

# *Michigan's Item Pricing Law: The Price Tag for Retailers and Consumers*

Commissioned by:  
Michigan Retailers Association

*Prepared by:*

Anderson Economic Group, LLC

Scott D. Watkins, Senior Consultant  
Megan E. Henriksen, Research Associate

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**Anderson Economic Group, LLC**

1555 Watertower Place, Suite 100  
East Lansing, Michigan 48823  
Tel: (517) 333-6984  
Fax: (517) 333-7058

<http://www.AndersonEconomicGroup.com>

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## *I. Executive Summary*

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**PURPOSE OF REPORT** Michigan faces a host of challenges as we enter the second decade of the 21st century. Chief among these are the realities and perceptions that Michigan is stuck in the 20th century, and that outdated regulations are stopping businesses and citizens from moving ahead.

This report assesses the costs and benefits associated with one such regulation—the Item Pricing Law (IPL)—which went into effect on January 1, 1978 and has not significantly been amended since.<sup>1</sup> We conclude that the time has come for Michigan to reform its IPL. Only eight states have any form of an IPL, and Michigan’s is by far the most burdensome. Michigan is the only state that still requires a price label to be placed on nearly every consumer item, which creates unnecessary costs for both businesses and consumers, and yields little or no benefits that are not otherwise afforded to consumers in other states.

### *A Brief History of Item Pricing*

Michigan’s IPL requires that the total price of a consumer item for sale at retail be stamped upon or affixed to the item, be clearly visible, and indicated by Arabic numerals (i.e., groceries, apparel, household goods, and appliances). The law does not apply to certain products such as those that are unpackaged and sold by weight or volume, items in a coin operated vending machine, or prepared food intended for immediate consumption. It also only applies to items sold at retail, so wholesale stores, like Costco and Sam’s Club, are not covered.

In order to adhere to this requirement, retailers must have an employee verify the item price, set-up a pricing gun, and apply an individual sticker to each item before stocking it on the store shelf. If the permanent price of an item changes, the process must be completed all over again only after the items are taken off the shelf and the original price stickers are removed.

The IPL did offer valued consumer protection when the law was passed in 1976. At this time barcode scanning technology was in its infancy, and consumers were weary of being overcharged, especially on food items in an era of notable food inflation. Putting trust in a computer, and not a friendly neighborhood retail clerk, was not something many were ready for in 1976. Some states, including Michigan, responded by requiring prices to be marked on individual items.

When federal legislation was considered, retailers promised to continue to individually price most items, and in return the legislation was not taken up. As it

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1. The law passed as Public Act 449 of 1976.

turned out, bar code scanning technology was slow to spread initially, and Michigan was one of only a handful of states that actually enacted item pricing legislation. As the technology improved consumers grew to accept its benefits, and item pricing laws were not enacted in the majority of states. Nearly thirty-five years later Michigan remains the only state that requires most every item sold at retail to be individually priced if the price is scanned at checkout.

## OVERVIEW OF APPROACH

To assess the costs and benefits of Michigan’s item pricing law, we undertook a multi-step research methodology. This included a legislative review, a review of existing research on the topic, and our own analysis of the law and its impacts on Michigan retail consumers and businesses. More specifically, we:

1. Reviewed item pricing legislation for eight states, including Michigan, that the United States National Institute of Standards and Technology identify as requiring some level of mandatory pricing.
2. Reviewed existing research studies, articles, and other publications addressing the costs and benefits of IPLs.
3. Completed our own research to evaluate IPL costs and benefits in Michigan. In doing so we surveyed retailers operating in Michigan and used economic and expenditure data specific to the retail industry to quantify compliance burdens and additional costs to consumers.

A summary of our findings is presented below.

## SUMMARY OF FINDINGS

### *Item Pricing Laws Across the States*

1. Michigan has by far the most stringent item pricing law in the country, as it requires retailers to put a price sticker or tag on every individual unit that is for sale at retail.
2. No other Great Lakes state has an item pricing law, and the seven other states nationally with IPLs provide many exemptions from the requirement of pricing each individual unit. For instance, the Massachusetts IPL, felt to be the second most stringent, covers only grocery stores and items in food departments at non-grocery stores, and retailers can earn exemptions for up to 400 items if they have 95 percent scanner accuracy. Most other IPLs allow for shelf or display pricing in place of individual item pricing.

For a summary of the IPLs please see Table 2 on page 5. The laws are discussed in more detail at “State Item Pricing Laws” on page 7.

### *Costs of Item Pricing Laws*

3. A careful study by several noted economists found that the costs of item pricing are paid, at least in part, by consumers. The study found that prices were, on average, 8 percent to 10 percent higher where an IPL is in place. Please see “Existing Research Findings” on page 14.

4. Michigan consumers will spend \$24.3 billion on groceries, personal care items, and housekeeping supplies in 2010. If individual item pricing had not been required, Michigan consumers could have saved \$2.2 billion.<sup>2</sup> This equates to every household paying a hidden tax of \$562 per year for item pricing.
5. The \$2.2 billion figure is a conservative measure. The IPL applies most every item sold at retail, but the study that determined costs to be eight to ten percent higher focused only on items sold in grocery stores. As such we have applied those findings only to the related items.
6. Our research suggests that the costs of item pricing are not equally borne across consumer or businesses. The greatest burdens fall on those in lower-income consumer groups, those living in areas with low retail competition, and on businesses that operate primarily or solely in Michigan. See “Bearing the Burden” on page 20.
7. Item pricing also costs Michigan retailers the opportunity to use their labor and capital in more productive ways. We summarize this below, and cover it further at “IPL Opportunity Costs” on page 16.
  - We estimate it takes over 2,000 hours to price five million units of grocery items, which is what most large, individual grocery stores sell in a year. Superstores—those selling grocery and general merchandise—sell nearly three times this, requiring close to 6,000 hours of labor for item pricing at each store. Without item pricing requirements this labor could be used for more value added activities, such as customer service, inventory management, or register operation.
  - Item pricing requires retailers to purchase pricing guns, tape, and ink. The retailers we spoke with reported that, on average, they spend \$6,000 to \$10,000 per year on these materials for each store they operate. For retailers with about 100 stores in the state, this represents the potential for a \$1 million expense that could be invested in other ways.
  - New technologies, like hand-held scanners and electronic shelf labels, are being implemented by retailers in several states, but are slow to catch on in Michigan. Retailers we spoke with indicated that much of this is due to the IPL costs they face in Michigan. These technologies, which we present at “Technology Adoption” on page 17, can eliminate pricing errors, improve the shopping experience, save money for retailers, and provide consumers with more information about their purchases.
8. The IPL creates paper, ink, adhesive, and other material usage and waste. We estimate that even if only the smallest price stickers were used on all items, it would take one regular sheet of paper to price just 330 items, and a stack of paper the height of the Empire State Building to price all of the items sold by large grocery and supercenter stores in Michigan. See “Environmental Waste” on page 18.

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2. See Table 1, “Michigan Consumer Spending and the Cost of Item Pricing (2010 estimates),” on page 5.

9. Michigan's IPL conveys that burdensome government regulation is needed to ensure consumers are protected from retailers. In truth, consumers in 49 other states are well protected by much less burdensome laws while benefiting from lower prices, more customer service, and new technologies. See "Unfriendly Message to Business" on page 19.

*Overstated Benefits of Item Pricing Laws*

10. Advocates of IPLs cite several benefits, each of which is a desirable outcome. However, these benefits can be realized with a less stringent IPL.
11. Advocates note Michigan's IPL provides an easy way of checking the accuracy of scanners at or after checkout, which prevents consumers from being overcharged. In reality, scanners have been found to be very accurate, and when pricing discrepancies do occur they most often favor the consumer. Further, with many items purchased being "on sale," very few shoppers can use the prices on a receipt (the lower sales price) to verify the price on the item (higher original price) was correct.
12. IPLs are also said to allow shoppers to tally a price total as they shop, and to compare prices as they shop. Innovations like handheld, in-aisle, and even Smartphone-application scanners can be used by customers to tally the cost of their items, and find a price for comparison. These scanners provide more accuracy by showing discounted prices, where as individually priced items carry the full price.
13. Some say the IPL creates or saves retail jobs, but retailers we spoke with reported that their Michigan staffing numbers are similar to those in non-IPL states, and that in Michigan they allocate less time to customer service and other value-added activities due to IPL related labor requirements. Census data further shows that retailers in Michigan have ratios of employees per establishment and employees per sales that are in line with other states. This evidences that the IPL is not causing Michigan retailers to hire more workers than what retailers in other states do.
14. Item pricing also helps prevent shelf label confusion, which occurs when items are inadvertently placed near another item's shelf label. Innovations, like product organizing bins and electronic shelf labels, greatly cut down on shelf-label confusion. Michigan retailers have less available capital to invest in these innovations due to the allocation of funds to IPL materials.
15. Finally, some view IPLs as necessary to protect consumers. However, there is no evidence that Michigan consumers receive any better protection than consumers in other states. All consumers have great recourse against retailers who cause them harm. They can turn to Attorney General offices, Consumer Affairs Bureaus, and even voice their displeasures through a growing range of outlets like Facebook and Twitter. Businesses take great strides to maintain strong customer relationships, and have incentives to protect their own consumers, if for no reason other than to maintain a loyal shopper.

