

**Incentivizing Sustainability:
Fast Fashion and Benefit Corporations**

Anthropology of Capitalism

December 8th, 2017

Chance Foster, Veronika Bedard, Emily Fanzutti, Marion Mowchan, Muwaffag Ibrahim

University of Connecticut

As we cross into the next epoch of human existence- the anthropocene era, the biggest struggle will be sustainability. World population is growing exponentially, projected to be well over 9 billion by 2050¹. Additionally, according to UN-Water, water demand will exceed water supply by 50% and sea levels will rise and displace huge portions of the world's population by 2030.² Drastic change must be undertaken on a global scale, and the United States needs to be the stewards that lead that change. An economy built on cheap energy and fossil fuels simply cannot be sustained and the materialist culture that it engenders must also change along with it. Perhaps the biggest plight of Capitalism is its inability to self-regulate. As our world grows ever more materialistic and driven to buy the next best thing we are plunged further and further into a hole of overconsumption, wastefulness, and inequality. However, the prospect of a new system seems unlikely in the foreseeable future leaving us to wonder how can we adapt and manipulate the current system to produce more equitable and sustainable results? How can we balance consumption, production, and the environment? These questions formulate the nucleus of our paper, as we examine past policies, successful and otherwise, that aimed to incentivize sustainability in the real world, specifically, in regards to the fashion industry.

Capitalism at its very core promotes the idea of materialism and the need to buy more and more every day. The fashion industry is no exception. Fast fashion or the marketing and creation of trends as quickly and cheaply as possible is a concept familiar to all of us. Brands offer cheap clothing options with new collections coming out what seems like every other week all at the expense of the workers making the clothing and the environment. This “race to the bottom” mentality is echoed throughout the capitalist infrastructure. As a key element of the global

¹<http://www.un.org/sustainabledevelopment/blog/2017/06/world-population-projected-to-reach-9-8-billion-in-2050-and-11-2-billion-in-2100-says-un/>

² <http://www.everythingconnects.org/fresh-water.html>

economy, the fashion industry has the potential to lead the way towards a more sustainable future and through examination of the supply chains of fast fashion brands like Forever 21, H&M and Zara versus companies with more sustainable production methods of successful companies like Patagonia and Seventh Generation we can effectively see what it takes, as well as what not to do, if we want to successfully incentivize sustainability in the real world.

Incentivizing Sustainability

The idea of incentivizing sustainability comes from the field of behavioral economics and refers to the practice of implementing policies to engender a specific reaction in the market. Individuals are the sum of their incentives and stimuli- meaning their decision-making can be directed to engender specific positive externalities in the capitalist neoliberal system. Some notable examples of this are cap-and-trade policies, taxes (carbon taxes for example), and quotas. By implementing these policies and carefully shaping laws, the rules of the game, you can create an arena in which sustainable action is the rational reaction. When executed successfully these programs can serve to rapidly curb problems, however the nuance in the process involves aiming these targeted programs just so to have maximum impact.

While identifying the variables crucial to incentivizing sustainability we highlighted a few key factors that negatively harm sustainability efforts. The first of these pain points is the growing trend of overconsumption, something pervasive in western culture and the mecca is here, in the United States. Overconsumption exists on both sides of the aisle- both in the consumer and producers, however producers also face the reflective issue of overproduction. The overconsumption problem takes a myriad of forms, from the United States throwing away almost

50% of the food they produce³, to the materialist culture that has cemented its place through advertising.

Producer level issues have a few moving facets that make them tough to nail down. Firstly producers are often broken down into large supply chains, engendering the problem of the ‘race to the bottom’ in manufacturing. Nations with the most lax labor and environmental laws often get the majority of the business as it is cheaper to do. These exploitative supply chains serve to keep prices as low as possible for the consumer at the expense of exploited individuals, who are usually abroad. Solving the race to the bottom is a multi-headed hydra- it’s a game theory nightmare in the decision making space. Superficially the solution would be to have periphery nations join together to set a minimum wage and create basic environmental regulations. However as each country signed that accord, the other nations would stand to make increasingly more money to not join- they could now get all the business that they had been competing so long for. Corruption plagues a large portion of these periphery nations and therefore the individuals who could change such laws are often also the individuals who stand to benefit from the exploitative conditions.

