Excerpt from Adam J. Hoffer and Todd Nesbit, eds., *For Your Own Good: Taxes, Paternalism, and Fiscal Discrimination in the Twenty-First Century.* Arlington, VA: Mercatus Center at George Mason University, 2018.

CHAPTER 16
Persecuting Plastic Bags

E. FRANK STEPHENSON
Department of Economics, Berry College

In his preface to *Taxing Choice*, William Shughart noted the growing tendency toward "taxing all manner of products and regulating all types of remotely objectionable behavior." He added that "the list of the traditional sins of smoking, drinking, and gambling is relentlessly being expanded to include cooking outdoors, wearing perfume, eating snack foods, buying expensive cars or yachts, bearing arms, and on and on" (Shughart 1997a, xiii). That ongoing spread of regulating individual choice has continued unabated in the subsequent two decades and today includes an ever-widening array of targeted taxes, subsidies, and behavioral regulations. This chapter focuses on the plastic grocery sack, an item that had not yet drawn regulatory attention at the time that *Taxing Choice* was published in 1997 but has since become subject to taxes and bans in all or part of more than a dozen countries, including the United States.[1] As we shall see, the bag bans and taxes that have popped up in the past dozen years have many similarities to the selective commodity taxation described in *Taxing Choice*.

High-density polyethelene (henceforth, "plastic") grocery bags were invented in Sweden in the 1960s. Their use in the United States was rare until the Kroger and Safeway grocery chains started offering them to customers in 1982. Consumer opinions about the new bags were mixed—bags with handles were appealing to urban consumers, but shoppers taking their purchases home in

their cars tended to prefer the sturdier paper bags that were less likely to spill in moving vehicles. Since plastic bags were substantially cheaper than the commonly used paper bags, their use spread rapidly. By 1985, three-fourths of grocery and convenience stores were offering plastic bags. By the early 2000s, plastic bags accounted for 80 percent of all grocery bags used (Petru 2014).

Most early restrictions on plastic bags were imposed outside the United States.[2] In 2002, Bangladesh banned bags out of concern that bag litter was clogging drains and causing flooding. Likewise, in 2002, Ireland enacted a tax of 0.15 euro per bag (later increased to 0.22 euro) as a deterrent to littering.[3] Since that time, China, Italy, and South Africa have joined approximately one dozen countries banning or taxing plastic bags at the national or subnational level. Others include parts of Australia, Pakistan, and the Philippines.

In the United States, municipal governments took the lead in restricting or taxing plastic grocery bags. The first tax or prohibition imposed in a large jurisdiction was San Francisco's 2007 ban of single-use plastic bags by supermarkets and chain pharmacies.[4] Bag bans or taxes were subsequently adopted by more than seventy-five cities, including Oakland, Long Beach, San Jose, and Los Angeles; municipal bag ordinances came to cover more than one-third of Californians. Bag bans and taxes are less prevalent outside California, but cities restricting or taxing plastic bags include Portland, OR; Santa Fe, NM; Cambridge, MA; and Austin, TX. One of the most publicized actions was Washington, DC's 2010 adoption of a 5¢ per bag tax.[5]

Legislation at the state level has been fairly sparse, but a few states have required that retailers using plastic bags offer in-store collection points for recycling. The first statewide legislative action banning or taxing plastic bags was passed in California in 2014. California's legislation would have imposed a statewide ban effective on July 1, 2015, but the legislation was put on hold when bag ban opponents gathered enough signatures to trigger a 2016 referendum on the ban (Miller 2015). Although Hawaii has not enacted statewide legislation, Honolulu's July 1, 2015, implementation of a bag ban means that the state has a de facto ban, because all its municipalities prohibit single-use plastic bags.[6]

RATIONALES FOR BAG BANS AND TAXES

Environmental activists advocate banning or taxing single-use plastic grocery sacks because of external harms supposedly associated with their use. Plastic grocery bags are claimed to increase carbon emissions and to increase litter and associated harm to wildlife (particularly marine life).

