



# U.S. Textile Manufacturing and the Trans-Pacific Partnership Negotiations

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October 5, 2012

**Congressional Research Service**

7-5700

[www.crs.gov](http://www.crs.gov)

R42772

**CRS Report for Congress**

*Prepared for Members and Committees of Congress*

## Summary

Textiles are a major issue in the ongoing Trans-Pacific Partnership (TPP) negotiations to establish a free-trade zone across the Pacific. Because the negotiating parties include Vietnam, a major apparel producer that now mainly sources yarns and fabrics from China and other Asian nations, the agreement has the potential to shift global trading patterns for textiles and demand for U.S. textile exports. Canada and Mexico, both significant regional textile markets for the United States, have also been accepted into the TPP talks.

U.S. textile manufacturers produce yarn, thread, and fabric for apparel, home furnishings, and for various industrial applications. In 2011, the U.S. textile industry generated \$53 billion in shipments and directly employed about 238,000 Americans, accounting for 2% of all U.S. factory jobs. Approximately one-third of U.S. textile production is exported, with the bulk of the exports going to Western Hemisphere nations that are members of the North American Free Trade Agreement (NAFTA) or the Central American-Dominican Republic Free Trade Agreement (CAFTA-DR). Both free trade agreements provide that certain exports from member countries may enter the U.S. market duty-free only if they are made from textiles produced in the region. This has encouraged manufacturers in Mexico and Central America to use U.S.-made yarns and fabrics in apparel, home furnishings, and other products. Exports to the NAFTA and CAFTA-DR countries contributed to a U.S. trade surplus of \$2.5 billion in yarns and fabrics in 2011.

The TPP has the potential to affect U.S. textile exporters in at least two ways. First, it could enable Asian apparel producers, principally Vietnam, to export clothing to the United States duty-free. This would eliminate much of the advantage now enjoyed by Western Hemisphere apparel producers in the U.S. market and, because Vietnamese manufacturers make little use of U.S.-made textiles, could reduce demand for U.S. textile exports. Second, if the TPP were to allow Western Hemisphere apparel manufacturers to use yarn and fabric made anywhere in the TPP region and still enjoy preferential access to the U.S. market, an enlarged Vietnamese textile industry could, at some future time, compete with U.S. exporters in Mexico and Central America.

Textile industry trade groups have urged the United States to insist on a “yarn forward” rule, requiring that yarn production, fabric production, and cutting and sewing of the finished garment all occur within the TPP region for the garment to enter the United States duty-free. On the other side, retailers and apparel companies want to be able to import apparel from the lowest-cost producer, regardless of whether U.S. textiles are used; they urge that textiles and apparel be treated like other products in any TPP agreement. Members of Congress have voiced their support for both sides.

The TPP seems likely to have less impact on those segments of the U.S. textile industry that do not supply apparel manufacturing. U.S. manufacturers of household and technical textiles appear to be internationally competitive, and it is not evident that lower-wage countries would have comparative advantage in these highly capital-intensive sectors.

## Contents

|  |    |
|--|----|
| Introduction.....                              | 1  |
| The U.S. Textile Industry and Its Markets..... | 2  |
| The Textile Manufacturing Process.....         | 3  |
| Domestic Textile Production.....               | 4  |
| Global Textile Trade Shifts.....               | 6  |
| U.S. Trade in Textile Products.....            | 8  |
| Sourcing in the Western Hemisphere.....        | 9  |
| TPP and Sourcing from Vietnam.....             | 12 |
| Textiles and the TPP Negotiations.....         | 15 |
| Conclusion.....                                | 17 |

## Figures

|   |    |
|---|----|
| Figure 1. Major Products of the Fiber, Textile, and Apparel Industries..... | 3  |
| Figure 2. Textile Manufacturing Employment.....                             | 6  |
| Figure 3. Top Global Textile Exporters.....                                 | 7  |
| Figure 4. U.S. Fabric and Yarn Exports to the Western Hemisphere.....       | 11 |
| Figure 5. U.S. Apparel Imports, 2000-2011.....                              | 13 |
| Figure 6. Major Production Steps for the Textile and Apparel Sector.....    | 15 |

## Tables

|  |   |
|--|---|
| Table 1. U.S. Exports of Textile Mill Products to the World.....   | 8 |
| Table 2. U.S. Yarn and Fabric Exports, by Countries or Region..... | 9 |

## Appendixes

|  |    |
|--|----|
| Appendix A. Selected U.S. Textile Manufacturers..... | 18 |
| Appendix B. Textile Industry Overview.....           | 19 |
| Appendix C. Top Ten Textile Employment States.....   | 20 |
| Appendix D. Selected Apparel and Textile Duties..... | 21 |

## Contacts

|                                 |    |
|---------------------------------|----|
| Author Contact Information..... | 22 |
| Acknowledgments.....            | 22 |

## Introduction

The Trans-Pacific Partnership Agreement (TPP) is a proposed regional free trade agreement (FTA) currently under negotiation among 11 Pacific Rim countries. Initiated under President George W. Bush, the TPP concept has wide bipartisan support.<sup>1</sup> As the negotiations progress, provisions concerning textile trade have become a major point of contention, attracting considerable congressional attention and debate. This report examines the potential implications of a prospective TPP agreement on the U.S. textile manufacturing industry.

In 2011, the United States exported nearly \$14 billion in yarns and fabrics worldwide. Almost two-thirds of this output was sold to Western Hemisphere nations that are members of the North American Free Trade Agreement (NAFTA)<sup>2</sup> or the Central American-Dominican Republic Free Trade Agreement (CAFTA-DR).<sup>3</sup> Both FTAs provide that certain exports from member countries may enter the U.S. market duty-free only if they are made from textiles produced in the region. This has encouraged manufacturers in Mexico and Central America to use U.S.-made yarns and fabrics in apparel, home furnishings, and other products. Exports to the NAFTA and CAFTA-DR countries contributed to a U.S. trade surplus of \$2.5 billion in yarns and fabrics in 2011.<sup>4</sup>

The TPP marks the first FTA negotiation for the United States after the complete end of quotas on textile and apparel trade.<sup>5</sup> Duty-free access to the U.S. market under TPP could be of considerable benefit to Asian manufacturers, which now face U.S. import duties on textiles and apparel of up to 32%. Textile industry trade groups have warned that, if approved, the TPP could lead to domestic job loss if it results in apparel producers in the Western Hemisphere, which often use U.S.-made textiles, losing U.S. market share to producers in Vietnam and other TPP countries.<sup>6</sup> Aligned against them are retailers and apparel companies that want to be able to import apparel from the lowest-cost producer, regardless of whether U.S. textiles are used; they urge full inclusion of textiles and apparel in any TPP agreement and favor preferential access for apparel cut and sewn from fabric made in countries not included in the TPP, such as China.<sup>7</sup>

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<sup>1</sup> The negotiating partners are the United States, Australia, Brunei, Chile, Malaysia, New Zealand, Peru, Singapore, and Vietnam. Canada and Mexico will join the negotiations in the fall of 2012. See CRS Report R42694, *The Trans-Pacific Partnership Negotiations and Issues for Congress*, coordinated by Ian F. Fergusson.

<sup>2</sup> NAFTA (P.L. 103-182) has been in effect since 1994.

<sup>3</sup> The CAFTA-DR free trade agreement (P.L. 109-53) was signed in 2004, first with five Central American countries (Costa Rica, El Salvador, Guatemala, Honduras, and Nicaragua) and then with the Dominican Republic. The United States is also a member. CAFTA-DR is discussed in CRS Report R42468, *The Dominican Republic-Central America-United States Free Trade Agreement (CAFTA DR): Developments in Trade and Investment*, by J. F. Hornbeck.

<sup>4</sup> U.S. Commerce Department, Office of Textiles and Apparel (OTEXA), *U.S. textiles and apparel trade balance report*. In 2011, U.S. yarn and fabric imports totaled \$11.4 billion. The U.S. has posted a small trade surplus in yarns and fabrics for 17 years.

<sup>5</sup> The Agreement on Textiles and Clothing (ATC) ended in 2005, but China remained subject to textile and apparel quotas through the end of 2008. The other FTAs had been initially concluded and signed by the end of that year.

<sup>6</sup> National Council of Textile Organizations, Trade and Jobs, <http://www.ncto.org/tradejobs/index.asp>.

<sup>7</sup> Trans-Pacific Partnership Apparel Coalition, *TPP Coalition Position Paper*, [https://www.usaita.com/pdf\\_files/TPPAppearlCoalitionPositionPaper.pdf](https://www.usaita.com/pdf_files/TPPAppearlCoalitionPositionPaper.pdf).

## The U.S. Textile Industry and Its Markets

With \$53 billion in industry shipments in 2011, textile manufacturing, which produces yarns and fabrics from raw materials, is a supplier industry to three industrial sectors.<sup>8</sup> The apparel industry, which transforms textiles into clothing, consumed only 16% of U.S.-made textiles in 2008. Some 44% of textile output went into home furnishings such as carpeting and towels, while 40% was used in technical textiles such as conveyor belts and automotive floor coverings.<sup>9</sup>

Whereas textile manufacturing occurs largely in highly automated factories, apparel manufacturing is characterized by decentralized, globally dispersed production networks that are coordinated by lead firms that control design, branding, and other activities. Many of the world's largest apparel retailing and marketing firms are headquartered in the United States, but U.S. factories produced only \$15 billion of apparel and employed only about 151,000 workers in 2011.<sup>10</sup> Most U.S.-headquartered apparel firms have limited or no U.S. manufacturing capabilities.<sup>11</sup> Some manufacture through a combination of facilities they own and third-party arrangements, often with foreign factories. Others rely entirely on arrangements with third-party suppliers, mostly in Asia. Large retailers frequently contract directly with apparel sourcing companies, which in turn portion out the production work to independent manufacturers. The United States was responsible for 1% of the \$350 billion of global apparel exports in 2010.<sup>12</sup>

The U.S. home furnishings industry has fared far better against import competition than the apparel industry, largely because manufacturing of carpets, curtains, and table cloths is highly automated. For example, the development of larger, faster carpet-tufting machines contributed to a decline in employment at U.S. carpet and rug mills, from 54,700 workers in 2000 to 33,600 in 2011.<sup>13</sup> Shipments from U.S. carpet and rug mills totaled \$23 billion in 2011.

