TRANSCRIPT
Environmental Insights Episode #2, 2026
Guest: Matthew Kahn
Record Date: April 14, 2026
Posting Date: April 22, 2026

LINK to podcast: https://on.soundcloud.com/II05ZnaREU6LnmCVKG

Matthew Kahn:

I think at a very early age, I was thinking some maybe deep thoughts of what is the good life. At least for me and for many others, it's not just how much money you make of what is quality of life, good mental health, feeling strong, and the fundamental role of clean air and clean water in having a great day. And so, this commonsense observation has actually been the bedrock of much of my research.

Rob Stavins:

Welcome to Environmental Insights, a podcast from the Harvard Environmental Economics Program. I'm your host, Rob Stavins, a professor here at the Harvard Kennedy School and director of the program. I've had the pleasure of including in these podcast conversations over the past five years a significant number of truly outstanding economists who have carried out important work that's relevant for environmental, energy, and resource policy. And today is certainly no exception because I'm joined by Professor Matthew Kahn, Provost Professor of Economics at the University of Southern California, and one of the world's leading authorities on the intersection of urban economics, environment, and climate change. Welcome, Matt.

Matthew Kahn:

Thank you, Rob.

Robert Stavins:

Now, before we talk about your research and its relevance for public policy, our listeners tell me they're always interested to hear at the outset for you to go back to how you came to be where you are. So where did you grow up?

Matthew Kahn:

Rob, I grew up in New York City in the early 1970s. My father was a professor at NYU Medical School, and my mom was a lawyer. And in the early 1970s, New York City was in tough times. And that may have played a role in shaping me that this was a polluted, gritty, grimy city that doesn't resemble New York City today.

Robert Stavins:

Indeed, indeed. So, primary school and high school were both in the city?

Matthew Kahn:

So, in the early 1970s, I was getting beat up at the public schools and we moved out to Scarsdale, a greener public school in a very high-quality school district.

Robert Stavins:

Oh, wonderful. Okay. And then college, you went to Hamilton College, is that right?

Matthew Kahn:

Yes. I had a wonderful liberal arts training at Hamilton College, but as a junior, I went to the London School of Economics, and that was an eyeopener to see another city, but also to meet terrific economists who were better than me and really brought me into the big leagues that I really started to study then.

Robert Stavins:

So, my son went to London for a semester during his college experience, but for him, the only significant part, at least that he talked about, was the fact that the drinking age was lower in the UK than in the United States.

Matthew Kahn:

I vividly remember that. And the tube stopped at 11 PM, so the drinking had to end early.

Robert Stavins:

Right, right. And now you received a graduate certificate in economic history, is that right?

Matthew Kahn:

Yes. And I'm married to Dora Costa, the UCLA economic historian. So, that may have planted the seeds for my love of economic history. And Rob, am I right that you made early contributions to economic history?

Robert Stavins:

Yes, I did. Very early just because of two courses that I took in the PhD program. So, you then went on, did you go on immediately to PhD program at Chicago?

Matthew Kahn:

Yes, I did. And Ed Glaeser of Harvard Econ was my classmate. And George Tolley taught environmental and urban economics and Sherwin Rosen also. And so, these two scholars along with Gary Becker and Jim Heckman played a key role in getting me interested in urban and environmental issues and public policy issues.

Robert Stavins:

Interesting. So, what was your dissertation topic and who was on your committee?

Matthew Kahn:

So, my chair was Sherwin Rosen. My committee was Gary Becker and Robert Willis. My thesis was a three-essay thesis. I explored using hedonic real estate analysis, real estate prices. I studied the determinants of quality of life and environmental factors played a key role there. And I also did some work on the unintended and intended consequences of regulation related to the Clean Air Act, of cleaning up our vehicle stock and also of industry, dirty industry being more likely to locate in places where the Environmental Protection Agency was not monitoring air pollution or in areas that were in attainment and with the Clean Air Act and thus faced less regulation.

Robert Stavins:

So that's fascinating. And at least from my perspective, knowing the forest rather than the trees of your remarkable career, is that seems like the ideal foundation for so much of what you have done and studied and accomplished since then.