It is certainly true that plastic bags are a petroleum derivative and would therefore exacerbate any environmental harms associated with carbon usage. However, plastic grocery sacks are extremely thin and lightweight. A bag weighing 5 grams can carry some 1,000 times its weight (Mangu-Ward 2015). Goodyear (2007) reports that 430,000 gallons of oil are required to produce 100 million plastic bags, figures that imply 0.0043 gallons of oil used per bag. Even allowing that hundreds of millions of bags are produced each year, the carbon emissions associated with their production would be very small compared to emissions from electricity generation or automobile use. Moreover, discouraging plastic bag use via bans or taxes may well lead to the use of more carbon-intensive alternatives, a topic taken up in the next section.

Proponents of plastic bag bans and taxes also cite bag litter as a rationale for discouraging or eliminating bag use. As with bag production increasing carbon emissions, there is a kernel of truth in this claim. Plastic bags are sometimes among the litter found along streets and highways. In extreme cases, the litter has been associated with flooding caused by blocked drains (Bangladesh's motivation for banning bags)[7] or harm to marine wildlife from bags that make their way into waterways (the rationale for a ban on bags in eastern North Carolina). Again, however, bag bans and taxes seem to have been implemented reflexively rather than based on estimates of actual harm caused by bags. For example, little consideration seems to have been given to bags' share of the overall litter problem or to the overall harm done to marine wildlife. Indeed, Minter (2015) cites a Fort Worth, TX, study that finds that plastic bags were 0.12 percent (by weight) of the city's litter. Similarly, Mangu-Ward (2015) reports that the 2009 Keep America Beautiful survey found that bags were 0.6 percent of all visible litter nationwide.[8] Given bags' small contribution to litter, it is hard to rationalize singling them out for bans or taxation without applying similar treatment to other litter sources, such as fast food packaging or snacks from convenience stores.

As for wildlife harm associated with plastic bags, Mangu-Ward (2015) reports that plastic bag opponents claim "more than 1 million birds and 100,000 marine mammals and sea turtles die each year from eating or getting entangled in plastic." She then proceeds to explain that these figures come from a Canadian study on incidental harm from fishing off Newfoundland, not from an assessment of plastic bag damages. Moreover, she notes that the Canadian study was conducted from 1981 to 1984, thereby predating the widespread use of plastic shopping bags.

Another rationale offered for bag bans or taxes is their use of landfill space. Minter (2015) cites an Environmental Protection Agency study finding that

plastic bags were only 0.28 percent (by weight) of total municipal solid waste. Of course, something lightweight but bulky could consume landfill space, but bags compact easily, so this concern should be minimal. Municipalities concerned about rapidly filling landfills have many, more reasonable, options, such as increasing tipping fees for all trash.

Even if, relative to available alternatives, plastic shopping bags do increase carbon emissions, increase litter, harm wildlife, or consume landfill space, efficient policy requires setting the per bag fee equal to the marginal damage associated with each bag. Determining the marginal harm would be difficult and would likely vary from place to place (e.g., bags would be more likely to clog drains in Bangladesh than in an arid location). Nonetheless, there appears to have been little effort by the jurisdictions banning or taxing bags to determine the actual harm caused per bag. Instead, the idea that bags cause harm is assumed without any questions about the marginal damage associated with each bag or any comparison to other sources of carbon emissions.[9] Indeed, the marginal contribution of each bag to increased carbon emissions (or to the aggregate waste people generate) is likely very small since bags are so lightweight, so choosing to single out bags for taxation or prohibition is arbitrary.

To summarize, bag bans and taxes seem to be arbitrary and based on a general, albeit vague, sense that bags are environmentally harmful.[10] However, little critical analysis has been done on the actual harm caused by plastic bags and particularly how that harm compares to any damages associated with other products or on people's behavioral responses to bag bans and taxes.

UNINTENDED CONSEQUENCES

Unlike groceries, books, or clothing, people do not shop directly for plastic bags. Instead, plastic bags are useful for taking purchases from a store to a home or other location. Banning or taxing plastic bags does not reduce people's need to get their goods home from the store. Yet bag ban and tax advocates seem to ignore the important question: "compared to what?"