While a lack of sustainability is an issue when it comes to both the consumer and producer separately, it is the synergistic relationship that exists between the consumer and producer that promotes wastefulness. The cyclical nature of the power dynamics between the two further exasperate our resources in a thoroughly unsustainable manner⁴. Producers encourage the consumer to buy more and in greater quantities all while utilizing unendurable methods of

³ <https://www.wired.com/2016/07/us-throws-away-much-half-food-produce/>

⁴ <https://link.springer.com/article/10.1007/s12053-008-9011-0>

production. Meanwhile, the consumer dictates what the producer generates through the concept of supply and demand.⁵ As the consumer buys more, producers exploit labor and resources to keep up with the demand all while making a healthy profit. As the consumer begins to slow down and decrease demand, the producer must also adjust production quantity or else risk losing massive amounts of capital in the form of unpurchased goods; although in most cases they simply lower the product's selling price to encourage their continued consumption.⁶ The relationship between the producer and the consumer fuels the economic system we are all familiar with today.

As we contextualize the effects of capitalism throughout the fashion industry and Western society in general, it becomes clear that the impacts of our materialist society harms those on the bottom rungs. However the question of how to engender positive change in this exploitative system raises several questions. Firstly we have to consider a corporate structure that isn't legally obligated to the bottom line. Benefit corporations, or B-Corps, bridge this gap by placing social responsibility as an equally enforceable bottom line as fiduciary responsibility. A business model like this can be responsible and profitable- Patagonia is a prime example. They have a staunch responsibility to the environment and operate a profitable business. They examine their supply chains, look for responsible alternatives and constantly examine the impacts of their products. The example of notable companies like Patagonia needs to be incentivized by governments to maximize their presence in the market, individuals will respond to stimuli. The solutions are around us, but society as a whole needs to recognize these alternative ways of doing business as viable and sustainable. In order to gain a complete understanding of what is gained with

⁵ <http://www.sciencedirect.com/science/article/pii/S1364032117313072>

⁶ <http://www.sciencedirect.com/science/article/pii/S0301421512003758>

sustainable business models, it is important to juxtapose them with the opposite. In the case of the fashion industry, the opposite of sustainability is fast fashion.

Fast Fashion

Fast Fashion is a term used to describe a sector of the fashion industry that seeks to produce mass amounts of product as quickly and cheaply as possible. The front runners in fast fashion include brands like Forever 21, H&M, Zara, Mango, and Uniqlo. The turn of the century is what saw the real boom in presence of fast fashion in the American closet. In 2002, sales of clothing were worth approximately \$1 trillion dollars, while in 2015 sales were worth \$1.8 trillion. The global average for clothing consumed in a year for a single person is 5kg, Americans average about 16kg per person⁷. This massive increase in clothing bought and subsequently clothing thrown away is due to the culture of disposable fashion that the fast fashion industry not only fosters, but encourages.

Forever21 has a total of 281 store locations in America⁸, the fashion retailer can be found at any mall that is willing to house their minimum of 38,000 square foot store. Forever 21 has locations that are as big as 162,000 square feet, featuring multiple floors and departments, with products ranging from women's clothing to shoes to children's to cosmetics⁹. This model is something that is exclusive to fast fashion retailers, multi floor/multi department stores used to be a hallmark of a department stores, wherein a myriad of brands are sold. With fast fashion, the name on the front of the store is the name that all of the tags on the items within that store bear. Aside from

⁷<http://www.greenpeace.org/international/Global/international/briefings/toxics/2016/Fact-Sheet-Timeout-for-fast-fashion.pdf>

