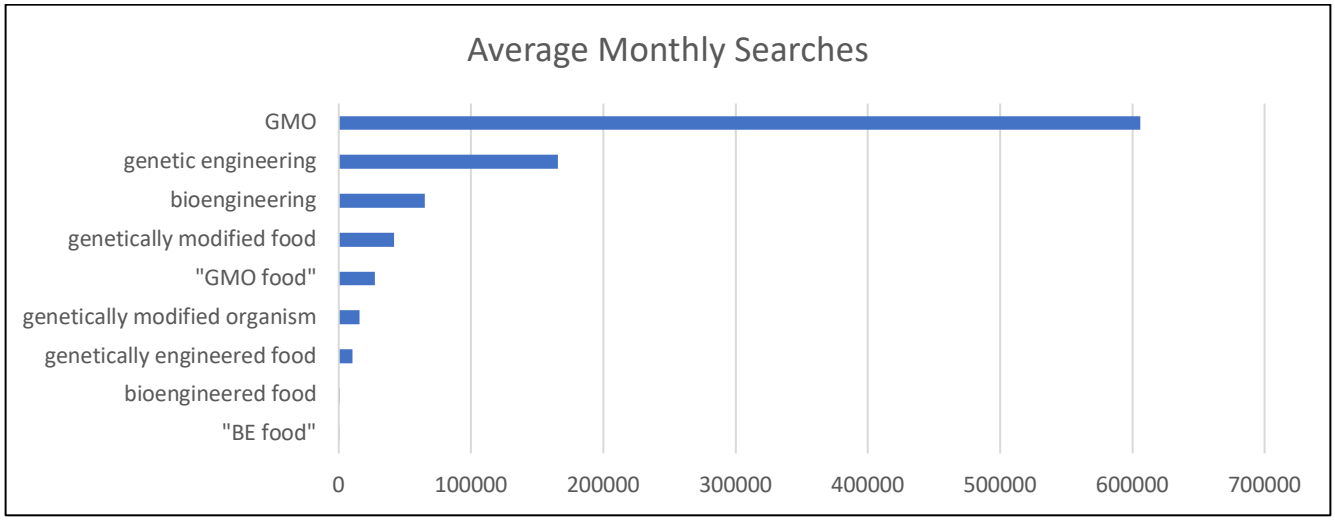
TERMINOLOGY REPORT | PUBLIC UNDERSTANDING AND USAGE OF TERMS RELATED TO GMOS

This report pulls from publicly available data on search terms and social media terms used by the public in conversations about GMOs. It was compiled in response to the USDA's May 3, 2018 draft National Bioengineered Food Disclosure Standard (NBFDS), which proposes restricting GMO disclosure to terms that are not used by the American public. Given that the law's fundamental purpose is to disclose information to the public, it is critical that the terms required and allowed by the standard be ones that are familiar and clear to Americans.

The chart below shows the popularity of terms related to GMOs as indicated by average monthly Google searches from July 2017 to June 2018. It clearly demonstrates that the terms "bioengineered food" and "BE food" are not used by the public. On that basis, restricting the disclosure law to these terms would be deeply misleading and would essentially render the law meaningless. Additional data follows.



Term: "BE"

The acronym used in the May 3 draft rule, "BE," is a newly invented term. It is unacceptable to invent a term as part of the disclosure law, since nothing will actually be disclosed if people don't recognize the term.

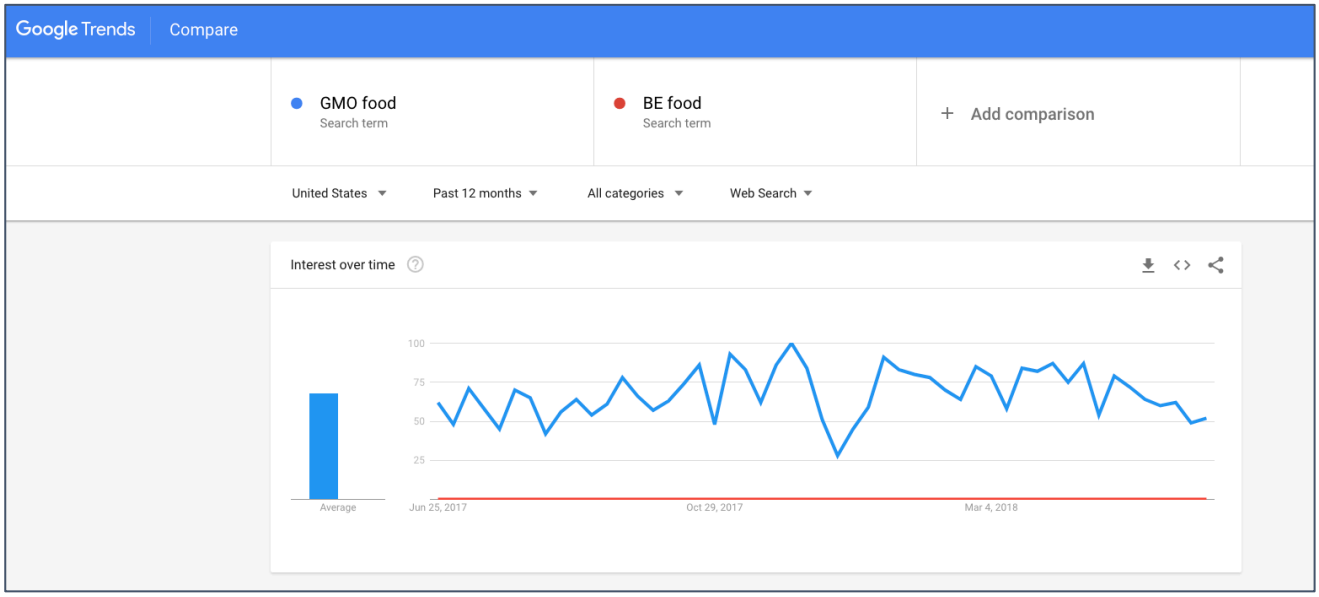
Further adding to the confusion, "BE" is a word with an established and defined meaning in the English language; specifically, "be" is a verb with eleven definitions in Merriam-Webster, none of which has anything to do with GMOs.[1]

