

# Fast Fashion or Clean Clothes?

## Estimating the Value of Labor Standards\*

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### **Abstract**

How much do consumers care about worker protections in the apparel sector and how does consumer demand for labor standards affect firm profits? We test the relative strength of consumer preferences over internationally recognized labor rights with a series of unique conjoint experiments embedded in a survey of more than 2,000 U.S. consumers. We employ a Bayesian approach to estimate consumer demand for garments produced in factories with good labor standards and to simulate how consumer enthusiasm translates into increased profits for apparel firms. Our models suggest that respect for FACB rights, the payment of a living wage, and women's does indeed boost profits. However, our profit simulations also demonstrate how the ability of competing firms to adopt similar marketing strategies can limit the profits flowing from this enthusiasm. Since respect for labor rights cannot be patented, the effectiveness of ethical labeling depends heavily on the ability of firms to develop unique ways of incorporating respect for FACB rights into their branding strategies. Our findings have major implications for the viability and success of private governance initiatives as mechanisms for improving labor standards in low- and middle-income countries.

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# 1 Introduction

In recent decades, rising demand for “fast fashion” has called attention to worker rights abuses in the garment industry. Because the success of fast fashion is premised on cheap, disposable garments, apparel firms have sought to dramatically reduce lead times and labor costs (Anner 2018), resulting in a classic race-to-the-bottom dynamic whereby firms face increasing pressure to source their garments from suppliers located in countries with poor infrastructure and low labor standards. The tragic Rana Plaza collapse in Bangladesh exposed the gravity of the problem to international audiences and sparked numerous “clean clothes” initiatives aimed at improving workplace safety as well as a broader advocacy for the ethical sourcing and labeling of garments.<sup>1</sup> Labor rights NGOs successfully leveraged the attention generated by the disaster to pressure brands and retailers into joining one of two legally binding five-year private regulatory initiatives: the Alliance for Bangladesh Worker Safety (“The Alliance”) and The Bangladesh Accord on Fire and Building Safety (“The Accord”). Some brands, such as Athleta, Everlane and Patagonia, have gone one step further by proactively marketing sustainability initiatives that highlight respect for workers’ rights and charitable programs designed to “give back” to the communities of factory workers.

Despite the popularity of such initiatives, little is known about how helpful they are to the firms that adopt them. How much does negative publicity regarding labor rights abuses hurt firms’ profits?. How much do PR campaigns that try to counteract negative information initiatives boost them? Are some kinds of messaging more effective than others? Our study addresses these questions through a series of four conjoint experiments embedded in a survey of 2,000 U.S. consumers. The experiments test the effects of news stories, certifications, labels and basic descriptions of inspection procedures on purchasing behavior. We analyze the data from these experiments with hierarchical Bayes models and use the results to simulate expected firm profits. Through these simulations, we can illustrate the

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<sup>1</sup>According to the ILO, 1,132 people were killed and more than 2,500 were injured when the Rana Plaza factory building collapsed in Dhaka.

extent to which consumer demand for labor rights translates into increased profitability under a variety of different real-world scenarios.

We find strong evidence that respect for labor standards is important from the standpoint of the bottom line. Our findings suggest that profits are indeed vulnerable to negative stories about a company’s lack of respect for labor rights and that firms can benefit from proactive efforts to advertise the ethical sourcing of their products. Our models predict that garments advertised as being produced in a unionized factory or in factories with regular inspections are more profitable than those sold without such messaging. We find that the increased profit accruing from real-world labels advertising “fair trade” labor certifications is equal to or greater than the profit garnered from labels advertising environmental certifications. And we demonstrate a similar positive effect for hypothetical labels such as “union made,” “living wage,” or “women empowered.”

Yet our simulations also illustrate how supply-side “race-to-the-top” dynamics may limit the ability of firms to capitalize on consumer demand for ethically sourced garments. If one firm finds success in marketing their respect for labor standards, other firms may elect to compete with that firm by adopting similar initiatives. An inability to patent respect for FACB rights immediately limits the value of branding initiatives that focus on easily mimicked slogans labels or non-exclusive third-party certifications. These findings help to explain why some firms like REI, Everlane and Patagonia go “all in” on with their messaging by adopting multiple certifications and integrating sustainability into their overall marketing strategies while others make very little attempt to highlight their respect for worker rights. The successful marketing of a firm’s respect for labor standards may require making the leap from simple ethical labeling to a more robust and comprehensive ethical branding strategy that differentiates the firm from competitors and enables it to become one of a dominant handful of players in the market for ethically sourced products.

This study has major implications for the literature on private governance initiatives. A pessimistic view of private governance suggests that despite the good intentions

of the stakeholders who negotiate the agreements, protections for environmental and labor rights are unworkable because they reduce efficiency and increase production costs in the context of cutthroat competition and razor-thin margins (Rodrik 1997; Mosley and Uno 2007). On the other hand, buyer firms have numerous incentives to adhere to the stipulations set out in private governance initiatives, including the imperatives of lead firms (Malesky and Mosley 2018), pressure from transnational activists (Bartley and Child 2014; Brian Greenhill 2009) and shareholder reactions to potential scandals arising out of labor rights abuses in supplier factories (Freeman and Elliott 2003).

The findings presented here suggest a more nuanced interpretation of firms' incentives. Ethical labeling initiatives may be profitable for some firms and, in particular, the first movers who market the cleanliness of their supply chains in the context of their larger branding strategy. For such firms, private governance initiatives can be an effective way to promote respect for labor standards in their supply chains. But for firms that lack positive financial incentives to proactively market their respect for labor rights, the external constraints associated with negative publicity, boycotts, government regulations and due diligence requirements remain highly relevant.

We also contribute to the ever-expanding interdisciplinary literature on consumer willingness to pay for ethically sourced products. First, we introduce a profit-based framework that is new to this literature and which allows us to better identify and understand the competitive dynamics that ultimately determine the success of ethical labeling and branding initiatives. Second, our experiments explore the profitability of respecting a range of specific labor protections including freedom of association and collective bargaining (FACB) rights, living wages and workplace discrimination. In doing so, the study serves as a corrective to the overly-broad characterization of "labor rights" in earlier studies as well as the narrow focus on workplace safety among labor activists and NGOs in the wake of Rana Plaza (Anner 2012).<sup>2</sup>

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<sup>2</sup>Critics have noted how the standard "name and shame" tactics of international labor rights NGOs lead them to focus myopically on the most recent scandal and to follow rather than lead international media

## 2 Labor Standards and the Ethical Consumer

How much do consumers care about labor standards and which labor standards do they care most about? When asked directly, upwards of 80% respondents said they would prefer to purchase products manufactured under ethical conditions (e.g. Freeman and Elliott 2003, chap. 2; Bechetti and Rosatti 2005). It did not take long for scholars to spot an obvious disconnect between stated and revealed preferences reflected in these early studies (Auger and Devinney 2007; Eckhardt, Belk, and Devinney 2010). In seeming contradiction to the enthusiasm expressed by consumers, products certified with environmental and labor standards constitute just two percent of the market share in developed countries (Devinney 2010, 22). This apparent lack of real-world demand has led some critics to characterize ethical branding as little more than a publicity tactic used to target a niche audience (Vogel 2005).

In subsequent studies, scholars adopted experimental approaches to overcome the social desirability bias elicited by directly asking respondents about their preferences. These studies find consistent, albeit more muted, support for the idea that consumers would be more willing to pay for ethically sourced products in general and particularly those produced under fair labor conditions. Field experiments have demonstrated a willingness to pay a premium (ranging from 14% to 45%) for garments with labels or signs near display racks with messaging about “fair,” “safe,” and/or “good” working conditions (Hainmueller and Hiscox 2015; Hiscox et al. 2011; M. Hiscox and Smyth 2011; Prasad et al. 2004). Survey experiments provide similar evidence of consumers demand for garments produced in factories that respect worker rights (Auger et al. 2003, 2008; Devinney 2010).

This body of experimental studies yields a greater level of confidence that the market for ethically-branded products is more than just hypothetical, but they also have limitations. The field experiments share the common challenge of establishing their external

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attention (Bair, Anner, and Blasi 2017; Bartley and Child 2014). While the narrow focus on safety has undoubtedly yielded improvements in working conditions in Bangladesh (Labowitz and Baumann-Pauly 2015), it may have resulted in lost opportunities in calling attention to other types of labor rights abuses.

validity, while the findings of existing survey experiments are based on non-random convenience samples of respondents in non-Western countries. There is also room for a few conceptual improvements with respect to the treatments. Rather than just presenting consumers with simple descriptions of labor rights (e.g. “good” or “fair”), it is important to vary the source and nature of messaging, to engage in more extensive and explicit comparisons of consumer demand for FACB rights with demand for other labor standards, and to compare the demand for labor rights with the demand for other ethical concerns.

## 2.1 The Source and Nature of Messaging

Consumers can glean information about a company’s respect for labor standards from a variety of sources. Frequently, consumers are in the middle of a tug-of-war between NGOs seeking to call attention to labor rights abuses of leading firms and the positive information disseminated by the firms themselves. NGOs are essentially in the business of trying to induce a boycott, wherein consumers refrain from purchasing goods from a brand known for engaging in labor rights abuses, whereas the firms are trying to encourage a “buycott,” wherein consumers reward firms for taking efforts to improve labor standards in their supply chains (Zorell 2019).

Previous research demonstrates how the cultural and political underpinnings of boycotting and buycotting behaviors are distinct. Whereas boycotting is motivated by norms of “dutiful citizenship”, buycotting derives from norms of “engaged citizenship” (Copeland 2013). But there is an even simpler difference between the two behaviors: boycotting is based on a reaction to negative information about a company whereas buycotting is based on positive information. Research suggests that negative information may be the more powerful motivator. For example, in an M-Turk survey experiment, Kam and Deichert (2020) show that the effect of negative information about a store’s labor practices on a consumer’s willingness to shop is stronger than positive information, a finding that comports with the notion in popular psychology that it takes three positive stories to counteract one negative

story (Fredrickson 2009).

The power of negative information may explain why lead firms in the retail sector expend tremendous resources on defending against media exposés on PR campaigns designed to feature their corporate social responsibility (CSR) initiatives. Meanwhile, the importance large firms place on their reputations for maintaining high ethical standards in consumer-facing industries has made name and shame tactics a particularly effective method for mobilizing awareness of social issues (Hafner-Burton 2008), with the ironic result that activists are more likely to target large firms with positive reputations that invest heavily in branding efforts as opposed to small- and mid-sized firms with the worst labor rights abuses (Bartley and Child 2014).

The power of positive information and buycotts should not be entirely discounted, however, especially given the findings of earlier studies. Many companies invest large sums into their CSR initiatives and voluntary third-party compliance programs. In some cases, these are simply announced on the company's website, but in others they are brought to consumers' attention through more expensive and elaborate campaigns involving labels that are physically attached to products sold online or in stores. An important question is whether product labels have the desired effect on consumers. One of the first studies of consumer demand for labor standards found that only a small percentage of consumers were influenced by a "No Sweat" label attached to shirts (Dickson 2001). Today's technology makes it possible to expand on this analysis by randomly varying multiple logos in conjunction with conditional pricing and many other treatments.

## 2.2 Comparing FACB Rights with Other Labor Standards

The International Labour Organization's (ILO) identifies four "core labor standards" in its eight fundamental conventions as well as rights cited in ILO recommendations and the United Nations Declaration on Human Rights. The core labor standards include freedom of association and collective bargaining (Conventions 87 and 98), the elimination of

forced and compulsory labor number (Conventions 29 and 105), the abolition of child labor (Conventions 138 and 182) and the elimination of workplace discrimination (Conventions 100 and 111). Other important internationally recognized labor rights include the right to a living wage, a regular work week with no forced overtime, a safe and healthy workplace and freedom from harassment.

Studies of consumer demand for ethically sourced products tend lump all of these rights together, making it a challenge to determine which labor rights violations consumers are most likely to respond to. A handful of studies have tried to take a more disaggregated approach by examining the effects of specific labor standards on consumer behavior [Auger et al. (2003); Auger et al. (2008); Devinney (2010), chap 4]. Using survey-based choice experiments, they find that consumers cared the most about child labor followed by safe working conditions. Minimum wages and living conditions were important for a segment of socially conscious consumers while the ability of workers to join unions did not influence purchasing decisions among non-Western consumers. While a step in the right direction, these studies are hampered by the fact that none of them incorporates a representative sample of respondents in a major market for consumer products.<sup>3</sup>

### 2.3 Comparing Labor Rights and Other Ethical Concerns

Corporations have different ways of marketing their compliance initiatives. For many companies, including REI, Patagonia and Everlane, labor rights are packaged together with environmental standards as part of broader “sustainability” initiatives. Many third-party certifications also lump together labor and environment labor standards. For example, OEDO-TEX Sustainable Textile Production (STeP) certification demonstrates compliance

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<sup>3</sup>The initial round of studies were conducted with a convenience sample of university students in Hong Kong and Australia with follow-ups in Germany, India, South Korea, Spain, the United States and Turkey. But the samples were non-random and never big enough to draw conclusions about consumer behavior in any individual country. With larger samples, one might expect to find significant differences in consumer behavior across these countries. For example, support for FACB rights would likely be higher in democratic countries with a history of labor activism like the U.S. or Germany than in less democratic countries like Turkey. We might also find more enthusiasm among consumers for progressive issues like women’s empowerment and a living wage in Western countries relative to Asia or the Middle East.

with labor and environmental standards during the textile production process. Similarly, Fairtrade Certified incorporates environmental protection along with the empowerment of workers, farmers and their communities. But other certifications, like Bluesign (an environmental certification) or the Fairtrade Foundation’s Textile Standard (a labor certification) focus exclusively on one or the other.

