

**ECONOMIC ASSESSMENT:
PROPOSED CALIFORNIA RIGHT TO KNOW GENETICALLY ENGINEERED FOOD ACT (PROP 37)
LIKELY TO CAUSE NO CHANGE IN FOOD PRICES, MINOR LITIGATION COSTS, AND NEGLIGIBLE
ADMINISTRATIVE COSTS**

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Executive Summary: Food Prices Likely to Remain Unchanged for Consumers

This economic assessment addresses the question of three potential costs associated with Proposition 37- The California Right To Know Genetically Engineered Food Act (“the Right to Know Act”):

1. The relabeling expenses associated with the redesign of package labels and display of placards in grocery stores. My analysis shows little or no **change in consumer food prices as a result of these relabeling expenses.**
2. Costs resulting from possible increases in litigation in the State of California. Only a **negligible increase in litigation** is predicted to result from the Right to Know Act.
3. Costs resulting from the new regulations to be adopted by the California Department of Public Health. The increase in these **administrative costs will be negligible.**

Price-Adjustment Costs Will Deter Many Consumer Price Changes

Consumers will likely see no increases in prices as a result of the relabeling required by the Right to Know Act. A substantial body of empirical literature has established that important barriers to **price adjustments exist that will deter suppliers from increasing prices** to pass on the labeling expenses imposed by the Right to Know Act:

- Food sellers incur two costs when adjusting prices: the physical cost of price changes and the management cost of price changes. These costs are often significant enough that **they do not justify changing prices.**
- The relabeling expenses resulting from the Right To Know Act **represent a trivial expense for food sellers.** Empirical studies show that many sellers

will not be willing to incur the costs of repricing to offset such insignificant expenses.

- The relabeling expenses **are a one-time expense** rather than a permanent increase in costs. Empirical studies show that many **sellers will not be willing to incur the costs of repricing** to offset a trivial, one-time expense.
- Even for sellers that may otherwise increase prices to pass on the relabeling expense, empirical studies show **that the fear of losing customers** in the competitive food industry **will be a deterrent to changing prices**.

Little or No Increase in Consumer Prices as a Result of Relabeling Expenses

Food producers and retailers will incur some expenses as they alter their package labeling or display placards to disclose genetic engineering as a result of the Right to Know Act. **At most**, the average California household will see total annual food expenditures **increase by a one-time cost of \$1.27** to offset these labeling expenses.

- Based on FDA estimates of relabeling expenses following various regulations, the average per-product expense of redesigning labels under the Right to Know Act is \$1,104.43. This average one-time **expense to redesign labels represents 0.03%** of the average annual per-product sales of \$3,814,811
- Based on FDA estimates, the average per-store expense of displaying placards to disclose genetic engineering will be \$2820. **This expense of placards represents 0.01%** of average supermarket annual sales of \$25,237,992.
- **Many food sellers will not increase prices** to offset the insignificant, one-time cost of labeling imposed under the Right to Know Act.

Trivial Costs Resulting from Increased Litigation

The annual costs to the State of California for processing and hearing cases under the Right to Know Act should be less than \$50,000, which translates into less than 1 cent for each person living in California:

- If there is an increase in litigation associated with the Right to Know Act, the state could incur additional costs to process and hear the additional cases. In addition, the Attorney General and local district attorneys may also incur some costs as they review and respond to allegations of violations and notices of private action.
- The annual costs to the State of California for processing and hearing cases under the Right to Know Act should be less than \$50,000. In per capita terms, an additional \$50,000 translates into **\$0.001, or less than 1 cent** for each person living in the State of California.
- Moreover, any involvement of the Attorney General under the Right to Know Act will represent a **negligible portion of the overall workload** of the Office of the Attorney General, and will impose trivial costs on the State of California.

Negligible Administrative Costs

The additional annual administrative costs to the State of California as a result of the Right to Know Act will likely be less than \$1 million, which translates into less than 3 cents for each person living in California:

- The Right to Know Act may also impose administrative costs on the State of California as the Department of Public Health adopts regulations necessary to implement certain provisions in the measure.
- Although the additional administrative costs are likely to be less than \$1 million, even if they total \$1 million, **the impact on the State of California would be trivial**; the Department of Public Health's **expenditures would increase by only 0.03%** and total state expenditures would increase by only 0.0008%. In per capita terms, an additional \$1 million translates into **an additional \$0.027, or 3 cents, for every person in the State of California.**

I. Price-Adjustment Costs Will Deter Many Consumer Price Changes

As a result of the required genetic engineering disclosure and removal of words implying certain foods are natural, food producers will incur negligible expenses to redesign package labels and display placards in grocery stores. The next section computes the average labeling expenses for food products in California, and provides an estimate of the resulting price changes—if any—assuming that food manufacturers raise prices to offset the entire expense of relabeling. However, before presenting that highly unlikely “worst-case scenario”, it is critical to note that many food manufacturers **will not raise prices at all to offset the expense of relabeling** under the Right to Know Act. Indeed, a substantial body of empirical literature has established that **important barriers to price adjustments exist that will deter suppliers from increasing prices** to pass on the labeling expenses imposed by the Right to Know Act:

1. Food sellers incur two costs when adjusting prices: the physical cost of price changes and the management costs of price changes. These costs are often significant enough that they **do not justify changing prices**.
2. **The relabeling expenses under the Right to Know Act represent a trivial expense for food sellers.** Empirical studies show that many sellers will not be willing to incur the costs of repricing to offset such insignificant expenses.
3. The relabeling expenses are **a one-time expense rather than a permanent cost** increase. Empirical studies show that many sellers will not be willing to incur the costs of repricing to offset a trivial, one-time expense.
4. Even for sellers that may otherwise increase prices to pass on the expense of relabeling, **empirical studies show that the fear of losing customers** in the competitive food industry will be a deterrent to changing prices.

Below, I discuss the empirical evidence confirming these reasons why many food **suppliers will not change prices at all** to offset the labeling expenses imposed by the Right to Know Act.

Changing food prices in supermarkets is “a complex process, requiring dozens of steps and a nontrivial amount of resources.”¹ The literature has established two primary categories of price adjustment costs that are relevant for food products: the physical cost of price changes and the management costs of price changes. The physical costs of repricing are referred to in the economic literature as “menu costs” and they include “(1) the labor cost of changing shelf prices, (2) the costs of printing and delivering new price tags, (2) the costs of mistakes made during the price change process, and (4) the cost of in-store supervision of the price change process”.² Measurements of menu costs conclude that the per-product/per-store cost of price changes averages \$0.52 per price change.³

Other studies have focused on price adjustment costs other than the physical costs of changing prices. Several studies have compiled interview data with corporate price setters and established that management costs are also a significant cost of price adjustments.⁴ These management costs include the time and attention required of managers to gather the relevant information and to make and implement price-adjustment decisions. For example, they find that price adjustments require a great deal of information gathering of customer, company, and competitor data. Then, various organizational members, potentially including members from the sales, marketing, and finance departments, spend time either making price change decisions or executing these decisions. Ultimately, **these studies find that management costs represent a nontrivial cost of price adjustments.** In fact, their data suggest that the management costs of price changes are greater than the physical costs, or menu costs, of price changes. Moreover, confirming the importance of management costs in limiting

¹ Daniel Levy, Mark Bergen, Shantanu Dutta, & Robert Venable, *The Magnitude of Menu Costs: Direct Evidence from Large U.S. Supermarket Chains*, 112 QUARTERLY JOURNAL OF ECONOMICS 791, 792 (1997).

² *Id.*

³ *Id.* at 793.

⁴M. Zbaracki, et al., *Managerial and customer costs of price adjustment: direct evidence from industrial markets*, 86 REVIEW OF ECONOMICS AND STATISTICS 514 (2004); M. Zbaracki, M Bergen & D. Levy, *The anatomy of a price cut: discovering organizational sources of the costs of price adjustment*, Working Paper, Bar-Ilan University and Emory University (2006); AS Blinder, *Why are prices sticky? Preliminary results from an interview study*, 81 AMERICAN ECONOMIC REVIEW 89 (1991); AS Blinder, et al., *ASKING ABOUT PRICES: A NEW APPROACH TO UNDERSTANDING PRICE STICKINESS* (1998).

price changes, other empirical studies show that **even when the physical cost of changing prices is zero, firms often refrain from making price changes.**⁵

Because food sellers incur costs when changing prices, they will refrain from changing prices unless expenses change by a sufficient amount to justify incurring the cost of repricing. Based on the estimates of relabeling expenses computed in the following sections, there are three reasons why relabeling expenses under the Right to Know Act will **not justify the cost of repricing for many food sellers:** (1) relabeling expenses will represent a trivial cost for most sellers, (2) relabeling expenses **are a one-time expense** rather than a permanent cost increase, and (3) in the rare occasion when relabeling expenses do justify a price increase, **competitive pressures will deter many food sellers from changing prices.**

As I discuss in the following sections, the expense of relabeling and placards that disclose genetic engineering represent a trivial cost for food manufacturers and food retail stores. Food manufacturers' average one-time expense to redesign labels of \$1,104.43 per product represents **only 0.03% of the estimated annual per-product sales** of \$3,814,811. Similarly, the \$2820 expense of **placards represents 0.1%** of the average annual per-store *produce* sales of \$2,733,275 and 0.01% of average supermarket annual sales of \$25,237,992. A substantial body of literature has established that sellers change prices in response to cost increases only if the "desired adjustment is large enough to warrant paying the menu cost. That is, **firms respond to large [cost] shocks but not to small [cost] shocks.**"⁶ However, as I discuss in the following sections, the average product needs to generate just 20 cents extra in sales per year in each store to offset relabeling expenses. Yet, a 20 cent increase in per store sales revenue does not justify incurring the average menu cost of 52 cents per price change plus an even greater management cost of price changes. Hence, many consumer prices will not change to offset the expense of relabeling or placards **because the cost**

⁵ R. Chakrabarti & Scholnick B., *The mechanics of price adjustment: new evidence on the (un)importance of menu costs*, 28 *MANAGERIAL AND DECISION ECONOMICS* 657 (2007).

⁶ See, e.g., Laurence Ball & N. Gregory Mankiw, *Relative Price Changes as Aggregate Supply Shocks*, 110 *QUARTERLY JOURNAL OF ECONOMICS* 161, 162 (1995).

of physically changing product prices is likely higher greater than the desired price change.⁷

In addition, the relabeling and placard expenses are one-time expenses that food producers and retail **food stores will bear only once to meet the requirements** of the Right to Know Act. Existing literature on food prices reveals that while retail prices may adjust to reflect permanent changes in costs, there is often no change in retail prices following such temporary changes in expenses.⁸ The studies conclude that it is often not in sellers' best interest to change prices in response to a temporary expense because of the menu costs of changing prices and the risk of losing customers who think price changes are permanent.⁹ Moreover, in the highly competitive food industry, economic theory predicts that **permanently higher prices that do not offset permanently higher expenses are an unsustainable strategy for firms that wish to remain competitive.** Thus, firms would have to raise, and then lower, consumer prices in response to a one-time price increase. The menu costs associated with these *two* price changes are certainly too high to justify changing many consumer prices to offset the expense of relabeling or placards.