The output of technical textile mills is used across various industrial sectors. For instance, auto manufacturers use textiles in air bags, seat covers, and seat belts. By one estimate, U.S. sales of technical textiles totaled about \$31 billion in 2009.<sup>14</sup> Approximately 160,000 workers are said to produce fabrics specifically for the technical textile market.<sup>15</sup>

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<sup>8</sup> Shipments, a proxy for production, are from U.S. Census Bureau, *Manufacturers' Shipments, Inventories, and Orders (M3) Survey*, <http://www.census.gov/manufacturing/m3/>. Fabric and yarn manufacturing are classified under North American Industry Classification System (NAICS) code 313. Textile product mills (NAICS 314) include plants making carpets, home linens, tire cord, and other "made-up" textile articles. The apparel sector is classified under NAICS 315.

<sup>9</sup> U.S. Census Bureau, *The 2011 Statistical Abstract*, Manufactures: Nondurable Goods Industries, 2011, Table 1022, <http://www.census.gov/compendia/statab/2011/tables/11s1022.pdf>.

<sup>10</sup> U.S. Census Bureau, *Manufacturers' Shipments, Inventories, and Orders (M3) Survey* and U.S. Bureau of Labor Statistics, *Quarterly Census of Employment and Wages (Apparel Manufacturing, NAICS 315)*.

<sup>11</sup> Karina Fernandez-Stark, Stacey Frederick, and Gary Gereffi, *The Apparel Global Value Chain*, Duke University, Center on Globalization, Governance & Competitiveness, November 2011, pp. 7-16, [http://www.cgcc.duke.edu/pdfs/2011-11-11\\_CGGC\\_Apparel-Global-Value-Chain.pdf](http://www.cgcc.duke.edu/pdfs/2011-11-11_CGGC_Apparel-Global-Value-Chain.pdf).

<sup>12</sup> World Trade Organization (WTO), *International Trade Statistics, 2011*, Clothing, Table 11.70. <http://www.wto.org>.

<sup>13</sup> BLS, QCEW, Carpet and Rug Mills, (NAICS 3141), accessed July 24, 2012, <http://www.bls.gov/cew/>.

<sup>14</sup> William C. Smith, *Technical Textiles 2009*, Industrial Textile Associates, State of the Industry, June 5, 2009, p. 12, [http://www.intexa.com/State\\_of\\_Industry2009.pdf](http://www.intexa.com/State_of_Industry2009.pdf).

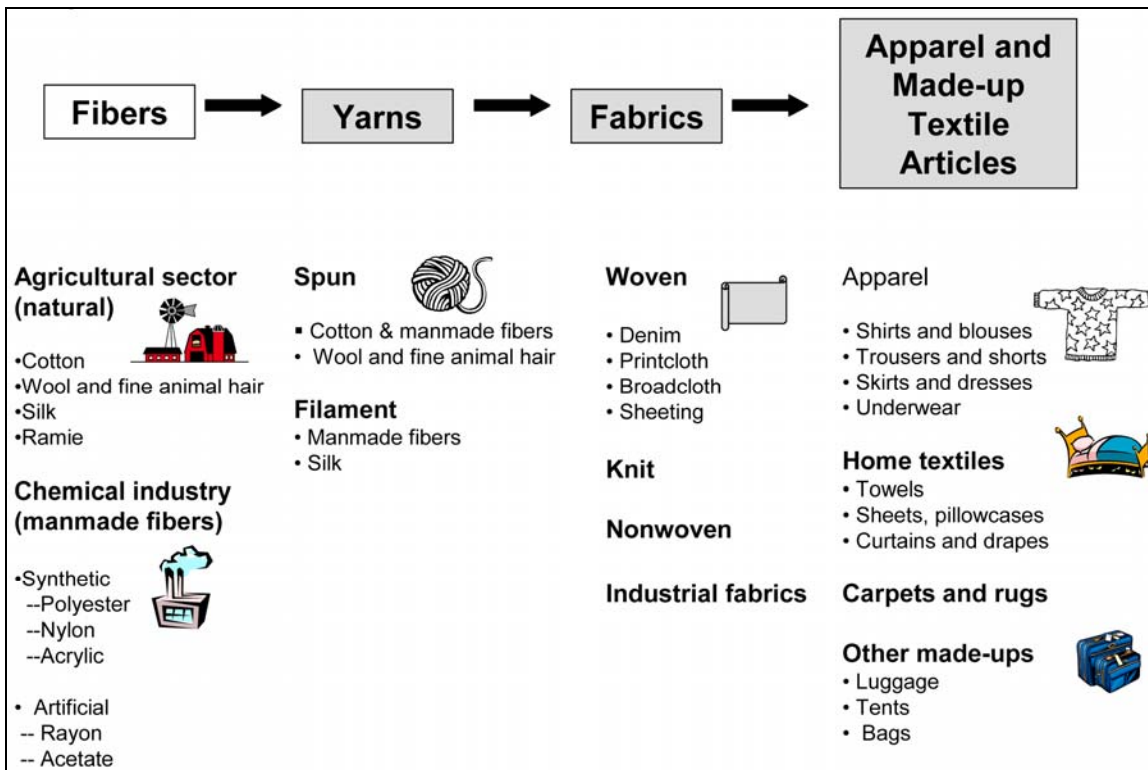
<sup>15</sup> Letter to the Honorable Dave Camp and Honorable Sander Levin from the United States Industrial Fabrics Institute dated April 6, 2011, [http://waysandmeans.house.gov/UploadedFiles/US\\_Industrial\\_Fabrics\\_InstituteTR3.pdf](http://waysandmeans.house.gov/UploadedFiles/US_Industrial_Fabrics_InstituteTR3.pdf).

## The Textile Manufacturing Process

Textile manufacturing begins with fiber, which can be harvested from natural resources (e.g., cotton, wool, silk, or ramie), manufactured from cellulosic materials (e.g., rayon or acetate), or made of man-made synthetic materials (e.g., polyester, nylon, or acrylic). After the raw fibers are shipped from the farm or the chemical plant, they pass through four main stages of processing (see **Figure 1**):

- yarn production, in which fiber is spun into filament or spun yarn;
- fabric production, which can take place at very small mills or large textile mill operations, and involves primarily either weaving or knitting;
- finishing, which prepares the textiles for further use by processes such as bleaching, printing, dyeing, and mechanical or wet finishing; and,
- fabrication, where the finished cloth is converted into apparel, household, or industrial products.

**Figure 1. Major Products of the Fiber, Textile, and Apparel Industries**



**Source:** International Trade Commission, *Textiles and Apparel: Assessment of the Competitiveness of Certain Foreign Suppliers to the U.S. Market*, Volume I, Investigation No. 332-448, Publication 3671, Figure 1-1, January 2004.

Each industry segment has a unique business structure, management style, and history. Each is supported by different kinds of technology, including highly specialized equipment, notably yarn spinning machines, knitting machines, and looms.

Worldwide, in 2011, the textile industry produced 85.9 million metric tons of textiles. Man-made fibers accounted for 61% of total production. According to industry analysts, the United States ranked as the world's third-largest man-made fiber producer, behind China and India.<sup>16</sup> Most of the global growth in man-made textile manufacturing has taken place in China, which was responsible for 63% of total production in 2011, up from 26% in 2001. India and the United States each accounted for 5% of global output of man-made textiles, with the U.S. share declining from 11% in 2001. No other country produced more than 4% of the global total in 2011.<sup>17</sup>

Cotton is the most important natural fiber. In the 2011-2012 marketing year, China ranked as the world's largest producer of cotton at 7.3 million metric tons, followed by India and the United States.<sup>18</sup> Other large cotton producers include Pakistan, Brazil, Australia, and Uzbekistan. Many of the leading cotton producers are also leading mill users of raw cotton. The top three consumers of cotton are China, India, and Pakistan, which together account for two-thirds of world consumption. Consumption of cotton by U.S. textile mills peaked in 1997. Since then, due to the decrease in domestic textile production caused by competition from imported textile and apparel products, U.S. mill use of cotton has dropped about 70%.<sup>19</sup> In the 2011-2012 marketing year, around 75% of U.S. cotton production was exported. As for other natural fibers, two TPP negotiating partners, Australia and New Zealand, are among the world's leading wool growing nations.<sup>20</sup> Vietnam is a top ten producer of silk, but accounts for only a small portion of global production. China and India are the world's two largest producers.<sup>21</sup>

## Domestic Textile Production

U.S. textile output has been growing since 2009 after several years of decline. The value of shipments was \$53 billion in 2011, a 4% increase over 2010. This amounted to 1% of total U.S. manufacturing shipments. Approximately 9,000 companies are engaged in the business, but 50 of the largest companies accounted for about 60% of total industry revenue.<sup>22</sup> **Appendix A** provides an overview of selected U.S.-headquartered textile manufacturers.

According to the National Council of Textile Organizations (NCTO), 565 textile plants have been shuttered since 2000. Most of these closures occurred in the early 2000s, including 124 in 2001 and 82 in 2003. A total of 12 plants closed in 2010 and 2011.<sup>23</sup> Despite these trends, a few textile manufacturers have thrived, and several have established new domestic manufacturing facilities.

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<sup>16</sup> Andreas Engelhardt, *The Fiber Year 2012*, World Survey on Textiles & Nonwovens, May 2012, p. 1, [http://www.thefiberyear.com/pdf/Tfy\\_Toc\\_2012.pdf](http://www.thefiberyear.com/pdf/Tfy_Toc_2012.pdf).

<sup>17</sup> Ibid, p. 131, Table 10.11, [http://www.thefiberyear.com/pdf/Tfy\\_Toc\\_2012.pdf](http://www.thefiberyear.com/pdf/Tfy_Toc_2012.pdf). The Fiber Year report shows global production of man-made fibers in millions of tonnes.

<sup>18</sup> U.S. Department of Agriculture, *U.S. Gains Market Share as Competitor's Exports Fall*, September 2012, p. 6, <http://usda01.library.cornell.edu/usda/current/cotton-market/cotton-market-09-12-2012.pdf>.

<sup>19</sup> United States Department of Agriculture, Foreign Agricultural Service, *Cotton: World Markets and Trade*, August 10, 2012, [http://www.fas.usda.gov/cotton\\_arc.asp](http://www.fas.usda.gov/cotton_arc.asp).

<sup>20</sup> *Fiber Year 2012* reports that six countries (Australia, China, New Zealand, Argentina, South Africa, and Uruguay) account for about 55% of global wool output, p. 32.

<sup>21</sup> Food and Agricultural Organization, Statistical Division, <http://faostat.fao.org/site/339/default.aspx>.

<sup>22</sup> Though referred to as textile mills—because fabric was originally created using water power—these companies are indeed factories. First Research, *Textile Manufacturing Industry Profile*, September 3, 2012.

<sup>23</sup> NCTO, *Textile Source*, Fourth Quarter 2011, 2011, p. 45.

