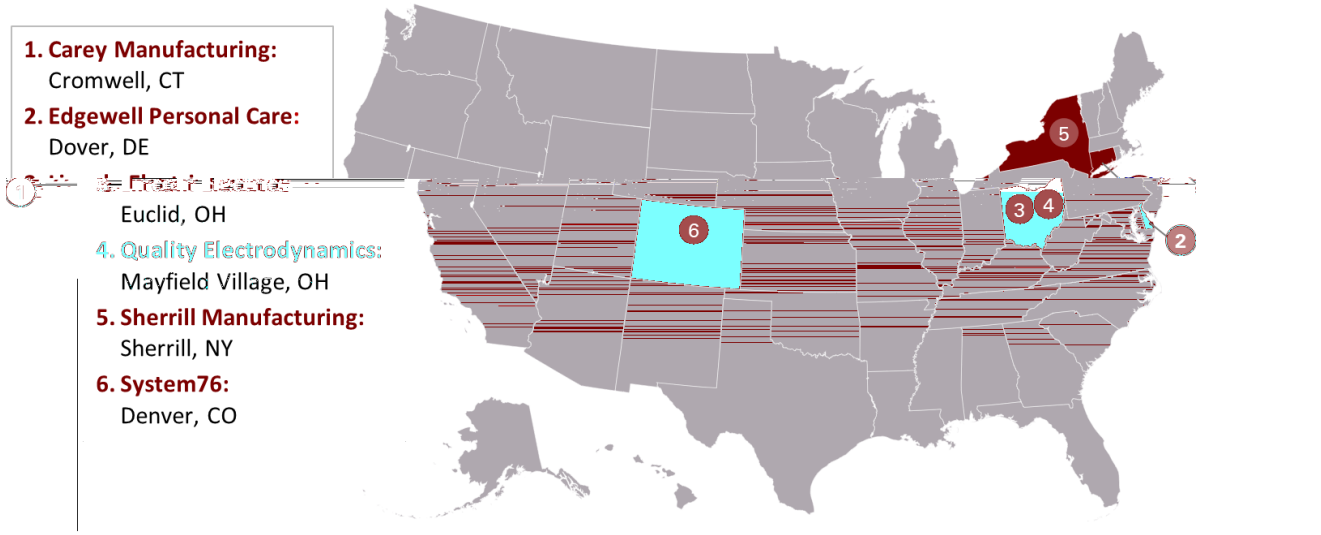
Regardless of the extent of reshoring activity taking place, the United States remains globally competitive in manufacturing. Despite a recent decline in the share of U.S. employment by manufacturers, experts from the Peterson Institute for International Economics say that "the productivity of firms and workers leads the rest of the U.S. economy in growing stronger." [viii] Factors that make the United States more attractive for FDI generally also apply to attracting more reshored investment. Maintaining and growing an appropriately skilled pipeline of workers is essential to continue to attract investors. Reinforcing the unique innovation ecosystem with strong IP protections, industry cluster specialization, and a robust university system will also continue to attract and retain investment in the United States.

METHODOLOGY

To examine recent experiences of companies that reshored or expanded operations, a case study model was selected as the research method for this study. Six U.S. companies were selected as case study subjects and are presented in Figure 1.

FIGURE 1: LOCATIONS OF CASE STUDY COMPANIES' INVESTMENTS

MAPPING THE RESHORING AND EXPANSION INVESTMENT CASES ACROSS THE UNITED STATES



The list of potential companies was developed based on targeted research using a variety of sources. This process involved reviewing recent cases in the Reshoring Initiative database. In addition, targeted searches were conducted using open-source resources to find potential cases of reshoring and expansion in the United States. SelectUSA investment specialists, SelectUSA leadership, and staff at Export Assistance Centers across the United States were also consulted.

Once an initial list was composed, criteria were established to evaluate potential cases. For a company to be considered as a reshoring case, it must have had operations in the United States, established operations abroad, and then moved operations from the foreign country to the United States. For a company to be considered as an expansion case, it must have had operations in the United States, considered moving operations abroad, and ultimately decided to expand in the United States. For all cases, the investment must have occurred within the last five years, and the company or ultimate parent must be headquartered in the United States.

In order to provide diversity among cases, particular attention was paid throughout the selection and invitation process to consider factors such as geographic location of the investment, company size, industry, and the international location of the previously offshored investment (for reshoring cases). Factors for consideration also included the company's publicly stated reasons for reshoring or expanding within the United States and any involvement from EDOs in the investment. Investments that had been completed and implemented were prioritized over announced investments. Diversity in the amount of capital invested and the estimated number of jobs created and retained was also taken into account. A total of four cases of reshoring investments and two cases of expansion investments were sought for inclusion in the final report.

Figure 2 provides details about the cases selected for this report.

Primary research on companies that reshored or expanded was conducted through two rounds of interviews. The first round of interviews was held over the phone or email to discuss the details of the investment. The second round consisted of in-person interviews with leaders from each company on the reshoring or expansion process. Interviews were also conducted with representatives of EDOs and U.S. Export Assistance Centers in the metropolitan areas where the six reshoring or expansion investments had taken place.

FIGURE 2: OVERVIEW OF CASE STUDY COMPANIES' INVESTMENTS

KEY DETAILS OF RESHORING AND EXPANSION INVESTMENT CASES

Company Name	Type of Case	Total Employees	Industry	Investment Amount (US$)	Jobs Created	Previous Offshore Location
Carey Manufacturing	Reshoring	42	Catches, latches, and handles	$5 million	9-10	China
Edgewell Personal Care	Reshoring	5,900	Personal care products	$90 million	160 (est.)	Canada
Lincoln Electric	Expansion	11,000	Welding and cutting solutions	$30 million	40	n/a
Quality Electrodynamics	Expansion	175	Medical device manufacturing	$3.1 million	30	n/a
Sherrill Manufacturing	Reshoring	56	Steel flatware	$1.8 million	17	Mexico
System76	Reshoring	27	Computers	$2 million	9	China

OVERVIEW OF CASES

The six cases in alphabetical order are: (1) Carey Manufacturing; (2) Edgewell Personal Care; (3) Lincoln Electric; (4) Quality Electrodynamics; (5) Sherrill Manufacturing; and (6) System76.

In the Northeast region, Carey Manufacturing is a metal parts manufacturer producing catches, latches, and handles. Carey Manufacturing reshored much of its manufacturing operations to its facility in Cromwell, Connecticut.

In the Mid-Atlantic region, Edgewell Personal Care manufactures consumer goods for a variety of well-known U.S. brands, such as Playtex. Edgewell reshored operations from Canada to a facility in Dover, Delaware.

In the Great Lakes region, Lincoln Electric designs and manufactures welding equipment and systems and provides welding education and training for individuals at all levels of experience. Lincoln Electric expanded its historic Welding School into a new Welding Technology and Training Center across the street from the company's headquarters in Euclid, Ohio.