Are consumers more responsive to messaging that lumps labor standards together with environmental protections and community empowerment initiatives? Or are certifications and advertising that focus solely on labor standards more effective? Using best-worst scaling techniques, (2007) show that consumers are more concerned about human rights than environmental or diversity issues. One way to interpret these findings is to say that consumers’ feelings of altruism manifest themselves more strongly when they pertain directly to the treatment of humans by other humans as opposed to indirectly through climate change, pollution or other environmental impacts. If this were true, then it could be possible that the effectiveness of environmental certifications and messaging are more dependent on their association with labor protections than the other way around. Directly testing the differential effects of labor and environmental certifications on purchasing decisions in the context of a choice-based conjoint can provide a more precise sense of how consumers weigh these concerns.

### 3 Four Conjoint Experiments

To examine the potential importance of labor rights on consumer purchasing decisions, we designed a series of four choice-based conjoint experiments. Each experiment consisted of a series of choice tasks in which respondents were presented with three garments of a similar type and a “none” option. Each garment had a series of standard product attributes such as color, style, brand or country of origin and a price. In addition, each garment was assigned a treatment that would make it more or less desirable from the standpoint of

an ethical consumer concerned about labor standards. The treatments consisted of prompts and labels describing a company's practices or steps taken to improve labor standards in its suppliers' factories. Each experiment is intended to test, in a slightly different way, the relative strength of consumer preferences for different types of labor standards as well as the appeal of different types of messaging. Table 1 presents a list of the product attributes and levels used to construct the product profiles in the four experiments.

Table 1: Experiment Attributes and Levels

Experiment	Treatments	Brands	Prices	Color/Style	Made In
Good News/Bad News	1. H&M joins ACT; 2. H&M ~ pay living wages to workers; 3. H&M joins GFA with unions; 4. H&M suppliers bashes union; 5. Neutral prompt	Levi's, GAP, Everlane, Sonoma, H&M	Conditional pricing based on average brand price: five gradations	Regular, relaxed, slim, skinny or loose	USA, India, Mexico, Turkey or Italy
Safety Audits vs. Unions	1. Workers do not have a union; 2. Factory conducts regular safety audits; 3. None	L.L Bean Old Navy Zara Hanes Basic Editions	Conditional pricing based on average brand price: five gradations	White Red Green Blue Black	No country of origin
Labor and Environmental Certifications	1. Fair Trade Certified; 2. Fairtrade Textile Production; 3. Bluesign; 4. Global Organic Textile Standard; 5. None	No brands	\$34.99 \$42.49 \$49.99 \$57.49 \$64.99	V-neck Crew Neck Cardigan Mock Neck	No country of origin
Ethical Labels	1. Union Made; 2. Child Labor Free; 3. Living Wage Product; 4. Women Empowered; 5. None	No brands	\$28.00 \$34.00 \$40.00 \$46.00 \$52.00	Grey Black Blue Green Red	Bangladesh, Honduras, Indonesia, Sri Lanka Thailand

Profile attribute levels were fully randomized (sampled with replacement) except that no task could contain two identical profiles. Each respondent completed three choice tasks per experiment for a total of 12 tasks per respondent. To minimize anchoring bias,

we randomly varied the order of the attributes within each choice task as well as the order in which the four experiments were presented.<sup>4</sup> Examples of the choice tasks can be found along with the full survey instrument in the online supplement.

The four experiments were embedded in a web-based survey of 2,014 respondents.<sup>5</sup> The sample was census-balanced on age, gender, race, region and income, making ours the first nationally representative study on ethical labeling in the U.S. The survey took approximately ten minutes for respondents to complete. To arrive at the final sample of 2,014 respondents, the data were cleaned the data for “speeders” and “straight-liners.” Speeders were defined as respondents completing the survey in under four minutes or reading through the news prompts in fewer than 4 to 6 seconds depending on the length of the prompt. Straight-liners were identified as respondents who chose the “none” option in all of the choice experiments. We also automatically discontinued the survey if the respondent answered one of three attention questions incorrectly.

One enduring concern regarding survey-based research on ethical consumerism is that respondents may express support for an ethical product when it is relatively costless to do so. To counteract this tendency, respondents were instructed to answer the questions as if they were “actually buying” the garment in question and reminded them of the importance of doing so before each set of choice tasks. We also attempted to inject a greater degree of realism in our experiments than has been evident in previous conjoint-based studies on labor standards. We prompted respondents with real news stories and press releases and incorporated images of real-world certifications and labels, presented consumers with illustrations of garments that vary in style, color and country of origin, and (where relevant) incorporated a wide selection of brands including fast fashion brands, ethical brands and “mall brands.”<sup>6</sup>

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<sup>4</sup>There were two exceptions. The good news/bad news experiment had to presented before the other three because its complexity made it impossible to move in a block, and in the safety audits and product certification experiments we always kept the two key treatments adjacent to each other for purposes of clarity.

<sup>5</sup>The survey was conducted in August of 2018 using LUCID’s Fulcrum sampling platform.

<sup>6</sup>Brand names were avoided in the certifications and labels experiments because introducing them would have presented consumers with an unrealistic or confusing set of choices (e.g. the same garment made by the same brand would have two different product certifications or ethical labels).

Where brand names were introduced, the choice tasks displayed conditional pricing such that the average price of premium brands was higher than bargain brands. The tasks included a “none” option in our choice tasks to better simulate consumer choice in the actual marketplace. The full randomization of sensitive and non-sensitive attributes also helps to mitigate concerns about social desirability bias (Horiuchi, Markovich, and Yamamoto 2020).

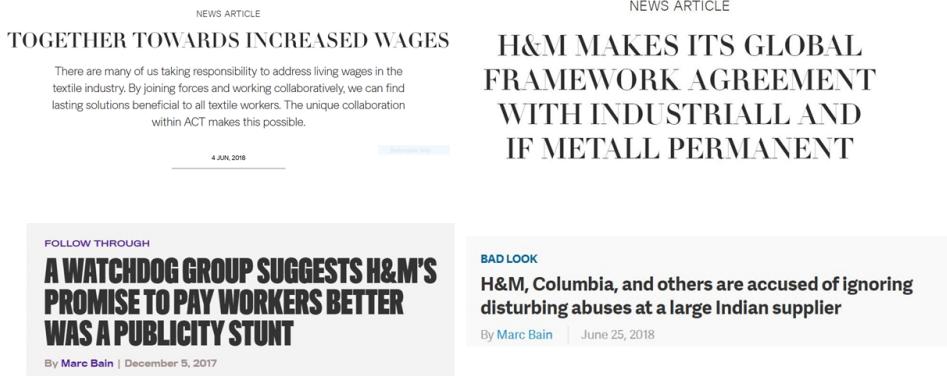
### **3.1 Good News/Bad News**

The goal of the first experiment was to determine the relative salience of a “boycott” or reward mechanism by which consumers purchase more from brands participating in agreements protecting workers rights versus a “boycott” or punishment mechanism by which they withdraw support of brands for the mistreatment of workers. This was accomplished by testing the effects of positive versus negative media attention on the demand for the products of one specific apparel company (H&M).

Prior to the choice tasks, we presented respondents with positive or negative reports about H&M’s respect for freedom of association rights or willingness to pay a living wage. Respondents were then asked to choose between three pairs of jeans, one of which could have been a pair of H&M jeans. The headlines of the four news are presented in Figure 1 and the excerpts that we showed are included in the full text of the survey in the online supplement.

Four-fifths of respondents were randomly presented a headline and a brief excerpt from one of four news stories, two of them positive in nature and two of them negative. The remaining fifth saw a neutral message. The first positive story was a press release about H&M signing onto ACT (Action, Collaboration, Transformation), a global framework agreement (GFA) between retailers and unions to achieve living wages in the garment industry. The second positive story was a press release about H&M entering into a permanent GFA with Industriall and IF Metall to protect collective bargaining rights in the garment industry. For negative treatments, we showed respondents a story about H&M ignoring efforts by one of its leading suppliers to violently suppress a union and another about H&M reneging on its

Figure 1: News Prompts for H&M



promise to pay a living wage to workers. The neutral treatment stated that “sometimes apparel companies respond favorably to workers’ demands and other times they respond unfavorably.”

In addition to H&M, the brand attribute included two of the biggest selling jeans brands (GAP and Levi’s) as well as a bargain brand (Sonoma by Kohls) and one niche ethical brand (Everlane). We used conditional pricing so that the range of prices for each brand varies by increments of 15 percent from the average price of jeans for that brand. The profiles also included pictures of five styles of jeans and country of origin.

### 3.2 Safety Audits vs. Unions

The goal of our second experiment was to determine the relative salience of two approaches for upholding labor standards at the factory level. The first approach, endorsed and practiced by many apparel companies, emphasizes the use of third-party audits in order to remedy the problem of unsafe factories. Another approach, advocated by most labor rights NGOs, places a greater emphasis on strengthening union rights within factories as an intermediary actor. It is important to note that these approaches are not mutually

exclusive; some GFAs aim to address both factory conditions as well as FACB rights. There are, however, theoretical reasons to treat these as competing approaches. For one, many private governance initiatives have explicitly targeted more a more narrow set of standards rather than focusing on the expanded set of ILO rights (Ahlquist and Mosley 2018). While some evidence shows that factory safety has improved as a result of remediation initiatives, repression of labor unions and below-subsistence wages continue to persist in the industry (Paul Barrett 2019). Consequently, it is important to test consumers are in general more likely to pay a premium for garments produced in unionized factories or those with regular safety audits and whether they display a stronger preference for one approach or the other.

Before presenting the choice tasks, we showed respondents a picture of the Rana Plaza collapse and a description of what occurred there. Next, respondents saw a slide stating that some experts believe regular audits are the best mechanism to ensure compliance with factory safety standards, others believe that strengthening union rights is the best way to ensure compliance, and still others believe that factories should be left to comply on their own. Respondents were then asked to choose between three t-shirts that varied in color, brand and price. Each t-shirt profile also displayed, as an attribute, descriptors of whether the factory in which the t-shirt was produced was unionized or had regular safety inspections. For safety inspections, half of the product profiles displayed “Factory conducts regular safety audits” and half “Info on safety not available.” For unions, half of the profiles read “Made in a unionized factory” and the other half “Workers do not have a union.”

The brands in this experiment were selected to reflect their participation in two competing five-year private regulatory initiatives for improving safety following Rana Plaza. The Accord on Fire and Building Safety in Bangladesh (“the Accord”) was a mainly European initiative that involved significant coordination with trade unions, NGOs and required firms to develop long-term relationships with suppliers and to aid them in remediation efforts. The Alliance for Bangladesh Worker Safety (“the Alliance”) was a mainly North American agreement that only involved brands and retailers (not unions or NGOs) and was not legally

binding in the same sense as the Accord: signatories did not have to develop relationships with suppliers or help them with compliance and could leave the agreement at any time. Of the brands in our experiment, GAP (Old Navy) and L.L. Bean signed onto the Alliance, Zara signed onto the Alliance, while K-Mart (Basic Editions) and Hanes joined neither the Alliance nor the Accord. Since we did not inform consumers about these affiliations, we do not expect them to affect consumer choice. However, the affiliations become useful in developing real world scenarios for the expected profit simulations that we present later on.

### 3.3 Labor and Environmental Certifications

Our third experiment explores the relative importance that consumers place on labor standards relative to environmental standards. We did this by showing respondents three sweaters that were randomly assigned one of two labor certifications, one of two environmental certifications, or no certification at all as attributes. The sweaters also varied in style (v-neck, crew neck, cardigan or mock neck) and price. Figure 2 displays the four certification labels used in the certification experiment.

Figure 2: Certification Logos



The labor certification logos represent the Fair Trade Foundation's Textile Produc-

tion Standard and Fair Trade Certified programs. While both programs are designed to improve the lives of workers, the former places more emphasis on freedom of association and collective bargaining rights while the latter focuses more on living wages and investment in community projects. The environmental certification logos represent the Global Organic Textile Standard, which certifies a company's use of organic fibers, and the Blue Sign System, which certifies a company's environmentally sustainable methods of textile production. All four of these standards are commonly used by garment manufacturers as well as major apparel brands.

Before completing the choice tasks, respondents were shown an initial prompt descriptions of each certification program that highlighted the differences between them. For example, the descriptor for the Fair Trade Certified program read “Verifies that companies pay workers a *living wage* and donate to *community projects*” whereas the Fair Trade Textile Production Standard was described as a program that “ensures respect for *unions* and *collective bargaining*.<sup>7</sup> Respondents were also asked to tick a box next to each descriptor to indicate whether they had heard of each program before. This was done to help ensure that respondents read the descriptors carefully but also to determine whether an initial familiarity with these programs helps to explain their relative popularity.<sup>7</sup>

### 3.4 Ethical Labels

Our fourth experiment sought to measure the relative importance of FACB rights and a living wage relative to other core labor standards. This experiment is admittedly somewhat more hypothetical than the others. While many firms engage in public-facing campaigns to showcase their involvement in sustainability initiatives, most do not market their products by emphasizing respect for specific labor standards. At the same time, it could be valuable from the standpoint of future initiatives to understand how such a campaign

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<sup>7</sup>For the certifications experiment, an initial familiarity with the labels does appear to correspond with variation in consumer choice reported in the next section. 47% of respondents said they had heard of the Fair Trade Certified label, 23% had heard of Fair Trade Textiel Production Standard, 19% had heard of the Global Organic Textile Standard and 12% had heard of Blue Sign.

might influence consumer choice.

