Dangers of Precaution

By Angela Logomasini, Ph.D.
Competitive Enterprise Institute
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Precautionary Principle

Regulate in the absence of absolute safety

"When an activity raises threats of harm to the environment or human health, precautionary measures should be taken even if some cause-and-effect relationships are not fully established scientifically."

Wingspread Declaration, Environmental Activists' definition at meeting in Wingspread, Wis, 1998

Policy Statements on Precaution

1982: UNs World Charter for Nature
1989: Nordic Council Intn'l Conf on the Pollution of the Seas
1992: Rio Declaration of Environment
1992: UN Frame Work--Climate Change
1992: Convention on Biodiversity
2000: Cartagena Protocol on Biosafety
2003: EU Chemicals Policy--REACH
2003: UN Chemicals Policy--SAICM

REACH: EU Commission White Paper

"Fundamental to achieve these objectives is the ***Precautionary Principle.*** *Whenever reliable scientific evidence is available that a substance* ***may have an adverse impact*** *on human health and the environment, but there is still scientific uncertainty about the precise nature or magnitude of the potential damage,* ***decision-making must be based on precaution****..."*

Sounds good, but …

Dispenses with science.

Can't prove a negative

Grants arbitrary power to regulators.

Forgoes benefits of technology.

Forgoes the benefits of freedom.

Dangers of Over Precaution

Risk of regulation.

Risk of anti-technology bias.

Risk of stagnation.

Risks of Stagnation

"Experience demonstrates that the risks of innovation, while real, are vastly less than risks of stagnation."

~ Fred Smith, President, CEI.

Indeed, what would the world be like if medical researchers had never introduced penicillin because they could not prove it was 100 percent safe?

EU: DDT Ban "Model" of Precaution.

Result: Millions Dead

According to the World Health Organization, malaria alone infects 300 to 400 million people a year and kills 1 to 2 million—mostly children.

South Africa Example: After DDT ban, cases rose from about 4,000 in *1995 to more than 27,000 by* 1999 (or possibly as many as 120,000 if one considers pharmacy records). ~ Amir Attaran, Harvard.

