

A Decade of Denim: Assessing Sourcing Shifts of Denim Apparel Importers

April 2022

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The author is staff with the Office of Industries of the U.S. International Trade Commission (USITC). Office of Industries working papers are the result of the ongoing professional research of USITC staff. Working papers are circulated to promote the active exchange of ideas between USITC staff and recognized experts outside the USITC, and to promote professional development of office staff by encouraging outside professional critique of staff research.

Abstract

Although denim has been an American staple in the last two centuries, denim production in the United States has been dwindling. Global suppliers have taken over production since the mid-20th century, dominating every aspect of the denim apparel supply chain, including denim fabric production to cutting and sewing of denim into finished garments. Global suppliers, especially from Asia, are now the dominant suppliers to the United States. This paper examines U.S. imports from five top denim apparel suppliers to the United States from 2010 to 2020—China, Mexico, Bangladesh, Vietnam, and Lesotho. However, the ranking of these suppliers has shifted over the last decade due to changing competitive factors present within each country. Some of these competitive advantages include textile machinery investments, lower labor costs, the availability of domestic sources of denim fabric, availability of skilled workers, speed to market, and the effect of duty preferences resulting from free trade agreements and other preference programs. The paper also addresses the competitive disadvantages of denim apparel production in these five countries, including a lack of capital investments, rising labor costs, and labor issues surrounding worker exploitation.

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This paper represents solely the views of the author and is not meant to represent the views of the U.S. International Trade Commission or any of its Commissioners. Please direct all correspondence to Mahnaz Khan, Office of Industries, U.S. International Trade Commission, 500 E Street, SW, Washington, DC 20436, telephone: 202-205-2046, email: mahnaz.khan@usitc.gov.

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Introduction

Over the last two centuries, denim jeans have been a classic apparel staple in the American wardrobe, representing the quintessential American consumer and wielding influence globally to new consumers. In the United States, denim has been making a comeback as consumer trends show a waning interest in athleisure wear, such as yoga pants and sweatshirts.¹ Global demand for denim has also been driven by a post-COVID-19 outlook as consumers desire new denim jeans as they begin to resume social gatherings and work life. Denim apparel has become more comfortable and stretchable and able to compete in the U.S. market with athleisure apparel due to innovation in the denim production process, which has an added benefit of making garments more sustainable and cost-effective.²

The story of the denim apparel supply chain is one that touches on many trade-related issues including sourcing shifts, labor issues, tariffs, and duty preferences. This paper addresses these trade-related issues in the context of how the top five U.S. denim apparel suppliers were able to gain, maintain, or lose U.S. market share over the last decade because of competitive factors affecting production within each country.

Other business factors such as automation may also account for changes in sourcing of denim apparel firms. Automation has helped to drive down costs of producing denim apparel due to the need for less manual low-skilled labor.³ However, investment in automated cutting and sewing machine varies by country, and the presence of automated cutting and sewing (which requires higher skilled workers to operate the machine) may in turn affect how certain foreign suppliers have a competitive advantage over another supplier.⁴ When denim manufacturing initially moved offshore in the mid-20th century, the competitive advantage of foreign suppliers was often determined by the country's low cost for sewing and cutting process, which was considered a low-skilled job because it was mainly done by hand.⁵

Before this decade, China was the undisputed leading supplier of U.S. denim apparel imports. Internal factors such as China's rising wages and infrastructure costs, coupled with the Chinese government's crackdown on pollution caused by domestic denim firms, have led to China losing its competitive advantage compared to other global suppliers. In addition, external factors such as the United States government imposing Section 301 tariffs on denim apparel garments and requiring companies to document where Chinese cotton is sourced from has threatened China's status as a top denim apparel importer.⁶

¹ Greenstein, "While Touting Sustainability, Denim Gets a Makeover," September 21, 2018.

² Greenstein, "While Touting Sustainability, Denim Gets a Makeover," September 21, 2018.

³ Textile World, "Automated Cutting and Sewing Developments," March 26, 2020.

⁴ Textile World, "Automated Cutting and Sewing Developments," March 26, 2020; Kucera and de Mattos, "[Automation, Employment and Reshoring: Case Studies of the Apparel and Electronics Industry](#)," April 30, 2020.

⁵ Kucera and de Mattos, "[Automation, Employment and Reshoring: Case Studies of the Apparel and Electronics Industry](#)," April 30, 2020.

⁶ On December 23, 2021, President Biden signed the Uyghur Forced Labor Prevention Act into law (effective June 21, 2022), which states that all goods manufactured even partially in the Xinjiang region are assumed to be the product of forced labor and therefore not entitled to entry at U.S. ports. The Act also builds on prior legislation, such as Uyghur Human Rights Policy Act of 2020, relating to forced labor abuses in China.

The rankings of the top denim apparel suppliers have shifted over the last decade, making way for several unlikely foreign suppliers to take market share in the U.S. denim apparel market. As China slowly lost its top position as a U.S. denim apparel supplier, other countries quickly moved in to gain market share, taking advantage of lower domestic wage costs and duty preferences under free trade agreements and preference programs, or by investing heavily in textile machinery purchases. One clear example is Mexico, a country that remains a top U.S. supplier of denim apparel mainly due to its lower wages, plentiful labor supply, and most importantly, duty preference benefits afforded in the North American Free Trade Agreement (NAFTA) and the U.S.-Mexico-Canada Agreement (USMCA).

Another competitive supplier that became one of the top U.S. denim apparel suppliers over the last decade is Bangladesh, mainly due to heavy investment in its domestic denim supply chain, from the fabric to the finished apparel article. Bangladesh has carved out a niche in the production of men's and boys' denim trousers, which it supplies heavily to the United States. Despite its lack of duty-free access to the U.S. market, Bangladesh's competitive advantage was driven by its heavy capital investment in textile machinery purchases and advanced improvements in both the denim fabric and denim apparel parts of the supply chain. Coupled with the lowest global wages for garment production, Bangladesh has become one of the lowest-cost denim apparel producers in the last decade. At the same time, these low labor costs have spurred international concern about significant human rights abuses as Bangladeshi workers, who are predominantly female, are forced to work long hours for meager wages.

Lesotho's rise as a top denim supplier initially mimicked Bangladesh's trajectory because the Lesotho government invested heavily into developing its denim apparel sector through the purchase of textile machinery. Like Bangladesh, Lesotho benefits from the second lowest wage rates for garment production globally and an abundant labor supply. Also similar to Bangladesh, recent events within Lesotho suggest numerous labor abuses towards female workers in the apparel industry. One major benefit that Lesotho has over Bangladesh is that Lesotho's denim industry benefits from duty preferences under the African Growth Opportunity Act (AGOA).

Vietnam is a relative newcomer to denim apparel production, but the country has shown to be extremely competitive in the last five years due to its skilled labor and low production costs. Vietnam benefits from its proximity to Asian denim fabric suppliers, allowing domestic apparel firms to source cheaply and quickly from multiple suppliers. Chinese suppliers also shifted production to Vietnam after the United States' imposition of Section 301 tariffs on denim apparel goods from China. In addition, the Vietnamese government provides incentives to apparel firms that allow denim fabrics to be imported duty-free if they are used to produce and export garments within 3–4 months.

To understand the denim apparel supply chain in depth, the paper begins with a description of the denim fabric making process and denim apparel production. The paper then profiles U.S. imports of denim apparel from the top five suppliers—China, Mexico, Bangladesh, Lesotho, and Vietnam—detailing U.S. denim apparel imports during 2010–20 from each supplier, and competitive factors affecting trade and production within the country.

Denim Processing

Denim apparel production begins with the formation of the denim fabric. Denim is a type of cotton fabric made using a twill weave, which creates parallel lines of a diagonal ribbing pattern on the fabric.⁷ Stated very simply, the process begins with cotton from bales being fed through carding machines, which clean, disentangle, and orient the cotton fibers, resulting in a soft long fiber strand called “sliver,” which is ultimately spun into yarn. The yarn is then dyed (usually using synthetic indigo dyes), depending on what color is preferred for the final product,⁸ and coated with a starch to stiffen the yarn before weaving.⁹ Unlike with many other fabrics, dyeing of the yarns occurs before the denim fabric is woven.¹⁰

Next, the cotton fibers are woven together. Denim fabric is not completely blue, but instead is composed of blue dyed threads forming the long, vertical threads (also known as the warp yarn) in the fabric, combined with white threads that are shorter and horizontal along the fabric (known as the weft yarn). Denim can be woven using either a shuttle loom or a projectile loom.¹¹ When denim is made using a shuttle loom, the weft (horizontal) thread is passed through the warp (vertical) threads in a back and forth motion, without breaks in the weft thread, thereby creating a smoother appearance.¹² In the projectile loom method, a single weft (horizontal) thread is used for every row as opposed to having one thread woven throughout the fabric, which creates a delicate edge that needs to be sewn together.¹³ Some denim jeans are made with a small amount of elastane (a stretchy synthetic fiber known as Spandex) during this process, which helps to give the cotton or cotton blend fabric more stretchability when the garment is ultimately formed.¹⁴

After assembly of the denim fabric, it may be brushed to remove loose threads and preshrunk so that it is ready for apparel assembly.¹⁵ Once the denim fabric is finished, denim apparel articles such as jeans, jackets, skirts, and tops are created using a cut and sew method, which is the most labor-intensive and costly part of the production process.¹⁶ The cutting stage requires a large pattern to be mapped out onto the denim fabric and cut using extremely sharp cutters or cut manually by hand. The cutting process in some foreign countries has become more automated due to various cutting technologies, such as computer-controlled knives, lasers, water jets, plasma, or ultrasound.¹⁷ Then the cut pieces of

⁷ Kavitha and Ambika, “[Denim Processing](#),” March 2013; Masterclass, “[What is Denim Fabric?](#)” November 8, 2020.

⁸ Indigo dyes were originally a plant-based dye, but now these dyes are made in a synthetic version because they are more sustainable. In some instances, non-indigo dyes, such as sulfur dyes, are used because they are better for the environment while offering vivid colors. Lindwall, “Are my Denim Jeans Bad for the Environment?,” August 27, 2019; Fluence, “[The Water Footprint of Blue Jeans](#),” July 6, 2020; Paul, *Denim: Manufacturing, Finishing and Applications*, 2-3.

⁹ Fluence, “[The Water Footprint of Blue Jeans](#),” July 6, 2020.

¹⁰ Made How, “Blue Jeans,” <http://www.madehow.com/Volume-1/Blue-Jeans.html> (accessed November 15, 2021).

¹¹ Tsai, “[How Ethical is the Denim Supply Chain?](#)” August 15, 2017; Kavitha and Ambika, “[Denim Processing](#),” March 2013.

¹² Masterclass, “[What is Denim Fabric?](#)” November 8, 2020.

¹³ Masterclass, “[What is Denim Fabric?](#)” November 8, 2020.

¹⁴ Spinners World, “[Denim Manufacturing from Fiber to Finishing](#),” July 18, 2018.

¹⁵ Made How, “Blue Jeans,” <http://www.madehow.com/Volume-1/Blue-Jeans.html> (accessed November 15, 2021).

¹⁶ Ordnur, “[Denim Manufacturing, Process, Types and Uses](#),” n.d. (accessed July 23, 2021).

¹⁷ Textile World, “Automated Cutting and Sewing Developments,” March 26, 2020.

denim are sewn together by either by skilled laborers using complex machines or using a variety of stitches by hand, depending on where the stitches are placed and the ultimate design of the apparel.¹⁸

There are several steps in finishing a denim apparel item once it has been assembled. The most common finishing technique is prewashing, which is done to the garment so that it is softer and more comfortable to the wearer.¹⁹ Prewashing may be done through several methods including rinsing, which is done by simply washing the jeans.²⁰ Another prewashing method is stonewashing where the jeans are washed in water with pumice stones so that the stones rub against the jeans and wears off the indigo dyes, creating a softer feel than simply washing the jeans in water.²¹

Other finishing methods include hand scraping, sandblasting and bleaching.²² Hand scraping is a labor-intensive process where workers use sandpaper or other sanding tools to abrade the denim and remove the dyes.²³ Sandblasting is a garment finishing process that is similar to hand scraping, where tiny sand grains are blasted onto the jeans under high pressure; however, this method is less labor-intensive than hands scraping.²⁴ Bleaching uses chlorine to brighten the color of denim apparel in order to accelerate the color wash process.²⁵ Lastly, a garment may be finished by color fading, tinting or dyeing the denim apparel article.²⁶

The denim apparel production requires a large amount of water and energy throughout the denim supply chain from washing cotton to finishing the denim article, and it can be difficult to produce denim apparel cost effectively in countries that lack sufficient water and energy resources.²⁷ The United Nations estimated that it takes almost 1,000 gallons (3,781 liters) of water to make a pair of jeans from initial cotton production to the delivery of the final product.²⁸

Global and U.S. Denim Apparel Market

The total value of the global denim apparel market has been increasing over the last decade and is projected to increase in the future, even in the aftermath of the COVID-19 pandemic. An industry report estimates the value of the global denim apparel market at \$60–\$110 billion in 2021, and denim jeans make up a significant portion of this market.²⁹ Industry experts estimate that the global denim apparel

¹⁸ Tsai, "[How Ethical is the Denim Supply Chain?](#)" August 15, 2017.

