

CLIMATE PERSPECTIVES ACROSS THE GENERATIONS

Climate change is a multi-generational problem, but it does not impact all generations in the same way. Correspondingly, older Americans and younger ones differ greatly in how they perceive the issue and how they respond. The wave of youth activism epitomized by Greta Thunberg is on one side of this generation gap. Donald Trump's climate skepticism is on the other. We're talking about large groups of people, so there is a range of attitudes on both sides, but these two individuals represent the generational differences in dramatic form.

My goal today is to explore these generational differences. I want to be concrete, so as a focal point I'll examine a hypothetical but typical family, beginning with a Baby Boomer and her Generation Z granddaughter. This, then, will be the story of Samantha, her twenty-year-old granddaughter Cassandra, and Cassandra's own future family. As an excursion from this hypothetical family, I'll also talk about some young people in Utah who are younger members of Cassandra's generation and what they've done about climate change. And finally, I'll talk about future generations such as Samantha and Cassandra's descendants in 2150. That's a distant time, about as distant as the Civil War is from the present. Yet our society today was deeply shaped by the Civil War and Reconstruction, just as we in turn will help shape the world of 2150.

Each of these generations is impacted differently by climate change, leading to distinctive issues. The Boomer generation, or at least too many of us, remains silent if not resistant to climate action. Gen Z, millennials, and those in between, are much more favorable to climate action, if not always activists themselves. The young Utah activists are evidence of how broadly the inclination to take an active part is distributed. People like them are becoming important voices in society's deliberations over climate change. Future generations will be the most severely impacted. They are necessarily silent in today's debates and litigation, but I'll discuss the possibility of giving them greater representation in today's climate debates.

I. BOOMERS

Let's start with the first generation of our hypothetical family, grandma Samantha. To fill in the picture, assume she was born in 1964, which makes her one

1. Sho Sato Professor of Law and Faculty Director of the Center on Law, Energy, and the Environment at the University of California, Berkeley. These remarks were intended for the Symposium on youth activism organized by the University of New Mexico's School of Law Natural Resources Journal and New Mexico Law Review. The Symposium had to be cancelled due to the coronavirus outbreak, but the Journal has graciously agreed to publish them in written form. I have tried to keep the informal tone of the spoken remarks but have added supported authority when that seemed essential. However, I have not tried to convert the remarks into a standard law review article.

of the youngest baby boomers. That makes her 56 today. Statistically, she can expect to live until around 2048² (assuming she survives the coronavirus, that is). Even with rigorous restrictions on carbon, the temperature by then will probably be up another degree from where we are today. If we continue our emissions with little restraint, it will be warmer when she dies by perhaps another couple of degrees Fahrenheit. As I'll discuss later, there will be significant differences between those scenarios, with more severe effects at higher CO₂ concentrations. But the effects of climate change will become much greater later in the century. It takes time for climate change to take hold, so policies adopted today will have bigger effects further down the road. In short, while climate policy will impact Grandma Samantha, her granddaughter Cassandra will be much more impacted by decisions we make in this decade.

As we will see later, Grandma Samantha's generation is on average the least likely to worry about climate change or make it a high priority. That is unfortunate. I think there are actually reasons why people of Samantha's generation — which is also mine — really should be much more personally invested in the climate change issue. Cutting carbon emissions matters greatly in terms of the kind of legacy our generation will leave behind. And efforts to cut carbon can also pay real health dividends in our own lifetimes because they will have the side-benefit of reducing urban air pollution. It would certainly be oversimplified to say Baby Boomers are not interested in climate change. Think of Al Gore or Elizabeth Warren. (Bernie Sanders is actually too old to be considered a Baby Boomer, but the point remains the same.) Still, there are all too many people in the Baby Boom generation who are skeptical about climate change or just do not think it's worth doing much about the problem. Their grandchildren, however, are very differently situated.