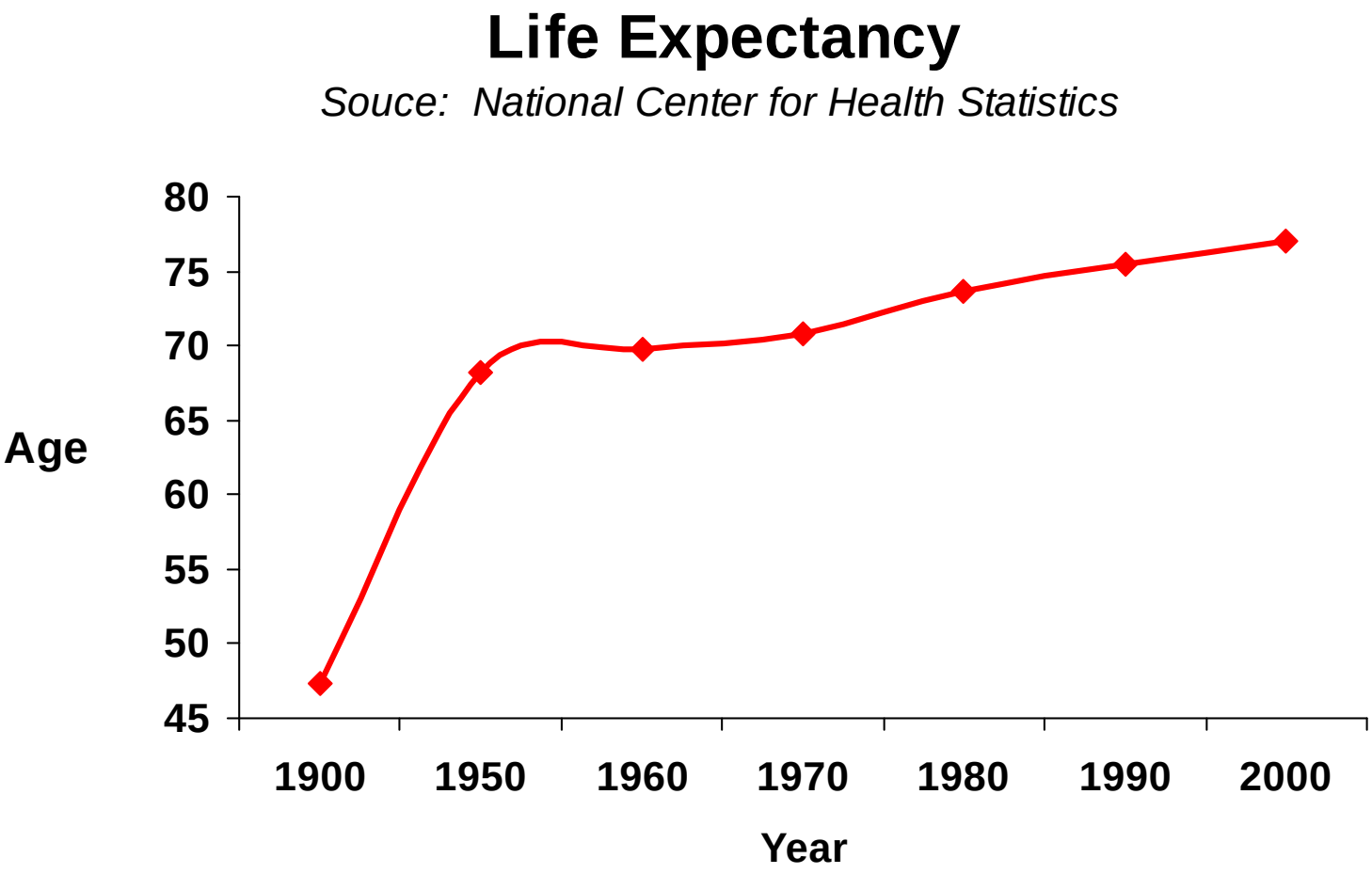
U.S. Examples: Over-Precaution

Greens attempt to regulate *Phthalates* in medical equipment--could threaten blood supply with inferior storage containers.

Green regulation in mercury used in blood pressure equipment: malfunctioning equipment produces wrong treatments.
(as documented by Gina Kolata in the *New York Times*).

Pesticide regulations impede control of dangerous vectors, from rats to roaches to mosquitoes to bed bugs.

Cause for Alarm?