Consider the argument for banning plastic bags based on their contribution to carbon emissions. It is important to think about what people would use instead of plastic bags and the effect that those alternatives would have on carbon emissions. One possibility is that people will transport their purchases without using any bag, as is currently the practice at Costco and Sam's Club warehouse stores. If bag bans lead people to transport their purchases without bags, then bag bans reduce the level of carbon emissions. However, there are other possibilities, all of which lead to carbon emissions. For example, people

might use the thicker, reusable plastic bags that are allowed in some jurisdictions. In this case, one must compare the amount of carbon used in the thicker reusable bags against the carbon content of single-use bags. Since the reusable plastic bags are thicker than the single-use bags, the reusable bags must be used many times for them to lead to a reduction in carbon emissions. Mangu-Ward (2015) cites a UK Environmental Agency study finding that reusable plastic tote sacks must be used at least eleven times to be more carbon efficient than single-use bags. That the heavier duty bags might actually increase carbon emissions is borne out by Austin, TX, which found that its ban on single-use bags was almost completely offset by an increase in thicker multiuse bags in its municipal waste stream (Minter 2015).

Alternatively, people might substitute single-use paper bags for single-use plastic bags. Indeed, Taylor and Villas-Boas (2016) find that plastic bag bans lead the proportion of customers choosing paper bags to increase from 5 percent to 40 percent. The production of single-use paper bags also emits carbon from cutting trees, milling the pulp into bags, and transporting the bags (which are heavier than plastic bags) to stores. That using paper instead of plastic might actually increase carbon emissions is apparently a possibility that has not been considered by bag ban and tax proponents. Roach (2003) reports plastics industry figures that "compared to paper grocery bags, plastic grocery bags consume 40 percent less energy, generate 80 percent less solid waste, produce 70 percent fewer atmospheric emissions, and release up to 94 percent fewer waterborne wastes." Interestingly, many of the municipalities imposing plastic bag bans levy taxes on single-use paper bags, a policy that implicitly assumes paper bags are less harmful than plastic bags. Again, public policy toward plastic bags seems arbitrary.

People faced with plastic bag bans might also switch to the reusable cloth bags that are popular among eco-conscious consumers. Perhaps this is the desired outcome of bag bans and taxes. However, manufacturing reusable cloth bags requires much more carbon than single-use plastic bags. The reusable bags need to be used about 130 times to be carbon equivalent with single-use plastic bags (Mangu-Ward 2015; Minter 2015). Consumers who, perhaps out of forgetfulness or losing their bags, do not obtain such a usage level from their cloth bags would actually increase carbon emissions.

Another important consideration is that cloth bags require washing to keep them clean and sanitary. This is yet another behavioral response that could increase rather than decrease carbon emissions. A more significant concern might be if people do not wash their reusable bags. Since food sometimes leaks or spills while being transported from the store, bags can become contaminated

with harmful bacteria, such as *E. coli*. Wallop (2010) reports that a study of reusable bags in the United Kingdom found that half contained traces of *E. coli* and many contained evidence of salmonella. Moreover, Wallop (2010) reports that a poll found a whopping 97 percent of reusable bag users reported that they never washed or bleached their bags. To analyze the potential health effects of banning single-use bags, Klick and Wright (2012) examined San Francisco's 2007 bag ban. They found that San Francisco's emergency room admissions for *E. coli* illnesses increased by about one-fourth relative to other counties when the county imposed its bag ban in October 2007. They also document increases in *E. coli*–related emergency department visits following bag bans in the cities of Palo Alto, Malibu, and Fairfax, and a 46 percent increase in deaths attributable to foodborne illnesses.[11] Needless to say, an upsurge in severe illnesses and fatalities is an expensive tradeoff for—even in the best case scenario—small reductions in litter or carbon emissions.

Saying that plastic grocery sacks are "single-use" also hides another possible unintended consequence. Many people actually do reuse plastic bags for such purposes as lining a cat litter box, disposing of soiled diapers, or bringing workout clothing to or from a gym. A bag ban would cause these consumers to find other ways to fill the needs now being filled by reused grocery bags. It is possible that grocery bags would be replaced with heavier plastic bags, thereby increasing carbon emissions and energy use. Indeed, reports indicate that can liner sales increased by 77 percent after Ireland's grocery sack ("carrier bag") tax was implemented.[12]

Yet another possible unintended consequence is an increase in stolen merchandise from grocery stores. Since plastic bags are no longer common, it is more difficult to determine which customers have paid for their goods and apparently some people skip the checkout line and take unbagged groceries out of stores. Systematic data on increased prevalence of theft are not available but anecdotal evidence suggests increased theft is not rare. Thompson (2013) reports that 21.1 percent of Seattle business owners surveyed indicated that the city's bag ban had increased shoplifting. Other news reports point to increased shoplifting following bans in Hawaii, California, and the United Kingdom.