Moreover, if even a few food suppliers refrain from passing on the one-time expense of relabeling because the desired price increase does not warrant the cost of repricing, many competitors will also be deterred from passing on the expenses. In the competitive food retail industry, **price increases in one product can cause many consumers to substitute away from the newly priced product** to similar products that have not experienced price increases. Thus, even for firms that may otherwise increase prices to pass on the trivial expense of relabeling, **competitive pressures may deter them from doing so.**

⁷ Arthur Fishman & Avi Simhon, *Can small menu costs explain sticky prices?*, 87 ECONOMIC LETTERS 227 (2005)

⁸ Daniel Levy, Shantanu Dutta & Mark Bergen, *Heterogeneity in Price Rigidity: Evidence from a Cast Study Using Microlevel Data*, 34 JOURNAL OF MONEY, CREDIT, AND BANKING (2002);

⁹ See, e.g. Dennis Carlton, *The Theory and the Facts of How Markets Clear: Is Industrial Organization Valuable for Understanding Macroeconomics?* in 1 HANDBOOK OF INDUSTRIAL ORGANIZATION, 909 (Richard Schmalensee and Robert D. Willig, eds; 1989).

Indeed, several recent empirical papers show that the desire to keep current customers is an important factor in food suppliers not raising prices to pass on costs.¹⁰ The studies show that firms' price changing decisions are dynamic in the sense that they care not only about costs and revenues in the current period, but also in future periods. As a result, firms are less likely to change current prices when doing so may result in losing sales as customers switch to a competing product. The studies find that **this resistance is especially strong when cost increases are temporary, like the one-time relabeling expense imposed by the Right to Know Act.** Moreover, survey research confirms that a **primary reason firms don't change prices in response to many cost changes is because of the fear of losing customers.**¹¹ The findings of these empirical studies have important implications for the Right to Know Act: even if relabeling expenses are substantial enough to justify the cost of repricing, many suppliers will **refrain from changing prices from fear of losing customers** to other products that have not increased prices.

Thus, **the prices for many food products will not change** as a result of the Right to Know Act. Nevertheless, in the following sections, I estimate the increase in consumer expenditures assuming that *all* producers pass on the *entire* one-time expense of redesigning labels and installing store placards. As I show, prices for packaged products would only have to increase by, on average, 0.03% to offset the entire one-time expense of redesigning labels. Similarly, produce **prices would have to increase by only 0.1%** to account for the expense of placards disclosing genetic engineering.¹² However, **these estimates represent a "worst-case scenario"** as many consumer prices will not change at all as a result of the Right to Know Act.

II. Trivial Relabeling Expense

¹⁰ Isaac Kleshchelski & Nicolas Vincent, *Market share and price rigidity*, 56 JOURNAL OF MONETARY ECONOMICS 344 (2009); Martin Uribe, Morten Ravn, and Stephanie Schmitt-Grohe, *Incomplete Cost Pass-Through Under Deep Habits*, NATIONAL BUREAU OF ECONOMIC RESEARCH PAPER # 12961 (2007), available at: <http://www.nber.org/papers/w12961>

¹² This assumes that consumer demand does not change in response to the increase in prices—a reasonable assumption given that demand for the entire category of food is inelastic and a 0.03% or 0.1% price increase represents a trivial increase in expenditure.

The Right to Know Act will require producers of certain foods offered for retail sale in California to alter their package labeling or display placards to disclose genetic engineering:

§110809 Disclosure With Respect to Genetic Engineering of Food

(a) Commencing on July 1, 2014, any food offered for retail sale in California is misbranded if it is or may have been entirely or partially produced with genetic engineering and that fact is not disclosed—

(i) In the case of a raw agricultural commodity on the package offered for retail sale, with the clear and conspicuous words “Genetically Engineered” on the front of the package of such commodity or in the case of any such commodity that is not separately packaged or labeled, on a label appearing on the retail store shelf or bin in which such commodity is displayed for sale;

(ii) In the case of any processed food, in clear and conspicuous language on the front or back of the package of such food, with the words “Partially Produced with Genetic Engineering” or “May be Partially Produced with Genetic Engineering”.¹³

In addition, the Right to Know Act will require many food producers to remove words implying that their products are natural:

§110809.1 Misbranding of Genetically Engineered Foods as “Natural”

In addition to any disclosure required by subdivisions 110809, if a food meets any of the definitions in section 110808(c) or (d), and is not otherwise exempted from labeling under section 110809.2, the food may not in California, on its label, accompanying signage in a retail establishment, or in any advertising or promotional materials, state or imply that the food is “natural” “naturally made”, “naturally grown”, “all natural” or any words of similar import that would have any tendency to mislead any consumer.¹⁴

As a result of the required genetic engineering disclosure and removal of words implying certain foods are natural, food producers will incur minor expenses to

¹³ The Right to Know Act § 110809 (a).

¹⁴ *Id.* § 110809.1.

redesign package labels and display placards in grocery stores. The following section includes estimates of these labeling expenses, and the possible negligible increase in consumer expenditures that may result.

A. Negligible Labeling Expenses

The required disclosure of genetic engineering and removal of words implying certain products are natural on product labels will impose one-time labeling expenses on food producers as they redesign product packaging labels. To estimate the average increase in labeling expenses, I use the Food and Drug Administration's (FDA) estimated cost of label changes following new regulatory requirements. Then, I compare the additional labeling expense for each unique product to the average annual per-product sales in California to compute the percentage increase in sales revenue required to offset the new labeling expense. Assuming constant consumer demand, I estimate average price increases required to achieve this increase in sales revenue.

FDA has estimated the costs of one-time alterations to package labels in its required Regulatory Impact Analyses for various regulations.¹⁵ FDA uses a Labeling Cost Model to calculate the cost of a new label based on the product type, label type, type of analytical and market tests necessary to develop the new label, compliance time, and inflation.¹⁶ Included in their estimated costs of relabeling are administrative, graphic design, pre-press preparation, printing and engraving, and the lost inventory value of discarded labels.¹⁷ FDA's estimates recognize that the costs of changing labels vary across products because different packaging converters and food manufacturers have different packaging costs.

In addition, the estimates reflect that the cost of redesigning labels decreases as the length of the compliance period increases. Manufacturers change labels or, at least,

¹⁵ Executive Order 12866 directs agencies to assess all costs and benefits of available regulatory alternatives and, when regulation is necessary, to select regulatory approaches that maximize net benefits.

¹⁶ Food and Drug Administration, *Food Labeling: Health Claims; Soluble Fiber from Certain Foods and Risk of Coronary Heart Disease; Final Rule*, 73 Federal Register 23952 (2008)

¹⁷ Food and Drug Administration, *Preliminary Regulatory Impact Analysis and Initial Regulatory Flexibility Analysis of the Proposed Rules to Ensure the Safety of Juice and Juice Products*, 63 Federal Register 24274 (1998)

reorder them at regular intervals. For example, FDA has estimated that **three-quarters of package labels are normally scheduled to be changed during any 30-month period**.¹⁸ A longer compliance period allows manufacturers to incorporate new regulatory requirements into scheduled label changes. As a result, **labels can be altered to reflect new requirements at little additional cost**.

The compliance period of the Right to Know Act is approximately 20 months (November, 2012 to July, 2014). Thus, **many food producers will be able to redesign package labels** to include genetic engineering disclosures and remove words implying a product is natural **as part of their regular, scheduled label changes**. As reported in Table 1, FDA has estimated that the per-product cost of a label change is \$1,903.38 for a one-year compliance period and \$704.96 for a two-year compliance period.¹⁹ Thus, assuming the cost of a label change is linear over time, the average per-product cost of redesigning labels for a 20-month compliance period would be \$1,104.43, based on FDA estimates.

Table 1:
FDA Estimates of Label Change Costs per Product for Different Lengths of Compliance Period²⁰

	1 year	2 year
Administrative Costs	\$1268.92	\$634.46
Redesign Costs	\$634.46	\$70.50

¹⁸ Food and Drug Administration, *Food Labeling: Trans Fatty Acids in Nutrition Labeling, Nutrient Content Claims, and Health Claims*, 68 Federal Register 41477 (2003).

¹⁹ In 2012 dollars. The original estimates were reported in 1998 dollars (Food and Drug Administration, *Preliminary Regulatory Impact Analysis and Initial Regulatory Flexibility Analysis of the Proposed Rules to Ensure the Safety of Juice and Juice Products*, 63 Federal Register 24275 (1998)) I adjusted the estimates using the Bureau of Labor Statistics' Inflation Calculator available at:

http://www.bls.gov/data/inflation_calculator.htm. Although these label change estimates are based on juice labels, they are similar to FDA's estimates for a wider range of products: "Across product categories, the average low relabeling cost per SKU is about \$1,100 and the average high relabeling cost per SKU is \$2,600." Food and Drug Administration, *Food Labeling: Trans Fatty Acids in Nutrition Labeling, Nutrient Content Claims, and Health Claims*, 68 Federal Register 41477 (2003). Thus, across a broader range of food products, average relabeling costs per product would be \$1850. Although the per-product estimate I use is slightly lower, I assume that all food products will incur this relabeling cost. In contrast, in the Regulatory Impact Analysis in which FDA uses the average relabeling costs per product of \$1850, FDA assumes that only 25% of products will incur this relabeling cost. *Id.*

²⁰ *Id.*

Inventory Loss	\$0.00	\$0.00
Total Cost	\$1,903.38	\$704.96

B. Relabeling Expenses Trivial Compared to Annual Sales

Every year, the Food Marketing Institute (FMI) publishes an industry-wide report with detailed information on food retailer sales, operations, store-level benchmarks, and competitive issues.²¹ The information is drawn from many sources including survey responses representing over 24,000 stores, performance data from stores, and annual reports for stockholders and 10-K reports filed with the Securities and Exchange Commission.

The FMI reports store averages for various kinds of food retailers: conventional supermarkets, warehouse stores, super/combination stores, limited assortment stores, convenience stores, and niche/specialty stores. According to the 2010 FMI report, food retailers in the United States carry an average of 36,928 unique products.²² The average product generates weekly sales of \$12.95,²³ or \$673.40 per year.

Most products are sold in numerous stores across California. Using data on California grocery stores and product availability, I estimate the annual sales in California of the average food product. In the most recent Economic Census, the U.S. Census Bureau reports that California is home to 10,008 grocery stores, which include conventional supermarkets and convenience stores that are primarily engaged in marketing food products. A recent report by the FTC Bureau of Economics uses weekly scanner data on 22,207 products and fourteen retailer-city combinations for a three-year period to estimate the product availability across different retailers. Based on these data, FTC estimates that the average food product is available in 56.6% of food

²¹ FOOD MARKETING INSTITUTE, THE FOOD RETAILING INDUSTRY SPEAKS (2010), available for purchase at: http://www.fmi.org/forms/store/ProductFormPublic/search?action=1&Product_productNumber=2318

²² *Id.* at 86. I computed the overall average by weighting the average of each category of food retailer by the number of respondents in each category (bottom panel of Table 15)

²³ *Id.* at 33.

retail stores.²⁴ Thus, the average food product in California would be available in 5,665 stores (56.6% of the 10,008 food retail stores).