⁸ <http://www.store-locator.info/forever-21/store-list>

⁹ <http://www.nreionline.com/retail/forever-21-evaluates-size-its-store-prototype>

their brick and mortar locations, Forever21 also has a significant online presence. Apparel ecommerce is expected to reach \$54.2 billion this year in America, this makes fashion the second largest in sales as it accounts for 20.9% of all sales on the web¹⁰. With fast fashion, consumers are presented with ever-rotating options of clothing that will cost them no more than \$20 a garment on average (sometimes a lot less). Not only do customers have access to these cheap garments within mere miles of their homes, but the stores vast quantities of seemingly disposable goods are available right at their fingertips on the internet. Consumers continue to flock to these stores because they have no idea where the cheap product is coming from and how exactly it got into their hands. In other words, the product is alienated to the consumer. Fast fashion companies are notorious for refusing to reveal their global supply chain, making it hard for consumers to gain information on how their clothes are being produced. With products that are made so cheaply and sold so cheaply, there is no doubt there are more than a few ethical missteps in Forever 21's global supply chain. The presumptive minimum cost for a pair of "ethically" produced jeans is \$20,¹¹ at this moment in time, Forever 21 is featuring a pair of jeans for the price of \$12.90¹², so unless they are selling these jeans at a loss (which they definitely are not), they are way below the ethical threshold of \$20. Fast fashion and the consumer behavior that is perpetuated has extremely damaging effects on the environment and poses a huge risk to the treatment of laborers in the textile industry.

Fashion is the third most polluting industry in the world and is the second largest consumer of water¹³. Due to the race to the bottom ideology that capitalism tends to create, producers are

¹⁰ <https://www.digitalcommerce360.com/2013/04/25/us-e-commerce-sales-could-top-434-billion-2017/>

¹¹ <http://www.refinery29.com/2016/06/113127/ethical-clothing-costs>

¹² <https://www.forever21.com/us/shop/Catalog/Product/f21/promo-jeans-refresh/2000200817>

¹³ <https://www.thereformation.com/whoweare#impactOfFashion>

unwilling to participate in sustainable manufacturing practices. That's because economically conscious production costs more money and takes more time to go from raw material to final product. Spending more money and taking more time to produce an item of clothing is exactly what fast fashion retailers do not want to do, as it directly contradicts with their business model.

A lot of the fabrics that are utilized to produce clothing for sale are polyester, nylon and other petroleum based materials. These fabrics emit volatile organic compounds (VOC's) and nitrous oxide, which is a greenhouse gas that is about three hundred times more potent than CO₂.¹⁴ The damage that comes with the use of such materials does not end in the production phase. After a consumer has purchased their \$7 polyester shirt from Forever 21, they wear it two or three times. Since these garments are produced at low cost, the stitching is likely weak and the seams are probably poor, causing the garment to easily fall apart.

Pre 1920's, most clothing in America that was ripped or damaged in some way would be repaired, and clothing that was beyond repair would be repurposed into rags or material for quilts. As industrialization grew in the twentieth century, production of consumer goods skyrocketed. Consumption saw a big boom with the onset of World War II, with the increased amount of employment due to war mobilization efforts. Production and consumption of household goods during this period rose by approximately 15%, and has been rising ever since. During this time period and beyond economic growth became dependent on consumers disposal of old products due to change in style and the constant marketing and production of new products to replace the old ones¹⁵. This dependency is the case especially with fast fashion.

¹⁴ <https://www.thereformation.com/whoweare#impactOfFashion>

¹⁵ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1964887/>

While pre 1920's people would mend or repurpose their damaged clothes, now they are thrown away or donated. Clothes that are thrown away end up in landfills, and for materials like nylon and polyester, they remain in the landfill for a very long time. Nylon takes approximately thirty years to biodegrade while polyester needs more than two hundred years.¹⁶ So, the consumer wears a shirt a few times, the shirt becomes damaged due to the poor manufacturing or they simply grow tired of the style, and they throw it away to sit in a landfill for up to two hundred years. This represents the major dissociation that consumers have not only with how their product is made, but also what it is made of and how that can have lasting negative effects on the environment.

The production of a pair of jeans is one item of clothing that is particularly costly to the environment, this is due to two factors: cotton and dyes. Cotton uses about 2.4% of the world's arable land, yet makes up 24% of the world's insecticide consumption and 11% of the world's pesticides. Additionally, cotton requires extremely water-intensive processing in order to be turned into useable material and also demands high levels of irrigation in order to be grown.