¹⁹ Bojer, "[How Jeans are Made](#)," (accessed July 23, 2021).

²⁰ Bojer, "[How Jeans are Made](#)," (accessed July 23, 2021).

²¹ Bojer, "[How Jeans are Made](#)," (accessed July 23, 2021).

²² Bojer, "[How Jeans are Made](#)," (accessed July 23, 2021).

²³ Bojer, "[How Jeans are Made](#)," (accessed July 23, 2021).

²⁴ Bojer, "[How Jeans are Made](#)," (accessed July 23, 2021).

²⁵ Bojer, "[How Jeans are Made](#)," (accessed July 23, 2021).

²⁶ Spinners World, "[Denim Manufacturing from Fiber to Finishing](#)," July 18, 2018.

²⁷ Fluence, "[The Water Footprint of Blue Jeans](#)," July 6, 2020.

²⁸ Koop, "[The Story of Three Tons of Water in Your Jeans](#)," August 28, 2020.

²⁹ Uniway Sourcing, "[List of Denim Manufacturers in China](#)," (accessed July 23, 2021); Biz Vibe, "[Global Denim Market Retains Its Style and Strength](#)," n.d. (accessed July 23, 2021).

industry grew 6.5 percent from 2015 to 2020.³⁰ The growth in the market value was mainly from rising demand from Asian and Latin American consumers.³¹

There is no publicly available data for on the size of the U.S. denim apparel market, although industry sources estimate that over 90 percent of denim apparel is supplied by imports.³² The U.S. market for denim jeans (a subset of the denim apparel market) was estimated at \$16 billion in 2020.³³ In contrast to the global denim apparel market, the U.S. denim apparel market is not growing as quickly, mainly because of the athleisure trend that has been dominating the U.S. apparel market in recent years. However, consumer buying trends are quickly changing amid the COVID-19 pandemic as consumers forego athleisure wear for more denim jeans as they become socially active again following COVID-19 lockdowns.³⁴ Despite the slower rate of U.S. denim apparel purchasing vis-a-vis other countries, the United States remains the largest consumer of denim jeans globally, largely because of factors such as higher disposable income, growth in e-commerce, and the trend towards casual dress in the workplace.³⁵

U.S. Denim Apparel Production

Denim was conceived during the Gold Rush in the 1850s when Levi Strauss began producing a special type of trousers that miners could use to store gold.³⁶ Levi Strauss, together with Jacob Davis (who added details such as rivets to the seams and pocket corners), developed a new type of trousers, which they then patented, and mass produced for American consumers.³⁷

The United States started off as a major denim apparel producer in the -20th century, but with the rising costs of U.S. labor, denim apparel production started to shift to Asian countries in the 1980s.³⁸ For example, Levi's Jeans began to shift production from the United States to China in mid-1980s because they could find workers that could sew for only a few dimes per hour.³⁹ Global denim apparel production started to flow to countries, mainly China, that had cheaper labor costs associated with manual cutting and sewing, which were expensive and difficult to find domestically.⁴⁰ Generally, cutting and sewing is one of the most expensive part of the apparel manufacturing process (after fabric cost), accounting for about 35–40 percent of the total garment cost.⁴¹ Apparel manufacturers have lowered their labor costs over the last 50 years by locating production facilities in developing countries, in

³⁰ Biz Vibe, "[Global Denim Market Retains Its Style and Strength](#)," n.d. (accessed July 23, 2021).

³¹ Biz Vibe, "[Global Denim Market Retains Its Style and Strength](#)," n.d. (accessed July 23, 2021).

³² Friedman, "[U.S. Imports Rise as New Wave of Suppliers Gain Ground](#)," October 11, 2018; Newberry, "[Denim and Jeans Supply Chain](#)," 2018.

³³ Ritz Herald, "[Global Denim Jeans Market to Reach 83.2 Billion by 2026](#)," May 31, 2021.

³⁴ Ritz Herald, "[Global Denim Jeans Market to Reach 83.2 Billion by 2026](#)," May 31, 2021.

³⁵ Ritz Herald, "[Global Denim Jeans Market to Reach 83.2 Billion by 2026](#)," May 31, 2021.

³⁶ Masterclass, "[What is Denim Fabric?](#)" November 8, 2020.

³⁷ Masterclass, "[What is Denim Fabric?](#)" November 8, 2020.

³⁸ Apparel Resources, "[Global Denim Fabric Manufacturing Concentrated in Asia](#)," April 7, 2014.

³⁹ Chu and Davis, "[As China's Workforce Dwindles, the World Scrambles for Alternatives](#)," November 23, 2015.

⁴⁰ Regan, "[Men's Jeans Could Be the Biggest Retail Casualty of a Trade War with Mexico](#)," February 1, 2017.

⁴¹ Textile World, "[Automated Cutting and Sewing Developments](#)," March 26, 2020.

addition to investing more in automated cutting and sewing machines and replacing some manual labor for these tasks.⁴²

Currently, there is limited denim fabric production in the United States. Most American textile mills specializing in denim have shut down or ceased producing denim in their existing mills, owing in large part to the costly and complex manufacturing process associated with producing denim fabric.⁴³ Further, most U.S. denim fabric producers shifted the bulk of their U.S. production to Mexico after the North American Free Trade Agreement was enacted in 1994.⁴⁴ In the 2000s, the largest domestic denim producer was International Textile Group (ITG), which acquired Cone Denim after it filed for bankruptcy in 2003. ITG later became Elevate Textiles after being acquired in 2016, and Cone Denim now operates under the leadership of Elevate Textiles; however, it shuttered its U.S. denim mills production in 2017, but continues to produce denim in Mexico and China.⁴⁵ A smaller denim fabric producer, Burlington Fabric, used to produce denim fabric in the United States, but this company was also acquired by Elevate Textiles.⁴⁶ A large denim fabric producer, Denim North America (based in Columbus, Georgia) shut down their mills in 2017 due to lack of demand and profitability.⁴⁷ Currently, Mount Vernon Mills (based in Mauldin, South Carolina) and SafeDENIM (based in Littlefield, Texas) appear to be the only two mills producing denim on a large-scale in the United States.⁴⁸ Vidalia Mills is another newer producer based in Vidalia, Louisiana that makes a special type of denim called selvedge denim, a niche product used in more expensive denim jeans.⁴⁹

Denim jeans were initially produced by Levi Strauss in San Francisco, California; however, over the last 40 years, denim production has been outsourced to countries that can make jeans cheaper.⁵⁰ Although most denim apparel production is located overseas, mainly in Asian countries such as Bangladesh and China, there remain several U.S. manufacturers that still engage in limited designer jean production domestically. The largest denim apparel manufacturers in the United States are L.C. King Manufacturing Co., Union Line, Round House Jeans, and Imogene + Willie (table 1). Denim apparel production hubs for

⁴² Textile World, “Automated Cutting and Sewing Developments,” March 26, 2020.

⁴³ Bucci, “[Fabric Sourcing: Denim in USA](#),” October 31, 2011.

⁴⁴ Friedman, “[Denim in America Takes a Big Hit](#),” December 18, 2017; Povenmire, “[What’s So Great about Cone Mills White Oak Denim?](#),” June 10, 2018.

⁴⁵ Cone Denim filed for bankruptcy in 2003 and was purchased by International Textile Group in 2004. Cone Denim said it was ceasing operations and closing down its White Oak mill at the end of 2017 after 110 years of continuous denim production. ITG changed its name to Elevate Textiles after it was acquired by Platinum Equity in 2016 and was integrated with American & Efird in 2018; Cone Denim is now under the leadership of Elevate Textiles and currently produces denim in China and Mexico. Bojer, “[The Legend of Cone Denim’s White Oak Denim Plant](#),” n.d. (accessed July 23, 2021); Friedman, “[Iconic White Oak Denim Selvedge Looms to Get Second Life in US Production Deal](#),” April 17, 2019; Cone Denim, <https://conedenim.com/heritage/> (accessed September 28, 2021).

⁴⁶ Burlington Fabrics, “Global Locations,” <https://www.burlingtonfabrics.com/global-locations/> (accessed November 18, 2021); LinkedIn, Burlington Fabrics, <https://www.linkedin.com/company/burlington-fabrics/> (accessed November 18, 2021); Elevate Textiles, “Sustainability Report 2021,” 2021. <https://www.burlingtonfabrics.com/wp-content/uploads/2021/04/2021-04-21-ET-SustainabilityReport.pdf>;

⁴⁷ Bucci, “[Fabric Sourcing: Denim in USA](#),” October 31, 2011.

⁴⁸ Shuck, “[Who Killed the Cone Mills White Oak Plant?](#)” July 18, 2018.

⁴⁹ ‘Selvedge’ is the name for the higher-quality, harder-to-produce type of denim that is typically sold and worn unwashed. Denim Hunters, “What is Selvedge Denim?,” <https://denimhunters.com/denim-wiki/denim-explained/selvedge/> (accessed November 18, 2021); Vidalia Mills, “About Us,” <https://www.vidaliamills.com/about> (accessed November 18, 2021); industry representative, interview of USITC staff, October 20, 2021.

⁵⁰ Todd Shelton, “[8 Made in USA Jeans Brands Committed to American Manufacturing](#),” (accessed July 23, 2021).

niche denim jeans exist in Los Angeles, California, the Midwest, and the southern United States. However, U.S. denim production has been difficult to sustain domestically due to increased wages and the COVID-19 pandemic.⁵¹ An industry report stated that several denim factories in Los Angeles shuttered their doors and move to Mexico after California raised its minimum wage.⁵²

Table 1 U.S. denim apparel manufacturers, manufacturing locations and number of employees (as of 2021)

Company	Manufacturing locations	Number of employees
Todd Shelton	East Rutherford, NY	27
Raleigh Denim Workshop	Raleigh, NC	7
Shockoe Atelier	Richmond, VA	5
Railcar Fine Goods	Monrovia, CA	6
Dearborn Denim and Apparel	Chicago, IL	15
Round House Jeans	Shawnee, OK	44
L.C. King Manufacturing Co.	Bristol, TN	110
Imogene + Willie	Nashville, TN	45
Loup	New York, NY	5
Freenote	San Juan Capistrano, CA	5
Tellason	San Francisco, CA	32
Detroit Denim Co.	Detroit, MI	7
All American Clothing	Arcanum, OH	7
Buddy's Jeans	Tylertown, MS	12
Kimes Ranch	Scottsdale, AZ	28
Schaefer Outfitter	Fort Worth, TX	18
Texas Jeans	Asheboro, NC	6
Union Line	Chicago, IL	45

Sources: Todd Shelton, "[8 Made in USA Jeans Brands Committed to American Manufacturing](#)," (accessed July 23, 2021); Good Trade, "[8 USA-Made Denim Brands You Can Trust For Quality & Longevity](#)," (accessed July 29, 2021); Zoominfo, OTEXA, "Made in the USA Database", (accessed June 21, 2021); various company websites.

There has been limited foreign investment in denim apparel production in the United States due to its lack of profitability. One exception is Saitex, a Vietnam-based company that opened a denim facility in Los Angeles in March 2021, which has the capacity for a more automated denim apparel making process including laser cutting and detailing, semi-automated sewing, robotic spraying, and an efficient way to wash denim.⁵³ One of the reasons for the investment in the United States was to have control over the traceability of the garment life cycle.⁵⁴

Competitiveness of Top U.S. Denim Apparel Importers

China continues to dominate denim apparel production but as wages in China increased and U.S. government policies such as tariff and trade bans on Chinese-origin products took effect in recent years,

⁵¹ Duara, "Garment Manufacturers Worry California Bill Threatens "Golden Window" to Reshore Jobs," September 27, 2021.

⁵² Berr, "Another Casualty of Trump's Trade War: American Denim," August 7, 2018.

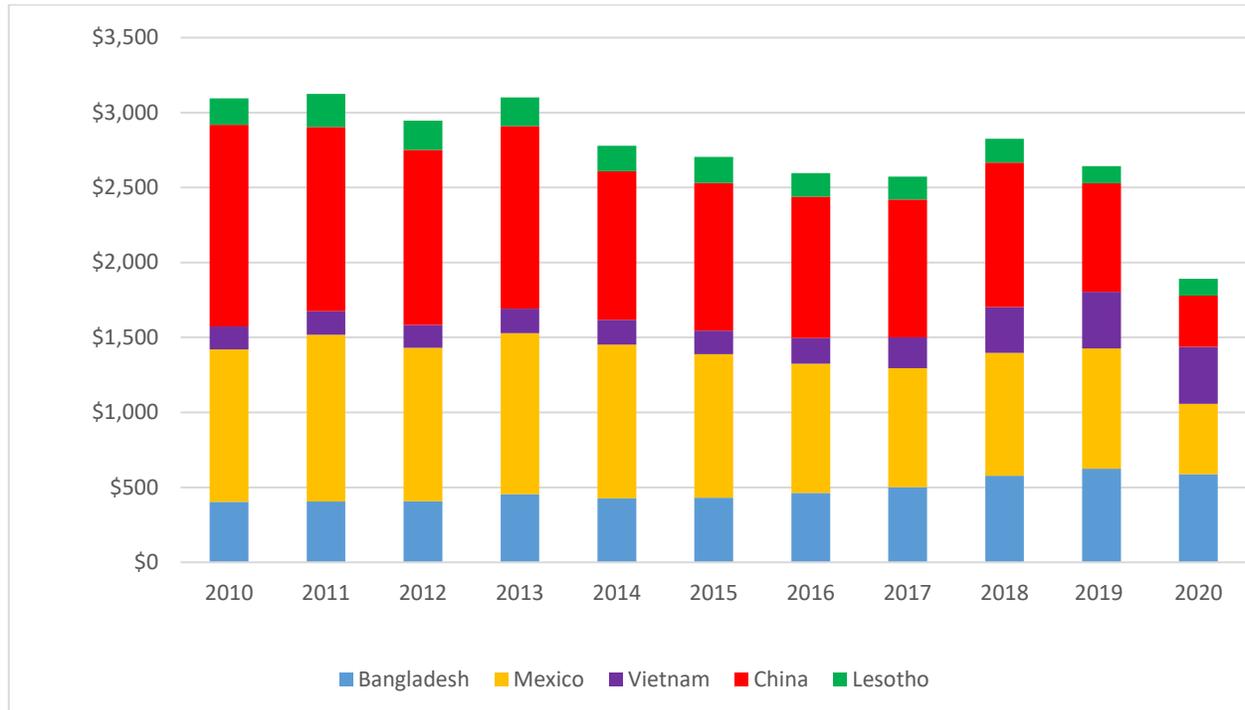
⁵³ Velasquez, "[Saitex Flips on the Switch at Los Angeles Facility](#)," March 21, 2021; Cision, "[Saitex Announces the Opening of Saitex USA in Los Angeles, CA](#)," March 10, 2021.