NCTO reported in recent congressional testimony that “over the past 18 months, five new plants have opened in the United States.”<sup>24</sup> They include Zagis USA’s open-end spun cotton yarn plant in Louisiana, and DuPont’s \$500 million Kevlar fiber facility in South Carolina.<sup>25</sup> Zagis cited access to raw materials and proximity to ports and freight lanes as reasons for its U.S. investment.<sup>26</sup> Reportedly, DuPont’s facility will supply industrial high-strength fibers.<sup>27</sup>

Domestic textile manufacturers have invested heavily in technology to reduce operating costs. For example, modern industrial looms incorporate air-jets to weave at speeds of 2,000 picks per minute (compared with 200 picks in 1980, which at the time was considered fast).<sup>28</sup> Some modern textile mills have become almost completely automated, churning out thousands of square yards every hour with as few as 10 or 20 employees. Investment by the U.S. textile industry in new plants and equipment totaled \$16.5 billion between 2001 and 2010, reports NCTO.<sup>29</sup>

Because yarn and fabric production are capital and scale intensive, they demand higher worker skills than apparel production. As a consequence, the textile industry has been less prone to relocation to lower-wage countries than apparel manufacturing. Significant production remains in the United States, Japan, and South Korea, where skilled labor is available and manufacturers can raise the capital to finance weaving mills costing an estimated \$12 million to \$25 million and spinning mills costing \$50 million to \$70 million.<sup>30</sup> The head of Unifi, one of the largest U.S. textile manufacturers, predicted in 2010, “there’s going to continue to be a textile industry in the United States. The more automated and technically sophisticated parts of the process will stay here.”<sup>31</sup>

Among all U.S. industries, textiles rank near the top in productivity increases. This can be attributed both to automation and to the closure of less efficient mills. While imports of textiles and apparel undoubtedly have contributed to lower industry employment, over 200,000 textile jobs have been lost due to automation over the past decade, according to private estimates.<sup>32</sup>

At the end of 2011, the domestic textile industry employed 238,000 workers, or 2% of the 11.7 million domestic factory jobs (see ). Average annual pay was \$39,300 in 2011, far below the average of \$59,200 for all manufacturing. Employment has declined by two-thirds since 1990 (**Figure 2**).<sup>33</sup> Over time, employment has fallen most rapidly during economic downturns, but has

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<sup>24</sup> NCTO, Statement of the National Council of Textile Organizations before the House Ways and Means Subcommittee on Trade on the Trans-Pacific Partnership Negotiations, December 14, 2011, p. 6, [http://www.ncto.org/newsroom/Testimony2011-1214—NCTO\\_TPP\\_WaysandMeans.pdf](http://www.ncto.org/newsroom/Testimony2011-1214—NCTO_TPP_WaysandMeans.pdf).

<sup>25</sup> “DuPont Starts Up \$500 Million Kevlar Facility,” *R&D Magazine*, October 6, 2011, <http://www.rdmag.com/News/2011/10/Policy-And-Industry-Materials-DuPont-Starts-Up-Kevlar-Facility/>.

<sup>26</sup> *Cotton Revolution*, 2012, <http://www.louisianaeconomicdevelopment.com/case-studies/zagis-usa.aspx>.

<sup>27</sup> Adam Burns, “Going Up?,” *Site Selection*, September 2011.

<sup>28</sup> John Varrasi, *Transforming the Textile Industry*, ASME, April 2012, <http://www.asme.org/kb/news—articles/articles/manufacturing—processing/transforming-the-textile-industry/>.

<sup>29</sup> NCTO based on U.S. Census Bureau, *Annual Capital Expenditures Survey, 2001-2010*, <http://www.census.gov/econ/aces/>.

<sup>30</sup> Nathan Associates, *Bringing Hope to Haiti’s Apparel Industry*, World Bank, November 2009, p. 6.

<sup>31</sup> Paul Wiseman, “When the Textile Mill Goes, So Does a Way of life,” *USA Today*, March 11, 2010.

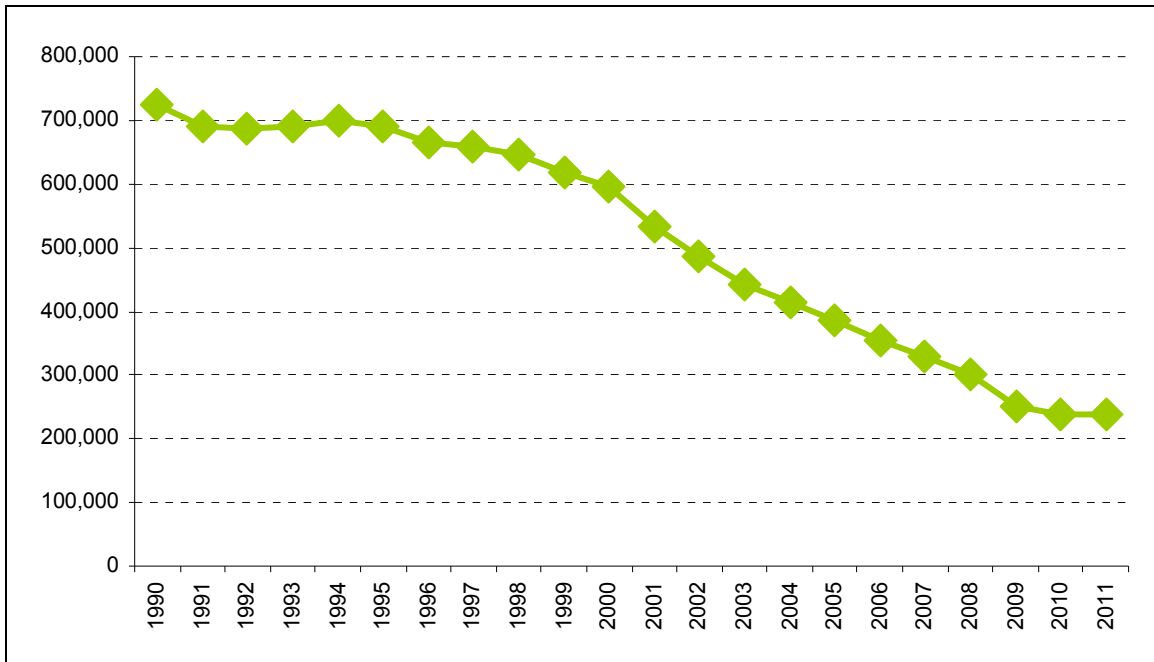
<sup>32</sup> Robert Reichard, “Textiles 2012: The Prognosis is Good,” *Textile World*, January 2012, pp. [http://www.textileworld.com/Articles/2012/January/Jan-Feb\\_issue/Textiles\\_2012\\_The\\_Prognosis\\_Is\\_Good.html](http://www.textileworld.com/Articles/2012/January/Jan-Feb_issue/Textiles_2012_The_Prognosis_Is_Good.html).

<sup>33</sup> BLS, Quarterly Census of Employment and Wages, accessed on July 26, 2012 at <http://www.bls.gov/cew/>.



failed to return to prerecession levels during the ensuing recoveries. The Bureau of Labor Statistics forecasts further loss of 31,700 textile jobs by the end of this decade.<sup>34</sup>

**Figure 2. Textile Manufacturing Employment**  
1990-2011



**Source:** Bureau of Labor Statistics, Quarterly Census of Employment and Wages for NAICS 313 and 314.

Domestic textile production is primarily located in the southeastern states and in California, although every state has some textile manufacturing. In 2011, more than one-third of all textile jobs were located in Georgia and North Carolina. **Appendix C** compares textile employment in the top ten states, which accounted for more than two-thirds of all textile jobs, in 2001 and 2011.

## Global Textile Trade Shifts

For more than 40 years, developed countries, including the United States and the European Union, sought to protect their textile and apparel sectors from developing countries' exports through two multilateral agreements, the Multi-Fiber Agreement (MFA) and the Agreement on Textiles and Clothing (ATC). Quotas on imports from more than 70 countries limited the quantities of textiles (such as cotton yarns and synthetic fabrics) and particular garments (such as t-shirts and sweaters) that could enter the United States and the European Union each year. This system made it necessary for buyers of textile and apparel products to source from countries for which quotas for particular products were available. This spread manufacturing to an ever-increasing number of countries, instead of concentrating it where production was cheapest.

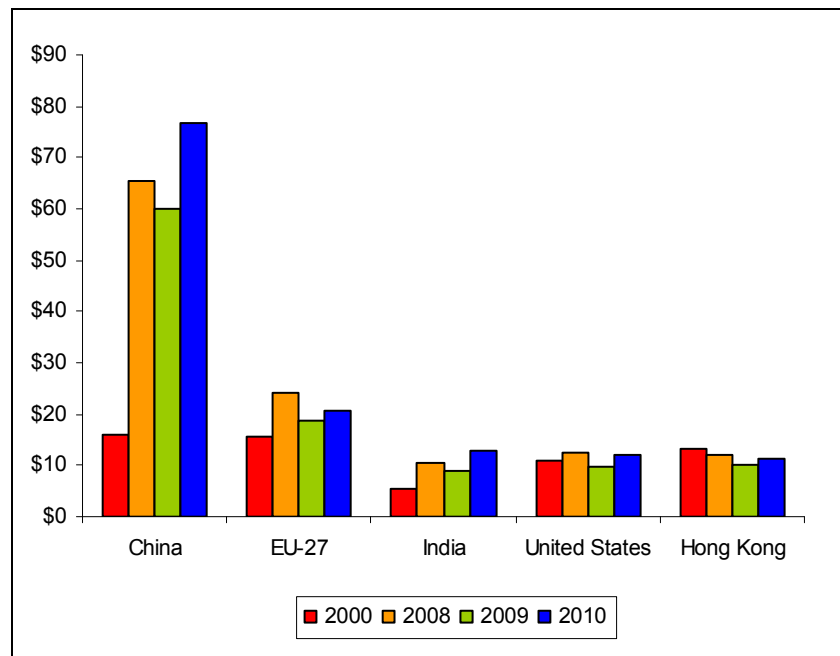
<sup>34</sup> Industry projections are based on the BLS employment projections program, <http://www.bls.gov/emp/>.