Overall, the benefits that IPL advocates cite are overstated, and achievable through less costly means. See "Overstated Benefits From Item Pricing Laws" on page 21 for further discussion.

Executive Summary

**TABLE 1. Michigan Consumer Spending and the Cost of Item Pricing (2010 estimates)**

	<u>Statewide</u>		<u>Average Household</u>	
	<u>Expenditures</u>	<u>Share Due To Item Pricing</u>	<u>Expenditures</u>	<u>Share Due To Item Pricing</u>
Groceries / Food at Home	\$19,677,182,143	\$1,770,946,393	\$5,064	\$456
Personal Care and Non-prescription Drugs	\$1,902,032,654	\$171,182,939	\$489	\$44
Housekeeping Supplies	\$2,682,590,828	\$241,433,175	\$690	\$62
<b>Total</b>	<b>\$24,261,805,625</b>	<b>\$2,183,562,506</b>	<b>\$6,243</b>	<b>\$562</b>

Source: Anderson Economic Group, LLC. ESRI, Inc.

Note: Item pricing cost estimate based on a 9 percent average price difference.

**TABLE 2. Summary of Item Pricing Laws in the United States, by State**

<u>State</u>	<u>Items Covered</u>	<u>Allowable Exclusions and Exemptions</u>
Michigan	All consumer items.	Few. Retailers may select 25 items for exemption if prices are posted elsewhere. Excluded items include live plants, items sold by weight, food for immediate consumption, motor vehicle parts, and vending machine items.
42 other states (including Ohio, Indiana, and Illinois).	None. No item pricing laws in place	
Arizona	Any package for sale.	100 percent of items are exempt if shelf or display-level pricing is in place, and meets certain visibility requirements.
California	85 percent of packaged consumer goods in grocery stores and grocery departments.	Many. Unpackaged produce, small items under \$0.40, and items sold in vending machines. 15 percent of remaining items can be exempted, with store management selecting the items.
Connecticut	Grocery and household consumer items, but not carbonated or alcoholic beverages.	100 percent exemption for retailers with electronic shelf labels, or upon completion of a waiver application and demonstration of 98 percent scanner accuracy.
Massachusetts	All items in grocery stores or all items in food departments.	Many. Unpackaged foods, tobacco products, frozen food, milk, eggs, snack foods, and soft drinks. Retailers with 95% scanner accuracy can exempt up to 400 more items.
New Hampshire	Most items in grocery stores.	100 percent exemption if shelf tags are in place, and show an item's regular price, unit price, and item description.
New Mexico	Consumer commodities sold by weight, measure, or count.	100 percent if a price is displayed using a sign, sticker, or stamp affixed to the shelf that the item is displayed on.
New York <i>(no state law; 12 counties have IPLs)</i>	Varies by county.	Yes. Most counties exempt retailers that demonstrate 98% scanner accuracy. Some require scanner accuracy and price check scanners in aisles.

Source: Anderson Economic Group, LLC.

**ABOUT ANDERSON  
ECONOMIC GROUP**

Anderson Economic Group, LLC is a consulting firm that specializes in economics, public policy, financial valuation, market research, and land use economics. Anderson Economic Group has completed cost benefit studies and economic impact analyses for a variety of public and private sector clients. More information on the firm is available at [www.AndersonEconomic-Group.com](http://www.AndersonEconomic-Group.com).

## *II. State Item Pricing Laws*

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Most item pricing laws came about after electronic scanner systems were introduced in the later 1970's. While these scanners were thought to increase customer service and convenience, concerns arose about their accuracy and the possible discrepancies between prices listed on the shelf and what the scanner rang up as the price at the register. Food inflation was also a concern, resulting in increased consumer worry about price changes.

Variations of item pricing laws sprung up in states to help consumers catch scanner errors. With retail items being clearly and individually marked, an audit trail could be created for the consumer to review after their shopping trip. If the price on the receipt did not match the price marked on the item these laws provided a form of recourse for the consumer, whether it be in the form of a refund for the difference, an additional bonus, or a free item. In extreme cases, consumers could sue the retailer for damages if they refused to acknowledge the overcharge. States also agreed to monitor retailers and issue fines to any violators, which was another step to keep the retailers on their toes and the consumers protected.

### **MICHIGAN'S ITEM PRICING LAW**

Michigan's Pricing and Advertising of Consumer Items Act (#449 of 1976) became effective on January 1, 1978 and is commonly known as the "Item Pricing Act." This act requires that the total price of an item for sale at retail be "clearly and conspicuously indicated in arabic numerals, so as to be readable and understandable by visual inspection, and shall be stamped upon or affixed to the consumer item."<sup>3</sup> Consumer items are defined as an article of tangible personal property used or consumed, or bought for use or consumption, primarily for personal, family, or household purposes.<sup>4</sup>

The act does not apply to certain products such as those that are unpackaged and sold by weight or volume, items in a coin operated vending machine, prepared food intended for immediate consumption, live plants, and motor vehicle parts. In addition to these, a retailer may exempt up to 25 classes of non-sale items as well as an additional 25 classes of sale items. Class of items is defined as a group of consumer items that may vary by brand, style, pattern, color or size other than weight or volume, but are otherwise identical and offered at the same price. This can be done as long as a list of the non-sale items are posted in a con-

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3. Michigan Pricing and Advertising of Consumer Items Act 449 (<http://legislature.mi.gov/doc.aspx?mcl-Act-449-of-1976>). Accessed November 17, 2010.

4. The law notably applies only to retail items, and as such warehouse clubs, like Costco and Sam's Club, are not required to individually price their items as it is assumed they sell at wholesale.

spicuous place in the store and the price is posted by a conspicuous sign located in conjunction with where the unmarked items are displayed.

Stores are held accountable for abiding to the Item Pricing Act by both the state and the individual consumer. As long as the transaction has been completed and the consumer has a receipt depicting the overcharge, they are entitled to notify the seller, in person or in writing, within 30 days of the transaction. The seller has two days to issue the consumer a refund for the difference in price as well as additional compensation equal to 10 times that difference ranging no less than \$1.00 to no more than \$5.00. If the seller refuses to the above, the consumer may bring about a lawsuit to recover actual damages or \$250, whichever is greater, plus reasonable attorney fees up to \$300.<sup>5</sup> The consumer may also file a complaint with the Department of Agriculture's Weights & Measures Section for further investigation.

The attorney general may seek an injunction for a continuing violation of the item pricing act, which can be lifted with a written assurance of discontinuance. If the retailer knowingly violates the act or terms of the injunction, it must pay the state a civil penalty of not more than \$1,000 for the first offense and not more than \$5,000 for each subsequent offense.

## ITEM PRICING IN OTHER STATES

According to the United States National Institute of Standards and Technology, seven other states currently require some level of mandatory item pricing. Below is an overview of the item pricing law requirements for these states. These are also summarized in Table 2, "Summary of Item Pricing Laws in the United States, by State," on page 5.

### *Arizona*

Arizona statute (Title 41 Chapter 15 Section 41-2081) states that any package for sale "shall bear on the outside of the package a definite, plain and conspicuous declaration of the identity of the commodity, the quantity, name of the manufacturer and price".<sup>6</sup> It does provide two exceptions. The seller may instead post the selling price in bold type that measures no less than three-eighths of an inch on the shelf or at the display. The price may also be displayed at the point of display for sale items. At the request of the consumer, a retailer must provide a means of recording price such as felt markers, or scanners and be able to provide a written statement of their errors in pricing policy.

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5. Attorney General Consumer Alert - Item Pricing (<http://www.michigan.gov/ag/0,1607,7-164--134114--,00.html>). Accessed November 8, 2010.

6. Arizona Statute Title 41 Section 41-2081 (<http://www.azleg.gov/FormatDocument.asp?inDoc=/ars/41/02081.htm&Title=41&DocType=ARS>). Accessed November 30, 2010.

Under Arizona Administrative Code (Title 20 Chapter 2), the Department of Weights and Measures performs inspections for both price verification and price posting. In both cases, the initial inspection is for educational purposes and no fines are issued for any violations. During reinspection, fines will be issued for violations that cannot be corrected within 30 minutes of completion of the inspection. Price verification violations are cited \$100 per violation and \$200 per violation for a failed second reinspection. For price posting violations, a \$50 penalty per item if a seller fails a reinspection score of less than 96% and \$100 per item upon a second reinspection.<sup>7</sup> If the Department finds that a seller doesn't have a written price-error policy, they will receive a warning and then a \$500 fine if they fail to have it again upon reinspection.

### *California*

Under California Civil Code 7100, known as the Rosenthal-Roberti Item Pricing Act of 1981, every retail grocery store or grocery department that uses an electronic point-of-sale system “shall cause to have a clearly readable price indicated on 85 percent of the total number of non-exempt packaged consumer commodities offered for sale.”<sup>8</sup> Consumer commodities are defined as foods which are intended for consumption by humans or household pets, paper products such as napkins and tissues, detergents, soaps, cleaning agents, and pharmaceuticals including bandages, toiletries and nonprescription drugs.

The code excludes consumer commodities not generally item-priced prior to 1977 and other items such as unpackaged fresh food produce, consumer commodities which are under three cubic inches in size, weigh less than three ounces, and are priced under forty cents, identical items within a multi-item package, and items sold through a vending machine.