In short, regardless of a consumer's reaction to a ban on plastic grocery sacks, it is entirely possible that he or she will choose an alternative that results in more rather than less carbon emissions. It is also possible that the unintended consequences of bag bans and taxes will include illnesses transmitted by reusable bags that have not been properly cleaned. While bag ban and tax advocates may feel good about restricting bag use, it is far from clear that they are actually achieving their stated policy goals.

THE POLITICAL ECONOMY OF BAG BANS AND TAXES

Up to this point, this chapter has ignored one of the central arguments of *Taxing Choice* and of this volume, namely, that discriminatory taxation is not just the result of naive or misguided policy but rather that it is the deliberate outcome of some people trying to use the political system to their advantage. Shughart (1997b, 2) notes that "while 'social cost' rhetoric has come to dominate the public-policy debate, ordinary political forces are frequently at work." This section considers the political economy of bag taxes and bans in the context of California's legislation banning plastic bags statewide.

The impetus behind passing regulatory legislation is often a "bootleggers and Baptists" alliance of morally earnest advocates and rent-seekers (Yandle 1983; Smith and Yandle 2014). It comes as no surprise, therefore, to see such a coalition pushing for California's statewide plastic bag ban (or pushing to avoid having it overturned by the 2016 referendum). The Baptists part of the coalition is obvious—environmentalists such as the Surfrider Foundation and the Sierra Club favor plastic bag bans even though, for reasons explained above, they are probably misguided.[13]

The bootleggers are the more interesting part of the coalition. In the case of California's bag ban, the obvious beneficiaries are producers of alternative bags. Hence it is no surprise that such companies as Earthwise Bag Company and Green Bag Company are among the supporters of the referendum upholding a statewide ban.

California grocers stand to reap a windfall from the ban and are part of the bootlegger coalition.[14] First, they will no longer supply plastic bags as part of the purchase price of their grocery sales. For firms facing downward-sloping demand curves, a decrease in production costs is only partially passed along to consumers in the form of lower prices. Nash (2014) reports that Californians use 14 billion plastic bags per year, and Mangu-Ward (2015) indicates that bags cost $0.01 apiece, so a bag ban would reduce retailer costs by $140 million, with some portion of this amount being captured as higher profits.

Second, California's plastic bag ban allows for paper bags, but retailers must charge at least 10¢ for them, with retailers pocketing the proceeds.[15] Since paper bags cost retailers less than 10¢ each, selling paper bags to shoppers becomes a new profit source for grocers. This is where the real money lies for retailers. Markay (2015) states that the paper bag provision is worth hundreds of millions of dollars; Nash (2014) claims that the windfall could approach $1 billion. Hence, it is not surprising that the California Grocers Association

is leading the charge against the referendum that would overturn the plastic bag ban and has, according to Markay (2015), donated $100,000 in its effort to preserve the plastic bag ban.

With plastic bags banned and paper bags subject to the 10¢ fee, California's policy should also be supported by makers of reusable bags. Not surprisingly, Markay (2015) also reports that three reusable bag makers who would benefit from the ban have collectively contributed $10,000 to California vs. Big Plastic, an umbrella group advocating for maintaining California's bag ban.

Aspects of public choice other than bootleggers and Baptists are also evident in the California plastic bag ban. Legislators can glean support from their constituents by targeting benefits to their districts if the costs are dispersed across the state. What might cost a typical Californian a few dollars might provide a large benefit if transferred to a small number of beneficiaries. To this end, Skelton (2014) reports that California Senator Kevin de León of Los Angeles, whose district is home to two plastic bag makers, had a $2 million loan fund included in the plastic bag ban legislation to help existing bag makers retool to make reusable bags.

CONCLUSION

Plastic grocery bag bans and taxes are becoming increasingly common, but the rationalizations that they will reduce carbon emissions and litter do not withstand critical scrutiny. Instead, the restrictions appear to be victories of symbolism over sound policy, especially when their unintended consequences are considered. As with other instances of fiscal discrimination, predatory politics may often be found lurking beneath the green veneer of plastic bag bans and taxes.

