

Is There Consumer Demand for Improved Labor Standards?

Evidence from Field Experiments in Social Labeling

Michael J. Hiscox and Nicholas F. B. Smyth
Department of Government
Harvard University

Abstract

A majority of surveyed consumers say they would be willing to pay extra for products made under good working conditions abroad rather than in sweatshops. But as yet there is no clear evidence that enough consumers would actually behave in this fashion, and pay a high enough premium, to make “social labeling” profitable for firms. Without clear evidence along these lines, firms and other actors (including independent groups that monitor and certify standards) may be unwilling to take a risk and invest in labeling. We provide new evidence on consumer behavior from experiments conducted in a major retail store in New York City. Sales rose dramatically for items labeled as being made under good labor standards, and demand for these products was very inelastic for price increases of up to 20% above baseline (unlabeled) levels. The estimated elasticity of demand for labeled towels, for example, was -1.5 for a 20% price increase. Given the observed demand for labor standards, it appears that many retailers could raise their profits by switching to labeled goods. If adopted by a large number of firms, this type of labeling strategy has the potential to markedly improve working conditions in developing nations without slowing trade, investment, and growth.

I. Introduction

Many critics of globalization argue that competition among developing countries to establish export sectors and attract new investments from multinational firms may be producing a “race to the bottom” in labor standards (see Rodrik 1996; Klein 2000). Prominent human rights groups have become actively engaged in recent debates over regional and multilateral trade agreements in the United States and in Europe, and many have been vocal critics of the World Trade Organization (see Destler and Balint 1999). Along with labor unions, such activist groups – often referred to broadly as non-governmental organizations (NGOs) – have lobbied for the inclusion of minimum labor standards in trade agreements, and for trade embargoes on countries with especially poor human rights records. Labor unions and NGOs have also organized publicity campaigns and consumer boycotts aimed at prominent firms accused of sourcing from “sweatshop” factories in developing nations.

These types of demands and campaigns warrant scrutiny and concern for several reasons. Imposing trade sanctions on countries for failing to meet labor standards could have a negative impact on economic growth in the very poorest developing countries where governments are most likely to resist making major political concessions. Governments in many of the largest developing countries have adamantly rejected the notion of introducing standards into WTO negotiations, so further demands along these lines also run the risk of derailing multilateral trade talks and excluding developing countries from negotiated concessions. Even if higher standards *are* adopted by poorer nations, this could also have adverse effects on economic growth rates since, as higher standards make production in developing nations more costly, firms are likely to invest less in production in those locations. Activist campaigns aimed at shaming companies into raising standards in factories abroad could produce the same unfortunate result – to the extent that companies *are* forced to improve standards in the face of such negative publicity, they are also likely to invest less in production abroad. On top of all this there is the worry that the labor

standards cause may be hijacked by protectionist interests who stand to benefit from restrictions in imports *regardless* of whether they have any positive (or negative) effects on working conditions in developing nations. These demands may be the thin edge of a protectionist wedge.

We investigate an alternative, market-based approach to improving labor standards in developing countries via the labeling of products. This is an approach that has received some attention recently from economists (see Freeman 1994; Rodrik 1996, 59-62; Elliott and Freeman 2003). The idea is that, if corporations could raise labor standards in their subsidiaries and affiliates operating in developing countries, and label their products so that consumers know that they have been made under good working conditions, many consumers would be willing to pay higher prices for such items. If these higher prices compensate the firms for the higher labor costs associated with raising standards, everyone could win – it could be possible to improve working conditions without adversely affecting investment and growth in developing countries.

A majority of surveyed consumers *say* they would be willing to pay extra for products they could identify as being made under good working conditions abroad rather than in sweatshops. But as yet there is no clear evidence that enough consumers would actually *behave* in this fashion, and pay a high enough premium, to make social labeling profitable for firms and effective as a means by which to raise labor standards abroad. Without clear evidence along these lines, firms and other actors (including NGOs) may be unwilling to make cooperative investments in social labeling.

We provide new evidence on consumer behavior from experiments in social labeling in a major retail store New York City. As we report below, sales of products rose dramatically when they were labeled as being made under good labor standards, and demand for these products was quite inelastic for price increases of up to 20% above baseline levels. Given the apparent strength of this demand for labor standards among consumers, we suggest that social labeling of

manufactured imports has considerable potential to improve working conditions in developing nations without slowing trade, investment, and growth.

II. International Trade and Labor Standards

Trade and foreign investment have been linked increasingly to questions about human rights and labor standards in recent political debates about globalization. Labor unions, human rights groups, and other NGOs have raised particular concerns about “sweatshops” in developing nations that produce items for export (typically sewn or woven textile products) in conditions characterized by low wages, long working hours, unsafe and unsanitary working conditions, child labor, and prohibitions against organization among workers. Many people fear that globalization has contributed to the spread of sweatshop production in developing countries competing to establish new export sectors and attract new investments from footloose multinational firms (see Rodrik 1996; Klein 2000). These sentiments have contributed to what appears to be a significant and growing political backlash against globalization in many western nations, mobilizing local activists groups and transnational NGOs and spurring sometimes violent protests and demonstrations wherever trade negotiations are convened.

A. Trade Sanctions and Trade Agreements

Most of the proposals aimed at eliminating sweatshops and improving labor standards have involved ways of punishing bad behavior by developing country governments. Most countries, it should be noted, have already endorsed the core labor standards conventions of the International Labor Organization (ILO): (1) freedom of association and effective recognition of the right to collective bargaining; (2) elimination of all forms of forced or compulsory labor; (3) elimination of child labor; and (4) elimination of discrimination in respect of employment and occupation.¹ But the ILO is largely powerless to enforce these conventions.² NGOs have thus

¹ See ILO 1998. The key ILO conventions and the dates on which they were approved are: on freedom of association, #87 (7/4/1950 and #98 (7/18/1951); on prison labor, #29 (5/1/1932) and #105 (1/17/1959); on

lobbied western governments to take on the enforcement role and impose economic sanctions on countries that flagrantly violate these conventions by allowing the use of child labor, say, or using forced labor in factories. More generally, activist groups have called for the inclusion of labor standards in regional trade agreements and for their incorporation into the multilateral WTO framework (see Rodrik 1996).³ Such standards would be then be enforced by trade sanctions: member countries of the trade agreement that were found to be violating the standards would be denied the preferential tariffs and other concessions which members would ordinarily receive.⁴

An obvious and major concern with this type of approach is that imposing trade sanctions on developing countries for failing to meet labor standards could have a severe, negative impact on economic growth in such nations. Cutting off trade and investment flows to poor countries because their governments refuse to adopt higher standards would only make the situation far worse for workers there. On the whole, economic sanctions do not have an impressive track record when it comes to forcing targeted countries to alter fundamental policies or institutions (see Hufbauer, Schott, and Elliott 1990). Sanctioned governments tend to resist reforms demanded by foreigners, especially in non-democratic regimes where leaders can ill afford a reputation for weakness. Being coerced into setting domestic regulatory standards that suit western nations, and undermine their economies' comparative advantage in labor-intensive production, is not an acceptable outcome for most governments in the developing world.⁵ Indeed,

child labor, #138 (6/19/1976) and #182 (11/19/2000); and on discrimination, #100 (5/23/1953) and #111 (6/15/1960). Not all these conventions have been ratified by all 175 ILO member countries; around 150 countries have ratified each code, but only 86 have ratified all eight.

² In 1999 the ILO voted to penalize a member for the first time (in 80 years), given evidence of widespread use of forced labor in Myanmar. The penalties on Myanmar are weak: a prohibition from attending ILO meetings and a call for members to review their trade ties with Myanmar.

³ The WTO currently includes only a provision covering the use of prison labor – Article XX(e) of the original General Agreement on Tariffs and Trade (GATT).

⁴ The labor side agreement to the NAFTA, which provides for improved enforcement of Mexico's existing labor laws, was a weak form of this approach. The agreement only allows for monetary fines for violations of existing laws regarding child labor, minimum wages, and health and safety codes. No complaints have ever reached this penalty stage. Similar types of labor standards provisions have since been included in the main text of US trade agreements with Jordan (2001), Chile (2003), and Singapore (2003).