Participants were asked to select among three sweatshirts that varied in color, country of origin and price and had one of four ethical labels attached to it. The labels, displayed in Figure 3, are based on real-world campaigns by NGOs. Each is comprised of a unique design and a brief descriptor of a different labor standard: “Union Made”; “Child Labor Free”; “Living Wage Product”; “Union Made” or “Women Empowered.” Sweatshirts could also appear with no ethical label.

Figure 3: Ethical Labels



Before completing the choice tasks, respondents were presented with a prompt with descriptors for each label. For example, the “Women Empowered” label was said to indicate that a garment was “made in a workplace that fosters a sense of pride among its female workers and is free of gender discrimination and sexual harassment” while “Living Wage Product” indicates that “workers were paid a fair living wage that covers their basic expenses.” Respondents were asked to read each label description and tick a box indicating whether they had heard of the label for.<sup>8</sup>

<sup>8</sup>Compared with the certifications experiment, there was less of a correspondence between initial familiarity with a campaign and consumer choices. 51% of respondents were familiar with the “Union Made” slogan, 43% were familiar with “Child Labor Free”, 23% had heard of “Living Wage Product” and “20% said they were familiar with the “Women Empowered.”

## 4 Estimation Strategy

There are many well-established methods for using the data from conjoint experiments to quantify respondent preferences. For election studies, political scientists typically use ordinary least squares to estimate Average Marginal Component Effects (AMCEs) that represent how various candidate attributes affect the probability of a voter choosing one candidate over another (Hainmueller, Hopkins, and Yamamoto 2014). In other fields, the dominant approach involves estimating choice probabilities in a logit framework and then using these estimates to derive measures of consumer demand for product features such as attribute “importances” or willingness to pay (WTP) (Hauber et al. 2016; Orme 2014).<sup>9</sup>

Such approaches are fine if we are mainly interested in estimating the relative demand of product attributes in a static context. But apparel is a highly competitive sector in which firms respond to competitors’ marketing strategies by lowering their prices or adopting similar innovations. Consumer choice and the price of ethically made products will largely depend on how such competitive dynamics between firms play out. Furthermore, traditional measures of consumer demand do not tell us anything about how a company might profit from a new feature. Understanding how ethical sourcing and labeling translates into profits is crucial if we want to explain why companies might choose to pursue some types of CSR strategies and not others.

To analyze such industry dynamics, our analysis draws on recent innovations in fields of marketing and law where scholars have used data from conjoint experiments to establish value of patented product features and the cost of patent infringements (G. M. Allenby, Brazell, et al. 2014a, 2014b). This approach employs hierarchical Bayes (HB) to estimate the choice models for each experiment. It then utilizes random draws of the posterior distribution of the hyper-parameters and a Nash equilibrium pricing game to estimate expected firm profits.<sup>10</sup> Expected profits can be calculated for a number of specific simu-

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<sup>9</sup>As a point of reference, we include AMCEs, traditional WTP measures and the “true willingness to pay” measure recommended by Allenby et. al. (2013) in the online supplement.

<sup>10</sup>Allenby et. al. also outline a simulation-based “true” willingness to pay measure that we present in the

lated real-world scenarios, thus providing a flexible tool for analyzing the appeal of different marketing approaches.

## 4.1 The Standard Logit Model for Choice Applications

To estimate consumer demand for ethically sourced products, we employ the standard logit framework commonly used to analyze choice-based conjoints (McFadden 1981):

$$Pr(choice = j) = \frac{\exp(\beta'x_j - \beta_pp_j)}{\sum_{j=1}^J \exp(\beta'x_j - \beta_pp_j)} \quad (1)$$

where  $x_j$  is a vector of product (garment) characteristics for alternative  $j$ ,  $p_j$  is the price of alternative  $j$ , and  $j$  is one alternative among a set of  $J$  alternatives. In the context of our experiments, there were a total of four alternatives for each task (three garments and a “none” option). The garment characteristics  $x_j$  are defined by the levels of the various garment attributes including the experimental treatments, different brands, color, style and country of origin. Each attribute level was coded “1” if present and “0” otherwise. Similarly, the choice alternative on the left-hand side of the equation is coded “1” for chosen and “0” for not chosen. Price enters linearly into the equation, meaning that we use one price coefficient rather than a series of price dummies.<sup>11</sup>

We use hierarchical Bayes (HB) to estimate the  $\beta$  coefficients. HB starts with respondent-level parameter estimates, adaptively pools this information across individuals, and uses it to inform the next round of estimates. HB offers numerous advantages over classical (i.e. frequentest) methods like conditional logit or random parameter logit that have made it the standard for choice applications in most fields. Computationally, HB is generally faster and more efficient because it never gets stuck on a local maximum (Huber and Train 2001). Since it estimates individual-level betas for all of the model parameters, HB also provides a superior method for evaluating preference heterogeneity (Allenby, Rossi,

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online supplement.

<sup>11</sup>This is important for the equilibrium calculations, which require prices to be on a continuum.

and McCulloch 2005). Another benefit of HB, which is central to our analysis, is the ability to simulate real-world choice scenarios in the post-estimation context. Simulations afford the researcher with the opportunity to explore the market potential for new product features in multiple specific theoretically-relevant settings rather than simply looking at average effect sizes.

We used the `rhierMnlMixture` routine from `bayesm` package in R to derive our estimates (Rossi 2019). For each experiment, we took 100,000 draws using standard diffuse prior settings. We present the summaries of the posterior distributions of the respondent-level betas in the online supplement and use the related hyper-parameters (the mean and variance of the respondent-level betas) in our simulations as discussed below.

## 4.2 Expected Profits

Following Allenby et. al. (2014a, 2014b), we use random draws from the posterior distribution of the hyper-parameters to construct the posterior predictive distribution of equilibrium prices and shares of preference (market shares). For each draw, we calculate the expected preference share for each firm's garment, which is taken with respect to the distribution of choice model parameters:

$$E[Pr(j|p, A)] = \int \left( \frac{\exp(\beta' a_j - \beta_p p_j)}{\sum_k \exp(\beta' a_k - \beta_p p_k)} \right) \delta(\beta, \beta_p) d\beta d\beta_p \quad (2)$$

Next we calculate equilibrium prices through iterative profit maximization. In a choice setting, the firm profit function is

$$\pi(p_j | p_{-j}) = M \times E[Pr(j|p, A)](p_j - c_j) \quad (3)$$

where  $M$  is the size of the market,  $p$  is the vector of prices, and  $c$  are the marginal costs for the  $j$  garments.

To calculate Nash equilibrium prices, we compute the optimal price for each gar-

ment given other prices in the choice set and update the price vector as we move from the 1st to the 3rd garment. We repeat this process until the absolute value of the difference between the price of the current iteration and the last iteration falls below the value of .01.

We set starting prices at the median price of the garment for the two experiments where we do not have brands (sweaters and sweatshirts) and, where we do have brands (t-shirts and jeans) at the median conditional price of each brand. The baseline cost for each garment ranges between 10 and 20 percent below the lowest priced garment. Then, as discussed below, we vary costs from the baseline to illustrate the effects of unionization, regular inspections, product certifications and ethical labels.

From here, expected profits can be straightforwardly as the product of equilibrium price and market share minus the cost of garment  $j$ .

$$\pi_j = m_j^{eq} \times p_j^{eq} - c_j \quad (4)$$

For each conjoint experiment, our strategy will be to first summarize the posterior distribution of expected profits for a range of scenarios such as consumers becoming aware of a supplier’s union bashing or adding an ethical label to a garment. Then these summaries can be compared to see how the profitability of a garment or brand changes across the scenarios.

## 5 Results

In this section we present the results of our estimations. For each set of estimates, we use the `bayesplot` package in R to plot posterior means along with 80 and 95 percent credible intervals (CIs) (Gabry et al. 2019). For the sake of convenience and readability, we frequently refer to posterior means of WTP and expected profit estimates as “predictions” or “average predictions” and refer the reader to the plots to discern the full range of predicted values.

We present the results of our profit simulations for each of the four experiments.

In each simulation, three firms start out with the same product and market share divided equally between them. We calculate the equilibrium prices and expected profits for this base scenario and then add one of our “treatments” such as a news story or ethical label to one or more firms’ products. We then calculate equilibrium prices and expected profits for this new scenario for comparison with the base scenario. For the base scenario, the default levels of product attributes are chosen with respect to average popularity among respondents. So for example, the color t-shirts in the simulations for the “Safety Inspections vs. Audits” experiment was set to white because it was the third most popular choice among the five colors.

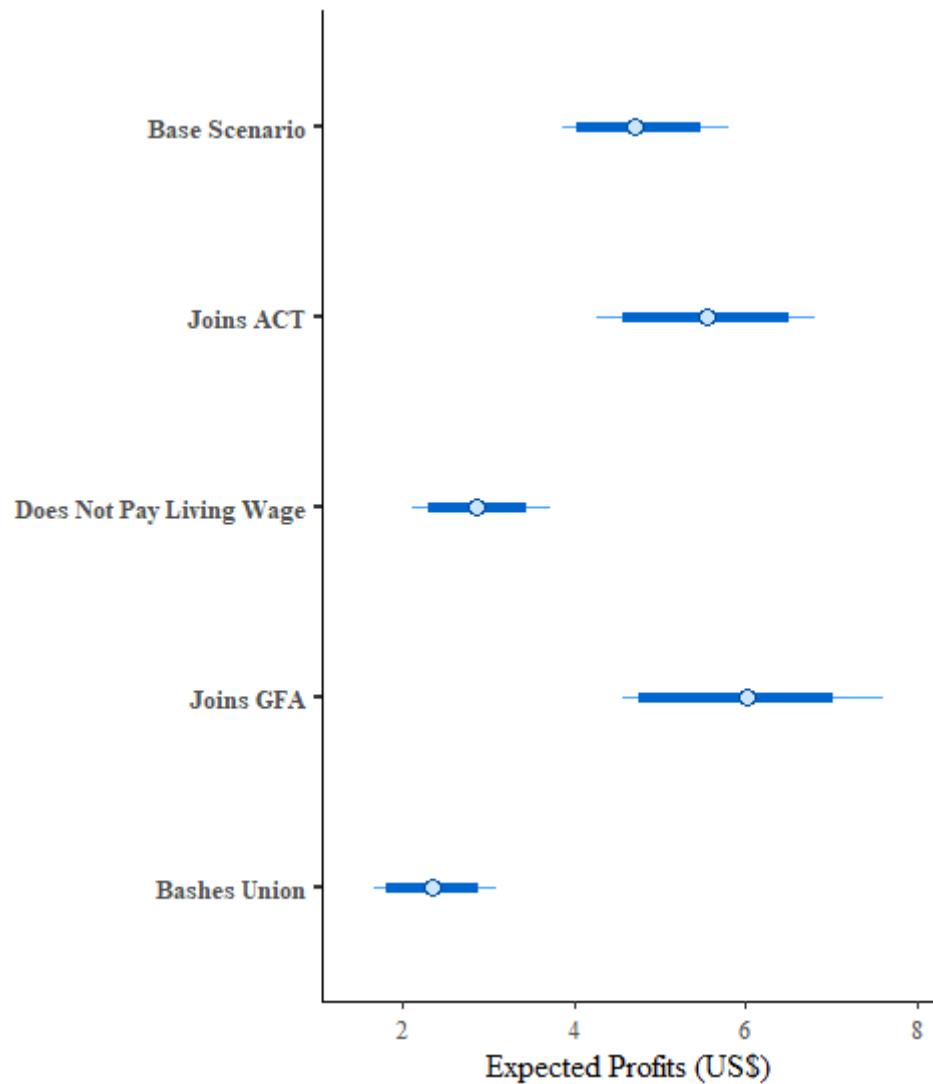
The simulations highlight two main points. First, they suggest that upholding FABC rights can be as important to the bottom line as complying with environmental and safety regulations. Second, the profits stemming from CSR and ethical branding initiatives are limited by the ability of competing brands to lower their prices and to take up similar CSR and ethical branding initiatives. Since protection for labor standards cannot be patented, competing firms can easily win back market share by adopting similar marketing strategies. When this happens, the gains from positive messaging can be diminished or even erased. In such scenarios, brands may fall into a more defensive posture that emphasizes preventing and counteracting negative messaging by third parties rather than proactively advertising the cleanliness of their supply chains.

## 5.1 Good News/Bad News

For the Good News/Bad News experiment we calculated H&M’s expected profits for a baseline scenario in which H&M competed against GAP and Levi to sell a pair of regular fit jeans made in Mexico. We then simulated the effects of the positive and negative news stories on H&M profits. The results of this exercise are reported in Figure 4.