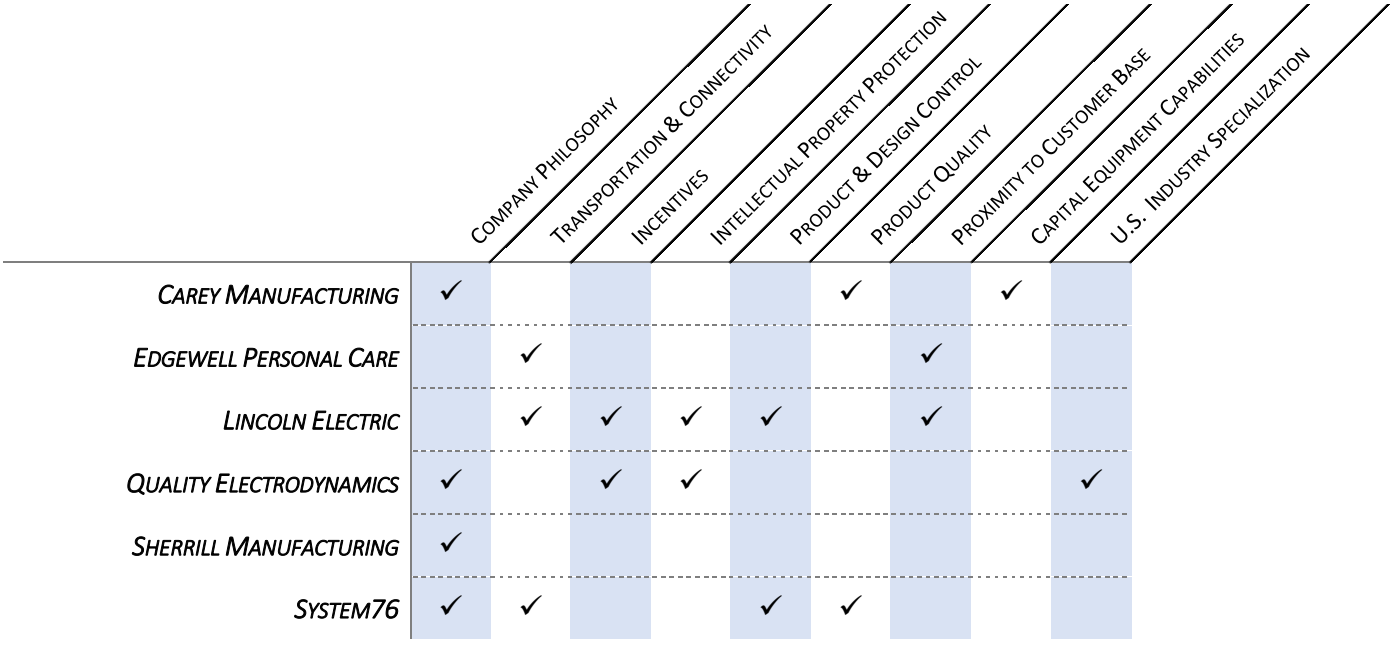
Also in the Great Lakes region, Quality Electrodynamics manufactures radiofrequency coils used in magnetic resonance imaging (MRI) scanners in the healthcare field and conducts R&D to innovate new imaging technology. The company expanded in Mayfield Village, Ohio to enhance its manufacturing operations and create a new R&D facility.

In the Northeast region, Sherrill Manufacturing is a flatware manufacturer in upstate New York. Sherrill Manufacturing reshored operations from Mexico to the historic Oneida manufacturing facility in the city of Sherrill.

In the Southwest region, System76 is a computer manufacturer based in Denver that produces highly customizable desktops, laptops, servers, and operating systems for advanced computing. The company's new facility hosts both its business operations as well as new manufacturing operations that were reshored from China.

Figure 3 compiles the variety of drivers of each case study participant's decision to reinvest in the United States. One of the top drivers of reinvestment among case study participants was company philosophy or ethos (such as a Made-in-the-U.S.A. commitment). The second top driver of reinvestment in the United States was the companies' desire to minimize the distance between production, distribution, and the points of sale.

FIGURE 3: OVERVIEW OF DRIVERS OF CASE STUDY COMPANIES' INVESTMENTS
WHY COMPANIES RESHORED OR EXPANDED IN THE UNITED STATES



CAREY MANUFACTURING

COMPANY BACKGROUND

Founded in 1981, Carey Manufacturing produces catches, latches, and handles in Cromwell, Connecticut – 15 miles south of Hartford. The company also owns and manufactures Amatom brand products, which include electronic hardware such as handles, standoffs, and spacers. Manufacturing space is shared with Floyd Manufacturing Co., Inc., a producer of precision automotive parts. Carey Manufacturing's 30,000-square foot facility in Cromwell employs more than 40 people.

In the early 2000s, the company outsourced the majority of its production to China in order to sell at prices comparable to its competitors. Starting in 2015, Carey Manufacturing started bringing production back to its facility in Cromwell. Since 2015, Carey Manufacturing has produced approximately 80 percent of its products in Cromwell.

RESHORING TO CROMWELL, CT

Altogether, Carey Manufacturing has invested nearly $5 million in equipment and other resources to reshore production thus far. The reshoring investment led to the creation of 10 new jobs.

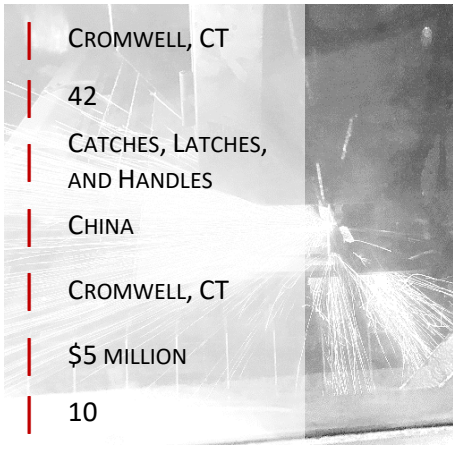
Carey Manufacturing began realizing that it could reshore production in a cost-effective way after being approached by the German-owned company TRUMPF in 2014. After seeing TRUMPF's automated punch and laser cutting machinery, the company could envision itself manufacturing at a sufficient scale to keep costs low.

TRUMPF's North American subsidiary headquarters and manufacturing facility is located in nearby Farmington. The majority of Carey Manufacturing's capital investment in reshoring went toward purchasing TRUMPF equipment manufactured in the United States and Germany.

Ultimately, cost and company philosophy supporting manufacturing in the United States were driving factors in Carey Manufacturing's decision to reshore. The reshoring process is still ongoing as the company adjusts to its new production capabilities.

CAREY
WE CAN HANDLE IT!

HEADQUARTERS	CROMWELL, CT
EMPLOYEES	42
INDUSTRY	CATCHES, LATCHES, AND HANDLES
OFFSHORE LOCATION	CHINA
U.S. INVESTMENT LOCATION	CROMWELL, CT
AMOUNT OF INVESTMENT	$5 MILLION
JOBS CREATED	10



BENEFITS

FLEXIBILITY

With automated machinery and trained staff, Carey Manufacturing has the capability to customize and tailor its products to individual customer demands. In particular, their new machinery settings can be adjusted through a computer interface, which significantly reduces retooling times. With this level of flexibility, the company has more potential to develop additional pieces in its product line.