While organic cotton is more sustainable than conventional cotton in that it cuts down on the use of pesticides and insecticides, it is still damning for the environment. Organic cotton requires anywhere from 25% to 50% more land to grow than conventional cotton and still demands the same vast amounts of water that tradition cotton does¹⁷.

Aside from cotton, the use of dyes is also a crucial component in the manufacturing of a pair of jeans. 2,000 different chemicals are used in textile processing, included is chemicals like lead,

¹⁶ <https://www.thereformation.com/whoweare#impactOfFashion>

¹⁷ <https://qz.com/990178/your-organic-cotton-t-shirt-might-be-worse-for-the-environment-than-regular-cotton/>

formaldehyde, mercury and chlorine. In dyeing processes specifically, approximately 1,600 chemicals are used. Of those 1,600 chemicals a mere 16 of them are EPA-approved. When the fabric used for jeans is ready to be dyed they, are typically shipped to dyeing houses. Dyeing houses produce runoff that contains toxic solids, heavy metals, alkali salts and damaging pigments. Approximately 40% of coloring agents used to dye materials contain organically bound chlorine, which is a known carcinogen¹⁸. Manufacturers continue to facilitate these practices in which they are fully aware are harmful to the environment. For fast fashion retailers, there is no immediate reward in regarding the wellness of the environment and public health, because this does not make them money or allow them to manufacture a product quicker. In other words there are no incentives to do anything other than reduce the bottom line by any means possible.

The fast fashion industry also poses a threat to the inalienable rights of the workers that they employ. Working conditions in countries like Bangladesh, India, China and Taiwan (all places that Forever21 and fast fashion retailers akin to Forever21 have been known to manufacture clothing in)¹⁹ have time and time again been proven beyond sub-par. The Rana Plaza building collapse was an event that gave these injustices global attention. In Dhaka, Bangladesh, the factory building collapsed, taking with it the lives of 1,127 people and injuring an additional 2,000²⁰. In the 400-page report that was filed after the disaster, officials found that factory owners compelled workers to return to their job despite the fact they were aware that the building was unsafe. Sohel Rana, an owner of the building constructed additional upper floors in the

¹⁸ http://file.scirp.org/Html/4-8301582_17027.htm

¹⁹ <https://www.forgerecycling.co.uk/blog/fast-fashion/>

²⁰ <http://www.nytimes.com/2013/05/23/world/asia/report-on-bangladesh-building-collapse-finds-widespread-blame.html>

building, illegally. On April 23, a day before the collapse, the building showed cracks and the structure was shaking, an engineer has been called upon to inspect the building and he deduced that it was unsafe. Nevertheless, the owners and factory bosses order that their employees report to work the next day²¹. The Rana Plaza collapse speaks to the lackadaisical enforcement of fire and safety codes that both the local government and the company whose clothes are being produced in that country perpetuate.

In Bangladesh, 80% of factory workers in the garment industry work from 8am-10pm, which is far beyond the limit of legal working hours²². While these employees are working for an amount of time surpassing the legal limit, they are getting paid wages that are all below the living wage and sometimes below the minimum wage (even though Bangladesh has the lowest minimum wage - currently around \$70 a month, it was \$38 in 2013)²³. These poor working conditions and low wages are what attract retailers to factories in countries like Bangladesh.

Several cases in human trafficking and forced labour have been found within a myriad global supply chains in the fashion industry²⁴. These problems are something that is often not entirely visible to the company utilizing the factories in which these atrocities are taking place. That is because, these problems are usually not occurring in the first tier of the supply chain but rather in the mills that use raw materials to produce the fabric for clothing. These issues seem to be practically unavoidable in the supply chain, however when forced labor/child labor/human trafficking is discovered to be taking place within a factory that a company uses to manufacture

²¹<http://www.nytimes.com/2013/05/23/world/asia/report-on-bangladesh-building-collapse-finds-widespread-blame.html>

