

Tactics In Practice: The Science Of Plant-Based Defaults And Nudges

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Faunalytics' Research Liaison Björn Ólafsson takes a deep dive into research on the wide world of nudges, revealing best practices and possible pitfalls.

What Are Nudges And Defaults? And How Do They Work?

Many of our daily decisions aren't the result of purposeful thought or deep consideration—but rather choices that emerge from our habits, social and physical environments, and psychological biases. *Nudge theory* posits that by changing the *choice architecture* of our decisions, we can promote better behaviors at a large scale.

In practice, imagine moving all the healthy food to the front of your refrigerator (choice architecture) to hopefully nudge you into reaching for an apple for your midnight snack instead of something you're trying to avoid. That's a nudge. This strategy has many advantages, not the least of which is that it doesn't completely *remove* choice itself (i.e. customers aren't throwing away all of your junk food overnight), so it's less likely to cause major grumbling. This represents a key opportunity for animal advocates — nudges can help everyone make more pro-animal choices in their day-to-day lives *without* major pushback.

The key audience for nudges is not vegans, vegetarians, or strident meat-eaters, but *flexitarians*. This group could also be called the “persuadables” — a group of roughly 62-75% of people who, according to [Pax Fauna research](#), are less motivated by ethics and more susceptible to social norm shifts (among other appeals).

Before we jump into the science, let's define some key terms.

- **Plant-based default (PBD):** In a PBD, the vegan option is positioned as the default option with meat only available upon request. This can be done in various ways: putting meat dishes on a secondary menu for a restaurant, not serving meat visibly in cafeterias, adding a surcharge for adding meat to a vegan dish, or having people opt into meat while signing up

for a conference buffet. You may have also seen the terms “Default Veg” (which is an initiative of the Better Food Foundation), or “Plant-Based by Default.”

- **Choice Architecture:** This [psychological term](#) refers to the way choices are presented to people. For example, when a grocery store places more profitable items at eye level, and less profitable items close to the floor, they structure consumer choice for their own advantage. For advocates specifically, this can refer to menus, cafeteria design, and labels, among others.
- **Nudge (or plant-based nudge):** A nudge is a broader term for any subtle way of influencing a consumer to choose a plant-based option. This can include the format of a menu, the physical space of a food service area, the phrases used by cafeteria staff or waiters, and much more.
- **Ratios (or plant-based ratios):** This term refers to the ratio of veg options to meat options in a menu; a ration nudge may include adding far more veg options to a menu, hoping that more choices will result in fewer meat dishes served.
- **Menu Engineering:** Refers to the way a menu may frame options to make the plant-based option more appealing by changing language, placement, description, photos, and more.

As part of writing this blog, we spoke to six advocates working on these interventions, primarily in the United States. While campaigners for PBDs tend to be motivated by animal ethics, stakeholders, such as food service managers, may be swayed by other arguments, including inclusivity towards those with dietary restrictions, sustainability, or demand (especially from students). Advocates are especially interested in universities, as influencing younger generations is a key strategy for the movement and, based on anecdotal evidence, universities are often open to making these changes.

PBDs often, but not always, depend on internal allies — people working in offices or cafeterias who want to be more sustainable, or who may or may not be themselves vegans. This represents a key advantage of the programs: they can be easily embraced by people outside the movement who see the value in their basic premise.

How Effective Are Plant-Based Default Programs?

Implementing a PBD option in a dining hall (in which meat is present but has to be specifically requested) seems to be a slam dunk. Across nearly a dozen studies, such programs were able to significantly increase the portion of veg meals ordered and eaten — of the successfully-executed PBDs (see our explanation after the chart), the average increase of vegan or vegetarian option selected jumped from an average of 17.2% to an average of 72.5% – over a three-fold increase.

While writing this resource, we were unable to find evidence of a correctly-executed plant-based default program that failed to reduce the amount of meat consumed.