II. MILLENNIALS AND GENERATION Z

Young people face a very different reality in terms of the impact of climate change on their lives. Climate change has already had serious effects, but the dangers will grow much larger over future decades. Admittedly, it can be difficult to fully appreciate the significance of events that will not occur until the middle or end of this century. References to 2050 or 2100 may seem like the stuff of science fiction, not real life with real people. That may be especially true at the moment, given the immediate health and economic crisis of the coronavirus outbreak. It may be equally hard to imagine how our present-day conduct will impact life in those future years. But climate science tells us that our actions really will matter. And those seemingly distant decades are not as far away as they may seem — many people now living will see the mid-century, and their children if not they themselves will see the turn of the next century.

I've already talked about Samantha, a Baby Boomer who is statistically likely to be at most lukewarm about climate action. Let's turn now to Samantha's granddaughter Cassandra, who also lives in California. Different regions will be affected by climate change in different ways. The reasons for picking California are that California happens to be where I live, so I know more about projected climate

2. SOC. SECURITY ADMIN., ACTUARIAL LIFE TABLES: PERIOD LIFE TABLE, 2017, <https://www.ssa.gov/oact/STATS/table4c6.html> (last visited Aug. 20, 2020).

impacts there, and more importantly, that a lot of climate-related modeling is available for the state.³

Cassandra, our hypothetical young Californian, can expect to live until around 2080.⁴ Based on current statistics, Cassandra can probably expect to have her first child around age 26 (in about 2026),⁵ and to be in her prime years during mid-century (2040-2060). Cassandra's daughter will be transitioning into adulthood then. Let's start in mid-century. How will Cassandra and her family be impacted by climate change?

To flesh this out, we need to consider two 2050 scenarios, one where significant but not stringent efforts are made to control carbon emissions, the other where relatively little is done. Sea level will be up under either scenario, about eight inches with lower emissions and over ten inches with higher emissions. San Francisco airport is about a foot above sea level, so it will be underwater on occasion either way, but more frequently in the high emission scenario. In terms of California's droughts, what is now a once-a-century dry year will be a bit more likely with lower emissions, but about twice as likely as today with high emissions. Average annual temperatures in California will also be up, roughly 3.5 °F with lower emissions, roughly 5 °F with higher emissions. Thus, today's climate policies will begin to make a real difference by mid-century.

That difference will increase over time. By the last quarter of this century, Cassandra will be elderly, her own daughter may be retired, and Cassandra could well have grandchildren and even a great-grandchild, who will live well into the Twenty-Second Century. By late in our own century, the differences between the lower-emissions and high-emissions scenarios become stark. Even in the lower-emissions scenario, climate change would accelerate by 2100. The sea would rise more than two feet. Average temperatures would increase as much as 5 °F.

In the high emissions scenario, things will have gotten much worse by late in this century. This is when differences in emissions trajectories really hit home. Sea level in San Francisco will be up fifty-three inches – more than four feet. That is roughly the average elevation of the city over sea level, meaning that without an enormous investment in seawalls, much of the city will be underwater (and even more so with high tides). What used to be the once-in-a-century dry year will happen three times as often. Average temperatures in California will be up 8 °F. As a result, while Sacramento currently has sixty to ninety days when the temperature breaks 90 °F, it will have about that many days over 105 °F by the end of this century. Similarly, while Los Angeles now has only about eighteen days a year over 90°, by

3. See CALIFORNIA ENERGY COMMISSION, CALIFORNIA CLIMATE CHANGE FOURTH ASSESSMENT: STATEWIDE SUMMARY REPORT (Aug. 2018), https://www.energy.ca.gov/sites/default/files/2019-11/Statewide_Reports-SUM-CCCA4-2018-013_Statewide_Summary_Report_ADA.pdf.

4. SOC. SECURITY ADMIN, *supra* note 2. Of course, medical advances could extend her life greatly. On the other hand, various potential global mishaps could shorten it.

5. This is the U.S. average, with large variations depending on location and demographic characteristics. If Sandra lives in San Francisco, she would probably be five years older when she has her first child. Quoc Trung Bui & Claire Cain Miller, *The Age That Women Have Babies: How a Gap Divides America*, N.Y. TIMES, Aug. 4, 2018, <https://www.nytimes.com/interactive/2018/08/04/upshot/up-birth-age-gap.html>.

the end of the century, two years out of three have far more of those really hot days, perhaps fifty to a hundred days over 90 °F.