⁵ Elliot and Freeman (2003, 75-84), have examined the history of the US Generalized System of Preferences (GSP), which provides for duty-free access to the US market for imports of specified products

governments in the largest developing countries, including India, Indonesia, and China, have already stated their firm opposition to the introduction of labor standards into WTO negotiations. Making demands along these lines thus runs the risk of stalling or derailing multilateral trade talks altogether. And even if in the “best case” scenario, if higher standards *were* to be adopted by poorer nations faced with these kinds of threatened trade sanctions, this too could have very adverse effects on economic growth rates in the developing world. As higher labor standards make production in developing nations more costly, multinational firms are likely to invest less in production in those locations.⁶

A separate concern, felt acutely by political economists who study trade politics, is that the campaign for linking labor standards with trade agreements (and trade sanctions) may be a protectionist wolf in sheep’s clothing. This concern takes on more weight when it is noted that recent “anti-sweatshop” campaigns, organized by human rights groups and student activists, and targeting foreign investment and outsourcing by U.S. apparel manufacturers to nations such as Vietnam and China, have been backed financially and supported enthusiastically by American apparel and textile unions. And in debates about NAFTA and other regional trade agreements, the labor standards issue, advanced by human rights groups, has been taken up most energetically by unions and trade associations in import-sensitive industries (see Destler and Balint 1999, 42-45). The fear is that these “Baptist and bootlegger” coalitions will be hijacked by the protectionist interests that support restrictions on imports *regardless* of whether they have any positive effects on labor standards abroad.⁷

from eligible less developed nations. The GSP program includes efforts to ensure basic workers’ rights as an eligibility condition. The loss or threatened loss of GSP eligibility appears to have improved labor standards in several cases in which complaints about violations of workers’ rights have led to investigations (though not in the majority of such cases). In total, 13 of the 47 countries reviewed due to complaints about workers’ rights have had their GSP eligibility suspended.

⁶ The impact depends upon whether higher labor standards also improve labor productivity, and existing empirical studies of the link between investment and labor standards are inconclusive: see Rodrik 1996; Morici and Shultz 2001; Kucera 2001.

⁷ This type of coalition gets its name from American politics in the era of Prohibition, when the ban on alcohol sales was favored not only by pro-temperance Baptists, on moral grounds, but by the bootleggers

B. Consumer Boycotts, Shareholder Resolutions, and Corporate Codes of Conduct

Besides campaigning to punish bad behavior by *governments* abroad, NGOs and activists have also set out to punish bad behavior by *corporations*, appealing directly to consumers and shareholders and their concerns about working conditions. A number of publicity campaigns and consumer boycotts have been targeted to hurt the sales of high-profile multinational firms linked to sweatshop production abroad. The sweatshop issue really came to the fore in 1996, when the National Labor Committee (a labor-based NGO) reported to news organizations that clothing sold at Wal-Mart, endorsed by television personality Kathie Lee Gifford, was being made using child labor in factories in Honduras. The NLC also successfully pressured Gap to allow independent monitoring of labor standards in its subcontractors' facilities in El Salvador, and union-led campaigns against brand-name apparel companies, such as Phillips-Van Heusen and Guess Jeans, forced similar concessions. The United Students Against Sweatshops (USAS) formed in 1998 and quickly succeeded in forcing the Collegiate Licensing Company (the purchasing agent, at the time, for some 160 universities) to guarantee acceptable standards among all its suppliers, including major sports apparel companies such as Nike and Reebok.⁸

In response to the activist campaigns, many large firms have adopted codes of conduct that specify the standards they require in all their own factories and in the factories of subcontractors from whom they source (see ILO 1998). Prominent firms, such as Levi-Strauss, Wal-Mart, Nike, and GAP, were among the first companies adopting such codes of conduct in the 1990s, hoping to counter the negative publicity they had attracted. The codes are varied in content, but typically endorse several of the core ILO conventions covering child labor and forced labor. Since these codes have usually been adopted under duress (in the face of activist campaigns, negative publicity, and consumer boycotts), and compliance with them would increase production costs, critics rightly question whether corporations have incentives to adhere

who made large fortunes selling alcohol on the black market; see Yandle (1984) for applications to the political economy of environmental regulation.

⁸ See Elliott and Freeman, 2003, p.56-58 and Appendix B for details on these various campaigns.

to these self-imposed standards when they are no longer under intense scrutiny. To the extent that compliance is monitored at all, it is done in most cases by the corporations themselves, or by accounting firms that have existing relationships with the corporations (see O'Rourke 2000; Elliott and Freeman 2003, 66). There are some exceptions. Several firms do hire independent, non-profit organizations that provide monitoring reports and assessments of labor standards in foreign factories.⁹ And a larger number now participate in so-called "multi-stakeholder" groups that bring together firms, unions, and NGOs to oversee monitoring of codes of conduct in some industries.¹⁰

In general, while activist campaigns directed at punishing bad behavior by specific corporations have definitely forced these firms to respond and make public commitments to improve labor standards, the overall effects appear limited. Activist campaigns have been focused exclusively on a small number of brand-name manufacturers and retailers in just a few industries – since firms that rely on brand reputation are most vulnerable to negative publicity.¹¹ And most company codes of conduct, adopted in response to such publicity, are not monitored by independent organizations. Moreover, the same potential for imposing substantial economic costs on developing nations that creates concerns about linking labor standards to trade agreements also attends the NGO campaigns aimed at shaming companies into raising standards in factories abroad – to the extent that companies *are* forced to improve standards in the face of such negative

⁹ On prominent auditing organization is Verité, retained by several large firms with codes of conduct (including Timberland). See <http://www.verite.org/>

¹⁰ Perhaps the most well known of these is the Fair Labor Association (FLA), created with government support in 1998 in the wake of the "Kathy Lee Gifford" controversy: see Elliott and Freeman (2003), pp.59-60. Some major apparel firms, including Nike, Reebok, Phillips-Van Heusen, Liz Claiborne, Adidas, Eddie Bauer, Patagonia, and Polo Ralph Lauren are members of the FLA. Other multi-stakeholder organizations include Social Accountability International (SAI), the Global Reporting Initiative (GRI), and the UK-based Ethical Trading Initiative (ETI). SAI is a US-based organization that accredits and supervises NGOs that certify factories according to its labor standards code (SA8000). As of September 30, 2005, SAI had overseen the certification of 763 factories in 47 countries (see <http://www.sa-intl.org/>).

¹¹ Even in some of the most high profile cases, studies have generally suggested that the effects of boycott campaigns on the financial health of firms are ambiguous or negligible. For instance, while Pruitt and Friedman (1986) have found that announcements of consumer boycotts reduce values of company shares, Koku et al. (1997) have found just the opposite.

publicity, they are also likely to invest less in production abroad. If firms decide to shut down factories altogether in some developing countries, is this a victory for workers there?

III. Social Labeling

A. Labeling as an Approach to Raising Standards

Social labeling might provide a viable, alternative approach to improving labor standards in developing countries (see Freeman 1994; Rodrik 1996, 59-62; Elliott and Freeman 2003, 28-29). Rather than punishing bad behavior, social labeling offers a way to make good behavior more profitable. The basic idea is that, if consumers in western nations really do care about labor standards in developing countries, they should be willing to pay higher prices for products that they know are produced under good working conditions. The available survey evidence indicates that a majority of consumers are willing to pay more for products made under good labor standards. A study by the Marymount University Center for Ethical Concerns (1999), for instance, found that 86% of surveyed individuals in a 1999 US poll said they would be willing to pay \$1 more for a \$20 garment if it was made under good conditions. Another U.S. survey, administered by the Program on International Policy Attitudes (PIPA) at the University of Maryland in 1999, found that 76% of respondents indicated that they were willing to pay \$25 for a \$20 garment that was certified as not being made in a sweatshop (PIPA 2000).¹²

Of course, what people *say* they will do hypothetically when asked in a survey, and what they will actually *do* when it comes to spending their own money, could be two very different things. There is an obvious danger that the survey responses are biased towards socially desirable or morally laudable answers. But even if the survey data do tend to overstate the market for sweatshop-free products, it seems plausible that some set of socially conscious and well-to-do

¹² A 1999 poll by the National Bureau of Economic Research (NBER) found very similar results: roughly 80% of surveyed individuals said they were willing to pay more for an item if assured it was made under good working conditions. For a discussion of the survey evidence see Elliot and Freeman 2003, pp.29-35.

consumers would indeed be willing to pay extra for products with this added ethical quality. At the moment, however, these consumers just have no way of putting their money where their mouths are. Social labeling of products by firms that maintain high labor standards could correct this problem by offering consumers a quick and easy way to identify goods are made under good working conditions.