The expiry of the ATC on January 1, 2005 eliminated all textile and apparel quotas for members of the World Trade Organization (WTO). Since then, buyers have been able to source from any WTO member country, subject only to tariffs. However, U.S. tariffs on textile and apparel imports vary considerably from country to country, governed by bilateral and regional arrangements discussed in greater detail below. The average U.S. tariff rate in 2011 was 7.9% for textiles and 11.7% for clothing, but rates on particular products ranged as high as 32% (see **Appendix D**).<sup>35</sup>

According to the WTO, China was by far the world’s largest exporter of textiles in 2010, with about a 30% global market share at \$76.9 billion. China has been a major force in textiles for decades, but its export growth accelerated following its 2001 accession to the WTO and the expiration of the ATC. Now more than 50,000 textile mills operate in China.<sup>36</sup> China’s textile exports have more than quadrupled since 2000 (**Figure 3**). The European Union and India ranked as the world’s second and third largest exporters of textiles in 2010. In terms of textile imports, the European Union ranked first (based on extra-EU imports), followed by the United States, China, Hong Kong, and Japan, but the top five importers jointly accounted for barely one-third of global textile imports.<sup>37</sup>

**Figure 3. Top Global Textile Exporters**

Billions of U.S. dollars



**Source:** WTO, International Trade Statistics, 2011, Merchandise Trade, Table II.65.

**Notes:** Figures for the EU-27 only include exports to the rest of the world. If internal trade were included, EU countries’ total textile exports would have been \$67.1 billion in 2010, rivaling China’s \$76.9 billion.

<sup>35</sup> WTO, *2011 World Tariff Profiles*, p. 169, [http://www.wto.org/english/res\\_e/booksp\\_e/tariff\\_profiles11\\_e.pdf](http://www.wto.org/english/res_e/booksp_e/tariff_profiles11_e.pdf).

<sup>36</sup> Linda Greer, Susan Egan Keane, and Zixin Lin, *NRDC’s Ten Best Practices for Textile Mills to Save Money and Reduce Pollution*, National Resources Defense Council (NRDC), February 2010, p. 5, <http://www.nrdc.org/international/cleanbydesign/files/rsifullguide.pdf>.

<sup>37</sup> WTO, International Trade Statistics, 2011, Merchandise Trade, Table II. 66. Textile Imports of Selected Economies.

Apparel trade is more diversified than textile trade, as many nations have been able to develop export-oriented apparel industries on the basis of imported fabrics, without having large domestic textile production. Examples include countries in Central America, the Caribbean, and Africa, as well as countries throughout Asia, including Vietnam.

## U.S. Trade in Textile Products

In 2011, approximately one-third of U.S. textile production was exported, with a value of \$17.3 billion (see **Table 1**). The United States has posted a modest trade surplus in fabrics and yarns for 17 years, but when made-up textile articles (e.g., sheets and towels) are included, the U.S. ran a textile trade deficit of \$16.5 billion in 2011. Import penetration—the share of U.S. demand met by textile imports—reached 36% in 2011, from 24% in 2005 (see ).

**Table 1. U.S. Exports of Textile Mill Products to the World**  
1990-2011, in Billions of U.S. Dollars, by Selected Years

|      | Fabric  | Yarn    | Made-Up Articles <sup>a</sup> | Textile Mill Products Total | Fabric and Yarn Total |
|------|---------|---------|-------------------------------|-----------------------------|-----------------------|
| 1990 | \$2,903 | \$2,141 | \$1,232                       | \$6,276                     | \$5,044               |
| 1995 | \$4,770 | \$2,818 | \$1,727                       | \$9,315                     | \$7,588               |
| 2000 | \$7,420 | \$3,130 | \$2,258                       | \$12,808                    | \$10,550              |
| 2005 | \$8,810 | \$3,271 | \$2,586                       | \$14,667                    | \$12,081              |
| 2006 | \$8,759 | \$3,701 | \$2,777                       | \$15,237                    | \$12,460              |
| 2007 | \$8,375 | \$3,932 | \$2,982                       | \$15,289                    | \$12,307              |
| 2008 | \$8,146 | \$4,259 | \$3,148                       | \$15,553                    | \$12,406              |
| 2009 | \$6,354 | \$3,455 | \$2,832                       | \$12,642                    | \$9,810               |
| 2010 | \$7,625 | \$4,433 | \$3,151                       | \$15,209                    | \$12,058              |
| 2011 | \$8,249 | \$5,612 | \$3,384                       | \$17,256                    | \$13,861              |

**Source:** U.S. Department of Commerce. Office of Textiles and Apparel Trade (OTEXA).

**Note:** Export Market Report, accessed in August 8, 2012.

- a. Made-up articles include various items, namely home furnishings and other consumer goods such as towels, tablecloths, and bedsheets.

As displayed in **Table 2**, most yarns and fabrics exported from the United States are sold to NAFTA and CAFTA-DR countries. U.S. exports are often more expensive than those from other countries. Despite this cost differential, apparel producers in the NAFTA and CAFTA-DR countries use U.S.-made textiles in products that will be exported to the United States because the goods are free of U.S. tariffs. Mexico is the U.S. textile industry's largest foreign market, with exports of \$3.5 billion in 2011. However, textile exports to Mexico have trended down, as rising labor costs have made it a less attractive place to manufacture apparel and production has shifted to Central America. Less than \$100 million of U.S.-made yarns and fabrics was exported to prospective TPP member countries such as Malaysia and Vietnam in 2011.

**Table 2. U.S. Yarn and Fabric Exports, by Countries or Region**  
In Millions of U.S. Dollars, Selected Years

|                    | 1990    | 1990 % Share | 2000     | 2000 % Share | 2011     | 2011 % Share |
|--------------------|---------|--------------|----------|--------------|----------|--------------|
| World              | \$5,044 |              | \$10,550 |              | \$13,861 |              |
| Mexico             | \$478   | 9%           | \$3,726  | 35%          | \$3,514  | 25%          |
| CAFTA-DR           | \$235   | 5%           | \$760    | 7%           | \$3,292  | 24%          |
| Canada             | \$1,029 | 20%          | \$2,328  | 22%          | \$1,805  | 13%          |
| EU-15 <sup>a</sup> | \$1,345 | 27%          | \$1,474  | 14%          | \$1,332  | 10%          |
| China              | \$163   | 3%           | \$210    | 2%           | \$1,189  | 9%           |
| CBI <sup>b</sup>   | \$109   | 2%           | \$74     | 1%           | \$70     | 1%           |

**Source:** U.S. Department of Commerce. OTEXA. Accessed August 8, 2012.

**Notes:**

- a. The EU-15 covers Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain and United Kingdom plus Sweden, Finland and Austria.
- b. The Caribbean Basin Initiative (CBI) includes Antigua, Aruba, Bahamas, Barbados, Belize, British Virgin Islands, Dominica, Grenada, Guyana, Haiti, Jamaica, Montserrat, Netherlands Antilles, Panama, St. Kitts-Nevis, St. Lucia, St. Vincent/Grenadines, and Trinidad and Tobago.

Canada, China, and the EU-15, with a combined total of \$5.9 billion, provided more than half of the yarns and fabrics imported by the United States in 2011. Textile imports are sensitive to the economy: between 2008 and 2009, imports of yarns and fabrics shrank by 24%, but they rose 26% in 2010 and another 14% in 2011 as the economy improved.

In the apparel sector, import penetration reached almost 90% of U.S. demand in 2011, up from 73% in 2005 (see ). The U.S. trade deficit in apparel products was \$75 billion in 2011.<sup>38</sup> Some 40% of imported apparel came from China. Vietnam, a fast-growing source of apparel for the U.S. market, furnished 8% of imports, but the other TPP participants shipped only small quantities of apparel to the United States. Central America, the Caribbean, and Mexico collectively accounted for 16% of U.S. apparel imports, almost all of it made with textiles produced in the United States.

## Sourcing in the Western Hemisphere

Central America, Mexico, and the Caribbean have limited textile production, but ample cut, make, and trim apparel assembly capacity, or CMT production as it is known in the industry. CMT is a low-valued-added production system, whereby a manufacturer produces garments for a customer by cutting fabric provided by the customer, sewing the cut fabric, trimming the thread, and packaging the garments according to the customer’s specifications. Canada’s higher-valued added textile sector differs substantially from the CMT operations in Latin America. U.S. textile exports to Canada, mainly specialty and industrial fabrics, totaled \$1.8 billion in 2011.

In Central America, virtually all fibers are imported. The Central America-Dominican Republic Apparel and Textile Council reports that the CAFTA-DR region has more than 500 apparel

<sup>38</sup> OTEXA Textile and Apparel Trade Balance Report, accessed August 1, 2012, <http://otexa.ita.doc.gov/tbrbal.htm>.

companies. About 50 textile mills produce knit and woven fabrics, man-made fibers, and mixtures.<sup>39</sup> Several U.S. textile manufacturers have expanded their manufacturing capabilities in Central America, as have companies from South Korea, Taiwan, and China.

Mexico is home to approximately 30 mills producing yarns and knitted and woven fabrics.<sup>40</sup> U.S.-based firms produce significant amounts of denim there.<sup>41</sup> Among the regional apparel suppliers that have free-trade agreements with the United States, Mexico is the only significant producer of fabric and the only significant source of yarn.

Mexico's apparel industry relies almost entirely on the U.S. market for exports. Its cut and assembly operations often use U.S.-made fabrics to produce basic garments such as denim jeans and T-shirts, which are then exported to the United States. Competition from countries with lower wages appears to be reducing the competitiveness of Mexican apparel in the U.S. market. Although Mexico ranked as the largest yarn and fabric market for the United States in 2011, with significant purchases of impregnated fabrics, felt and specialty yarns, and man-made fibers and filaments, U.S. exports to Mexico fell to \$3.5 billion in 2011, from \$3.7 billion in 2005 (see **Figure 4**).<sup>42</sup> The decline in Mexican purchases of U.S. fabric is likely related to the decline in U.S. imports of Mexican apparel, which fell to \$4 billion in 2011 from \$6.3 billion in 2005.<sup>43</sup>

For U.S. textile exporters, Honduras, El Salvador, and Guatemala represent the biggest yarn and fabric markets in the CAFTA region.<sup>44</sup> At \$1.7 billion, Honduras was the largest of the three in 2011, absorbing 12% of total U.S. yarn and fabric exports. Cotton (yarn/woven fabric), man-made fibers, and man-made filaments, which are used to make basic apparel such as T-shirts, socks, and underwear, are among the top export categories from the United States to Honduras.<sup>45</sup> El Salvador and Guatemala are also major assemblers of basic apparel for the U.S. market.

Nicaragua benefits from a unique feature of the CAFTA-DR agreement: the inclusion of a tariff preference level (TPL) provision.<sup>46</sup> The TPL allows U.S. trade preferences for Nicaraguan apparel that uses non-U.S. or non-CAFTA yarns and fabrics in limited amounts.<sup>47</sup> Even with the

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<sup>39</sup> Central America—Dominican Republic Apparel and Textile Council based on data from International Development Systems (IDS), <http://www.apparelcentralamericadr.com/cecatec-dr/>, retrieved August 2, 2012.