The intentional violation of Section 7100 (failure of 12 units of the same item not having a clearly readable price) is punishable by a civil penalty of not less than \$25 or more than \$500.

### *Connecticut*

Connecticut Public Act No. 06-66, effective October 1, 2006, substitutes the original provision (Section 21a-79) relating to universal product coding. The revised act states that anyone that uses electronic pricing for consumer commodities that bear a universal product code shall mark each item with its retail price. A consumer commodity is defined as a product, such as food, drugs (except those sold only by prescription), or cosmetics that are produced for consumption or used for personal care in or around the household.<sup>9</sup> The 2006 act

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7. Arizona Administrative Code Title 20 Chapter 2 Section R20-2-104 ([http://www.azsos.gov/public\\_services/Title\\_20/20-02.htm](http://www.azsos.gov/public_services/Title_20/20-02.htm)). Accessed November 30, 2010.

8. California Civil Code Section 7100 (<http://www.leginfo.ca.gov/cgi-bin/waisgate?WAISdocID=2119187682+0+0+0&WAIAction=retrieve>). Accessed November 22, 2010.

updated the definition by excluding alcoholic liquor and carbonated soft drink containers.<sup>10</sup>

Retailers are exempt from individual item pricing if the commissioner of consumer protection allows for the use of an electronic shelf labeling system. This system is attached to the shelf immediately above or below the item, list a clear price display and reads the exact same data as the electronic cash register scanner.

Connecticut retailers can also apply for item price exemption from the Department of Consumer Protection. To do so, they must submit a completed waiver, pay a one time waiver fee based on their square footage of retail space (either \$315 or \$625), must demonstrate a price scanner accuracy of at least 98%, pay an application fee to offset annual inspection costs of either \$250 or \$500 (depending on square footage), make available a consumer price test scanner for every 12,000 square feet of retail space, and place a conspicuous sign shall disclose to the consumer that an overcharge will result in the item being free. The retailer must also submit a plan for implementation of the consumer test scanners for review and approval. Inspections resulting in a less than 98% scanner accuracy are reinspected once without penalty and the retailer has to pay a \$200 reinspecting fee.<sup>11</sup>

Connecticut has a “Get One Free” Law that entitles the shopper to receive, at no cost, the item that scans higher at checkout. State law requires this up to a value of \$20 as long as the shopper points out the error and requests the free item. If a product scans lower than the marked price, the shopper is allowed to buy the item at the lower, scanned price. If the item cost more than \$20 the law still applies, but instead of receiving the item free, the consumer is entitled to an immediate credit of \$20 off the total purchase at the cash register. This law only applies to consumer commodities which are defined as items that are depleted over time and must be regularly replaced, such as a loaf of bread or band-aids.<sup>12</sup>

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9. Connecticut Statute Chapter 417 Section 21a-79 (<http://www.cga.ct.gov/2009/pub/chap417.htm#Sec21a-79.htm>). Accessed November 22, 2010.

10. Connecticut Public Act No. 06-66 (<http://www.cga.ct.gov/2006/ACT/PA/2006PA-00066-R00SB-00496-PA.htm>). Accessed November 22, 2010.

11. Connecticut Department of Consumer Protection Application for Registration of Item Price Exemption ([http://www.ct.gov/dcp/lib/dcp/pdf/applications\\_october\\_2009/cpip-06\\_09oct.pdf](http://www.ct.gov/dcp/lib/dcp/pdf/applications_october_2009/cpip-06_09oct.pdf)). Accessed November 22, 2010.

12. Connecticut Department of Consumer Protection Fact Sheet *Price Scanning and the “Get One Free” Law* ([http://www.ct.gov/dcp/lib/dcp/pdf/factsheets/price\\_scannin\\_fact\\_sheet.pdf](http://www.ct.gov/dcp/lib/dcp/pdf/factsheets/price_scannin_fact_sheet.pdf)). Accessed November 22, 2010.

*Massachusetts*

Under the Code of Massachusetts Regulations (Chapter 94 Section 184C), every item in a food store and every grocery item in a food department, whether edible or not, shall have each unit individually marked with the correct selling price.<sup>13</sup> Exempt items include such things as unpackaged foods, milk, eggs, frozen foods, tobacco products, snack foods like gum, candy, and chips, soft drinks, and some types of individual glass jars of baby food. In addition to these exemptions, retailers that have at least a 95% scanner accuracy rate can exempt up to 400 additional items (based on the number of operable check-outs at the main checkout location) provided the seller maintains a dated written list of the items with prices listed.<sup>14</sup>

Pricing inspections are conducted by the Massachusetts Division of Standards and civil citations of \$100 may be issued for each violation up to a maximum of \$2,500 per inspection. Price accuracy guarantees for consumers are at the discretion of the retailer, but a qualified price guarantee is required, at minimum, to immediately give a consumer one item free that was incorrectly priced or unmarked which the consumer need only point out to the cashier. Any food retailer that complies with a price accuracy guarantee and posts it at all check-out locations, can have any incurred violations reduced by 50%.<sup>15</sup>

In 2003, the Attorney General updated the 1971 law to allow items that bear a Universal Price Code “UPC” barcode to be exempt from individual item pricing as long as the seller employs an automated retail check out system, makes available in the store at least one electronic scanner for every 5,000 square feet of retail space with prominently posted signs, the scanners have the ability to display the description and selling price along with producing some sort of price tag printout that could be affixed to the item by the consumer. Any item with a price of \$500 or more is still required to be individually priced.<sup>16</sup>

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13. Massachusetts Regulations Chapter 94 Section 184C (<http://www.malegislature.gov/Laws/GeneralLaws/PartI/TitleXV/Chapter94/Section184C>). Accessed November 22, 2010.

14. Massachusetts Regulations Chapter 94 Section 184D (<http://www.malegislature.gov/Laws/GeneralLaws/PartI/TitleXV/Chapter94/Section184D>). Accessed November 22, 2010.

15. Massachusetts Regulations Chapter 94 Section 184E (<http://www.malegislature.gov/Laws/GeneralLaws/PartI/TitleXV/Chapter94/Section184E>). Accessed November 22, 2010.

16. Massachusetts Regulations 940 CMR 3.13: Pricing and Refund, Return and Cancellation Privileges ([http://www.mass.gov/?pageID=cagoterminal&L=3&L0=Home&L1=Government&L2=AG's+Regulations&sid=Cago&b=terminalcontent&f=government\\_Regulations\\_940CMR3&csid=Cago#3.13: Pricing and Refund, Return and Cancellation Privileges](http://www.mass.gov/?pageID=cagoterminal&L=3&L0=Home&L1=Government&L2=AG's+Regulations&sid=Cago&b=terminalcontent&f=government_Regulations_940CMR3&csid=Cago#3.13: Pricing and Refund, Return and Cancellation Privileges)). Accessed November 23, 2010.

*New Hampshire*

Under New Hampshire statute Title XL (Chapter 438 Section 438:26-a), effective January 1, 1991 the state of New Hampshire requires that grocery stores (defined as an establishment where food and food products are offered to the consumer and intended for off-premise consumption) shall “mark clearly upon the package of each item sold in packaged form the price of such item, or shall place under the shelf containing the item a uniform shelf tag, or a larger sign indicating item price.”<sup>17</sup> The uniform shelf tag is required to show the regular price of each individual item (with numbers at least 7/16 of an inch in height), the unit price and the name or description of the item. Items exempt from this rule are cold beverages and snack items packaged in individual sizes and designed for immediate consumption.

*New Mexico*

Under New Mexico administrative code (Title 21 Chapter 16 Part 6), effective July 1, 1997, all retailers of consumer commodities sold by weight, measure or count shall follow a set of price representation guidelines. Price information may be displayed by means of a sign, sticker or stamp affixed to the shelf upon which the commodity is displayed or by the same means affixed to the commodity itself.<sup>18</sup> If a single sign provides the price information for more than one brand or size of a given commodity then it must contain the identity and brand of the commodity, the quantity of the commodity and the total retail price and should be located in a central location close to the items in which it refers.

Stores are inspected by the Department of Agriculture and should be inspected at least semi-annually.<sup>19</sup> Sample collection and accuracy requirements differ by type of store (convenience/small retail vs. all other retail), but an accuracy rate of 98% is required to pass inspection for most stores. If a store fails, immediate correction is required otherwise a hold notice is put on the item. If the error is not fixed upon reinspection, the case is referred to the division director who decides the course of action to be taken.

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17. New Hampshire Statute Title XL Agriculture, Horticulture and Animal Husbandry, Chapter 438 Section 438:26-a (<http://www.gencourt.state.nh.us/rfa/html/XL/438/438-26-a.htm>). Accessed November 16, 2010.

18. New Mexico Administrative Code Title 21 Chapter 16 Part 6 (<http://www.nmcpr.state.nm.us/nmac/parts/title21/21.016.0006.htm>). Accessed November 22, 2010.

19. New Mexico Department of Agriculture *Examination Procedure for Price Verification Manual* ([http://nmdaweb.nmsu.edu/weights-and-measures/w-m-hidden-folder/2010-updates-1/price\\_verification\\_manual.pdf](http://nmdaweb.nmsu.edu/weights-and-measures/w-m-hidden-folder/2010-updates-1/price_verification_manual.pdf)). Accessed November 22, 2010.