Matthew Kahn:

Thank you, Rob. Sorry. Say what you want about me, but I'm a consistent thinker.

Robert Stavins:

So, you graduate from Chicago, I think in 1993.

Matthew Kahn:

Yes.

Robert Stavins:

And then was your first position at Columbia University?

Matthew Kahn:

Yes. This was a great time to be in New York City. So, Dora was at MIT. I faced a co-location problem, and Dora and I wrote a well-known paper on that that I could talk about in a moment. Columbia was very exciting at that time to get to know Jeff Heal, to get to know Jogdish Bhagwati, and to pursue my agenda on urban and environmental issues, to get to know Vern Henderson of Brown University. So, it was a very exciting time to think about the fundamental role that the environment plays in determining whether a city has great quality of life.

Robert Stavins:

And then from Columbia, you went to Tufts and then UCLA, all before USC. Do I have that correct?

Matthew Kahn:

That is correct. So, Dora and I wrote our power couples paper that big cities solved the co-location problem. And Rob, as you know, so many academic couples have a co-location problem.

Robert Stavins:

Oh, you can say that again.

Matthew Kahn:

And Boston solved our co-location problem. Dora's from a California family, and we always had the desire to go west. And so, in 2006, Dora and I moved to UCLA, and I had a wonderful nine years there. My tenure was at the Institute of the Environment, and something that will interest your readers and listeners. UCLA is terrific, but I was sort of the lone free market environmentalist. And so, this was a classic Julian Simon versus Paul Ehrlich debate. So, Rob, in previous podcasts, have you and your guests discussed these debates that I, on the Julian Simon side, many of the ecologists at UCLA, we actively debated free market environmentalism. And eventually I moved to USC, which is a place more aligned with my worldview.

Robert Stavins:

I see. Interesting. So, I think such issues have come up in the past. John Holdren was on this podcast years ago and John Holdren was sort of part of that, the Ehrlich-Simon debate and there was a bet. Wasn't there a wager?

Matthew Kahn:

Yes.

Robert Stavins:

Yeah, that took place. So, we did hear about it a bit. Now, so it sounds like what drew you to environmental and urban economics were your geographic locations, observations, and your academic mentors, or am I missing?

Matthew Kahn:

No, you're absolutely right. I think at a very early age, I was thinking some maybe deep thoughts of what is the good life, and that at least for me and for many others, it's not just how much money you make of what is quality of life. And this has been relevant for my China work also – of the importance of raising happy, healthy children, good mental health, feeling strong, and the fundamental role of clean air and clean water in having a great day. And so, this commonsense observation has actually been the bedrock of much of my research. So, if we demand these things, why don't we all have these things?

Robert Stavins:

Yeah. Yeah. Yeah. So that question, if we demand these things, why don't we have them? That leads me to turn to thinking about global climate change with you because climate change is obviously a global commons problem. So, to some degree, international cooperation is likely required. And we would think that the most effective policies are going to be at the national level with perhaps the exception of the European Union. So, is there a meaningful, and for that matter, economically sensible role for cities, not just in implementation, but in terms of public policies?

Matthew Kahn:

So, one of the things that excited me about moving to California, and I'm going to answer this at the state level, was California's AB32, of California as the guinea pig. So, Rob, in earlier podcasts, have you discussed AB32 with previous guests?

Robert Stavins:

We have because Mary Nichols was my guest, and so we had quite a talk about it.

Matthew Kahn:

So, she hired me at UCLA's Institute of the Environment, but after a year, Governor Arnold Schwarzenegger said, “Come to Sacramento.” That was my imitation. And so, I was very eager to learn from Mary Nichols, a world-famous environmental lawyer about the implementation of policy. But she then moved to be the chair of the Air Resources Board and to implement their cap-and-trade.

So, Rob, California often gets mocked in the *Wall Street Journal* for piloting policies, but I've argued that I'm proud that California has enacted things such as the cap-and-trade because this offers valuable guinea pig lessons that a Texas and other states can adopt if they prove to be cost effective. Now there have been other policies like California's bullet train that I'm not so sure that I was a supporter even back in 2008. So, it's been exciting to be part of California's laboratory of the democracy. I want to believe that economists have played an important role in designing state policy, but that's open to debate here.

