

White people's eating habits produce most greenhouse gases

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White individuals disproportionately affect the environment through their eating habits by eating more foods that require more water and release more greenhouse gases through their production compared to foods black and Latinx individuals eat, according to a new report published in the *Journal of Industrial Ecology*.

The report takes an in-depth look at what different demographic populations eat, how much [greenhouse](#) gas those foods are responsible for, and how much land and water they require. The study was undertaken to get a better understanding of the environmental impacts of the food consumption patterns of major demographic groups so that [environmental policies](#) designed to reduce negative impacts of food production could be drafted that take these differences into account.

"The food pipeline—which includes its production, distribution and waste—contributes significantly to climate change through the production of [greenhouse gases](#) and requires significant amounts of water and land, which also has [environmental effects](#)," said Joe Bozeman, a student in the University of Illinois at Chicago Institute for Environmental Science and Policy and first author on the paper. "If we are to draft policies related to food, they can't be one-size-fits-all policies because [different populations](#) have different eating patterns which have their own unique impacts on the environment."

Bozeman and his colleagues analyzed data from The U.S. Environmental Protection Agency's What We Eat in America—Food Commodity

Intake Database—which provides per capita food consumption estimates for more than 500 types of food (such as apples, poultry, bread) as well as water—and from the National Health and Nutrition Examination Survey, which provides estimates of individual dietary intake. Estimates of the environmental impact of these foods were obtained from various databases and from the scientific literature. Foods considered 'environmentally intense,' include those that require more water, land and energy and produce more greenhouse gases than other foods. Apples, potatoes, beef and milk are among the most environmentally intense foods.

According to their analysis, the researchers found that [white individuals](#) produced an average of 680 kilograms of the greenhouse gas carbon dioxide each year that can be directly linked to what they ate and drank, while Latinx individuals produced 640 kilograms of carbon dioxide and blacks produced 600 kilograms of carbon dioxide each year. "While the difference may not be enormous, these numbers are per individual, and when you add up all those individuals, it's very clear that whites are responsible for the majority of greenhouse gases emitted as a result of their food choices," Bozeman said.

The researchers also found that the food habits of white people require about 7 percent more water at 328,000 liters per year than Latinx individuals whose food habits require 307,000 liters per year of water, while black's eating habits depend on about 12 percent more land than other populations, which Bozeman says is driven in part by their higher consumption of chicken and apples, which are high land-use food items. "Whites tend to drink more water and milk. Milk itself requires a lot of water to produce when you consider livestock cultivation, so that is part of what we think is pushing their [water](#) impacts higher."

Policies that attempt to reduce resource dependence or greenhouse gases need to also take into account individual nutrients, says Bozeman. "If

you are going to draft policies that may reduce the amount of land-intensive oranges, we need to think about other less resource-intensive sources of vitamin C. It gets more complex as you look closely at the [food](#) pipeline and how different populations engage with it, but we are now starting to get a better understanding on these complex dynamics in such a way that we can begin to rationally take steps to improve environmental quality."

More information: Joe F. Bozeman et al, Overcoming climate change adaptation barriers: A study on food–energy–water impacts of the average American diet by demographic group, *Journal of Industrial Ecology* (2019). [DOI: 10.1111/jiec.12859](https://doi.org/10.1111/jiec.12859)

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