Climate impacts will vary across the country, of course. So does the type of available climate information. It is difficult to find precisely comparable scenario information. A New York State study blended the possibility of these two scenarios into overall probability estimates of climate outcomes.⁶ The lower estimate for the 2050s was an average temperature increase of 3 °F, with a couple of days a year over 100 °F, while the upper range estimate for 2050 was 6 °F on average and seven days over 100 °F. By 2100, the lower estimate is 4 °F of average warming, but the upper estimate is an annual temperature increase of 12 °F, which would make New York's climate comparable to present-day Tennessee.⁷ In terms of extremes, for some reason the study uses 2080 rather than 2100 as the basis for the estimates, but the results are still striking: two days over 100 °F for the low estimate, twenty days for the high estimate. In case your eyes are glazing over from all these numbers, just keep in mind that the average temperature increase in New York will be three times as great without a serious effort to reduce emissions, and the increase in really hot days will be ten times as big.

The usual caveat applies: “Your results may vary.” Actual emissions trajectories are likely to be different from these scenarios. Life expectancy varies by race, age, and social class, so a really complete analysis would have to make those distinctions and also consider future demographic trends in order to plot out the lives of Cassandra and her family. But none of these refinements would change the basic thrust. By the end of their lives, members of Generation Z like Cassandra will see much more extensive climate change, and the severity of climate change will depend greatly on how much we cut emissions today. The children of Cassandra and others of her generation will see even greater changes in the century to come. The picture for Millennials is less dramatic, but they will see significant differences in climate change when they are elderly, depending on how much we choose to cut emissions.

Given these realities, versus the shorter time horizons of Baby Boomers like Cassandra's grandmother Samantha, it is no wonder that there is a generation gap in attitudes toward climate change. According to a 2019 poll, feelings about climate change are especially strong in younger Americans.⁸ Seventy percent of those under age 45 — that seems like “younger” to me, though maybe not to you — say they feel a personal responsibility to take action on climate change. Even though climate change is currently a highly polarized political issue, there is also a generation gap among Republicans. Despite the Republican Party's general minimization of the issue of the climate change, younger Republicans feel differently. Among Republicans under 45, half consider climate change a crisis or serious problem, and two-thirds say they feel a responsibility to address it.

6. Radley Horton et al., *New York City Panel on Climate Change 2015 Report, Chapter 1: Climate Observations and Projections*, 1336 ANNALS N.Y. ACAD. SCI. 18 (2015).

7. *Average Annual Temperature for Each US State*, CURRENT RESULTS: WEATHER AND SCIENCE FACTS, <https://www.currentresults.com/Weather/US/average-annual-state-temperatures.php> (last visited Aug. 20, 2020).

8. Jennifer De Pinto & Fred Backus, *Younger Americans Views' on Climate Change: More Serious, Yet More Optimistic*, CBS NEWS (Sept. 15, 2019), <https://www.cbsnews.com/news/younger-americans-views-on-climate-change-more-serious-yet-more-optimistic/>.

In general, you can predict a lot about someone's attitudes on climate issues if you know their age.⁹ Millennials are much more likely to understand climate change and support carbon reductions than their elders. A 2016 University of Texas poll reports the millennials and seniors differ on many issues. About sixty-percent of millennials want to reduce the use of coal, twice the percentage of over-65 Americans.¹⁰ Notably, half of millennials support a carbon tax, which again is twice the percentage of senior citizens. And according to a Pew poll, fifty-six percent of millennials, but only thirty-seven percent of seniors, regard climate change as a high policy priority.

Again, the generational difference transcends partisan divisions. Even among Republicans, there is a gap between millennials and seniors on environmental issues generally and use of fossil fuels in particular. According to another Pew survey, more millennials say the federal government isn't doing enough to protect animals and their habitats (sixty percent of millennials versus thirty-four percent of older Republicans), water quality of lakes, rivers and streams (fifty-nine percent versus forty-three percent) and air quality (forty-nine percent versus twenty-nine percent) millennials are also less likely to support expansion of fossil fuels – for instance, only forty-four percent of millennials support expanded offshore drilling versus three-quarters of the Boomer generation.¹¹

There is a similar generation gap over renewable energy. Most Americans support expansion of renewable energy. According to Pew,¹² eighty-four percent of Americans consider increased use of renewable energy to be an important or top priority. Over half think more government regulation is needed to reach this goal, while about forty percent of all Americans trust the market to provide the necessary boost to renewables. But age differences are striking. Millennials favor government intervention to support renewables by a two-to-one margin, while a clear majority of Baby Boomers see no need for the government to act.

