

Textiles are Making a Comeback in the Southeastern United States: Leaner and smarter than before

Changes in global economic, social, and political environments are having major impacts on the textile industry. Manufacturing technology is changing. Consumer trends are changing. There is a rapidly growing middle class and an increasing cost of doing business in China – once the world’s cheapest country to manufacture textiles and apparel. The speed-to-market of products has never been more important. Proposed policy changes and U.S. border tariffs are making companies consider shifting production capacity to the U.S. For these reasons, the United States is finally seeing a resurgence in the textile industry.

Background on textile industry exodus

From 1994-2005, the U.S. lost more than 900,000 textile and apparel jobs to offshoring¹. Since the 1960’s, low wages and new industrial production capacity in countries such as China, India, and Brazil made textile production in the United States a losing proposition. Most U.S. textile companies either shutdown or moved abroad, and it seemed as though the U.S. textile industry would never make a come-back. This hit the southeastern U.S. particularly hard as the industry cluster was dominantly in North Carolina, South Carolina, and Georgia. As the Great Recession loomed, the only evidence of the once thriving industry were the old derelict factories near downtown - tall smokestacks, short ceiling heights, and creeping kudzu vines swallowing what was left of the buildings.

The big come-back

Fast-forward to 2017. The pendulum is swinging back and textiles are returning as lean, highly-automated, environmentally conscious production facilities. Within the last five years there have been significant announcements by foreign-owned textile companies investing in the United States, with site selection choices clustered in the southeastern U.S. once again.

Year	Company	Product(s)	Capital Investment	Jobs	State
2013	JN Fibers	Recycled polyester staple fiber	\$45 million	318	SC
2013	Keer Group	Industrial yarn	\$218 million	500	SC
2014	Beaulieu International Group	Carpet, vinyl, and wood flooring products	\$200 million	350	GA
2014	PolyTech Fibers, LLC	Polyester staple fibers	\$12 million	114	GA
2014	Gildan Activewear	High-tech yarn spinning	\$250 million	500	NC
2015	Sandler AG	Non-woven textiles	\$30 million	140	GA
2016	Everest Textiles	High-performance sports apparel	\$18.5 million	610	NC
2016	King Charles Industries (JV with Taiwan Kingwhale Corp)	Finished fabrics	\$12.5 million	100	NC
2016	Jushi	Fiberglass reinforcements and fabrics	\$300 million	400	SC
2016	B&W Fiberglass	High-performance textiles	\$5 million	46	SC
2016	Labon	Fiber and textiles	\$3.1 million	23	SC

¹ Hamrick, K., MacDonald, S., Meyer, L., Reeder, R., and Wojan, T. (2017). U.S. Textile and Apparel Industries and Rural America, *U.S. Department of Agriculture Economic Research Service*. Retrieved from <https://www.ers.usda.gov/topics/crops/cotton-wool/background/us-textile-and-apparel-industries-and-rural-america/>

These location decisions are driven by port proximity, low utility costs, a quality affordable labor pool, and access to training. As consumers become more socially aware, many retailers are strongly encouraging their suppliers to build an environmentally-safe presence in the U.S. to capture the PR benefits of being “Made in America”. Companies are also placing an extreme amount of importance on speed-to-market, both from a construction perspective and proximity to market perspective. The need to be up and running in a short timeframe and with limited capital expense has driven investment back to the Southeast.

Because the southeastern United States was once inundated with textile facilities, the infrastructure necessary for industry success is already in place. Wastewater treatment plants are already designed to accommodate the fabric dyeing process and have the ability to treat this kind of effluent without much capital investment or new permitting. The cotton belt in the Southeast provides close proximity to one of the industry’s major raw materials. A history of textile manufacturing has left behind a legacy workforce with the technical know-how and work ethic to support industry newcomers. Training programs are in place to prepare workers to operate highly-automated facilities and universities have thriving textile engineering programs.

The United States textile industry saw \$2 billion in capital investments in 2015². In addition to new greenfield investment, existing textile companies who weathered the downturn are retooling their businesses and automating the work process. The U.S. is currently the world’s 3rd largest exporter of textiles, and saw a swift 39% increase in exports from 2009-2015³.

Some of the factors causing companies abroad to invest in the U.S. include:

- Increasing wage rates without comparable increasing productivity;
- High energy rates;
- Speed-to-market issues;
- Policy changes in the U.S.; and
- Technology changes in the manufacturing process.

Wages and Productivity

China, the world’s largest exporter of textiles is growing an emerging middle class with rapid wage increases averaging up to 15% a year⁴. While a Chinese production worker sees a large raise each year, that same laborer is not increasing production capacity. This unbalanced wage growth is biting into what was once China’s true competitive advantage.