<sup>40</sup> Gary Gereffi and Jennifer Bair, *Strengthening Nicaragua's Position in the Textile-Apparel Value Chain: Upgrading in the Context of the CAFTA-DR Region*, Center on Globalization, Governance & Competitiveness, December 20, 2010, Table 10, p. 43, [http://www.cggc.duke.edu/pdfs/2010-12-20\\_Gereffi\\_Bair\\_Nicaragua-apparel-report.pdf](http://www.cggc.duke.edu/pdfs/2010-12-20_Gereffi_Bair_Nicaragua-apparel-report.pdf).

<sup>41</sup> For example, Cone Denim operates two denim mills in Mexico, <http://www.conedenim.com/mills.html>.

<sup>42</sup> OTEXA, *Going Global*, Export Guide for Textiles and Apparel, September 2012, pp. 9-10, <http://otexa.ita.doc.gov/PDFs/GoingGlobal.pdf>.

<sup>43</sup> OTEXA, Textile and Apparel Trade Balance Report, <http://otexa.ita.doc.gov/msrpoint.htm>.

<sup>44</sup> Honduras has been the largest yarn export market for the United States since 2007, with exports reaching a record high of nearly \$1.4 billion in 2011, or nearly a quarter of all U.S. yarn exports. U.S. exports of fabrics to Honduras totaled \$302 million last year. In recent years, Honduras has become stronger in knit fabrics due to investments by manufacturers such as Parkdale, VF Corporation, and Premier Narrow Fabrics.

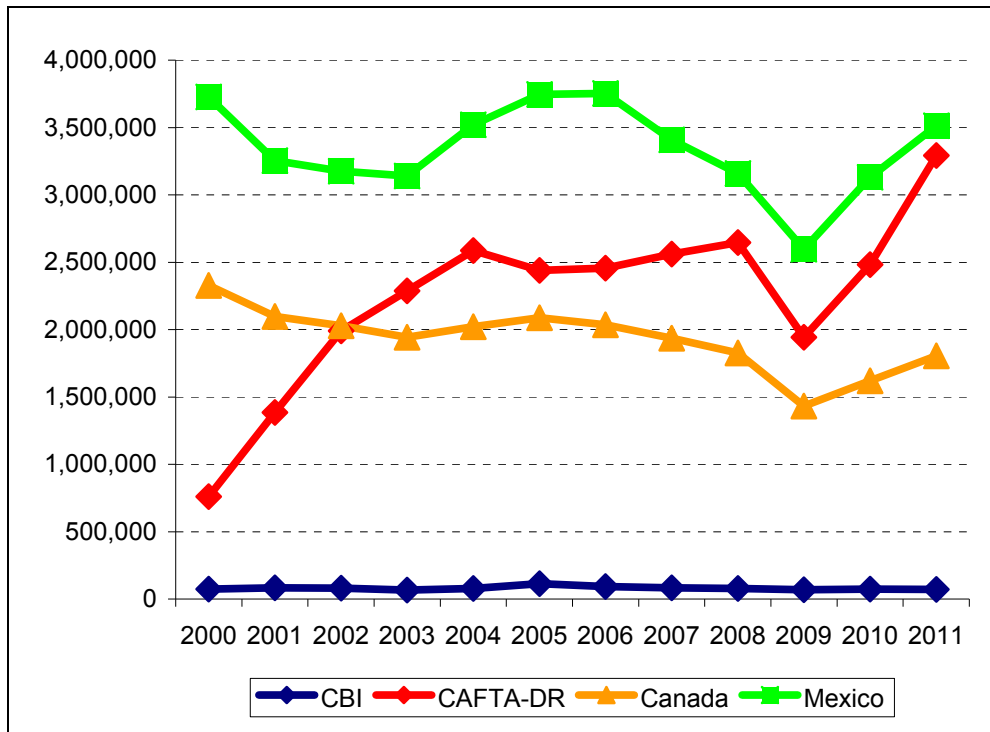
<sup>45</sup> OTEXA, *Going Global*, Export Guide for Textiles and Apparel, September 2012, pp. 10-12, <http://otexa.ita.doc.gov/PDFs/GoingGlobal.pdf>.

<sup>46</sup> O'Rourke Group Partners, *Benchmarking the Competitiveness of Nicaragua's Apparel Industry*, Carana Corporation, April 2011, <http://www.mayorganet.com/downloads/nicaraguanapparel.pdf>. There are no TPLs for the larger apparel CAFTA assembly markets of El Salvador, Guatemala, or Honduras.

<sup>47</sup> Some view the Nicaraguan TPL as a CAFTA-DR loophole, through which foreign components, including from Asian countries like China and Vietnam, can be sent to CAFTA countries for assembly and then exported duty-free to the United States.

TPL, which is scheduled to expire in 2015, U.S. exports of yarns and fabrics to Nicaragua remain relatively tiny. Costa Rica also has a TPL provision applicable to wool and certain women’s swimwear.<sup>48</sup>

**Figure 4. U.S. Fabric and Yarn Exports to the Western Hemisphere**  
In Thousands of U.S. Dollars, 2000-2011



**Source:** OTEXA, International Trade Administration, U.S. Department of Commerce.

**Notes:** These figures cover only yarn and fabric exports. They exclude made-up textiles.

Apparel manufacturers in the Caribbean region also have preferential access to the U.S. market under the Caribbean Basin Initiative (CBI), now called the Caribbean Basin Trade Preference Act (CBTPA) program. Because yarn and fabric production in the Caribbean are extremely limited, the region’s cut and assembly factories mostly rely on U.S.-made fabrics and yarns, with U.S. exports totaling \$70 million in 2011. Most textile production in the Caribbean is located in the Dominican Republic (also a CAFTA member).<sup>49</sup> Other Caribbean countries such as Haiti have no domestic textile industries, but use U.S.-made textiles to produce apparel for the U.S. market.

U.S. retailers buy most of their garments from Asia and tend to use Western Hemisphere producers for quick replenishment; for example, a retailer might order 100,000 pair of trousers from Asia and then, if early sales are strong, order an additional 5,000 or 20,000 pair from Mexico or Central America.<sup>50</sup> The major products are basic, low-value knitwear garments, such as

<sup>48</sup> Costa Rica, the last to implement DR-CAFTA, has increasingly ceded apparel manufacturing to other Central American countries shifting to higher value-added goods, including electronics, and other industries such as tourism.

<sup>49</sup> Fair Labor Association, *The Apparel Industry in the Dominican Republic after the MFA*, Report and Recommendations of an FLA Mission, p. 12, June 2007.

<sup>50</sup> Marion Traub-Werner, *Apparel Production in the Americas after Quotas*, Maquila Solidarity Network Fact Sheet, (continued...)

shirts, pants, underwear, and nightwear, with a focus on men's and boys' wear. U.S. imports of industrial fabrics from the CAFTA-DR region are relatively minimal at \$1.2 million in 2011.<sup>51</sup>

Apparel producers in the Western Hemisphere have two main comparative advantages in serving the U.S. market. One is geographic proximity, which confers lower transportation costs and faster delivery; transit times from the CAFTA-DR region to a U.S. port range from 2 to 7 days, compared to about two weeks from China and six weeks from Indonesia.<sup>52</sup> The other advantage is duty-free access for apparel manufactured from U.S. textiles. For example, manufacturers of cotton T-shirts or cotton twill trousers can avoid a 16.5% import duty if U.S. inputs are used.<sup>53</sup>

On the other side of the ledger, Mexico, Central America, and the Caribbean Basin have much higher wage rates than some Asian apparel suppliers, such as Vietnam, Cambodia, and Bangladesh. A 2010 study, for example, found the apparel industry's average hourly cost of labor to be \$2.06 in Mexico, but only \$0.51 in Vietnam.<sup>54</sup>

All things considered, tariff preferences appear to be important in keeping apparel producers in the Western Hemisphere competitive in the U.S. market, and thereby preserving export markets for U.S.-made textiles. A TPP agreement, if one is reached, has the potential to upset this situation. If apparel produced in Asian TPP countries gains duty-free access to the U.S. market, it could displace apparel manufactured with U.S. fabric in the Western Hemisphere, adversely affecting U.S. textile exports. Also, should Vietnam develop a larger textile industry, U.S. textile exports could be hurt if the TPP were to allow Western Hemisphere apparel producers to use textiles made in any TPP member country and still enjoy duty-free access to the U.S. market.

## TPP and Sourcing from Vietnam

Vietnam is the second largest exporter of garments to the United States, behind China.<sup>55</sup> As shown in **Figure 5**, apparel imports to the United States from China, which is not involved in the TPP negotiations, reached \$31 billion in 2011. U.S. apparel imports from Vietnam, although far smaller, have grown even faster, rising 14,000% from 2000 to 2011 to \$6.7 billion. U.S. imports of technical fabrics from Vietnam have also expanded in recent years, reaching \$202 million in 2011, but are still far smaller than apparel imports.<sup>56</sup> Among the Asian and Pacific countries in the TPP, Vietnam is the only one with significant textile and apparel industries.

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Lessons from the Dominican Republic, March 2007, pp. 3-4, <http://en.maquilasolidarity.org/sites/maquilasolidarity.org/files/MSN-AfterQuotas-2007-03-ENG.pdf>.

<sup>51</sup> Various types of technical fabrics are found in OTEXA Category 229 (special purpose fabrics).

<sup>52</sup> Transit times obtained from Maersk Line, <http://www.maerskline.com>, September 2012.