We do not have clear evidence about the reasons for the gap between generations. There are several plausible possibilities. One could be differences in education. Millennials have generally higher levels of education, and unlike Baby Boomers many have been exposed to the issue of climate change in school. This may be why Millennials have a firmer grip on the facts. You can even see the generational difference in scientific understanding among Republicans, despite the GOP's current ideological commitment to climate denial. According to a Pew poll, about a third

9. See Cary Funk & Meg Hefferson, *U.S. Public Views on Climate and Energy*, PEW RESEARCH CENTER (Nov. 25, 2019), <https://www.pewresearch.org/science/2019/11/25/u-s-public-views-on-climate-and-energy/>.

10. *Millennials' Strong Views on Climate Change and Other Energy Issues Could Drive Presidential Election Results*, UNIVERSITY OF TEXAS NEWS (Oct. 27, 2016), <https://news.utexas.edu/2016/10/27/millennials-views-on-climate-change-could-impact-election/>. The speculation about impact on the election was obviously misplaced, since not enough millennials voted against the climate-skeptic candidate, Donald Trump, to prevent his election.

11. *Majorities See Government Efforts to Protect the Environment as Insufficient*, PEW RESEARCH CENTER (May 14, 2018), <https://www.pewresearch.org/science/2018/05/14/majorities-see-government-efforts-to-protect-the-environment-as-insufficient/>.

12. *Public Divides Over Environmental Regulation and Energy Policy*, PEW RESEARCH CENTER, (May 16, 2017), <https://www.pewresearch.org/science/2017/05/16/public-divides-over-environmental-regulation-and-energy-policy/>.

(29%) of Millennial and Gen Z Republicans (including those who lean to the Republican Party) say human activity contributes to climate change a great deal, almost double the share of Republicans in the Baby Boomer or older generations who say the same (16%).¹³ Other factors may also be relevant. Older people may be more set in their ways, less able to absorb new ideas, or more nostalgic for the industrialized America of their youths. Furthermore, Millennials and younger groups will live to experience more severe effects of climate change, so they may take the issue more seriously. Quite likely all of these factors are in play. Whatever the reasons, however, the age-based differences in attitudes are undeniable.¹⁴

Generational friction over climate change and other issues are no secret. The phrase “OK Boomer” got to be front-page news when Chlöe Swarbrick, a youthful member of the New Zealand parliament, used the phrase against a heckler.¹⁵ She had been trying to explain why her generation was unwilling to accept delays in addressing climate change. She pointed out that her generation, and the ones to follow, did not have the luxury of sweeping the problem under the rug the way many in the older generation had done. As Swarbrick pointed, her generation will be around in 2050 and beyond to experience the cascading impacts of climate change; Boomers generally will not.

The “OK Boomer” phrase is apparently an outgrowth of an endless series of exchanges about the “problems with today’s youth” on the one hand, and “older people have ruined everything” on the other. To some extent, this difference in perspectives seems quite normal in intergenerational relationships. It’s a debate that the younger generation always wins in the long run by outliving the other side. But this situation is a bit different, because we Boomers are leaving the next generation with an incurable problem that will last far beyond their own lifetimes, global climate change.

Swarbrick herself offered an important insight into the shortcomings of too many people in my generation in a later essay explaining her concerns, she observed that “[w]isdom— that being the skillset of a critical mind and solid judgment — comes from consistently exposing oneself to new and novel situations, in turn developing greater understanding of the world, those in it and how to solve evolving problems.” Swarbrick continued, “When you close yourself off to new ways of looking at things; when you become conservative in mind — that being, a preference to shut down conversation and the potential for progress associated — you become intrinsically less likely to hold the requisite open, critical and creative ability to tackle unprecedented,

13. Cary Funk & Meg Hefferson, *Millennial and Gen Z Republicans Stand Out From Their Elders on Climate and Energy Issues*, Pew Research Center (Jun. 24, 2020), <https://www.pewresearch.org/fact-tank/2020/06/24/millennial-and-gen-z-republicans-stand-out-from-their-elders-on-climate-and-energy-issues/>.