Based on these data, I compute a conservative estimate of the average annual sales per product in California. As the average food product generates annual sales of \$673.40 per store and is carried in 5,665 stores, then each product generates average annual sales of \$3,814,811 across all grocery stores in California (5,665 stores * \$673.40 per store). This estimate likely underestimates the average annual state-wide sales because it ignores sales in the other 18,389 non-grocery retailers that also sell food products in California: specialty food stores, beer, wine, or liquor stores that also sell groceries, general merchandise stores selling groceries, health and personal care stores that sell groceries, and gasoline stations that sell groceries.²⁵

Nevertheless, **the average one-time expense to redesign labels** of \$1,104.43 per product **represents only 0.03% of the estimated annual per-product sales** of \$3,814,811. That is, if the average product generated 0.03% greater sales revenue just once, **this would completely offset the relabeling expense** of \$1,104.43. Moreover, a 0.03% increase in sales for the average product means that total state-wide sales would only increase from \$3,814,493 to \$3,815,915 and sales per store would only increase from \$673.40 to \$673.60. Thus, if the average product generated just 20 cents extra in sales per year in each store, this would offset the average relabeling expense of \$1,104.43.

C. Negligible Expense to Place Placards in Stores

The Right to Know Act may also require some food retailers to display placards disclosing genetic engineering for products that are not separately packaged:

²⁴ I computed this average from Table 1: using the midpoint of each range in the first column and the average in the last column. See Appendix 1 for the full table. Steven Tenn & John Yun, *Biases in Demand Analysis Due to Variation in Retail Distribution*, FTC Bureau of Economics Working Paper No. 287 at 27 (2007), available at: <http://www.ftc.gov/be/workpapers/wp287.pdf>

²⁵ I exclude this data because the ACNielsen scanner data that the FTC uses to estimate product availability concentrates on grocery stores. See Appendix 2 for the number of establishments per retailer category. U.S. CENSUS BUREAU, RETAIL TRADE: SUBJECT SERIES - PRODUCT LINES: PRODUCT LINES STATISTICS BY KIND OF BUSINESS FOR THE UNITED STATES AND STATES (2007), available at: <http://factfinder2.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t>

*(i) In the case of a raw agricultural commodity on the package offered for retail sale, with the clear and conspicuous words “Genetically Engineered” on the front of the package of such commodity or in the case of any such commodity that is not separately packaged or labeled, on a label appearing on the retail store shelf or bin in which such commodity is displayed for sale;*²⁶

To estimate the average per-store expense of placards as producers disclose genetic engineering, I use the FDA’s estimated placard costs to disclose certain warnings about minimally-processed juices. Then, I compare the average square footage devoted to minimally-processed juices to the average square footage devoted to fruits and vegetables in supermarkets. I assume that the number of required placards is a function of display area. I also assume that placards will be displayed throughout the produce section. This will necessarily overstate the true expense of placards because **many supermarkets sell few or no genetically modified fruits and vegetables** in their produce departments. Although FDA has *approved* production of genetically modified varieties of plums, cantaloupe, papaya, squash, radicchio, tomatoes, and potatoes, many of these varieties are difficult to produce under field conditions so they are never marketed in supermarkets.²⁷

FDA has estimated the costs of placards in supermarkets as part of its Regulatory Impact Analyses for various regulations. FDA has recently estimated that the average per-store cost of **placards displaying warning labels for minimally-processed juices in supermarkets is \$141.**²⁸ This estimate includes both the cost of periodic replacement and the possibility that some stores may have to display multiple placards to meet the requirement that warnings be available at the point of purchase.

²⁶ THE INITIATIVE § 110809 (a).

²⁷ Marion Nestle, *Genetically Modified Foods in Supermarkets: How Many?*, THE ATLANTIC (Sep 24 2010), available at: <http://www.theatlantic.com/health/archive/2010/09/genetically-modified-foods-in-supermarkets-how-many/63446/>; PETER TYSON, PBS, *HARVEST OF FEAR: SHOULD WE GROW THEM*, available at: <http://www.pbs.org/wgbh/harvest/exist/>;

²⁸ In 2012 dollars. The original estimates were presorted in 1998 dollars (Food and Drug Administration, *Preliminary Regulatory Impact Analysis and Initial Regulatory Flexibility Analysis of the Proposed Rules to Ensure the Safety of Juice and Juice Products*, 63 Federal Register 24274 (1998))

The typical supermarket devotes approximately 150 square feet to minimally-processed juices.²⁹ In contrast, the typical supermarket devotes 2831 square feet to the produce department.³⁰ Thus, in the average supermarket, the produce department is approximately 20 times larger than the display of minimally-processed juices. Assuming placards are displayed throughout the produce department and the number of required placards is a function of display area, then the average per-store expense of placards will be \$2820 (\$141*20). However, **this estimate is certain to be an overestimate of the actual per-store expense of placards** because many stores sell few or no genetically modified fruits and vegetables in their produce section.

D. Placard Placement Expenses Trivial Compared to Annual Sales

If produce-item placards cost an additional \$2820 per store, this represents a trivial expense compared to the sales generated from the produce department in the average grocery store. The Food Marketing Institute reports that, in 2010, produce sales account for 10.83% of total supermarket sales³¹ and the average supermarket had annual sales of \$25,237,992.³² Thus, annual produce sales are \$2,733,275 at the average supermarket. As a result, the \$2820 expense of **placards represents 0.1% of the average annual produce sales and 0.01% of average supermarket annual sales.**

E. Worst Case Scenario: Trivial Increase in Consumer Prices

²⁹ Display area is reported in linear feet. I assume the depth of a display area is 3 feet (likely an overestimate), so that square footage=linear feet*3. EDWARD W. McLAUGHLIN & DAVID M. RUSSO, CORNELL FOOD INDUSTRY MANAGEMENT PROGRAM, SUPERMARKET DAIRY DEPARTMENT: AN OVERVIEW OF OPERATIONS AND PERFORMANCE 6 (1991), available at: http://dyson.cornell.edu/outreach/extensionpdf/1991/Cornell_AEM_eb9118.pdf

³⁰ Debra Chanil & Meg Major, *2011 Produce Operations Review*, PROGRESSIVE GROCER (October, 2011), available at: <http://www.progressivegrocer.com/inprint/article/id2272/picking-up-the-pace/>

³¹ FOOD MARKETING INSTITUTE, SUPERMARKET SALES BY DEPARTMENT (2010), available at: <http://www.fmi.org/docs/facts-figures/grocerydept.pdf?sfvrsn=2>.

³² To compute the annual average, I multiplied the average weekly sales by 52. FOOD MARKETING INSTITUTE, THE FOOD RETAILING INDUSTRY SPEAKS 23 (2010), available for purchase at: http://www.fmi.org/forms/store/ProductFormPublic/search?action=1&Product_productNumber=2318

Thus, the average expense of redesigning labels is estimated to be \$1,104.43 per product and the average expense of displaying placards disclosing genetic engineering will be less than \$2820 per store.

As previously discussed in Section II, a substantial body of empirical literature has established that **important barriers to price adjustments exist that will deter suppliers from increasing prices** to pass on the labeling expenses imposed by the Right to Know Act. Specifically, the physical cost of price changes and the management costs of price changes are often significant enough that **they do not justify changing prices**. Empirical studies show that **sellers will not be willing to incur these costs** of repricing to offset insignificant costs like the relabeling expense resulting from the Right to Know Act. Moreover, the relabeling expenses are a one-time expense rather than a permanent cost increase and empirical studies show that sellers seldom incur the costs of repricing to offset a trivial, one-time expense. Finally, even for sellers that may otherwise increase prices to pass on the expense of relabeling, empirical studies show that **the fear of losing customers in the competitive food industry will be a deterrent to changing prices**.

Thus, the **prices for many food products will not change** as a result of the Right to Know Act. Nevertheless, in the following section, I estimate the increase in consumer expenditures assuming that *all* producers pass on the *entire* one-time expense of redesigning labels and installing store placards. As I show, prices for packaged products would only have to increase by, on average, 0.03% to offset the entire one-time expense of redesigning labels. Similarly, produce prices would have to increase by only 0.1% to account for the new expense of placards disclosing genetic engineering.³³ However, these estimates represent a “worst-case scenario” as many consumer prices will not change at all as a result of the Right to Know Act.

F. Current California Food Expenditure

³³ This assumes that consumer demand does not change in response to the increase in prices—a reasonable assumption given that demand for the entire category of food is inelastic and a 0.03% or 0.1% price increase represents a trivial increase in expenditure.

The Consumer Expenditure Survey is a Federal survey that provides information on the complete range of consumers' expenditures and incomes, as well as the characteristics of those consumers.³⁴ The survey data are collected for the Bureau of Labor Statistics by the U.S. Census Bureau. It is used by economic policymakers examining the impact of policy changes on economic groups, by businesses and academic researchers studying consumers' spending habits and trends, by other Federal agencies, and, to regularly revise the Consumer Price Index market basket of goods and services and their relative importance.

From the 2010 Consumer Expenditure Survey (the most recent year with state-specific data available), I computed the average annual food expenditures by consumer unit in California.³⁵ Table 2 reports the average annual food expenditure by consumer unit, or household, for the U.S., Western Region of the U.S. and California:

³⁴ BUREAU OF LABOR STATISTICS, CONSUMER EXPENDITURE SURVEY (public-use micro data, 2010) available at: <http://www.bls.gov/cex/home.htm>

³⁵ A consumer unit is defined as members of a household related by blood, marriage, adoption, or other legal arrangement; a single person living alone or sharing a household with others but who is financially independent; or two or more persons living together who share responsibility for at least 2 out of 3 major types of expenses – food, housing, and other expenses. The terms household or consumer unit are used interchangeably for convenience. In California, the average consumer unit taking part in the Consumer Expenditure Survey is composed of 2.67 people.