The results of the “Good News/Bad News” experiment confirm the expectation that negative stories about a company’s practices would have a greater impact on sales than

Figure 4: Good News/Bad News Simulations



positive information. We see a clear distinction between the differential effects of positive and negative news stories on H&M’s expected profits. The range of predicted profits following the display of the stories about H&M joining GFAs on wages and collective bargaining is indistinguishable from those in the baseline scenario. However, the negative news stories substantially reduce profits. The average predicted profit for an H&M pair of jeans in the baseline scenario are \$4.72. Predicted profits drop by about 40% to \$2.87 following the introduction of the story about living wages predicted and by more than half (to \$2.35) following the story about union bashing. Moreover, the range of predicted values in the 95% CIs for these two scenarios falls outside of those for the baseline.

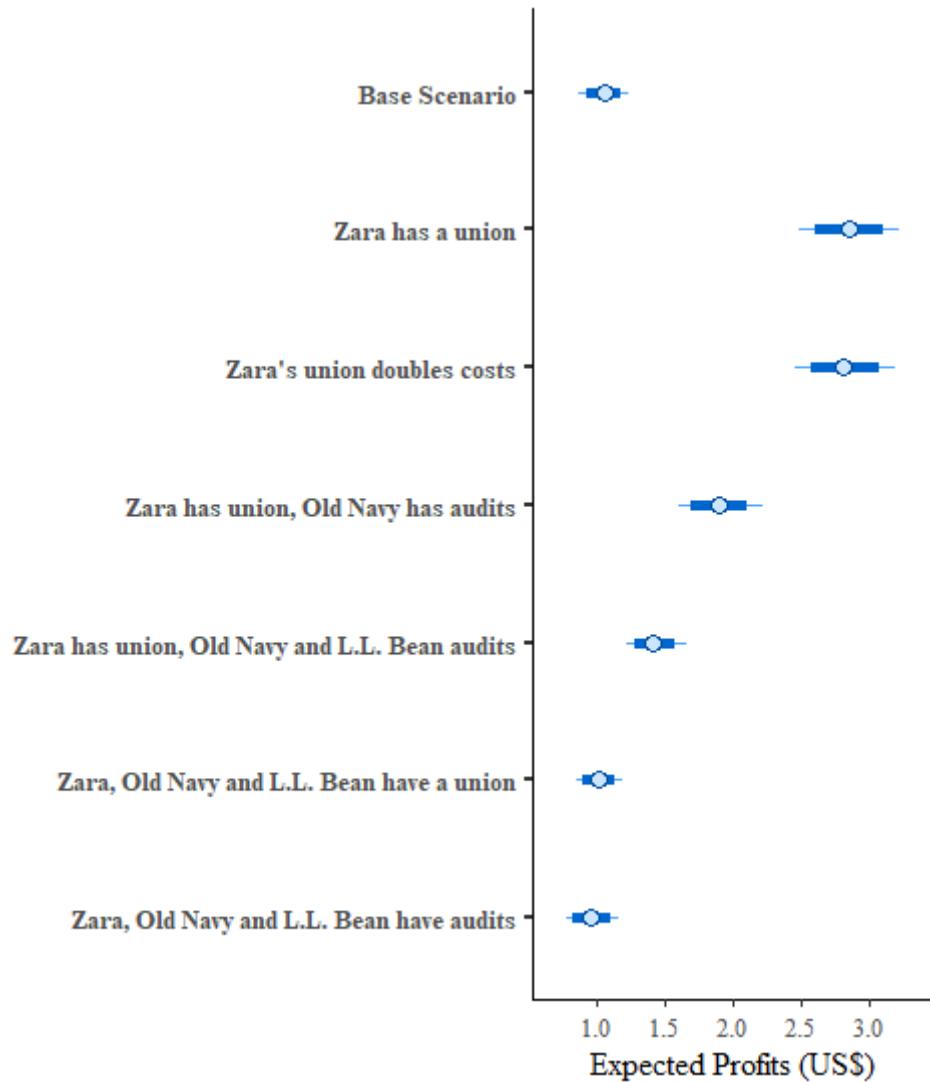
## 5.2 Safety Audits vs. Unions

In this set of simulations, we start with a baseline scenario in which Zara is competing against Hanes and K-Mart Basic Editions to sell a white t-shirt. In the real world, Zara’s parent company Inditex is a member of the European-based Accord on Fire and Building Safety in Bangladesh. Hanes and K-Mart joined neither the Accord nor the North American alternative—the Alliance for Bangladesh Worker Safety. Recall that leaders of the Accord have frequently signaled their willingness to contribute to the enhancement of FACB rights along with safety issues whereas the Alliance focused solely on improving workplace safety through audits.

In the first scenario, Zara, being a member of the Accord, advertises its support for FACB rights by announcing that its t-shirts are manufactured by a supplier with unionized factories. We assume that the union increases the cost of production by 33%. This initiative raises profits above the baseline dramatically from \$1.06 to \$2.85 per t-shirt (see Figure 5). Thus we see that consumer enthusiasm for both unionized factories translate into profits despite the increased cost of having a union and a competitive price reaction from the other two firms.

Our second scenario looks at potential effects of an especially aggressive union.

Figure 5: Audits vs. Unions Simulations



Here, we assume that the union doubles the cost of production rather than increasing costs by a mere third. This is a strong assumption given that unions are thought to generate productivity increases that counteract the costs of increased wages and benefits (Doucouliagos and Laroche 2003). Nevertheless, predicted profits remain at \$2.81 per t-shirt in this scenario, perhaps shedding doubt on the common assumption that the costs of unionization immediately put lead firms and suppliers at a competitive disadvantage.

Next we look at what happens when a competing firm adopts a CSR initiative similar to Zara's. In the fourth scenario, Zara is facing competition from Old Navy instead of Basic Editions. Old Navy joined the Alliance and makes its t-shirts in a factory with regular audits. We assume increased costs of 33% relative to baseline costs for both unions and audits. Now we have three firms competing for market dominance: an Accord member supporting unions; an Alliance member emphasizing audits; and a third by company that belongs to neither the Alliance or the Accord (Hanes). In this scenario, Zara's ethically sourced t-shirts generate substantially less profit than in first two scenarios (\$1.90) but still substantially more than the baseline scenario. This result helps to highlight that marketing respect for union rights can be successful under the right circumstances.<sup>12</sup>

Next, we present a series of scenarios in which the CSR strategies of competing firms begin to mirror Zara's even more closely. First, L.L. Bean takes the place of Hanes and Zara now faces competition from two Alliance members that advertise their respect for better labor standards by conducting regular audits. In this scenario, the range of predicted profits for Zara's ethically sourced t-shirts becomes indistinguishable from that of the baseline scenario. Next we present a scenario in which all of the firms selling t-shirts decide to adopt one approach or the other. We could imagine that Old Navy and L.L. Bean also decide to join the Accord and support unions or that Zara becomes tired of dealing with unions and signs onto the Alliance. In both scenarios, Zara's predicted profitability falls

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<sup>12</sup>Some might question whether consumers would support unions following the global rightward, neoliberal shift in politics and economic policy in the 1980s and 1990s. For further discussion, see the ethical labels experiment below.

even lower, illustrating very clearly how the marketability of a given CSR strategy depends to on maintaining some degree of uniqueness.

### 5.3 Labor and Environmental Certifications

For the “Labor and Environmental Certifications” experiment, we start off with a baseline scenario in which three firms are competing to sell a v-neck sweater. We then introduce each of the labor and environmental certifications one at a time to the first firm’s sweater. The average predicted profits for a sweater with the certifications are much higher than those of the sweater in the baseline scenario (\$2.18) and range from \$4.19 with the Blue Sign certification to \$6.22 with the Fair Trade certification.

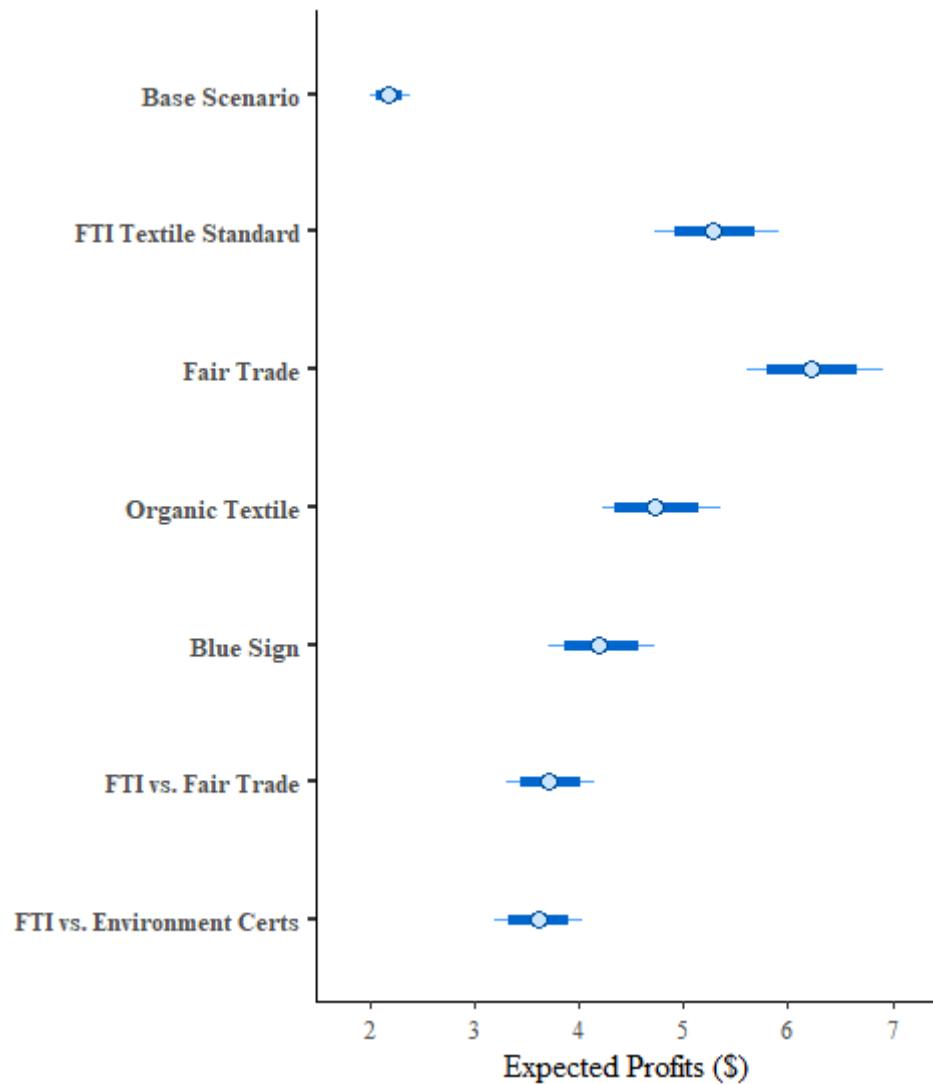
Similar to Auger et. al. (2007) we find that consumers tend to privilege labor over environmental standards. We see that the predicted profits for the sweater with the Fair Trade certification are substantially higher than both of the environmental certifications while the profits of the sweater with FTI Textile Standard are higher than those of the Blue Sign certification. These results are summarized in Figure 6.

We also include a couple of scenarios that take a closer look FTI Textile Standard, which is the certification that most obviously features FACB rights. Specifically, we include a scenarios where one firm has the FTI Textile Standard certification and a competing firm adopts either the Fair Trade certification or the Blue Sign certification. In both scenarios, the predicted profits of the sweater with the FTI Textile Standard certification fall but remain substantially different from those of the baseline scenario.

### 5.4 Ethical Labels

For this set of simulations, one major point of interest was in seeing how the “Living Wage Product,” “Union Made” and “Women Empowered” labels compared to the “Child Labor Free” label. The findings of previous studies suggest that Child Labor is one of the biggest concerns for ethical consumers (Auger et al. 2003, 2008). Activists have harnessed

Figure 6: Certifications Simulations



this concern to pressure governments to adopt powerful laws inhibiting the use of child and forced labor including the UK Modern Slavery Act, the California Transparency in Supply Chains Act and provisions in the U.S. Trade Facilitation and Trade Enforcement Act.<sup>13</sup> Thus our aim was to use these simulations as a point of comparison for demonstrating the “buycott” power of child labor relative to other kinds of labor standards.

Another point of interest was how consumers might respond to a “Union Made” label. While consumer activism has been successful in limiting the most egregious labor rights violations and forcing a spotlight on workplace safety, it has not been clear whether consumer sentiment could be mobilized in the same capacity to advocate for stronger unionization rights in the developing world. The transnational advocacy networks that became such a potent force for change in the international sphere in the 1980s and 1990s emerged in tandem with a rightward, neoliberal shift and the waning of organized labor’s influence in the domestic politics of many countries during the same period, leaving many observers to wonder how much consumers can support fair labor standards when as voters they consistently elect pro-market, anti-union parties into power. Consequently, brands may shy away from the use of the word “union” in their marketing campaigns for fear that they may alienate conservative consumers.