***Note:** These studies differ in their methodology, population, meals, and location — thus the chart is not intended to represent an apples-to-apples comparison of studies but rather an apples-to-meat comparison: to show the overall trend that plant-based defaults increase the amount of veg meals orders.*

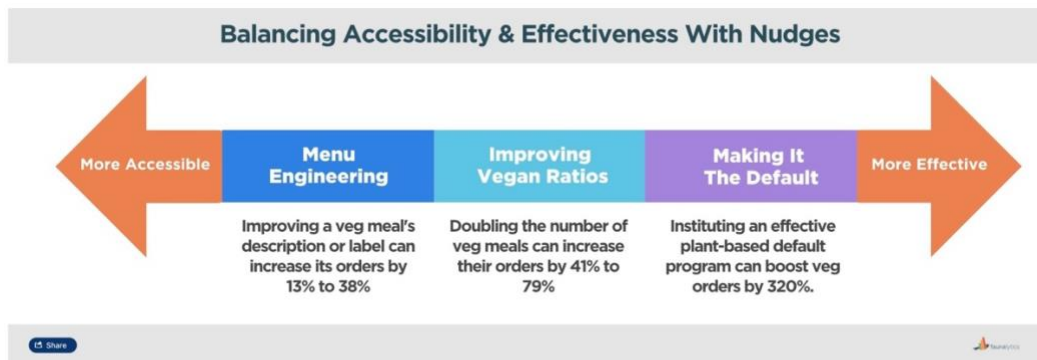
We excluded [one experiment](#) from this analysis because the implementation was too poor to be considered a default: inconsistent signage, reports of servers guiding students to choose meat, and most importantly, meat being visible next to the plant-based option. With this incorrect implementation, the effect disappeared. Secondly, all of these studies were conducted in the U.S. or Europe and we weren't able to find any research of default programs in other regions — meaning we don't yet know if this effect would be the same in other parts of the world.

However, we must be aware of **spillover effects** — for example, when instituting a PBD in one station, some university students might just walk over to another station. We only found two PBD studies that calculated a spillover effect, and they were rather similar: [26.3%](#) and [26.1%](#). In other words, when the station implemented a PBD, around a quarter fewer students ordered a meal from there. Thankfully, the calculated spillover effects were smaller in both studies than the increase of veg orders – in other words, less meat was still served at the PBD stations. Still, advocates should be mindful of any spillover effect and do their best to mitigate it (see our tips below for some ideas).

But what about the long term?

For example, if a student goes to a plant-based default university cafeteria for four years, are they more likely to go (or stay) vegetarian, vegan, or flexitarian later in life? If so, plant-based defaults would have an even larger capacity to impact animals. At this point, [we don't know for sure](#). Nudges work, in part, because they influence social norms, and since social norms are critical to creating and maintaining vegans, [some behavioral scientists](#) believe PBDs can create long-term diet change, [but others are less certain](#).

It's worth noting that **nudges and defaults don't work well on everyone**. Multiple studies have found that nudges are most effective for people who are [already reducing their meat consumption](#) (flexitarians or reductarians) or people who are already environmentally- or health-conscious. Nudges may also work [better on women than men](#) (although this may just be because [women are more likely to be flexitarian than men](#)).



Since nudges can vary so much, below we review research findings for some of the most common types of nudge-based situations.

One thing that frequently came up in our conversations is that **advocates need to be willing to compromise**. If a PBD isn't on the table, [increasing the number of vegan options on the menu](#) without making them the default can also be an effective strategy. In fact, doubling the plant-based ratio can increase veg meal selection from [between 41% and 79%](#) while increasing the ratio from 25% to 75% increased their popularity from [12% to 48%](#). Improving the menu engineering, often by revamping

the [labels of vegan meals](#), was also found to be somewhat effective in promoting individual menu items (discussed in more detail below).

Given that not all stakeholders are going to be on board with a plant-based default, the chart below can help advocates consider what compromises may be the most tractable.

Restaurants and Supermarkets

While most advocates we spoke to tend to focus on universities, restaurants and supermarkets are also avenues for change.

Location and placement are everything in a supermarket. Beyond Meat [famously prefers](#) that all their products be sold in the meat sections of a supermarket, as opposed to a “vegan” or food allergy section. This is likely wise — [one study](#) found that vegan alternatives sold 67% better in the butcher sections, right next to animal-based meat, as opposed to being in their own areas. Meanwhile, placing healthy foods, which could include vegan products, [near the check-out counter](#) increased their sales by almost 50%.

PBD programs can also be added to restaurants. One way is to offer meat as an addition to a plant-based menu item — for example, a veg burrito which chicken can be added to, rather than offering separate veg and chicken burritos. In [one online study](#) that tested multiple ways to maximize vegetarian menu items, that strategy won out. For a real-world example, [our restaurant case study](#) found that the veg orders increased by 13% over five years, possibly due to a default veg policy they implemented for all but one of their breakfast sandwiches.