PROXIMITY TO CUSTOMERS & SUPPLIERS

Compared to a multi-month process of ordering parts from China, Carey Manufacturing is now able to deliver its products to consumers at a faster rate. Orders that once took approximately 18 to 26 weeks to manufacture and deliver from China can now be delivered in eight to ten weeks from Cromwell. The company is also able to efficiently modify orders based on customer requests. For example, when a customer needed a change for an existing part, Carey Manufacturing was able to prototype the new part, ship it to the client for testing, and then produce and ship the adjusted order, all within a week.

With the majority of its manufacturing now taking place in the United States, it is easier for Carey Manufacturing to meet with local suppliers and customers, and the close proximity provides further business opportunities facilitated by in-person conversations.

MADE IN AMERICA

Manufacturing in the United States provides positive branding opportunities. According to Carey

Manufacturing, multiple customers highly value a Made-in-the-U.S.A. brand. For example, several potential buyers have expressed interest in purchasing certain products that are still produced in China once their manufacturing is reshored to the United States.

CHALLENGES

Establishing a Manufacturing Ecosystem

Carey Manufacturing had to relearn or create new systems upon bringing production back to the United States. Much of the manufacturing base that had existed in the area prior to the company's outsourcing diminished by 2015. However, several engineers were still staffed or accessible in the Cromwell facility, which the company believes greatly enabled it to address this issue.

Financing

The costs of reshoring, particularly the costs associated with new capital equipment, were high. Carey Manufacturing expects to see a return on its investments starting in 2020 or 2021. The company perceives private banks as excessively risk averse, which reduces financial resources for small businesses who may require five to six years to see a return on investment.

Foreign Competitor Prices

Carey Manufacturing raised the prices of all its products by five percent in 2018 to compensate for higher costs, which the company associates with tariffs on steel. This is significant to the company as it has lost potential customers due to price differences of a few cents.

Currently, China-based competitors have access to cold rolled steel at slightly lower prices than Carey Manufacturing.

Workforce Development

According to Carey Manufacturing, there is a lack of toolmakers between the ages of 35 to 55. This is notable to the company as younger staff lack significant relevant career experience. As many of its employees are nearing retirement age, the company worries about finding replacements for its pool of highly experienced workers.

Carey Manufacturing perceives a past trend within the last couple generations where young adults entering the workforce were generally discouraged from entering the manufacturing industry. However, the company believes this trend has recently slowed or reversed and that local and state efforts are starting to address these issues.

LOCAL ENGAGEMENT

There are several state and local workforce development and job placement programs near Cromwell, such as the Hartford Job Corps Academy and Our Piece of the Pie. In addition to taking advantage of these programs, Carey Manufacturing partners with local community colleges and other organizations, as well as hosts site visits for youth and other workforce development programs.

While Carey Manufacturing believes it could potentially benefit from available programs and incentives, it states that it lacks the time to research and learn about them. The company believes it could benefit from more effective communication of various program information.

LESSONS LEARNED

Carey Manufacturing leadership admits that it does not know at this point if reshoring was the right choice for the firm. The company emphasizes that businesses undergoing similar projects should be patient because moving operations is not a quick or easy process. The company did not have a guide or example to follow and has instead been learning through trial and error, adding a significant amount of risk to the reshoring process.

"You take a huge risk because you do make every mistake in the book."

-Jack Carey, Founder and President

Carey Manufacturing stresses the importance of thinking through the whole workflow process when establishing production, as manufacturing is complex and frequently presents unanticipated obstacles. Carey Manufacturing warns that not all small businesses are equipped to successfully reshore manufacturing. The company believes that with capable staff and the ability to purchase necessary equipment, it was uniquely positioned to bring back its production when it did.

EDGEWELL PERSONAL CARE

COMPANY BACKGROUND

Edgewell Personal Care Company is a manufacturer and marketer of personal care products in wet shave, sun and skin care, feminine care, and infant care. The company has a portfolio of over 25 brands including Skintimate, Schick, Banana Boat, Hawaiian Tropic, Playtex, and Wet Ones. Edgewell has locations in 20 markets, including manufacturing facilities in the United States, Mexico, Canada, Europe, and Asia.

Edgewell acquired a plant in Montreal, Canada from Johnson & Johnson in 2013 as part of an agreement to acquire the Stayfree, Carefree, and o.b. brands. At the time, Edgewell manufactured feminine care products at a facility in Dover, Delaware. In the summer of 2014, Edgewell announced that it would close the Montreal plant and combine the feminine care product manufacturing operations of both facilities at the Dover location. The move was completed in December 2017.

RESHORING TO DOVER, DE

When Edgewell acquired the plant in Montreal, both the Montreal and Dover facilities were underutilized due to declining sales. According to Edgewell, the primary reason that Edgewell consolidated its feminine care product manufacturing in Dover was that doing so made sense from a cost and business perspective. For companies of this size, Edgewell believes that there are usually one or two driving factors that influence the ultimate site selection decision. In this case, the decision was driven by cost and the desire to create synergies. Operating both facilities in Montreal and Dover had become too expensive, so the company decided to consolidate operations at one site. A consolidation would also bring manufacturing operations under one national regulatory regime, creating further synergies.

Once the decision was made to consolidate operations, the final site selection was based on logistics and proximity to consumers. As 90 percent of Edgewell's North American customers are in the United States and particularly concentrated in the U.S. Northeast, the Dover facility offered closer proximity to consumers (an important factor in the personal care industry as products are shipped in bulk). Edgewell also noted that the Montreal facility had originally been established to take advantage of the U.S.-Canada currency exchange rate at the time that favored manufacturing operations in Canada, a benefit that no longer existed by the time Edgewell made its investment decision.

HEADQUARTERS	SHELTON, CT
EMPLOYEES	5,900 (2,200 IN U.S.)
INDUSTRY	PERSONAL CARE PRODUCTS
OFFSHORE LOCATION	CANADA
U.S. INVESTMENT LOCATION	DOVER, DE
AMOUNT OF INVESTMENT	$90 MILLION
JOBS CREATED	160 (ESTIMATED)

To complete its reshoring effort, Edgewell added 40,000 square feet to the Dover facility, increasing its total size to 565,000 square feet. This $90 million investment created an estimated 160 jobs in Dover (fewer than the number of jobs in Montreal due to efficiencies gained). After reshoring, Edgewell changed its suppliers to U.S. companies to reduce transportation costs.

BENEFITS

STRENGTH AND SIZE OF U.S. MARKET

The company believes that the United States is a more attractive manufacturing location than Canada because of the proximity to a larger consumer base. Edgewell believes that companies generally do not want to manufacture products in China that will be sold in the United States due to longer shipping times to consumers.

Edgewell also believes that the United States has advantages in the economies of scale that it offers to investors. Edgewell offered the example of Europe, where companies generally cannot achieve the economies of scale that they can in the U.S. market.

CHALLENGES

REGULATIONS

Edgewell encountered delays and additional costs during its reshoring effort due to the process to ensure

compliance with state and federal regulations. Edgewell is accustomed to pursuing sustainability goals and does not oppose environmental, safety, or other regulations. However, the company identified a variety of challenges, including the number of government agencies involved, a lack of clear and timely communication between agencies and with Edgewell, and seemingly nonsensical and conflicting requirements. Edgewell cited the process to achieve regulatory compliance as the biggest obstacle to reshoring for U.S. companies.