NOTES

1. To be clear, this chapter focuses on the plastic bags with handles that are used at the checkouts of supermarkets and other retailers and are used by consumers to transport purchases from stores to their desired locations. It does not cover plastic garbage bags or the handleless plastic bags used for purchasing loose fruits or vegetables.
2. Actually, Nantucket banned plastic bags in 1990, but its ban drew little attention and the issue of bag bans and taxes was dormant for the subsequent decade.
3. Convery et al. (2007) report that Ireland's bag tax reduced bag use by 90 percent.
4. Applying the ban only to chain establishments is, of course, also a form of selective taxation. After all, whatever external costs might be imposed by plastic bags does not depend on whether the bag originated at a chain establishment or at a "mom and pop" business. However, exempting small businesses might be justified if the costs of enforcing a bag tax or ban are proportionately larger for small firms.

5. Unless otherwise noted, much of the information in this paragraph was obtained from a list of bans and taxes compiled by the Surfrider Foundation, an organization that advocates banning plastic bags. http://www.surfrider.org/pages/plastic-bag-bans-fees.

6. This paragraph is based on the National Conference of State Legislatures summary of state plastic bag legislation. http://www.ncsl.org/research/environment-and-natural-resources/plastic-bag-legislation.aspx.

7. Presumably bag-clogged storm drains would be less common in more developed countries, such as the United States, where trash disposal is more sophisticated. So even if Bangladesh's policy is the best choice among its available alternatives, a ban might not be the best alternative in other places.

8. Mangu-Ward also cites two California studies finding that plastic bags are 3.8 percent and 8 percent of coastal trash but notes that these studies are based on 1-day surveys and are not representative samples.

9. Convery et al. (2007, 3) write that Ireland's bag "tax implemented in March 2002 is not Pigouvian; there was no attempt to identify the marginal external costs and determine the optimum level of tax."

10. While clinging to questionable rationales of banning or taxing plastic bags, ban and tax proponents overlook one of the genuine harms associated with plastic bags—their tendency to get caught up in the mechanical workings of capital-intensive recycling systems (Minter 2015). It is hard to imagine, however, that a large percentage of bags produce such results, so this harm, while genuine, would be a weak basis for a bag ban or tax.

11. Klick and Wright (2012) report that twelve individuals died from foodborne illnesses in San Francisco in the year before the bag ban; thus, their estimates imply the bag ban is associated with about five or six additional deaths from foodborne ailments.

12. See Frisman (2008), "The Effect of Plastic Bag Taxes."

13. The Sierra Club and the Surfrider Foundation are listed as supporters of California's ban on the referendum's Ballotpedia page. http://ballotpedia.org/California_Plastic_Bag_Ban_Referendum_(2016).

14. Although California grocers strongly support the ban, evidence of how bans affect retailers is mixed. Convery et al. (2007) survey seven retailers (some large chains) and conclude that the Irish bag tax had a neutral or positive effect on the retailers, but Taylor (n.d.) finds that Washington, DC's bag tax reduced retailer productivity by 5 percent in the short run. Dallas imposed a tax for the first 5 months of 2015, but it was repealed in part because of widespread confusion among retailers about which bags were subject to the tax and which were exempt (Benning 2015). The need to count the bags at the end of transactions also created confusion and slowed checkout lanes (McCarthy 2015).

15. This provision was necessary because California requires two-thirds legislative support for tax increases. Since California's Republican legislators controlled more than one-third of the seats and were not supportive of bag bans or taxes, the Democratic majority had to let retailers keep the 10¢ per bag fee rather than remit it to Sacramento as a tax.

REFERENCES

Benning, Tom. 2015. "Few Stores Are Found to Be Following Dallas Bag Law." *Dallas News*, January 16. http://www.dallasnews.com/news/community-news/park-cities/headlines/20150116-few-stores-are-found-to-be-following-dallas-bag-law.ece.

Convery, Frank, Simon McDonnell, and Susana Ferreira. 2007. "The Most Popular Tax in Europe? Lessons from the Irish Plastic Bags Levy." *Environmental and Resource Economics* 38 (1): 1–11.

Frisman, Paul. 2008. "The Effect of Plastic Bag Taxes and Bans on Garbage Bag Sales." OLR Research Report 2008-R-0685, Connecticut General Assembly, Office of Legislative Research, Hartford. https://www.cga.ct.gov/2008/rpt/2008-R-0685.htm.