Strikes in manufacturing operations in China have also seen a drastic increase and have created a sense of tension and instability for Chinese manufacturers. According to The Washington Post, there were 503 reported strikes across China in January 2016 compared to 8 strikes in January 2011⁵. A survey by Hong Kong University of Science and Technology states that strikes are on the rise because companies have laid off approximately 3.7% of their workforce due to rising wages. Uncertainty and lost productivity due to

² Brown, L. (2017). 2017 State of the U.S. Textile Industry, *National Council of Textile Organizations*. Retrieved at <http://www.ncto.org/2017-state-of-the-u-s-textile-industry/>

³ Select USA. (2017). Textiles Spotlight: The textile industry in the United States, *Select USA*. Retrieved from <https://www.selectusa.gov/textiles-industry-united-states>

⁴ Browne, A. (2017). China Sees a Manufacturing Future—in America, *The Wall Street Journal*. Retrieved from <https://www.wsj.com/articles/china-sees-a-manufacturing-futurein-america-1490087701>

⁵ Denyer, S. (2016). Strikes and workers’ protests multiply in China, testing party authority, *The Washington Post*. Retrieved at https://www.washingtonpost.com/world/asia_pacific/strikes-and-workers-protests-multiply-in-china-testing-party-authority/2016/02/24/caba321c-b3c8-11e5-8abc-d09392edc612_story.html?utm_term=.22462142ab49

strikes gives CEOs another reason to consider the more stable right-to-work states in the southeastern U.S.

Energy Rates

The shale-oil boom has presented a significant competitive advantage for the United States. Industrial users are seeing natural gas prices average about one-third of those in most other industrial economies⁶. Lower natural gas prices are driving U.S. industrial electricity rates lower. Rates in the U.S. are on average 30%-50% lower than other major exporters⁷. Michael Porter with Harvard Business School suggests that the U.S. has a 10-15-year head start on capturing the benefits of these unconventional resources.

Speed-to-market issues

Consumer preferences are changing, and textile firms are changing with them. For example, fast fashion trends have forced apparel companies to making smaller batches of clothes more frequently, and speed-to-market is crucial. Where manufacturers used to have to design four seasons of clothes, companies are now going through the redesign process 24-26 times a year, forcing manufacturers to be more flexible and deliver products to market quicker⁸. Zara, a Spanish-owned retailer is delivering new products worldwide to their stores just 15 days after design is started⁹. When every day matters to bring products to market, it is no surprise that companies want to be close to the U.S., the world's second largest textile consumer market.

Customization is also an emerging trend. Adidas is implementing new stores that manufacture and personalize products within four hours, which previously took 12-18 months to put new products on the shelf¹⁰. By creating shorter product life-cycles, textile firms are taking the guessing game out of product demand and allowing their manufacturing process to respond in real time to customer preferences.

These changes in the fashion industry are compounded by shipping logistics issues in China. Unlike the U.S., where major carriers (FedEx and UPS) dominate the market, shipping companies in China are fragmented due to government regulation¹¹. Highway and port infrastructure are improving, but still not sufficient for effective logistics and are often delaying shipments abroad.

⁶ Sirkin, M., Zinser, M, and Rose, J. The U.S. as One of the Developed World's Lowest-Cost Manufacturers, Behind the American Export Surge, *The Boston Consulting Group*. Retrieved from https://www.bcgperspectives.com/content/articles/lean_manufacturing_sourcing_procurement_behind_american_export_surge.

⁷ Gee, D.S., Pope, G.J., and Porter, M. E. (2015). America's Unconventional Energy Opportunity: A Win-Win Plan for the Economy, the Environment, and a Lower-Carbon, Cleaner-Energy Future, *Harvard Business Review*. Retrieved from <http://www.hbs.edu/competitiveness/Documents/america-unconventional-energy-opportunity.pdf>

⁸ Zhai, Y. T. (2016). What Happens When Fashions Becomes Fast, Disposable and Cheap? *NPR*. Retrieved at <http://www.npr.org/2016/04/08/473513620/what-happens-when-fashion-becomes-fast-disposable-and-cheap>

⁹ Denning, S. (2015) How Agile and Zara are Transforming the U.S. Fashion Industry, *Forbes*. Retrieved at <https://www.forbes.com/sites/stevedenning/2015/03/13/how-agile-and-zara-are-transforming-the-us-fashion-industry/#3725bc997e82>

¹⁰ Connelly, T. (2017). Adidas Pursues Rival Nike with In-store Personalization and Manufacturing, *The Drum News*. Retrieved at <http://www.thedrum.com/news/2017/03/21/adidas-pursues-rival-nike-with-store-personalisation-and-manufacturing>

¹¹ Bennet, D. (2014). Alibaba and China's Shipping Problem, *Bloomberg*. Retrieved at <https://www.bloomberg.com/news/articles/2017-03-26/rich-chinese-race-to-fund-kushner-tower-other-high-end-projects>

Proposed Policy Changes in the U.S.