²² <https://waronwant.org/fashion-victims-facts>

²³ <http://www.nytimes.com/2013/11/13/opinion/a-living-wage-in-bangladesh.html>

²⁴ <http://www.supplychaindigital.com/scm/new-research-reveals-risks-slavery-fashion-supply-chains>

clothing, that company should be morally obligated to do all that they can in order to stop the situation - including ceasing to conduct business with said factory. Through regular audits and investigations within their factories, companies like Patagonia are able to take proper action against these offenses to humanity.²⁵ This is one of the many areas in which fast fashion companies fall down on the job, they do not regularly, if ever, seek to check in on the factories that produce their product, therefore they are unable to make the correct judgement on whether to work with a certain manufacturer or not.

Fast fashion can cause all of this damage against the environment and can strip workers of basic rights because, unfortunately, they are under no real obligation to reveal their global supply chain. Forever 21 did not respond to recent coalition letter sent to 72 companies urging them to partake in a transparency pledge regarding their global supply network. The coalition consisted of the Clean Clothes Campaign, Human Rights Watch, IndustriALL Global Union, the International Corporate Accountability Roundtable, the International Labor Rights Forum, the International Trade Union Confederation, the Maquila Solidarity Network, UNI Global Union, and the Worker Rights Consortium. The letter urges the 72 companies contacted to partake in a transparency pledge in what the coalition considers to be the minimum standard for supply chain disclosure. Companies were asked to publish information on: the locations of all cut-make-trim factories (CMT's) and their subcontractors, worker numbers, product types, and parent company information²⁶. Forever 21 did not respond to the letter and thereby continues to keep their supply chain as completely private information. Because of this, consumers cannot gain a

²⁵<https://www.theatlantic.com/business/archive/2015/06/patagonia-labor-clothing-factory-exploitation/394658/>

²⁶<https://www.hrw.org/report/2017/04/20/follow-thread/need-supply-chain-transparency-garment-and-footwear-industry>

comprehensive understanding of where their product is coming from and the negative ecological and humane impacts that it carries. Beyond that, lawmakers and governing bodies are unable to prosecute offenders because companies are allowed to keep their global supply chains opaque.

Until recently, there was no pressure on companies to publish their global supplier factories network, as corporations viewed this information as business information that was sensitive due to the thought that revealing such information would put them at a disadvantage with competing retailers. Throughout the late 90's and early 2000's companies like Adidas and Nike began to publish some information on the names and locations of factories that produced collegiate apparel for institutions in the United States. This disclosure came due to the prompting of United Students Against Sweatshops (USAS), an organization that had chapters in a couple dozen universities²⁷.

Patagonia

Juxtaposed to these problems that plague fast fashion, sustainable companies like Patagonia are also earning profits, and using those profits to serve their mission, environmental advocacy and stewardship. Since 1996 Patagonia has donated around \$80 million dollars to grassroots organizations and funds that protect the environment around the world. They've done the seemingly impossible by marrying sustainability with a dedicated consumer base who they charge a premium in order to offset the true cost of the goods. In 2005 the founder of Patagonia, Yvon Chouinard wrote a business autobiography called *Let My People Go Surfing*, in this he outlines some of the key tenants and philosophical cornerstones of the company. He remarks on

²⁷<https://www.hrw.org/report/2017/04/20/follow-thread/need-supply-chain-transparency-garment-and-footwear-industry>

the environmental cost of transportation, "...a Patagonia shirt requires roughly 110,000 BTUs of energy to manufacture, from acquiring raw material to making the fabric to sewing a finished shirt. Shipping that item air freight from Ventura to Boston, in a package with eighteen other shirts, takes another 50,000 BTUs per shirt. In other words, it takes half again as much fossil fuel energy to move it once than it did to make it"²⁸. This 'true cost' is far higher than we expect, and those BTUs are all environmental damage in action.

Yvon further writes, "Third, it becomes apparent that the global economy is not sustainable. It's completely dependent on burning up cheap fossil fuel. Shipping goods by rail or by boat uses 400 BTUs per ton for each mile shipped. Truck freight uses more than 3,300 BTUs per ton, and air cargo uses 21, 670 BTUs to move a ton of goods one mile"²⁹.