From this perspective, labeling can be seen as removing an inefficiency that exists due to incomplete information on the part of consumers.¹³ With labels, the demand for different goods (and their equilibrium prices) will reflect the degree to which consumers value the labor standards under which they were produced. Labeling is essentially a form of ethical product differentiation, and a set of consumers is expected to pay more for products that are worth more to them for ethical reasons. If these higher prices compensate the firms for the higher labor costs associated with raised labor standards, it would be possible to improve working conditions without adversely affecting investment and growth in developing countries.

The attractions of this approach are obvious. Everyone involved can benefit. Consumers who choose to pay for the labeled goods get to consume in a way that provides them with more satisfaction given their ethical concerns. Consumers who do not choose to pay the higher prices for the labeled goods (perhaps simply because they cannot afford it) would not be forced to do so. Everyone can benefit. The approach can work for all products, not just the high-profile brands that are susceptible to publicity and consumer boycotts, and it runs no risk of runaway protectionism since, unlike trade sanctions, it requires no government-imposed limits on trade.

B. Potential Problems (and Solutions)

Social labeling is obviously no panacea. Rodrik (1996, 61) has argued that it may be difficult to address the complete range of labor standards issues (including safety in the

¹³ See Bonroy and Constantatos (2003) for a formal treatment in which lack of information about the “moral” quality of goods available to consumers leads to welfare losses, as conscientious consumers cannot identify (and thus adequately reward) high quality producers, and the latter are driven from the market by low quality producers.

workplace, for instance, or collective bargaining rights) using simple, easily understandable labels. One can make the case, however, that all-encompassing labels – such as “sweatshop free” and “good working conditions” – that cover a variety of important dimensions (and all the four basic ILO conventions) would go a long way toward addressing the key concerns that most human rights groups and concerned citizens share.

A deeper objection is that, while labeling provides information so that consumers can ameliorate their ethical concerns about how some products are made, *all* the moral considerations about labor standards are not fully internalized in these market transactions. There are externalities in the consumption of labeled (and non-labeled) goods to the extent that consumers care, not just whether they *themselves* buy goods produced under low labor standards, but whether *others* do and whether low standards exist at all (see Rodrik 1996, 61-62). But labeling would allow concerned consumers to have a direct impact on labor standards in developing nations, even if they would not entirely eliminate low standards. And since alternative approaches are unlikely to completely eliminate low standards either, and run the risk of slowing growth in developing countries too, this does not appear to be a compelling argument against the labeling approach.

Of course, consumers must trust what the labels tell them about the working conditions in the factories in which the products have been manufactured. The firms themselves have incentives to misrepresent working conditions if they can get away with it, keeping labor costs low but charging higher prices (Rodrik 1996, 61). An independent actor may thus be needed to serve as an agent for ethically sensitive consumers and to certify the accuracy of the labels. This role could perhaps be performed by a government agency, in a fashion similar to the way the U.S. Department of Agriculture currently certifies “organic” labels on food products in the United States. But such government agencies may be susceptible to special interest lobbying and capture, especially when applying standards that could discriminate sharply between products of domestic firms and cheaper foreign-made goods. It is also unclear just how a government agency in one

country would be able to monitor and certify labor practices in firms in other countries – this would require international cooperation that may best be managed by an existing international organization like the ILO.

An alternative and much more feasible method would be for firms to make arrangements for their labor standards to be monitored and certified by an independent, non-profit NGO, with a reputation for working to improve human rights and living standards in developing countries. These types of arrangements have already emerged in several cases, as noted above, in which corporations have adopted codes of conduct and have asked NGOs to audit their performance: leading apparel firm Timberland, for instance, has engaged Verité, a non-profit, social audit organization, to monitor suppliers and assess compliance with its code of conduct.¹⁴ And arrangements like this are critical in one area where social labeling is *already* taking place – the market for fair trade coffee. Both Starbucks Coffee and Peet’s Coffee & Tea now sell “Fair Trade Certified” coffee in their stores, alongside their regular offerings. The “Fair Trade Certified” label guarantees that the farmers who produced the coffee received a fair price for their harvest (a minimum above the market price). The label is a trademark owned by TransFair, a non-profit organization that monitors the trade of coffee and manages the certification process for growers’ cooperatives and buyers, licensing the use of its label when its standards are met.¹⁵ Purchases of fair trade coffee have grown rapidly in recent years: Starbucks alone quadrupled its purchases of Fair Trade coffee between 2001 and 2004.¹⁶ Transfair has also recently expanded its certification practice to cover trade in tea, cocoa, sugar, and fruit.¹⁷

¹⁴ Elliott and Freeman (2003, 47-48) point out that this role for NGOs, as intermediaries who provide critical information to consumers, has a precedent in financial markets that rely heavily on ratings agencies such as Moody’s.

¹⁵ Peet’s “Fair Trade Blend” currently sells for \$11.95 per pound online, compared to \$9.95 for its “House Blend” which is very similar in terms of the types of beans used, and \$10.95 for its “Costa Rica” beans (most of the beans for its Fair Trade Blend come from Costa Rican cooperatives). Price differentials are almost identical at Starbucks.

¹⁶ Starbucks bought 635,000 lbs from fair trade coffee cooperatives in fiscal year 2001 and 4.8 million lbs in fiscal year 2004. See http://www.starbucks.com/aboutus/CSR2004_Sec1Intro.pdf. Other national coffee retailers, including Seattle’s Best Coffee and Dunlin’ Donuts, have also begun selling fair trade coffee.

¹⁷ See <http://www.transfairusa.org/>

C. How Much Demand Exists for Improved Labor Standards?

Will these existing labeling schemes prove to be successful (and profitable) over time? Could they be extended to cover a broader range of products, including apparel? Developing these types of labeling and certification systems requires investments by firms and NGOs (like Transfair) that only make sense if there is a demand for labor standards among consumers. But as yet there is no clear evidence that conscientious consumers actually exist in large enough numbers, and would be willing to pay a high enough premium on manufactured goods, to make this type of approach profitable for firms in a variety of sectors and hence effective as a means by which to raise labor standards in developing countries. Without clear evidence along these lines, firms and NGOs may simply be unwilling to make investments in social labeling.¹⁸

We have some suggestive data from surveys, but these are problematic, as we noted above. We really need new data on how consumers will *actually* behave, not how they *say* they will behave. Field experiments that gather direct evidence on consumer behavior are the most promising avenue for research in this area. We are aware of only three experiments conducted along these lines to date. Each of these studies has been limited in important ways, and none yield clear evidence about consumer demand for improved labor standards.¹⁹

Ruth Milkman and John Marshall conducted one of these experiments at the University of California, Santa Barbara in June 2003 (see Milkman 2004). They simply set up a display in the campus bookstore to see whether consumers would favor sweatpants that were labeled as being made without sweatshop labor, using the brand “Sweat X.” (Sweat X is a California-based worker cooperative that produces and markets “sweat-free” clothes under union contract). In the

¹⁸ Note that, if this was only an issue of profitability for firms, we might just assume that firms will do enough research to figure out whether or not this is the case. The absence of widespread labeling could then be taken as evidence that it could not actually be profitable. But non-market actors have a vital role to play here too; this type of labeling approach would require that NGOs be willing to reallocate their resources from other types of activities in order to monitor and certify labeling arrangements. Given that cooperation among different (and historically antagonistic) actors is required, research along these lines by firms themselves is likely to be limited.

¹⁹ This is also the assessment made by Elliott and Freeman (2003, 37-38).

UCSB experiment, sweatpants made by another real brand, “All Star,” provided the control.

Milkman and Marshall found that at the same price (\$24.95), 20 pairs of the All Star brand were sold in the same period as 16 pairs of the Sweat X brand. Since the garments were apparently identical (although the All Star brand is more widely known), and were priced the same, Milkman and Marshall concluded that consumers might not have actually trusted the Sweat X label and the claim that those items were actually made in a fashion that was any different from the All Star sweatpants.

