

Cost Impact of Vermont's GMO Labeling Law on Consumers Nationwide

FAQs

Q. What does this study show regarding the impact of Vermont's labeling law in the state and across the country?

- This study shows that Vermont, a state that has a population of just over 625,000, is setting standards that effectively require changes in the production or labeling of most of the nation's food supply. The law will have a negative economic impact on over 300 million Americans and could cost consumers as much as \$81.9 billion annually, or approximately \$1,050 per family. These numbers are based on the assumption that U.S. food manufacturers will relabel GMO products and eventually switch to non-GMO alternatives for their products.

Q. How can one small state have such a large impact on food prices in all 50 states?

- The way the Vermont law is structured forces manufacturers to either reformulate or relabel their products because the law applies to food distributed (sold or transported to retailer) in Vermont, even if a manufacturer determines not to sell in the state. Aside from significant fines for products that are considered mislabeled under the law, manufacturers face complexities throughout the distribution chain that make it difficult to completely control where finished products end up. Therefore, it is impossible for a manufacturer to produce a product specifically for Vermont and to restrict sales entirely to the state. The increased costs on manufacturers will ultimately be passed on to consumers.
- At a minimum, the Vermont law costs consumers across the country about \$3.84 billion, or approximately \$50 per family, for label changes. However, if manufacturers decide to reformulate all products to non-GMO (a possible outcome when consumers respond to the new labels), the cost would grow substantially to an annual cost of nearly \$81.9 billion, or approximately \$1,050 per family.

Q. Why do some states have higher numbers than other states? For example the per family cost of food in Minnesota is \$1,943; while the per family cost in Ohio is \$1,381; and the per family cost in North Dakota is \$953.

- The cost differentials reflect the relative purchase of products by consumers in each state. The average consumer in Minnesota, for example may purchase fewer exempt products than one in North Dakota.
- The Vermont law specifically excludes a number of food categories from its labeling requirement (particularly those that tend to be produced in the state of Vermont, such as dairy). For example, a state with relatively high dairy purchases, like Vermont, would have lower per capita costs to comply with the law because the foods they purchase and produce tend to be exempt from the law's labeling requirement, despite the presence or lack of GMO ingredients.

Q. What are the biggest drivers of these higher costs?

- The biggest cost increase across the country would occur if food manufacturers reformulate all products currently sold to retailers in the U.S. market so that they contain non- GMO ingredients. This could happen if consumers respond to the new labels that they don't fully understand and demand non-GMO ingredients.

Q. What are the assumptions behind these figures?

- As with any model, this analysis is based on a range of assumptions, all of which are fully documented in the report and are designed to be moderate in their effects. Specifically, due to data limitations, the model is based on larger food product categories (for example, cookie and cracker manufacturing, dry pasta, mixes, and dough manufacturing or tortilla manufacturing) rather than individual SKUs or brands. Therefore, a requirement that falls on some products in a category is assumed to fall on all products in that category. Likewise, the model assumes that all products in an exempted category are actually exempt, which is not the case in all instances. For example, while dairy products are exempt from the Vermont law, dairy products with added ingredients, such as flavored milk, shredded cheeses, and ice cream, are covered and therefore will require significant compliance costs. For the purpose of this report, all dairy products are excluded in the model.
- The analysis also includes assumptions pertaining to the component costs of relabeling, or food manufacturing, based on about 500 different industries. For instance, if a food manufacturer uses packaging film, their production process and packaging film is a major component in label changes, thus the cost of packaging film is assumed in the labeling cost analysis.
- The model assumes that the price differential for GMO and non-GMO ingredients is equivalent to the current differential of GMO and non-GMO commodities. This figure would increase dramatically if all foods were to move from GMO to non-GMO ingredients, suggesting that the costs estimated in the analysis may be conservative.
- Cost breakouts across states are based on product sales by category from the 2012 Economic Census. These are highly aggregated and the use of this data may dampen some of the differences in consumer costs across states.
- The analysis uses national retail and wholesale markups from the U.S. Department of Commerce from 2007, the last year data is available. These likely do not measure actual margins today, which may be higher or lower depending on the food type or category.