Table 2:
Average Annual Food Expenditures by Household:
U.S. Census Bureau Consumer Expenditure Survey

	U.S. Total	West	California
Food	\$6,129	\$6,804	\$6,366
Food at home	\$3,624	\$3,914	\$3,680
Cereals and bakery products	\$502	\$535	\$484
Cereals and cereal products	\$165	\$181	\$175
Bakery products	\$337	\$354	\$309
Meats, poultry, fish, and eggs	\$784	\$826	\$790
Beef	\$217	\$251	\$214
Pork	\$149	\$140	\$126
Other meats	\$117	\$111	\$92
Poultry	\$138	\$139	\$144
Fish and seafood	\$117	\$129	\$152
Eggs	\$46	\$56	\$61
Dairy products	\$380	\$397	\$363
Fresh milk and cream	\$141	\$148	\$151
Other dairy products	\$240	\$249	\$212
Fruits and vegetables	\$679	\$779	\$824
Fresh fruits	\$232	\$280	\$308
Fresh vegetables	\$210	\$253	\$285
Processed fruits	\$113	\$123	\$118
Processed vegetables	\$124	\$123	\$113
Other food at home	\$1,278	\$1,377	\$1,218
Sugar and other sweets	\$132	\$140	\$112
Fats and oils	\$103	\$102	\$100
Miscellaneous foods	\$667	\$743	\$668
Nonalcoholic beverages	\$333	\$339	\$338
Food away from home	\$2,505	\$2,891	\$2,686
Alcoholic beverages	\$412	\$492	\$485
TOTAL FOOD AND BEVERAGE EXPENDITURE	\$6541	\$7296	\$6851

G. Little or No Increase in Total Consumer Expenditures

In this section, I estimate the effect of the price increases resulting from disclosure of genetic engineering on consumers' food expenditures. Many categories of food will be exempt from labeling under the Right to Know Act. For example, under The

Act, the entire categories of meat, other animal products such as eggs and milk, and alcoholic beverages are exempt from labeling:

§110809.2 Labeling of Genetically Engineered Food—Exemptions

The requirements of Section 110809 shall not apply to any of the following:

(a) Food consisting entirely of, or derived entirely from, an animal that has not itself been genetically engineered, regardless of whether such animal has been fed or injected with any genetically engineered food or any drug that has been produced through means of genetic engineering.³⁶

(d) Any alcoholic beverage that is subject to the Alcoholic Beverage Control Act, set forth in Division 9 (commencing with section 23000) of the Business and Professions Code.³⁷

Figure 1 summarizes the relative annual expenditure per California household for food and beverages. As a result of the exemptions, the foods *potentially* requiring labeling represent 42% of total household food expenditure.

³⁶ THE INITIATIVE § 110809.2 (a).

³⁷ *Id.* § 110809.2 (d).

Figure 1:
California Annual Household Food Expenditure for Foods Requiring Labeling

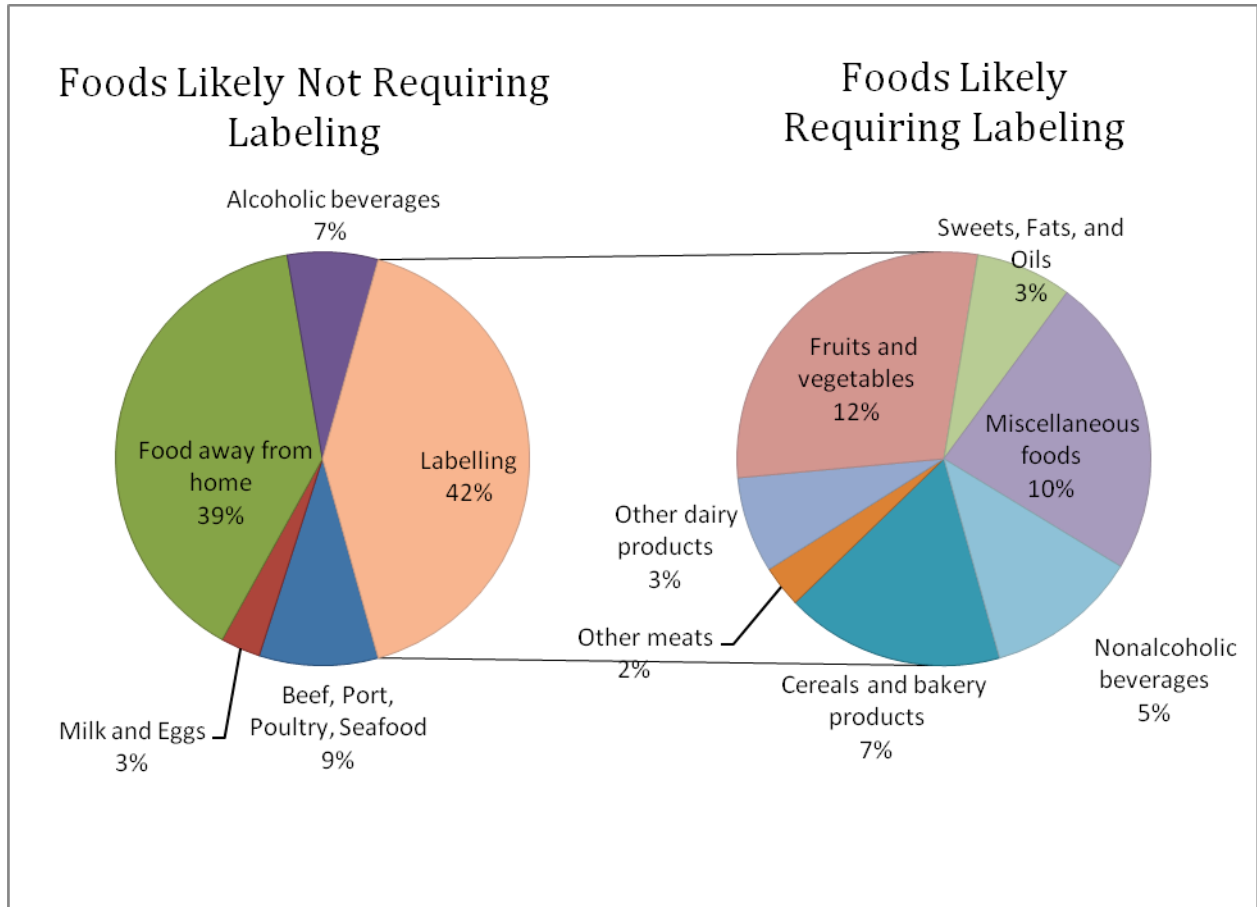


Table 3 reports the average annual expenditure by California households for the food categories that will potentially be required to alter package labeling to disclose genetic engineering or remove words implying a food is natural:

Table 3:
Average Annual Household Expenditure in California for Products Potentially Requiring
Package-Label Redesign

Cereals and cereal products	\$175
Bakery products	\$309
Other meats	\$92
Other dairy products	\$212
Processed fruits	\$118
Processed vegetables	\$113
Sugar and other sweets	\$112
Fats and oils	\$100
Miscellaneous foods	\$668
Nonalcoholic beverages	\$338
TOTAL	\$2,237

Assuming that *all* producers pass on the *entire* one-time expense of redesigning labels, average prices in these food categories would increase by 0.03% in order to offset the average one-time expense of redesigning labels of \$1,104.43. If prices increased by 0.03%, **California household expenditure for these food categories would only increase by 67 cents** ($\$2,237 \times 0.0003$).

Table 4 reports the average annual household expenditure in California on fresh fruits and vegetables. Assuming that *all* food retail stores pass on the *entire* one-time expense of installing store placards, the price of fruits and vegetables would only increase by 0.1% to offset the new expense of placards disclosing genetic engineering in supermarket produce sections. If prices increased by 0.1%, California household expenditure for fresh fruits and vegetables **would increase by only 60 cents** ($\$593 \times 0.001$).

Table 4:
Average Annual Household Expenditure in California for Fresh Fruits and Vegetables

Fresh fruits	\$308
Fresh vegetables	\$285
TOTAL	\$593

Thus, for the average household in California, **total annual food expenditure will increase by no more than \$1.27** as a result of the Right to Know Act. This increase in expenditure would completely offset the average expense that food producers incur as they alter their package labeling or display placards to disclose genetic engineering. An additional annual expenditure of \$1.27 represents a trivial, **0.02% increase above the current average annual household food and beverage expenditure** in California of \$6,851.

However, **this estimate is certain to be an overestimate of the average increase** in household expenditure for three reasons. First, **it assumes that all food producers will pass on the entire one-time expense** of redesigning labels by increasing prices. However, as discussed in Section II, **many consumer prices will not increase to offset the insignificant expenses of relabeling and store placards.** A substantial body of literature has established that many consumer prices do not change in response to small cost increases because the cost of physically changing product prices is greater than the desired price increase. Moreover, the relabeling and placard expenses are a one-time expense that food producers and retail food stores will bear only once to meet the requirements of the Right to Know Act. Existing literature on food prices reveals that, while retail prices may adjust to reflect permanent changes in costs, **there is often no change in retail prices following a temporary change in cost.**

Second, this estimate is certain to be an overestimate because it assumes that all stores will display numerous placards disclosing genetic engineering throughout the produce department. In reality, **many stores sell few or no genetically-modified fruits and vegetables** in their produce section.

Finally, this estimate assumes that all products within these broad food categories will require relabeling. In reality, **many products within these categories will not require relabeling** (1) if the producers receive a sworn statement from their supplier that the food has not been “knowingly or intentionally” genetically engineered

or comingled with genetically engineered food,³⁸ (2) if an *independent organization determines* that the food has not been “knowingly or intentionally” genetically engineered or comingled with genetically engineered food,³⁹ or (3) if the food has been certified to be labeled “organic” under federal law.⁴⁰

III. Minor Litigation Costs

The Act may impose minor costs on the State of California as a result of an increase in litigation associated with the Right to Know Act. The Act allows state, local, or private parties to sue for violations: “any person may bring an action in superior court pursuant to this section.”⁴¹ The state will incur minor additional costs to process and hear the additional cases resulting from the Act. In addition, the Attorney General and local district attorneys may also incur some costs as they review and respond to allegations of violations and notices of private action.⁴²

The magnitude of these potential litigation costs is unknown as it depends on the number of cases filed, the number of cases prosecuted by state and local governments, and how they are adjudicated by the courts.⁴³ However, by comparing the potential litigation stemming from the Act with the litigation that has resulted from another consumer disclosure act and the accompanying litigation costs, it is possible to estimate an upper bound on the potential costs imposed on the State of California as a result of an increase in litigation associated with the Act.

A. Litigation Incentives Under the Right to Know Act are Substantially Weaker than Under Prop 65

To estimate the potential litigation costs under the Right to Know Act, I compare various provisions of this Act to the California Safe Drinking Water and Toxic

³⁸ THE INITIATIVE §110809.2(b).

³⁹ *Id.* § 110809.2(f).

⁴⁰ *Id.* § 110809.2(g).

⁴¹ THE INITIATIVE, Section 4.

⁴² LEGISLATIVE ANALYSTS’ OFFICE, 2011 INITIATIVE ANALYSIS: THE CALIFORNIA RIGHT TO KNOW GENETICALLY ENGINEERED FOOD ACT (January 30, 2012), available at: <http://lao.ca.gov/ballot/2011/110813.aspx>

⁴³ *Id.*

Enforcement Act of 1986 (“Prop 65”), another consumer disclosure act. Prop 65 requires companies to provide warnings to consumers if their products or actions will expose consumers to certain levels of chemicals found by the State of California to cause cancer or to harm reproductive health. Like the Right to Know Act, Prop 65 allows private plaintiffs to sue to enforce its provisions, although the Attorney General and local district attorneys may also bring an action.