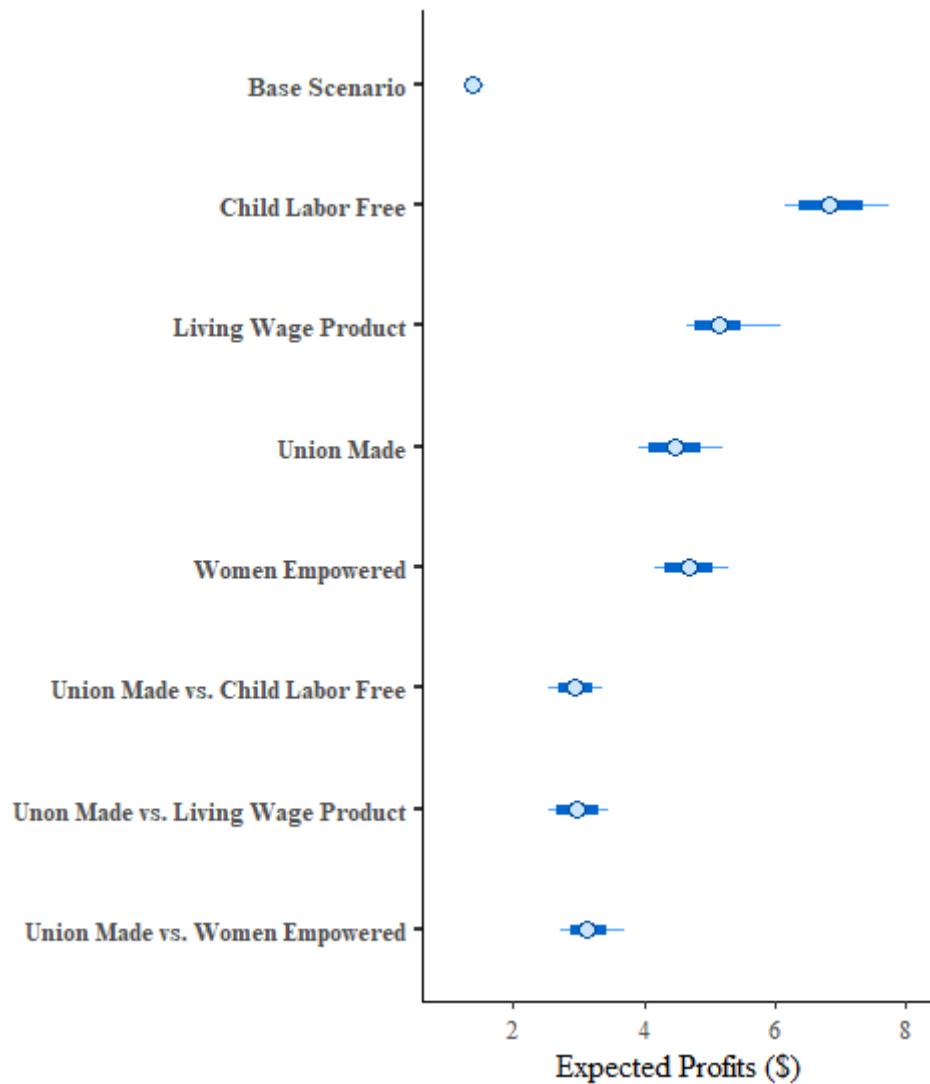
Figure 7 presents the results of our profit simulations for the “Ethical Labels” experiment. In the baseline scenario, three firms are competing to sell a grey sweatshirt made in Bangladesh. From the baseline, we add the ethical labels one at a time to the first firm’s sweater. We see that the “Child Labor Free” label has the anticipated advantage relative to the other three labels that we saw in the WTP estimates. The average predicted profit for the sweatshirt with the “Child Labor Free” label is \$6.83, \$1.70 more than the next most popular label (“Living Wage Product”).

Next, we placed the “Union Made” label in competition with each of the other three

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<sup>13</sup>The UK Modern Slavery Act (2015), established in 2015, requires corporations to disclose efforts taken to monitor and eradicate slavery from their supply chains. The California Transparency in Supply Chains Act (2010) similarly requires firms generating over \$100 million in annual revenue to disclose efforts to eradicate slavery and human trafficking from their direct supply chains (on their website).

Figure 7: Ethical Labels Simulations



labels to see how a label advocating FACB rights would do if competing firms were to adopt a similar marketing strategy but by advertising different labor standards. We see that in these scenarios the average predicted profits of the sweatshirt with the “Union Made” label decline from \$4.46 to around \$3.00 but that the range of predicted values is still much higher than those of the baseline scenario.

## 6 Conclusion

In recent decades, transnational advocacy networks have enjoyed tremendous success in harnessing consumer sentiment to induce major improvements in multinational corporations’ respect for labor standards in low- and middle-income countries (Brookes 2019; Garwood 2005; Seidman 2007). The primary goal of this study has been to understand how consumer sentiment, firm profits and market dynamics contribute to this success. Our findings both confirm and extend on those of prior studies about ethical consumerism. We showed how consumers’ strong negative reaction to union bashing can result in lost profits while consumer demand for ethically-sourced garments can boost them. By adopting a more disaggregated approach for labor rights, we were able to gauge the importance of a wider range of labor rights compared to more commonly considered ones, such as fire and building safety or the eradication of child labor.

While consumer demand can be a powerful motivator for firms, our simulations also suggest that consumer willingness to pay for ethical products does not translate simply and directly into profits. The ability of firms to leverage consumer enthusiasm is conditioned by the competitive price reactions of other firms as well as the ability of competing firms to adopt similar marketing strategies. Product certifications and ethical labels generate the most profits when they are unique. Our results thus provide strong evidence of a “first-mover” effect. The branding effort is more likely to translate into tangible profits when brands are the first to adopt a new label or certification, but profits erode when other brands start

adopting the same marketing strategy.

This finding may help to explain the segmentation that we see in the garment industry, with a handful of firms like REI, Patagonia and Everlane placing ethical sourcing at the center of their branding strategy while others focus on mitigating the effects of negative press and incentivizing compliance with minimal labor standards such as minimum wage laws, work hours and occupational health and safety (Distelhorst and Locke 2018).<sup>14</sup> It may also suggest the limits of any “race-to-the-top” dynamic associated with new private governance initiatives. While there is scope for industry convergence on basic labor standards like factory safety, there is only limited potential for private governance to induce a broader shift towards a broader set of protections.

Beyond these competitive dynamics, there are many familiar structural factors militating an easy self-contained solution to labor rights abuses in the private sector. Price pressures, razor-thin margins, and short lead times have created brutal competition among supplier firms that undermines ILO rights (Anner 2018). The structure of the union movement in low- and middle-income countries is characterized by a high degree of fragmentation that impedes the ability of union leaders to engage in industry-wide collective bargaining (Silver 2003). Historically, the world’s largest garment exporters such as Vietnam, Bangladesh, and China have been characterized by repressive state-labor relations, with pervasive restrictions on union activity.

The ethical consumer is neither a panacea for ills associated with the fast fashion movement nor a “myth” to be casually and cynically dismissed [CITATION]. Private initiatives tend to be powerful mechanisms for change, but often work best when complemented by effective public systems of labor regulation (Amengual and Chirot 2016; Locke 2013). Thus it remains important for brands and other stakeholders to strongly engage with national governments in the quest to improve compliance with core labor standards. The

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<sup>14</sup>Even when more expansive ILO rights included as an item in company audits, they are typically measured in compliance with local laws, a practice that permits suppliers in labor-repressive countries like China to restrict ILO rights and still be nominally compliant per the terms of the audit (see Distelhorst et al. 2015)

“Better Factories Cambodia” program represents a potentially promising model. A partnership between the ILO, IFC and national government of Cambodia, the BFC has been credited with reducing worker overtime and sexual harassment, as well as empowering local Cambodian unions to advocate for worker rights.

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## Supplemental Information

## **Part I: Printed Survey**

[Start](#)

Thank you for agreeing to participate in our survey!

This study is being conducted by researchers from George Washington University. The goal of the research is to better understand how consumers shop for apparel products.

Please note that participation in this survey is voluntary and you may stop at any time. It will not be possible for the researchers to identify you and all answers that you provide will remain completely confidential.

[Next](#)

First, we would like to know a little about your shopping habits.

Back

Next



**ShoppingHabits1**

How often do you shop for clothes?

- :ShoppingHabits1=1:** Only when I need to (once a month or less)
- :ShoppingHabits1=2:** When I feel like it (a few times a month)
- :ShoppingHabits1=3:** All the time (once a week or more)
- :ShoppingHabits1=4:** I never shop for clothes

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**ShoppingHabits2**

In a typical month, how much do you usually spend on clothes?

- Less than \$50**
- \$50 to \$100**
- \$100 to \$150**
- \$150 to \$200**
- More than \$200**

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**ShoppingHabits3**

Where do you typically buy your clothes? Check all that apply.

- ShoppingHabits3\_1 Retail stores
- ShoppingHabits3\_2 Boutique stores
- ShoppingHabits3\_3 Online
- ShoppingHabits3\_4 Outlet malls
- ShoppingHabits3\_5 Consignment or thrift stores
- ShoppingHabits3\_6 Other

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ShoppingHabits4

Which of the following brands do you usually look for when shopping for clothes and shoes? Check all of the brands you shop for.

ShoppingHabits4\_11



ShoppingHabits4\_10

EVERLANE

ShoppingHabits4\_9

ZARA

ShoppingHabits4\_1



ShoppingHabits4\_2

ASOS

ShoppingHabits4\_12

L.L.Bean

ShoppingHabits4\_4



ShoppingHabits4\_3

OLD NAVY

ShoppingHabits4\_7



ShoppingHabits4\_8



ShoppingHabits4\_6



**NONE--I do not  
shop any of these  
brands**

ShoppingHabits4\_5



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Recently, garment workers around the world have been forming unions and demanding a fair living wage.

But the ability of workers to organize and negotiate better wages depends on how apparel companies respond to them.

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Sometimes apparel companies ***respond unfavorably*** to workers' demands.

For example, it was recently reported that an **H&M** supplier brutally **repressed workers** when they tried to form a union in one of their factories.

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Here is the headline and a quote from a recent news article about the abuse workers faced at an H&M supplier's factory when they tried to form a union:

SEARCH **QUARTZ** MORE

**BAD LOOK**

## H&M, Columbia, and others are accused of ignoring disturbing abuses at a large Indian supplier

By [Marc Bain](#) | June 25, 2018



 Do you know who made your clothes? (AP Photo/Shizuo Kambayashi)

*"One man, Ameen, who publicly signed the union petition, was told by a human-resources manager that his family would be killed. He was later beaten in the factory by roughly a dozen employees, under the guidance of that manager. Employees were instructed to bring his mother, Dilshad, who also worked in the factory, and then the men physically attacked her as well."*

Source: Quartz (qz.com)

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In the next section, we will describe **jeans** that differ in terms of brand, price, and where they were made.

We will then ask you **which pair you would purchase**. It is important that you answer the questions as if you were **actually buying** the garment in question.

If you would not choose any of the jeans we show you, please indicate that by choosing "None." By choosing none, you are saying that you would prefer a different brand or style or would continue using the jeans that you already own.

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[JeansConjoint\_Random1]

If you were shopping for **jeans**, and these were your only options, which one would you choose? Remember, it is important that you answer the questions as if you were **actually buying** a pair of jeans.

(1 of 3)

	Pair 1	Pair 2	Pair 3
<b>Brand:</b>	<b>SONOMA</b> GOODS FOR LIFE <b>KOHL'S</b>	<b>EVERLANE</b>	<b>SONOMA</b> GOODS FOR LIFE <b>KOHL'S</b>
<b>Made in:</b>	Turkey	Turkey	India
<b>Price:</b>	\$16.99	\$88.00	\$20.99
<b>Style:</b>	Relaxed fit 	Loose fit 	Skinny fit 
	[JeansConjoint_Random1]	[JeansConjoint_Random1]	[JeansConjoint_Random1]
	Select	Select	Select

**None**

**NONE: I wouldn't choose any of these.**

[JeansConjoint\_Random1]  
Select

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[JeansConjoint\_Random2]

If you were shopping for **jeans**, and these were your only options, which one would you choose? Remember, it is important that you answer the questions as if you were **actually buying** a pair of jeans.

(2 of 3)

	Pair 1	Pair 2	Pair 3
<b>Brand:</b>	EVERLANE		<b>SONOMA</b> GOODS FOR LIFE <b>KOHL'S</b>
<b>Made in:</b>	Turkey	Italy	India
<b>Price:</b>	\$68.00	\$34.99	\$33.99
<b>Style:</b>	Relaxed fit	Slim fit	Loose fit
			
	[JeansConjoint_Random2]	[JeansConjoint_Random2]	[JeansConjoint_Random2]
	Select	Select	Select

**None**

**NONE: I wouldn't choose any of these.**

[JeansConjoint\_Random2]

Select

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0% [JeansConjoint\_Random2] 100%

[JeansConjoint\_Random3]

If you were shopping for **jeans**, and these were your only options, which one would you choose? Remember, it is important that you answer the questions as if you were **actually buying** a pair of jeans.

(3 of 3)

	Pair 1	Pair 2	Pair 3
<b>Brand:</b>	<b>SONOMA</b> GOODS FOR LIFE <b>KOHL'S</b>	<b>Levi's</b>	<b>H&amp;M</b>
<b>Made in:</b>	Turkey	Turkey	India
<b>Price:</b>	\$16.99	\$42.00	\$39.99
<b>Style:</b>	Regular fit 	Loose fit 	Skinny fit 
	[JeansConjoint_Random3]	[JeansConjoint_Random3]	[JeansConjoint_Random3]
	Select	Select	Select

**None**

**NONE: I wouldn't choose any of these.**

[JeansConjoint\_Random3]

Select

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JeansAttention

What color is a typical pair of blue jeans?