To offset this 'true cost' consisting of the supply chain and environmental damage that results to put a product on the shelf, they charge their customers higher prices. This higher price should be counterintuitive- consumers generally prefer a cheaper good. However that is what makes Patagonia an interesting case study, this shows that consumers, when informed, are willing to pay higher prices for sustainably sourced goods that gives back to the environment.

In the past few years Patagonia has made a number of changes to improve their supply chain and make it more sustainable. They've made huge strides in improving the conditions of their supply chain workers. They've invested in Fair Trade, an international program that works to increase the wages of their workers and bring them closer to a living wage by returning a premium to the

²⁸ Chouinard, Y. (2009). *Let my people go surfing*. Torino: Vivalda.

²⁹ Chouinard, Y. (2009). *Let my people go surfing*. Torino: Vivalda.

workers who created the product. In Marxist terms, they are working to return a portion of the surplus value to the laborers who created it. The value in this is higher living conditions for the workers, and a beginning to the end of exploitative supply chains. In 2014 Patagonia offered 10 Fair Trade products from one factory, and in 2016 they were offering 192 products from six factories, representing about 20% of their total products offered³⁰. This rapid growth has been exemplary but one company cannot be enough. Incentivizing a system to participate in these sustainable practices rather than just one actor or company is the real goal.

Discussion

When considering how to incentivize these sustainable practices on the macro-scale, it becomes apparent that there are a few issues. Firstly we must address the role that governments must play if this is to become common practice. Incentives like tax cuts could be used to promote these practices, or alternatively governments could impose tariffs on unsustainable produced goods, thereby raising their prices to those closer to these sustainable goods. Consumers want to feel empowered by their choices, and would not willingly pay the same for an unsustainable product, especially as the media coverage of exploitative working conditions grows every day. Producers in this situation would be incentivized to produce sustainable goods so they can get them into the country without tariffs and sell at a price point of their choosing.

When considering the success of Patagonia however, we must also address some potential flaws.

There is obviously a fetishization of the sustainability industry, Yvon Chouinard became a billionaire in 2017 and this is due to the increase in popularity of Patagonia. While they set a

³⁰<https://www.patagonia.com/static/on/demandware.static/-/Library-Sites-PatagoniaShared/default/dw883f0dc2/PDF-US/2016-B-CorpReport-031417.pdf>

great example, it must be acknowledged that the sustainability of their products is rooted in this commodity fetishization and if we moved towards a world where all products are sustainable, companies will lose their competitive edge for being leaders in this. Producers would look to reach the 'bare minimum' for sustainability standards in order to maximize their profit.

While the problems with incentivizing sustainability seem difficult, market based solutions and government intervention can engender positive effects on producers as a whole. While not a direct relationship, many parallels and lessons can be drawn to 'successful' government backed attempts at curbing pollution. For example, taxes on gasoline and the various responses from consumers that arose as a result of them in relation to market-induced changes in the price of gasoline were studied. A model was created in which two different increases in gasoline taxes were considered; a 13/2 ¢/gallon tax and a \$15/tCO₂ carbon tax. Data collected from the U.S. Consumer Expenditure Survey found that over time, increase in gasoline tax lead to a decrease in gasoline demand that was seven times as large as the decrease found when there was an equal market-induced price increase. Interestingly, the change in demand was influenced heavily by the income of the consumer and the region in which they resided. Specifically, tax elasticity increased with income but price elasticity decreased. In other words, those living in richer households were found to be less likely to change their habits as a result of a price change but might be more responsive to a tax increase because they are actually able to afford different choices that would reduce gasoline consumption. These same choices might not be financially possible for lower income households and as a result they tended to have a lower tax elasticity. When it came to region, the model used, focused on the four broad United States regions (a.k.a. Northeast, Midwest, West, and South). It was found that the Northeast had the highest tax

elasticity followed by the Midwest, then the West, and finally the South. In regards to price elasticity however, most regions had little or no change while the Northeast held the lowest responsiveness. Overall, it was found that changes to gasoline taxes had a significantly greater impact on gasoline demand than market-induced changes to gasoline prices. This was thought to be because changes to gasoline taxes would influence consumers more in the long run specifically when it came to things like buying fuel efficient cars, changing transport modes altogether, moving closer to work, etc. It was also thought to be because changes to taxes are more likely to receive widespread attention including media coverage. This makes consumers more aware of them and therefore more likely to react. It was also found that consumers were likelier to respond to a price increase if they knew it was a direct result of a tax increase.³¹