⁵⁴ Innovation in Textiles, "[Saitex Gets Closer to Closing the Loop](#)," February 2, 2022.

other countries began to absorb production (such as Bangladesh, India, and Vietnam) because of their lower costs associated with cutting and sewing of denim fabric.⁵⁵ Figures 1 and 2 show that China was the dominant supplier of U.S. denim apparel imports in 2010 by value and quantity but was no longer the top-ranked supplier by 2020.

Figure 1: U.S. denim apparel imports from leading suppliers, by value, 2010–20

In million dollars.

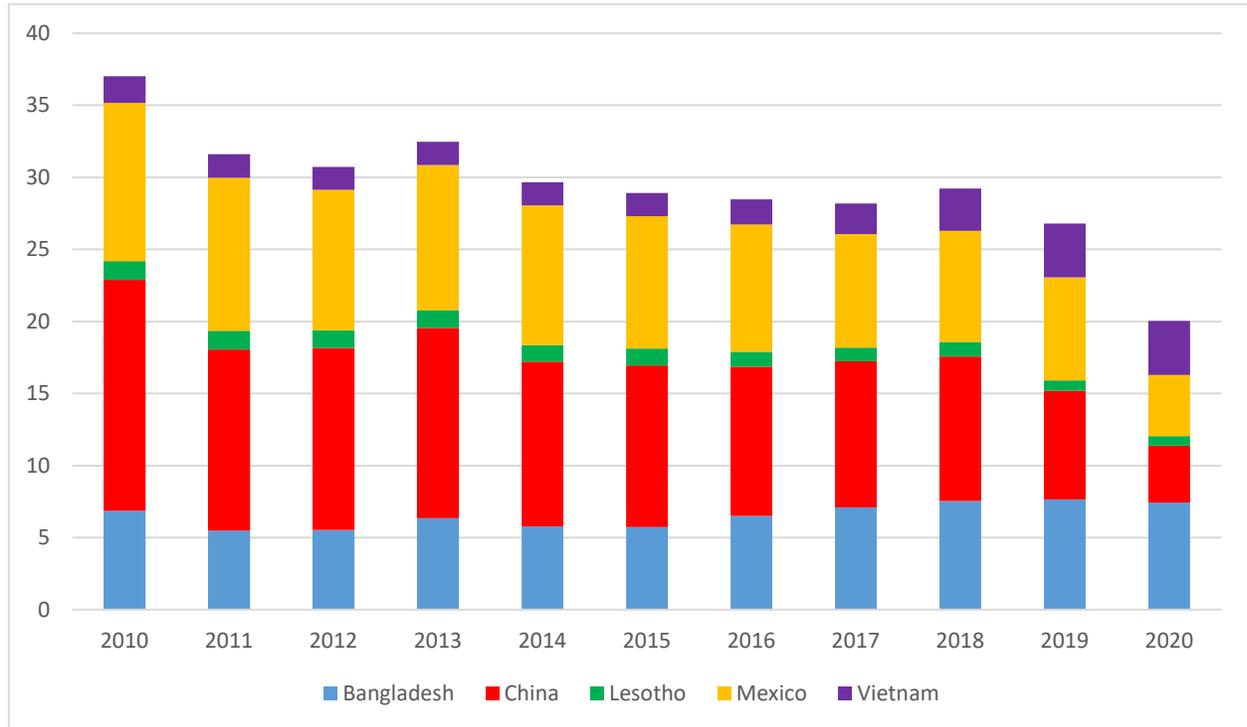


Source: Dataweb (accessed March 8, 2022). HTS subheadings include men's and boys' blue denim trousers in HTS 6203.42.0736, 6203.42.4011, 6203.42.4511, 6203.42.4536, 6203.42.4031, 6203.42.4531, 6203.42.0731, 6203.42.4036, and 6203.42.0711; women and girls' blue denim trousers in HTS 6204.62.8041, 6204.62.1511, 6204.62.1536, 6204.62.4011, 6204.62.1541, 6204.62.4036, 6204.62.4041, 6204.62.8036, and 6204.62.8011; and other apparel such as denim anoraks, windbreakers, suit-type jackets, blazers, and skirts in HTS 6201.92.4531, 6201.92.4541, 6201.92.1941, 6204.52.2040, 6201.92.2041, 6204.52.2030, 6203.32.2030, 6201.92.2031, and 6201.92.1931.

⁵⁵ Regan, "[Men's Jeans Could Be the Biggest Retail Casualty of a Trade War with Mexico](#)," February 1, 2017.

Figure 2 U.S. denim apparel imports from leading suppliers, by quantity, 2010–20

In millions of dozens.



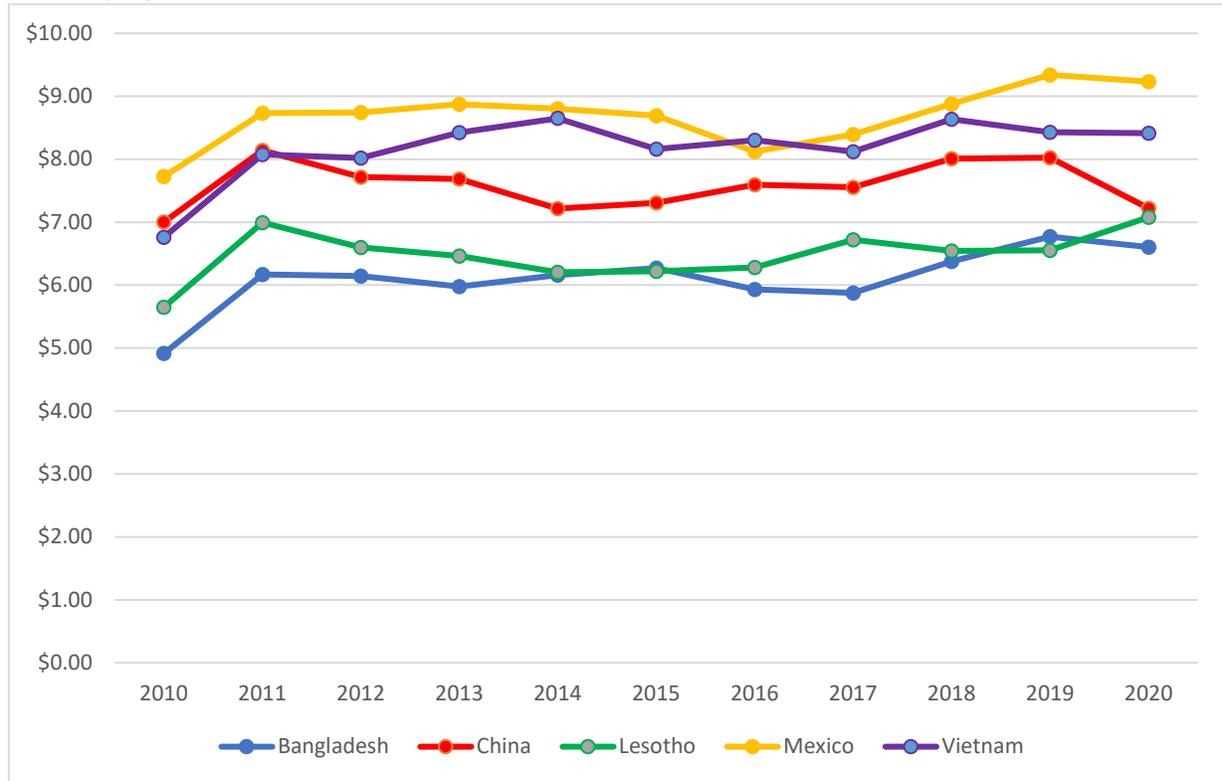
Source: Dataweb (accessed March 8, 2022). HTS subheadings include men’s and boys’ blue denim trousers in HTS 6203.42.0736, 6203.42.4011, 6203.42.4511, 6203.42.4536, 6203.42.4031, 6203.42.4531, 6203.42.0731, 6203.42.4036, and 6203.42.0711; women and girls’ blue denim trousers in HTS 6204.62.8041, 6204.62.1511, 6204.62.1536, 6204.62.4011, 6204.62.1541, 6204.62.4036, 6204.62.4041, 6204.62.8036, and 6204.62.8011; and other denim apparel such as anoraks, windbreakers, suit-type jackets, blazers, and skirts in HTS 6201.92.4531, 6201.92.4541, 6201.92.1941, 6204.52.2040, 6201.92.2041, 6204.52.2030, 6203.32.2030, 6201.92.2031, and 6201.92.1931.

The comparative cost advantage of sourcing from certain top U.S. suppliers of denim apparel production is reflected in the unit value of U.S. imports. The cheapest unit price was for denim garments from Bangladesh at \$6.58 per garment, followed by Lesotho at \$7.08 in 2020 (figure 3). Bangladesh’s average unit value for denim garments increased 34 percent over the last decade, while Lesotho’s increased more slowly at 25 percent. Both Bangladesh and Lesotho benefit from an integrated vertical supply chain and the lowest global wages for denim apparel production. China ranks third with a unit price of \$7.25 per denim garment in 2020 (an increase of only 3 percent since 2010). China’s average unit value temporarily increased to its second highest peak of \$8.00.⁵⁶ Currently, Mexico remains the highest cost supplier with an average unit value of \$9.25 per garment in 2020. Although the next section describes the comparative advantages and weaknesses of each top supplier of U.S. denim apparel in more detail, a summary of these factors is provided in Table 2 below.

⁵⁶ Fares, “[Levi’s Slims Down China Supply Chain Exposure as Trade War Rages On](#),” August 2, 2019.

Figure 3 Import unit price of U.S. denim apparel garments, 2010–20

In dollars per garment.



Source: Dataweb (accessed May 12, 2021). HTS subheadings include men’s and boys’ blue denim trousers in HTS 6203.42.0736, 6203.42.4011, 6203.42.4511, 6203.42.4536, 6203.42.4031, 6203.42.4531, 6203.42.0731, 6203.42.4036, and 6203.42.0711; women and girls’ blue denim trousers in HTS 6204.62.8041, 6204.62.1511, 6204.62.1536, 6204.62.4011, 6204.62.1541, 6204.62.4036, 6204.62.4041, 6204.62.8036, and 6204.62.8011; and other apparel such as denim anoraks, windbreakers, suit-type jackets, blazers, and skirts in HTS 6201.92.4531, 6201.92.4541, 6201.92.1941, 6204.52.2040, 6201.92.2041, 6204.52.2030, 6203.32.2030, 6201.92.2031, and 6201.92.1931.