"All advantages we envisioned, we've been able to achieve. It was just longer and more expensive than we thought."

– Chris Crowell, VP, Global Operations

Workforce

Another challenge that Edgewell faced was the availability and quality of labor. Edgewell continues to have difficulty finding mechanics and machine operators in the United States. At the Dover facility, Edgewell only hired one engineer from the local area, and several jobs remain unfilled after three and a half years. Edgewell contrasts this with Canada, where the company was able to hire 12 temporary mechanics "immediately" and would receive 200 applications from qualified mechanics for open positions. Edgewell has filled vacancies at its Dover facility by hiring individuals from countries such as Romania, Canada, and Italy due to U.S. labor shortages.

In terms of workforce quality, Edgewell stated that entry-level manufacturing workers in the United States are generally less skilled than in other countries such as Canada. Edgewell believes that education systems are more prescriptive and more applicable to manufacturing environments in other countries. Other countries also facilitate a skilled workforce pipeline through the provision of government funding for workforce development. For example, the Canadian government funded internships at Edgewell's Montreal facility; in the United States, Edgewell assumes these costs. Edgewell emphasized that other countries are strategic in envisioning their future economies and workforce requirements.

LOCAL ENGAGEMENT

Edgewell worked with the Delaware Economic Development Office (DEDO) to complete this investment. The company stated that DEDO (which has since been replaced by two new entities) was supportive in making connections with various government agencies involved in the project and facilitated the company's regulatory compliance efforts. Edgewell also engaged with the Delaware Governor's office or a state representative for higher-level assistance as needed.

Edgewell received $3 million in state grants to assist with the costs of relocation and workforce training, though it stated that for an investment of this magnitude, the grants did not play a large role in the investment decision. Edgewell did not receive tax credits for this project.

RECOMMENDATIONS FOR GOVERNMENT

Edgewell believes that a U.S. government guide to regulatory processes for companies establishing operations in new locations would be beneficial.

Edgewell recommends that U.S. government initiatives broadly encourage workforce development in engineering and manufacturing, support programs that guide workers who are not college-bound and incentivize schools to train mechanics and engineers.

LESSONS LEARNED

After its investment in Dover, Edgewell believes that changing the U.S. education system should be a key long-term goal. Despite the challenges presented by regulations, these "can be dealt with." The company believes that changing the education system outweighs regulatory issues, and it is engaging with local partners on workforce development issues. For example, Edgewell has started meeting with Delaware Technical Community College (DelTech) to discuss recommended skills for DelTech's engineering students.

As a final note, Edgewell has recently decided to sell its feminine care brands, including its Dover facility, to focus more on its shaving and skincare business segments. This sale is not related to Edgewell's reshoring effort.

LINCOLN ELECTRIC

COMPANY BACKGROUND

The Lincoln Electric Company ("Lincoln Electric") is a welding and cutting solutions supplier. On the eve of the company's 125th anniversary, Lincoln Electric today has 60 manufacturing facilities in 19 countries and exports to over 200 countries. One third of Lincoln Electric's approximately 11,000 employees are based in the United States. Lincoln Electric first established operations in international markets in the 1940s and 1950s in order to serve its global customers.

Alongside the manufacturing hub at the headquarters in Euclid, the company also runs the Welding Technology and Training Center (WTTC). Lincoln Electric launched its initial welding school in 1917, which is now the world's oldest continuously-run welding school. An estimated 30 percent of the students are new to the field of welding, while the other 70 percent are existing welding professionals, engineers, or technicians who attend the school to be upskilled. Consistent with the school's original mission to train professionals external to Lincoln Electric, the student base is composed of individuals interested in learning welding, the general welding industry, customers' employees, and welding educators.

By 2014, the Lincoln Electric Welding School had grown to be so popular that courses were booked up to two years in advance. The company estimated that there were approximately 30,000 unfilled welding jobs each year in the United States due to a shortage of skilled welders. Lincoln Electric recognized these problems and began to consider how to implement an expansion.

EXPANDING IN EUCLID, OH

Lincoln Electric considered both international and domestic locations for the expansion of its education program. The company already had 35 technical sites around the world that provided limited training, demonstrated products, and supported sales. However, once Lincoln Electric decided to make the new investment in expanding the welding school rather than in a smaller technical center, the investment was determined to stay in the United States.

HEADQUARTERS	EUCLID, OH
EMPLOYEES	11,000 (EST.)
INDUSTRY	WELDING AND CUTTING SOLUTIONS
EXPANSION LOCATION	EUCLID, OH
AMOUNT OF INVESTMENT	$30 MILLION (EST.)
JOBS CREATED	40

Lincoln Electric decided to locate within the United States due to the proximity to its customer base, their existing presence in Ohio, and the well-connected nature of the location. In addition, Lincoln Electric felt that the regulatory and tax systems at the time of the investment allowed the company to feel comfortable with the U.S. business environment. Support from local EDOs such as JobsOhio and Team Northeast Ohio also provided a strategic advantage to expanding at the Cleveland-area headquarters.

Lincoln Electric also highlighted intellectual property protection as a factor influencing where the company decides to make its investments. Lincoln Electric holds hundreds of patents in the United States alone and more in countries around the world. They see these patents as key to enabling investment in new technology.

The planning and construction of Lincoln Electric's expansion took four years. The company invested $30 million into a new 130,000 square foot facility, more than doubling the capacity of the welding school and increasing the number of welding booths from 66 to 220. In addition, the investment created 40 jobs. The new Lincoln Electric Welding Technology and Training Center had its grand opening in March 2018.

BENEFITS

INCREASED SALES AND ENROLLMENT

Lincoln Electric's new facility has produced benefits on both the education and manufacturing sides of its operations. Customers who visit the state-of-the-art Welding Technology and Training Center frequently place orders on Lincoln Electric solutions as a result. In addition, enrollment has increased by over 200 percent

since the center's inauguration, which over time will help to close the gap in the availability of skilled welders.

Strength of U.S. Industry

Locating in the United States provides a strategic advantage for Lincoln Electric due to the country's strong industrial footprint that requires skilled welders across a variety of industries and thus provides a steady flow of students to the school. This strong manufacturing base ensures that there is demand for welding education from the WTTC.

CHALLENGES

Uncertainty

Uncertainty in the economy has led to previous challenges for Lincoln Electric in expanding its investments in the United States, especially as a public company. Whether pertaining to the tax structure or regulations, uncertainty made it difficult to understand the parameters and implications of a possible investment. However, Lincoln Electric noted changes in the business climate over the past five years that provide greater certainty regarding regulations and standards. As a result, the company has felt comfortable with presenting new projects to its board that involve a significant capital investment in the United States.

LOCAL ENGAGEMENT

Lincoln Electric has a strong relationship with local partners, including the statewide EDO, JobsOhio. The company estimated that it received 10 percent of its $30 million investment in incentives such as state and city grants, as well as new-market tax credits. Lincoln Electric spoke highly of cooperation between the state, county, and city levels of government in assisting the company through the expansion process. The company credits JobsOhio and Team Northeast Ohio with successfully guiding early discussions in a way that put the investment in motion; otherwise, the project might never have gotten its footing.