Robert Stavins:

Well, the one way in which I can say, because of personal experience they have, so I've known Mary Nichols for probably 30 years from back when she was at the Natural Resource Defense Council, before academia, before state government, before federal government, before state government again. And on the development of AB32 and the cap-and-trade system, I worked quite closely with her and with an advisory committee that she had set up. As environmental advocacy sector lawyers go, she is one of the most economically astute, and she was not even at the Environmental Defense Fund where you take it for granted. She is very economically astute.

Matthew Kahn:

So, I agree with you. As you know, because I think that you and Larry Goulder did some of the very important work here. It's very important, if I can use the fancy words general equilibrium, to think about when California enacts a policy, what's the policy response by polluting firms? If they get up and move to Texas, is the policy self-defeating or it doesn't achieve what it appears to achieve in terms of reducing California's emissions? So, Rob, do you have a bottom line on your research? I thought you did very important research on this topic.

Robert Stavins:

Bottom line on my research? Well, so my work in California, although there was some research aspects of it, but mainly it was working with the Air Resources Board, with the governor's office, Schwarzenegger at the time, and then also working with some people in the Assembly. So, sort of an intermediary between the analysts and the politicians. That's essentially what it was.

Matthew Kahn:

You asked a very important question before. Where I get excited about cities and states are these demonstration effects of…

Robert Stavins:

Ah ha.

Matthew Kahn:

So, on the mitigation side, the rise of electric vehicles in California, and do they achieve the carbon emissions reductions that are claimed or are there rebound effects that partially offset those? The very interesting work that if electric vehicles are powered with coal-fired power, that that can be worse for the environment than if they were internal combustion engine vehicles. So, I love this state and local guinea pig effect, but again, we both know that the global free rider issue requires a global treaty with credible incentives. So, in previous episodes, have you discussed Nordhaus' carbon clubs and other strategies…

Robert Stavins:

Oh yes

Matthew Kahn:

For incentivizing a harmonization of standards around the world?

Robert Stavins:

Yeah. So, we did it way back when. It may have been with Bill himself, sometimes with Scott Barrett, who's interested in that. And then most recently with Catherine Wolfram, who's leading a Harvard-MIT project on an open coalition of carbon pricing, which is essentially a carbon club, except it turns out the word club is politically incorrect in the United Nations. So, it's a coalition.

Matthew Kahn:

Rob, if I can confess to something here, the reason that I started to work on climate change adaptation and city adaptation by firms and workers was my pessimism that global greenhouse gas emissions can flatten. I have worried that we need, and I know you agree, that the rest of the world needs economic development. And I've worried that the carbon intensity of our economy won't decline sharp enough. And so, I have worried that global greenhouse gas emissions will continue to rise. And I love it that we're bending that curve, but this is the reason that I pivoted to urban climate change adaptation.

Robert Stavins:

So, that's well said. And I'm wondering then, Matt, are there any specific examples of individual cities who you would consider to have done a good job or trying to do a good job of balancing economic growth, I guess distributional equity, and environmental quality in an effective way?

Matthew Kahn:

So, this is an excellent question. In Los Angeles, I support and I was very glad to see that my Los Angeles appointed a Chief Heat Officer. And as I understand what she's been up to, poor people face the greatest challenges in adapting to environmental risks because of their lack of private resources. And so, in Los Angeles, on extremely hot days, opening up cooling centers and thinking about the last mile problem, Los Angeles has partnered with Uber and Lyft to give lifts to people to get them to these cooling centers. And so that's a very practical example of thinking in the midst of a heat wave crisis, whether it's in Phoenix or in Los Angeles, how do you help poor people to make the best of a very tough day while other privileged people like me in Westwood would turn on the air conditioning, turn on our air filter and don't go outside?

Robert Stavins:

There was a time, Matt, that you probably remember, I certainly do, at which the only people who would use what was then the dirty word, adaptation, were economists. And we were roundly condemned in international circles. But now adaptation has moved into mainstream within the Conferences of the Parties of the UNFCCC. It's a very different world now.