Table 2 Competitiveness of top U.S. denim apparel suppliers to the United States

Country	Strengths	Weaknesses
China	<ul style="list-style-type: none"> Abundant supply of domestic cotton inputs for denim fabric production Appeals to companies due to ability to produce different types of apparel due to skilled labor Specializes in producing innovative denim fabric blends 	<ul style="list-style-type: none"> Rising wage costs for cutting and sewing denim fabric Rising infrastructure costs U.S. policies that U.S. suppliers do not purchase Chinese cotton due to forced labor from the Xinjiang region Government policies decreasing denim production due to environmental pollution Section 301 tariffs imposed on U.S. imports, and retaliatory tariffs imposed on U.S. cotton by China
Mexico	<ul style="list-style-type: none"> Shorter shipping times to the United States Duty preferences under USMCA, previously under NAFTA 	<ul style="list-style-type: none"> Limited sourcing of denim apparel and fabric from the Western Hemisphere as compared to non-FTA partners Reliance on U.S., Mexico, or Canadian suppliers to provide denim fabric in order to utilize duty preferences in FTAs Upcoming pocketing fabric provisions in USMCA may be problematic due to limited suppliers
Bangladesh	<ul style="list-style-type: none"> Lower production costs because of vertically integrated supply chain from the fibers to denim fabric to the final denim apparel garment Strong denim fabric production base within country due to large number of mills and excess production capacity Low labor costs associated with cutting and sewing More automated production processes lead to more efficient garment production 	<ul style="list-style-type: none"> Longer shipping times to United States, especially after the COVID-19 pandemic Labor abuses associated with exploited female garment workers; leads to increased auditing by companies Relatively high energy and gas costs for production compared to its competitors

Country	Strengths	Weaknesses
Vietnam	<ul style="list-style-type: none"> • Government has monetary incentives if producers export denim apparel abroad in a short timeframe • Duty free imports of raw materials into their country • Abundance of skilled garment workers • Lower labor costs than China • Foreign investment from Chinese manufacturers contributes to strong denim production base 	<ul style="list-style-type: none"> • Limited denim fabric manufacturing domestically • More reliant on China to supply denim fabric, which can be problematic if cotton is traced using forced labor from Xinjiang region of China
Lesotho	<ul style="list-style-type: none"> • Vertically integrated supply chain from the denim fabric to the final denim apparel garment • Duty-free benefits under AGOA • Low labor costs • Relies on South Africa's advanced infrastructure, such as roads and electricity, to produce and ship garments to the United States 	<ul style="list-style-type: none"> • Difficulty getting electricity within country and highest electricity costs • Labor abuses and exploitation of female workers • Labor union strikes, leading to higher wage costs • Political disruption within the country • Recently, subject to longer lead times because of delays at South African ports, which the country relies on because it is landlocked

Source: Compiled by author.

China

China was once the dominant supplier of denim apparel to the United States, but U.S. imports of denim garments from China have been shrinking dramatically in the last decade due to rising production costs within the country and the effects of U.S. government policies. From 2010 to 2018, China had been the leading source of U.S. imports of denim apparel to the United States; however, by 2019, it was no longer the top supplier to the United States as newer, cheaper foreign suppliers usurped China's position.⁵⁷ U.S. imports from China declined from \$1.3 billion in 2010 to \$342 million in 2020 (figure 4).⁵⁸ Women's and girls' denim trousers are the primary item imported from China from China, accounting for an average of 72 percent of total denim apparel imports from China during 2010–20.

⁵⁷ Tencel, "[Chinese Mills on the Lookout for 'Made in China' Denim](#)," September 16, 2020.

⁵⁸ Appendix A.1 contains a list of the top 10 imports of denim apparel articles listed by HTS subheadings from China.

Figure 4 U.S. imports from China, by apparel item, 2010–20

In million dollars.



Source: Dataweb, (accessed May 25, 2021). Men’s and boys’ blue denim trousers are included in HTS 6203.42.0736, 6203.42.4011, 6203.42.4511, 6203.42.4536, 6203.42.4031, 6203.42.4531, 6203.42.0731, 6203.42.4036, and 6203.42.0711. Women and girls’ blue denim trousers are included in HTS 6204.62.8041, 6204.62.1511, 6204.62.1536, 6204.62.4011, 6204.62.1541, 6204.62.4036, 6204.62.4041, 6204.62.8036, and 6204.62.8011. Other apparel includes denim anoraks, windbreakers, suit-type jackets, blazers, and skirts; these items are included in HTS 6201.92.4531, 6201.92.4541, 6201.92.1941, 6204.52.2040, 6201.92.2041, 6204.52.2030, 6203.32.2030, 6201.92.2031, and 6201.92.1931.

There are two main factors behind the decrease in U.S. denim apparel imports from China—the imposition of Section 301 tariffs by the Trump Administration (continued by the Biden Administration) and rising production costs within China.⁵⁹ In 2017, when Section 301 tariffs were imposed on Chinese-made denim apparel articles, denim apparel imports became too costly because of the tariffs, and companies began sourcing from other countries in order to diversify their supply base.⁶⁰

Moreover, China’s denim apparel market experienced increasing production costs due to rising wages and expensive infrastructure costs.⁶¹ Out of the top suppliers to the United States, China’s wages are the highest.⁶² China’s minimum monthly wage cost for garment workers is \$326, more than three times higher than Bangladesh and twice as high as Lesotho.⁶³

⁵⁹ Fibre2Fashion, “[US-China Trade War Continues to Impact Textile Industry](#),” February 12, 2021.

⁶⁰ Tencel, “[Chinese Mills on the Lookout for ‘Made in China’ Denim](#),” September 16, 2020.

⁶¹ Apparel Resources, “[Asia Emerging as Fastest-Growing Denim Market](#),” June 24, 2016.

⁶² There are no recently available official data on wages of garment workers containing all the denim-producing countries in this report, or wage data that accounts for the effect of COVID-19 pandemic. The most recent official source for wage data for garment workers was published in a report from the International Labor Organization in 2017 which contained monthly minimum wages in the clothing industry from 2014. In that report, the ILO notes that China had the highest monthly wages while Bangladesh had the lowest in 2014; certain countries like Lesotho are not accounted for in the data. International Labour Organization, “[Wages and Working Hours in the Textiles, Clothing, Leather, and Footwear Industries](#),” 2017.

⁶³ McCarthy, “[Where Pay Is Lowest for Cheap Clothing Production](#),” May 7, 2019.

Although China is no longer is a top supplier of denim apparel, the country continues to account for the majority of global textile mills that produce denim fabric.⁶⁴ Some Chinese firms that are large producers of denim fabric within China are Advanced Denim Co. Ltd., Blue Diamond, Haining Bafang Weaving, Jiangsu Hengli Group, Prosperity Textile, and Weiqiao Textile Company Limited.⁶⁵ In addition, China continues to own numerous denim fabric manufacturing facilities abroad. For example, one of the leading sources replacing China for denim apparel articles is Vietnam, which also has a number of Chinese-owned manufacturers investing to build up the Vietnamese denim fabric and apparel industries.⁶⁶ China also owns a number of textile mills in countries where they benefit from duty-free preferences in trade agreements, such as CAFTA countries and AGOA beneficiaries.

Disruptions in global cotton supply in the last five years have been one of the largest constraints in the denim fabric supply chain since cotton is the largest component of denim apparel, accounting for nearly 20 percent of the overall cost of the garment.⁶⁷ Ongoing issues around Chinese-sourced cotton have resulted in rising prices of the raw material.⁶⁸ China is one of the largest suppliers of cotton globally.⁶⁹

The constrained cotton supply in China has resulted in rising global cotton prices, which in turn affects the cost of denim apparel production. Several industry representatives stated that the biggest barrier to production is that cotton prices have increased 30–40 percent in 2021 due to the requirement that suppliers must prove that the cotton they are purchasing is not from the cotton fields or factories in the Xinjiang region of China. In January 2020, President Trump banned cotton from Xinjiang where there were concerns of Uyghur Muslims and ethnic Kazakhs being forced to produce cotton in internment camps.⁷⁰ The cotton industry in the Xinjiang region of China (which is the dominant regional producer of Chinese cotton) accounts for about one-fifth of global cotton production.⁷¹ A New York Times article noted that the supply chain is opaque and long, which makes tracing cotton difficult to prove because unprocessed Chinese cotton and Chinese yarn is often exported to other major denim-producing countries, such as Bangladesh, Vietnam, and Pakistan.⁷² Furthermore, China retaliated against Section 301 tariffs and the ban on cotton from forced labor by imposing tariffs on U.S. cotton, some of which is used to produce denim jeans in China.⁷³ Demand for U.S. cotton has been rising from major international apparel producers in China despite its higher price because these companies have stopped using Chinese cotton in their apparel products as a result of forced labor.⁷⁴

In addition to forced labor, stockpiling of cotton by the Chinese government has been affecting global cotton prices. China has been stockpiling cotton purchased from the United States and Brazil, among

⁶⁴ Tencel, "[Chinese Mills on the Lookout for 'Made in China' Denim](#)," September 16, 2020.

⁶⁵ Merchandising, "List of Top Denim Mills in the World," (accessed July 23, 2021); ATI, "[Top 10 Textile Companies in China](#)," (accessed July 23, 2021).

⁶⁶ Tencel, "[Chinese Mills on the Lookout for 'Made in China' Denim](#)," September 16, 2020.

⁶⁷ Industry representative, interview with USITC staff, October 14, 2021.

⁶⁸ Industry representative, interview with USITC staff, October 14, 2021.

⁶⁹ OECD-FAO Agricultural Outlook 2020-2029, "[Cotton](#)," (accessed September 9, 2021).

⁷⁰ Industry representatives, interviews with USITC staff, October 14, 2021, and October 21, 2021; Goodman, Wang, and Paton, "[Global Brands Find It Hard to Untangle Themselves from Xinjiang Cotton](#)," April 6, 2021.

⁷¹ Kroeger, "[Xinjiang Cotton: How Do I Know If It's in My Jeans?](#)" March 26, 2021.

⁷² Goodman, Wang, and Paton, "[Global Brands Find It Hard to Untangle Themselves from Xinjiang Cotton](#)," April 6, 2021.

⁷³ Berr, "[Another Casualty of Trump's Trade War: American Denim](#)," August 7, 2018.

⁷⁴ Funaki and Saito, "Cotton Shortage Deepens as Apparel Makers in China Buy American," December 3, 2021.

other suppliers, as part of a government program started in 2011 to improve prices of cotton for Chinese farmers by setting a floor to cotton prices.⁷⁵ In 2016, China held 60 percent of the global cotton stockpiles and accounted for a third of the world's consumption of cotton.⁷⁶

Denim processing is subject to environmental concerns associated with using harsh or toxic chemicals that are released into the environment, mainly from indigo dyes.⁷⁷ Other chemicals such as chlorine, starch, and other pollutants are also released into environment, especially during the prewashing or stonewashing stages of denim apparel production.⁷⁸ China has experienced environmental issues, including water pollution, in key denim producing areas such as Guangdong and Xintang as a result of denim fabric production.⁷⁹ China is the only major supplier of indigo dyes to the world but has been recently shutting down their factories because of environmental pollution concerns.⁸⁰ However, in recent years, China has been focusing on more innovative ways to produce denim that have a lower environmental impact.⁸¹

Mexico

Mexico has been a top supplier of denim apparel to the United States since the 1990s and throughout the period when the country was subject to Multifiber Agreement (MFA) quotas.⁸² Although Mexico quickly lost market share after the MFA quotas were lifted in 2005, which allowed China to make gains into the U.S. market, it has consistently ranked among the top three suppliers of denim apparel. Mexico's growth as a denim apparel supplier is mainly due to duty-free preferences provided under the North American Free Trade Agreement (NAFTA) and the U.S.-Mexico-Canada Agreement (USMCA). NAFTA encouraged the integration of textile and apparel production in the United States, Canada, and Mexico,⁸³ and since its signing on January 1, 1994, denim trade between the United States and Mexico has grown exponentially because the cost of labor-intensive garment production was lower in Mexico compared to the United States.⁸⁴ Before the mid-1990s, the United States had a competitive advantage in cutting denim in the U.S. denim mills using automated cutters, but this changed after the implementation of NAFTA when cutting jobs were moved to Mexico because manual cutters were able

⁷⁵ Neela Denim Herald, "[Supply Chain Disruptions in the Denim Industry](#)," February 8, 2021; Craymer, "[China's Soft Power Tested as Sale of Cotton Stockpile Looms](#)," March 3, 2016.

⁷⁶ Craymer, "[China's Soft Power Tested as Sale of Cotton Stockpile Looms](#)," March 3, 2016.

⁷⁷ Fluence, "[The Water Footprint of Blue Jeans](#)," July 6, 2020.

⁷⁸ Fluence, "[The Water Footprint of Blue Jeans](#)," July 6, 2020.

⁷⁹ Guangdong is China's largest denim producing area, accounting for 1.2 billion meters of denim production (45 percent of total production), while Xintang specializes in denim jean production, making 260 million pairs of jeans a year (equaling 40 per cent of jeans sold in the United States). Apparel Resources, "[Asia Emerging as Fastest-Growing Denim Market](#)," June 24, 2016.

⁸⁰ Neela Denim Herald, "[Supply Chain Disruptions in the Denim Industry](#)," February 8, 2021; Fluence, "[The Water Footprint of Blue Jeans](#)," July 6, 2020.

⁸¹ Donaldson, "[Passport to Denim: A Snapshot of the Global Denim Market](#)," May 9, 2018.

⁸² The Multi-Fibre Arrangement (MFA) was in effect from 1974 to 2004 and governed textile and apparel trade through a series of quotas. The MFA was replaced by the World Trade Organization (WTO) Agreement on Textiles and Clothing (ATC) in 1994, which eliminated all quotas on textile and apparel products over 10 years. All textile and apparel products from WTO member countries were quota free beginning January 1, 2005.

⁸³ Platzer, "[Renegotiating NAFTA and U.S. Textile Manufacturing](#)," October 30, 2017.