JeansAttention=3  Blue

JeansAttention=2  Orange

JeansAttention=1  Red

JeansAttention=4  None of the above

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Photo by rijans - Flickr: Dhaka Savar Building Collapse, CC BY-SA 2.0, <https://commons.wikimedia.org/w/index.php?curid=26051590>

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In 2013, the Rana Plaza factory collapsed in Bangladesh, killing 1,134 workers and injuring many others.

This factory had produced garments for a number of major apparel brands that sell their clothing in the United States.

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Since Rana Plaza, people have debated the best way to make garment factories safer for workers.

Some think that factories should report the results of ***regular safety audits*** carried out by independent agencies like Better Work Initiative or Social Accountability 8000.

Others think that the best way is to have ***labor unions*** pressure factories to comply with local fire and safety codes.

Still others advocate letting factories ***comply on their own***.

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In the next section, we will describe **t-shirts** that differ in terms of brand, price, and where they were made.

We will then ask you **which t-shirt you would purchase**. It is important that you answer the questions as if you were **actually buying** the garment in question.

If you would not choose any of the t-shirts we show you, please indicate that by choosing "None." By choosing none, you are saying that you would prefer a different brand or color or would continue using the t-shirts that you already own.

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TeeShirtConjoint\_Random1

If you were shopping for a **t-shirt**, and these were your only options, which one would you choose? Remember, it is important that you answer the questions as if you were **actually buying** a t-shirt.

(1 of 3)

	T-shirt 1	T-shirt 2	T-shirt 3
<b>Color</b>			
<b>Brand:</b>	<b>OLD NAVY</b>		<b>ZARA</b>
<b>Price:</b>	\$8.47	\$4.25	\$11.90
<b>Safety audits:</b>	Factory conducts regular safety audits	Info on safety audits not publicly available	Factory conducts regular safety audits
<b>Unions:</b>	Made in a unionized factory	Workers do not have a union	Workers do not have a union

**None**

**NONE: I wouldn't choose any of these.**

0% 100%

TeeShirtConjoint\_Random2

If you were shopping for a **t-shirt**, and these were your only options, which one would you choose? Remember, it is important that you answer the questions as if you were **actually buying** a t-shirt.

(2 of 3)

	T-shirt 1	T-shirt 2	T-shirt 3
<b>Color</b>			
<b>Brand:</b>		<b>L.L.Bean</b>	
<b>Price:</b>	\$5.75	\$15.99	\$11.49
<b>Safety audits:</b>	Info on safety audits not publicly available	Info on safety audits not publicly available	Factory conducts regular safety audits
<b>Unions:</b>	Made in a unionized factory	Workers do not have a union	Workers do not have a union

**None**

**NONE: I wouldn't choose any of these.**

0%  100%

TeeShirtConjoint\_Random3

If you were shopping for a **t-shirt**, and these were your only options, which one would you choose? Remember, it is important that you answer the questions as if you were **actually buying** a t-shirt.

(3 of 3)

	T-shirt 1	T-shirt 2	T-shirt 3
<b>Color</b>			
<b>Brand:</b>			
<b>Price:</b>	\$5.00	\$5.75	\$4.98
<b>Safety audits:</b>	Info on safety audits not publicly available	Info on safety audits not publicly available	Factory conducts regular safety audits
<b>Unions:</b>	Workers do not have a union	Workers do not have a union	Made in a unionized factory
	Select	Select	Select
	<b>None</b>		
	NONE: I wouldn't choose any of these.		
	Select		

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TeeShirtAttention

Which of the following recent events prompted greater focus on safety in the garment industry?

- :TeeShirtAttention=2  An earthquake in Honduras
- :TeeShirtAttention=1  A factory collapse in Bangladesh
- :TeeShirtAttention=3  A factory fire in the U.S.
- :TeeShirtAttention=4  None of the above

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Sometimes apparel companies want to highlight working conditions in their factories in order to show that workers who make their products are not exploited.

To do this, companies may feature their commitment to different ***labor standards*** by affixing labels to their products.

These are sometimes referred to as ***ethical labels***.

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SweatshirtIntro2

Below are some labels that companies might use to demonstrate their commitment to labor standards. Please read the description of each label and check the adjoining box if you have heard of it before:

**"Women Empowered"**--made in a workplace that fosters a sense of pride among its female workers and is free of gender discrimination and sexual harassment

**"Child Labor Free"**--product was made without child labor

**"Living Wage Product"**--workers were paid a fair living wage that covers their basic expenses

**"Union Made"**--made in a unionized factory

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In the next section, we will describe **sweatshirts** that differ in terms of brand, price, and where they were made.

We will then ask you **which sweatshirt you would purchase**. It is important that you answer the questions as if you were **actually buying** the garment in question.

If you would not choose any of the sweatshirts we show you, please indicate that by choosing "None." By choosing none, you are saying that you would prefer a different brand or color or would continue using the sweatshirts that you already own.

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SweatshirtConjoint\_Random1

If you were shopping for a **sweatshirt**, and these were your only options, which one would you choose? Remember, it is important that you answer the questions as if you were **actually buying** a sweatshirt.

(1 of 3)

	Pair 1	Pair 2	Pair 3
<b>Price:</b>	\$46	\$40	\$46
<b>Made in:</b>	Sri Lanka	Sri Lanka	Honduras
<b>Ethical label:</b>	 Child Labor Free	-None-	
<b>Color:</b>			
	Select	Select	Select

None

**NONE: I wouldn't choose any of these.**

SweatshirtConjoint\_Random1

Select

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SweatshirtConjoint\_Random2

If you were shopping for a **sweatshirt**, and these were your only options, which one would you choose? Remember, it is important that you answer the questions as if you were **actually buying** a sweatshirt.

(2 of 3)

	Pair 1	Pair 2	Pair 3
<b>Price:</b>	\$40	\$52	\$46
<b>Made in:</b>	Sri Lanka	Thailand	Honduras
<b>Ethical label:</b>			-None-
<b>Color:</b>			
	Select	Select	Select

SweatshirtConjoint\_Random2

SweatshirtConjoint\_Random2

SweatshirtConjoint\_Random2

**None**

**NONE: I wouldn't choose any of these.**

SweatshirtConjoint\_Random2

Select

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SweatshirtConjoint\_Random3

If you were shopping for a **sweatshirt**, and these were your only options, which one would you choose? Remember, it is important that you answer the questions as if you were **actually buying** a sweatshirt.

(3 of 3)

	Pair 1	Pair 2	Pair 3
<b>Price:</b>	\$46	\$28	\$52
<b>Made in:</b>	Sri Lanka	Sri Lanka	Honduras
<b>Ethical label:</b>	 Child Labor Free	 Child Labor Free	-None-
<b>Color:</b>			
	Select	Select	Select

None

**NONE: I wouldn't choose any of these.**

SweatshirtConjoint\_Random3

Select

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100%

SweatshirtAttention

Which of the following labels suggests that a sweatshirt was made in a unionized factory?

**SweatshirtAttention=2** Female Empowered

**SweatshirtAttention=1** Union Made

**SweatshirtAttention=3** Quality Product

**SweatshirtAttention=4** None of the Above

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SweaterIntro1

Sometimes apparel companies affix labels to their clothing advertising certain environmental and labor certifications.

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SweaterIntro2

Here are some examples of environmental and labor certifications.

Please read the short description of each certification and check the adjoining box if you have heard of it before:

SweaterIntro2\_2



Sets standards for **environmentally safe** textile production.

SweaterIntro2\_1



Ensures that a garment contains a minimum of **70% organic fibres**.

SweaterIntro2\_4



Verifies that companies pay workers a **living wage** and donate to **community projects**.

SweaterIntro2\_3



Ensures respect for **unions** and **collective bargaining**.

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In the next section, we will describe **sweaters** that differ in terms of brand, price, and where they were made.

We will then ask you **which sweater you would purchase**. It is important that you answer the questions as if you were **actually buying** the garment in question.

If you would not choose any of the sweaters we show you, please indicate that by choosing "None." By choosing none, you are saying that you would prefer a different brand or style or would continue using the sweaters that you already own.

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SweaterConjoint\_Random1:

If you were shopping for a **sweater**, and these were your only options, which one would you choose? Remember, it is important that you answer the questions as if you were **actually buying** a sweater.

(1 of 3)

**Style:**



V Neck



Mock Neck



Mock Neck

**Price:**

**\$57.49**

**\$49.99**

**\$57.49**

**Environmental certification:**



**Labor certification:**



Select

Select

Select

**None**

**NONE: I wouldn't choose any of these.**

Select

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0% 100%

SweaterConjoint\_Random2

If you were shopping for a **sweater**, and these were your only options, which one would you choose? Remember, it is important that you answer the questions as if you were **actually buying** a sweater.

(2 of 3)

**Style:**



V Neck



V Neck



V Neck

**Price:**

**\$49.99**

**\$64.99**

**\$57.49**

**Environmental certification:**



**-None-**



**Labor certification:**



Select

Select

Select

**None**

**NONE: I wouldn't choose any of these.**

SweaterConjoint\_Random2

Select

0%

100%

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[SweaterConjoint\_Random3]

If you were shopping for a **sweater**, and these were your only options, which one would you choose? Remember, it is important that you answer the questions as if you were **actually buying** a sweater.

(3 of 3)

**Style:**



Crew Neck



V Neck



Cardigan

**Price:**

**\$57.49**

**\$34.99**

**\$64.99**

**Environmental certification:**



**Labor certification:**



**-None-**

[SweaterConjoint\_Random3]

[SweaterConjoint\_Random3]

[SweaterConjoint\_Random3]

Select

Select

Select

**None**

**NONE: I wouldn't choose any of these.**

[SweaterConjoint\_Random3]

Select

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100%

SweaterAttention

Which of these would you say is an example of a labor certification?

- SweaterAttention=3 ISO 9001 Quality Management Standard
- SweaterAttention=2 Fair Trade Textile Production Standard
- SweaterAttention=1 Global Organic Textile Standard
- SweaterAttention=4 None of the above

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UnionAffiliation1

Are you a member of a labor union?

UnionAffiliation1=1 Yes, I am currently a member of a labor union

UnionAffiliation1=2 I formerly was a member of a labor union

UnionAffiliation1=3 I am not now, nor have I been, a member of a labor union

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UnionAffiliation2

Other than yourself, is any member of your household a union member?

UnionAffiliation2=1

Yes, a member of my household is currently a union member

UnionAffiliation2=2

A member of my household was formerly a member of a labor union, but is not now

UnionAffiliation2=3

No, no one in my household has ever been a member of a labor union

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Complete

**Note:**

When respondents take the survey in regular mode this page will not be displayed. Respondents will be redirected to the link below:

[https://notch.insights.supply/cb?token=e85b39c8-c0f8-42a5-935f-ae9b29bb65bc&RID=\[Script\]](https://notch.insights.supply/cb?token=e85b39c8-c0f8-42a5-935f-ae9b29bb65bc&RID=[Script])

Powered by Sawtooth Software

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## **Part II: Posterior Distributions of Respondent-Level Betas**