*New York*

The state of New York had an item pricing law that expired on June 30, 1991 which was not renewed and has been superseded by local laws. There are 12 counties that have their own item pricing law, of which seven exempt pricing requirements for stores that meet a standard 98% scanner accuracy rate.<sup>20</sup> In the counties that don't have a law, consumers are still protected from overcharging by the New York Consumer Protection Law.

Westchester County, a 450-square mile county located north of New York City, enacted an item pricing law under Section 863.11 of the Laws of Westchester County. It states that the selling price shall be clearly labeled in arabic numerals on each item of consumer goods offered in the county.<sup>21</sup> This original law did not apply to items such as fresh milk, fresh eggs, food sold for consumption on premises, items from a vending machine, and single packaged items like gum, candy as long as the selling price and unit of measure were clearly displayed on a sign in close proximity.

In March 2010, an amendment to the original law (Section 863.72) was made that allows businesses with a computer-assisted checkout system to submit an item pricing waiver application to the Department of Consumer Protection.<sup>22</sup> If the business passes a scanner-accuracy inspection, then a waiver is granted for one full year. Stores are required to reapply annually for renewal and the waiver can be revoked at any time due to a failed inspection. Additional conditions of the waiver include that stores make available price check scanners in convenient locations to the consumer of which the number of scanners is based on the store's retail area square footage and that a shelf price is visibly listed directly under the item on the shelf it is being displayed. This amendment took effect on June 27, 2010.

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20. Food Marketing Institute - Priority State Issues: Item and Unit Pricing ([http://www.fmi.org/gr/issues/gr\\_issues\\_display.cfm?id=133](http://www.fmi.org/gr/issues/gr_issues_display.cfm?id=133)). Accessed November 23, 2010.

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### *III. Costs of Item Pricing Laws*

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#### **ILLUSTRATING THE ITEM PRICING BURDEN**

Imagine preparing for a garage sale—what better way to get some money back on those old books, VHS tapes, and CDs that are no longer used. You set the twenty of so paperback books in one section, with six or seven hard covers nearby. The forty VHS tapes are set on the adjacent table, with about sixty CDs in a box off to the side. In front of each stack you place a hand-written sign—“Paperbacks: \$0.50 each”; “Hardcovers: \$2 each”; “CDs: \$1 or six for \$5”; VHS movies: \$1.50 each.” You’re in business, and just in time as the early shoppers are starting to arrive.

Now imagine that the Item Pricing Law applied to your garage sale. On the morning of the sale you wake up thirty minutes early to go out and buy pricing stickers—\$5.99 for 50 stickers in a pack... better get three packs so you’re at \$19.05 with sales tax. Now you have to get these stickers on about 130 items, and then write on the prices. It takes about 15 seconds to get each item priced, so you can do four items per minute if you’re diligent. After a half hour everything is priced, but you still have to make that “six for \$5” special sign for the CDs. Let’s just hope everything sells at the marked priced... what a pain to have to peel off the stickers and put new ones on later.

Fortunately, Michigan’s IPL doesn’t apply to your garage sale, or to other small retail sales provided prices are not being read using bar codes and a price scanner. However, the IPL does require that nearly every item sold at retail and rung up using a barcode scanner, be individually priced. This burden becomes pretty significant considering large supercenters have upwards of 142,000 items on their shelves at any given time, and sell more than 5 million units per store in a year.

#### **QUANTIFYING THE COSTS OF IPLS**

As illustrated in our garage sale example, IPLs subject retailers to labor and material expenses that produce little or no benefit in return. These expenses are, in many instances, passed along to customers in the form of higher prices. This is especially likely in low-margin retail operations like grocery stores. Previous studies have estimated the cost to consumers is demonstrably higher when IPLs are in place. Below is a summary of own of the most rigorous of such studies, as well as our own assessment of the costs associated with the Michigan IPL.

#### *IPLs and Higher Item Prices*

**Existing Research Findings.** The requirement to place a price sticker on each item is just one of many variables that goes into determining retail prices. Isolating how much is added to the cost of retail items, therefore, presents a challenging task, one that several leading economists undertook and published as “When Little Things Mean a Lot: On the Inefficiency of Item Pricing Laws.” This

report, which the authors revised in January of 2007 for publication in the *Journal of Law and Economics*, posits that IPLs lead to higher item pricing, and finds this to be conclusively true.

To test their prediction the authors collected pricing data on items at grocery stores in demographically and economically similar regions of New York, New Jersey, and Connecticut. The tested area of New York requires item pricing; Connecticut has an IPL, but exempts retailers using electronic shelf labels (ESLs); and New Jersey does not require item pricing. With item pricing regulations being the primary differences among the markets the area is ideal for assessing how item-pricing legislation impacts costs.

Prices were manually collected for 165 different items, ranging from Purina Cat Chow in 56oz boxes, to 1 lb. bags of Oreo Cookies, to 2-liter bottles of Coke and Diet Sprite. Care was taken to sample from stores that operated in all three markets, and in total there was a total sampling of 3,240 price observations. See Table 3 on page B-2 for a listing of all 165 items that were sampled in the study.

The resulting analysis, which included regressions to control for state- and store-level factors, found that IPL store prices exceeded non-IPL store prices by an average of \$0.25 per item. This represented an eight to ten percent price increase on the average price of the sampled items when comparing IPL stores to non-IPL stores. The report further found that IPL store prices were \$0.15 more per item when compared to stores with ESLs, so even alternatives to item pricing can provide notable benefits at the register.

#### *Direct Consumer Costs of Item Pricing in Michigan*

The research presented in “When Little Things Mean a Lot: On the Inefficiency of Item Pricing Laws” conclusively finds that prices—at least among the 165 grocery, household, and health/beauty items sampled—are eight to ten percent higher in areas where IPLs require a price sticker on most every item. Michigan consumers, then, certainly share in the burden of the state’s IPL through higher prices at the register.

As shown in Table 4, “Consumer Expenditure Data, State of Michigan, 2010,” on page B-4, the average household in Michigan is likely to spend a total of \$6,243 on groceries, personal health and care items, and household supplies in 2010. With eight to ten percent of these costs being attributable to the costs of item pricing, households in Michigan paid, on average, \$561.91 for item pricing. This comes to about \$216 per person, and \$2.2 billion when spread across the entire states’ population’s spending on groceries, personal health and care items, and household supplies.

Our estimate takes only grocery, personal health and care item, and household supply expenditures into account as only these items were sampled in the analy-

sis that concluded the eight to ten percent IPL pricing difference.<sup>23</sup> Michigan consumers certainly pay some share of the cost of item pricing for other retail expenditures, though we are unable to estimate this cost based on prior research. As such, our \$2.2 billion total cost to consumers can be viewed as a very conservative estimate of what Michigan consumers pay annually for item pricing.

## IPL OPPORTUNITY COSTS

When businesses are required to undertake certain activities, as is the case under Michigan's item pricing law, they are forced to allocate their resources in ways that they otherwise might not. In many cases this means a preferred use of resources must be forgone. The forgone preferred use, in economics, is referred to as an opportunity cost. Put another way, the requirement to put prices on nearly every retail item results in retailers not having the opportunity to undertake more preferred activities.

In our discussions with retailers from across Michigan, and through our own research, we have identified opportunities that Michigan retailers and consumers do not realize due to the opportunity costs caused by the IPL. Specifically, retail operations in Michigan very often have fewer employees in customer service roles as a result of item-pricing, and Michigan retail operations are less likely to adopt new technologies that benefit both the business and the customer as a result of IPL burdens.

### *Customer Service Staff*

The majority of items sold in retail stores do not come with a price already marked, and as such manual labor is required in stores to place a price sticker on each unit that is for sale. This is largely unique to Michigan, and as such retail operations in the state must allocate their labor hours accordingly. This directly results in fewer available labor hours for customer-service oriented tasks, as time must be spent manually pricing items before they are placed on shelves or racks.

Large supercenters that sell grocery and general merchandise typically sell more than 14 million units per year, and other big box retailers and groceries typically sell about five million units annually.<sup>24</sup> Individually pricing 14 million units, assuming a trained person prices one item every 1.5 seconds, takes 350,000 minutes, or 5,833 hours.<sup>25</sup> The time requirement is 2,083 hours for five million units.

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23. Michigan consumers are expected to spend \$66.3 billion on other retail goods in 2010.

24. A retailer we spoke with confirmed that their Michigan operations sell over 14 million units, on average, of product that requires a price be placed on it due to Michigan's IPL. As such, the unit count excludes items that come pre-priced (some books and greeting cards, for example) or that do not require a price tag (bulk sold foods, for example).

Based on the above we calculate that retail operations in Michigan need to divert one full-time employee away from customer service activities and onto item pricing activities for every 5 million units sold annually. This provides a conservative estimate, as it does not account for supervision, compliance audits, or for the significant additional time involved in making permanent price changes, which requires items to be pulled from shelves, old tags to be removed, new tags applied, followed by restocking.<sup>26</sup> When these tasks are accounted for the actual time requirement likely amounts to two full-time employees.

### *Technology Adoption*

With the IPL requiring Michigan retailers to allocate labor and capital towards item pricing supplies and activities, there is less opportunity for them to invest in new technologies that can benefit both the retailer and the consumer. This includes emerging technologies that can reduce pricing errors and allow more information to be conveyed to customers, as well as existing technologies that smaller retailers could use to improve their operations and their customer experience.

