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The ULS Report™

Helping people Use Less Stuff by conserving resources and reducing waste.™

10 Things I Bet You Didn't Know About Packaging

By Robert M. Lilienfeld, Editor

My name is Bob Lilienfeld. I've been the Editor and Publisher of *The ULS* (Use Less Stuff) *Report* since 1994. During these almost 25 years, we've learned a great deal about the reasons and ways to reduce, reuse, and recycle products and packaging.

Our work has always been based on science and facts. They are the keys to understanding what really happens in our society, our world, and our universe. Sometimes the facts align with our perceptions of reality. Sometimes they don't. But, in all cases, *the facts are the facts.*

Because packaging is always on the mind of consumers, I've compiled a list of 10 of the most surprising things I've discovered about packaging over the last quarter century. I'll bet you'll be just as surprised by many of these as I was!

I'm going to start with what I consider to be a very surprising, and also very important, fact. Warning: It includes a fair amount of math and statistics. I'll do my best to keep it simple and easy to understand.

#1. We're throwing away less packaging today than we did 15 years ago.

Between 2000 and 2014, the amount of packaging thrown away grew by only 1.1%. This is impressive, given that the U.S. population grew by 13.0%, and real (inflation adjusted) per capita GDP grew by 14.0% during this same period.

These statistics mean that productivity per person increased over $6,000, while the amount of packaging needed to do so declined by almost 57 pounds. Thus, more goods (and services) are being produced with less packaging.

Changes in U.S. Households, Packaging Generation, and GDP

	2000	2014	Difference
Population (MM)	282.2	318.9	+ 13.0%
Real GDP per Capita ($M)	44.5	50.7	+ 14.0% (+$6,226)
Packaging Generation (MM Tons)	75.8	76.7	+ 1.1%
Packaging Generated/Capita (Lbs.)	537.5	480.8	- 15.5% (-56.7 lb.)

(Sources: U.S. EPA, Census Bureau, Bureau of Economic Analysis)

The primary strategy for achieving this very positive result has been source reduction (the first "R" in reduce, reuse and recycle) -- needing less packaging to deliver the same or a larger amount of products.

And, when it comes to minimizing greenhouse gas (GHG) emissions, the primary environmental focus by nations large and small, source reduction is the best way to do so. After all, *it's better to not use materials and energy than to figure out how to reduce the effects of doing so.*

#2. Packaging can actually save resources.

Let's say you just bought a 70" 4K UHD TV. With tax, you probably spent around $1,500. That television probably came from Asia, crossed the Pacific by boat, was unloaded in Los Angeles, driven to a distribution center, and then sent by rail or truck to your local store and/or warehouse. You picked it up, brought it home, and set it up. Or, you purchased it online, and UPS, FEDEX, or Amazon brought it to your door.

Think of all the travel that television went through to get to you. If the packaging did its job, you received the TV in perfect condition. If, at any point

in the process the packaging failed to protect the TV, it would have been damaged, creating more waste and ruining $1,500 worth of resources.

Given the economic value of the television, and the environmental damage that could have occurred if it had been damaged, don't you think that packaging played a big part in your getting what you paid for? (And for most of you, much of the packaging -- especially the box -- is easily recyclable. Frankly, you should probably save ALL the packaging in case you move or sell the TV.)

Think of it this way: The 1-5% of the total economic and environmental value that is associated with the package protects the 95-99% of the value that is associated with the product. Thus, packaging which ensures delivery of mint condition products, and does so with minimum material and energy use, is actually a very cost-effective insurance policy!

#3. Your favorite products won't make it home without packaging.

At their most basic, packages are simply containers. Imagine if you had to bring to the store enough of them, in enough sizes and configurations, to carry meats, produce, liquids, dry goods, etc. (Never mind items in which the packaging acts as the dispenser: toothpaste, deodorant, liquid soap, or ketchup.)

So, by protecting the products they contain, packaging actually helps reduce overall waste. So, the best way to minimize both environmental and economic impact is by only buying the products you need and can use up before they spoil or lose their potency.

#4. Most rigid plastic packaging can be recycled.

The two most common plastics used in packaging are known as PET and HDPE (#1 and #2, respectively, in the recycling "chasing arrows" on containers). According to the latest EPA data, these two plastics account for over 70% of all rigid plastic packaging.

Plus, a majority of American families (over 60%, in fact) can recycle the packaging that makes up the remaining 30% of rigid plastic packages. This includes common items such as margarine tubs and deli containers.

#5. Even juice boxes and plastic grocery sacks can now be recycled.