Matthew Kahn:

So, Rob, this will turn into a question, but on point. When I published my *Climateopolis* book, even my mother, my New York City mother had tough things to say, saying that, "Matthew, you believe you're engaging in magical thinking. And if you're at optimism about our collective ability to adapt to anticipated threats, if people believe that, that lulls them into not reducing emissions." And so, Rob, what I ran into in the popular media was a concern that if people have faith in our ability to adapt, that this great sort of a moral hazard effect that we're less willing to have a carbon tax now to reduce our emissions.

Robert Stavins:

Yeah. And the same argument was made, this is now going back even further, talking about carbon capture and storage. If we do too much with carbon capture and storage, well, that means that the coal-fired power plants can continue. Even assuming that carbon capture and storage is perfectly effective for the long-term. And then more recently, I suppose, the same argument has been made in opposition to thinking about geoengineering.

Matthew Kahn:

I agree with you. I have done a little bit of writing about geoengineering. And Rob, let's see if this interests you. Excellent scholars like David Keith at the University of Chicago have used estimates of how many people might die from future heat waves to justify the benefits of geoengineering. I, being a tough guy, have said because of adaptation progress, fewer people will face mortality risks from the heat, and so, these business-as-usual estimates overstate the benefits of geoengineering because they understate the upcoming adaptation.

Robert Stavins:

Yeah. And indeed, having worked in the IPCC as a lead author or what's called a coordinating lead author, running one part of it for, I guess, five rounds of the IPCC, I'm very aware of the fact that the business's usual trajectory in the various scenarios have themselves come down each five-year increment, not just the various emissions pathways with action that are involved. So, it looks a lot better than it did. I was just making a presentation here in an Executive Education program just five minutes before we started. And people often think that nothing has been accomplished on climate change, but actually quite a bit has. I don't think either of us think that it's enough, but quite a bit has been accomplished.

Matthew Kahn:

Agreed. And so, an interesting point there is this is a great time in environmental economics because so many young people are entering the field, but at the end of their academic papers, many of these ambitious scholars make predictions about the world in 2100 based on their statistical models today. And I've become the old, crazy uncle as I've said, "Guys, I love what you're doing in the meat of the paper, but this extrapolation is nuts."

Robert Stavins:

Yeah. Years ago, when I was junior faculty member here, so this would be, oh God, early 1990s, I guess. I was asked to go out to the Santa Fe Institute, and these were mainly physicists, to talk about the world in the year, I think it was 2050, maybe it was 2100, and to make predictions about that. And so, I used in my response letter, which actually said, "No, I won't be able to participate." I did mention that it reminded me of what is really a cliche of some people in the 19th century predicting what would be the great environmental threats and the conditions in the cities in the year 1950, and of course, buried in horse dung. Yeah. So, I think you're right. It's always a problem extrapolating outside of the realm of the sample.

Matthew Kahn:

And Rob, a point there. I point to your famous work with Richard Newell and Adam Jaffe on endogenous technological change and the response from our entrepreneurs such as Elon Musk of as the price of natural resources, whether it's electricity or oil, rises and signals scarcity, these entrepreneurs get to work due to the profit motive and your work highlighted during the 20th century, the efficiency progress that we can make when prices signal scarcity.

Robert Stavins:

Yeah. Well, and sometimes it's exogenous technological change. Think about CO_2 emissions in the US, which have come down, obviously not in the transportation sector, but in the electricity sector dramatically because of the combination of hydraulic fracturing and hydraulic drilling, and therefore change in the relative price of natural gas and coal. And that's been a great success story. That's not to say that exogenous technological change is sufficient, but in this one case, it sure has helped.

Now, thinking about the future, which we've been doing, how do you see some of these technological innovations, whether it's, I don't know, AI is obviously much thought about and talked about, but also smart electricity grids, EV infrastructure, which maybe is not a problem in California, but it sure is a problem in much of the United States. Do you see these as helping to reshape what you could call, I guess, urban sustainability?