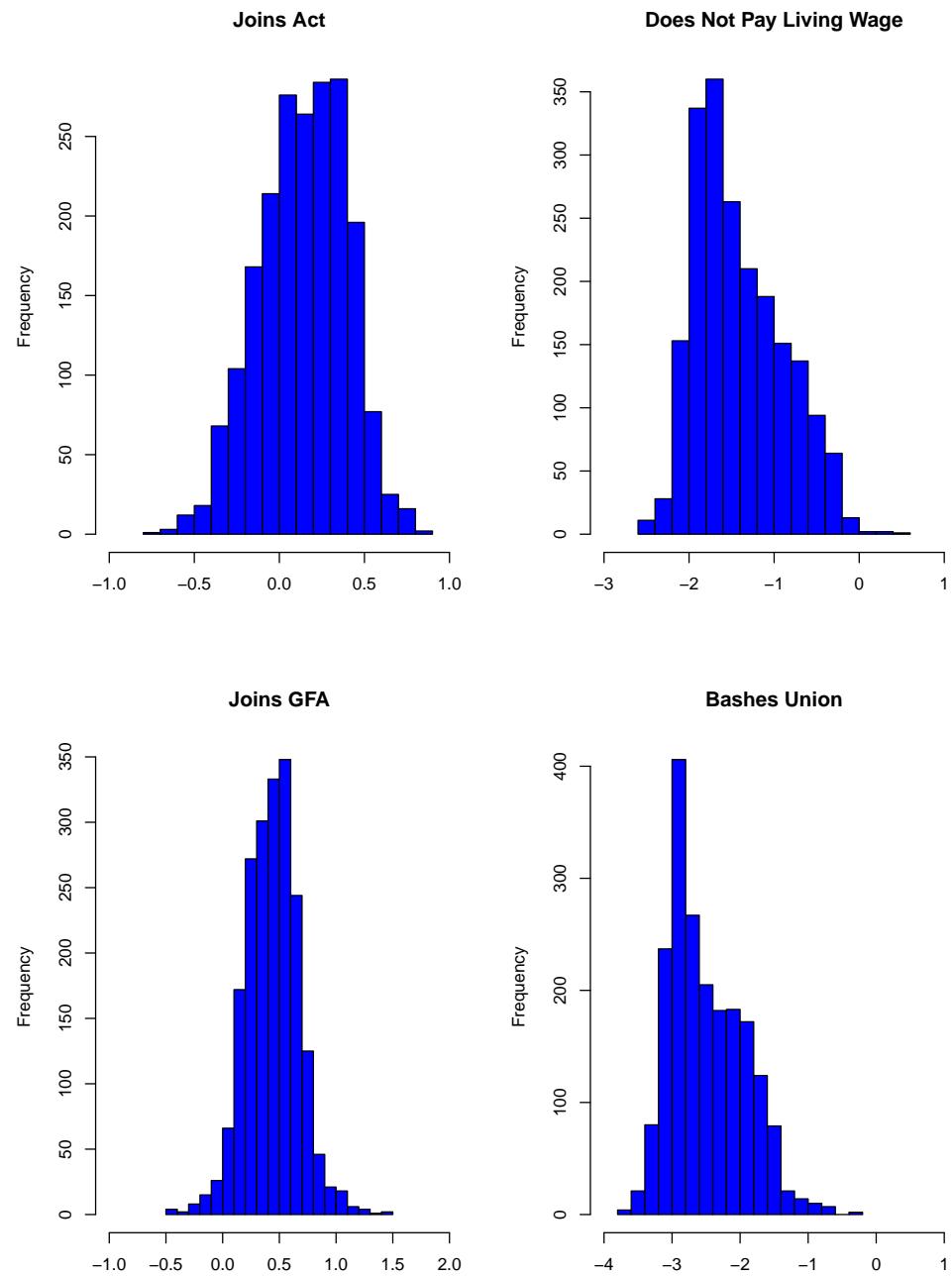


Figure 1: Good News/Bad News Experiment

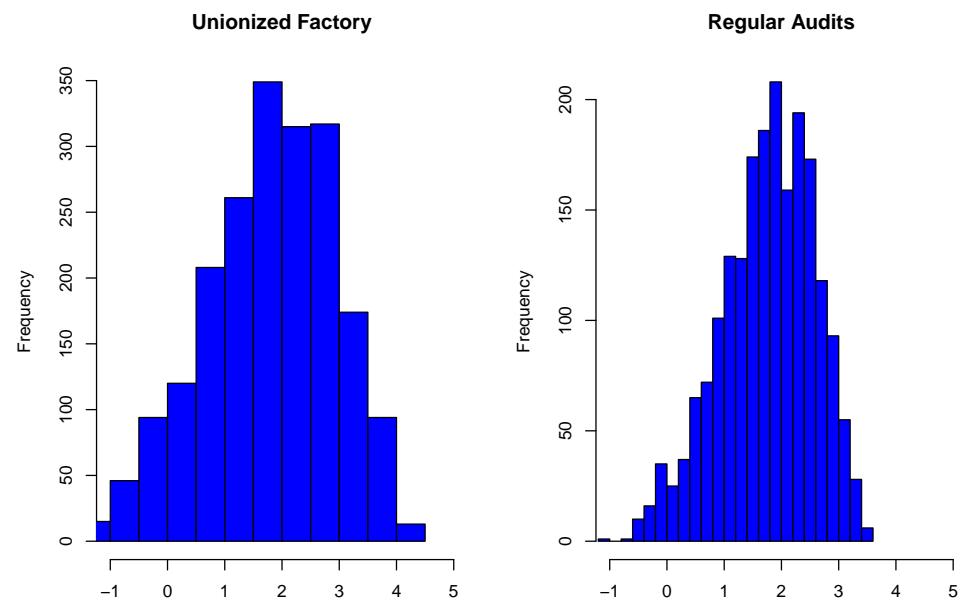


Figure 2: Safety Audits vs. Unions

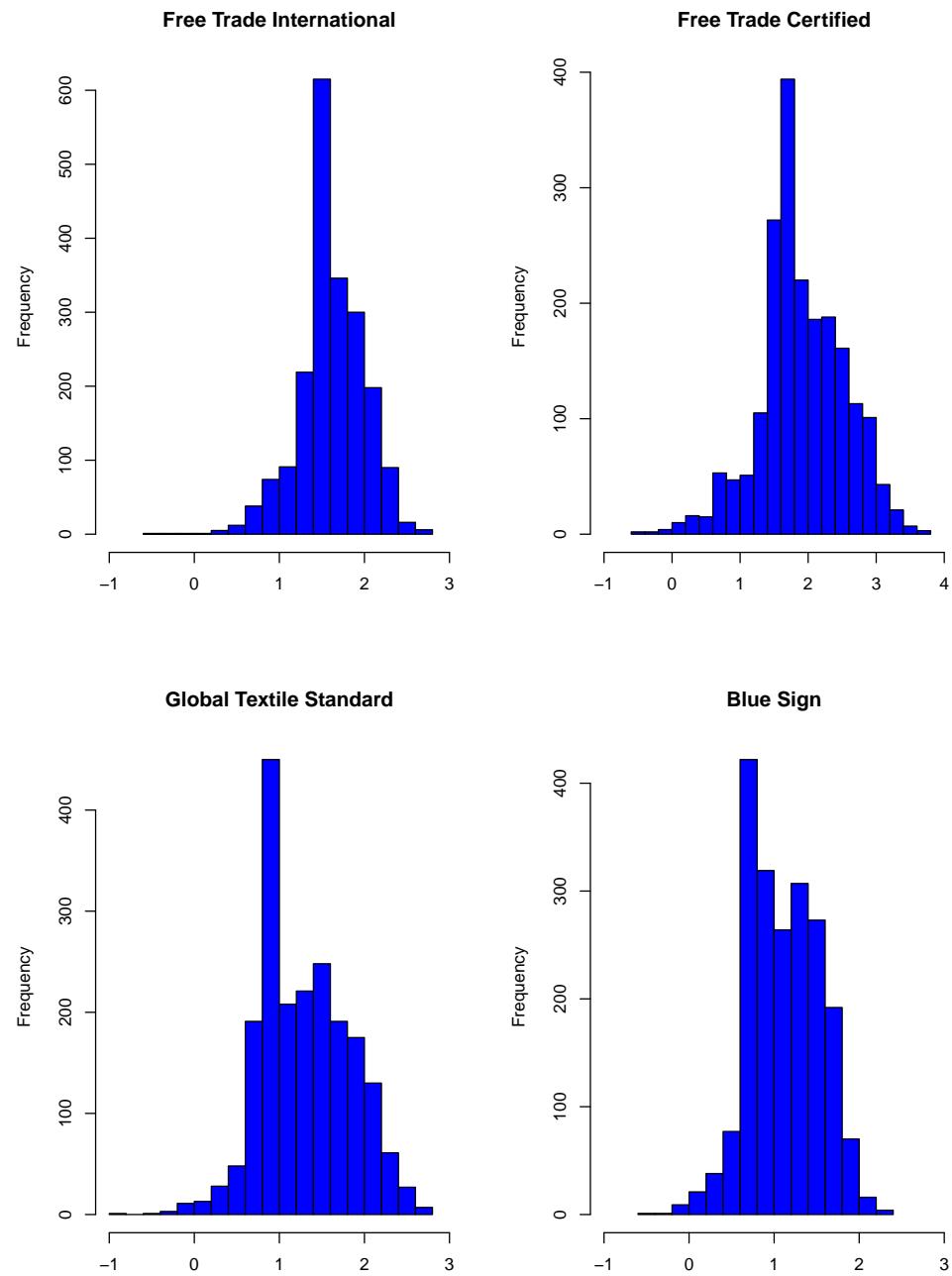


Figure 3: Labor and Environmental Certifications

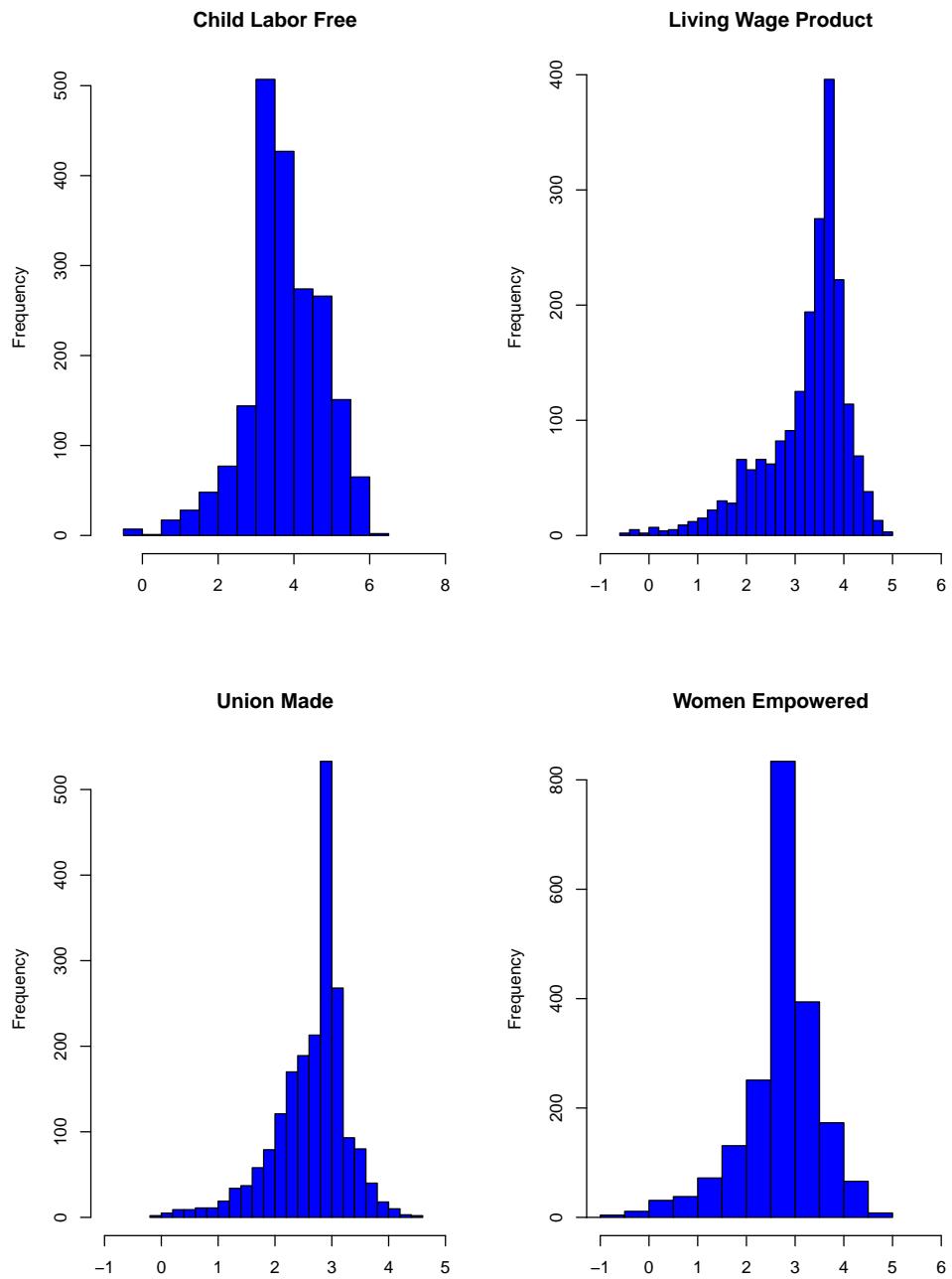


Figure 4: Ethical Labels

## **Part III: True Willingness to Pay Calculations**

## Calculating “True Willingness to Pay” Measure

The standard WTP measure in the conjoint literature emerges from difficulties associated with interpreting the  $\beta$  coefficients from the standard logit model. Because they have an arbitrary base and scaling, the  $\beta$ s cannot be directly compared. This has led to attempts to convert  $\beta$ s into market share or dollar equivalents so that they can be directly compared to one another. The standard WTP measure is thus the coefficient of the product feature on dollar ratio scale.

$$SWTP = \frac{\beta_f}{\beta_p} \quad (1)$$

SWTP is little more than a scaling device and consequently bears very little relation to what consumers might actually be willing to pay for a product feature. SWTP tends to dramatically overestimate consumer willingness to pay.

One alternative to SWTP is to calculate “true” willingness to pay that based on the logic of compensatory variation (Allenby et. al. 2013). Compensatory variation is the amount of income that one would have to pay a respondent to compensate for a diminished choice set. So for example, imagine that a consumer faces a choice of a sweater made by a brand with a Fair Trade and two sweaters without the certification. Now imagine that all of a sudden the certification is removed from the first sweater but not added to either of the other two. Here, the choice has lost some value to the consumer. This is true regardless of whether or not her choice is dominated by other options in the choice set because there is always an element of randomness to consumer choice and because there is value in having an enriched choice set.

The calculation of true WTP involves the change in expected maximum utility of a set of products with and without the added feature.

$$WTP = \ln \left[ \sum_{j=1}^J \exp(\beta' a_j^* - \beta_p p_j) \right] / \beta_p - \ln \left[ \sum_{j=1}^J \exp(\beta' a_j - \beta_p p_j) \right] / \beta_p \quad (2)$$

Here  $a^*$  is the attribute with the enhanced feature. While arguably somewhat abstract than SWTP, true WTP provides a much more logical and accurate measure of product feature value from the standpoint of the consumer. Nevertheless, WTP should never be confused with profits. The simple fact that consumer place value on a product feature does not necessarily mean that a firm can profit from its addition because cost and product market competition also have to be taken into account.