⁸⁴ Fashion Network, "[NAFTA Renegotiation Puts Mexico-US Jeans Trade at Risk](#)," February 23, 2017; Platzer, "[Renegotiating NAFTA and U.S. Textile Manufacturing](#)," October 30, 2017.

to do the process for less than half the cost of a U.S. factory.⁸⁵ Industry representatives affirmed that Mexico's strength in denim apparel production lies in the process of cutting and sewing denim.⁸⁶ Historically, Mexico struggled with high costs of production for denim apparel and limited sourcing of denim from other countries in the Western Hemisphere.⁸⁷

Mexico held its position as a first or second-ranked supplier of denim apparel over the last decade, especially men's and boys' jeans, because of the continued duty-free preferences afforded under NAFTA and the USMCA.⁸⁸ However, in 2020, the value of denim imports from Mexico fell dramatically from \$803 million to \$469 million, as compared to the previous year, mainly because of disruptions associated with COVID-19 pandemic. More companies are slowly looking to source from Mexico and the Western Hemisphere in general as regional manufacturing hub for denim because of the trade war with China and Mexico's attractive proximity to the U.S. market.⁸⁹ However, industry representatives noted that one impending constraint to production in the USMCA is the addition of a new yarn-forward "pocket bag fabric" provision for blue denim apparel fabric, which will become effective on January 1, 2023 (30 months after USMCA entered into force).⁹⁰ This provision will force Mexican denim apparel suppliers to source more pocketing fabric from USMCA members, rather than Asian countries which occurred when NAFTA was in effect.⁹¹ Some prominent pocketing fabric providers for the Mexican suppliers are Cotswold Industries, QST, and Copen United, all of which are U.S.-based firms with global manufacturing facilities.⁹²

USMCA follows a yarn-forward rule of origin, which means that textiles and apparel benefit from duty-free treatment if production of the yarn, fabric, and apparel, with some exceptions, is performed within the three NAFTA partner countries.⁹³ The supply chain of denim production in Mexico relies on U.S. textile firms sending finished fabric to Mexican textile assembly plants, where it is cut and sewn into denim apparel and finished.⁹⁴ The finished denim apparel article are then shipped back to the United

⁸⁵ Industry representative, interview with USITC staff, October 21, 2021.

⁸⁶ Friedman, "[Denim Sourcing Opportunities are Opening for Nearly Every Country but One](#)," February 4, 2021; Regan and Korber, "[Men's Jeans Could be the Biggest Retail Casualty of a Trade War with Mexico](#)," February 1, 2017; Platzer, "[Renegotiating NAFTA and U.S. Textile Manufacturing](#)," October 30, 2017; Fashion Network, "[NAFTA Renegotiation Puts Mexico-US Jeans Trade at Risk](#)," February 23, 2017.

⁸⁷ Friedman, "[Denim Sourcing Opportunities are Opening for Nearly Every Country but One](#)," February 4, 2021; Regan and Korber, "[Men's Jeans Could be the Biggest Retail Casualty of a Trade War with Mexico](#)," February 1, 2017.

⁸⁸ Friedman, "[Denim Sourcing Opportunities are Opening for Nearly Every Country but One](#)," February 4, 2021; Friedman, "[Mexico and Bangladesh Led Stabilizing US Jeans Imports in Q1](#)," May 6, 2021; Thomas and Regan, "[Mexican Tariffs Would be Bad News for Denim Retailers](#)," May 31, 2019; Regan and Korber, "[Men's Jeans Could be the Biggest Retail Casualty of a Trade War with Mexico](#)," February 1, 2017.

⁸⁹ Friedman, "[Denim Sourcing Opportunities are Opening for Nearly Every Country but One](#)," February 4, 2021; Friedman, "[Mexico and Bangladesh Led Stabilizing US Jeans Imports in Q1](#)," May 6, 2021.

⁹⁰ Industry representative, interview of USITC staff, October 21, 2021. According to USMCA, all other non-denim garments will have until January 1, 2022 (18 months after the entry into force of USMCA) to apply the new pocketing rule.

⁹¹ Ellis, "Industry Spotlight: [U.S. Textile Executives Comment on Positive Impact of USMCA Deal](#)," December 11, 2019; industry representative, interview with USITC staff, October 21, 2021.

⁹² Denim and Jeans, "[Pocketing for Denim Jeans That Go with The Vintage Looks](#)," March 25, 2010.

⁹³ Platzer, "[Renegotiating NAFTA and U.S. Textile Manufacturing](#)," October 30, 2017.

⁹⁴ BBC Mundo, "[Men's Jeans Worth over U.S. \\$8 Billion](#)," February 21, 2017.

States utilizing duty-free preferences within USMCA.⁹⁵ Alternatively, some U.S. companies purchase denim apparel articles produced solely in Mexico (that do not rely on U.S. fabric inputs) and import them into the United States.⁹⁶ Mexico has a number of denim fabric mills. One of the largest manufacturers of denim fabric in Mexico is Cone Denim, and the firm's clients include U.S. brands such as Levi's, GAP, and Wrangler (Kontoor Brands).⁹⁷ Global Denim is another large denim fabric producer that has the capacity to produce 48 million yards of denim fabric annually.⁹⁸ Nien Hsing, a Taiwanese-based company, also has a denim fabric mill in Mexico. In addition, some denim producers in Mexico source denim from other countries in the Western Hemisphere that benefit from duty preferences in the Dominican Republic-Central America Free Trade Agreement (CAFTA).⁹⁹

The benefits afforded under USMCA and NAFTA allowed Mexico to hold on to its position as a top supplier to the United States over the last decade. An industry report stated that in 2017 (the same year as when NAFTA renegotiations began), half of the jeans in the United States were produced in Mexico. Although U.S. imports of denim apparel from Mexico have plummeted from \$1 billion in 2010 to \$469 million in 2020 (figure 5),¹⁰⁰ Mexico remains a foremost supplier in men's and boys' denim trousers in the United States.¹⁰¹ The huge drop in U.S. denim apparel imports from Mexico from 2019 to 2020 is mainly attributed to the COVID-19 pandemic, which resulted in Mexican apparel factories idling production and laying off 20,000 workers as the industry waited for the economy to bounce back.¹⁰² Mexico's entire supply chain was disrupted by the pandemic, including the parts of the supply chain that harvested raw cotton or spun fabric for denim production.¹⁰³

⁹⁵ BBC Mundo, "[Men's Jeans Worth over U.S. \\$8 Billion](#)," February 21, 2017.

⁹⁶ BBC Mundo, "[Men's Jeans Worth over U.S. \\$8 Billion](#)," February 21, 2017.

⁹⁷ Maquila Solidarity Network, "[Report Examines Working Conditions in Two Garment Factories in Morelos, Mexico](#)," February 18, 2020.

⁹⁸ Crouch, "[Global Denim Brings Its Manufacturing Expertise to Los Angeles](#)," May 9, 2019.

⁹⁹ QST is a Chicago-based firm with global manufacturing facilities. Cotswold Industries is based in New York with manufacturing facilities in Mexico, Bangladesh, and China. Copen is a New York, New York-based firm with manufacturing locations in numerous countries including Bangladesh, Mexico, China, Vietnam, and Bangladesh. Cotswold Industries, "Locations," <https://cotswoldindustries.com/locations/>, (accessed October 28, 2021). Copen, "About Us," <https://www.copen-uni.com/>; industry representative, interview with USITC staff, October 21, 2021.

¹⁰⁰ Appendix A.2 contains a list of the top 10 imports of denim apparel articles listed by HTS subheadings from Mexico.

¹⁰¹ BBC Mundo, "[Men's Jeans Worth over U.S. \\$8 Billion](#)," February 21, 2017.

¹⁰² Castano, "['Everyone's Suffering': Mexico Denim Sector Sees Little Hope of Near-Term Recovery](#)," January 28, 2021.

¹⁰³ Castano, "['Everyone's Suffering': Mexico Denim Sector Sees Little Hope of Near-Term Recovery](#)," January 28, 2021.

Figure 5 U.S. imports from Mexico, by apparel item, (2010–20)

In million dollars.



Source: Dataweb, (accessed May 25, 2021). Men's and boys' blue denim trousers are included in HTS 6203.42.0736, 6203.42.4011, 6203.42.4511, 6203.42.4536, 6203.42.4031, 6203.42.4531, 6203.42.0731, 6203.42.4036, and 6203.42.0711. Women and girls' blue denim trousers are included in HTS 6204.62.8041, 6204.62.1511, 6204.62.1536, 6204.62.4011, 6204.62.1541, 6204.62.4036, 6204.62.4041, 6204.62.8036, and 6204.62.8011. Other apparel includes denim anoraks, windbreakers, suit-type jackets, blazers, and skirts; these items are included in HTS 6201.92.4531, 6201.92.4541, 6201.92.1941, 6204.52.2040, 6201.92.2041, 6204.52.2030, 6203.32.2030, 6201.92.2031, and 6201.92.1931.

Many U.S.-headquartered apparel firms prefer producing denim apparel in Mexico because of the close proximity to the U.S. market, which reduces lead times, simplifies supply chains, and allows for quicker entry to the retail markets.¹⁰⁴ Industry representatives stated that denim companies are looking to shift production to Mexico because of their lead time is less than 2 months from order to delivery of the garment to the United States, whereas lead times for other Asian countries such as China and Vietnam can be as long as 6 months after the COVID-19 pandemic.¹⁰⁵ The average time lead times include around 1–2 weeks for cutting, 2–3 weeks for sewing, and 3 weeks for washing.¹⁰⁶

Mexico has also become more attractive because China and other Asian suppliers have been experiencing rising labor costs and instability in some regions.¹⁰⁷ In addition, Mexico's labor supply is more plentiful than the United States for apparel production, and there is less attrition in the labor force in Mexico's market than the United States.¹⁰⁸

As of 2017, there are more than 2,000 manufacturers dedicated to denim and jean production in Mexico, mainly concentrated in the states of México, Durango, Puebla, and Guanajuato.¹⁰⁹ The largest

¹⁰⁴ BBC Mundo, "[Men's Jeans Worth over U.S. \\$8 Billion](#)," February 21.

¹⁰⁵ Industry representative, interview with USITC staff, October 21, 2021.

¹⁰⁶ Industry representative, interview with USITC staff, October 21, 2021.

¹⁰⁷ Cringean, "[Denim Made in Mexico: Run for the Border](#)," April 14, 2020.

¹⁰⁸ Cringean, "[Denim Made in Mexico: Run for the Border](#)," April 14, 2020.

¹⁰⁹ BBC Mundo, "[Men's Jeans Worth over U.S. \\$8 Billion](#)," February 21,

manufacturers of denim apparel, mainly producers of blue denim jeans, in Mexico are Blue Denim, Compania Industrial de Parras, and Siete Leguas.¹¹⁰

Bangladesh

Bangladesh emerged as global denim apparel manufacturing hub beginning in the early 2000s as a result of the local government investing resources into the country's infrastructure to attract foreign investment for apparel production. A total of \$900 million has been invested since 2015.¹¹¹ Specifically, the Bangladeshi government targeted such resources to attract investment throughout the apparel supply chain, from textile mills, to machines for garment production, to washing and finishing facilities.¹¹² Much of the investment in textile machinery in Bangladesh is for the weaving and processing of denim fabrics.¹¹³ Bangladesh currently has 31 textile mills producing over 400 million meters of denim fabric annually.¹¹⁴ Collectively, Bangladesh now has over 400 textile and apparel firms in the country.¹¹⁵ Many U.S.-headquartered denim apparel brands such as Levi's, Wrangler, Hugo Boss, and JC Penney are manufacturing in or importing denim products from Bangladesh.¹¹⁶

Bangladesh's integrated denim supply chain allows for denim apparel to be produced more cheaply than other suppliers because denim apparel manufacturers can source locally rather than relying on more expensive imported fabrics.¹¹⁷ The local denim fabric mills are able to meet 50 percent of Bangladesh's fabric demand, while the other 50 percent is imported from Asian suppliers such as India, Pakistan, and China.¹¹⁸ Bangladeshi fabric producers claim that they are able to control the price of fabric because they are not as susceptible to outside price fluctuations due to their abundant local denim fabric production, and they work with their suppliers to control costs.¹¹⁹

Investment into the Bangladeshi denim industry correlated with increased U.S. denim apparel imports from Bangladesh, which rose steadily from \$404 million in 2010 to \$589 million in 2020 (figure 6).¹²⁰ Men's and boys' blue denim trousers dominated U.S. imports from Bangladesh during 2010–14, but U.S. imports during 2014–20 are evenly divided between men's and boys' denim trousers and women's and girls' denim trousers.

¹¹⁰ Castano, "[“Everyone's Suffering': Mexico Denim Sector Sees Little Hope of Near-Term Recovery](#)," January 28, 2021; Just-Style, "[Mexican Denim Seen as Big Winner in USMCA Trade Pact](#)," January 28, 2020.

¹¹¹ Biz Vibe, "[Bangladesh Emerges as Leading Denim Manufacturing Hub in the World](#)," n.d. (accessed July 26, 2021).

¹¹² Apparel Resources, "[Global Denim Fabric Manufacturing Concentrated in Asia](#)," April 7, 2014.

¹¹³ Apparel Resources, "[Global Denim Fabric Manufacturing Concentrated in Asia](#)," April 7, 2014.

¹¹⁴ Varshney, "[Will Bangladesh Beat Mexico in Denim Exports to USA](#)," September 3, 2018.

¹¹⁵ Biz Vibe, "[Bangladesh Emerges as Leading Denim Manufacturing Hub in the World](#)," n.d. (accessed July 26, 2021).

¹¹⁶ Biz Vibe, "[Bangladesh Emerges as Leading Denim Manufacturing Hub in the World](#)," n.d. (accessed July 26, 2021).

¹¹⁷ Varshney, "[Will Bangladesh Beat Mexico in Denim Exports to USA](#)," September 3, 2018.