The current IPL in Michigan, with its requirement that a price sticker be placed on most every item sold, forces retailers to spend significant amounts on pricing guns, labels, and ink refills. Most retailers we spoke to reported spending an average of \$6,000 to \$10,000 per year, per store, on these supplies alone. For a retail operating with 100 stores across the state, and a IPL supply cost of \$10,000 per store, there is a resulting \$1 million of capital that redirected from potential uses that could improve overall operations and customer experiences. Consider the below examples.

**Electronic Shelf Labels.** Electronic shelf labels (ESLs) are becoming more widely used in states cross the country, though many Michigan retailers find them price prohibitive when the mandated item pricing costs are also accounted for. An ESL is typically mounted on the front edge of a shelf, just below the product. They use LCD displays (similar to a digital watch, but with larger font sizes) to convey the price of the item.



Example of an Electronic Shelf Label (ESL)

ESLs offer retailers a much more efficient and accurate way of reporting prices to consumers, and alerting them of discounts. Prices can be changed quickly via radio signal or other wireless technologies, and when sent from a central price registry they will assuredly match the price in the scanning system. The prices can also be set to blink to display more brightly to draw a shoppers attention to

25. Results from a time-motion study provided to us by a large retailer with operations across Michigan shows it takes, on average, 1.56 seconds to apply price tags to food items using a pricing gu, and allowing the necessary time to verify prices and set them on the gun.

26. The previously cited time-motion study found that it took 96.13 seconds to reprice each unit during the permanent price change of an item.

special pricing. Many ESLs have other indicator functions, such as small red lights that can be activated as part of an inventory system, thus making it easier for stocking staff to quickly replenish shelves. These indicating systems help save money, as they make price changes more efficient, reduce the need for additional signage to indicate sale prices, and make stocking more efficient.

If Michigan retailers could allocate their funds to ESL systems, as opposed to mandatory item pricing, both retailers and consumers could benefit from better pricing accuracy and quicker stock replenishing. The ESL costs have also been shown to be lower than the costs associated with item pricing. As noted earlier, retailer prices in ESL stores were found to be \$0.15 less per item when compared to IPL stores. This speaks to the cost savings of the systems, and the value derived from being able to better allocate staff time.

**Scan as you Shop.** The Giant chain of grocery stores (operates in Washington D.C., Delaware, Maryland, and Virginia) has a new “Scan-It” program that allows shoppers to scan their items as they place them into bags within their carts.



Scan-It handheld unit from Giant

The program allows shoppers with a loyalty card to check out a scanner and pick up some bags when they get their cart. Shoppers then scan the barcode on each item they place into the cart. A running total is displayed on the handheld unit, and at check out a receipt prints from the handheld. The handheld can even process electronic forms of payment, reducing the need to check-out lines. Random spot-checks are done to ensure all items in a cart have been scanned at checkout.

Innovations like this, which greatly increase customer convenience, are less likely to be implemented in Michigan as long as item pricing is mandated, and the related costs can not be avoided.

## ADDITIONAL COST CONSIDERATIONS

**Environmental Waste.** The process of putting a price sticker on each item consumes significant material resources, mainly paper, ink, and adhesive. In paper alone, consider that the small price tags, like those commonly found on a can of soup, measure 3/8” high by 3/4” across. With these dimensions you can get about 330 tags from a standard 8.5” by 11” piece of paper, assuming minimal waste.

A grocer that sells about five million individual items a year would need the equivalent of 30 reams of paper if it put just the smallest price sticker on each item.<sup>27</sup> That is the equivalent of a five-foot stack of regular sized paper for each large grocery store in Michigan. The stack grows to 1,225 feet when all 245

large grocery and supercenter stores in Michigan are accounted for.<sup>28</sup> By comparison, Detroit's Renaissance Center stands 727 feet and the Empire State Building is 1,250 feet.

The calculated paper usage represents only a portion of the waste generated by the IPL. Many price stickers are larger than those used in our calculations, some items end up with multiple price stickers—especially if re-priced—and equally significant amounts of adhesive and ink must also be used to price each item. Account for these factors, and spread the waste over the many smaller retailers within the state, and the numbers magnify greatly.

**Unfriendly Message to Business.** Michigan's item pricing law was put in place during an era when even technologically savvy people were not comfortable trusting a computer's ability to do a person's job. Item pricing, then, was helpful in ensuring that technology was up to the task. Today, however, there is no question that the existing technology is up to the task of scanning merchandise. Yet the IPL remains.

Michigan's IPL conveys that state government is needed to ensure Michigan consumers are treated fairly at the register by retail businesses. Consumers in other states, however, get by just fine without onerous and costly item pricing regulations. In fact, many do better as a result of lower prices, more customer service, and convenient technologies. These consumers also have more outlets than ever to report overpricing by, and dissatisfaction with, a retailer. One bad Twitter post, Yelp review, Facebook entry, or Blog entry can result in substantial lost business, which places a great burden on retailers to be accurate in their pricing, and fair in their treatment of customers.

Businesses in non-IPL states are also better off. They benefit from reduced compliance burdens and opportunities to use their resources in more productive ways. They can also offer employees more opportunities to work with customers, or to perform other tasks that would be more desirable than placing price stickers on jars and boxes. The states also benefit from friendlier business environments and fewer barriers to business growth and attraction, as they send a much stronger message of trust and cooperation to their business community.

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27. Five million units per year is used as a conservative average, recognizing most Superstores sell more than 14 million units per year.

28. Establishment count data provided by the U.S. Census, 2008 County Business Patterns. Large stores are those with 100 or more employees. For 2008 Michigan had 147 large grocery stores (NAICS 4451) and 196 Warehouse Clubs and Supercenters (NAICS 4529), of which we estimate 50 percent to be Supercenters, thus excluding Warehouse clubs that are exempt from the IPL.

## **BEARING THE BURDEN**

Our research suggests that the costs of the item pricing law, as discussed in the above, are not equally borne across consumer groups, or across businesses. The greatest burdens from the law fall on those in lower-income consumer groups, those living in areas with low retail competition, and on smaller businesses that operate primarily in Michigan.

Low-income households and individuals allocate a greater share of their total income to the purchase of groceries and household necessities than those with higher incomes do (see Table 7 on page B-9). For example, consumer units with incomes of \$10,000 to \$14,999 spend, on average, 14.9 percent of their income on food at home, household items, and personal care items, while consumer units earning over \$70,000 a year spent just 8.6 percent of their income in these same categories. As such, lower-income groups stand to benefit more from a reduction in IPL related costs than do higher income groups. Higher-income groups are also more likely to make purchases online, through catalogs, or to have means of conducting greater price comparison research, giving them greater ability to purchase from outlets that are not subject to item pricing costs.

Competitive environments provide consumers with more value, which is why antitrust and monopolistic behavior is strongly regulated. In parts of the state that have less retail competition retailers will face less pressure to absorb the costs of item pricing, and as such more of the costs are passed along to consumers. Consumers in these areas, in turn, will pay a greater price for item pricing than consumers in markets with more competition. As such, Michigan residents in rural areas, as well as many low-income urban areas, are more likely to pay a greater price for item pricing than those who live in regions with more retail competition.

Businesses that are based in Michigan or that have the majority of their operations in the state, also share in a greater portion of the IPL burden than do businesses that operate across a larger area. Michigan only businesses, for example, cannot look elsewhere for higher margins, where as multi-state retailers can realize lower margins in Michigan if their margins elsewhere offset for it. As a result, retailers operating primarily in Michigan must choose between passing along a great cost for item pricing to their customers, or operating at lower margins. Neither is an attractive alternative, as both put the Michigan retailer at a competitive disadvantage.

#### *IV. Overstated Benefits From Item Pricing Laws*

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Item pricing laws do offer benefits to consumers, and as such have some advocates. However, the most frequently cited benefits tend to ignore associated costs, or overlook facts that prove to reduce the actual or perceived value of the benefits being asserted.

Below are some of the benefits that IPL advocates frequently cite, and for which further information should be considered before the benefit can be fully understood. Once this overlooked information is considered, the costs more clearly outweigh the benefits.

#### **CHECK SCANNER ACCURACY**

One benefit often cited by advocates of IPLs is that a sticker price on every item allows consumers and register operators to check prices as they are scanned at checkout to ensure they are properly recorded. Scanner inaccuracy was an understandable concern in the late 1970s when the technology was in its infancy, and most people were unfamiliar and uncomfortable with computers. This is not the case today, however. Computers are integrated into our daily lives, and are relied on to be far more accurate than human operators.

**Scanner Accuracy.** A study by the Federal Trade Commission has confirmed the high degree of accuracy that scanners afford.<sup>29</sup> The study also found no evidence that consumers pay more due to the minimal pricing errors that do occur. Specifically, the FTC findings showed that only 1 in 30 checked was mis-priced, providing for a 96.67 percent accuracy rating. Of these mis-pricings, half were overcharges and half were undercharges, which implies only a 1.67% overcharge rate. Further, the average amount of an overcharge was \$3.20, while the average undercharge was \$5.28, resulting in the errors working to the consumers advantage, if not detected. Retailers we spoke with during our research indicated that their scanner accuracy testing shows above 98 percent accuracy across their operations in recent years.