On January 23, 2017, President Trump signed an executive order to end the possibility of a Trans-Pacific Partnership (TPP), which aimed to create an export-led growth model supporting free trade with 11 countries in the Pacific, excluding China. The agreement would have phased out approximately 18,000 tariffs among the participating countries and help smaller companies navigate export rules, trade barriers and red tape¹². Trump argues that by ending the TPP, companies will be more likely to send FDI to the U.S. to avoid import tariffs and sluggish logistics. Trump has proposed a 20% tariff on incoming goods from Mexico and up to 35% from China. In a low margin business, these tariffs would create a significant impact on the textile industry's bottom line. While there is no way to predict what these policy changes will have on the textile market, companies are at least devoting time and resources to explore adding capacity to the United States.

Technology Changes in the Manufacturing Process Work Towards U.S. Favor

Although the U.S. has made strides towards becoming more competitive on production cost, it is still not the cheapest option for manufacturing. Until the apparel (cutting and sewing) portion of the industry can be automated, these jobs will remain in countries such as Vietnam, Mexico, and Honduras, where low wages attract labor-intensive operations. However, the United States has created a niche and competitive advantage in highly-technical material manufacturing. Capital investment in yarn, fabric, and non-apparel textile product manufacturing has risen from \$960 million to \$1.7 billion from 2009 to 2015 – a 75% increase. The U.S. is especially poised for growth in a subsector of the textile market called smart textiles, or nanomaterials. Smart textiles are fabrics that have been developed with new technologies that provide an added value to the wearer¹³. While the global smart fabrics sector grew at an annual growth rate of 18% from 2004 to 2014, smart textiles grew over 27% in the U.S.¹⁴.

Examples of smart textiles that you may find in your own closet are shirts with UV protection or athletic wear that wicks moisture. More extreme examples of smart textiles are military uniforms that can change color to blend in with the environment or can withstand major blast impacts. Medical applications are being introduced that monitor and communicate physiological changes. These materials will be able to administer drugs and detect blood clots¹⁵. These types of technologies will require the presence of an extensive university research network and the ability to transfer technology to the labor force.

¹² Calmes, J. (2016). What is Lost by Burying the Trans-Pacific Partnership? *New York Times*. Retrieved at https://www.nytimes.com/2016/11/12/business/economy/donald-trump-trade-tpp-trans-pacific-partnership.html?_r=0

¹³ Gaddis, R. (2014). What Is The Future Of Fabric? These Smart Textiles Will Blow Your Mind, *Forbes*. Retrieved from <https://www.forbes.com/sites/forbesstylefile/2014/05/07/what-is-the-future-of-fabric-these-smart-textiles-will-blow-your-mind/#3de1045a599b>

¹⁴ Hinks, D. (2014). Reclaiming the industry, *Industrial Fabrics Association International*. Retrieved at <http://www.ifai.com/2014/10/01/reclaiming-the-industry/>

¹⁵ Hinks, D. (2014). Reclaiming the industry, *Industrial Fabrics Association International*. Retrieved at <http://www.ifai.com/2014/10/01/reclaiming-the-industry/>

In an effort to modernize the apparel industry, Atlanta-based SoftWear Automation Inc. recently introduced a solution called the “sewbot”¹⁶. Sewing was once thought to be a delicate job only for human hands, but sewbots are using cameras to track needle stitching and coordinate precise movements of fabric using lightweight robots. If sewbots gain traction, changes could be even more drastic for the industry.

The textile industry in the U.S., specifically the Southeast, is poised for growth. The foundation of infrastructure that was laid for former textile facilities provides a stable environment to accommodate a rapidly changing industry. Textile and apparel markets will grow across the globe, but the U.S. will attract the more complex, higher paying jobs while providing access to one of the world’s largest consumer markets.

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Beth Land is a Senior Consultant with McCallum Sweeney Consulting, providing site selection services and economic development consulting to companies and organizations worldwide. Mrs. Land joined McCallum Sweeney Consulting in September 2014. Presently, Mrs. Land is providing site evaluation and labor analysis on major site location projects. She is also managing on the site readiness program for Duke Energy as well as working with the site certification programs for the South Carolina Department of Commerce and the Tennessee Valley Authority.

In her prior role as Project Manager for York County Economic Development in South Carolina, Mrs. Land was responsible for bringing more than \$655 million in capital investment and more than 8,000 new jobs to the County. Notable companies she recruited from 2011 to 2014 included LPL Financial (headquarters), Lash Group (headquarters), Exel (distribution), Shutterfly (manufacturing), UC Synergetic (headquarters), Ross (distribution), and Britax Childcare Safety, Inc. (manufacturing).

Mrs. Land’s prior experience also includes time in the aerospace manufacturing industry. She has a Master’s in Business Administration from Wake Forest University and graduated from Clemson University with a Bachelor of Arts in Communication Studies with a minor in German.

¹⁶ Reddy, K.P. (2016). The Rise of Robotic Automation in the Sewing Industry, *Textile World*. Retrieved at <http://www.textileworld.com/textile-world/knitting-apparel/2016/05/the-rise-of-robotic-automation-in-the-sewing-industry/>