¹¹⁸ Varshney, "[Will Bangladesh Beat Mexico in Denim Exports to USA](#)," September 3, 2018.

¹¹⁹ Varshney, "[Will Bangladesh Beat Mexico in Denim Exports to USA](#)," September 3, 2018.

¹²⁰ Appendix A.3 contains a list of the top 10 imports of denim apparel articles listed by HTS subheadings from Bangladesh.

Figure 6 U.S. imports from Bangladesh, by apparel item, (2010–20)

In million dollars.



Source: Dataweb, (accessed May 25, 2021). Men's and boys' blue denim trousers are included in HTS 6203.42.0736, 6203.42.4011, 6203.42.4511, 6203.42.4536, 6203.42.4031, 6203.42.4531, 6203.42.0731, 6203.42.4036, and 6203.42.0711. Women and girls' blue denim trousers are included in HTS 6204.62.8041, 6204.62.1511, 6204.62.1536, 6204.62.4011, 6204.62.1541, 6204.62.4036, 6204.62.4041, 6204.62.8036, 6204.62.8011. Other apparel includes denim anoraks, windbreakers, suit-type jackets, blazers and skirts; these items are included in HTS 6201.92.4531, 6201.92.4541, 6201.92.1941, 6204.52.2040, 6201.92.2041, 6204.52.2030, 6203.32.2030, 6201.92.2031, and 6201.92.1931.

Other factors leading to Bangladesh's competitiveness as a global denim apparel producer include its large manufacturing capacity, advanced automation in its production lines, and low wages.¹²¹

Bangladesh has the lowest labor costs for denim production out of the top denim apparel suppliers to the United States; the minimum monthly wage for denim workers was \$95 in 2019.¹²² Bangladesh has also invested in textile machinery that automates the cutting and sewing segment of the supply chain, with one machine replacing up to 10 workers.¹²³ Automated machinery has led to a reduction in Bangladesh's garment workers from 4.4 million in 2013 to 3.6 million in 2017, resulting in faster production and savings on labor costs for apparel manufacturing.¹²⁴

Despite Bangladesh's competitive advantages, the country does have a few weaknesses, mainly the cost of energy and gas, which has hampered the country's growing fabric denim investments. Bangladesh's textile sector is considered one of the highest energy users in the country's industrial sector, accounting for 27 percent of energy use in the sector.¹²⁵ In Bangladesh, a significant amount of energy used in the textile industry is accounted for in the spinning, weaving, wet processing, and man-made fiber

¹²¹ Biz Vibe, "[Bangladesh Emerges as Leading Denim Manufacturing Hub in the World](#)," n.d. (accessed July 26, 2021).

¹²² McCarthy, "[Where Pay Is Lowest for Cheap Clothing Production](#)," May 7, 2019.

¹²³ Apparel Resources, "[Will 'Automation' Lead Bangladesh Garment Industry to US \\$ 50 Billion Mark](#)," February 6, 2018.

¹²⁴ Apparel Resources, "[Will 'Automation' Lead Bangladesh Garment Industry to US \\$ 50 Billion Mark](#)," February 6, 2018.

¹²⁵ Hasan et al., "Drivers and Barriers to Industrial Energy Efficiency in Textile Industries of Bangladesh," May 10, 2019.

production.¹²⁶ In 2020, Bangladesh was ranked near the bottom of the World Bank’s Doing Business Index, at 176 out of 190 countries, for a company’s ability to get electricity within the country.¹²⁷

In addition, shipping times to the United States are longer than other suppliers such as Mexico and Vietnam, which makes Bangladesh less competitive because getting the product to market is more challenging.¹²⁸ Industry experts state that Vietnam is a stronger competitor than Bangladesh despite both countries being in Asia because Vietnam can produce and deliver apparel articles more quickly to the United States.¹²⁹ Bangladesh is also ranked very low (176 out of 190 economies) on the World Bank’s Doing Business Index for its ability to trade across borders.¹³⁰

Vietnam

Vietnam is slowly emerging as one of the leading denim apparel suppliers to the United States, especially in women’s and girls’ jeans. U.S. imports from Vietnam have steadily increased over the last decade from \$151 million to \$379 million in 2020 (figure 7).¹³¹ Most of this growth occurred after 2016 when imports more than doubled between 2016 and 2020. After Bangladesh, Vietnam has become a leader in women’s and girls’ denim trouser production, specializing in higher-end jeans.¹³² U.S. imports in this category increased 176 percent from 2010 to 2020.

¹²⁶ Hasan et al., “Drivers and Barriers to Industrial Energy Efficiency in Textile Industries of Bangladesh,” May 10, 2019.

¹²⁷ The “Getting Electricity” subset to the index measures procedures, time, and cost to get connected to the electrical grid; the reliability of the electricity supply; and the transparency of tariffs. World Bank, Doing Business Index, 2020, https://www.doingbusiness.org/en/data/exploreconomies/bangladesh#DB_ge (accessed November 30, 2021).

¹²⁸ Varshney, “[Will Bangladesh Beat Mexico in Denim Exports to USA,](#)” September 3, 2018.

¹²⁹ Berg et. al, “[What’s Next for Bangladesh’s Garment Industry, After a Decade of Growth?,](#)” March 25, 2021.

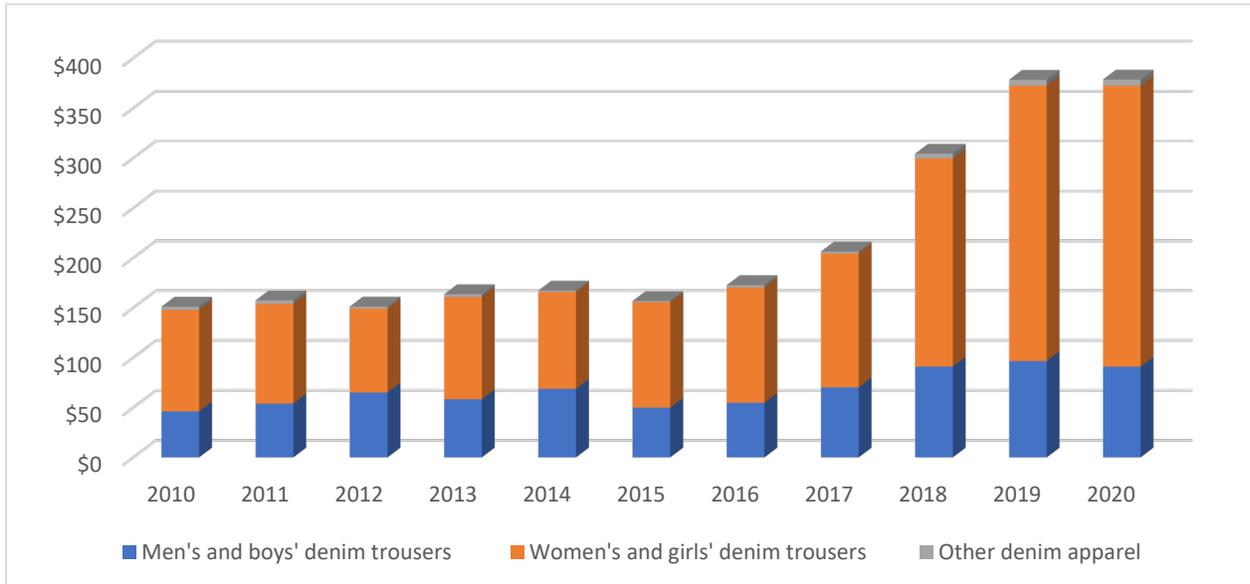
¹³⁰ The “Trading Across Borders” subset to the index measures time and cost to export the product of comparative advantage and to import auto parts. World Bank, Doing Business Index, 2020, https://www.doingbusiness.org/en/data/exploreconomies/bangladesh#DB_ge (accessed November 30, 2021).

¹³¹ Appendix A.4 contains a list of the top 10 imports of denim apparel articles listed by HTS subheadings from Vietnam.

¹³² Apparel Resources, “[Here’s How Vietnam is Ready to Take-on Bangladesh as the Biggest Denim Exporter,](#)” July 25, 2018.

Figure 7 U.S. imports from Vietnam, by apparel item, (2010–20)

In million dollars.



Source: Dataweb, (accessed May 25, 2021). Men's and boys' blue denim trousers are included in HTS 6203.42.0736, 6203.42.4011, 6203.42.4511, 6203.42.4536, 6203.42.4031, 6203.42.4531, 6203.42.0731, 6203.42.4036, and 6203.42.0711. Women and girls' blue denim trousers are included in HTS 6204.62.8041, 6204.62.1511, 6204.62.1536, 6204.62.4011, 6204.62.1541, 6204.62.4036, 6204.62.4041, 6204.62.8036, 6204.62.8011. Other apparel includes denim anoraks, windbreakers, suit-type jackets, blazers and skirts; these items are included in HTS 6201.92.4531, 6201.92.4541, 6201.92.1941, 6204.52.2040, 6201.92.2041, 6204.52.2030, 6203.32.2030, 6201.92.2031, and 6201.92.1931.

Vietnam has a limited domestic fabric manufacturing base, although it has grown in recent years.¹³³ Vietnam's climate does not support the production of cotton, and it relies on the United States and China for cotton and fabrics, with China supplying most denim fabrics for apparel production.¹³⁴ There has been some denim fabric production in Vietnamese as a result of foreign investment from countries like China, Taiwan, and South Korea, which have created new facilities for fabric production within the country.¹³⁵ Moreover, foreign direct investment from China to build Vietnam's raw material manufacturing base continues to expand.¹³⁶

Vietnam has a strong apparel manufacturing base, which has slowly been ramping up in the denim apparel sector. As of 2016, there were 6,000 textile and apparel manufacturing firms employing 2.5 million workers in Vietnam.¹³⁷ Saitex is one of the largest denim jeans producers in Vietnam with five facilities throughout the country employing 4,500 workers.¹³⁸ Saitex has the capacity to produce 20,000

¹³³ Kiron, "[Vietnam Textile and Garment Industry: Will it Move to Next Level or Lose Competitiveness?](#)" October 3, 2020.

¹³⁴ Kiron, "[Vietnam Textile and Garment Industry: Will it Move to Next Level or Lose Competitiveness?](#)" October 3, 2020.

¹³⁵ Apparel Resources, "[Here's How Vietnam is Ready to Take-on Bangladesh as the Biggest Denim Exporter,](#)" July 25, 2018.

¹³⁶ Kiron, "[Vietnam Textile and Garment Industry: Will it Move to Next Level or Lose Competitiveness?](#)" October 3, 2020.

¹³⁷ Kiron, "[Vietnam Textile and Garment Industry: Will it Move to Next Level or Lose Competitiveness?](#)" October 3, 2020.

¹³⁸ Textile Future, "[Saitex the Sustainable Vietnamese Denim Producer,](#)" July 31, 2019.

pairs of jeans per day. The company produces for large U.S.-headquartered companies such as Madewell, GAP, J. Crew, Ralph Lauren, and Calvin Klein Jeans.¹³⁹

Other factors such as a strong skilled labor force have contributed to Vietnam's rise as a denim apparel supplier to the United States. Manufacturing shifted from China to Vietnam because of Vietnam's abundance of skilled workers and lower labor costs, which aids in the expansion of the apparel industry.¹⁴⁰ Vietnam's minimum monthly wage was \$180 in 2019, which is significantly less than China at \$326 per month.¹⁴¹

Lastly, government incentives have helped to strengthen the denim apparel supply chain. The Vietnamese government allows for duty-free imports of raw materials, such as denim fabric, on the condition the fabric is produced into apparel articles that are re-exported as finished garments within 90–120 days.¹⁴²

Lesotho

Lesotho emerged as a denim apparel supplier to the United States because of the AGOA preference program, making the country one of the leading denim apparel exporters to the United States.¹⁴³ AGOA was signed by President Clinton in May 2000, and Lesotho was designated as an AGOA beneficiary in October 2000.¹⁴⁴ In 2001, Lesotho became eligible for textile and apparel sector benefits following its implementation of a successful visa system for apparel articles.¹⁴⁵ In addition, Lesotho is considered a least-developed country under AGOA, which means that the country does not need to meet the normal apparel rules of origin, but can import fabrics and inputs from anywhere in the world and still enjoy duty-free access to the U.S. market.¹⁴⁶

Investment in Lesotho's apparel industry began in the early 2000s after the passage of AGOA and the industry's development was concentrated in denim production and denim apparel manufacturing.¹⁴⁷ Lesotho's early investment into its textile and apparel supply chain, especially from 2000 to 2004,

¹³⁹ Textile Future, "[Saitex the Sustainable Vietnamese Denim Producer](#)," July 31, 2019.

¹⁴⁰ Nguyen, "[Seizing Investment Opportunities in Vietnam's Garment and Textile Industry](#)," August 7, 2020.

¹⁴¹ McCarthy, "[Where Pay Is Lowest for Cheap Clothing Production](#)," May 7, 2019.

¹⁴² Kiron, "[Vietnam Textile and Garment Industry: Will it Move to Next Level or Lose Competitiveness?](#)" October 3, 2020.

¹⁴³ AGOA is a unilateral preference program established in the Trade and Development Act of 2000. Before AGOA implementation, South Africa and Europe were Lesotho's largest export destinations, however the United States became the dominant export market after AGOA. Srivastava, "[The Hidden Blues in Your Denim](#)," 2020; Just Style, "[Lesotho Risks Major Clothing Job Losses if AGOA Lapses](#)," March 23, 2015; industry representative, interview with USITC staff, October 6, 2021.