**Sale Prices.** Comparing a marked item price with the price that scans is also, in many cases, already not possible as a result of promotional and sale prices. Michigan's IPL allows retailers to display promotional prices on shelves, so every unit of an item on sale does not have to be repriced. As such, a sale priced item will be marked with a higher price, but will scan and show on a receipt at the lower price. With many retailers, especially grocery and general merchandise stores, placing about 35 percent of their items on sale at any given time, and most customers buying more sale items, it is already not possible to check scanner accuracy simply by comparing prices on a receipt to those marked on items.

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29. United States Federal Trade Commission. *Price Check II, A follow-up report on the accuracy of Checkout Scanner Prices*. Washington D.C., 1998.

**ALLOWS SHOPPERS  
TO EASILY TALLY  
AND COMPARE  
COSTS**

Supporters of item pricing also note that having a price on every item allows a shopper to calculate the total cost of the goods in their cart while they are shopping, and to compare prices as they shop without having to go back to check an item's price on the shelf. However, with many items being purchased at sale prices, the marked prices in a cart are not reflective of the total cost. Technologies—like handheld, aisle located scanners, and even apps for smartphones—therefore provide most shoppers with a better tool for checking prices as they shop. These scanners will report back the same price that will be registered at check out, and accurately capture discounts and other promotional prices. Some barcode scanning smartphone applications will even display prices at other stores, allowing shoppers even greater price comparison information. With these technologies available, and much more likely to be adopted if IPL expenses were reduced, shoppers will still be able to tally and compare prices, and could do so with greater ease and accuracy.

**CREATES OR SAVES  
JOBS**

Some have contended that item pricing legislation, if reformed to be less labor intensive, would result in retailers being able to cut their payrolls. They feel the labor intensive work associated with placing a price sticker on each item means retailers currently have staff just to meet those demands, and that without the law retailers would have fewer workers. Retailers we spoke with, however, indicated that their Michigan staffing levels are the same as those in non-IPL states. The difference only comes in how the staff is used, with more back-room labor required in Michigan, and more customer service and front-of-store labor available in non-IPL states.

An analysis of actual retail sector data by state helps illustrate that the IPL does not result in more employment in the retail sector. Data from the U.S. Census Bureau, as presented in Table 5 in Appendix B, allows us to see average employment per retail store, per state. In 2008 there were 12.8 retail employees for every retail establishment in the state, a measure notably below the national average of 14.2 employees per establishment. In Table 6 in Appendix B we assess the number of retail employees per million dollars of sales volume, and see that Michigan retailers averaged 4.3 on this metric, tying it with other states in the region like Ohio and Minnesota, and below states like Iowa and Wisconsin. Michigan and these nearby states did have more employment for each million in retail sales, but despite the IPL, Michigan employment was still in line with neighboring states that do not have IPLs. From this it is difficult to conclude that the IPL creates jobs, and that jobs would be lost if it were reformed to be less labor intensive.

**PREVENTS SHELF LABEL CONFUSION**

It is not uncommon to find items misplaced on shelves, especially when the items are similar in size and packaging. When this occurs a hurried shopper might accidentally grab a higher priced item if it is near or on a section of shelf that has the shelf label for a lower priced item. A price label on the item, however, allows the consumer to see that they have picked up the \$1.29 item, as opposed to the \$0.99 item they thought was on the shelf. Item pricing does assist in these instances.

Tools are available for retailers to use to limit the misplacement of items on shelves, and it is certainly in their interest to do so given the costs associated with restocking shelves and handling returned items. Many retailers are already using shelf organizers, like the one shown, to ensure cans stay in the proper locations. Others are using electronic shelf displays that show not only price information, but also provide a picture of the product. If not for IPL related expenses, more retailers would likely implement these tools, thus lessening shelf label confusion.



Shelf organization to prevent pricing confusion

**PROVIDES CONSUMER PROTECTION**

Item pricing laws were clearly intended to protect consumers from inadvertent or purposeful overcharges in an age where technologies were emerging and consumers were leery of business using the technology to its advantage. Today, however, the power of technology has largely shifted to the consumer's advantage. Social media web sites and applications like Facebook, Yelp, and Twitter can be used by consumers to instantly voice their displeasure to a broad audience, which puts more pressure than ever on retailers to provide excellent customer service. To this end most retailers promptly address pricing errors, and many retailers have their own policies that result in mis-priced items being provided for free, or at a discounted price, in response to errors occurring.

Consumers outside of Michigan are also afforded protection from retailer pricing errors. State Attorney General offices, Divisions of Consumer Affairs, or other such agencies in every state offer clear channels through which consumers can voice complaints, have issues investigated, and be compensated for any harm that is found to have been done. Further, many states that do not have IPLs, or with IPLs less burdensome than Michigan's, still have laws in place that require the monitoring of retail scanner accuracy, and that levy fines and penalties on retailers who fail to comply. All of this provides consumers with significant protection, but avoids the costs that Michigan's IPL brings to bear.

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## *VI. Appendix B: Exhibits*

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This appendix includes the following exhibits:

1. Category and Products Selected for Price Testing in *When Little Things Mean a Lot: On the Inefficiency of Item Pricing Laws*.
2. Consumer Expenditure Data, State of Michigan, 2010.
3. Employees Per Retail Establishment, by State, 2008.
4. Employees Per Dollar of Retail Sale, by State, 2007.
5. Average Consumer Expenditures as Share of Income, by Income Level, 2009.

**TABLE 3. Category and Products Selected for Price Testing in *When Little Things Mean a Lot: On the Inefficiency of Item Pricing Laws***

Category and products in the category	Index	Category and products in the category	Index
<b><u>Beverages</u></b>		<b><u>Breakfast/Cereals</u></b>	
Coca Cola Classic – 2L bottle	B1	Kellog's Apple Jacks – 15oz	BF1
Diet Sprite – 2L bottle	B2	Kellog's Corn Pops – 15oz	BF2
Vintage Seltzer Water – 2L bottle	B3	Kellog's Special K – 12oz	BF3
Pepsi Cola – 12/12oz cans	B4	GM Cheerios – 15oz	BF4
Barq's Root Beer 12/12oz cans	B5	GM Cocoa Puffs – 13.75oz	BF5
Dr. Brown's Cream Soda 6/12oz cans	B6	GM Lucky Charms – 20oz	BF6
Poland Spring – 1 gallon container	B7	Post Raisin Bran – 20oz	BF7
Evian – 1L bottle	B8	Post Fruity Pebbles – 13oz	BF8
Lemon Lime Gatorade – 64oz bottle	B9	Nature Valley Granola Oats 'N Honey – 8.9oz	BF9
Arizona Iced Tea (boxed drinks) – 3/12oz	B10	Kellog's Nutri Grain Blueberry Bars – 8 bars	BF10
Fruit Punch Capri Sun – 10/6.75oz	B11	Kellog's Variety Pack – 10/1.5oz	BF11
V8 Vegetable Juice – 46 oz can	B12	Kellog's Pop Tarts Frosted Strawberry – 14.7oz	BF12
V8 Splash Tropical Blend – 64oz bottle	B13	Nestle Quick Drink Mix – 15oz can	BF13
Juicy Juice Fruit Punch – 46oz can	B14	Aunt Jemima Original Pancake Mix – 2lb box	BF14
Tropicana Twisters Tropical Fruit – 1.75L bottle	B15	Aunt Jemima Pancake Syrup – 24oz bottle	BF15
<b><u>Frozen Foods</u></b>		<b><u>Dairy and Juices</u></b>	
Swanson Turkey (white meat) – 11.75oz	FRZ1	Farmland S.R. 1% Plus Lowfat Milk – ½ gallon	DR1
Swanson Salisbury Steak – 13oz	FRZ2	Lactaid 100 Fat Free Milk Lactose Free – 1 quart	DR2
Weight Watchers Smart Ones Basil Chicken – 9.5oz	FRZ3	Nesquick Chocolate Milk – 64oz	DR3
Weight Watchers Smart Ones Mac & Cheese – 10oz	FRZ4	Dannon Light Yogurt Cherry Vanilla – 8oz container	DR4
Healthy Choice Medly's Roast Turkey Breast – 8.5oz	FRZ5	Dannon Raspberry – 8oz container	DR5
Haagen Dazs Vanilla Ice Cream – 1 pint	FRZ6	Breakstone's Fat Free Cottage Cheese – 16oz	DR6
Stouffers Lean Cuisine Swedish Meatballs – 10oz	FRZ7	Land O' Lakes Salted Whipped Light Butter – 8oz	DR7
Stouffers Hearty Portions Salisbury Steak – 16oz	FRZ8	Kraft Fat Free American Cheese Singles – 16 slices	DR8
Green Giant Frozen Nibblers Corn on the Cob – 4 ears	FRZ9	Philadelphia Cream Cheese – 8oz	DR9
Ego Blueberry Waffles – 16 count – 19.8oz	FRZ10	Nestle Carnation Coffemate – 16oz	DR10
Lender's Plain Bagels – 6 count	FRZ11	Breakstone's Fat Free Sour Cream – 16oz	DR11
Original Tombstone Supreme – 22.85oz	FRZ12	Tropicana Pure Premium Homestyle OJ – 64oz	DR12
Celentano Manicotti – 14oz bag	FRZ13	Welch's Fruit Cocktail White Grape Peach – 64oz	DR13
Ore Ida Golden Twirls – 28oz	FRZ14	Dole 100% Pineapple Juice – 64oz	DR14
Bird's Eye Mixed Vegetables – 10oz	FRZ15	Tropicana Pure Premium Grovestand OJ – 96oz	DR15
<b><u>Condiments, Sauces &amp; Spreads</u></b>		<b><u>Soup/Canned Foods</u></b>	
Grey Poupon Dijon Mustard - 8oz jar	C1	Campbell's Chicken Noodle Soup - 10.75oz	SP1
Hellmann's Mayonnaise - 32oz jar	C2	Progresso Chicken & Wild Rice - 19oz	SP2
Heinz Ketchup - 24oz squeeze bottle	C3	Progresso Minestrone Soup - 19oz	SP3
Skippy Creamy Peanut Butter - 18oz	C4	Campbell's Cream of Broccoli - 10.75oz	SP4
Smucker's Concord Grape Jelly - 12oz Jar	C5	Campbell's Family Size Tomato Soup - 18.7oz	SP5
Kraft Thousand Island Dressing Free - 8oz	C6	Progresso New England Clam Chowder - 19oz	SP6
Wish Bone Fat Free Ranch Dressing - 8oz	C7	Campbell's Vegetarian Vegetable - 10.75oz	SP7
Domino Granulated Sugar - 2lb box	C8	Goya Black Beans - 15.5oz can	SP8
Equal Sugar Substitute - 50 count	C9	Ortega Thick & Chunky Medium Salsa - 16oz	SP9
Jello Cherry - 3oz box	C10	Dole Sliced Pineapple - 20oz can	SP10
Heinz Distilled White Vinegar - 32oz	C11	Del Monte Pear Halves - 29oz can	SP11
Pam Lemon Fat Free Cooking Spray - 6oz can	C12	Bumble Bee Solid White Tuna in Water - 6oz can	SP12
A1 Steak Sauce Bold & Spicy - 10oz jar	C13	Starkist Chunk Light Tuna in Oil - 6oz can	SP13
Heinz Barbecue Sauce - 18oz bottle	C14	Chef Boyardee Beef Ravioli - 15oz can	SP14
Kraft Shake 'n Bake Classic Italian - 5.75 oz	C15	Mott's Homestyle Chunky Apple Sauce - 23 oz jar	SP15