14. Of course, if the numbers had come out the other way, we might easily have found plausible explanations for that outcome, such as greater ease of seeing how the climate has changed for older Americans or a greater propensity to take the long view and worry about future generations. Plausible explanations are easy to come by but hard to test. The generational differences are very real, but we simply do not have firm evidence about their explanation.

15. Guardian News, ‘OK boomer’: millennial MP responds to heckler in New Zealand parliament, YOUTUBE (Nov. 5, 2019), <https://youtu.be/OxJsPXrEqCI>.

evolving socio-political challenges.”¹⁶ All too many people in my age cohort seem to have fallen into that trap. Of course, these are only statistical generalizations. There are climate denialists among the young and climate activists among the old. Some young people are closed-minded, some of the elderly are intellectually adventuresome. But Swarbrick is probably identifying a real distinction between generations taken as a whole.

Given these statistical generalizations, Baby Boomer Samantha may well be a climate change denier or at least unsupportive of a vigorous effort to reduce carbon emissions. Her granddaughter Cassandra from Generation Z is much more likely to take the problem seriously and feel a responsibility to address it. Given those general trends, we should not be surprised to see a wave of climate activism among younger Americans.

III. GENERATION Z IN ACTION

Greta Thunberg is the icon for youth climate activism. Instead of focusing on her, I would like to examine a much less widely known group of activists. Their activism may seem surprising compared with that of many of their peers, because it happened in an unlikely place. Their activism also took the form of quiet, persistent persuasion rather than demonstrations or use of social media. Yet, they succeeded in prompting climate legislation in Utah, a deeply conservative state where the Republicans holds over three-quarters of the seats in the state legislature.¹⁷ How that happened is a story worth telling.¹⁸

The Utah law itself did not impose any carbon restrictions. But it did call for “the Legislature and the Governor [to] encourage individuals, corporations, and state agencies to reduce emissions through incentives and support of the growth in technologies and services that will enlarge our economy in a way that is both energy efficient and cost effective.”¹⁹ There seem to be a number of reasons why the bill passed. First, the economics of renewable energy have become far more appealing, especially in a state like Utah with ample renewables potential. There are also opportunities for Utah to profit, for instance, by developing a hydrogen industry. Second, air pollution is a really serious problem in Utah. Cutting carbon will also cut air pollution. And third, people in Utah are worried about their climate, including impacts on outdoor sports and industries. Although there thus were multiple causes, young activists played a crucial role in catalyzing the passage of the legislation.

The chief sponsor of the bill was a Mormon homemaker turned Republican state legislator, Rebecca Edwards. Her district was just west of Ogden. She attributed her support of the bill to a group of high school students who came to her with a draft

16. Chlöe Swarbrick, *My ‘OK Boomer’ Comment in Parliament Symbolized Exhaustion of Multiple Generations*, THE GUARDIAN (Nov. 8, 2019), <https://www.theguardian.com/world/commentisfree/2019/nov/09/my-ok-boomer-comment-in-parliament-symbolised-exhaustion-of-multiple-generations>.

17. *Utah State Legislature*, BALLOTEDIA, https://ballotpedia.org/Utah_State_Legislature (last visited Aug. 20, 2020).

18. Much of my account is drawn from Jack Greene, *High Schoolers Forced Utah to Admit Climate Change is Real*, HIGH COUNTRY NEWS (May 19, 2018), <https://www.hcn.org/articles/opinion-high-schoolers-forced-Utah-to-admit-climate-change-is-real>.

19. H. Con. Res. 7, 2018 Gen. Sess. (Utah 2018).

of the legislation. Students from fifteen high schools joined the push for the bill. The effort was spearheaded by a high school senior, Piper Christian, and a junior at another school, Mishka Banuri. Ms. Christian and others at her high school environmental club were mobilized when they learned of a very different resolution that had passed the Utah legislature six years earlier, pooh-poohing climate change and supporting fossil fuels.