Goodyear, Charlie. 2007. "S.F. First City to Ban Plastic Shopping Bags." *SF Gate*, March 27. http://www.sfgate.com/green/article/S-F-FIRST-CITY-TO-BAN-PLASTIC-SHOPPING-BAGS-2606833.php.

Klick, Jonathan, and Joshua D. Wright. 2012. "Grocery Bag Bans and Foodborne Illness." Research Paper 13-2, University of Pennsylvania, Institute for Law and Economics, Philadelphia. http://ssrn.com/abstract=2196481 or http://dx.doi.org/10.2139/ssrn.2196481.

Mangu-Ward, Katherine. 2015. "Plastic Bags Are Good for You." *Reason*, September 1. https://reason.com/archives/2015/09/01/plastic-bags-are-good-for-you.

Markay, Lachlan. 2015. "California Grocers Gear Up to Protect Plastic Bag Ban Windfall." *Washington Free Beacon*, June 1. http://freebeacon.com/issues/california-grocers-gear-up-to-protect-plastic-bag-ban-windfall/.

McCarthy, Amy. 2015. "At Grocery Stores, Dallas' Paper and Plastic Ban Confuses Customers and Store Clerks Alike." *Dallas Observer*, January 5. http://www.dallasobserver.com/restaurants/at-grocery-stores-dallas-paper-and-plastic-bag-ban-confuses-customers-and-store-clerks-alike-7039532.

Miller. Jim. 2015. "California Plastic Bag Ban On Hold Pending 2016 Vote." *Sacramento Bee*, February 24. http://www.sacbee.com/news/politics-government/capitol-alert/article11084876.html.

Minter, Adam. 2015. "How a Ban on Plastic Bags Can Go Wrong." *Bloomberg View*, August 18. http://www.bloombergview.com/articles/2015-08-18/how-a-ban-on-plastic-bags-can-go-wrong.

Nash, James. 2014. "California Grocers Lobby for First State Plastic Bag Ban." *Bloomberg*, June 30. http://www.bloomberg.com/news/articles/2014-06-30/california-grocers-lobby-for-first-state-plastic-bag-ban.

Petru, Alexis. 2014. "A Brief History of the Plastic Bag" *Triple Pundit*, November 5. http://www.triplepundit.com/2014/11/brief-history-plastic-bag/.

Roach, John. 2003. "Are Plastic Grocery Bags Sacking the Environment?" *National Geographic News*, September 2. http://news.nationalgeographic.com/news/2003/09/0902_030902_plasticbags.html.

Shughart, William F. II. 1997a. "Preface." In *Taxing Choice: The Predatory Politics of Fiscal Discrimination*, edited by William F. Shughart II, xiii–xv. New Brunswick, NJ: Transaction.

———. 1997b. "Introduction and Overview." In *Taxing Choice: The Predatory Politics of Fiscal Discrimination*, edited by William F. Shughart II, 1–9. New Brunswick, NJ: Transaction.

Skelton, George. 2014. "Charging for Paper Bags Isn't Justified." *Los Angeles Times*, August 24. http://www.latimes.com/local/politics/la-me-cap-plastic-bags-20140825-column.html.

Smith, Adam, and Bruce Yandle. 2014. *Bootleggers and Baptists: How Economic Forces and Moral Persuasion Interact to Shape Regulatory Politics*. Washington, DC: Cato Institute.

Taylor, Rebecca. n.d. "Paper or Plastic . . . or Reusable? An Analysis of the D.C. Disposable Bag Tax on Worker Productivity & Learning." Working Paper, University of California, Berkeley.

Taylor, Rebecca, and Sofia B. Villas-Boas. 2016. "Bans vs. Fees: Disposable Carryout Bag Policies and Bag Usage." *Applied Economic Perspectives and Policy* 38 (2): 351–72.

Thompson, Richard. 2013. "Plastic Bag Ban Leads to Nationwide Increase in Shoplifting Rates." *Daily Caller*, July.

Wallop, Harry. 2010. "Bags for Life Could Have *E.coli*." *Telegraph*, June 10. http://www.telegraph.co.uk/finance/newsbysector/retailandconsumer/7863807/Bags-for-life-could-have-E.coli.html.

Yandle, Bruce. 1983. "Bootleggers and Baptists—The Education of a Regulatory Economist." *Regulation*, May/June, 12–16.