Category and products in the category	Index	Category and products in the category	Index
<b>Baby Products &amp; Foods</b>		<b>Health &amp; Beauty Aides</b>	
Huggies Pull Ups for Boys 32 - 40lb's - 26 count	BBY1	Crest Multi Care Fresh Mint Toothpaste - 6.2oz tube	HLT1
Huggies Natural Care Scented Wipes - 80 count	BBY2	Scope Peppermint - 33oz	HLT2
Pampers Diapers Newborn to 10lb - 48 count	BBY3	Right Guard Sport Deodorant Gel Cool Scent - 3oz	HLT3
Luvs Diapers Ultra Leakguards #3 - 72 count	BBY4	Sudafed Max Nasal Decongestant - 24 tablets	HLT4
Beechnut Stage 2 Apples & Bananas - 4oz	BBY5	Halls Cough Drops Black Cherry - 25 count	HLT5
Earth's Best Organic Apples - 4oz	BBY6	Tylenol Extra Strength Gelcaps - 100 count	HLT6
Gerber 100% Apple Juice - 32oz bottle	BBY7	Johnson & Johnson Band Aids - 60 count	HLT7
Gerber Stage 1 Pears - 2.5oz	BBY8	Pepto Bismol - 12oz	HLT8
Enfamil Lactofree Infant Formula - 13oz can	BBY9	Bausch & Lomb Saline Solution - 12oz	HLT9
Johnson & Johnson Baby Shampoo - 15oz	BBY10	Oxi Max Cleansing Pads - 55 count	HLT10
Johnson & Johnson Baby Powder - 15oz	BBY11	Thermasilk Moisturizing Shampoo - 13oz	HLT11
Gerber Cereal for Baby Rice with Banana - 8oz	BBY12	Head & Shoulders Dandruff Shampoo Normal - 15.2oz	HLT12
Beechnut Cereal for Baby Oatmeal - 8oz	BBY13	Barbasol Original Shaving Cream - 11oz can	HLT13
Gerber Graduates Veggie Crackers - 4oz	BBY14	Dial Liquid Antibacterial Soap Refill - 15oz bottle	HLT14
Beechnut Table Time Mac & Cheese - 6oz	BBY15	Lever Soap 2000 - 2/4.5oz bars	HLT15
<b>Candy &amp; Snacks</b>		<b>Paper Products, Bags &amp; Pet Supplies</b>	
Planter's Mixed Nuts - 11.5oz can	CND1	Brawny Towels Thirsty Roll - 3 rolls	PAP1
Sun Maid Raisins - 9oz	CND2	Kleenex Cold Care Ultra - 70 count	PAP2
Sunsweet Pitted Prunes - 24oz	CND3	Vanity Fair 2 Ply Napkins - 100 count	PAP3
Hershey's Kisses Milk Chocolate - 8oz bag	CND4	Charmin Big Squeeze - 9 rolls	PAP4
Trident Original Sugarless Gum - 8/5 stick packs	CND5	Hefty Cinch Sak Trash Bags - 20 bags	PAP5
Rold Gold Pretzels Fat Free - 15oz	CND6	Glad Tall Kitchen Bags Quick Tie - 15 bags	PAP6
Wise B.B.Q. Potato Chips - 5.5oz	CND7	Ziploc Sandwich Bags - 100 bags	PAP7
Chips Ahoy Chocolate Chip Cookies - 12oz bag	CND8	Reynolds Wrap Aluminum Foil - 50 sq. feet	PAP8
Oreo Cookies - 11b bag	CND9	Ziploc 1 Gallon Freezer Bags - 30 bags	PAP9
Pepperidge Farm Milanos - 6oz bag	CND10	Dixie Flatware Spoons - 50 count	PAP10
Pepperidge Farm Goldfish Cheddar - 6oz bag	CND11	Dixie Printed Bathroom Cups - 100/5oz	PAP11
Wheat Thins Original - 10oz box	CND12	Purina Dog Chow - 4.4lb bag	PAP12
Nabisco Ritz Bits Sandwich Crackers - 10.5oz box	CND13	Milk Bone Small - 24oz box	PAP13
Quaker Chocolate Chip Granola Bars - 10 bars	CND14	Purina Cat Chow - 56oz box	PAP14
Orville Redenbacher's Light Popcorn - 3/3.5oz bags	CND15	Fresh Step Cat Litter Scoop - 7lb bag	PAP15
<b>Households</b>			
Tide Ultra Liquid Detergent - 50oz	H1		
Downy Fabric Softener Mtn. Spring - 40 count	H2		
Clorox Liquid Bleach - 1 quart	H3		
Palmolive Original Dishwashing Liquid - 28oz bottle	H4		
Glade Rainshower - 9oz	H5		
Drano Build Up Remover - 32oz	H6		
Tilex Mildew Stain Remover - 32oz spray	H7		
Clorox Cleanup with Bleach - 32oz	H8		
Brillo Steel Wool Soap Pads - 18 count	H9		
Lysol Disinfectant Original - 12oz spray	H10		
Pledge Clean and Dust - 12.5oz spray	H11		
Fantastic All Purpose - 22oz	H12		
Windex Glass Cleaner - 26oz	H13		
Mr. Clean and Top Job with Ammonia - 40oz	H14		
Old English Lemon Polish - 12.5oz spray	H15		

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**TABLE 4. Consumer Expenditure Data, State of Michigan, 2010**

<b>Expenditures Category</b>	<b>State Total</b>	<b>Per Capita</b>	<b>Per Household</b>
Food at Home - Bakery & Cereal Products	\$2,270,507,027	\$225	\$584
Food at Home - Dairy Products	\$1,887,143,562	\$187	\$486
Food at Home - Fruit & Vegetables	\$2,931,232,848	\$290	\$754
Food at Home - Meat/Poultry/Fish/Eggs	\$3,911,740,522	\$387	\$1,007
Food at Home - Snacks/Other Food	\$5,923,838,231	\$586	\$1,524
Food at Home - Nonalcoholic Beverages	\$1,660,449,149	\$164	\$427
Food at Home - Alcoholic Beverages	\$1,092,270,804	\$108	\$281
Nonprescription Drugs	\$394,615,361	\$39	\$102
Housekeeping Supplies	\$2,682,590,828	\$265	\$690
Personal Care Products	\$1,507,417,293	\$149	\$388
<b>Total</b>	<b>\$24,261,805,625</b>	<b>\$2,401</b>	<b>\$6,243</b>

Source: Anderson Economic Group, LLC., ESRI, Inc.

Note: Assumes 50 percent of total alcoholic beverage purchases are for at home consumption. Total retail goods expenditures for Michigan are estimated to be \$90.6 billion for 2010.