Although both of these consumer disclosure acts have a private right of action, **the Right to Know Act should result in considerably less litigation** for several reasons. First, the Act applies to a much narrower economic sector than Prop 65:⁴⁴

- *Proposition 65 applies to all products and industries, and concerns exposure to any one of over 800 chemicals listed by the State.*
- *The Right to Know Act applies only to genetically engineered food sold at retail, and specifically exempts medical foods and food prepared for immediate consumption.*
- *In this manner, the Right to Know Act would simply generate fewer opportunities for claims to arise.*

Second, **there are fewer incentives for plaintiffs to file lawsuits** for the sole purpose of obtaining a settlement under the Right to Know Act because it provides businesses with greater legal certainty about their compliance with the Act’s requirements:⁴⁵

- *Because Proposition 65 covers over 800 chemicals and focuses on consumer exposure levels, rather than product composition, businesses often can have difficulty knowing whether they are in compliance with its provisions. Further compounding this legal uncertainty, the California Office of Environmental Health*

⁴⁴ JAMES COOPER, PROPOSITION 65 AND THE PROPOSED CALIFORNIA RIGHT TO KNOW GENETICALLY ENGINEERED FOODS ACT: A COMPARISON OF LITIGATION INCENTIVES 3-4 (2012).

⁴⁵ *Id.*

Hazard Assessment (OEHHA) has developed safe harbor exposure levels for only about 300 of the chemicals covered by Proposition 65.

- **The Right to Know Act**, on the other hand, **provides clear threshold standards**, allowing businesses to gauge their compliance with its requirements to a greater degree of certainty.
- Accordingly, **unlike the case of Proposition 65, baseless demand letters from plaintiffs claiming the Right to Know Act violations will be less likely to result in extorted settlements**, which will reduce incentives to file such strike suits the first place.

Finally, **the Right to Know Act allows businesses more exceptions** from its provisions than Prop 65, further narrowing the opportunities for claims to arise:⁴⁶

- Apart from its small (and largely uncertain) *de minimis* threshold exposure exemptions, Proposition 65's only exemptions are for businesses that employ fewer than ten people, federal preemption, and for exposure due to chemicals naturally occurring in food.
- **The Right to Know Act provides an absolute defense for any party** that relies on a sworn statement from its supplier that the food in question was not genetically engineered, or comingled with genetically engineered food. This defense allows businesses that unknowingly mislabel products an inexpensive means to defeat private suits early without having to pay plaintiffs' legal fees, which in turn will discourage private litigation.
- **The Right to Know Act provides a precise safe harbor** based on product composition rather than public exposure (phased out over seven years). It also provides businesses with several clear-cut exemptions from its labeling requirement, including medical food, and food that is intended for immediate consumption, derived from animals fed genetically engineered foods, or made with genetically engineered processing aids or enzymes. The extent to which these

⁴⁶ *Id.*

exemptions reduce the probability that a plaintiff will prevail at trial will reduce ex ante incentives to bring private suits.

- ***The Right to Know Act further allows a defendant 30 days to cure a violation, which will bar a suit for damages. Knowing that a defendant can avoid paying damages and attorneys' fees by taking appropriate ameliorative actions will reduce the expected payoff from a suit, and hence incentives to file a suit in the first place.***

B. Trivial Costs from Increased Litigation

Thus, the Right to Know Act should result in significantly less litigation than Prop 65. Moreover, even though Prop 65 has resulted in abusive private litigation and extorted settlements, it has not imposed significant costs on the State of California. A Westlaw search shows that approximately 237 cases have gone to trial in the Superior Courts of California under one or more provisions of Prop 65 since it was enacted in 1986. Thus, in the 26 years since Prop 65 has been enacted, an average of approximately 9 cases have gone to trial each year. In contrast, in the 2009-2010 fiscal year, a total of 470,529 cases went to trial in the Superior Courts of California.⁴⁷ Thus, the annual average of 9 cases arising under Prop 65 account for less than 0.002% of the total number of Superior Court trials.

The increase in costs resulting from an average of 9 additional cases per year is trivial. Table 5 reports the funding for California Superior Courts over the last three years. As the funding for the Superior Courts has averaged almost \$3 billion annually, the per-trial cost of operating the courts has been approximately \$6338. Thus, the additional 9 cases per year under Prop 65 would cost the State of California only \$57,042. This estimate is certain to be an overestimate of the average per-trial cost because many of the costs of operating the trial courts are fixed (not changing as the

⁴⁷ JUDICIAL COUNCIL OF CALIFORNIA, 2011 COURT STATISTICS REPORT: STATEWIDE CASELOAD TRENDS 64 (2011), available at: <http://www.courts.ca.gov/documents/2011CourtStatisticsReport.pdf>

number of cases changes), so that an additional 9 cases will only increase the variable costs.

Table 5.
Trial Court Funding in the State of California⁴⁸

Annual Budget	2011-2012	2010-2011	2009-2010
State Trial Court Funding	\$2,667,480,000	\$3,218,101,000	\$3,060,624,000

Because the Right to Know Act should result in considerably less litigation than Prop 65, the expected costs to the state are even lower. Although it is impossible to compute how many fewer trials will result under the Act compared to Prop 65, the average annual number of trials should be less than 9. Hence, the additional cost to the State of California for processing and hearing cases under the Act should be less than \$50,000. In per capita terms, **an additional \$50,000 translates into \$0.001, or less than 1 cent, for each person living in the State of California.**

C. Trivial Costs to the Office of the Attorney General

The Right to Know Act may impose minor additional costs on the State of California if the Office of the Attorney General (AG) brings actions under the Act or the office reviews and responds to allegations of violations and notices of private action.⁴⁹ As the AG provides legal services on behalf of the people of California, the state incurs the costs of any actions brought by the AG under the Act. However, the AG will likely bring few actions under the Act; **most actions are likely to be private actions, imposing little cost to the State of California.** Moreover, the cost of the AG reviewing

⁴⁸ STATE OF CALIFORNIA, DEPARTMENT OF FINANCE, 0250 JUDICIAL BRANCH: 3-YR EXPENDITURES & PERSONNEL YEARS (published on January 10, 2012) available at <http://www.ebudget.ca.gov/StateAgencyBudgets/0010/0250/spr.html>; STATE OF CALIFORNIA, DEPARTMENT OF FINANCE, 0250 JUDICIAL BRANCH: 3-YR EXPENDITURES & PERSONNEL YEARS (published on January 10, 2011) available at <http://2011-12.archives.ebudget.ca.gov/StateAgencyBudgets/0010/0250/spr.html>

⁴⁹ LEGISLATIVE ANALYSTS' OFFICE, 2011 INITIATIVE ANALYSIS: THE CALIFORNIA RIGHT TO KNOW GENETICALLY ENGINEERED FOOD ACT (January 30, 2012), available at: <http://lao.ca.gov/ballot/2011/110813.aspx>

and responding to allegations of violations and notices of private action will impose only minimal costs on the state.

To estimate the potential costs to the AG under the Right to Know Act, I compare the expected involvement of the AG under the Act to the actual involvement of the AG under Prop 65. There are several reasons why the Act will impose fewer costs on the California AG than the costs imposed by Prop 65. First, compared to Prop 65, the Act applies to a narrower economic sector and provides fewer opportunities for claims to arise. Thus, because the overall litigation resulting from the Act should be less than the litigation resulting from Prop 65, the AG would also be expected to bring fewer actions under the Act.

Second, under Prop 65, a potential plaintiff must give the AG and alleged violator 60-days notice before commencing a private action.⁵⁰ During this time, the AG reviews the notice and decides whether to commence an action against the violator. In contrast, the **Right to Know Act**, in its current form, **does not require persons bringing private enforcement actions to notify the AG** when they file a case. Thus, compared to Prop 65, under the Act there will be fewer notices for the AG to review and fewer opportunities for the AG to bring actions that would otherwise be brought by private plaintiffs.

Although the AG will have less involvement in actions under the Right to Know Act than its involvement under Prop 65, examining the relationship between the AG actions and costs under Prop 65 provide some insight into the upper bound of the costs of the Act on the California AG. Table 6 reports the total number of annual settlements under Prop 65,⁵¹ the number of settlements of actions brought by the AG,⁵² the number

⁵⁰ See *People v. Tri--Union Seafoods, LLC*, 171 Cal. App. 4th 1549, §25249.7(d)(1) (2009).

⁵¹ OFFICE OF THE ATTORNEY GENERAL, PROPOSITION 65 ENFORCEMENT REPORTING: ANNUAL SUMMARIES OF PRIVATE SETTLEMENTS, 2007-2011, available at: <http://oag.ca.gov/prop65>

⁵² *Id.*

of 60-day notices received by the AG under Prop 65,⁵³ and the annual budget of the AG.⁵⁴

Table 6:
AG Involvement in Prop 65 and AG Annual Budget

Year	Number of Private Settlements under Prop 65	Number of Settlements of Actions brought by AG	Number of 60-Day Notices Received Reviewed by AG	AG Annual Budget
2007	156	4	332	\$824,853,000
2008	199	12	632	\$791,250,000
2009	321	7	606	\$750,970,000
2010	187	7	688	\$754,994,000
2011	338	11	1077	\$732,207,000

Over this five-year period, the AG has settled an average of 8.2 actions per year and reviewed an average of 667 60-day notices per year under Prop 65. However, there is little relationship between the number of settlements, notices reviewed, and the AG budget during this period. Indeed, the correlation between the number of settlements of AG actions and the AG budget is -0.44 and the correlation between the number of 60-day notices and the AG budget is -0.85, indicating that there is an inverse relationship between the AG's involvement under Prop 65 and the costs to the State of California. Similarly, Figures 2-4 reveal that there is no discernible relationship in the trend data among the number of settlements of actions brought by the AG, the number of 60-day notices received by the AG under Prop 65, and the annual budget of the AG.

⁵³OFFICE OF THE ATTORNEY GENERAL, 60-DAY NOTICE SEARCH, 2007-2011, available at: <http://oag.ca.gov/prop65/60-day-notice-search>.

⁵⁴ The Office of the AG is referred to as the Department of Justice. As the budgetary numbers are reported for fiscal years while the other numbers are reported for calendar years, the Table reports the budget whose fiscal year begins during the relevant calendar year. Thus, the budgetary numbers for 2011-2012 are reported in the Table for year 2011. STATE OF CALIFORNIA, DEPARTMENT OF FINANCE 0820 DEPARTMENT OF JUSTICE (published on June 30, 2011) available at: <http://2011-12.archives.ebudget.ca.gov/Enacted/StateAgencyBudgets/0010/0820/department.html>; STATE OF CALIFORNIA, DEPARTMENT OF FINANCE 0820 DEPARTMENT OF JUSTICE (published on October 8, 2010) available at: <http://2010-11.archives.ebudget.ca.gov/Enacted/StateAgencyBudgets/0010/0820/department.html>; STATE OF CALIFORNIA, DEPARTMENT OF FINANCE 0820 DEPARTMENT OF JUSTICE (published on July 28, 2009) available at: <http://2009-10.archives.ebudget.ca.gov/Enacted/StateAgencyBudgets/0010/0820/department.html>; STATE OF CALIFORNIA, DEPARTMENT OF FINANCE 0820 DEPARTMENT OF JUSTICE (last viewed on July 4, 2012) available at: <http://2008-09.archives.ebudget.ca.gov/Enacted/StateAgencyBudgets/0010/0820/department.html>; STATE OF CALIFORNIA, DEPARTMENT OF FINANCE 0820 DEPARTMENT OF JUSTICE (last viewed on July 4, 2012) available at: <http://2007-08.archives.ebudget.ca.gov/Enacted/StateAgencyBudgets/0010/0820/department.html>.