Q. How does the Vermont law impact the cost of food for all consumers throughout the nation?

- The cost of the Vermont GMO labeling law at the manufacturing level is approximately \$20 per family due to label changes, with an annual cost of approximately \$421 per family to reformulate to more expensive non-GMO ingredients. These figures more than double at the retail level to about \$50 per family for label changes, with an annual cost of approximately \$1,050 per family to reformulate to more expensive non-GMO ingredients.
- Retailers and wholesalers generally pass through higher costs to consumers for products sold and mark up these higher costs by a standard percentage, known as a margin. As the cost of a product increases, so does the margin. For example, a 20 percent margin on a product costing \$100 from

the manufacturer would be \$20. If the manufacturers' price were to increase by 10 percent to \$110, the margin would rise to \$22. So, in this example, the retail cost for consumers would go from \$120 to \$132.

Q. Is the impact of the costs from the Vermont law any different for low-income families? If so, what is it and why is it different?

- While we did not specifically study the effects of the law across income distributions, one can reasonably deduce that the impact of this law would be higher on lower income families simply because they spend a much larger portion of their income on food and other essentials. As such, one could look at this law as regressive on all families, with the incidence falling more on lower income households.

Q. If more states pass GMO labeling mandates, would costs go up even more?

- This analysis assumes that there would be virtually no products sold in the country that contained any ingredients that have been developed with GMOs. As such, the major cost of the law is the cost of reformulating products from GMO to non-GMO products, a cost which would already have been incurred according to this model. However, should additional state or local governments require different labeling regulations with a different set of exemptions than the Vermont law, the costs assumed in this model would increase substantially.

Q. Would these costs go up, down, or stay the same if there is a national mandatory on package GMO labeling requirement?

- Given the lack of information about GMOs from on-package labels, consumers have little information about the benefits, safety, or cost of GMO crops and ingredients in food. There is a real risk that consumers would become alarmed by GMO labels on packages and demand that food manufacturers remove GMO ingredients from their products altogether.
- This could result in all food products eventually being reformulated to non-GMO.¹ Such a change would lead to extreme disruptions in the nation's food system, be incredibly expensive to consumers, and would take many years to overcome.

Q. Why is an economic study on GMO labeling that is funded by agricultural interests credible?

- We take the credibility of our examination extremely seriously. It is our goal to make sure that American farmers, manufacturers, consumers, and other stakeholders have access to accurate and credible information regarding how the Vermont mandatory GMO labeling law could impact the entire U.S. food system.
- The credibility of any report, furthermore, is based on its transparency. Research should be fully documented, properly attributed, and transparent. The data used in studies should be easy to

¹ *Process Labeling of Food: Consumer Behavior, the Agricultural Sector, and Policy Recommendations*, Council For Agricultural Science And Technology, [Issue Paper Number 56](#), October 2015, at: www.cast-science.org/download.cfm?PublicationID=283819&File=1030ac46417e576660c87b6b2553352b6624TR

obtain so that those with the interest to do so can replicate the research using their own assumptions or models. The models and assumptions used in this study are noted as such.

Q. Other studies on this topic have been attacked, why is this one better?

- An earlier analysis examining a similar law in New York State (conducted by Professors William Lesser and Susan Lynch both from the Dyson School of Applied Economics and Management at Cornell University) suggested that the cost of GMO labeling would be much less – just \$500 per family.
- There is no reason to call one study or the other “better.” They measure different things, and are based on different legislative proposals and assumptions. The current study estimates higher costs due to the fact that the Vermont legislation makes manufacturers solely responsible for all products, even if they are not intended for sale in the state. This means that more products would likely have to be relabeled and eventually reformulated than assumed by Professors Lesser and Lynch. This is the main reason why costs are higher in this analysis than in *Costs of Labeling Genetically Modified Food Products in N.Y. State*.

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