This shows us that individuals will respond to stimuli, like increased tariffs on unsustainably sourced products, offering a way for the government to allow consumers to take action with their wallets and strike at exploitative supply chains where it hurts them. By engaging in these practices that use quantitative data and consumer preferences as foundations, we can shape the market so that it favors sustainability. Producers can do this however they want, but they must meet strict supply chain and environmental standards. We have reached a point where we no longer have the luxury of doing business without conscience, globalization has created a race to the bottom where supply chains exploit individuals and the environment and our position in North America cannot make us immune to the realities of our effects on the world around us. By changing policies a more sustainable and equitable future can be created and offer all 7 billion individuals on this planet a better hand and a planet their grandkids will be able to inhabit.

³¹ <https://www.sciencedirect.com/science/article/pii/S0928765516000208>

Works Cited

25, 2013 Allison Enright|Apr, et al. "U.S. e-Commerce Sales Could Top \$434 Billion in 2017." *Digital Commerce 360*, 28 Dec. 2016,

www.digitalcommerce360.com/2013/04/25/us-e-commerce-sales-could-top-434-billion-2017/.

"Annual Benefit Corporation Report." *Patagonia Works*, 2017,

doi:[https://www.patagonia.com/static/on/demandware.static/-/Library-Sites-](https://www.patagonia.com/static/on/demandware.static/-/Library-Sites-PatagoniaShared/default/dw883f0dc2/PDF-US/2016-B-CorpReport-031417.pdf)

[PatagoniaShared/default/dw883f0dc2/PDF-US/2016-B-CorpReport-031417.pdf](https://www.patagonia.com/static/on/demandware.static/-/Library-Sites-PatagoniaShared/default/dw883f0dc2/PDF-US/2016-B-CorpReport-031417.pdf).

Bain, Marc. "Your Organic Cotton t-Shirt Might Be Worse for the Environment than Regular Cotton." *Quartz*, Quartz, 28 May 2017, qz.com/990178/your-organic-cotton-t-shirt-might-be-worse-for-the-environment-than-regular-cotton/.

Benton, Dale. "New Research Reveals Risks of Slavery in Fashion Supply Chains." *SCM / Supply Chain Digital*, Dale Benton, 29 Mar. 2017,

www.supplychaindigital.com/scm/new-research-reveals-risks-slavery-fashion-supply-chains.

Chouinard, Yvon. *Let My People Go Surfing*. Vivalda, 2009.

Claudio, Luz. "Waste Couture: Environmental Impact of the Clothing Industry."

Environmental Health Perspectives, National Institute of Environmental Health Sciences, Sept. 2007, www.ncbi.nlm.nih.gov/pmc/articles/PMC1964887/.

Cobbing, Madeleine, and Yannick Vicaire. "Fact Sheet: Timeout for Fast Fashion."

Greenpeace,

doi:<http://www.greenpeace.org/international/Global/international/briefings/toxics/2016/Fact-Sheet-Timeout-for-fast-fashion.pdf>.

The Editorial Board. "A Living Wage in Bangladesh." *The New York Times*, The New York Times, 12 Nov. 2013, www.nytimes.com/2013/11/13/opinion/a-living-wage-in-bangladesh.html.

"Fashion Victims - the Facts." *War On Want*, 7 Sept. 2015, waronwant.org/fashion-victims-facts.

"Follow the Thread | The Need for Supply Chain Transparency in the Garment and Footwear Industry." *Human Rights Watch*, 6 June 2017, www.hrw.org/report/2017/04/20/follow-thread/need-supply-chain-transparency-garment-and-footwear-industry.