Figure 2:
Settlements of Actions brought by AG under Prop 65

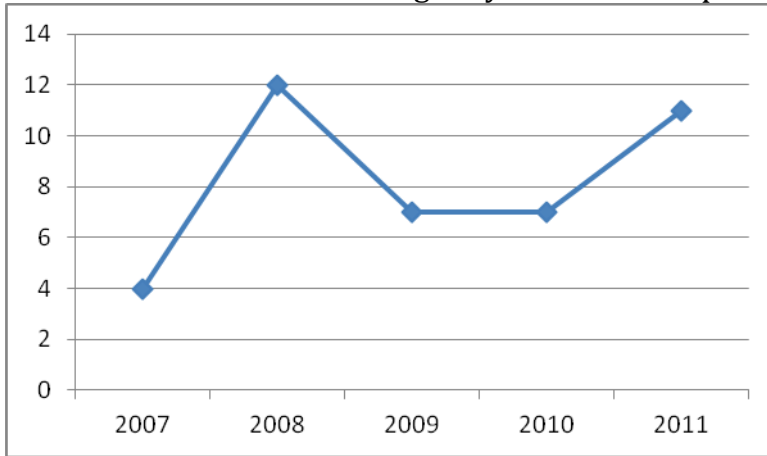


Figure 3:
60-Day Notices Received by AG under Prop 65

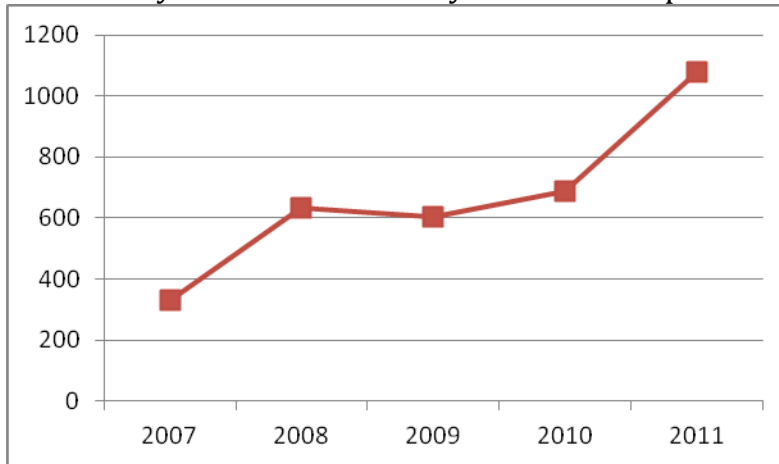
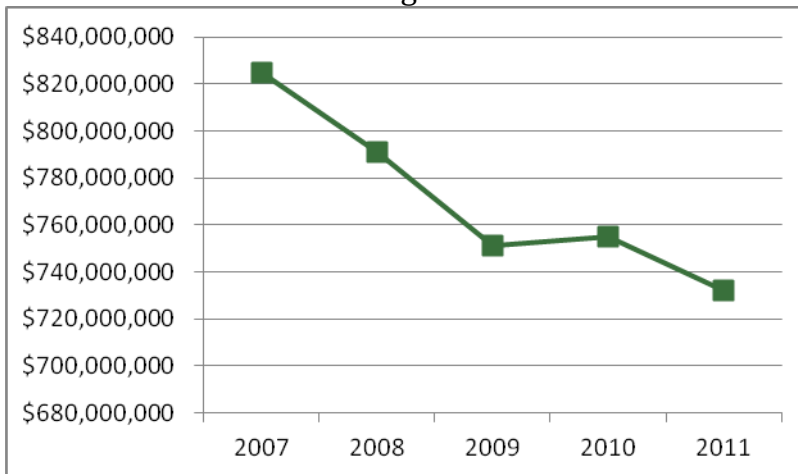


Figure 4:
Annual Budget of the AG



Presumably, because bringing Prop 65 cases and reviewing 60-day notices represent such a negligible portion of the overall workload of the Office of the Attorney General, they have little impact on the overall costs of the AG. Because the Right to Know Act will result in even less involvement of the AG than Prop 65, **the Act will impose only trivial additional costs on the State of California** as the AG office brings actions or reviews and responds to allegations of violations and notices of private action.

IV. Negligible Administrative Costs

The Right to Know Act may also impose administrative costs on the State of California as the Department of Public Health (DPH) adopts regulations necessary to implement certain provisions in the measure. For example, the DPH may need to develop regulations specifying the sampling procedures necessary to determine whether foods contain genetically engineered ingredients.⁵⁵

The Right to Know Act does not specify the precise responsibilities the DPH will have under the Act:

§ 110809.3 Adoption of Regulations

*The department may adopt any regulations that it determines are necessary for the enforcement and interpretation of this Article, provided that the department shall not be authorized to create any exemptions beyond those specified in section 110809.2.*⁵⁶

Nevertheless, the California Legislative Analyst's Office, a nonpartisan fiscal and policy advisor to the California Legislature for over 70 years, has estimated that, at most, the administrative costs of the Right to Know Act could be \$1 million annually:

Potential Increase in State Administrative Costs. *This measure could result in additional state costs for DPH to regulate the labeling of GE foods. Depending on*

⁵⁵ Legislative Analysts' Office, 2011 Initiative Analysis: The California Right to Know Genetically Engineered Food Act (January 30, 2012), available at: <http://lao.ca.gov/ballot/2011/110813.aspx>

⁵⁶ The Right to Know Act § 110809.3.

how, and to what extent, the department chose to implement such regulations, these costs could potentially reach one million dollars annually.⁵⁷

However, it is probable that **the Right to Know Act will cost DPH much less than the \$1 million the Legislative Analysts' Office estimates** as the top of the range of possible administrative costs. By comparing DPH's expected responsibilities under the Right to Know Act to the responsibilities imposed on The Office of Environmental Health Hazard Assessment (OEHHA) under Prop 65 and the corresponding administrative costs, it becomes evident that the annual costs of the Right to Know Act will likely be less than \$1 million.

C. Regulatory Responsibilities under the Right to Know Act are Simpler and Less Burdensome than Under Prop 65

Table 7 reports both the total annual expenditures by OEHHA and the expenditures by the Safe Drinking Water and Toxic Enforcement (Prop 65) Fund over the past 3 years.⁵⁸ Over this period, OEHHA's annual expenditures for implementing Prop 65 have averaged less than \$3.8 million.

⁵⁷ LEGISLATIVE ANALYSTS' OFFICE, 2011 INITIATIVE ANALYSIS: THE CALIFORNIA RIGHT TO KNOW GENETICALLY ENGINEERED FOOD ACT (January 30, 2012), available at: <http://lao.ca.gov/ballot/2011/110813.aspx>

⁵⁸ Expenditures of The Safe Drinking Water and Toxic Enforcement Fund pay for OEHHA's implementation of Prop 65: "(b) The Safe Drinking Water and Toxic Enforcement Fund is hereby established in the State Treasury. The director of the lead agency designated by the Governor to implement this chapter may expend the funds in the Safe Drinking Water and Toxic Enforcement Fund, upon appropriation by the Legislature, to implement and administer this chapter. "Safe Drinking Water and Toxic Enforcement Act of 1986 § 25249.12. (b)

Table 7.
Annual Expenditures under the California Budget⁵⁹

Annual Budget	2011-2012	2010-2011	2009-2010
The Office of Environmental Health Hazard Assessment Total Expenditures	\$19,390,000	\$14,899,000	\$14,184,000
Expenditures by the Safe Drinking Water and Toxic Enforcement (Prop 65) Fund	\$4,372,000	\$3,613,000	\$3,347,000

However, the responsibilities of OEHHA under Prop 65 are significantly more onerous than the responsibilities DPH will have under the Right to Know Act. OEHHA has two primary responsibilities under Prop 65. First, it is responsible for evaluating all currently available scientific information on chemicals considered for placement on the Prop 65 list.⁶⁰ The evaluation consists of OEHHA's Science Advisory Board compiling all relevant scientific evidence on various chemicals and considering comments from the public before determining whether a chemical should be placed on the list. As there are currently over 800 chemicals on the Prop 65 list, this collection and evaluation of scientific data has been and continues to be both time-consuming and costly. Second, OEHHA is responsible for establishing self-harbor thresholds for chemicals: thresholds below which chemicals pose no significant risk for causing cancer, birth defects, or other reproductive harm.⁶¹ Safe harbor levels are based on risk assessments performed or evaluated by OEHHA, which the agency describes as

⁵⁹ STATE OF CALIFORNIA, DEPARTMENT OF FINANCE, 3980 ENVIRONMENTAL HEALTH HAZARD ASSESSMENT: 3-YR EXPENDITURES & PERSONNEL YEARS (published on January 10, 2012) available at: <http://www.ebudget.ca.gov/StateAgencyBudgets/3890/3980/spr.html>; STATE OF CALIFORNIA, DEPARTMENT OF FINANCE, 3980 ENVIRONMENTAL HEALTH HAZARD ASSESSMENT: 3-Yr EXPENDITURES & PERSONNEL YEARS (published on January 10, 2011) available at: <http://2011-12.archives.ebudget.ca.gov/StateAgencyBudgets/3890/3980/spr.html>

⁶⁰ OEHHA, PROPOSITION 65 IN PLAIN LANGUAGE (March 2010), available at: <http://oehha.ca.gov/prop65/background/p65plain.html>

⁶¹ *Id.*

“lengthy” and “complex.”⁶² OEHHA has established safe harbor thresholds for nearly 300 chemicals to date and continues to develop safe harbor thresholds for listed chemicals, resulting in ongoing expenditures by OEHHA.

In contrast to OEHHA’s onerous and ongoing responsibilities under Prop 65, the **Right to Know Act will likely require considerably less oversight from DPH** for several reasons.⁶³ **First**, the Right to Know Act applies to a much narrower sector of substances: whereas Prop 65 applies to a potentially infinite number of chemicals that consumers could be exposed to, the Act applies only to genetically engineered foods sold at retail stores. **Second**, there is greater certainty of the coverage of the Act; whereas Prop 65 requires OEHHA to consider all scientific evidence relating to consumer exposure levels of chemicals, the Act simply applies to the composition of foods. **Finally**, it will require significantly less follow-up from DPH; whereas OEHHA has developed safe harbor exposure levels for about 300 products and continues to work to establish levels for all of the chemicals covered by Prop 65, the Act provides clear threshold standards as part of the Act.