Another slightly different labeling experiment was conducted in the campus bookstore at Occidental University in Los Angeles (see Elliott and Freeman 2003, 38). In the experiment two similar T-shirts (with the same university logo) were put on sale, but only one was placed in a special “sweat free” zone in one corner of the store. Again, the experiment had some serious design flaws: compared to its counterpart, the sweat free T-shirt was made of lower quality cotton and was priced at \$2 less. While sales of the sweat-free T-shirt were double those of the control, this may just have indicated that the lower price overcompensated for the lighter-weight cotton.

The best experiment conducted so far seems to have been the one performed in 2002 by a team of sociologists at the University of Michigan: Howard Kimeldorf, Rachel Meyer, Monica Prasad and Ian Robinson. They placed two groups of plain white athletic socks in a department store in a small (unnamed) city in Michigan, labeling only one group as being made under “Good Working Conditions.” They also placed a sign above the treatment group that explained that good working conditions meant no sweatshops, safe workplaces, and no child labor (see Kimeldorf et al. 2004, 15). The socks in the control group were identical to the labeled socks, and were priced at \$1 per pair. The researchers then varied the price of the labeled socks, raising it from \$1 (in increments of 5 cents) all the way up to \$1.40, and monitored sales. Some 838 pairs of socks were sold during the course of the experiment (several months); of those sales, 254 (30.3%) were purchases of the labeled socks. Excluding the data when the price of both types of socks was the same (when only 43% of people bought labeled socks), the study concluded that 26.5% of

consumers bought the labeled socks even though they were more expensive than the non-labeled but otherwise identical alternative. That is, about a quarter of consumers were willing to pay more for the labeled items. This is a far cry from the 70-80% that say they are willing to pay more for such products in surveys, but it is still a sizeable segment of the market.

The Michigan study was limited in several ways, as the authors themselves readily acknowledge (see Kimeldorf et al. 2004, 17-23). First, due to time constraints negotiated with the department store in which they had placed the items, the researchers cut the price of the socks substantially from what would be a realistic level in order to generate sales. They paid the manufacturer of the socks \$2.33 per pair, but sold them for only \$1-\$1.40 per pair. A retail price of at least \$2.60 would have been more realistic, and it is unclear whether and how this might have affected the results (especially among experienced shoppers). The Michigan team also worried that consumers did not entirely trust their “good working conditions” label. This seemed to be particularly clear when the two groups of socks were priced at the same level – only 43% of consumers bought the labeled socks when it cost them nothing extra to do so. It is unclear how the credibility of the label might have varied over the entire range of price differentials they examined, and whether the label would have been trusted more if the two types of socks were not actually identical in every other way.

IV. The Experimental Design

We set out to extend and improve upon the previous experiments in social labeling. We approached a large variety of firms, concentrating mostly on apparel retailers, hoping to persuade them to participate in a social labeling experiment. Most were extremely nervous about drawing attention to the labor standards issue in their stores.²⁰ We found one large retailer, however, that

²⁰ Firms we approached, and which declined to participate in an experimental study, include: Marshall’s, Wal-Mart, Target, Eastern Mountain Sports, Adidas, Nike, American Eagle, Gap, Urban Outfitters, J. Crew, The Harvard / MIT Coop, Free People, Edun, Patagonia, Abercrombie and Fitch, and Timberland.

was willing to help us conduct the study in their New York City store between June and November 2005.

A. ABC Carpet and Home

ABC Carpet and Home is a large and well-known retailer in Manhattan that earns approximately \$80 million in annual sales and gets around 22,000 customers per week. ABC is actually two firms that share a brand name; the original company sells only carpets and is located at 881 Broadway and on the 6th floor of their building across the street at 888 Broadway. The company we worked with is an offshoot of the original company that sells a wide array of home furnishings and occupies the 1st through 5th floors at 888 Broadway. It was founded in the 1980s by Paulette Cole, granddaughter of the original founders of ABC Carpet.

ABC caters to a well-to-do set of consumers in New York City, selling high-quality, fashionable, and exotic home furnishings at relatively high prices. It has established a reputation for being committed to social causes: selling many items to benefit particular groups in need of assistance in developing nations (e.g., handcrafted items produced in a women's refuge in Afghanistan) and to help with environmental conservation (e.g., furniture made using only reclaimed wood in Indonesia). Customers drawn to ABC are thus likely to be distinguishable from the typical or median American consumer in being able to afford to pay higher prices for their home furnishings and in being more attentive to social issues (including labor standards). By conducting our experiments at ABC we are thus more likely to find consumer demand for labor standards than if we were able to conduct the same tests in a store – say, a Wal-Mart or a Target – attracting shoppers with less money to spend and/or less interest in social causes. We are looking for a market for labor standards where we expect it might be; if we did not find it among ABC customers, we would be very skeptical that such a market would exist elsewhere.

B. Products

To maximize the number of observed buying decisions we wanted to select products which had a high volume of weekly sales, and of which ABC carried comparable items made by

two different brands – one brand that we could use as a “treatment” product, to be labeled, and one that could serve as a “control” (unlabeled) product. Ideally, we wanted these goods to cover a range of product categories so that we could examine consumer behavior with respect to purchases of staple household items, for instance, as well as luxury goods. And, of course, we had to be able to verify that labeled products were actually made under good labor standards: that is, not using forced or child labor, and in safe and healthy workplaces.

ABC gave us permission to conduct the experiment using three different types of products sold in different locations in the store: towels, candles, and handcrafted dolls. We focused on towels and candles. ABC carries a full line of towels made by *Christy*, a British brand, and *Besana*, an Italian brand, and these are displayed side-by-side in one section of the store. Prices range from \$7 for hand towels to around \$60 for bath towels, and price differences between brands on basic items were small (see appendix for a complete list of product prices). Both the *Christy* towels, manufactured in the United Kingdom, and the *Besana* towels, manufactured in Italy, are made under good labor standards.²¹ We applied our labels to the *Christy* towels for the main experiment; we were later able to reverse the treatment for a brief period in the fall, labeling the *Besana* rather than the *Christy* towels.

In another section of the ABC store we worked with comparable lines of candles produced by two American brands, *Santa Fe* and *Way Out Wax*. Again, these competing brands are displayed side-by-side, with prices (very similar across brands) ranging from \$5 for the smallest votive candles to around \$35 for the largest pillar candles. Both the *Santa Fe* candles, manufactured in the United States (New Mexico) and in China, and the *Way Out Wax* candles, also produced in the United States (Vermont), are made under good labor standards.²² We applied

²¹ Both companies signed and sent us formal letters describing the standards enforced in their factories. *Christy* does manufacture some lines of towels in Turkey, Egypt, India, and China, but the “Renaissance” line sold at ABC is actually only manufactured in the UK.

²² Again, the companies sent us formal letters attesting to the standards in their facilities. *Santa Fe* was explicit in assuring us that candles produced in its partner facility in China were made under excellent working conditions.

labels to the *Santa Fe* towels for the main experiment. We had planned to reverse the experimental treatment for a brief period in the fall, as we did in the towels experiment, labeling the *Way Out Wax* candles rather than *Santa Fe*, but in September 2005, before we could do so, ABC struck a deal with *Santa Fe* to market their candles under the ABC brand. Since this brand change presumably altered consumers' perceptions of the product in a substantial way, we ended the candles experiment at that point in time.

These products provided us with an interesting mix. The towels are a staple household item, and most people are not particularly attached to any particular brand, making price an especially important factor for sales. Candles are less of a staple good, and more like a luxury or gift item for most shoppers, but they also tend to be relatively generic and not dominated by well-known brands.²³

C. The Label

With the ABC executives and artistic team, we designed a label for our treatment products that would attest to the good labor standards under which they were manufactured.²⁴ The label featured the logo "Fair and Square" on a rainbow background with a lotus symbol that ABC uses for signs and displays about social and environmental issues and for the ABC Home and Planet Foundation. Underneath this logo heading we included the statement: "These [towels/candles/dolls] have been made under fair labor conditions, in a safe and healthy working environment which is free of discrimination, and where management has committed to respecting the rights and dignity of workers." The specific language for the label we adapted from previous experiments. ABC only requested that we not make any specific reference to sweatshops or child labor in the text, to avoid putting negative ideas or images in the minds of customers. Figure 1

²³ At ABC's urging, we also applied our label to a line of beaded dolls sold under the brand name *Monkey Biz*, made by hand by disadvantaged women in townships in Cape Town, South Africa. There were no other dolls that we could compare directly to the *Monkey Biz* dolls, however, so they were not ideal for the experiment we had in mind. For details and discussion of the labeling of the dolls, see the supplement to this paper: <http://www.people.fas.harvard.edu/~hiscox/SocialLabelingSupplement.pdf>

²⁴ The labels were designed and printed by Diego Fernandez under the supervision of Art Director Amy Elias and Grace Kim, her deputy.

shows the label we applied to *Santa Fe* candles.