Notably, even as of the time of the NBFDS being published, the term BE is absent from the USDA's own Agricultural Biotechnology Glossary.[2] This further indicates the newness of the term. Given that

[1] https://www.merriam-webster.com/dictionary/be
[2] https://www.usda.gov/topics/biotechnology/biotechnology-glossary

there is an established, well-known and well-understood acronym, "GMO," why would USDA invent a new term? How does inventing a new term serve the American public or support the intent of the law?

Looking to data currently available on public usage specific to acronym use, not surprisingly, the term "BE food" basically doesn't exist in the public domain. A Google Trends report pulled on June 18, 2018 shows that "BE food" doesn't register as a term, as compared with "GMO food"; please see graph below:



If the USDA is going to allow disclosure via acronym, it must use an acronym that has demonstrated to have established meaning for the American public; the only such terms is "GMO."

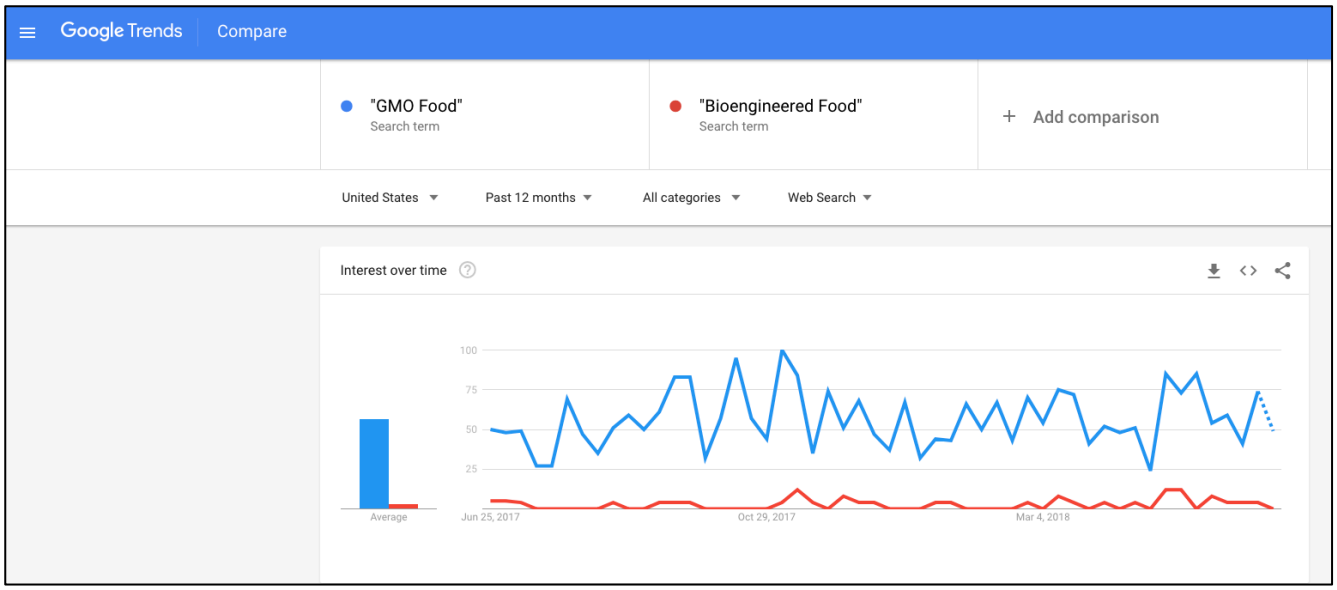
Term: "Bioengineered"

Bioengineered is primarily a medical term; for example, within the U.S. Department of Health & Human Services (HSS), the National Institute of Biomedical Imaging and Bioengineering describes its work as "Creating Biomedical Technologies to Improve *Health*."[3] [Emphasis added]