D. Negligible Costs to the Department of Public Health

Thus, as DPH’s expected responsibilities under the Right to Know Act are significantly less than OEHHA’s responsibilities under Prop 65, it’s difficult to imagine that the annual administrative costs of the Act could be over 25% of the administrative costs of Prop 65. However, even if the Act does increase DPH’s costs by \$1 million, it **will have a trivial impact on the California budget.**

Table 8 reports the total annual budget for the State of California and the total budget for DPH over the last 3 years. It also reports what the impact of \$1 million in additional administrative costs resulting from the Act would have been over this period. Even if the Act costs DPH an additional \$1 million, the impact on the State of

⁶² OEHHA, REPRODUCTIVE AND CANCER HAZARD ASSESSMENT BRANCH, PROPOSITION 65 SAFE HARBOR LEVELS (June 2012), available at: <http://oehha.ca.gov/prop65/pdf/2012StatusReportJune.pdf>

⁶³ JAMES COOPER, PROPOSITION 65 AND THE PROPOSED CALIFORNIA RIGHT TO KNOW GENETICALLY ENGINEERED FOODS ACT: A COMPARISON OF LITIGATION INCENTIVES 3-4 (2012).

California would be trivial. The average DPH budget over this three-year period was \$3.3 billion; thus an additional \$1 million resulting from the Act would have increased DPH expenditures by an average of only 0.03%. The total state budget averaged almost \$125 billion over this three-year period; thus an additional \$1 million resulting from the Act would have increased total state expenditures by an average of only 0.0008%.

Table 8.

California Budget and Impact of \$1 million Administrative Costs of Right to Know Act.

Annual Budget	2011-2012	2010-2011	2009-2010
Total Annual Budget	\$129,476,925,000	\$125,254,953,000	\$119,244,918,000
Increase in Total Budget resulting from \$1 million administrative costs of Right to Know Act	0.00077%	0.00080%	0.00084%
DPH Annual Budget	\$3,504,490,000	\$3,270,701,000	\$3,186,476,000
Increase in DPH budget resulting from \$1 million administrative costs of Right to Know Act	0.029%	0.031%	0.031%

In sum, by comparing DPH’s expected responsibilities under the Right to Know Act to the responsibilities imposed on OEHHA under Prop 65, and the corresponding administrative costs, **the Act will likely impose less than \$1 million in administrative costs** on DPH as it adopts regulations necessary to implement certain provisions in the measure. However, even if the annual administrative costs do add up to \$1 million, the impact on the State of California would be trivial; DPH expenditures would increase by only 0.03% and total state expenditures would increase by only 0.0008%.

V. About the Author

Joanna Shepherd-Bailey, Ph.D., received a Ph.D. in Economics from Emory University, with concentrations in Econometrics/Statistics and Law & Economics. She is currently a tenured professor at Emory University School of Law, and was previously a professor of Economics at Emory University, Clemson University and Georgia State University. She previously worked on the Economic Research Team at the Atlanta Federal Reserve Bank. Professor Shepherd-Bailey has taught numerous courses in statistics, econometrics, economics, and other analytical courses to undergraduates, Ph.D. students, and law students. She has published numerous empirical articles that have appeared in leading peer-reviewed economics journals, peer-reviewed law journals, and law reviews. The majority of these articles involved a detailed statistical analysis of legal changes or legal institutions. She has testified about her statistical work before the U.S. House of Representatives' Judiciary Committee and the National Academy of Sciences.

Appendix 1:
Product Availability across Food Retail Stores⁶⁴

Available in Percent of Stores:	Percent of Products
0% to 10%	14%
10% to 20%	11%
20% to 30%	6%
30% to 40%	5%
40% to 50%	5%
50% to 60%	6%
60% to 70%	7%
70% to 80%	9%
80% to 90%	11%
90% to 99%	12%
99% to 100%	13%

⁶⁴ Reproduced from Steven Tenn & John Yun, *Biases in Demand Analysis Due to Variation in Retail Distribution*, FTC Bureau of Economics Working Paper No. 287 (2007), available at: <http://www.ftc.gov/be/workpapers/wp287.pdf>

Appendix 2:

Number of Food Retailers selling Food Products in California; U.S. Census Bureau ⁶⁵

State	Year	NAICS Code	Food Retailer	Number of Establishments selling Groceries	Sales of Groceries
California	2007	44511	Supermarkets	7,824	\$48,647,622,000
California	2007	44512	Convenience Stores	2,184	\$795,842,000
California	2007	4452	Specialty Food Stores	3,092	\$2,157,752,000
California	2007	4453	Beer, wine and liquor stores	2,738	\$317,895,000
California	2007	446	Health and Personal	3,191	\$1,126,602,000
California	2007	447	Gasoline Stations	6,861	\$1,884,222,000
California	2007	452	General Merchandise	2,507	\$12,151,526,000

65 U.S. CENSUS BUREAU, RETAIL TRADE: SUBJECT SERIES - PRODUCT LINES: PRODUCT LINES STATISTICS BY KIND OF BUSINESS FOR THE UNITED STATES AND STATES (2007), available at: <http://factfinder2.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t>

Appendix 3:

CURRICULUM VITAE

2012

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ACADEMIC EMPLOYMENT:

Associate Professor of Law, Emory University School of Law, Fall 2008 – present

Assistant Professor of Law, Emory University School of Law, Fall 2005 – Fall 2008

Visiting Assistant Professor, Emory University, Department of Economics, 2004-2005.

Assistant Professor of Economics, Clemson University, 2002 - 2004.

Visiting Assistant Professor, Georgia State University, Department of Economics, 2002.

Instructor, Emory University, Department of Economics, 2000 - 2002.

Macroeconomic Research Team, Federal Reserve Bank, Atlanta, GA, 1998 - 1999.

PUBLICATIONS:

Major Articles

- *Products Liability and Economic Activity: An Empirical Analysis of Tort Reform's Impact on Businesses, Employment, and Production*, VANDERBILT LAW REVIEW (forthcoming, 2012)
- *The Partisan Price of Justice: An Empirical Analysis of Campaign Contributions and Judicial Decisions*, with Michael Kang, 86 NEW YORK UNIVERSITY LAW REVIEW 69 (2011).
- *Measuring Maximizing Judges: Empirical Legal Studies, Public Choice Theory, and Judicial Behavior*, 2011 UNIVERSITY OF ILLINOIS LAW REVIEW 101 (2011).
- *Legislatures, Judges, and Parole Boards: The Allocation of Discretion Under Determinate Sentencing*, with Nuno Garoupa and Dhammika Dharmapala, 62 FLORIDA LAW REVIEW 1037 (2010).
- *Are Appointed Judges Strategic Too?* 58 DUKE LAW JOURNAL 1589 (2009).

- *Money, Politics, and Impartial Justice*, 58 DUKE LAW JOURNAL 623 (2009).
- *The Influence of Retention Politics on Judges' Voting*, 38 THE JOURNAL OF LEGAL STUDIES 169 (2009).
- *Tort Reform's Winners and Losers: The Competing Effects of Care and Activity Levels*, 55 UCLA LAW REVIEW 905 (2008).
 - reprinted in TORT REFORM: ESSAYS, NARRATIVES, AND OTHER MATERIALS (2010, FORTHCOMING)
- *What Else Matters for Corporate Governance?: The Case of Bank Monitoring*, with Frederick Tung and Albert Yoon, 88 BOSTON UNIVERSITY LAW REVIEW 991 (2008).
- *Blakely's Silver Lining: Sentencing Guidelines, Judicial Discretion, and Crime* 58 HASTINGS LAW JOURNAL 533 (2007).
- *Tort Reform and Accidental Deaths*, with Paul H. Rubin. 50 THE JOURNAL OF LAW & ECONOMICS 221 (2007).
 - reprinted in ROUNDTABLE VIEWPOINTS: BUSINESS LAW (2008)
 - subject of Op-Ed, *Tort Reform Saves Lives*, WALL STREET JOURNAL by Rubin, Oct. 8, 2005.
- *Deterrence versus Brutalization: Capital Punishment's Differing Impacts Among States*, 104 MICHIGAN LAW REVIEW 203 (2005).
 - Featured in front page article: Adam Liptak, *Does Death Penalty Save Lives? A New Debate*, THE NEW YORK TIMES, November 18, 2007.
 - subject of Op-Ed, *Why Not All Executions Deter Murder*, THE CHRISTIAN SCIENCE MONITOR, Dec. 14, 2005.
- *An Empirical Study of Public Defender Effectiveness: Self-Selection by the "Marginally Indigent,"* with Judge Morris B. Hoffman and Paul H. Rubin. 3 OHIO STATE JOURNAL OF CRIMINAL LAW 223 (2005).
 - subject of Op-Ed, *Free-Market Justice*, THE NEW YORK TIMES, by Hoffman, Jan. 8, 2007.
- *Murders of Passion, Execution Delays, and the Deterrence of Capital Punishment*, 33 THE JOURNAL OF LEGAL STUDIES 283 (2004).
- *Does Capital Punishment Have a Deterrent Effect? New Evidence from Postmoratorium Panel Data*, with Paul Rubin and Hashem Dezhbakhsh. 5 AMERICAN LAW AND ECONOMICS REVIEW 344 (2003)
 - reprinted in BEZPIECZNE PANSTWO. NOWE TRENDY W POLITYCE KARN (2006).
 - reprinted in ECONOMICS, LAW AND INDIVIDUAL RIGHTS (2008)
- *Police, Prosecutors, Criminals, and Determinate Sentencing: The Truth about Truth-in-Sentencing Laws*, 45 THE JOURNAL OF LAW & ECONOMICS 505 (2002).
- *Fear of the First Strike: The Full Deterrent Effect of California's Two- and Three-Strikes Legislation*, 31 THE JOURNAL OF LEGAL STUDIES 159 (2002).
 - reprinted in BEZPIECZNE PANSTWO. NOWE TRENDY W POLITYCE KARNEJ (2006)

Essays and Book Chapters

- *Ideal versus Reality in Third-Party Litigation Financing*, JOURNAL OF LAW, ECONOMICS & POLICY (forthcoming, 2012)
- *Lawyers, Ignorance, and the Dominance of Delaware Corporate Law*, with William Carney and George Shepherd, HARVARD BUSINESS LAW REVIEW __ (forthcoming 2012)
- *Baseball's Accidental Racism: The Draft, African-American Players, and the Law*, with George Shepherd, CONNECTICUT LAW REVIEW __ (forthcoming 2012)
- *Public Choice and the Law*, with Paul H. Rubin in THE ELGAR COMPANION TO PUBLIC CHOICE - ____ (Michael Reksulak, Lauralliam F. Shughart II eds., 2011, forthcoming 2012)
- *Diversity, Tenure, and Dissent*, LEGAL WORKSHOP (DUKE LAW JOURNAL , March, 2 2010)
- *Elected Judges as Politicians*, LEGAL WORKSHOP (DUKE LAW JOURNAL, 2010)
- *Judicial Opposition as Politics*, 166 JOURNAL OF INSTITUTIONAL AND THEORETICAL ECONOMICS 88 (2010).
- *The Economics of Capital Punishment*, in CRIMINAL LAW AND ECONOMICS 207 (Nuno Garoupa ed., 2010)
- *Delaware Corporate Law: Failing Law, Failing Markets*, with William J. Carney & George B. Shepherd in THE LAW AND ECONOMICS OF CORPORATE GOVERNANCE: CHANGING PERSPECTIVES (Alessio M. Paccès, ed., 2010, forthcoming)
- *The Demographics of Tort Reform*, with Paul H. Rubin. 4 THE REVIEW OF LAW & ECONOMICS 591 (2008).
- *The Economics of Crime*, with Erling Eide and Paul H. Rubin, 2 FOUNDATIONS AND TRENDS IN MICROECONOMICS 291 (2006).
- *The Relationship between Prison Populations and Crime: Causes and Impacts*, 5 CRIMINOLOGY AND PUBLIC POLICY 285 (2006).
- *The Deterrent Effect of Capital Punishment: Evidence from a Judicial Experiment*, with Hashem Dezhbakhsh, 44 ECONOMIC INQUIRY 512 (2004).
- *Antitrust and Market Dominance*, with William G. Shepherd and George B. Shepherd, 46 THE ANTITRUST BULLETIN 835 (2002).