[Figure 1]

Initially we had hoped to apply the label to tags attached to each individual item on sale – the approach used in previous labeling experiments and something firms would do as part of a developed social labeling scheme (the “Fair Trade Certified” logos applied to packages of coffee beans by Starbucks are a good example). But since we were dealing with thousands of individual items at ABC, in contrast with the more limited experiments carried out by other researchers, we quickly concluded that the costs associated with manufacturing cloth or plastic tags and attaching them to individual towels, candles, and dolls would be prohibitively high. We settled on applying the label to signs placed in prominent positions around the displays of each of the treatment products.

The two towel brands are displayed on opposite walls of one narrow room on the 3rd floor of the store that opens onto the larger bath and bedding department. In the middle of the room, dividing the two displays, are shelves with various bathroom accessories and limited collections of items made by other brands. The *Christy* and *Besana* towels are sorted by size and color along shelves on each separate wall, in almost identical fashion. We placed four of our labeled signs, spaced evenly apart, along the length of the display holding the *Christy* collection. Figure 2 shows the display with our signs in place.

[Figure 2]

Santa Fe candles are displayed in a center area on the 1st floor of the store, on a cabinet with four levels of shelving. The candles are sorted by size by shelf, and then arranged by color along each shelf. Our labeled sign hung at eye level on the cabinet, just to the left of the third shelf (see Figure 3). For customers standing in front of the *Santa Fe* display, the *Way Out Wax* display is only four feet away on their right. The *Way Out Wax* candles are displayed on a large shelf tower in a manner very similar to the *Santa Fe* display, sorted by size and color.

[Figure 3]

D. Prices and Timing

ABC gave us permission to raise prices of the products by up to 20%. We agreed to insure ABC against financial losses by compensating them for any drop in sales of the products used in the experiment. Specifically, we agreed to make up any difference between actual sales and predicted sales during the experiment, with predictions for each brand based upon an extrapolation of sales trends that allowed for seasonal effects. Making the price changes was a time-consuming and labor-intensive process that involved entering new prices for all items in a particular product line (identified by SKU numbers) into the ABC computer system, printing price tags, and placing these tags on all the items in the store. Given the amount of work involved, we decided to make a limited number of price adjustments to our treatment (labeled) products over the course of the experiment. ABC also preferred that we keep the number of price adjustments to a minimum.

We had 5 months to conduct the experiment (from June until November, 2005), and we divided this into a series of phases or sub-periods, each comprising several weeks and corresponding with a different combination of experimental treatments. The sales tracking software used by ABC (called “Retail Ideas”) collects and summarizes sales figures for all products sold in the store on a weekly basis (Sunday-to-Saturday), and ABC allowed us full access to this weekly data. Each new experimental phase was thus timed to begin on a Sunday morning and end at close-of-business on a Saturday. There were 5 basic experimental phases:

- 1) A baseline phase in which we simply observed and recorded sales of towels, candles, and dolls without altering the way they were displayed or priced;
- 2) We put our label in place for selected brands (*Christy* towels, *Santa Fe* candles) and left prices at baseline levels;
- 3) We kept our label on the selected brands and raised the prices of these labeled products by 10% over baseline levels;
- 4) We kept our label on the selected brands and raised prices of these labeled products by

20% over baseline levels;

5) We removed our label and returned all prices to their baseline levels.

We were also able to implement an additional (6th) experimental phase using the two towel brands in which we applied our label to the brand (*Besana*) that had been used as the unlabeled control in the prior phases of the experiment.

V. Results

A. The Towels Experiment

Table 1 reports the weekly sales figures for *Christy* and *Besana* towels over the 19 weeks of the experiment in the ABC store. We report aggregate sales data for each brand. It is possible that the *composition* of sales of various items of each brand might change as prices are raised for one brand, with more brand-switching occurring on bigger-ticket items, but we can get a sense for this by comparing sales in terms of total dollar revenues and the number of units of each brand that were sold. In the appendix we also report matching results based upon comparisons of sales of specific items (e.g. wash cloths) carried by each brand.

[Table 1]

ABC warned us of the expected seasonal decline in home furnishings sales during the mid-summer months, and this is apparent in the weekly sales figures for both *Christy* and *Besana*, with sales of both brands dropping off from mid-June (phase 1) until mid-September (5). The critical tests for us, of course, have to do with how the experimental treatments altered the ratio of sales of towels of the *Christy* versus *Besana* brands. Labeling the *Christy* towels raised the ratio of weekly sales (in both dollars and units sold) of *Christy* versus *Besana* immediately in phase 2 of the experiment. Moreover, raising prices of the entire *Christy* line by 10% and by 20% (phases 3-4) appears to have accentuated this effect – perhaps because consumers reasoned that towels made under superior labor stands should be priced higher than other towels and thus regarded the label as more credible. The effects of the label and the price increases can be seen even more

clearly when we chart the temporal shifts in the ratio sales of *Christy* versus *Besana* towels (see Figure 4). It does not appear that the price adjustments caused any drastic change in the composition of consumption – buying more bigger ticket items from the lower-priced brand, for instance – as the figures on total dollar sales and units sold move together.

[Figure 4]

When we removed our label from the *Christy* brand (phase 5), the distribution of sales between brands returned to what it had been in the baseline period. And when we labeled the *Besana* towels instead of the *Christy* towels (phase 6), the ratio of sales of *Christy* versus *Besana* actually fell. The effect is not a large one, but we took this as a strong indicator of the power of the label: it was apparent even though prices of the *Besana* towels were unchanged, and even allowing for the fact that some returning ABC customers may have been confused to find the label had been removed from *Christy* and attached to the *Besana* brand instead.

We can use the aggregate sales data to examine the effects of labeling and price increases on *Christy* towel sales in isolation too, providing a somewhat more direct comparison of the choices firms might make. In Table 2 we report the observed effects on sales of *Christy* towels associated with each of our experimental treatments when compared with sales in the baseline period, along with estimates of the price elasticity of demand for labor standards in the production of towels. Here there are no controls for the seasonal drop off in sales of home furnishings over the first phases of the experiment (early summer). Even so, it appears that labeling the towels and raising prices by 10% produced higher absolute dollar sales. The elasticities of demand associated with labeling the *Christy* towels and raising prices by 10% and by 20% are almost identical: -1.50 and -1.51 respectively. These are much lower than the range of elasticities, -3 to -5, estimated by Elliott and Freeman (2003, 35) based upon responses to opinion surveys.²⁵ And again, this is

²⁵ Elliott and Freeman used responses to the question: “What would you pay for an item if assured that it was made under good conditions if the initial price was \$10?” (They also examined responses to a question in which the initial price was set at \$100).

despite the expected seasonal decline in demand for towels beginning at the start of the summer (and our unlabeled baseline period).²⁶

[Table 2]

The bottom line here is that firms like ABC can expect to *increase* dollar sales of towels by shifting to brands made under good labor standards, labeling them as such, and charging at least 10% more for them than for the unlabeled alternative. Charging 20% more for the labeled towels reduces dollar sales by a small margin in our data, but given the seasonal bias here, a price premium this high may well be supported too.

B. The Candles Experiment

The weekly sales figures for *Santa Fe* and *Way Out Wax* candles are shown in Table 3. Again, we focus on aggregate sales data for each of the brands, which produce very similar sets of products (see the appendix provides an analysis of data on specific items sold by both brands).