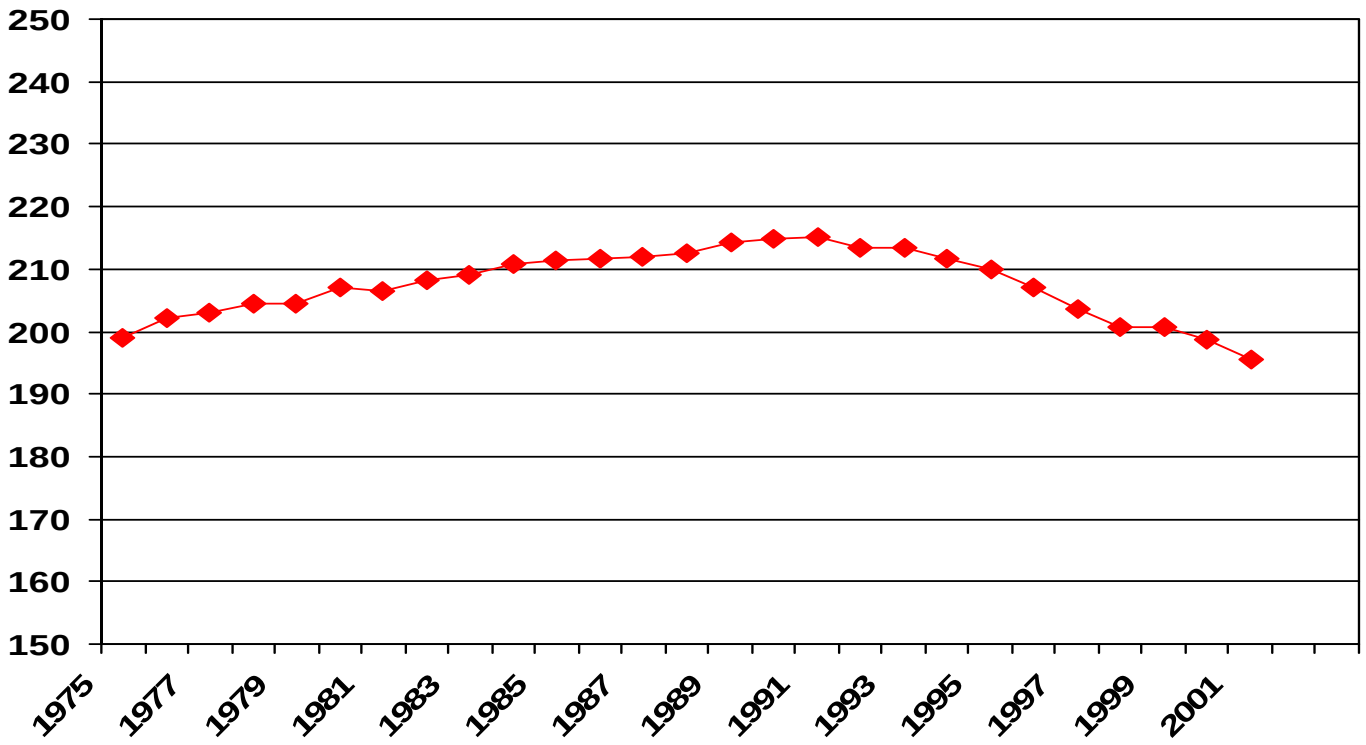


Cancer Trends

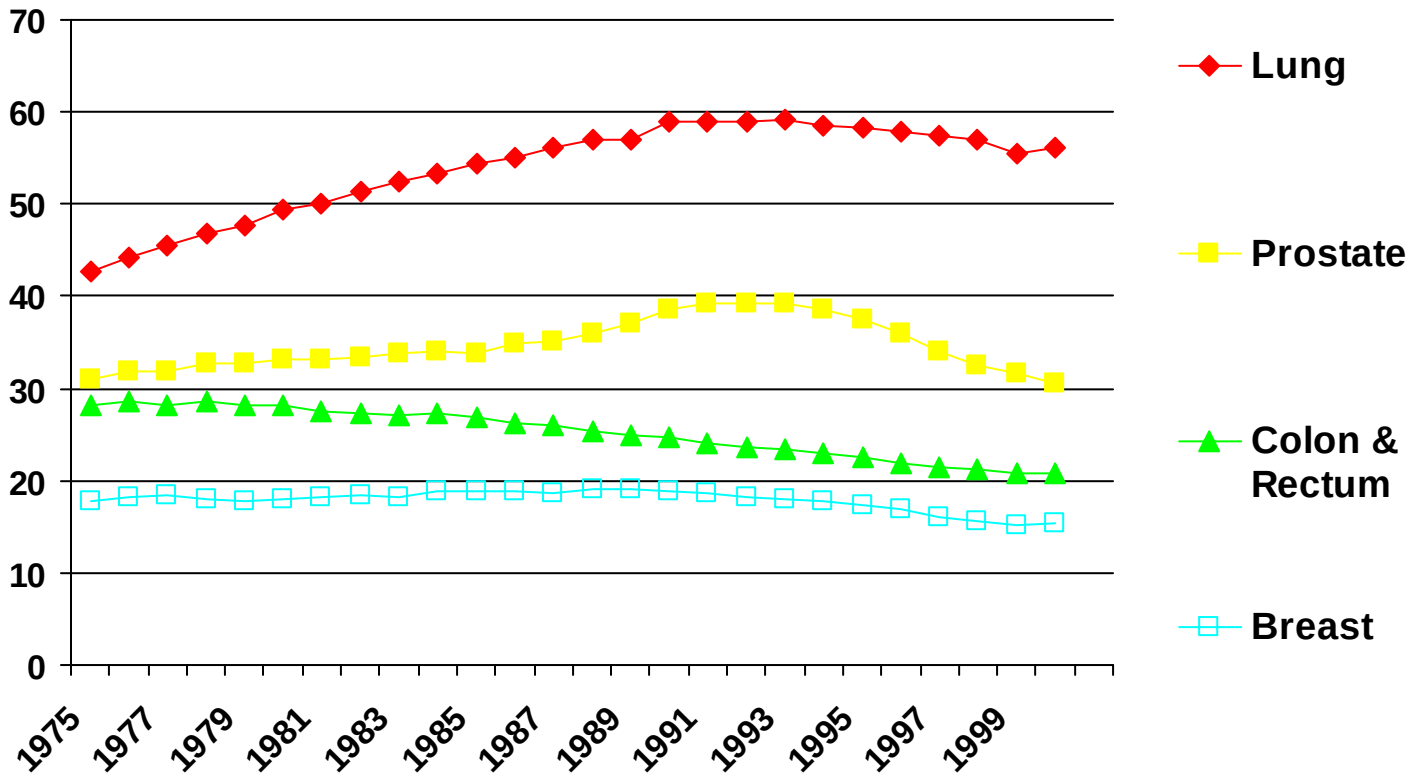
CLAIM: Cancer incidence in the American population has skyrocketed -- up 48% from 1950 through 1990. ~ Environmental Working Group.