## Results

The WTP estimates for the four experiments are displayed in Figure 5. The estimates confirm the findings of previous studies that suggest a high degree of consumer enthusiasm for ethically sourced garments. Except for the positive stories in the Good News/Bad News experiment, the credible range of WTP estimates for all of the treatments was significantly different zero. In terms of the magnitude of the effects, the estimates are quite similar to the findings of the field experiments reviewed in the main body of our paper. They range from 8% of the average price of a garment for the Blue Sign certification to 45% in the case of the Child Labor Free label. Within each experiment, we see a high degree of overlap for many of the treatments but also some important differences that we now turn to discuss.

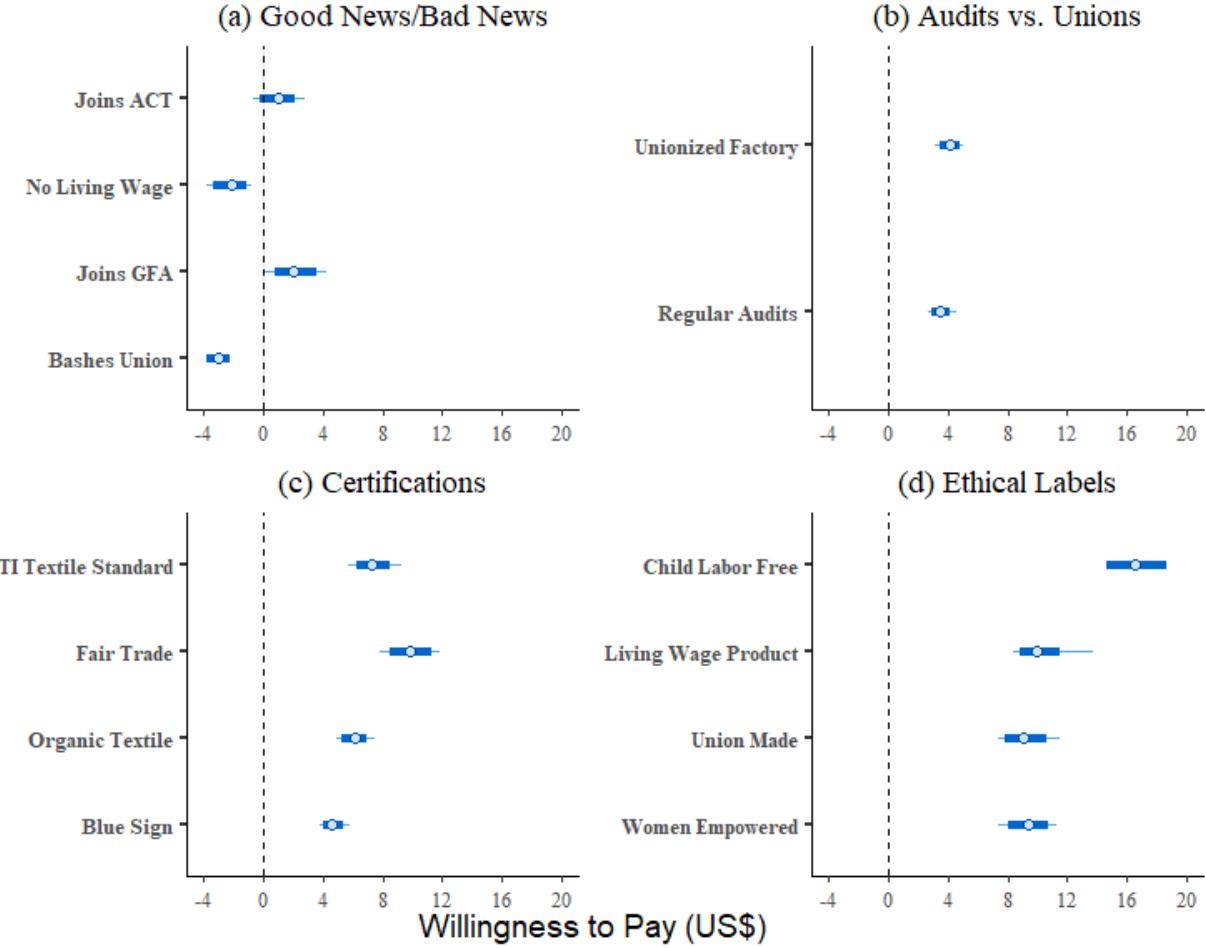


Figure 5: Consumer WTP Estimates

### Good News/Bad News

The results of the “Good News/Bad News” experiment confirm the expectation that negative stories about a company’s practices would have a greater impact on sales than positive information. As reported in Figure 5(a), our models predict that consumer would pay \$2.98 less for a pair of H&M jeans when they read a report about union bashing at a suppliers’ factory and about \$2.12 less when they read a report alleging that H&M failed to honor its commitment to pay workers a living wage.

The positive stories about H&M respect for FACB rights did not have as pronounced an impact on consumer WTP. The mean predicted effect of the story about H&M joining the GFA on living wages (ACT) on WTP is just \$.96 and the 85% credible interval substantially overlaps the zero line. The news about H&M’s agreement on collective bargaining rights with Industriall and IF Metall is predicted to induce a larger impact on WTP (about \$2.02). It is interesting to think about why consumers would be slightly more enthusiastic about a GFA focused on collective bargaining rights than one focused on the living wage. At the same time, this difference in levels of enthusiasm is not supported by the results of the “Ethical Labels” experiment where the two labor standards are compared in a more straightforward and obvious way.

### Safety Audits vs. Unions

Consumer activism has been very important in pressuring brands into improving labor standards in their supply chains but the potential role for a broader set of FACB rights relative to safety issues is not always clear.

The findings of our “Safety Audits vs. Unions” experiment help to shed light on this issue. The findings presented in Figure 4(b) suggest that safety audits and unionized factories appeal equally to consumers. The predicted WTP for t-shirts produced in a factory with regular safety audits is \$3.5 and \$4.11 for garments produced in unionized factories. Especially when considered in light of the other findings in this study, the concern about a lingering neoliberal anti-union sentiment among consumers would appear to be unfounded.

### **Labor and Environmental Certifications**

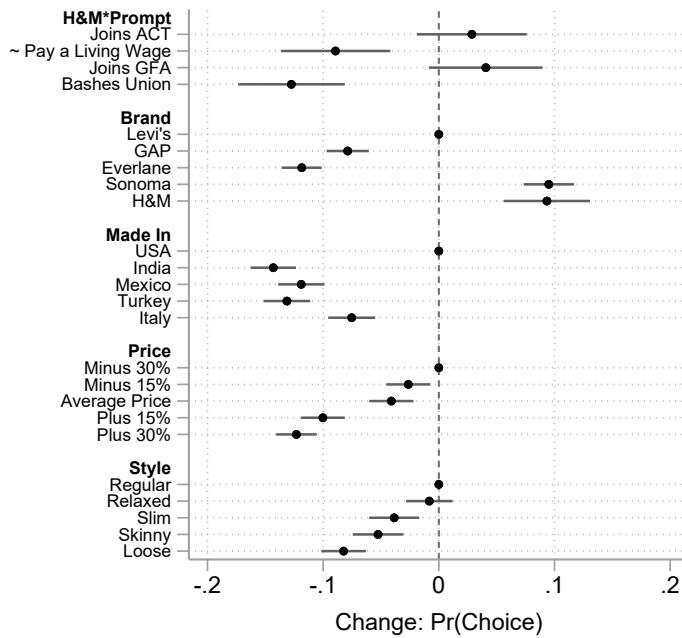
The WTP estimates for the “Labor and Environmental Certifications” experiment suggest that consumer demand for product certifications is high but not entirely uniform. Similar to Auger et. al. (2007), we find that consumers tend to privilege labor over environmental standards. Looking at Figure 4(c), we see that the predicted WTP for the two labor certifications was somewhat higher than the two environmental certifications. The mean predicted WTP for the Fair Trade certification is \$9.87 and the range of estimates in the 95% credible interval is substantially higher than those of the two environmental certifications. The mean predicted WTP for the FTI Textile Standard is \$7.32. Its range of predicted values overlaps with those of the Organic Textile certification but is higher than those of the Blue Sign certification. The average predicted WTP for the Organic Textile certification is \$6.12 and for the Blue Sign certification it was \$4.62.

### **Ethical Labels**

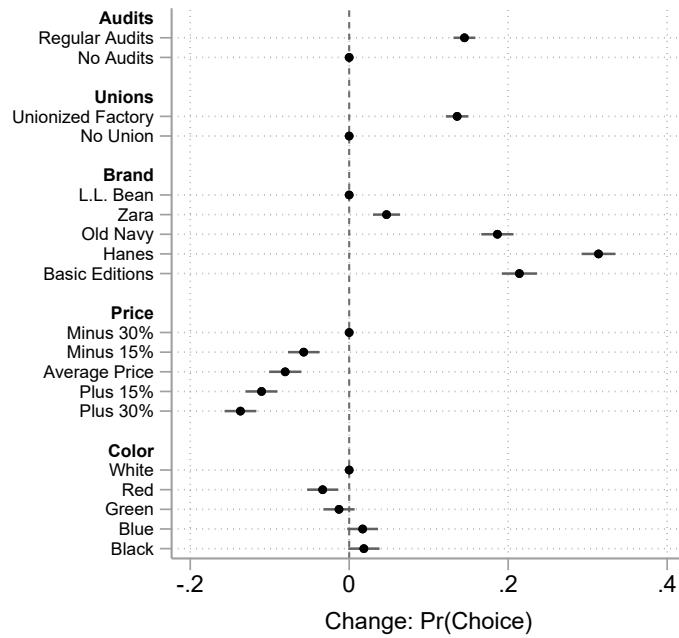
We now turn to the comparison of different kinds of labor standards in our “Ethical Labels” experiment. As we see in Figure 4(d), the predicted consumer WTP for a garment with the “Child Labor Free” label of \$16.5 is significantly higher than for the other three labels. This finding again echos findings by Auger et. al. (2003, 2008), who found child labor had a much stronger effect on respondent choice than other labor standards. We find that the WTP for the other three ethical labels is substantial (in the \$9 to \$10 range) but that consumers do not appear to distinguish very much between them. Based on these data, it would as though consumers view living wages, unions and women’s empowerment as being equally worthy of their support.

## Part IV: Average Marginal Component Effects (OLS Regressions)

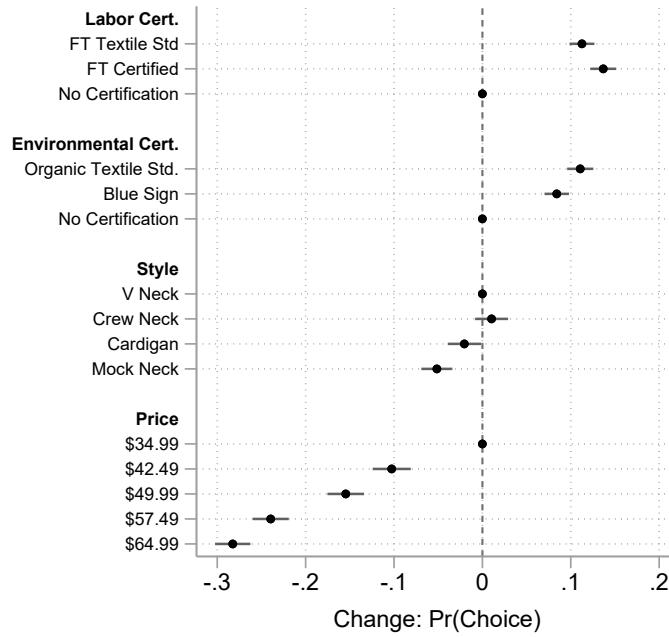
**Figure 6: Good News/Bad News Experiment**



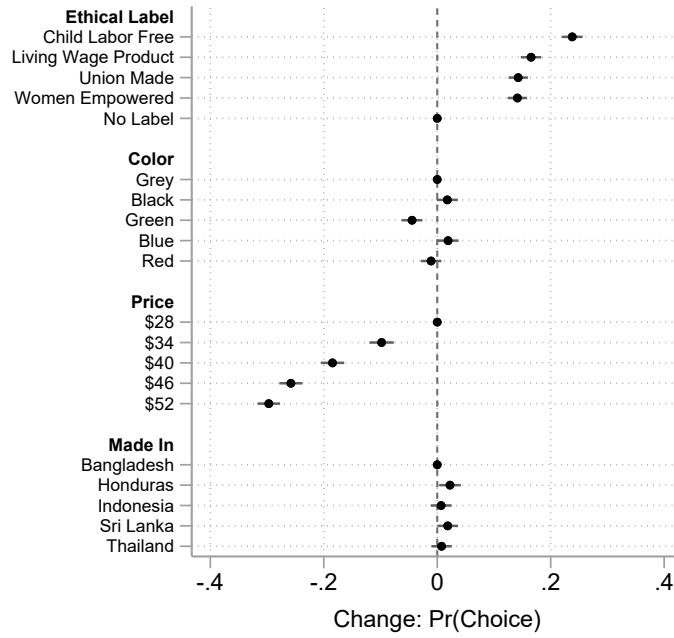
**Figure 7: Audits vs. Unions Experiment**



**Figure 8: Certifications Experiment**



**Figure 9: Ethical Labels Experiment**



## **Part V: Standard Willingness to Pay (SWTP)**