¹⁴⁴ AGOA.info, "[About AGOA](#)," n.d. (accessed July 26, 2021); AGOA.info, "[AGOA and Lesotho](#)," n.d. (accessed July 26, 2021). AGOA has been extended twice since its inception. First, in July 2004, President Bush signed into law to extend AGOA and a special dispensation relating to apparel was extended by three years to 2007; but in December 2006 these were extended to 2012, Secondly, in June 2015, the Trade Preferences Extension Act of 2015 extended the GSP program until December 31, 2017, and AGOA until September 30, 2025.

¹⁴⁵ AGOA.info, "[AGOA and Lesotho](#)," n.d. (accessed July 26, 2021).

¹⁴⁶ Shakya, "[Apparel Exports in Lesotho: The State's Role in Building Critical Mass for Competitiveness](#)," n.d. (accessed July 26, 2021).

¹⁴⁷ Srivastava, "[The Hidden Blues in Your Denim](#)," 2020.

helped it become more competitive compared to other AGOA beneficiaries, in addition to other Asian-based suppliers that were subject to quota restrictions under the Multi-Fiber Agreement (MFA).¹⁴⁸ There were only three main textile and apparel producers in Africa before AGOA: Kenya, Mauritius, and Lesotho.¹⁴⁹ However, both Kenya and Mauritius were subject to quotas restrictions under the MFA, while Lesotho was not.¹⁵⁰ The quota restrictions under the MFA encouraged investment from Asian countries that were subject to quotas (such as Taiwan and China), to transfer their denim manufacturing to African countries; later, investment from these countries continued because they could benefit from AGOA's duty-free status.¹⁵¹ Moreover, Lesotho was a desirable location for investment because of its proximity to South Africa, which allows Lesotho to benefit from South Africa's advanced infrastructure and electricity.¹⁵²

Trade preferences under AGOA initially catapulted Lesotho to become a major denim apparel supplier to the United States. However, although Lesotho is still a top supplier to the United States, imports from Lesotho have been steadily decreasing. U.S. denim apparel imports from Lesotho were \$113 million in 2020, decreasing by almost half from a peak level of \$222 million in 2011 (figure 8).¹⁵³ One of the most foremost reasons for the declining orders from Lesotho was the uncertainty around AGOA's renewal. AGOA was first set to expire in 2008, but then was renewed for 10 years in June 2015 following a contentious debate; AGOA is currently set to expire in September 30, 2025.¹⁵⁴ An industry representative confirmed the decrease in orders from Lesotho to a time lag because there were concerns from companies that AGOA or the third-country fabric provision in AGOA may be expiring, resulting in buyers getting nervous about placing orders in Lesotho and instead sourcing from other less risky countries.¹⁵⁵ In some instances, these companies slowed down ordering from Lesotho during times that AGOA was expiring, or stopped ordering altogether from Lesotho, accounting for the continued drop in denim apparel imports from the country.¹⁵⁶

This downward trend is also shown in specific denim apparel segments relating to gender. U.S. imports from Lesotho were slightly more skewed towards women's and girls' denim trousers, which were \$62 million in 2020, decreasing almost half from 2010 levels. The contraction in women's and girls' trousers correlated with a rise in imports from Vietnam or other suppliers gaining more import share in this category. U.S. imports of men's and boys' denim trousers were relatively stable over the last decade, peaking in 2011 at \$83 million before falling steadily to \$51 million in 2020.

¹⁴⁸ Shakya, "[Apparel Exports in Lesotho: The State's Role in Building Critical Mass for Competitiveness](#)," n.d. (accessed July 26, 2021).

¹⁴⁹ Industry representative, interview with USITC staff, October 6, 2021.

¹⁵⁰ Industry representative, interview with USITC staff, October 6, 2021.

¹⁵¹ Shakya, "[Apparel Exports in Lesotho: The State's Role in Building Critical Mass for Competitiveness](#)," n.d. (accessed July 26, 2021).

¹⁵² Industry representative, interview with USITC staff, October 6, 2021.

¹⁵³ Appendix A.5 contains a list of the top 10 imports of denim apparel articles listed by HTS subheadings from Lesotho.

¹⁵⁴ African Growth and Opportunity Act (AGOA) and Generalized System of Preferences and Trade Benefits Under AGOA, 79 FR 30355, June 26, 2014.

¹⁵⁵ Industry representative, interview with USITC staff, October 6, 2021.

¹⁵⁶ Industry representative, interview with USITC staff, October 6, 2021.

Figure 8 U.S. imports from Lesotho, by apparel item, (2010–20)

In million dollars.



Source: Dataweb, (accessed May 25, 2021). Men’s and boys’ blue denim trousers are included in HTS 6203.42.0736, 6203.42.4011, 6203.42.4511, 6203.42.4536, 6203.42.4031, 6203.42.4531, 6203.42.0731, 6203.42.4036, and 6203.42.0711. Women and girls’ blue denim trousers are included in HTS 6204.62.8041, 6204.62.1511, 6204.62.1536, 6204.62.4011, 6204.62.1541, 6204.62.4036, 6204.62.4041, 6204.62.8036, 6204.62.8011. Other apparel includes denim anoraks, windbreakers, suit-type jackets, blazers and skirts; these items are included in HTS 6201.92.4531, 6201.92.4541, 6201.92.1941, 6204.52.2040, 6201.92.2041, 6204.52.2030, 6203.32.2030, 6201.92.2031, and 6201.92.1931.

Lesotho’s denim industry benefits from a vertically integrated supply chain for denim apparel production. Industry reports estimate that Lesotho manufacturers produced about 23 million jeans per month in 2021.¹⁵⁷ Lesotho’s denim apparel industry is dominated by Nien Hsing Textile, a Taiwan-based global jeans manufacturer, that mainly exports to the United States.¹⁵⁸ Nien Hsing owns three garment plants in Lesotho, which collectively export 85–98 percent of their production to the United States.¹⁵⁹ Nien Hsing owns Formosa Textiles that makes denim textiles in the country to be used in apparel for large U.S.-headquartered brands such as Levi’s, Kontoor Brands (parent company to Lee and Wrangler Jeans), GAP, and The Children’s Place.¹⁶⁰ Nien Hsing’s denim production operates in a wide range of denim segments, including low-end and high-end price points and for both men’s and women’s denim

¹⁵⁷ Tralac, “[Lesotho’s Textiles, Apparel and Footwear Manufacturing Industry](#),” April 9, 2017.

¹⁵⁸ Tralac, “[Lesotho’s Textiles, Apparel and Footwear Manufacturing Industry](#),” April 9, 2017; Apparel Resources, “[Levi’s Lesotho Supplier Lays off 4,000 Workers in 1 Year](#),” August 23, 2021; Srivastava, “[The Hidden Blues in Your Denim](#),” 2020.

¹⁵⁹ Tralac, “[Lesotho’s Textiles, Apparel and Footwear Manufacturing Industry](#),” April 9, 2017; Embassy of the Kingdom of Lesotho in Ireland, “[Trade & Investment Textile and Apparel Industry](#),” n.d. (accessed July 26, 2021).

¹⁶⁰ Tralac, “[Lesotho’s Textiles, Apparel and Footwear Manufacturing Industry](#),” April 9, 2017; Apparel Resources, “[Levi’s Lesotho Supplier Lays off 4,000 Workers in 1 Year](#),” August 23, 2021; Srivastava, “[The Hidden Blues in Your Denim](#),” 2020.

garments.¹⁶¹ Lesotho's denim industry also exports to other countries in Africa, mainly South Africa.¹⁶² One such producer is the CGM Group (which consists of two manufacturing plants), which is also Taiwanese-owned.¹⁶³ CGM initially used to be a large exporter to the United States but decided to diversify away from the U.S. market because of potential AGOA lapses, and instead concentrate supplying the South African market instead.¹⁶⁴ CGM's plants do not engage in wet finishing of denim apparel in Lesotho because there are no publicly accessible effluent treatment plants that can reprocess denim water waste.¹⁶⁵

Lesotho's garment industry is the second largest employer in the country, after the government, but has been contracting in recent years.¹⁶⁶ Before the implementation of AGOA, Lesotho's textile and apparel industry consisted of only 20,000 workers.¹⁶⁷ As of 2020, Lesotho's apparel industry has 50,000 workers, and the denim industry specifically supports about 13,000 jobs from nine of the largest denim manufacturers in the country.¹⁶⁸ However, because of the COVID-19 pandemic, Lesotho's denim apparel industry has been contracting owing to decreased orders from the United States and rising wages, with several foreign-owned textile factories closing or cutting back on operations.¹⁶⁹ In 2021, Nien Hsing Textile Co. Ltd. reportedly laid off as many as 4,000 workers during the pandemic, which is 40 percent of its workforce.¹⁷⁰

Lesotho also benefits from lower wages for garment production compared to other global suppliers, although wages have been slowly rising in recent years in response to labor protests. Around the time of the MFA and the initiation of AGOA, U.S. companies were looking to invest in textile production in Africa and preferred Lesotho over its competitors because labor costs in Lesotho than its other African counterparts, and there was a lack of labor unions that could influence wage increases.¹⁷¹ However, that began changing in the last five years as labor unions in Lesotho gained more influence.¹⁷² In 2018, apparel workers from Lesotho protested to increase their minimum wages to an average of \$138 per month, a 62 percent increase from \$82 per month.¹⁷³ In 2019, the average minimum monthly wage rate for garment workers in Lesotho was \$146, making it the second cheapest labor source globally for large

¹⁶¹ Industry representative, interview with USITC staff, October 6, 2021.

¹⁶² Lesotho Ministry of Trade & Industry, "[Lesotho's Textiles, Apparel and Footwear Manufacturing Industry](#)," April 9, 2017; Globe and Mail, "[The Garment Trade Takes Root in Lesotho](#)," July 15, 2013.

¹⁶³ Lesotho Ministry of Trade & Industry, "[Lesotho's Textiles, Apparel and Footwear Manufacturing Industry](#)," April 9, 2017.

¹⁶⁴ Nwokolo, van der Merwe and Mills, "[Lesotho at the Crossroads](#)," November 26, 2019.

¹⁶⁵ Lesotho Ministry of Trade & Industry, "[Lesotho's Textiles, Apparel and Footwear Manufacturing Industry](#)," April 9, 2017.

¹⁶⁶ Scott, "[Lesotho Workers Win 62% Jump in Minimum Wages](#)," August 24, 2018.

¹⁶⁷ Just Style, "[Lesotho Risks Major Clothing Job Losses if AGOA Lapses](#)," March 23, 2015.

¹⁶⁸ Tralac, "[Lesotho's Textiles, Apparel and Footwear Manufacturing Industry](#)," April 9, 2017; Srivastava, "[The Hidden Blues in Your Denim](#)," 2020; Charumbira, "[Woman Shot Dead in Lesotho as Factory Workers Clash with Police Escalate](#)," May 28, 2021.

¹⁶⁹ U.S. Department of State, [2021 Investment Climate Statements: Lesotho](#), (accessed September 17, 2021).

¹⁷⁰ Apparel Resources, "[Levi's Lesotho Supplier Lays off 4,000 Workers in 1 Year](#)," August 23, 2021.

¹⁷¹ Industry representative, interview with USITC staff, October 6, 2021.

¹⁷² Industry representatives, interviews with USITC staff, October 6 and 14 2021.

¹⁷³ Scott, "[Lesotho Workers Win 62% Jump in Minimum Wages](#)," August 24, 2018.

denim suppliers to the United States.¹⁷⁴ In summer 2021, garment workers in Lesotho organized a strike in order to protest the lack of an increase in minimum wage for the textile industry by the government, which was promised for the last two years.¹⁷⁵ Protesters demanded a 20 percent increase in wages from Chinese-owned textile companies.¹⁷⁶ However, these strikes turned violent and halted denim apparel production within the country.¹⁷⁷

Human rights abuses within Lesotho have contributed to Lesotho being a less than desirable location for continued denim apparel production. One of the major issues in Lesotho's apparel industry is abuses towards female garment workers.¹⁷⁸ An industry report by the Workers' Rights Consortium stated that women were regularly coerced into sexual activity with male supervisors in order to obtain or keep their jobs in three factories owned by Nien Hsing Textile.¹⁷⁹ Large U.S. companies like Levi's, Kontoor Brands and The Children's Place, all signed an agreement to end the sexual harassment taking place against these employees.¹⁸⁰ Industry representatives claim that the rise of the recent labor protests and human rights abuses has forced companies to rethink their long-term sourcing viability from Lesotho, because any benefits of duty preferences under AGOA are outweighed by the civil unrest within Lesotho.¹⁸¹

Other factors have been causing a reluctance by retailers to continue conducting business in Lesotho. Investment in the country has slowed down significantly in recent years, and investment flows only amounted to \$40 million annually in 2020 and were mainly concentrated in the country's apparel and mining sectors.¹⁸² It has also been harder to conduct business in Lesotho in recent years mainly due to the difficulty of getting electricity. Overall, Lesotho is ranked 122 out of 190 countries in World Bank's Ease of Doing Business Index ranking for 2020.¹⁸³ However, its ranking for getting electricity under the World Bank's Doing Business Index was 157 out of 190 countries.¹⁸⁴ Lesotho's cost of electricity at \$0.098 per kWh is the highest of the top denim apparel suppliers to the United States.¹⁸⁵

Conclusion

Looking back on the last decade of global denim apparel production, one apparent trend that has emerged is that top denim apparel suppliers to the United States benefit from a vertically integrated

¹⁷⁴ McCarthy, "[Where Pay Is Lowest for Cheap Clothing Production](#)," May 7, 2019.