[Table 3]

There is no apparent seasonal decline in sales of candles at ABC, perhaps because candles are a common gift item and are more popular among the out-of-town tourists who visit the ABC store during the summer months than are other, more basic, home furnishings. Our experimental treatments had clear effects again, however, altering the ratio of sales of candles of the *Santa Fe* versus *Way Out Wax* brands. Placing our label on the *Santa Fe* candles, in phase 2 through phase 4, clearly raised the ratio of weekly sales (in dollars and units sold) of *Santa Fe* versus *Way Out Wax*. And again, raising prices of the labeled brand (*Santa Fe*) by 10% and by 20% (phases 3-4) accentuated this effect, indicating that consumers expect (credible) assurances of higher standards will carry a price premium. Figure 5 charts the changes in the ratio sales of *Santa Fe* versus *Way Out Wax* candles.

[Figure 5]

²⁶ If we use as our reference sales in phase 2, when the labels were in place but prices were still at baseline levels, the elasticities associated with the 10% and 20% price increases that followed are -0.36 and -1.78, respectively.

Since the ratio of units sold (*Santa Fe* vs. *Way Out Wax*) actually fell during phase 4, when prices were pushed up by 20% on *Santa Fe* candles, it does appear that some consumers began switching to the lower-priced brand. But this effect was not so large (or not confined to bigger ticket items), as the ratio of dollar sales continued to rise. When we removed our label from the *Santa Fe* brand in phase 5 of the experiment, once again the distribution of sales between brands returned to what it had been in the baseline period.

If we examine absolute sales of *Santa Fe* candles in isolation, we can again provide some estimates of the price elasticity of demand for candles made with good labor standards. Table 4 shows the measured effects of labeling and price increases on sales of *Santa Fe* candles when compared with sales in the baseline period. Here it is patently clear that labeling alone led to a marked jump in sales of the treated product. Unit sales of candles actually rose when prices were raised by 10% (although revenues fell off slightly in that period, as smaller-ticket items appear to have been substituted for pricier candles), and fell off only slightly when prices were raised by 20% (when dollar sales were actually higher than at baseline levels). The elasticities of demand associated with labeling the *Santa Fe* candles and raising prices by 10% and by 20% are 1.02 and -0.55, respectively. The evidence that the demand curve is forward-sloping over some range of prices (with a positive elasticity) is consistent with the idea that candles are generally regarded as a luxury good by consumers.

[Table 4]

Again, we are cautious about looking at these figures on absolute sales of one brand of product in isolation, and thus not accounting for any time-specific factors that may have affected sales of candles in general at ABC during different phases of the experiment. But there does seem to be some clear evidence here that retailers like ABC can expect a substantial jump in sales of candles when switching to brands that can be labeled as being made under good labor standards and charging 10 to 20% more for them than for unlabeled brands.

VI. Discussion and Conclusions

Social labeling offers a market-based approach to improving labor standards that has some obvious attractions over alternatives. In particular, unlike “punishment” strategies aimed at sanctioning foreign nations or multinational corporations for failing to raise or enforce labor standards abroad, labeling does not risk major reductions in investment and job creation in developing nations that might have the exact opposite of their intended effects, making life far worse for the poorest workers in the developing world. But for social labeling to work, firms must be confident that enough consumers would actually pay extra for labeled items, and pay a high enough premium, to compensate for added labor costs and verification without cutting into profits. Surveys indicate that many consumers might be willing to pay extra for products made under good working conditions abroad rather than in sweatshops, but as yet there is no clear evidence that enough of them would actually behave in this fashion to make labeling viable.

The evidence from our experiments in the ABC store suggests that social labeling has considerable potential. As reported above, sales of products rose dramatically (compared with sales of control products) when they were labeled as being made under good labor standards, and demand for these products was quite inelastic for price increases of up to 20% above unlabeled baseline prices. Based upon our data, firms that switch to labeled goods could charge between 10-20% extra and expect sales to rise, with stronger effects likely for luxury goods (like candles) than for normal goods (such as towels).

Two issues concerning the practical applicability and external validity of these results warrant discussion. The first issue has to do with whether labeling *some* goods in a store like ABC, while having a positive effect on relative sales of that brand, might hurt absolute sales of *all* brands, by decreasing purchases of unlabeled items. We conducted our experiment during the summer, knowing that sales of home furnishings at ABC would be going into a seasonal lull as we put our labels in place. Still we did not witness a clear decline in total sales of either towels or candles if we compared periods in which the labels were in place with periods in which they were

not (see the appendix for charts of total sales of all towels and candles by period). Moreover, it is worth noting that it does not seem likely that, in practice, firms will be constrained to adopt a labor standards labeling strategy only in the precise manner in which we have conducted our experiments at ABC. Rather than sell labeled and unlabeled brands of products side by side, for instance, they might choose to sell only labeled brands of certain types of goods (e.g., towels), thereby distinguishing their department (or even the entire store) from competitors selling unlabeled brands.

Secondly, and lastly, while we are optimistic about social labeling, given the apparent strength of the demand for labor standards among this set of consumers, it is clear that we are testing for the market in a place where we expect to find it: that is, among well-to-do New Yorkers with a taste for contributing to social causes. Future studies should be aimed, if possible, at testing for demand for labor standards among other sets of consumers. Demand for standards is clearly not likely to be as strong among a broader class of customers with less money to spend (shoppers who frequent Wal-Mart, for instance). But not everyone can afford to buy organic foods at stores like Whole Foods either, and yet there has been a dramatic expansion in the market for labeled organic foods in recent years, with roughly 20% growth annually creating a \$12 billion industry (Warner 2005). If a latent market for labor standards exists on anything like this scale, its development could produce rapid improvements in working conditions in developing nations.

Appendix

1. Product Lists

a. Christy Renaissance Towels*	Prices:		
	Baseline	+10%	+20%
BATH RUG ROSE DUST	\$34.99	\$38.99	\$41.99
BATH SHEET 35X65 BLK	\$39.99	\$43.99	\$47.99
BATH TOWEL ROSE DST	\$19.99	\$21.99	\$23.99
HAND TOWEL 16X30 BLK	\$14.99	\$16.99	\$17.99
TUB MAT ROSE DUST	\$24.99	\$27.99	\$29.99
WASH CLOTH 13X13 BLK	\$6.99	\$7.99	\$7.99

* Each *Christy Renaissance* line listed has 14 to 16 individual colors; every color has its own SKU.

b. Besana Towels*	Prices
700 GM B SHEET GRAY 40X72	\$38.00
700 GM B SHEET LINEN 40X72	\$45.00
700 GM B TOWEL MARINE 25.6x54	\$22.00
700 GM H TOWEL GRAY 21.6x31.4	\$11.00
700 GM H TOWEL LINEN 21.6x31.4	\$12.00
700 GM T MAT GRAY 20X32	\$19.00
700 GMS B SHEET LT.BLUE 40X72	\$50.00
700 GMS B TOWEL LT.BLUE 25x54	\$25.00
700 GMS H TOWEL LT.BLUE 21x31	\$15.00
700 GMS T MAT SAGE 20X32	\$26.00
700 GMS W CLOTH LT.BLUE 13X13	\$8.00
DUKE HAND ROSEMARY	\$35.00
FYBER BEACH TOWEL SNOW PEA	\$85.00
FYBER B-MAT PETROL#925	\$34.00
FYBER B-SHEET BROWN 833	\$90.00
FYBER B-SHEET PETRO#925	\$64.00
FYBER B-TOWEL WINE#630	\$50.00
FYBER G-TOWEL ACID GREEN 399	\$20.00
FYBER G-TOWEL WINE#630	\$14.00
FYBER H-TWL ORANGE 527	\$40.00
FYBER W-CLOTH PETROL#925	\$9.00
GLICINE B-TOWEL RED	\$49.00
LUXOR B-MAT DK ORANGE	\$55.00
LUXOR B-SHEET MAUVE 39.4X63	\$68.00
LUXOR B-SHEET WHITE 39.4X63	\$105.00
LUXOR W-CLOTH DK ORANGE	\$16.00
VENDOME BEACH TOWEL BLACK	\$125.00
ZIA BICE GUEST TOWEL CROCHET	\$7.00
ZIA COCCA CROC H-TWL BLUSH	\$17.00

* Each *Besana* line listed has 7 to 14 individual colors; every color has its own SKU.

c. Santa Fe Candles*	Prices:		
	Baseline	+10%	+20%
DIPPED TAPERS,PERSIMMON 12"	\$8.00	\$9.00	\$10.00
SOLID CAST PILLAR CELADON 3X3	\$15.00	\$17.00	\$18.00
SOLID PILLAR,DSRT OLV 8X2 RND	\$18.00	\$20.00	\$22.00
SOLID PILLAR,DSRT OLVE 8X3 FLT	\$35.00	\$39.00	\$42.00
TEA LIGHT,NTRL YLW-BOX OF 12	\$10.00	\$11.00	\$12.00
VOTIVE BRIGHT RED 2"	\$5.00	\$6.00	\$6.00

*Each *Santa Fe* line listed above has 3 to 7 individual colors; every color has its own SKU.

d. Way Out Wax Candles	Prices
CEDARWOOD VOTIVE	\$3.00
CEDARWOOD SMALL SKINNY PILLAR	\$10.00
PATCHOULI MINI ROUND PILLAR	\$12.00

* Each *Way Out Wax* line listed above has 7 individual colors; every color has its own SKU.