Other nudges and labels can still be helpful in a restaurant setting. One of the easiest-to-implement changes is to simply get rid of a separate “vegetarian” or “vegan” menu section altogether and mix those dishes into the rest of the menu — a move that could raise their orders by 56%, according to [one study](#).

The advocates we spoke to told us they don’t often prioritize restaurants as they are more likely to be motivated by profit and less likely to be motivated by sustainability. If you are interested in working with a restaurant to add nudges to their service, keep in mind that you may need to change your messaging strategy to communicate how these changes may help improve profits, or only target restaurants that are openly climate-conscious.

Benefits For Animals AND Institutions

Instituting a well-planned default *may* also end up saving money. According to [an analysis](#) of the implementation of plant-based food options in New York City hospitals, the vegan options saved about 59 cents per meal by using whole food plant-based ingredients.

All of this reduced meat consumption helps the planet — multiple studies confirm that using plant-based defaults reduced the climate impacts of dining halls. [One study](#) found the greenhouse gasses savings by the plant-based default program to be about 23.6%, while [another analysis](#) in New York pegged the number at 36%. [Yet another](#) estimated it to be 40.1%, while a [third](#) found the drop to be 42.7%.

Aside from the bottom lines and carbon footprints, these initiatives are often quite popular. In two reports — [the New York hospital initiative](#) and [a set of experiments in Denmark](#) — plant-based initiatives had an approval rating of 90% or higher among participants. An internal survey from the Changemaker Hub,

reviewed by Faunalytics, on students at cafes with a plant-based default shows only a minority of students disapprove: just 7%. Another study found that [across three universities](#), students' enjoyment of a given plant-based dish *increased* when it was made a default, surpassing even the enjoyment of meat dishes. And in [an online study](#), participants' willingness to eat out at a restaurant didn't significantly change when strong plant-based nudges and defaults were added to the menu.

Plant-based default programs have the unique advantage of being mutually beneficial to nearly every party involved: the advocates, the stakeholders, the consumers, the environment, and, of course, farmed animals.

How Can Nudges Be Improved?

While nudges are effective in reducing meat consumption, they can always be improved. Here are our research-backed tips on how to ensure your nudges are as effective as possible:

- **Train Your Staff Well**
- **Pay Attention To Labels**
- **Reach Out to Men And Other Meat-lovers, If Necessary**
- **Add Reflection To The Nudge**
- **Make The Food Appealing, Diverse, And Inclusive**
- **Be Creative!**
- **Sequence Your Menus Effectively**

The Bottom Line

Nudges are an increasingly popular and effective intervention to reduce the amount of meat sold in a food service. However, there are some things we don't know, like if people eat more or less meat after encountering a plant-based default (either later in the day or later in their life). We also need more research on *spillover* — in which people avoid the PBD station, cafeteria, or restaurants entirely — as this might reduce the intervention's impact. We also don't know to what extent PBDs can influence a broader cultural change.

Despite these limitations, we're confident that, in the short-term, plant-based defaults are quite effective at reducing meat consumption within a university or institution. Their popularity and scalability make them promising interventions.

If you are an advocate seeking to bring plant-based defaults to your community or into your outreach work, you can contact [Better Food Foundation](#) at info@betterfoodfoundation.org for resources and support. University students can also sign up for BFF's immersive [student ambassador program](#).

If you are an internal ally (meaning you have a professional relationship with a key decision maker) in a workplace, hospital, or other venue involving food service and are interested in helping implement a plant-based default, [Greener By Default](#) invites you to reach out at info@greenerbydefault.org.

If you have questions about the research, we encourage you to [contact the Faunalytics team](#) or visit our [Office Hours](#).

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Meet the Author: [Björn Ólafsson](#)

Björn Jóhann Ólafsson started advocating for animals at the ripe age of ten and hasn't stopped since. After studying psychology and human rights at the University of Chicago and the Center for Decision Research, Björn worked in education and science writing. He then investigated animal agriculture as a journalist for Sentient Media and other publications, reporting on greenwashing campaigns, alternative proteins, and animal sentience. Outside of work, Björn is often trail running in the Icelandic highlands or the Spanish Pyrenees, learning more languages, sewing outfits from scratch, or spending time with his two beloved lovebirds.