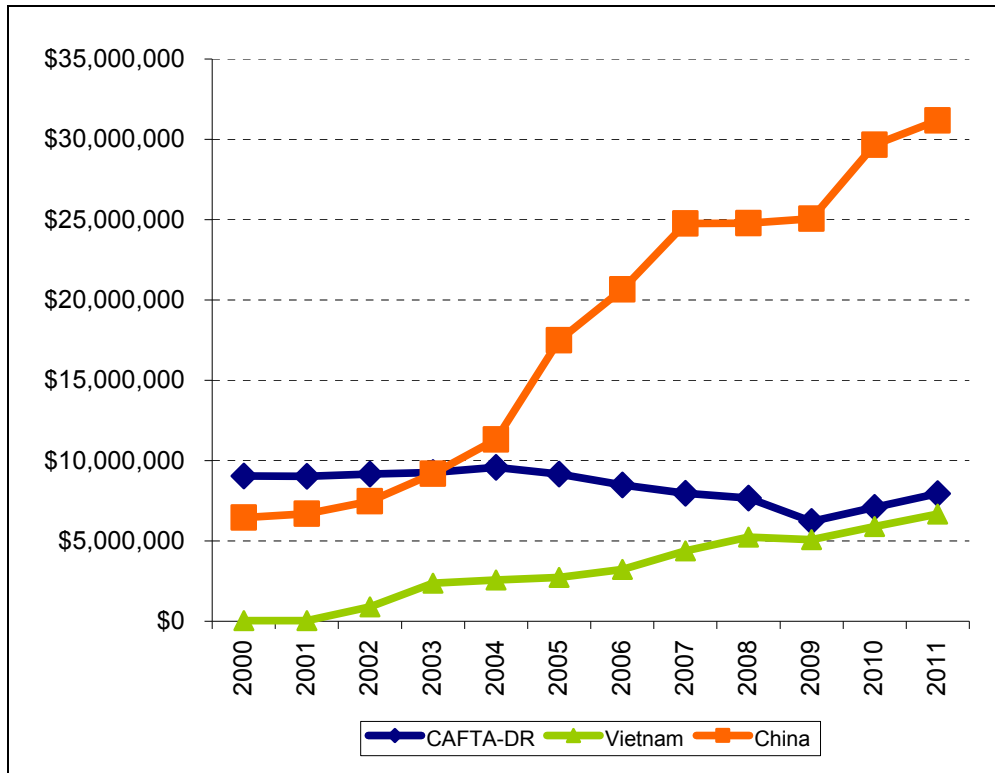
<sup>53</sup> The 2012 Normal Trade Relations (NTR) duty rate for cotton T-shirts (HTS 6109.10.00) is 16.5% and men's woven cotton pants (HTS 6203.42.40) is 16.6% at an ad valorem (percent of value) rate. Tariff savings for other products can be found on the USITC website at [http://dataweb.usitc.gov/scripts/tariff\\_current.asp](http://dataweb.usitc.gov/scripts/tariff_current.asp).

<sup>54</sup> O'Rourke Group Partners, *Benchmarking the Competitiveness of Nicaragua's Apparel Industry*, Carana Corporation, April 2011, pp. 19-21, <http://www.mayorganet.com/downloads/nicaraguanapparel.pdf>.

<sup>55</sup> Vietnam became a WTO member in 2007, which means it benefits from international trade rules, including NTR/MFN tariffs for textiles and apparel. In 2011, Vietnam's applied NTR/MFN duties were 9.7% for textiles and 19.7% for apparel.

<sup>56</sup> Vietnam was the second-largest supplier of specialty fabrics to the United States in 2011, accounting for 17% of the (continued...)

**Figure 5. U.S. Apparel Imports, 2000-2011**  
 In Thousands of U.S. Dollars, by Selected Countries



Source: OTEXA.

Generally, the main competitors to Vietnam in the U.S. clothing market are not Mexico and the CAFTA-DR nations, but China and other Asian nations. Vietnam tends to sell fewer basic apparel products (e.g., T-shirts and trousers) and more shirts, suits, and overcoats in the United States than do Western Hemisphere trading partners. Vietnam provides more than 10% of total U.S. imports of women’s and girls’ blouses, shirts, and overcoats, both knitted and woven.<sup>57</sup>

Vietnam’s apparel sector is young, having developed only in the past decade.<sup>58</sup> According to VITAS (Vietnam Textile and Apparel Association), about 3,200 garment and textile manufacturers operated in Vietnam in 2009, of which more than three-quarters were apparel firms.<sup>59</sup>

Vietnam’s apparel sector buys the majority of its yarns and fabrics regionally, from China and other Asian suppliers, and purchases only a limited amount from the United States.<sup>60</sup> The country

(...continued)

\$1.2 billion in imports. China was the largest, accounting for \$339 million or one-third of imports of industrial fabrics.

<sup>57</sup> Analysis based on Global Trade Atlas data.

<sup>58</sup> Vietnam’s textile industry developed in the 1980s in the framework of bilateral economic cooperation agreements with other Communist countries, but many of these plants were abandoned in the 1990s. In more recent years, Vietnam has begun to focus on rebuilding its textile sector, supported by investment from Japan, South Korea, and Taiwan.

<sup>59</sup> Gladys Lopez-Acevedo and Raymond Robertson, *Sewing Success?* (Washington, DC: World Bank, 2012), p. 478.

<sup>60</sup> The Trans-Pacific Partnership Apparel Coalition claims that about 60% of yarn used in Vietnam comes from Taiwan (continued...)



does have a growing textile industry, comprising 145 spinning mills, 401 weaving mills, 105 knitting mills, 94 dyeing and finishing mills, and seven non-woven mills.<sup>61</sup> However, Vietnam has yet to develop a broad textile supply base and imports are estimated to account for 80% of the fibers, fabrics, and yarns required by its apparel industry.

The Vietnam National Textile and Garment Group, or Vinatex, is Vietnam's largest textile and apparel corporation, accounting for 40% of apparel production and 60% of textile production.<sup>62</sup> In 2010, it shipped 18.75% of Vietnam's total textile and garment exports.<sup>63</sup> Vinatex, partially state owned,<sup>64</sup> is one of several groups that are investing to increase fiber and fabric production in Vietnam. Nationally, Vietnam's Ministry of Trade and Industry has set a development strategy for the textile and garment sector, aiming to increase fabric production to 2 million metric tons by 2020.<sup>65</sup> Fiber production is targeted to increase to 500,000 metric tons in 2015 and 650,000 metric tons by 2020. PetroVietnam Petrochemical & Textile Fiber Joint Stock Company is expected to open a polyester fiber plant at Dinh Vu in 2012,<sup>66</sup> and Vinatex also plans to open a fiber plant.<sup>67</sup> Investments in chemical plants to generate the basic feedstock required for the production of synthetic fabrics may follow. According to *Vietnam Investment Review*, "a new wave of foreign investments in the spinning, weaving, and dyeing sectors has been kicked off, since investors can see the profits they can gain from the TPP."<sup>68</sup>

Arguably, preferential access to the Vietnamese market under a TPP agreement could result in new business opportunities for U.S. fiber, yarn, and fabric producers. To date, however, Vietnam is not a significant market for U.S. yarn and fabric exporters, importing \$40 million of such products in 2011. The United States' main textile-related export to Vietnam is raw cotton: U.S. exports supply about 60% of the cotton used in Vietnamese textile mills.

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and China. See *Common Myths about the Trans-Pacific Partnership and Yarn Forward Rule of Origin*, October 2011, p.4, [http://www.usaita.com/pdf\\_files/1011TPPMythFactSheet.pdf](http://www.usaita.com/pdf_files/1011TPPMythFactSheet.pdf).

<sup>61</sup> Gladys Lopez-Acevedo and Raymond Robertson, *Sewing Success?* (Washington, DC: World Bank, 2012), p. 478.

<sup>62</sup> European Commission, *Economic Integration and Vietnam's Development*, Final Report, December 2009, p. 48, <http://www.mutrap.org.vn/en/library/ThamKhao/Economic%20Integration%20and%20Vietnam%27s%20Development.pdf>.

<sup>63</sup> Sarah C. Thomasson, "Vietnam: A Textile Powerhouse," *Textile World Asia*, July/August/September 2011, [http://textileworldasia.com/Articles/2011/August/Country\\_Profile\\_Vietnam.html](http://textileworldasia.com/Articles/2011/August/Country_Profile_Vietnam.html).

<sup>64</sup> An overview of Vinatex is available at <http://www.vinatex.com>. NCTO has identified 11 different subsidy programs by the Vietnamese government to support its domestic textile and apparel sector, including low cost loans, energy, and research and promotion. See NCTO Fact Sheet, *TPP Negotiations*, p. 3, April 2012. <http://www.ncto.org/IndustryIssues/TPP-Fact-Sheet—Apr2012.pdf>.

<sup>65</sup> European Union Economic and Commercial Counsellors, *Report on Vietnam 2011*, May 2011, pp. 16. In 2008, Vietnam Prime Minister Nguyen Tan Dung signed Decree 36/2008/QD-TTg to promulgate this strategy.

<sup>66</sup> *Petrovietnam Petrochemical & Textile Joint Stock Corporation*, p. 2, [http://www.jetro.go.jp/world/asia/vn/petrovietnam/pdf/201109\\_V-11.pdf](http://www.jetro.go.jp/world/asia/vn/petrovietnam/pdf/201109_V-11.pdf).

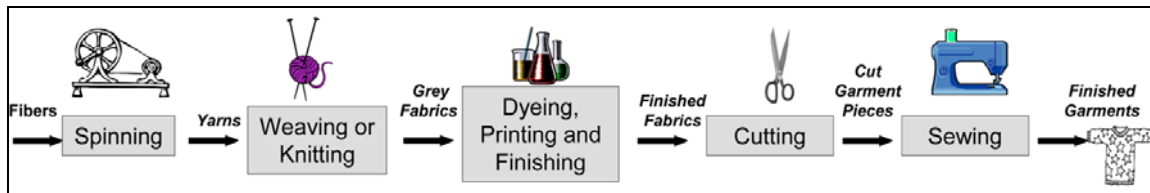
<sup>67</sup> "Nam Dinh Eyes \$120 Million Fibre Plant," *Vietnam Today*, May 12, 2012, <http://www.dztimes.net/post/industries/nam-dinh-eyes-120m-fibre-plant.aspx>.

<sup>68</sup> *Vietnam Investment Review*, *TPP May Attract more Foreign Investment Projects in Textiles and Dyeing*, June 19, 2012. <http://www.vir.com.vn/news/business/tpp-may-attract-more-foreign-investment-projects-in-textiles-and-dyeing.html>.

## Textiles and the TPP Negotiations

Textile and apparel trade is governed by very specific rules. Most of the bilateral and regional FTAs and trade preference programs negotiated by the United States over the past two decades include extensive provisions governing textiles and apparel. The key issue is typically rules of origin (ROOs), which specify how much of the content of textile and apparel products must come from the region in order for the products to qualify for duty-free access.<sup>69</sup> ROO requirements for textile and apparel products are usually based on the production process as shown in **Figure 6**.

**Figure 6. Major Production Steps for the Textile and Apparel Sector**



**Source:** International Trade Commission, *Textiles and Apparel: Assessment of the Competitiveness of Certain Foreign Suppliers to the U.S. Market*, Volume I, Investigation No. 332-448, Publication 3671, Figure I-3, January 2004.

Possible rules of origin generally stipulate how much processing must occur within the region if a product is to obtain trade benefits. The major distinctions are:

- **Fiber Forward:** Fiber must be formed in the FTA member territory. Natural fibers such as wool or cotton must be grown in the territory. Man-made fibers must be extruded in the trading area.
- **Yarn Forward:** Fibers may be produced in any country, but the yarn used to make the textiles or apparel must be formed within the free trade area. This rule is sometimes called “triple transformation,” as it requires that spinning of the yarn or thread, weaving or knitting of the fabric, and assembly of the final product all occur within the region.
- **Fabric Forward:** Producers may use fibers and yarns from any country, but fabric must be knitted or woven in FTA member countries.
- **Cut and Sew:** Only the cutting and sewing of the finished article must occur in FTA member countries.<sup>70</sup>

The United States, most often, has applied the “yarn forward” standard for textiles and apparel, with the notable exceptions of agreements with Jordan and Israel.<sup>71</sup> Most U.S. FTAs also include exceptions allowing limited quantities of fibers, yarns, and fabrics to be sourced from outside the FTA partner countries under certain conditions.