2. Results Using Comparable Individual Product Lines

While we have focused, above, on aggregate sales data for the treatment and control brands, we have replicated the analysis using data on specific items carried by each brand. Here we report the basic results for the best selling types of towels (wash towels and bath towels) and candles (votive candles and tall pillar candles). As can be seen, the results are substantively the same as those found using the aggregate data, with the exception of an odd blip in sales of Santa Fe pillar candles in the initial baseline period (perhaps due to one large purchase).

a. Wash Towels	Weeks	Total sales per week:				Ratio:	
		<i>Christy:</i>		<i>Besana:</i>		<i>Christy/Besana</i>	
Experimental Phase		Units	Dollars	Units	Dollars	Units	Dollars
1: Baseline	1-3	7.67	\$53.59	3.00	\$36.00	2.56	1.49
2: Christy labeled	4-6	7.67	\$53.59	2.00	\$24.00	3.83	2.23
3: Christy labeled & prices +10%	7-11	6.60	\$52.73	1.80	\$21.60	3.67	2.44
4: Christy labeled & prices +20%	12-15	6.25	\$48.44	2.25	\$26.40	2.78	1.83
5: Return to baseline	16-17	12.33	\$85.88	3.33	\$40.00	3.70	2.15

b. Bath Towels		Total sales per week:					
		<i>Christy:</i>		<i>Besana:</i>		Ratio: <i>Christy/Besana</i>	
Experimental Phase	Weeks	Units	Dollars	Units	Dollars	Units	Dollars
1: Baseline	1-3	10.00	\$187.90	4.33	\$213.33	2.31	0.88
2: Christy labeled	4-6	6.33	\$128.27	2.33	\$116.67	2.71	1.10
3: Christy labeled & prices +10%	7-11	7.40	\$162.33	1.00	\$46.00	7.40	3.53
4: Christy labeled & prices +20%	12-15	6.50	\$145.94	2.25	\$112.50	2.89	1.30
5: Return to baseline	16-17	8.33	\$167.92	2.33	\$116.67	3.57	1.44

c. Votive Candles		Total sales per week:					
		<i>Santa Fe:</i>		<i>Way Out Wax:</i>		Ratio: <i>Santa Fe/Way Out</i>	
Experimental Phase	Weeks	Units	Dollars	Units	Dollars	Units	Dollars
1: Baseline	1-3	4.00	\$20.00	15.00	\$45.00	0.27	0.44
2: Santa Fe labeled	4-6	13.33	\$53.50	19.33	\$57.30	0.69	0.93
3: Santa Fe labeled & prices +10%	7-11	5.00	\$27.36	9.20	\$27.60	0.54	0.99
4: Santa Fe labeled & prices +20%	12-15	2.50	\$14.75	12.50	\$37.50	0.20	0.39
5: Return to baseline	16-18	2.00	\$10.00	10.67	\$32.00	0.19	0.31

d. Tall Pillar Candles		Total sales per week:					
		<i>Santa Fe:</i>		<i>Way Out Wax:</i>		Ratio: <i>Santa Fe/Way Out</i>	
Experimental Phase	Weeks	Units	Dollars	Units	Dollars	Units	Dollars
1: Baseline	1-3	2.00	\$36.00	0.67	\$6.67	3.00	5.40
2: Santa Fe labeled	4-6	0.67	\$12.00	2.33	\$23.33	0.29	0.51
3: Santa Fe labeled & prices +10%	7-11	1.00	\$20.00	2.00	\$20.00	0.50	1.00
4: Santa Fe labeled & prices +20%	12-15	1.50	\$33.00	3.00	\$30.00	0.50	1.10
5: Return to baseline	16-18	0.67	\$12.00	7.00	\$70.00	0.10	0.17

3. Total Absolute Sales of Towels and Candles

We have focused mainly on the effects of labeling on sales of labeled brands *relative* to sales of unlabeled brands. If firms choose to market both labeled and unlabeled products, they may be concerned that sales of unlabeled items would fall, and by an amount that was not offset by increases in sales of labeled items. Figures A1 and A2 plot total *absolute* sales of towels and candles during each phase of the experiment. Sales of towels clearly fell during the middle of the summer, as expected, but this decline cannot be attributed to the presence of our labels, as sales

rose sharply at the end of the summer (when our labels were in place, and switched to the *Besana* brand). There is no clear temporal pattern in total sales of candles that would seem to suggest that labels had an adverse effect.

[Figures A1-A2]

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Figure 1: The Label



These candles have been made under fair labor conditions, in a safe and healthy working environment which is free of discrimination, and where management has committed to respecting the rights and dignity of workers.



Figure 2: The Towels Display



Figure 3: The Candles Display



Table 1: Towels Experiment

Experimental Phase	Weeks	Total sales per week:				Ratio:	
		<i>Christy:</i>		<i>Besana:</i>		<i>Christy/Besana</i>	
		Units	Dollars	Units	Dollars	Units	Dollars
1: Baseline	1-3	33.67	\$559.50	38.67	\$1,313.33	0.87	0.43
2: Christy labeled	4-6	29.67	\$499.55	30.67	\$1,116.67	0.97	0.45
3: Christy labeled & prices +10%	7-11	28.60	\$586.73	24.40	\$804.00	1.17	0.73
4: Christy labeled & prices +20%	12-15	23.50	\$480.77	19.25	\$559.28	1.22	0.86
5: Return to baseline	16-17	26.50	\$499.24	28.50	\$1,126.25	0.93	0.44
6. Besana labeled	18-19	42.00	\$725.33	46.00	\$1,779.15	0.91	0.41