The WTTC also partners with over 4,000 educational institutions worldwide, including Cuyahoga Community College in the Cleveland area. Lincoln Electric also had overwhelming support from its customers and educational partners in making this expansion in Ohio. From national airlines to local hotels, businesses in the Cleveland area issued 200 letters of support for the new WTTC as filling a key gap in workforce preparedness.

Lincoln Electric also has a strong relationship with the U.S. Department of Commerce's Cleveland office, which has provided instrumental trainings and resources.

RECOMMENDATIONS

Lincoln Electric recommended that EDOs strive to achieve a high level of collaboration, efficiency, provision of accurate information, and effective communication between state, county, and local levels.

LESSONS LEARNED

Lincoln Electric has found its expansion of the WTTC to exceed its expectations. The investment provided the company with an engine for continued growth and confidence that new investments in the welding school will be met with demand.

The company acknowledged that an expansion of this size requires a significant amount of upfront work, both in research and planning as well as stakeholder engagement. By obtaining support from the right constituents and utilizing the engineering experience of its own staff, Lincoln Electric was confident that its plan to expand the WTTC was set up to be successful.

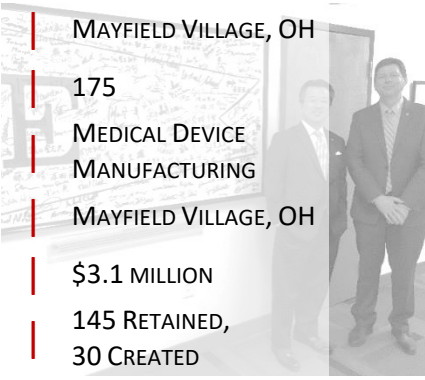
> *"Investing in a center of excellence in the United States and in this region has been tremendous for us, the community, and the state."*
>
> *—Rick Trivisonno, Vice President of Supply Chain and Community Affairs*

Lincoln Electric continues to look for investment opportunities following the success of this project. It recently announced another expansion for an additive manufacturing facility at its headquarters in Euclid. Lincoln Electric is also looking to invest more in sites around the United States in order to meet customers' requests as quickly as possible.

QUALITY ELECTRODYNAMICS

Quality Electrodynamics
Engineering Healthcare Innovations

HEADQUARTERS	MAYFIELD VILLAGE, OH
EMPLOYEES	175
INDUSTRY	MEDICAL DEVICE MANUFACTURING
U.S. INVESTMENT LOCATION	MAYFIELD VILLAGE, OH
AMOUNT OF INVESTMENT	$3.1 MILLION
JOBS CREATED	145 RETAINED, 30 CREATED



COMPANY BACKGROUND

Quality Electrodynamics (QED) is a designer, manufacturer, and service provider of radiofrequency coils used in magnetic resonance imaging (MRI) scanners. QED sells its products directly to original equipment manufacturer (OEM) customers such as Siemens Healthineers, Canon Medical Systems Corporation, and GE Healthcare. As many of QED's largest customers are in foreign markets, QED exports most of its products.

EXPANDING IN MAYFIELD VILLAGE, OHIO

In 2014, QED's leadership determined that the company's primary facility in Mayfield Village, Ohio, was no longer capable of handling QED's long-term needs. Cost and logistical pressures led QED to explore alternative locations including a new facility in Mayfield Village, moving operations to another location in the United States, or significantly changing its manufacturing base with a move overseas.

QED's extensive and specialized U.S. supply chain factored heavily into its decision-making. Moving overseas would have presented significant logistical challenges for retaining those relationships. Relocating the specialized engineering functions associated with QED's complex medical devices outside of the United States also presented a major obstacle. At the same time, QED perceived advantages in co-locating its engineering, manufacturing, and service functions, further inhibiting any desire to move some operations overseas. Ultimately, QED decided to avoid what it deemed a "major rebuilding exercise" and the accompanying upfront investments necessary to relocate overseas, including costs associated with customer audits and the review and testing of parts from a new supply chain.

QED's historically positive relationships with local partners also played a major role in its decision. Having started the company in Mayfield Village and maintained close relationships with city officials, EDOs, the state government, and nearby universities, hospitals, and businesses, QED preferred to stay in the area. Without such strong local and state support, QED stated that it likely would have more seriously considered foreign manufacturing facilities.

QED decided to lease and renovate a facility in Mayfield Village of approximately 77,000 square feet with an option to lease an additional 14,000 square feet. The lease was executed in May 2015, and relocations were completed in July 2016. The renovations included approximately $1.5 million of leasehold improvements. QED has since leased the additional 14,000 square feet to establish the QED Research Center, which involved QED's investment of over $1.6 million. The deal permitted the retention of QED's 145 employees in Mayfield Village and the creation of 30 new jobs.

BENEFITS

STRENGTH OF INDUSTRY CLUSTER

QED noted that Northeast Ohio healthcare industry leadership continues to grow, providing the company with top-tier local collaborative partnerships. The company added that the Cleveland area (including Mayfield Village) is unique as an MRI industry cluster. QED emphasized that synergies are key in this kind of innovative industry, and major medical equipment companies have a presence in the region. As a result, small companies have developed to supply the industry, and a local university established a PhD program in the MRI field that trains individuals for both industry and clinical positions.

INTELLECTUAL PROPERTY PROTECTION

QED cited the superior protection of intellectual property as a benefit of investing in high-tech industries in the United States.

CHALLENGES

Foreign Competition

QED increasingly competes with manufacturers in countries where lower costs of labor can result in lower overall manufactured costs. Domestic content requirements and less stringent enforcement of regulatory requirements in foreign markets also favor QED's competitors. QED believes that products sold in the United States should be subject to the same level of regulatory enforcement and inspections regardless of the country in which they are made.

Automation

QED perceives a growing disparity in the level of investment in robotics and automation between U.S. and Chinese companies, believing that China is promoting automation more than the United States. As a result, QED fears that its U.S. supply chain may become less competitive and limit QED's ability to automate domestically.

Tariffs

Due to the proprietary technology of QED's OEM customers, some components used by QED are available only from China. The company cited the negative impact of tariffs on these components as a challenge.

Workforce

QED noted that it has had difficulty finding workers with the appropriate level of technical training as well as soft skills. The company has noticed this labor challenge in the overall U.S. labor market as well.

LOCAL ENGAGEMENT

QED worked closely with local and state governments during the investment process and emphasized its commitment to these partnerships. The efforts of Mayfield Village played a significant role in QED's retention and expansion, assisting in the facility search and working with QED through the approval processes for the new facility.

Mayfield Village offered QED a $400,000 incentive to encourage the company to remain in the community. This incentive strongly influenced QED's specific facility choices and also helped to defray costs associated with moving and maintaining regulatory compliance.

In conjunction with the subsequent expansion and a commitment to create 30 jobs over the following five years, QED received a research grant from JobsOhio, which provided up to $2.1 million in funding. QED indicated that these incentives were essential to the company's expansion. Prior to this investment, QED benefited from several grant awards from Ohio state programs. While these incentives did not apply directly to the 2015 investment decision, QED acknowledged the historical strength and value of its local engagement.