<sup>69</sup> CRS Report RL34524, *International Trade: Rules of Origin*, by Vivian C. Jones and Michael F. Martin.

<sup>70</sup> U.S. Customs and Border Protection, *What Every Member of the Trade Community Should Know About: Textile and Apparel Rules of Origin*.

<sup>71</sup> ROOs in the FTAs with Jordan and Israel provide that cutting and sewing, or knitting to shape, fabric finishing, and similar treatment are sufficient to confer origin as long as the value-added requirement of 35% is met.

**Appendix D** lists textile and apparel tariff rates of various countries. In general, U.S. tariffs increase with each stage of manufacturing, such that duty rates are usually higher on apparel than on its yarn or fabric inputs. The United States' TPP negotiating partners also tend to maintain steep tariffs. For instance, Vietnam's apparel tariffs range from 5% to 20%.

Reportedly, U.S. negotiators have proposed that the TPP agreement incorporate a unified yarn-forward ROO to assure that duty-free preferences do not go to countries that are not part of the agreement.<sup>72</sup> Press reports indicate that several TPP negotiating countries, including Vietnam, oppose U.S. demands for a "yarn forward rule."<sup>73</sup> Vietnam has reportedly tabled a "cut and sew" rule that would allow it, and other TPP participants, to enjoy preferential access for apparel that has been cut and sewn from fabric made in China or other countries not included in the TPP.<sup>74</sup>

U.S. domestic interests disagree over what ROOs should be included in any TPP agreement. On one side are fiber, yarn, and fabric manufacturers who want rules that would require more U.S. or TPP content. Organized as the Textile and Apparel Alliance for TPP (TAAT), they have endorsed a basic yarn forward rule applicable to all TPP countries.<sup>75</sup> They warn that the absence of a yarn-forward rule would allow Vietnamese apparel manufacturers to use Chinese textiles, thereby giving Chinese textile manufacturers duty-free access to the U.S. market and undermining U.S. textile production.<sup>76</sup> Dozens of members of Congress have endorsed TAAT's position, sending a letter in support to the U.S. Trade Representative recommending a yarn-forward rule.<sup>77</sup>

On the other side are U.S. retailers and importers of apparel, many with no domestic manufacturing, including Walmart and the National Retail Federation (NRF), along with the U.S. Chamber of Commerce. These interests formed the Trans-Pacific Partnership Apparel Coalition, which opposes the yarn-forward ROO and calls for a "simple and flexible ROO standard."<sup>78</sup> Their preferred rule requiring only that the sewing of a garment be done in a TPP country to get duty-free status would permit use of yarns and fabrics from China and other Asian countries in garments assembled in the region. The TPP Apparel Coalition recommends that apparel qualify for preferential treatment if 35% of its value is added within the region, making it easier to switch sources of supply as fashions and relative costs change.<sup>79</sup> Some members of Congress support this

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<sup>72</sup> "Marantis Promotes U.S. Yarn-Forward Rule of Origin In TPP Negotiations," *Inside U.S. Trade*, December 19, 2011.

<sup>73</sup> "U.S., Vietnam Signal Flexibilities in TPP Apparel Rule of Origin Fight," *Inside U.S. Trade*, May 24, 2012.

<sup>74</sup> "Trade Deals Need to Benefit Both Sides," *Vietnam News*, June 30, 2011, [http://www.usaita.com/pdf\\_files/VITAS%20Article.pdf](http://www.usaita.com/pdf_files/VITAS%20Article.pdf).

<sup>75</sup> TAAT includes organizations such as the American Fiber Manufacturers Association, AMTAC, National Cotton Council, NCTO, National Textile Association, and the United States Industrial Fabrics Institute, and overseas groups including the Central American—Dominican Republic Apparel and Textile Council and the Africa Coalition for Trade.

<sup>76</sup> TAAT's position on yarn forward, strong customs enforcement, and other TPP negotiating priorities is listed on its website at [http://www.taa-tpa.com/Our\\_Position.html](http://www.taa-tpa.com/Our_Position.html).

<sup>77</sup> NCTO, "76 Members of Congress Urge Strong Textile Rules in the Trans-Pacific Partnership Agreement," press release, May 12, 2012, <http://www.ncto.org/Newsroom/pr2012—0502TAATPressRelease—TPP1trUSTR.pdf>.

<sup>78</sup> The TPP Apparel Coalition is made up of American retailers, apparel brands, apparel manufacturers, and importers, including organizations such as the American Apparel & Footwear Association (AAFA), National Retail Federation (NRF), Outdoor Industry Association (OIA), the Retail Industry Leaders Association (RILA), and the United States Association of Importers of Textiles and Apparel (USA-ITA).

<sup>79</sup> TPP Apparel Coalition, *Common Myths about the TPP and the Yarn Forward Rule of Origin*, October 2011, p. 2, <http://www.tppapparelcoalition.org/uploads/1011TPPMythFactSheet.pdf>.

position, asking President Obama in May 2012 to pursue “a flexible general rule of origin for apparel that maximizes the incentive to grow U.S. exports, value, and jobs in the TPP.”<sup>80</sup>

## Conclusion

Concerns about the health of domestic textile manufacturing have influenced many past trade negotiations, and now figure prominently in the regional TPP negotiations. For textile manufacturers, the inclusion of a significant apparel producer such as Vietnam in a free trade agreement holds the potential to dramatically shift global trading patterns.

Depending upon its provisions, it is imaginable that a TPP agreement could result in apparel made in Vietnam displacing apparel from the Western Hemisphere in the U.S. market, weakening the export markets now served by U.S. textile producers in Mexico and Central America. An alternative scenario might allow apparel manufacturers in Mexico, a TPP participant, to use textiles made in any TPP country and still enjoy duty-free access to the U.S. market; while no Asian TPP participant currently has the textile production capacity to supply Western Hemisphere producers in this way, it is conceivable that such capacity will be installed in the future.

U.S. textile manufacturing interests have urged U.S. negotiators to insist on a “yarn forward” rule in the TPP. This would require that for apparel, home furnishings, or technical textiles, to benefit from duty-free access, they would have to be assembled in a TPP country from fabric manufactured in a TPP country out of yarn produced in a TPP country. Such a rule would severely limit the ability of countries such as Vietnam to use Chinese or Indian yarns and fabrics in apparel, home furnishings, or technical textile products for the U.S. market, although it would not constrain imports if Vietnam were to develop a more fully integrated textile industry at some future time. However, a “yarn forward” rule would also affect U.S. apparel consumers and the household textiles and specialty textiles markets by making it difficult for importers to obtain these items at the lowest possible cost, as these products made in TPP countries from yarns and fabrics produced elsewhere would not qualify for duty-free treatment.

Domestic manufacturers of household and technical textiles seem less likely to be immediately affected by any TPP agreement. U.S. manufacturers appear to be internationally competitive in these sectors, and Vietnam’s low labor costs will provide little comparative advantage in areas where production is highly automated. In the case of technical textiles, U.S. manufacturers also benefit from proximity to their industrial customers. Domestic technical textile manufacturers point out that Vietnam has been expanding its reach into industrial fabrics and higher-end textiles in recent years, including tire cord and coated fabrics,<sup>81</sup> but Vietnam will probably not be a significant global competitor in the near future.

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<sup>80</sup> Letter to President Obama from 15 U.S. Senators, May 1, 2012, <http://www.gbdinc.org/PDFs/TPP%20Senate%20Letter%20TPP%20and%20Apparel%20May%201%202012.pdf>.

<sup>81</sup> Letter from Ruth A. Stephens, Executive Director, U.S. Industrial Fabrics Institute, to Ambassador Ron Kirk, United States Trade Representative, March 26, 2012.

## Appendix A. Selected U.S. Textile Manufacturers

| Company                                  | Total Employees, 2011 | Revenue (\$ millions), 2011 | Textile Manufacturing Facilities  |
|--|-----------------------|-----------------------------|---|
| American & Efird <sup>a</sup>            | 2,900                 | N/A                         | 23 manufacturing facilities worldwide.  |
| International Textile Group <sup>b</sup> | 7,800                 | \$694                       | United States, Mexico, China, Nicaragua, and Vietnam.   |
| R. B. Pamplin Corporation <sup>c</sup>   | 6,205                 | \$399                       | United States, Latin America, the Caribbean, and Asia.  |
| Milliken <sup>d</sup>                    | ~7,000                | N/A                         | United States, United Kingdom, Belgium, France, and China.  |
| Albany International Group <sup>e</sup>  | 4,300                 | \$815                       | 24 plants globally, five of which manufacture forming fabrics.  |
| Polymer Group <sup>f</sup>               | 3,100                 | \$883                       | 15 manufacturing and converting facilities in the United States, Europe, Latin America, Canada, Asia. |
| Parkdale Mills <sup>g</sup>              | 3,000                 | \$214                       | United States, Colombia, and Mexico.  |
| Unifi <sup>h</sup>                       | 2,700                 | \$713                       | United States, Brazil, El Salvador, China, and Colombia.  |
| Lear Corporation <sup>i</sup>            | 2,600                 | \$202                       | United States, Asia, and Europe.  |
| Mohawk Industries <sup>j</sup>           | 26,900                | \$5                         | United States, Mexico, and Europe.  |

**Source:** CRS with information compiled from Hoovers, Plunkett Research, company reports, and websites.

- a. American & Efird manufactures sewing threads and industrial yarns.
- b. The International Textile Group (ITG) operates five primary business segments, including Cone Denim, Burlington Worldwide, and the Automotive Safety Group.
- c. R.B. Pamplin owns Mount Vernon Mills, a manufacturer of textile, chemical, and related products for the apparel, industrial, institutional, and commercial markets.
- d. Milliken & Company, a privately-held South Carolina-based company, manufactures protective fabrics, specialty fabrics, and industrial textiles, specialty chemicals, performance products, and floor coverings.
- e. Albany International produces man-made fibers, mainly for the pulp and paper industry, as well as specialty materials and composites and outdoor clothing, gloves, footwear, sleeping bags, and home furnishings.
- f. Polymer is a manufacturer of engineered materials for the hygiene, health care, and textile industries.
- g. Parkdale Mills, a privately held North Carolina-based company, manufactures cotton and cotton-polyester blend yarns used in goods such as sheets, towels, underwear, and jeans.
- h. Unifi, based in North Carolina, produces multi-filament polyester and nylon textured yarns for apparel, hosiery, furnishings, automotive, industrial, and other uses.
- i. In May 2012, Lear Corporation, a supplier of automotive seating and electrical power management systems, purchased Guilford Mills, a maker of automotive and specialty fabrics.
- j. Mohawk produces floor coverings for residential and commercial applications.

