Why I'm Letting My Travel Grant Expire

Eric Potash

I'm letting my travel grant expire. According to my mother, I should be ashamed! How could I turn down a free flight? I started avoiding flying to reduce my carbon footprint, which I once thought was a meaningful way to fight climate change. In this essay I'll explain why I think the carbon footprint is a flawed way to think about carbon emissions, but how years of studying and minimizing my footprint has been surprisingly meaningful in other ways.

Air travel is both carbon intensive and largely unnecessary, so it was one of the first things I cut to reduce my footprint. I was flying over a thousand miles between Chicago and New York City to visit family. I didn't want to stop traveling entirely so I considered alternatives to flying like riding the train. I estimated that a round-trip flight home added about 1 ton to my footprint, twice as much as a train ride. With the average US footprint at about 18 tons per year, this half-ton reduction seemed substantial so I endured the 19 hour ride on the Lake Shore Limited a number of times over the years.

But I eventually wondered about the consequences of riding the train instead of flying. How does it affect the concentration of CO₂ in the Earth's atmosphere, the thing driving climate change? In fact it seems likely that those planes and trains were going to depart with or without me. Under this assumption, my flying or riding the train (or not traveling at all) would have no effect on emissions! Contrast this with driving. A relatively fuel-efficient car offers the same footprint as the train. But what are its consequences? Assume that if I don't drive it the car doesn't go anywhere. Then, as opposed to flying or riding the train, the decision to drive is consequential. But this works against driving. By driving instead of flying, I would decrease my footprint while, paradoxically, increasing emissions. That's because, again, I'm assuming the plane is making the trip anyway.

That's the first problem with the carbon footprint: reducing your footprint doesn't necessarily reduce the concentration of CO_2 in the atmosphere, which is what matters for climate change. But even when your actions do lead to emissions reductions, there's another problem: those reductions, in and of themselves, will have virtually no impact on climate change. Not all problems, not even all environmental problems, are like this. Take for example air pollution, which causes serious pulmonary and respiratory problems. Reducing air pollution on just a local scale, for example by closing a single coal-fired power plant, can have beneficial consequences for local human health.

Climate change is different. Reductions in emissions on an individual, local, even national scale—again in and of themselves—won't do much to lessen climate change. (The US was the source of just 14% of global emissions in 2017, the most recent year for which these data are available.) The fact is that climate change is already underway and to preserve some semblance of the current climate will require significant and immediate emissions reductions by billions of people across many countries (breakthroughs in negative emissions technology notwithstanding).

This makes climate change a social and political problem, and the question of whether I should reduce my footprint a version of the age-old question of how to fit individual action into social and political change. Technological change is also essential but I view that process as inherently social and political in its development, funding, and adoption.

How can my carbon footprint fit into this bigger picture? One possibility is to use my reductions to enhance my credibility as an advocate for more social and political change. I might be able to make an action like letting my travel grant expire more meaningful by sharing it with others and convincing them to take similar actions or to support political action on climate.

On the other hand, it's entirely possible that I could more effectively bring about those political and social changes by increasing my footprint! For example, I might burn fossil fuels traveling around the country advocating for climate policy. Or maybe people who are now unconvinced on the issue would sooner be persuaded by someone who drives an SUV than someone who rides a bike.

Unfortunately I don't know which individual actions will bring about the necessary social and political changes. But I continue to work on reducing my carbon footprint, including minimizing travel, anyway. Why? Because I've found two reasons to do so that don't depend on consequences for climate change.

First, while consequences are important and useful for judging actions, they need not be the sole criteria. When considering taking an action, consequences are rarely known and so must be predicted. These predictions have many uncertainties, including the uncertainty of how other people will act. If we assume the status quo in these predictions, then the resulting actions tend to perpetuate it. For example if we assume that not flying has no effect on emissions and so continue to fly. To avoid having to make such predictions and to potentially break this cycle I think it can be good to judge actions based on principles, such as minimizing my footprint, independent of their consequences.

Of course, acting on principles comes with its own costs, like the extra time it takes to ride the train instead of flying. But that brings me to the second reason why I reduce my footprint, despite uncertain consequences for climate change: I've discovered other positive consequences. The actions I've taken over the past decade (flying less, biking and walking more, eating vegan, living off-grid, growing

and foraging food, living more cooperatively, etc.) fit into a broader practice of "human-scale" living that has been inherently rewarding. It's forced me to educate myself about important and fascinating subjects including engineering, agriculture, ecology, history, and economics. And it's helped me to strengthen my relationship with my community and to be less materialistic.

I invite you to join me in taking action to reduce our carbon footprints. I think you'll find it healthy and meaningful, as I do, to lead a more principled and human-scale life. However, I doubt these actions will, in and of themselves, make much difference in holding back climate change. For that to happen, we need to continue work on a program of social and political change which we may (or may not) connect to our individual footprints.

Eric Potash (eric@k2co3.net) is, among other things, a mathematician, statistician, and farmer.