Since the expansion, QED has increased its participation in cooperative education programs with local universities and hopes that this will lead to full-time employment with the company.

"We are successful because of our local, state, and global partnerships."

– Dr. Hiroyuki Fujita, Founder and CEO

RECOMMENDATIONS FOR GOVERNMENT

QED suggested that the U.S. government increase funding support for cooperative education industry programs and additional programs to facilitate the incorporation of automation into U.S. manufacturing.

QED also recommended that the U.S. government could promote reshoring and expansion in the United States by revising U.S. tariffs on Chinese components in a way that does not disadvantage U.S. companies like QED and by leveling regulatory and audit inspection requirements for medical devices sold in the United States.

LESSONS LEARNED

In hindsight, QED found that it should have leased more space for the expansion. At the time of the investment decision, the company did not anticipate the need for additional space. Subleasing additional space today would present challenges.

QED concluded that collectively, U.S. government and companies should be intentional regarding their actions to return manufacturing to the United States. Innovation is important to maintain U.S. competitiveness and to compensate for the higher cost of labor in the United States.

SHERRILL MANUFACTURING

HEADQUARTERS	SHERRILL, NY
EMPLOYEES	56
INDUSTRY	STEEL FLATWARE
OFFSHORE LOCATION	MEXICO
U.S. INVESTMENT LOCATION	SHERRILL, NY
AMOUNT OF INVESTMENT	$1.8 MILLION
JOBS CREATED	17 -22 (EST.)

COMPANY BACKGROUND

Sherrill Manufacturing, Inc. ("Sherrill Manufacturing") is a manufacturer that produces the Liberty Tabletop stainless-steel flatware brand. A family-owned and -operated business, the company reshored its production in order to focus on a Made-in-the-U.S.A. brand and identifies itself on being the only flatware manufacturer in the United States.

Co-founders Greg Owens and Matt Roberts established Sherrill Manufacturing after Oneida Ltd. (Oneida) shut down its facility in the City of Sherrill in 2005. Sherrill Manufacturing purchased the Oneida facility but soon found itself nearly $6 million in debt. At the same time, the company was competing with lower-priced flatware manufactured in Asia. Further strained by a loss of sales resulting from the 2008 financial crisis, Sherrill Manufacturing filed for bankruptcy in 2010 then sold the Oneida facility and leased back a portion of it. Thereafter, the majority of its production took place in Toluca, Mexico to fulfill contract orders from the General Services Administration and Cutco Corporation. The company continued manufacturing in New York on a periodic basis starting in 2013 before returning all production in 2014.

RESHORING TO SHERRILL, NY

Sherrill Manufacturing raised nearly $1.8 million in capital to reshore production. The company leases approximately 125,000 square feet of the facility established by Oneida in the late 1800s. Not long after moving production back to the United States, the company grew from 20 to approximately 42 employees. Sherrill Manufacturing currently employs about 56 people at its New York facility.

Tapping into a growing domestic demand for U.S.-made products was a key driver of the company's decision to reshore from Mexico. In addition, the company believed the price of flatware manufactured in Asia would eventually rise to a level where U.S. manufacturers could once again compete.

However, Sherrill Manufacturing realized that it could not compete with Asian manufacturers using traditional business models. In order to keep prices competitive, the company implemented a "factory-to-table" business model in which customers buy online directly from the manufacturer.

BENEFITS

MADE IN AMERICA

Sherrill Manufacturing targets a growing segment of the U.S. population that prefers products manufactured in the United States. The U.S.-made Liberty Tabletop brand comprises the company's largest business segment and outpaces its government orders. The company's short-term business goals include growing this customer base. The act of manufacturing in the United States is equally important to the company and is part of its ethos.

LESS EXPOSURE TO CURRENCY RISK

Manufacturing in the United States and using local suppliers reduces currency-related risks for the company. For example, when Sherrill Manufacturing was fulfilling contract orders in Mexico, it benefitted from the lower-valued peso over the dollar. However, when the peso appreciated relative to the dollar, the company was exposed to various cost constraints.

RELATIONSHIPS & SUPPLIERS

Sherrill Manufacturing benefits from relationships it has established with local suppliers and the community. For example, the company has a relationship built on trust with its steel supplier which resulted in a consignment agreement. When Sherrill Manufacturing rolls out a sheet of steel for production at its facility, it records the amount of steel used and pays the supplier accordingly.

Rule of Law

Sherrill Manufacturing values the strength of the rule of law in the United States, as opposed to other markets where it perceives risks related to government corruption.

CHALLENGES

Foreign Competitor Prices

According to Sherrill Manufacturing, recent trade policies on imported steel and a revitalization of the U.S. steel industry has led to a decrease in its U.S. steel costs. Sherrill Manufacturing sources steel exclusively from the United States. The company believes that U.S. steel mills are starting to expand production, which has resulted in a larger supply of U.S.-made steel and therefore lower prices. However, Asian competitors are still sourcing lower-priced steel from Chinese suppliers.

Workforce Availability

When Sherrill Manufacturing reshored production back to New York, the average age of the company's employees was between 50 and 55. As it grows, the company finds it increasingly difficult to find qualified and reliable workers in the manufacturing industry. Employee retention is also a challenge. Within one year, the company hired 46 employees on separate occasions to ensure it had six concurrent employees.

Sherrill Manufacturing believes several foreign countries, such as Canada, have outpaced the United States in their focus on workforce development.

U.S. Dollar Value

While moving production to the United States has reduced exposure to currency value risks, the company is concerned that the U.S. dollar is currently overvalued, making Asian-manufactured flatware more competitive.

Capital Financing

Sherrill Manufacturing perceives banks as more willing to provide financing for capital equipment than for working capital. However, the company believes that working capital was and is of greater importance toward its reshore and expansion efforts.

LOCAL ENGAGEMENT

By bringing back manufacturing from Mexico to New York, Sherrill Manufacturing received approximately $300,000 in grants, as well as several low-interest loans from the state. The company's access to federal and state incentives and programs was supported by local partners such as the Manufacturing Association of Central New York (MACNY) and Mohawk Valley Economic Development Growth Enterprises Corporation (EDGE). The company also values the support it has received from local banks.

Sherrill Manufacturing also capitalized on an apprenticeship program provided through MACNY by the State of New York that provided funds to absorb financial offsets that come with training new employees and interns. The company believes that organizations such as MACNY and Mohawk Valley EDGE are helpful to businesses when they are navigating various regulatory and other government processes.

LESSONS LEARNED

Sherrill Manufacturing's decision to move production from Mexico back to New York was primarily enabled by the company's willingness and ability to implement its web-based "factory-to-table" business model.

The company advocates for other U.S. manufacturers to adopt a similar business model, arguing that production volume may decrease, but profits can increase.

"The door opened because we were looking for it."

– Matt Roberts
Co-Founder and President

Sherrill Manufacturing's leadership admits there was emotion and a stubborn commitment involved as well. Sherrill Manufacturing continues manufacturing a product that has been produced in Sherrill, New York, for more than 100 years by members of the community, including Matt Roberts' grandfather.