Their first effort got nowhere in the legislature. According to High Country News, “[e]lected officials responded by claiming there was virtually no chance of getting the resolution introduced, much less passed. ‘Don’t waste your time,’ they were told. ‘Try something less ambitious.’” Although some students were discouraged, Ms. Christian would not give up: “We will persist, primarily to see this as something that does not have to be divisive.”²⁰

They did persist. They returned the following year with detailed information about how climate change would impact Utah. They also shrewdly reformulated the language to deal with objections from legislators. At the same time, they forged alliances with other interested groups, including business groups. One important move was an information session for legislators. At the beginning of the 2018 session, they and other grassroots groups worked with the bill’s sponsor to organize an educational program at the Capitol. The program “brought together high school students, legislators and a five-member ‘climate solutions’ panel,” including a physicist, the director of the governor’s energy office, a student from Brigham Young University and two city mayors.²¹ During the hearings, one high school junior testified that he supported the bill “because it is the first step to creating a livable future for families all over the state . . . I urge you to take charge in creating this livable future.”²² In the end, three-fourths of the Republicans in the Utah legislature supported the bill.

The 2018 law funded a University of Utah project to devise a climate roadmap for the state. The roadmap sets out an ambitious goal of reducing carbon emissions by half in a decade, focusing energy-efficient buildings and reduced transportation emissions. It recommends expanding Utah’s network of charging stations and incentivizing electric vehicles in cooperation with new car dealers.²³ It appears that the legislature has taken the roadmap seriously. As one state legislator said, “There are still a number of Utah legislators who don’t want to look at the science that’s very obvious on climate change, but we’ve come a long way.”²⁴

This episode is telling because it shows that young activists can make a real difference even in an unpromising political environment. It also shows that youthful activism is not limited to areas with progressive politics, big cities, or the U.S. coasts.

20. Jack Greene, *supra* note 18.

21. *Id.*

22. Judy Fahys, *Climate Change Resolution Scales First Hurdle; Next One, A Full House Vote*, KUER 90.1, NPR UTAH (Feb. 15, 2018), <https://www.kuer.org/post/climate-change-resolution-scales-first-hurdle-next-one-full-house-vote#stream/0>.

23. Andrea Smardon, *Red-State Utah Embraces Plan to Tackle Climate Crisis in Surprising Shift*, THE GUARDIAN (Feb. 19, 2020), <https://www.theguardian.com/environment/2020/feb/19/utah-republicans-climate-crisis-plan>.

24. *Id.*

We can consider this trend to continue and grow, given that the factors driving Millennials and Generation Z toward climate action are only likely to intensify.

IV. GENERATIONS FURTHER DOWN THE ROAD

Cassandra — our hypothetical California 20-year-old of today — will live to see climate change become much more serious. Without very stringent emission cuts, her children will see climate change become more serious still. Absent those cuts, the harms will continue to multiply into succeeding centuries. So let us fast forward to Cassandra's descendants in 2150. That time would be about as far away from us today as we are from the Civil War. But carbon emitted by powerplants and cars today will still be in the atmosphere then. If today is Generation Z, the children born then will be something like Generation Theta if we start with Greek letters the way forecasters do with the names of hurricanes.

Members of Generation Z may rightfully feel that they have been saddled with the climate problem by earlier generations. But they at least have a voice today to try to solve the problem. Generation Theta will still be feeling the impact of climate change even if all emissions ended the century before they were born. They are truly voiceless, with no ability to participate in today's public square, in legislature, or courts. Any impulse they have toward activism will come far too late to make a difference, many decades after the path of climate change has been set by the emissions of our own lifetimes.