- Curbside and near-home recycling of juice boxes and other beverage cartons is now available to over 60% of U.S. residents. This means that these containers fit the Federal Trade Commission's definition of recyclable, and put them in the same league as milk jugs, detergent bottles, paperboard, and metal containers.

- Plastic films can be recycled at major retailers such as Walmart, Kroger, Target, Safeway, and Lowe's. Whether it's grocery sacks, toilet tissue wrappers, or dry cleaning wraps, they're all easy to recycle at stores in which you frequently shop. You can find the location nearest you right here.

- And, on the up-and-coming front: The Hefty® Energy Bag Program is a ground-breaking initiative that collects previously non-recycled plastics – like the candy wrappers and juice pouches you've always thrown away – and converts them into valuable energy resources. More communities are getting involved all the time!

#6. Compostable packaging may not actually reduce waste.

It sounds great, but the reality is that most of us cannot recycle packaging that is labeled "compostable." That's because it usually needs to be composted in an industrial composting facility, of which there are very few in operation. Thus, compostable packaging is best used when you can combine it with yard waste or food scraps in communities that send these items to industrial composting facilities.

By the way, even if we could compost more packaging, not all of the effects are positive: Besides the actual compost material, the composting process creates water vapor and CO_2. Both are potent greenhouse gases.

#7. Even if not recycled, packaging plays a positive environmental role.

Once again, remember the 3 Rs – reduce, reuse, and recycle: The EPA put them in this order because it's better to not create any waste (reduction) than to have to figure out what to do with it later (reuse, recycle).

Take tuna, for example. You can buy a standard 5 oz. quantity in a flexible foil and plastic pouch or in a steel can. The pouch weighs so much less than the can that, even though the pouch is generally not recyclable, and the can is recycled at a 71% rate, the pouch still sends 30% less material to landfills. (See page 9 of our 2016 report entitled "A Study of Packaging Efficiency As It Relates to Waste Prevention").

#8. E-commerce packaging serves a valuable purpose.

A white paper* by AMERIPEN (the American Institute for Packaging and the Environment) indicates that products purchased through e-commerce sites and delivered to the home are "touched" in the distribution process at least 20 times. In the traditional "brick and mortar" scenario, it is "touched" about 5 times. Thus, e-commerce creates many more opportunities for breakage, spoilage, and other forms of product mismanagement.

Lifecycle studies by both industry and government consistently draw the same conclusion: From an economic and environmental standpoint, the most important role of packaging is damage protection. Not only does packaging protect the product, in doing so it ensures that replacement shipments, and their economic and environmental costs, are either eliminated or minimized.

* I was a co-author of this paper.

#9. Packaging can actually reduce food waste.

Atmosphere controlled packages keep meat fresher longer. So do aseptic cartons used for juices, milk, soups, etc. Freshness is also why fresh produce sometimes comes in plastic wrap. For example, wrapped cucumbers can stay fresh up to two weeks longer than unwrapped cucumbers. (You can learn more about the value of packaging in reducing food waste from a variety of case studies on the AMERIPEN website.)

In fact, when it comes to alleviating spoilage and other forms of food waste, packaging is so critical that Helén Williams and Fredrik Wikström, life cycle assessment researchers at Karlstad University in Sweden, state that, "Packaging that is altered in order to reduce food losses can lessen the total environmental impact and lead to large environmental gains, even if it is necessary to increase the environmental impact from the packaging itself."

#10. There are better ways to reduce waste than to simply ban certain packages.

Our own research consistently indicates that packaging accounts for between 1% and 10% of the total environmental footprint of the product and package. Thus, banning a certain type of packaging is far less effective than striving to achieve more use out of the products that packaging may contain.

This takes us back to our long-time "ULS" perspective: *The best way to reduce environmental impact is by finding ways to achieve a desirable quality of life without consuming more than we need to do so. Packaging is merely the tip of the consumption iceberg. If we really want to make a difference, we still need to Use Less Stuff in the first place.*

Sincerely,

Robert Lilienfeld

Robert Lilienfeld, Editor

USE LESS STUFF

The ULS Report

2065 E. La Salle Drive
Gilbert, AZ 85234
Phone 1-480-448-6144
www.use-less-stuff.com
info@use-less-stuff.com

EDITOR & PUBLISHER: Robert M. Lilienfeld

We welcome your comments and story ideas.
Contact Bob Lilienfeld: bob@use-less-stuff.com.
Follow us on Twitter: www.twitter.com/UseLessStuff.