Figure 4: Towels Experiment

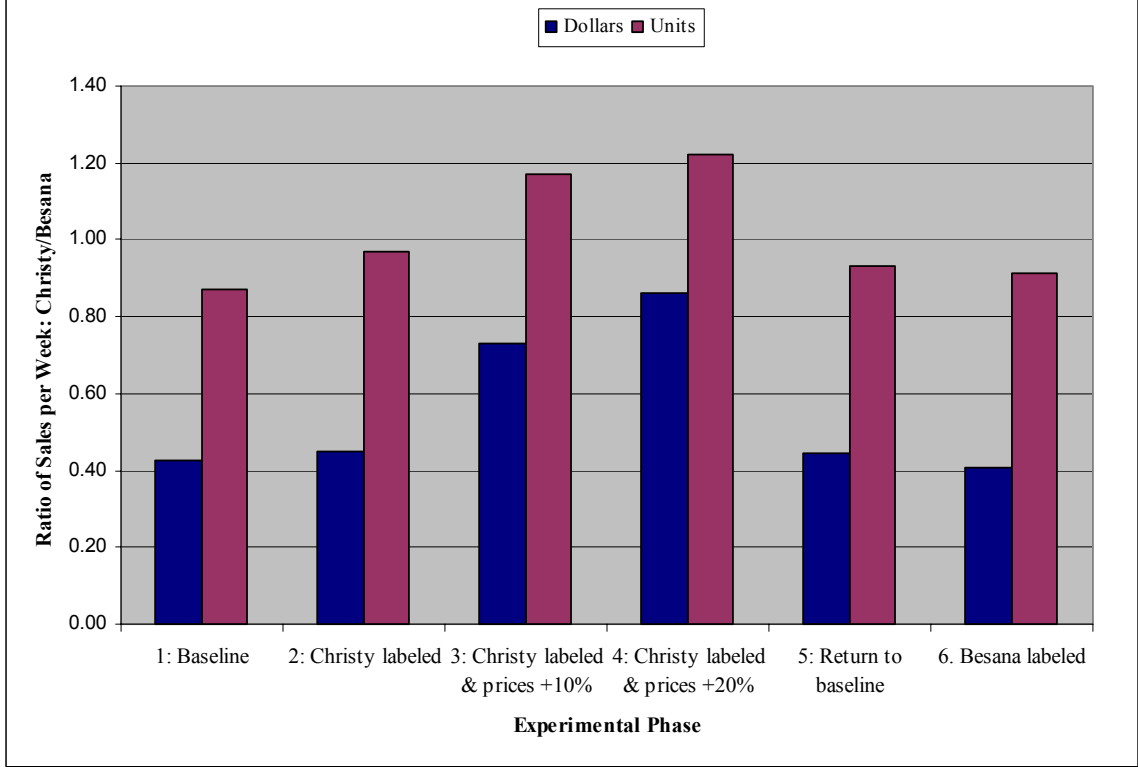


Table 2: Effects on *Christy* Brand Sales

Change to brand	Change in sales per week:		Implied Price Elasticity of Demand
	Units	Dollars	
Unlabeled to labeled (prices unchanged)	-4.00	-\$59.95	
Unlabeled to labeled and prices up 10%	-5.07	\$27.23	-1.50
Unlabeled to labeled and prices up 20%	-10.17	-\$78.73	-1.51

Table 3: Candles Experiment

Experimental Phase	Weeks	Total sales per week:				Ratio:	
		<i>Santa Fe:</i>		<i>Way Out Wax:</i>		<i>Santa Fe/Way Out</i>	
		Units	Dollars	Units	Dollars	Units	Dollars
1: Baseline	1-3	14.33	\$153.17	23.67	\$147.67	0.61	1.04
2: Santa Fe labeled	4-6	25.00	\$234.70	32.67	\$210.23	0.77	1.12
3: Santa Fe labeled & prices +10%	7-11	15.80	\$137.22	15.80	\$102.80	1.00	1.33
4: Santa Fe labeled & prices +20%	12-15	12.75	\$214.25	21.25	\$136.50	0.60	1.57
5: Return to baseline	16-18	14.67	\$164.00	23.67	\$173.60	0.62	0.94

Figure 5: Candles Experiment

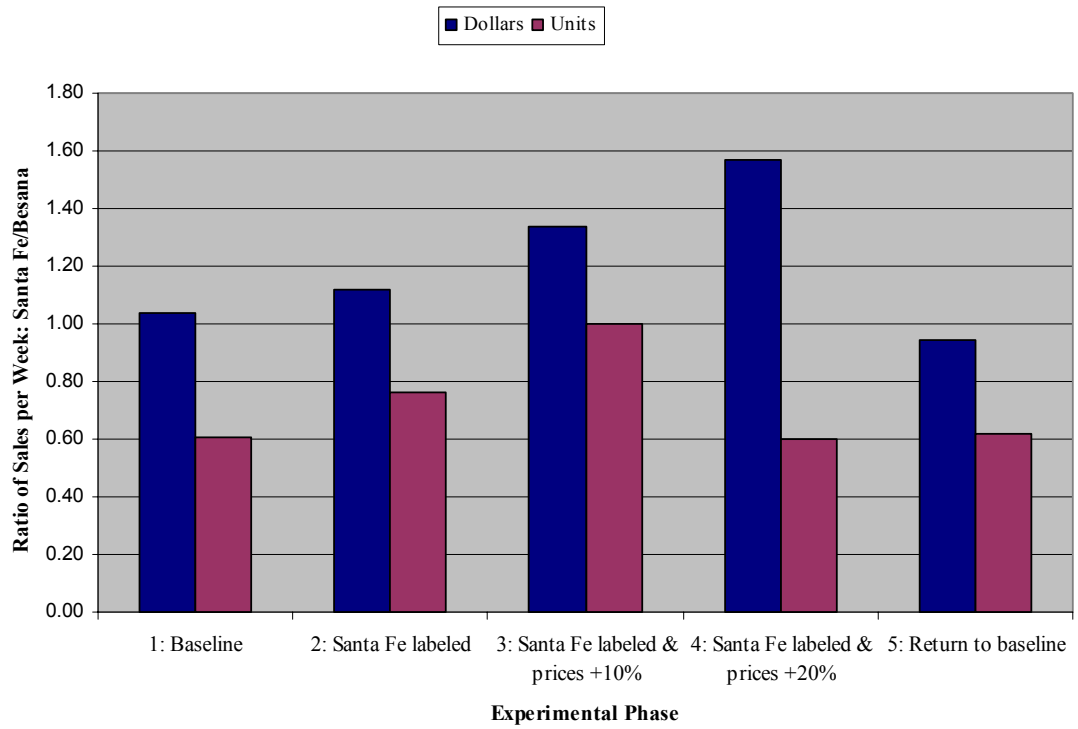


Table 4: Effects on *Santa Fe* Brand Sales

Change to brand	Change in sales per week:		Implied Price Elasticity of Demand
	Units	Dollars	
Unlabeled to labeled (prices unchanged)	10.67	\$81.53	
Unlabeled to labeled and prices up 10%	1.47	-\$15.95	1.02
Unlabeled to labeled and prices up 20%	-1.58	\$61.08	-0.55

Figure A1: Total Sales of Towels

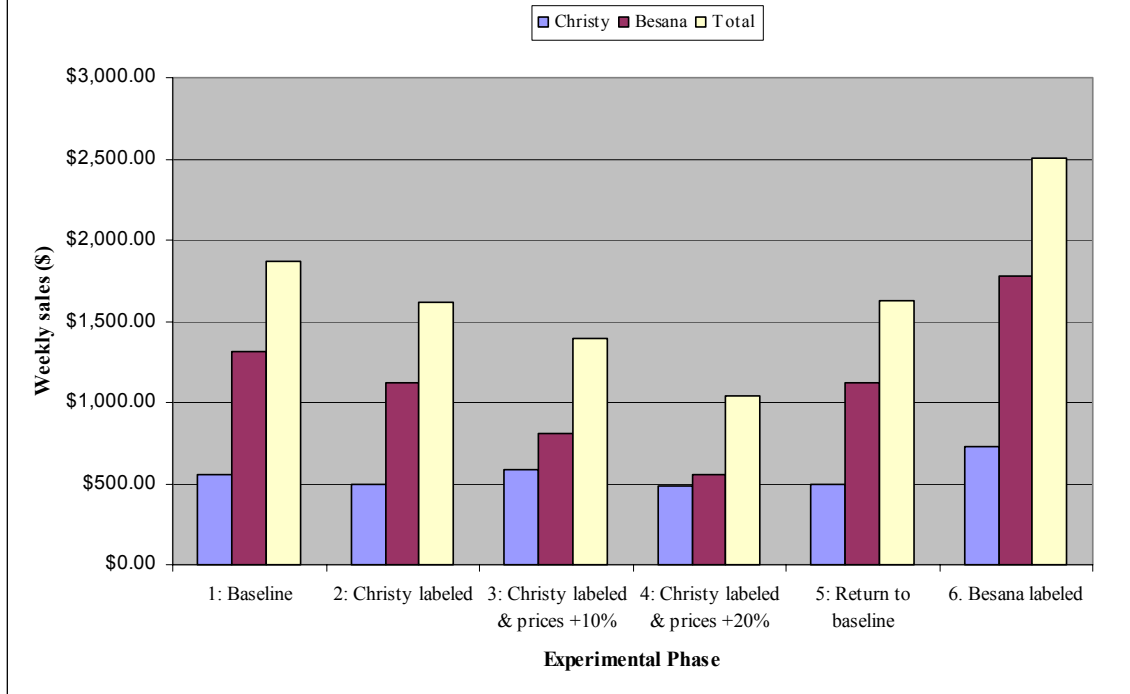


Figure A2: Total Sales of Candles