**TABLE 5. Employees Per Retail Establishment, by State**

<b>Rank</b>	<b>State</b>	<b>Employees</b>	<b>Total Establishments</b>	<b>Employees Per Establishment</b>
1	Vermont	40,642	3,734	10.9
2	Wyoming	33,235	2,862	11.6
3	New York	892,335	75,853	11.8
3	Montana	60,438	5,137	11.8
5	Mississippi	145,355	12,148	12.0
6	Arkansas	141,751	11,467	12.4
7	South Dakota	50,711	4,069	12.5
7	Rhode Island	50,391	4,017	12.5
7	Maine	85,002	6,775	12.5
10	Alabama	243,753	19,131	12.7
11	Michigan	466,350	36,381	12.8
11	South Carolina	236,741	18,461	12.8
13	Idaho	81,646	6,225	13.1
14	North Carolina	476,759	35,676	13.4
14	Oklahoma	177,757	13,218	13.4
16	Georgia	475,961	35,371	13.5
16	Alaska	34,704	2,578	13.5
18	West Virginia	92,821	6,846	13.6
19	North Dakota	44,968	3,294	13.7
20	Colorado	261,560	18,990	13.8
20	Kansas	151,317	10,978	13.8
20	Florida	995,711	72,118	13.8
20	New Jersey	464,718	33,564	13.8
24	Tennessee	326,762	23,568	13.9
24	Louisiana	233,973	16,866	13.9
26	Iowa	180,264	12,780	14.1
26	Missouri	319,127	22,577	14.1
28	New Mexico	100,588	7,107	14.2
	<i>United States Average</i>			<i>14.2</i>
28	Oregon	205,779	14,486	14.2
30	Connecticut	192,625	13,485	14.3
31	Nebraska	109,495	7,623	14.4
31	Massachusetts	360,885	25,121	14.4
31	Kentucky	230,483	16,024	14.4
31	Indiana	330,870	22,936	14.4
35	Delaware	55,233	3,804	14.5
36	Hawaii	71,373	4,891	14.6

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**TABLE 5. Employees Per Retail Establishment, by State (Continued)**

<b>Rank</b>	<b>State</b>	<b>Employees</b>	<b>Total Establishments</b>	<b>Employees Per Establishment</b>
37	Washington	332,049	22,481	14.8
37	Pennsylvania	676,811	45,583	14.8
39	California	1,668,747	111,200	15.0
39	Virginia	433,582	28,872	15.0
41	Minnesota	304,368	20,206	15.1
41	Texas	1,170,986	77,669	15.1
41	Ohio	585,496	38,650	15.1
44	Maryland	294,131	19,088	15.4
45	Wisconsin	319,348	20,542	15.5
46	Illinois	652,695	41,743	15.6
47	New Hampshire	101,591	6,473	15.7
48	Utah	147,690	8,955	16.5
49	Nevada	141,638	8,387	16.9
50	Arizona	343,480	19,112	18.0

Source: Anderson Economic Group, LLC., U.S. Census Bureau, 2008 County Business Patterns.

**TABLE 6. Employees Per Dollar of Retail Sale, by State, 2007**

<b>Rank</b>	<b>State</b>	<b>Employees</b>	<b>Annual Sales (\$mil)</b>	<b>Employees Per \$1m in Sales</b>
1	Washington	328,053	92,969	3.5
2	Wyoming	32,033	8,958	3.6
3	Texas	1,138,440	311,335	3.7
3	New Jersey	460,843	124,814	3.7
3	California	1,683,023	455,032	3.7
3	Nevada	139,829	37,434	3.7
7	Alaska	34,977	9,303	3.8
7	Connecticut	196,133	52,165	3.8
9	Illinois	639,147	165,451	3.9
9	New York	892,863	230,718	3.9
9	Florida	1,016,290	262,341	3.9
9	New Hampshire	98,333	25,354	3.9
9	Utah	142,266	36,574	3.9
9	Arizona	337,529	86,759	3.9
9	Maryland	294,806	75,664	3.9
9	Delaware	55,432	14,202	3.9
9	Idaho	80,447	20,527	3.9
18	Oklahoma	170,984	43,095	4.0
18	Colorado	261,962	65,897	4.0
18	New Mexico	97,385	24,470	4.0
	<i>United States Average</i>			<i>4.0</i>
18	Montana	58,883	14,687	4.0
18	Hawaii	70,661	17,612	4.0
18	Pennsylvania	672,042	166,843	4.0
18	Georgia	475,344	117,517	4.0
25	Oregon	204,793	50,371	4.1
25	North Carolina	466,577	114,578	4.1
25	Maine	83,279	20,444	4.1
25	Virginia	431,634	105,663	4.1
25	Nebraska	108,209	26,487	4.1
25	Massachusetts	360,218	88,083	4.1
25	Louisiana	231,365	56,543	4.1
25	Tennessee	320,739	77,547	4.1
25	Rhode Island	50,865	12,286	4.1
25	Missouri	317,318	76,575	4.1
25	South Dakota	50,842	12,266	4.1
36	Alabama	238,922	57,345	4.2

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**TABLE 6. Employees Per Dollar of Retail Sale, by State, 2007**

<b>Rank</b>	<b>State</b>	<b>Employees</b>	<b>Annual Sales (\$mil)</b>	<b>Employees Per \$1m in Sales</b>
36	North Dakota	44,054	10,527	4.2
36	Mississippi	141,426	33,751	4.2
36	Indiana	333,172	78,746	4.2
36	Arkansas	140,018	32,974	4.2
41	Ohio	591,237	138,816	4.3
41	Kentucky	214,782	50,406	4.3
41	South Carolina	231,685	54,298	4.3
41	Minnesota	307,034	71,384	4.3
41	Michigan	470,794	109,103	4.3
41	Kansas	149,672	34,538	4.3
41	Vermont	40,416	9,310	4.3
48	Wisconsin	320,140	72,283	4.4
49	West Virginia	92,227	20,539	4.5
49	Iowa	177,156	39,235	4.5

Source: Anderson Economic Group, LLC. U.S. Census Bureau, 2007 Economic Census

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**TABLE 7. Average Consumer Expenditures as Share of Income, by Income Level, 2009.**

<b>Item</b>	<b>All</b>	<b>Under \$5k</b>	<b>\$5k - \$9,999</b>	<b>\$10k - \$14,999</b>	<b>\$15k - 19,999</b>	<b>\$20k - \$29,999</b>	<b>\$30k - \$39,999</b>	<b>\$40k - \$49,999</b>	<b>\$50k - \$69,999</b>	<b>\$70k +</b>
Food at home										
Cereals and bakery products	1.0	1.6	1.6	1.5	1.4	1.4	1.1	1.2	1.0	0.9
Meats, poultry, fish, and eggs	1.7	2.4	2.8	2.9	2.4	2.3	2.0	2.0	1.7	1.4
Dairy products	0.8	1.2	1.5	1.3	1.1	1.1	0.9	0.9	0.8	0.7
Fruits and vegetables	1.3	1.9	2.1	2.0	1.8	1.8	1.4	1.5	1.3	1.1
Other food at home	2.7	3.6	4.2	4.7	3.5	3.6	2.9	3.0	2.7	2.3
Laundry and cleaning supplies	0.3	0.4	0.6	0.5	0.5	0.5	0.3	0.3	0.3	0.3
Other household products	0.7	0.6	0.7	0.7	0.8	0.9	0.8	0.7	0.7	0.7
Personal care products and services	1.2	1.2	1.2	1.3	1.2	1.3	1.2	1.2	1.2	1.2
<b>Total of Selected Groups</b>	<b>9.7</b>	<b>12.9</b>	<b>14.7</b>	<b>14.9</b>	<b>12.7</b>	<b>12.9</b>	<b>10.6</b>	<b>10.8</b>	<b>9.7</b>	<b>8.6</b>

Source: Consumer Expenditure Survey, U.S. Bureau of Labor Statistics, October, 2010

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## *VII. Appendix C: About AEG*

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Anderson Economic Group, LLC was founded in 1996 and today has offices in East Lansing, Michigan and Chicago, Illinois. AEG is a research and consulting firm that specializes in economics, public policy, financial valuation, and market research. AEG's past clients include:

- *Governments* such as the states of Michigan, North Carolina, Ohio, and Wisconsin; the cities of Detroit, Cincinnati, Norfolk, and Fort Wayne; counties such as Oakland County, Michigan, and Collier County, Florida; and agencies such as the Detroit-Wayne County Port Authority.
- *Corporations* such as GM, Ford, Delphi, Honda, Taubman Centers, The Detroit Lions, PG&E Generating; SBC, Gambrinus, Labatt USA, and InBev USA; Spartan Stores, Nestle, automobile dealers and dealership groups representing General Motors, Ford, Hyundai, Toyota, Honda, Chrysler, Mercedes-Benz, and other brands.
- *Nonprofit organizations* such as Michigan State University, Wayne State University, University of Michigan, Project Management Institute, the Michigan Manufacturers Association, United Ways of Michigan, Service Employees International Union, Automation Alley, the Michigan Chamber of Commerce, Business Leaders for Michigan, and the Michigan Education Association.

Please visit [www.AndersonEconomicGroup.com](http://www.AndersonEconomicGroup.com) for more information.

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### *VIII. Appendix D: About the MRA*

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Retailers provide more than \$100 billion worth of goods and services annually to consumers in Michigan and employ 450,000 Michiganians. Michigan Retailers Association is the unified voice of Michigan's retail industry and has served as a trusted business resource for 70 years.

Headquartered in Lansing, MRA provides a wide range of business services to nearly 5,000 member businesses, which own and operate more than 12,000 stores across the state. Members range in size from the smallest single store operations to the largest national and international chains.