It is worth thinking about ways of ensuring that these future voices are heard in our deliberations over climate change today. Of course, in the absence of time travel, there is no way they themselves can speak to us today. But others may be tasked with speaking for them. There is precedent in other countries for giving standing to future generations in environmental cases.²⁵ In the United States, however, this idea is well outside current law.²⁶

Yet it is not unheard-of for American courts to hear arguments made on behalf of future claimants. One possible analogy can be found in trust and estate litigation, where there is clear precedent for representing the interests of people who have not been born yet.²⁷ In California, this procedure is a matter of statute. Section 373.5 of the Civil Procedure Code provides:

If . . . a person or persons of a designated class who are not ascertained or who are not in being, or a person or persons who are unknown, may be or may become legally or equitably interested in any property, real or personal, the court in which any action . . . affecting the property is pending, may . . . appoint a suitable

25. See Ian R. Curry, *Establishing Climate Change Standing: A New Approach*, 36 PACE ENVTL. L. REV. 297, 322 (2019).

26. One possible approach would be for states to represent the interests of their future citizens. See Bradford C. Mank, *Standing and Future Generations: Does Massachusetts v. EPA Open Standing for Generations to Come?* 34 COLUM. J. ENVTL. L. 1, 77 (2009).

27. There has been discussion of using the property doctrine of waste as a basis for climate litigation, on a similar basis. For an overview of the debate on this issue, see Samuel Niuro, *An Injury to the Inheritance: Locating an Affirmative Obligation to Climate Adaptation in the Law of Waste*, 52 COLUM. J.L. & SOC. PROBS. 653, 672-74 (2019).

person to appear and act therein as guardian ad litem of the person or persons not ascertained, not in being, or who are unknown.²⁸

This provision is used only when there is a conflict of interest between existing beneficiaries and future ones. Although I have cited the California provision, my understanding is that similar procedures are common elsewhere.

Provisions of this kind could conceivably be used outside the domain of trust or estate law, given the breadth of the statutory language. There does seem to be a conflict of interest in the case of climate policy, where the stake of future generations is much larger than the current generation. For that reason, later generations would prefer that we have made a larger investment in emissions reductions than we would prefer to make left to our own devices. Thus, their interests may not be fully represented by existing generations. Moreover, these future individuals could be considered to have a contingent interest in property that is affected by disputes over climate change, meeting the other requirement of the statute. Given the interest of future generations in coastal lands that may be destroyed by future climate change or in water rights that could be rendered worthless by climate change, the statute could be used to ensure their representation in relevant litigation. Or perhaps the public trust could be considered sufficiently analogous to a conventional trust to support use of this technique, allowing claims under public interest doctrine to be brought on behalf of future generations.

Although it should not be ruled out completely, using section 373.5 as a basis for standing may be a bit too much of a stretch for courts. More importantly, however, statutes of this kind show that there is a legitimate pedigree in U.S. law for the concept of legal representation for future generations. There are other ways to bring climate suits without relying on future generations as plaintiffs.²⁹ Thus, the technical issue of standing is not necessarily the crucial issue here. Rather, what is important is giving voice to the members of future generations in proceedings. This could be done by appointing a guardian to represent their interests once litigation has been brought by parties with standing. Laws like section 373.5 provide ample precedent for that approach. Perhaps the presence of such guardians will not make a tangible difference to the outcome of future generations, but they will help frame the issues and emphasize the very long-term implications of today's rulings on climate change.

Taking another step, it might be useful to form a non-profit with the mission of advocating for future generations in the political arena. Moreover, a special government office could be appointed to represent the interests of future generations in government proceedings, much as the Small Business Administration has an office that advocates for the interests of that group. While steps like these would be unlikely to have a transformative effect on debates over climate policy, they would ensure that an important perspective is represented, from a group that has no way of representing itself. And if nothing else, they would be an act of respect toward the billions of people in the future who are yet unborn, but whose lives will be intimately shaped by the decisions we make today. Climate activists today are keenly aware of the impact of climate change on future generations. But the claims of those

28. Cal. Civ. Proc. Code § 373.5 (2019).

29. See, e.g., *Massachusetts v. Environmental Protection Agency*, 549 U.S. 497 (2007).

generations might be heard more clearly if they had advocates dedicated solely to advancing their interests.

These efforts to give voice to future generations may strike some readers as unrealistic. It is purely speculative whether anything along those lines will happen. What is not speculative is the importance of generational change to how climate policy has made. From the often-resistant Baby Boomers, to the more activist Millennials and Generation Z, the change of generations will be a key driver of the politics and law of climate change. A famous theoretical physicist once said that physics makes progress one funeral at a time. We need not be that dire in our outlook to recognize that much of our planet's future will depend on the actions of today's young people.