## Appendix B. Textile Industry Overview

|   | 2005        | 2010        | 2011        | 2005-2011 |
|---|-------------|-------------|-------------|-----------|
| <b>Total U.S. manufacturing employment (all industries)</b> | 14,190,394  | 11,487,496  | 11,701,497  | -18%      |
| Textile mills (NAICS 313)                                   | 216,646     | 119,385     | 119,970     | -45%      |
| Textile product mills (NAICS 314)                           | 169,339     | 119,145     | 117,759     | -30%      |
| Total textile employment                                    | 385,985     | 238,530     | 237,729     | -38%      |
| Apparel (NAICS 315)   | 257,616     | 157,587     | 151,135     | -41%      |
| All textiles and apparel (T&A)                              | 643,601     | 396,117     | 388,864     | -40%      |
| T&A employment as % of total mfg. employment                | 5%          | 3%          | 3%          |           |
| <b>Total value of shipments, in millions of U.S. \$</b>     |             |             |             |           |
| Total U.S. manufacturing                                    | \$4,743,207 | \$4,921,807 | \$5,500,137 | 16%       |
| Textile mills (NAICS 313)                                   | \$42,393    | \$29,156    | \$30,240    | -29%      |
| Textile product mills (NAICS 314)                           | \$35,048    | \$21,845    | \$22,558    | -36%      |
| Total textile shipments                                     | \$77,441    | \$51,001    | \$52,798    | -32%      |
| Apparel mfg (NAICS 315)                                     | \$31,423    | \$13,632    | \$14,618    | -53%      |
| All textiles and Apparel (T&A)                              | \$108,864   | \$64,633    | \$67,416    | -38%      |
| T&A shipments as % of total mfg. shipments                  | 2%          | 1%          | 1%          |           |
| <b>U.S. imports for consumption</b>                         |             |             |             |           |
| Textile mills (NAICS 313)                                   | \$7,453     | \$6,524     | \$6,524     | -12%      |
| Textile products (NAICS 314)                                | \$13,508    | \$15,824    | \$16,943    | 25%       |
| Total textile imports                                       | \$20,962    | \$22,347    | \$23,467    | 12%       |
| Apparel imports (NAICS 315)                                 | \$74,473    | \$75,412    | \$82,118    | 10%       |
| All textiles and apparel                                    | \$95,434    | \$97,760    | \$105,585   | 11%       |
| <b>U.S. Exports</b>   |             |             |             |           |
| Textile mills (NAICS 313)                                   | \$8,471     | \$7,822     | \$9,063     | 7%        |
| Textile products (NAICS 314)                                | \$2,343     | \$2,583     | \$2,740     | 17%       |
| Total textile exports                                       | \$10,814    | \$10,405    | \$11,804    | 9%        |
| Apparel exports (NAICS 315)                                 | \$4,069     | \$3,066     | \$3,203     | -21%      |
| All textiles and apparel                                    | \$14,883    | \$13,471    | \$15,006    | 1%        |
| <b>Apparel imports share of U.S. market</b>                 | 73.1%       | 87.7%       | 87.8%       |           |
| <b>Textile imports share of U.S. market</b>                 | 23.9%       | 35.5%       | 36.4%       |           |

**Source:** CRS, with data from U.S. Department of Labor, Quarterly Census of Employment and Wages; Census Bureau, Manufacturers' Shipments, Inventories, and Orders, and USITC Dataweb. All data accessed August 2012.

## Appendix C. Top Ten Textile Employment States

|  | 2001 Textile<br>Employment | 2011 Textile<br>Employment | %<br>Change | #<br>Numeric<br>Change |
|--|----------------------------|----------------------------|-------------|------------------------|
| United States                                  | 533,413                    | 237,729                    | -55%        | -295,684               |
| Georgia  | 89,251                     | 46,911                     | -47%        | -42,340                |
| North Carolina                                 | 109,676                    | 35,531                     | -68%        | -74,145                |
| South Carolina                                 | 64,560                     | 19,095                     | -70%        | -45,465                |
| California                                     | 33,869                     | 17,472                     | -48%        | -16,397                |
| Alabama  | 30,082                     | 10,764                     | -64%        | -19,318                |
| Texas  | 12,642                     | 8,606                      | -32%        | -4,036                 |
| Virginia                                       | 21,614                     | 7,857                      | -64%        | -13,757                |
| New York                                       | 17,595                     | 7,695                      | -56%        | -9,900                 |
| Pennsylvania                                   | 19,827                     | 7,676                      | -61%        | -12,151                |
| Tennessee                                      | 13,578                     | 6,091                      | -55%        | -7,487                 |
| <b>Top 10 States Employment Total</b>          | <b>412,694</b>             | <b>167,698</b>             | <b>-59%</b> | <b>-244,966</b>        |
| <b>Other 50 states plus DC</b>                 | <b>120,041</b>             | <b>70,031</b>              | <b>-44%</b> | <b>-50,010</b>         |
| <b>Top 10 States<br/>% of Total Employment</b> | <b>77%</b>                 | <b>71%</b>                 |             |                        |

**Source:** CRS with data compiled from U.S. Bureau of Labor Statistics, Quarterly Census on Employment and Wages.

**Notes:** Textile employment data cover two NAICS codes 313 and 314. The 50 states and Washington, DC, do not sum to the national total because the national total includes suppressed data and Puerto Rico.

## Appendix D. Selected Apparel and Textile Duties

| <b>Ad Valorem<sup>a</sup> Tariff Range</b> |             |                     |                    |                         |                          |                |
|--|-------------|---------------------|--------------------|-------------------------|--------------------------|----------------|
| <b>Country</b>                             | <b>Yarn</b> | <b>Woven Fabric</b> | <b>Knit Fabric</b> | <b>Non-Woven Fabric</b> | <b>Industrial Fabric</b> | <b>Apparel</b> |
| <b>FTA Member Countries</b>                |             |                     |                    |                         |                          |                |
| Australia                                  | 0-5%        | 0-5%                | 5-10%              | 5%                      | 0-5%                     | 0-10%          |
| Chile                                      | 6%          | 6%                  | 6%                 | 6%                      | 6%                       | 6%             |
| Colombia                                   | 5-15%       | 5-10%               | 5-10%              | 5-10%                   | 5-10%                    | 15%            |
| Israel                                     | 0-8%        | 0-12%               | 0-12%              | 0-12%                   | 0-14%                    | 0-12%          |
| Jordan                                     | 0-20%       | 0%                  | 0%                 | 0%                      | 0-20%                    | 0-20%          |
| Morocco                                    | 2.5%        | 2.5-25%             | 10-25%             | 2.5%                    | 2.5%-30%                 | 2.5-30%        |
| Panama                                     | 0-15%       | 0-15%               | 0%                 | 0%                      | 0-15%                    | 0-15%          |
| Peru                                       | 0-11%       | 0-11%               | 0-11%              | 0-6%                    | 0-11%                    | 6-11%          |
| South Korea                                | 0-8%        | 2-13%               | 10%                | 8%                      | 8-10%                    | 8-13%          |
| <b>CAFTA-DR</b>                            |             |                     |                    |                         |                          |                |
| Costa Rica                                 | 0-5%        | 0-9%                | 0-9%               | 10%                     | 0-9%                     | 0-14%          |
| Dominican Republic                         | 0%          | 0-14%               | 0-8%               | 0%                      | 0-20%                    | 3-20%          |
| El Salvador                                | 0-5%        | 0-10%               | 0-10%              | 0%                      | 0-10%                    | 0-15%          |
| Guatemala                                  | 0%          | 0-10%               | 0-10%              | 0%                      | 0-10%                    | 0-15%          |
| Honduras                                   | 0-5%        | 0-10%               | 0-10%              | 0%                      | 0-10%                    | 0-15%          |
| Nicaragua                                  | 0-5%        | 0-10%               | 5-10%              | 0%                      | 0-10%                    | 0-10%          |
| <b>NAFTA<sup>b</sup></b>                   |             |                     |                    |                         |                          |                |
| Mexico                                     | 0-15%       | 15%                 | 0-15%              | 15%                     | 0-15%                    | 30%            |
| Canada                                     | 0-8%        | 0-8%                | 0-8%               | 0%                      | 0-18%                    | 0-18%          |
| <b>Other TPP Negotiating Partners</b>      |             |                     |                    |                         |                          |                |
| Brunei                                     | 0%          | 0%                  | 0%                 | 0%                      | 0-10%                    | 0%             |
| Malaysia                                   | 0-30%       | 0-10%               | 15%                | 20%                     | 0-20%                    | 0-20%          |
| New Zealand                                | 0-5%        | 0-5%                | 0-5%               | 5%                      | 0-5%                     | 0-10%          |
| Vietnam                                    | 0-5%        | 12%                 | 12%                | 12%                     | 0-12%                    | 5-20%          |
| United States                              | 0-13.2%     | 0-25%               | 0-18.5%            | 0-12%                   | 0-14.1%                  | 0-32%          |
| <b>Other Countries</b>                     |             |                     |                    |                         |                          |                |
| China                                      | 2-10%       | 10-14%              | 10-12%             | 10%                     | 8-14%                    | 14-25%         |
| European Union <sup>c</sup>                | 0-5%        | 3-8%                | 6.5-8%             | 4%                      | 4-8%                     | 6.3-12%        |
| Japan                                      | 0-7.9%      | 2.5-10%             | 0-9.85%            | 0-4.3%                  | 3.3-6.65%                | 5-12.8%        |
| Philippines                                | 1-10%       | 1-10%               | 1-10%              | 15%                     | 0-15%                    | 1-15%          |
| Thailand                                   | 1-5%        | 5-17.5%             | 5%                 | 5%                      | 1-30%                    | 10-30%         |

**Source:** CRS with information from U.S. Department of Commerce, Office of Textiles and Apparel (OTEXA).



- a. Ad valorem tariff rates are based on the value of the goods.
- b. Textile and apparel goods manufactured in the United States enter Canada and Mexico duty-free under NAFTA if they qualify under the rules of the agreement.
- c. Members of the European Union apply the EU common external tariff to goods from non-EU countries.

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## **Acknowledgments**

Cathi Jones and Michael Martin helped to shape this report by providing significant input on rules of origin and textile trade with Vietnam, respectively.