¹⁷⁵ Mpaki, "[Factory Strike Halts Production](#)," May 29, 2021.

¹⁷⁶ Mpaki, "[Factory Strike Halts Production](#)," May 29, 2021.

¹⁷⁷ Charumbira, "[Woman Shot Dead in Lesotho as Factory Workers Clash with Police Escalate](#)," May 28, 2021.

¹⁷⁸ Bhalla, "[Levis and Wrangler Vow to Protect Women Making Jeans from Sexual Abuse](#)," August 15, 2019.

¹⁷⁹ Bhalla, "[Levis and Wrangler Vow to Protect Women Making Jeans from Sexual Abuse](#)," August 15, 2019.

¹⁸⁰ Bhalla, "[Levis and Wrangler Vow to Protect Women Making Jeans from Sexual Abuse](#)," August 15, 2019.

¹⁸¹ Industry representative, interview with USITC staff, October 6, 2021.

¹⁸² Nwokolo, van der Merwe and Mills, "[Lesotho at the Crossroads](#)," November 26, 2019.

¹⁸³ World Bank, Doing Business Index, 2020, https://www.doingbusiness.org/en/data/exploreconomies/lesotho#DB_ge (accessed November 30, 2021).

¹⁸⁴ World Bank, Doing Business Index, 2020, https://www.doingbusiness.org/en/data/exploreconomies/lesotho#DB_ge (accessed November 30, 2021).

¹⁸⁵ The prices are per kWh and include all items in the electricity bill such as the distribution and energy cost, various environmental and fuel cost charges and taxes. Global Petrol Prices, "Electricity Prices, March 2021" https://www.globalpetrolprices.com/electricity_prices/ (accessed November 30, 2021).

denim apparel supply chain within their countries, an abundance of relatively cheap skilled labor, and ongoing investments in denim technology. Without these competitive advantages, foreign suppliers have difficulty in sustaining their place as a top denim apparel supplier to the United States. Although some countries were top suppliers at the beginning of the decade, this paper shows that rankings of top suppliers are susceptible to sudden changes because of internal domestic factors such as human rights issues and political unrest, or external factors like U.S. government policies imposing tariffs on denim apparel. One aspect is clear; however, the denim apparel supply chain is rather vulnerable to global events and continues to be tested by the COVID-19 pandemic. The future of denim apparel production is expected to focus on how countries will react to addressing weaknesses in their supply chains in a post-pandemic world, while at the same time meeting new consumer trends such as sustainability in denim apparel production.

Appendix A: Top 10 U.S. Imports from Denim Apparel Supply by HTS classification, by Country, 2020

Table A.1 Top 10 HTS categories of U.S. imports from China

HTS Number	Description	2019	2020	Change from 2019 to 2020 (percent)
6204.62.8011	WOMEN'S BLUE DENIM TROUSERS AND BREECHES OF COTTON, NOT KNITTED OR CROCHETED NESOI	\$503,944,624	\$236,873,170	-53%
6203.42.4511	MEN'S BLUE DENIM TROUSERS AND BREECHES OF COTTON, NOT KNITTED OR CROCHETED NESOI	\$144,166,369	\$70,688,588	-51%
6204.62.8041	GIRLS' BLUE DENIM TROUSERS AND BREECHES OF COTTON, NOT KNITTED OR CROCHETED, NESOI	\$18,043,564	\$9,387,286	-48%
6201.92.4531	MEN'S ANORAKS, WIND-BREAKERS AND SIMILAR ARTICLES, NOT KNITTED, OF COTTON: BLUE DENIM NESOI	\$19,917,579	\$9,383,212	-53%
6204.62.1511	WOMEN'S BLUE DENIM TROUSERS AND BREECHES OF COTTON, NOT KNITTED OR CROCHETED RPO	\$4,701,851	\$5,072,785	8%
6204.52.2030	WOMEN'S SKIRTS AND DIVIDED SKIRTS, OF COTTON, NOT KNITTED, BLUE DENIM	\$19,745,778	\$4,748,144	-76%
6203.42.4536	BOYS' BLUE DENIM TROUSERS AND BREECHES OF COTTON, NOT KNITTED OR CROCHETED, NESOI	\$5,839,642	\$2,889,555	-51%
6203.42.0711	MEN'S BLUE DENIM TROUSERS AND BREECHES OF COTTON, NOT KNITTED OR CROCHETED RPO	\$2,230,642	\$1,067,897	-52%
6203.32.2030	MEN'S OR BOYS' SUIT-TYPE JACKETS AND BLAZERS, NOT KNITTED, OF COTTON, LESS THAN 36 PERCENT BY WEIGHT OF FLAX FIBERS, BLUE DENIM	\$315,295	\$499,516	58%
6204.62.8036	GIRLS' BLUE DENIM TROUSERS AND BREECHES OF COTTON, IMPORTED AS PARTS OF PLAYSUITS, NOT KNITTED OR CROCHETED NESOI	\$119,733	\$348,681	191%

Source: Dataweb (accessed November 15, 2021).

Table A.2 Top 10 HTS categories of U.S. imports from Bangladesh

HTS Number	Description	2019	2020	Change from 2019 to 2020 (percent)
6203.42.4511	MEN'S BLUE DENIM TROUSERS AND BREECHES OF COTTON, NOT KNITTED OR CROCHETED NESOI	\$237,989,207	\$213,443,564	-10%
6204.62.8011	WOMEN'S BLUE DENIM TROUSERS AND BREECHES OF COTTON, NOT KNITTED OR CROCHETED NESOI	\$204,361,338	\$200,566,095	-2%
6203.42.4536	BOYS' BLUE DENIM TROUSERS AND BREECHES OF COTTON, NOT KNITTED OR CROCHETED, NESOI	\$96,582,027	\$79,661,432	-18%
6204.62.8041	GIRLS' BLUE DENIM TROUSERS AND BREECHES OF COTTON, NOT KNITTED OR CROCHETED, NESOI	\$48,151,972	\$59,044,825	23%
6201.92.4531	MEN'S ANORAKS, WIND-BREAKERS AND SIMILAR ARTICLES, NOT KNITTED, OF COTTON: BLUE DENIM NESOI	\$22,346,332	\$21,536,459	-4%
6204.52.2030	WOMEN'S SKIRTS AND DIVIDED SKIRTS, OF COTTON, NOT KNITTED, BLUE DENIM	\$5,185,608	\$6,031,117	16%
6201.92.4541	BOYS' ANORAKS, WIND-BREAKERS AND SIMILAR ARTICLES, NOT KNITTED, OF COTTON: BLUE DENIM NESOI	\$5,089,870	\$4,472,678	-12%
6204.52.2040	GIRLS' SKIRTS AND DIVIDED SKIRTS, OF COTTON, NOT KNITTED, BLUE DENIM	\$2,952,258	\$2,951,937	0%
6201.92.1931	MEN'S ANORAKS, WIND-BREAKERS AND SIMILAR ARTICLES, NOT KNITTED, OF COTTON: BLUE DENIM RPO	\$7,231	\$728,032	9968%
6203.42.0711	MEN'S BLUE DENIM TROUSERS AND BREECHES OF COTTON, NOT KNITTED OR CROCHETED RPO	\$518,073	\$369,944	-29%

Source: Dataweb (accessed November 15, 2021).

Table A.3 Top 10 HTS categories of U.S. imports from Mexico

HTS Number	Description	2019	2020	Change from 2019 to 2020 (percent)
6204.62.4041	GIRLS' BLUE DENIM TROUSERS AND BREECHES OF COTTON, NOT KNITTED OR CROCHETED, NESOI	\$684,723,638	\$386,826,065	-77%
6203.32.2030	MEN'S OR BOYS' SUIT-TYPE JACKETS AND BLAZERS, NOT KNITTED, OF COTTON, LESS THAN 36 PERCENT BY WEIGHT OF FLAX FIBERS, BLUE DENIM	\$73,092,912	\$51,015,641	-43%
6204.62.8011	WOMEN'S BLUE DENIM TROUSERS AND BREECHES OF COTTON, NOT KNITTED OR CROCHETED NESOI	\$25,567,073	\$14,993,305	-71%
6204.52.2030	WOMEN'S SKIRTS AND DIVIDED SKIRTS, OF COTTON, NOT KNITTED, BLUE DENIM	\$11,843,979	\$12,380,842	4%
6203.42.4536	BOYS' BLUE DENIM TROUSERS AND BREECHES OF COTTON, NOT KNITTED OR CROCHETED, NESOI	\$1,155,967	\$1,105,959	-5%
6204.62.1541	GIRLS' BLUE DENIM TROUSERS AND BREECHES OF COTTON, NOT KNITTED OR CROCHETED, NESOI RPO	\$2,361,408	\$1,094,486	-116%
6203.42.4036	BOYS' BLUE DENIM TROUSERS AND BREECHES OF COTTON, NOT KNITTED OR CROCHETED, NESOI	\$950,375	\$620,068	-53%
6201.92.2031	MEN'S ANORAKS, WIND-BREAKERS AND SIMILAR ARTICLES, NOT KNITTED, OF COTTON: BLUE DENIM	\$303,154	\$329,540	8%
6203.42.4011	MEN'S BLUE DENIM TROUSERS AND BREECHES OF COTTON, NOT KNITTED OR CROCHETED	\$1,561,405	\$269,621	-479%
6201.92.4531	MEN'S ANORAKS, WIND-BREAKERS AND SIMILAR ARTICLES, NOT KNITTED, OF COTTON: BLUE DENIM NESOI	\$602,987	\$240,184	-151%

Source: Dataweb (accessed November 15, 2021).

Table A.4 Top 10 HTS categories of U.S. imports from Vietnam

HTS Number	Description	2019	2020	Change from 2019 to 2020 (percent)
6204.62.8011	WOMEN'S BLUE DENIM TROUSERS AND BREECHES OF COTTON, NOT KNITTED OR CROCHETED NESOI	\$246,629,540	\$255,830,576	4%
6203.42.4511	MEN'S BLUE DENIM TROUSERS AND BREECHES OF COTTON, NOT KNITTED OR CROCHETED NESOI	\$71,013,309	\$65,740,064	-7%
6203.42.4536	BOYS' BLUE DENIM TROUSERS AND BREECHES OF COTTON, NOT KNITTED OR CROCHETED, NESOI	\$25,531,021	\$25,107,534	-2%
6204.62.8041	GIRLS' BLUE DENIM TROUSERS AND BREECHES OF COTTON, NOT KNITTED OR CROCHETED, NESOI	\$27,510,789	\$23,974,866	-13%
6204.52.2030	WOMEN'S SKIRTS AND DIVIDED SKIRTS, OF COTTON, NOT KNITTED, BLUE DENIM	\$4,423,699	\$2,843,948	-36%
6204.62.1511	WOMEN'S BLUE DENIM TROUSERS AND BREECHES OF COTTON, NOT KNITTED OR CROCHETED RPO	\$1,720,635	\$1,810,357	5%
6204.52.2040	GIRLS' SKIRTS AND DIVIDED SKIRTS, OF COTTON, NOT KNITTED, BLUE DENIM	\$244,926	\$1,567,190	540%
6201.92.4531	MEN'S ANORAKS, WIND-BREAKERS AND SIMILAR ARTICLES, NOT KNITTED, OF COTTON: BLUE DENIM NESOI	\$1,013,074	\$1,249,847	23%
6201.92.4541	BOYS' ANORAKS, WIND-BREAKERS AND SIMILAR ARTICLES, NOT KNITTED, OF COTTON: BLUE DENIM NESOI	\$117,049	\$344,511	194%
6201.92.1931	MEN'S ANORAKS, WIND-BREAKERS AND SIMILAR ARTICLES, NOT KNITTED, OF COTTON: BLUE DENIM RPO	\$137,381	\$90,459	-34%

Source: Dataweb (accessed November 15, 2021).

Table A.5: Top 10 HTS categories of U.S. imports from Lesotho

HTS Number	Description	2019	2020	Change from 2019 to 2020 (percent)
6203.42.4511	MEN'S BLUE DENIM TROUSERS AND BREECHES OF COTTON, NOT KNITTED OR CROCHETED NESOI	\$31,983,419	\$38,409,994	20%
6203.42.4536	BOYS' BLUE DENIM TROUSERS AND BREECHES OF COTTON, NOT KNITTED OR CROCHETED, NESOI	\$15,806,644	\$12,326,110	-22%
6204.62.8011	WOMEN'S BLUE DENIM TROUSERS AND BREECHES OF COTTON, NOT KNITTED OR CROCHETED NESOI	\$5,546,084	\$5,642,180	2%
6204.62.8041	GIRLS' BLUE DENIM TROUSERS AND BREECHES OF COTTON, NOT KNITTED OR CROCHETED, NESOI	\$4,080,696	\$67,562	-98%

Source: Dataweb (accessed November 15, 2021).

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