FACTS: The National Cancer Institute reports that cancer mortality and incidence for all sites combined has decreased over past few decades. Another study: Excluding smoking-related cancer, cancer rates have declined since 1950.

Overall Cancer Mortality



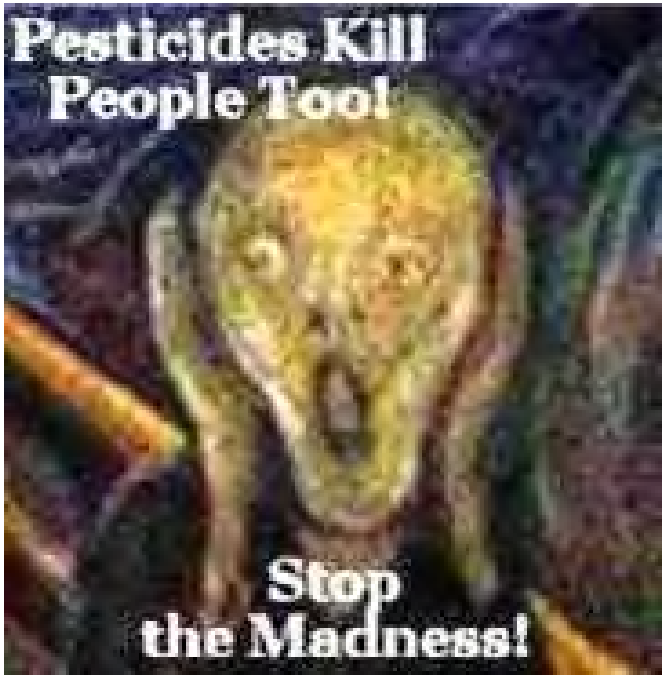
Cancer Deaths by Site



Cancer: Environmental Causes?

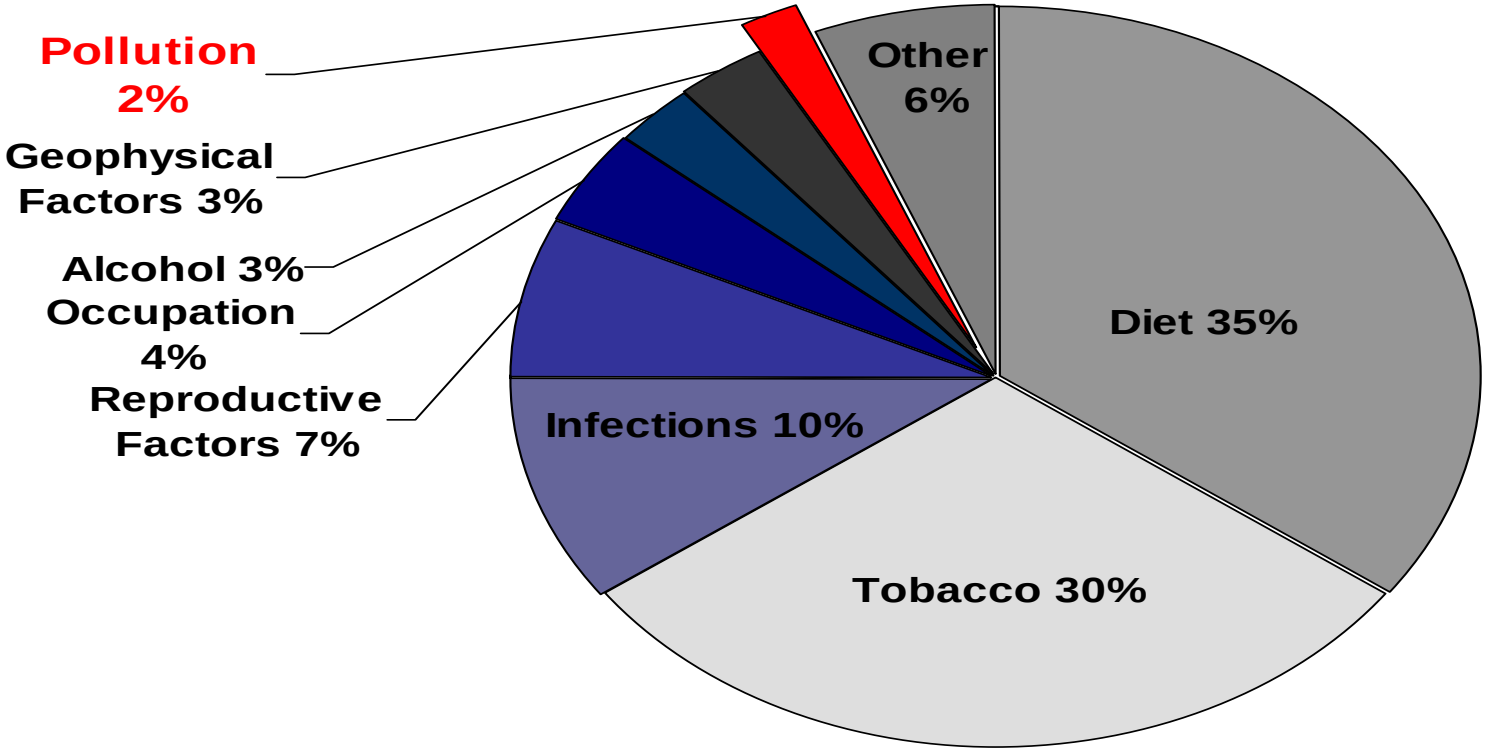
CLAIM: "Environmental factors may together account for a large proportion of breast cancer risk — from 50% to 70%."