SYSTEM76

HEADQUARTERS	DENVER, CO
EMPLOYEES	27
INDUSTRY	COMPUTERS
OFFSHORE LOCATION	CHINA
U.S. INVESTMENT LOCATION	DENVER, CO
AMOUNT OF INVESTMENT	$2 MILLION (EST.)

COMPANY BACKGROUND

System76 is a computer manufacturer building "creation devices" for Linux and custom-made operating systems that are exported to 65 countries. Created in founder Carl Richell's basement, the company initially developed through a whitebook program run by Intel.

The program enabled System76 and other small companies to purchase Intel-verified laptops through original design manufacturers in China. System76 had a unique level of success in the program and credits it with the company's ability to gain a foothold in the computer industry. Without the program, a small company such as System76 would not have been able to fulfill the minimum purchasing orders required by Chinese contract manufacturers.

By the time Intel ended the whitebook program in 2008, System76 had established sufficient relationships with Chinese suppliers to be able to continue operating independently despite being a small firm. System76 began working directly with contract manufacturers in China and assembling its computers in the United States. As the company grew, its leadership considered moving some of its manufacturing operations to the United States. Around 2016, the company began designing the computer that it planned to manufacture in the United States: the Thelio desktop.

RESHORING TO DENVER, CO

Multiple factors influenced System76's decision to reshore operations to the United States. The company had become frustrated with its inability to respond to clients' requests more quickly and take greater control of the manufacturing process. Contract manufacturing had not allowed System76 to adjust its designs as quickly and effectively as it wanted. Especially as a small company, System76 often faced challenges in convincing its manufacturers overseas to make changes. Seemingly minor details are essential to System76's final product; for example, the company spent a significant amount of time designing features such as the power button.

Once a product was manufactured, System76 also found that there were frequent problems in shipping between China and the United States. Not only was there a significant delay in the time between order and delivery, but also products were sometimes damaged in transportation. In addition, the company wanted to produce according to its own philosophy. System76 takes its ethos of open-source products and do-it-yourself attitudes seriously. The company's leadership believed that reshoring operations would better reflect that philosophy.

Today, System76 identifies itself as the only U.S. computer maker manufacturing in the United States. The company has invested approximately $2 million in reshoring and insourcing operations from China. It took two years to locate and purchase a new manufacturing and office facility of approximately 24,000 square feet in Denver. Because the company was beginning manufacturing anew, this investment also created nine new jobs in the United States.

System76 opened its Denver facility in March 2018, began producing in November 2018, and shipped its first products from the facility in December 2018. System76 now manufactures its Thelio desktop computer chassis in Denver and sources motherboards, processors, and additional components from companies in other countries such as China and Thailand. System76 continues to assemble its computers in Denver as well.

BENEFITS

MORE EFFECTIVE PRODUCT IMPROVEMENTS

System76 finds it can make improvements to its products and processes more quickly by manufacturing onsite. The company has made hundreds of changes to the Thelio design in the four or five months that the company has been manufacturing the computer in Colorado. This

increased flexibility and greater control ensures that if there is a problem, System76 can respond to customers' requests and implement changes in a way that it could not while manufacturing in China.

System76 stated that previously, with overseas suppliers, it would take four to six months to implement improvements to product designs. Now, the company estimates that it can apply these improvements within weeks. Furthermore, System76 has significantly reduced the time necessary between design and production.

CHALLENGES

SUPPLY CHAIN

The global nature of modern supply chains poses a problem because System76 cannot find all the components it needs in Colorado or even the United States. Instead, the company says it must continue to source many components from other countries. However, System76 has been able to source certain materials within Colorado, from aluminum sheets to packaging.

TARIFFS

Changes in tariff policy have presented a challenge for System76 as the company cannot easily predict the cost of tariffs to its business operations, given its need for foreign components. Many of System76's foreign-made inputs face tariffs at a 10 percent rate, whereas an assembled computer could be imported at a significantly lower tariff rate of zero to two percent. In addition, as System76 exports to foreign markets, the company faces difficulty in estimating the impact of tariffs on the final cost of a computer for the consumer.

LOCAL ENGAGEMENT

System76 engaged with community partners in its reshoring investment, though traditional incentives packages did not impact the company's decision to move manufacturing from China to Denver. The Office of Economic Development with the City and County of Denver helped to connect System76 to local press and to other local programs that could support their reshoring efforts. For example, System76 worked with the Office of Economic Development to obtain more information about the foreign trade zone – a site designated by the federal government granted to the City and County of Denver. While System76 had not determined whether it would take part in the foreign trade zone, the opportunity could ease the burden of tariffs on the components it imports from abroad.

System76 was also able to benefit from a program at Colorado State University's Department of Environmental Health that provides free health and safety consultations to small businesses to ensure Occupational Safety and Health Administration (OSHA) compliance on the company's new manufacturing site.

LESSONS LEARNED

System76 noted that in the manufacturing process, the company learned to order equipment as early as possible and to plan for the worst-case scenario, as their reshoring investment cost more and required more time than anticipated. Also, in an ideal world, the company would have preferred to buy a higher-end laser cutter; however, that would have been a difficult expense to justify early in the planning stages.

"I'm encouraged and motivated by what we've been able to do, and I'm excited about investing further into doing more manufacturing."
– Carl Richell, Founder and CEO

Overall, System76 is very happy with its experience in reshoring and the progress it has made in manufacturing operations. The company credits much of its success in this new investment to its culture of creativity and empowering employees to take pride in their work. Employees were committed to taking on manufacturing operations and to continually making new improvements because they felt a personal sense of ownership over the project.

With the success of its initial reshoring effort, System76 has already begun to consider reshoring laptop manufacturing to Colorado. The company expects production of these laptops to begin around 2021. System76 views its plans to manufacture laptops in Colorado as another opportunity to build a better product.

DISCUSSION

CASE STUDY TRENDS

The companies profiled in this report were selected in an effort to represent a range of sizes, industries, and geographic locations. Half of the case study participants in this report are small private companies with less than 60 employees, while the remainder includes medium and large private and publicly traded companies. The reshoring cases in this report represent a variety of investments, such as purchasing new automated machinery or new facilities, upgrading existing facilities, implementing new business models, or hiring new personnel. While the investment profiles vary, several trends occur across the case study.

Company Philosophy as a Driver

Whether aiming to establish a Made-in-the-U.S.A. brand or maintain a reputation for high-quality products and services, four case study participants indicated that their own philosophy or ethos played a key role in the decision to reinvest in the United States. Indeed, many other factors that led case study participants to reshore or expand are rooted in the companies' values. These company philosophies often led the participants to make an investment decision not solely based on the bottom line but based on what they felt was true to the company.

Product & Design Control as a Driver and Benefit

Three case study participants cited company oversight and control over products as a factor to invest or an additional benefit of investing in the United States rather than overseas. This was especially true for the companies that had outsourced production with contract manufacturers. At least two companies found communicating design and order modifications with contract manufacturers overseas to be difficult and time consuming. With increased oversight and control of a manufacturing process located in the United States, companies found additional benefits of greater freedom to experiment with product design to continue innovating and improving the quality of their products.