Forever21. "High-Waist Skinny Jeans." *Forever 21*, www.forever21.com/us/shop/Catalog/Product/f21/promo-jeans-refresh/2000200817.

"Fresh Water." *Everythingconnects.org*, www.everythingconnects.org/fresh-water.html.

Goldenberg, Suzanne. "The US Throws Away as Much as Half Its Food Produce." *Wired*, Conde Nast, 3 June 2017, www.wired.com/2016/07/us-throws-away-much-half-food-produce/.

Harris, Jeffrey, et al. "Towards a Sustainable Energy Balance: Progressive Efficiency and the Return of Energy Conservation." *SpringerLink*, Springer Netherlands, 6 May 2008, link.springer.com/article/10.1007/s12053-008-9011-0.

Jennifer Duell Popovec | Sep 09, 2015. "Forever 21 Evaluates the Size of Its Store Prototype." *National Real Estate Investor*, 10 Sept. 2015, www.nreionline.com/retail/forever-21-evaluates-size-its-store-prototype.

- Kamran, Muhammad. "Current Status and Future Success of Renewable Energy in Pakistan." *Renewable and Sustainable Energy Reviews*, Pergamon, 6 Oct. 2017, www.sciencedirect.com/science/article/pii/S1364032117313072.
- Kant, Rita. "Textile Dyeing Industry an Environmental Hazard." *Scirp.org*, Scientific Research Publishing, 31 Dec. 2011, file.scirp.org/Html/4-8301582_17027.htm.
- Reformation. "Impact of Fashion." *Reformation*, www.thereformation.com/whoweare.
- Reformation. "Impact of Fashion." *Reformation*, www.thereformation.com/whoweare.
- Rvl. "Forever 21 - Store Locator." *Forever 21 Store Locator - List of All Forever 21 Store Locations*, www.store-locator.info/forever-21/store-list.
- Tepliakov, Author Jewgeni. "Fast Fashion & the Destruction of Developing Countries." *The Waste Management & Recycling Blog*, 26 Oct. 2016, www.forgerecycling.co.uk/blog/fast-fashion/.
- Tiezzi, Silvia, and Stefano F Verde. "Differential Demand Response to Gasoline Taxes and Gasoline Prices in the U.S." *Resource and Energy Economics*, North-Holland, 22 Feb. 2016, www.sciencedirect.com/science/article/pii/S0928765516000208.
- White, Gillian B. "All Your Clothes Are Made With Exploited Labor." *The Atlantic*, Atlantic Media Company, 3 June 2015, www.theatlantic.com/business/archive/2015/06/patagonia-labor-clothing-factory-exploitation/394658/.
- Wicker, Alden, et al. "What Your Jeans Would Cost If No One Died to Make Them." *Ethical Clothing - Jeans Manufacturing Costs*, Refinery29, 15 June 2016, www.refinery29.com/2016/06/113127/ethical-clothing-costs.

“World Population Projected to Reach 9.8 Billion in 2050, and 11.2 Billion in 2100 – Says UN - United Nations Sustainable Development.” *United Nations*, United Nations, www.un.org/sustainabledevelopment/blog/2017/06/world-population-projected-to-reach-9-8-billion-in-2050-and-11-2-billion-in-2100-says-un/.

Yardley, Jim. “Report on Deadly Factory Collapse in Bangladesh Finds Widespread Blame.” *The New York Times*, The New York Times, 22 May 2013, www.nytimes.com/2013/05/23/world/asia/report-on-bangladesh-building-collapse-finds-widespread-blame.html.

Yardley, Jim. “Report on Deadly Factory Collapse in Bangladesh Finds Widespread Blame.” *The New York Times*, The New York Times, 22 May 2013, www.nytimes.com/2013/05/23/world/asia/report-on-bangladesh-building-collapse-finds-widespread-blame.html.

Zhao, Tingting, et al. “Consumer Responses towards Home Energy Financial Incentives: A Survey-Based Study.” *Energy Policy*, Elsevier, 17 May 2012, www.sciencedirect.com/science/article/pii/S0301421512003758.