CLAIM: "three environmental factors … pesticides … PCBs … radiation."



Environmental Causes of Cancer

Source: Doll and Peto, 1981



Breast Cancer

CLAIM: "Continuing escalation in cancer incidence is due in no small part to our exposure to thousands of synthetic chemicals ..." ~ The Breast Cancer Prevention Coalition

FACTS: National Cancer Institute: Breast cancer incidence and deaths have declined during past decade. Long Island Breast Cancer study could find no link between pesticides and breast cancer.

Childhood Brain Cancer

More kids are getting brain cancer.

Why?

Toxic chemicals appear linked to rising rates of some cancers.

As scientists and physicians, we've seen

four times more food, and drink as much as two to seven times more water. Recent epidemiologic studies have shown that as children's exposures to home and garden pesticides increase, so does their risk of non-Hodgkin's lymphoma, brain cancer, and leukemia.

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Advertisement of The Center for Children's Health and the Environment

FACT: National Cancer Institute: No actual increase in children's brain cancer, but instead better detection.

We are seeing a "dramatic decline" in childhood cancer mortality overall.

M. Gough: What can we achieve?

"If the EPA risk assessment techniques are accurate … about 6,400 cancer deaths …. would be prevented."

"When cancer risks are estimated using a method like that employed by the FDA, the number of regulatable cancers is smaller, about 1,400 (about 0.25%)."

Phony Issue: Endocrine Disrupters

Scant scientific evidence of a human health issue. (see CEI's *Environmental Source*).

Natural phytoestrogens: 1,000 to 10,000 times more potent than synthetic estrogens.

The estrogenic effects of all the phytoestrogens we consume are as much a *40 million* times greater than those of the synthetic chemicals in our diets.

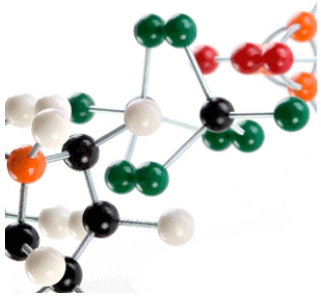
Despite that exposure level, they are safe.

BPA Example: Dangerous Over-Caution

A compelling body of research shows that BPA has produces many benefits while posing very low risks.

Calls for regulation and existing regulations are arbitrary—simply to be "safe."

Yet bans may well increase risks, costs, and quality.



BPA Science

FDA Study (2008): "An adequate margin of safety exists for BPA at current levels of exposure from food contact uses."

European Union study (2006): Found human exposure to the substance through consumer products is not high enough to have any adverse impacts.

Health Canada Study (2008): The scientists concluded in this assessment that bisphenol A exposure to newborns and infants is below levels that cause effects.