Transportation & Connectivity as a Driver and Benefit

Another key factor for at least half of the case study participants in deciding to invest more in the United States was the potential to enhance efficiencies across multiple existing business operations. As opposed to manufacturing overseas, companies indicated that manufacturing in the United States narrowed the distance between production, distribution, and points of sale. This significantly reduced delivery times for customers in the United States and minimized the risks associated with manufacturing and shipping products from abroad.

Additionally, almost all of the companies indicated that they benefited from locating their reshoring and expansion investments closer to suppliers and customers, thus enabling them to establish closer working relationships with key business partners.

Workforce as a Challenge

More than half of the cases in this report cited current or potential workforce issues as challenges in reshoring or expansion investments, such as labor scarcity, availability of qualified workers, perceptions about manufacturing careers, and funding for workforce development.

With the exception of one case study participant, all companies collaborated with local partners on workforce goals during or after the reshoring and expansion efforts. Several companies noted the success of apprenticeship programs in other countries and stated that they believe the U.S. government should be providing more funding to apprenticeship programs.

Business Climate as a Challenge and a Benefit

Manufacturers are required to comply with many federal, state, and local regulations. Four case study participants indicated that navigating the diverse structures to comply with regulations led to delays and other obstacles. The regulatory environment was not immediately clear or predictable during the reshoring decision-making or implementation process.

Half of the companies also encountered challenges they associate with U.S. trade policy as well as other foreign

policies. This is important as most of the companies import from and export to foreign markets and compete with companies operating in foreign markets.

At the same time, two companies noted that they benefit from the United States' strong intellectual property protections as well as consistent and effective enforcement of the rule of law.

LESSONS LEARNED FOR U.S. COMPANIES

CAREFULLY CONSIDER THE COSTS & TIME

The case study participants who made a reshoring investment acknowledged that these projects were more expensive and time consuming than expected. All four reshoring case study companies noted that the processes involved with reshoring and establishing production need to be carefully considered.

While the case study participants reshored to or expanded in the United States for a variety of reasons, all reshoring case study participants had initially offshored and sometimes outsourced production to foreign markets primarily to reduce manufacturing-related costs. In order to reshore efficiently, companies often had to implement new business models or innovate new production capabilities to minimize costs or prioritize certain advantages over operational costs, such as customer service or product quality.

Several companies reported encountering unanticipated costs while reshoring. Companies incurred unforeseen expenses from new equipment purchases to fulfill an additional need in the manufacturing process, renovations to existing manufacturing facilities, or compliance with regulations and standards. These transactions involved not only financial costs but also time delays.

COLLABORATE WITH LOCAL PARTNERS

Case study participants frequently mentioned that local partners – including state or local EDOs, community colleges, workforce development organizations, and manufacturing associations – can provide valuable resources and guidance to a business looking to reshore or expand operations. Indeed, two companies indicated that their relationships with local partners played a role in the decision to reshore or expand in the United States, while another three companies commented that they highly valued these relationships.

SUGGESTIONS FOR EDOS

In the locations where case study participants were looking to invest, EDOs were successful in attracting investment when they emphasized community assets such as quality of life and culture over pure costs alone. Effective EDOs were also found to ease processes such as exploring tax and other incentives, selecting a site, or establishing a manufacturing facility.

However, some EDOs interviewed noted a challenge in that they cannot monitor all businesses within their area and may not be aware of those planning to leave or return. In several cases in this report, ongoing relationships between companies and EDOs or other local partners have led to opportunities to explore and resolve several challenges that companies face. This included solutions such as workforce development programs and liaising with government bodies when navigating issues of regulatory compliance.

SUGGESTIONS FOR U.S. GOVERNMENT

On the subject of U.S. government support for reshoring and expansion in the United States, a consistent trend appeared to be the same challenge that researchers experience when trying to systemically identify companies for targeted reshoring and expansion conversations. Of the U.S. Export Assistance Centers (USEACs) interviewed, many did not note trends of businesses reshoring to their respective areas and were only aware of reinvestments after they occurred. At the same time, companies largely reported being unaware of U.S. government resources on investment attraction. Closing this knowledge gap across both categories of stakeholders may be of utility to promoting reshoring and expansion activity.

At least half of the study participants recommended that the U.S. government provide more funding and other support to workforce development programs. Two companies commented that a U.S. government-curated guide or resource on reshoring could be beneficial for future companies looking to reinvest in the United States.

AREAS FOR FUTURE ANALYSIS

There are still many opportunities for future research and analysis on reshoring and expansion in the United States. Notably, there is a paucity of robust data on U.S. companies and their history of offshoring, reshoring, and expansion activity. This limits the degree to which empirical analyses can inform on national reshoring and expansion trends. Because this level of company data is time consuming to collect, near-future analysis might include primary data collection through means such as additional interviews or surveys.

Given the frequency with which workforce development topics surface throughout this report, future research could explore the effects of workforce development programs on FDI attractiveness. Future research could also explore the effects of reshoring or expansion activity on factors such as job creation, research and development, exports, and other economic variables. While these insights are much needed, it could be challenging to find available data to execute a deeper dive into these topics.

CONCLUSION

Besides the commercial benefits of narrowing the physical distance between factory and U.S. consumers as well as the positive business atmosphere resulting from local investment, the benefits of reshoring may not be immediately apparent. It should be noted that small private companies may have more freedom to decide to target certain long-term benefits compared to publicly traded companies. However, compared to large companies, small private companies may lack adequate financial resources that are instrumental to making significant changes to their business operations.

All of the case study companies believe that over the long term, their operations in the United States will result in a higher-quality product compared to foreign competitors, reduce delivery times, and/or support an important company ethos. However, it takes time to establish and solidify the systems necessary to accomplish these goals. In many cases, companies were evaluating the viability of their reshoring or expansion investments and the ability to overcome short-term obstacles in order to accomplish long-term goals.

The majority of companies in this case study already owned facilities or had manufacturing operations in the communities where they ultimately reshored or expanded their investment. Many of the smaller companies, in particular, had strong business and personal connections within their localities. Having these connections significantly influenced four companies' decisions to reshore.

Notably, while some companies benefitted from automation technologies, very few companies cited U.S. automation capabilities as a factor when they decided to reinvest in the United States.

Given the challenges, the case study participants recommended that it is important to stay committed to reshoring projects once the decision has been made. The companies presented in this report did not choose to reshore or expand production in the United States because they believed it to be easy. On the contrary, the companies faced and continue to face many difficulties. However, the majority of the companies concluded that the long-term benefits of their reinvestment decision will outweigh the short-term costs.

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ABOUT SELECTUSA

SelectUSA is a U.S. government-wide program housed in the International Trade Administration at the United States Department of Commerce. Our mission is to facilitate job-creating business investment into the United States and raise awareness of the critical role that economic development plays in the U.S. economy. Since its inception, SelectUSA has facilitated nearly $50 billion in investment, creating and/or retaining thousands of U.S. jobs.

This report was produced for review by SelectUSA, U.S. Department of Commerce. It was prepared by Ascendant Program Services, LLC, with Research Analysts Kimberly Aagaard, Veronica Faust, and Nicholas Hecker as the lead authors.

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