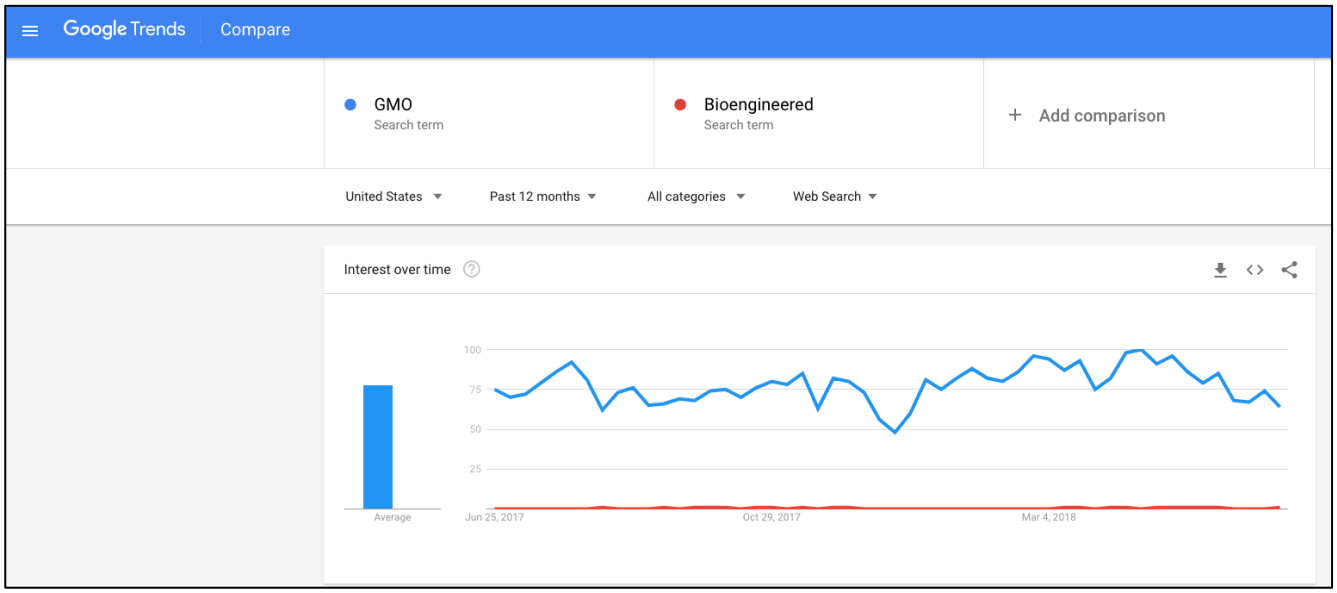
Further, in the HHS glossary, it defines "Bioengineering" as: "The application of concepts and methods of engineering, biology, medicine, physiology, physics, materials science, chemistry, mathematics and computer sciences to develop methods and technologies to solve *health* problems in humans."[4] [Emphasis added]

Bioengineering is a not a concept the public generally associates with food, as demonstrated below in a comparison between the searches of the terms "GMO food" and "Bioengineered food."

[3] https://www.nibib.nih.gov/
[4] https://www.nibib.nih.gov/science-education/glossary



When the terms stand alone, without the reference to food, it is even more clear how much more familiar the public is with “GMO” than with “bioengineered.”



Given that the public is not commonly using the term “Bioengineered” or “Bioengineered Food,” it is unreasonable to expect that they understand what it means, and as such it is not a valid way to disclose GMO content.

Finally, and importantly, the terms “BE” and “Bioengineered” do not align with the terminology used by most of the major scientific, medical, and governmental organizations in the world. This means that any major news related to these technologies will not be aligned in the consumer’s mind with what they are seeing on packaging.

Terminology used by major organizations that are looked to as scientific thought leaders:

United Nations	Genetically modified organism (GMO), genetically engineered (GE), biotechnology[5]
National Academy of Sciences	Genetically engineered crops (GE)[6]
World Health Organization	Genetically modified organism (GMO))[7]
Health Canada	Genetically modified food (GM) or (GMO)[8]
European Commission	Genetically modified organism (GMO)[9]

The FDA stands out as a leading body using the term "bioengineering," but even on its own website the FDA consistently uses the term "GE" rather "bioengineered" or "BE," presumably in order to provide clarity to the public, which does not use the other terms.[10]

In closing, as this report amply demonstrates, the terms "bioengineered food" and "BE food" are not known to the public. As such, limiting the disclosure law to these terms would be misleading and confusing to the American people. In order to fulfill the intention of disclosure that is the purpose of this law, the final rule must also allow disclosure using the terms that the American public actually uses, namely, "genetically engineered" and "GMO."

[5] Note that "biotechnology" also encompasses medical usage, while GM and GE are the terms dedicated to food http://www.unesco.org/new/en/natural-sciences/science-technology/basic-sciences/life-sciences/biotechnology/
[6] https://nas-sites.org/ge-crops/
[7] http://www.who.int/foodsafety/areas_work/food-technology/faq-genetically-modified-food/en/
[8] https://www.canada.ca/en/health-canada/services/food-nutrition/genetically-modified-foods-other-novel-foods.html
[9] https://ec.europa.eu/food/plant/gmo/legislation_en
[10] https://www.fda.gov/Food/IngredientsPackagingLabeling/GEPlants/ucm2006889.htm