European Food Safety Authority
BPA Update 2008

EFSA concluded that infants and children have sufficient capacity to convert bisphenol A to the same biologically inactive metabolites that are efficiently formed in adults. ***Exposure of the fetus to bisphenol A would be negligible*** *due to the maternal capacity to convert bisphenol A to the same metabolites.*

National Toxicology Program Study

No direct evidence of any problems among humans.

Minimal to negligible concern for almost all factors.

"Some concern" because rodent studies showed some association of potential effects on behavior.

"More research is needed to better understand their [rodent studies] implications for human health."

National Academy of Sciences Estimates

BPA versus phytoestrogens

BPA from food cans:	6.3 mgrms/day
BPA from beverage containers:	0.75 mgrms/day
Phytoestrogens:	1,000,000 mgrms/day

"The risk of BPA in consumer products appears to be about the same as a tablespoon of soymilk."

~ Jonathan Tolman.

Health Canada

July 2009 Survey of BPA Exposure Levels

"The low levels of BPA found in jarred baby food products available for sale in Canada confirms Health Canada's previous assessment conclusion that the current dietary exposure to ***BPA through food packaging uses is not expected to pose a health risk to the consumer.*** *"*

Benefits of BPA

Makes break-proof containers (such as for baby bottles, safety goggles, CD cases, etc).

Makes packaging more sanitary and easier to safely transport without breakage.

Prevents metals from entering food and reduces the potential for bacterial development.

BPA makes 5-gallon water bottles for coolers break-proof, easy to clean, reuse, and recycle.

BPA Policy Folly

"FDA is not recommending that anyone discontinue using products that contain BPA … However, concerned consumers should know that several alternatives to polycarbonate baby bottles exist, including glass baby bottles."

MN: BPA baby bottles banned.

Chicago: BPA baby bottles banned.

Proposed statewide bans: WA, CA, HI, IL, MA, MD, MI.

Health Canada: No effects of BPA, but "due to the uncertainty" decided to ban BPA baby bottles in 2008.

BPA Ban Results

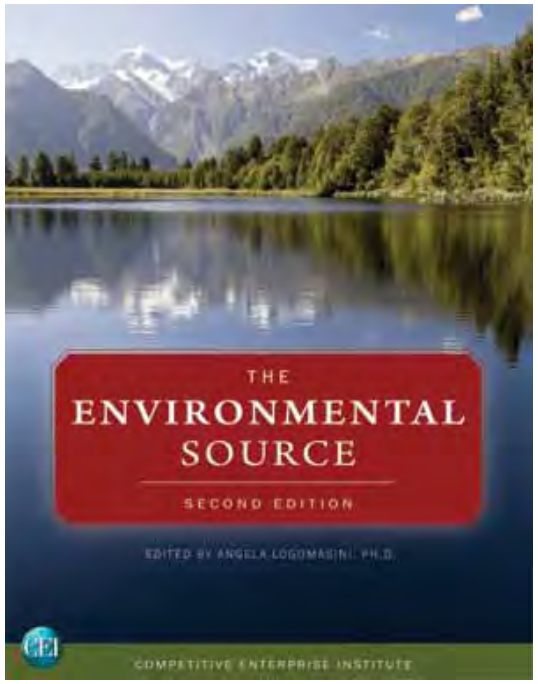
No guarantee that alternatives are safer.

Glass baby bottles are certainly more dangerous.

Alternatives to BPA might do an inferior job protecting and keeping our food fresh.

Regulations will likely raises prices on consumer products, and divert resources and innovation.

Some Resources



The Environmental Source, Competitive Enterprise Institute. Covers all the basics and provides resources to more sources. http://cei.org/envirosource.

Richard Doll and Richard Peto, "The Causes of Cancer: Quantitative Estimates of Avoidable Risks of Cancer in the United States Today," *Journal of the National Cancer Institute* 66, no. 6 (1981): 1191–308.

Michael Gough, "How Much Cancer Can EPA Regulate Away?" *Risk Analysis* 10, no. 1 (1990): 1–6.

Jonathan Tolman, *Nature's Hormone Factory: Endocrine Disrupters in the Natural Environment* (Washington DC: Competitive Enterprise Institute, March 1996).

Contact Information

Angela Logomasini, Ph.D.
Competitive Enterprise Institute
1899 L Street, N.W., 12th Floor
Washington, D.C. 20036
(202) 331-2269
alogomasini@cei.org