Books

- THE ECONOMICS OF INDUSTRIAL ORGANIZATION, with William G. Shepherd (2003).

CONGRESSIONAL TESTIMONY:

- *Testimony on Crime and Deterrence: Hearing on H.R. 2934, The Terrorist Penalties Enhancement Act of 2003. Before the House Judiciary Committee; Subcommittee on Crime, Terrorism, and Homeland Security, 108th Cong. (2004).*

EDUCATION:

- Emory University, Atlanta, GA, Ph.D. in Economics; Fields of Specialization: Law & Economics & Econometrics/Statistics (study at Emory School of Law), 2002. Woodruff Scholar.
- Baylor University, Waco, TX, BBA in Economics and International Business, 1997 (GPA: 4.0; Summa Cum Laude)

TEACHING EXPERIENCE:

- Torts; Law and Economics; Analytical Methods for Lawyers; Statistics for Lawyers; Economics and Public Policy; Econometrics; Statistics; Accounting for Lawyers, Finance for Lawyers, Advanced Microeconomics; Introduction to Microeconomics

UNIVERSITY SERVICE:

- Chair of Colloquium and Scholarship Committee (2011-present)
- Admissions Committee (2009-present)
- University-Wide Liberal Arts Committee (2011-present)
- Woodruff Scholar Selection Committee (2010-present)
- Appointments Committee (2010-2011)
- Curriculum Committee (2007-2010)
- Colloquium and Scholarship Committee (2006-2007)
- Academic Standings Committee (2005-2006)

SELECTED SCHOLARLY PRESENTATIONS:

University Presentations

- ETH Zurich, the University of Zurich, the University of St. Gallen and the University of Lucerne (Joint workshop), Workshop & Lecture Series in Law & Economics, Zurich, Switzerland (2012)
Products Liability and Economic Activity
Partisan Differences: How and Why Democratic and Republican Judges Differ in Party Loyalty
- George Mason School of Law, Law & Economics Colloquium (2012)
Products Liability and Economic Activity
- University of Chicago Law School, Law & Economics Faculty Workshop (2011)
Products Liability and Economic Activity
- University of Texas School of Law, Center for Law, Business, and Economics (2011)
Products Liability and Economic Activity
- Northwestern University School of Law, Searle Center Policy Roundtable (2010)
Offer-of-Judgment Rules and Civil Litigation
- Economics Institute of the Academy of Sciences of the Czech Republic and Charles University Dept. of Economics, Prague (2010)
The Partisan Price of Justice
- University of Illinois College of Law, Conference to Honor Tom Ulen (2010)

- Measuring Maximizing Judges*
- George Mason Robert A. Levy Fellows Workshop in Law & Liberty (2010)
The Partisan Price of Justice
 - University of Chicago Law School, Law & Economics Faculty Workshop (2009)
The Business of Judicial Elections
 - Northwestern University School of Law, Law & Political Economy Colloquium (2009)
The Business of Judicial Elections
 - Georgetown University Law School, Law & Economics Faculty Workshop (2009)
The Business of Judicial Elections
 - Northwestern University School of Law, Judicial Behavior Workshop (2009)
Are Appointed Judges Strategic Too?
 - Duke Law School, Workshop on Judicial Behavior (2009)
Are Appointed Judges Strategic Too?
 - University of Southern California School of Law, CLEO Faculty Workshop (2007)
The Influence of Retention Politics on Judges' Decisions
 - University of North Carolina School of Law, Faculty Colloquium (2007)
The Influence of Retention Politics on Judges' Decisions
 - NYU School of Law, Comparative Law & Economics Forum (2007)
The Influence of Retention Politics on Judges' Decisions
 - University of Michigan School of Law, Law & Econ Colloquium (2007)
The Demographics of Tort Reform
 - Northwestern University School of Law, Law & Econ Colloquium (2006)
The Demographics of Tort Reform
 - Florida State University School of Law, Law & Econ Colloquium (2006)
Cross-Monitoring and Corporate Governance
 - Stanford Law School, Law & Econ Colloquium (2006)
Tort Reform and Accidental Deaths
 - Univ. of Illinois College of Law, Comparative Law & Economics Forum (2005)
Tort Reform and Accidental Deaths
 - George Mason University, Law & Econ Colloquium (2005)
Tort Reform and Accidental Deaths
 - University of Georgia, Law & Econ Colloquium (2005)
Deterrence versus Brutalization: Capital Punishment's Differing Impacts Among States
 - University of Alabama, Department of Economics Faculty Colloquium (2004)
Diversity, Segregation, and Crime: An Industrial Organization Analysis of Competition
 - University of Toronto School of Law, Law & Economics Colloquium (2004)
Deterrence versus Brutalization: Capital Punishment's Differing Impacts Among States
 - Georgetown University Law School, Olin Law & Economics Workshop (2004)
Capital Punishment and Deterrence: Evidence from a Judicial Experiment
 - Georgia Tech University, Department of Economics Faculty Colloquium (2001)
Police, Prosecutors, Criminals, and Determinate Sentencing

Conferences and Meetings

- American Law & Economics Association Annual Meetings, New York, NY (2011)
The Partisan Price of Justice
- Mason Judicial Education Program 6th Annual Judicial Symposium on Civil Justice Issues, Fairfax, VA (2011)
Ideal versus Reality in Third-Party Litigation Financing
- Global Conference on Third-Party Financing of Litigation hosted by the Searle Civil Justice Institute, Brussels, Belgium (2011)
Ideal versus Reality in Third-Party Litigation Financing

- Global Conference on Third-Party Financing of Litigation hosted by the Searle Civil Justice Institute, New York, NY (2011)
Ideal versus Reality in Third-Party Litigation Financing
- Southeastern Association of Law Schools Annual Meetings, Hilton Head, SC (2011)
Teaching Empirical Methods to Law Students
- American Law & Economics Association Annual Meetings, Princeton, NJ (2010)
The Business of Judicial Elections
- American Law & Economics Association Annual Meetings, San Diego, CA (2009)
Are Appointed Judges Strategic Too?
- Conference on New Institutional Economics, Max Planck Institute, Germany (2009)
Judicial Opposition as Politics
- Conference on Empirical Legal Studies, New York, NY (2007)
Tort Reform's Unintended Consequences
- American Law & Economics Association Annual Meetings, Boston, MA (2007)
The Demographics of Tort Reform
- European Association of Law and Economics Annual Conference, Madrid (2007)
The Demographics of Tort Reform
- Law and Society Association Annual Meetings, Baltimore, MD (2006)
Cross-Monitoring and Corporate Governance
- Canadian Law and Economics Association Annual Meetings, Toronto, CA (2006)
Cross-Monitoring and Corporate Governance
- American Law & Economics Assoc. Annual Meetings, New York, NY (2005)
Blakely's Silver Lining: Sentencing Guidelines, Judicial Discretion, and Crime
- American Economics Association Annual Meetings, Washington, D.C. (2005)
Blakely's Silver Lining: Sentencing Guidelines, Judicial Discretion, and Crime
- National Academy of Sciences, National Research Council Semi-Annual Meeting, Washington, D.C. (2004)
Capital Punishment and Deterrence
- American Law & Economics Assoc. Annual Meetings, New York, NY (2005)
Deterrence versus Brutalization: Capital Punishment's Differing Impacts Among States
- Southern Economics Association Annual Conference, New Orleans, LA (2004)
Deterrence versus Brutalization: Capital Punishment's Differing Impacts Among States
- American Law & Economics Assoc. Annual Meetings, Chicago, IL (2004)
Capital Punishment and Deterrence
- American Law & Economics Assoc. Annual Meetings, Toronto, CA (2003)
Major League Baseball, Market Regulations, and the Export of Employment
- American Law & Economics Assoc. Annual Meetings, Washington, D.C. (2001)
The Deterrent Effect of California's Two- and Three-Strikes Legislation

OTHER PROFESSIONAL ACTIVITIES:

- Associate Editor of the INTERNATIONAL REVIEW OF LAW & ECONOMICS (2011- present)
- Peer-Reviewer (Referee) for: JOURNAL OF LEGAL STUDIES, JOURNAL OF LAW, ECONOMICS AND ORGANIZATION, JOURNAL OF EMPIRICAL LEGAL STUDIES, REVIEW OF LAW & ECONOMICS, INTERNATIONAL REVIEW OF LAW & ECONOMICS, SUPREME COURT ECONOMIC REVIEW, ECONOMICA, JOURNAL OF INDUSTRIAL ORGANIZATION, MANAGERIAL & DECISION ECONOMICS, CONTEMPORARY ECONOMIC POLICY, PUBLIC FINANCE REVIEW.
- Statistical Expert in the Areas of Damage Computation, Employment Law, Healthcare Law, and Competition Policy
- Other Professional Recognition for my research includes:

- Television interviews on CNN Sunday; National Fox News; The O'Reilly Factor on the National Fox News Network; and CBS, ABC, and FOX local affiliates.
- Op-Eds in *The Wall Street Journal*, *The New York Times*, and *The Christian Science Monitor*.
- Print interviews include the *The New York Times*, *Chronicle of Higher Education* and *The Atlanta Business Chronicle*.
- Radio interviews include BBC: Five Alive; WJR in Detroit, MI; KRLD in Arlington, TX; WLW in Cincinnati, OH; KTSA in San Antonio, TX; CHED in Edmonton, Canada; WRVA in Richmond, VA; CJME in Saskatoon, Canada; NTR in Saskatoon, Canada; WMVZ in Detroit, MI; KXNT in Las Vegas, NV; and KRLA in Los Angeles, CA.
- Research also cited in the National Center for Policy Analysis: Executive Alert; The Weekly Standard; and The National Journal.
- Research also requested for use by the Senate Judiciary Committee; U.S. Naval Academy; House of Representatives (Rep. Bob Goodlatt); Attorney General of Alabama; New York State Assembly (Stephen Kaufman); and the Chief of Criminal Appeals Division of Chicago (Renee Goldfarb).