Matthew Kahn:

This is a great question. Rob, I've been very excited about the rise of climate risk report cards. So, there are entities like First Street Foundation and Jupiter using AI and big data. We are having this risk competition to predict the wildfire risk, flood risk, heat risk, tornado risk for every location on the map. And while this is both an art and a science, and there's many unknowns here, what I love about this agenda and how it enables adaptation is what were unknown unknowns about risks… What's the probability that a part of Florida will flood five years from now? With these forecasts, these become known unknowns and begin to inform insurance decisions, mortgage underwriting decisions, hopefully zoning decisions of ... If we can identify geographic areas that face less heat and flood risk, I want to live in a world where we upzone in those areas and allow for taller buildings.

So, in your Cambridge, Massachusetts, too much of it is zoned for single family housing. The people around Harvard 30 years from now will be better able to adapt to climate change if they live at higher density. That would promote walking and public transit use. But if we also upzone in relatively safer places in terms of risks and heat, that would allow more people and more middle-class people to live in relatively safer places. So, it's this combination of better risk modeling and public policy that allows more people to live in relatively safer, low carbon areas.

Robert Stavins:

I was about to say you're channeling Ed Glaeser, except that you share training. You're in the same area, so I think you channel each other.

Matthew Kahn:

So, Rob, can I make a comment there? So, Ed and I wrote one environmental paper together, and this was a little bit of a bad boy paper. We argued that San Francisco is beautiful in part because of its God-given weather, but also it doesn't allow much housing to be built there. And so, for the fortunate people who can pay those rents, they can live there. But an unintended consequence of not allowing more people to live in this place is a deflection effect. The middle class get deflected to Phoenix and Las Vegas. And this actually increases their heat exposure and increases their carbon footprint relative to what their heat and what their emissions production would have been if we build more housing along the coast in Berkeley, Santa Monica, San Francisco.

Robert Stavins:

So, I wonder, in urban areas, is the problem of building codes that exist in the case of electricity generation, power plants in the US, does that appear? What I'm referring to are new source performance standards, which it turns out, research going back to Howard Gruenspecht's work when he was a PhD student under Bill Nordhaus at Yale. He was looking at automobiles, but how a new source performance standard, as we always have with automobiles, you don't have to retrofit, just the new models have to comply, that that could actually exacerbate pollution because you keep the older dirty vehicles on the road longer because the new ones are just beyond proportionally more costly. That's had an effect with coal-fired power plants. With homes, something that I see here, and I wonder if it's an effect in California, is that building codes result in home builders who really want to tear down a house and build a McMansion there.

Instead, what they do is in a very costly way, either they don't build at all, so you keep the old house there, which is probably not energy efficient, or in order to build a new one and to make sure that you don't face all of the building codes on energy efficiency and low full toilets and everything else, they keep somehow a bit of the frame of the house and build the new house around it.

Matthew Kahn:

Do you see that?

Matthew Kahn:

Yes, I do. And to tell a horrible story… So, the Los Angeles wildfire of 2025 in Altadena and the Palisades was terrible. I claim that the Gruenspecht effect that you just mentioned played a role there because I can imagine a counterfactual world where there would've been more new housing built, which would've been more fire resilient because of exogenous technological change. But because of that implicit tax on new capital, you had this old housing, which was Kindle for the fire that emerged.

Robert Stavins:

I see. Interesting. Very interesting. Well, finally, I want to ask you. You brought up before, talking about youth, and for the younger members of our audience, and I know we have quite a few around the world, what advice would you give to someone who is considering ... They haven't decided, but they're considering studying environmental economics.

Matthew Kahn:

What I love about our field is that we attract passionate young people, and I think that in the developing world, there are so many interesting questions to work on. It's no accident that we're seeing so much talent right now in our field working on cities and development issues related to the environment and the developing world. And so, it's always ... Even with machine learning and AI, it's going to continue to be important to be versatile in methodological training. I think that I have had an edge is my curiosity and that I see connections that perhaps other scholars don't see because I read widely. So, I'd say to young people, read widely, read *The Economist* magazine, read *The Financial Times* while you're reading and doing your methodological work. Economics does have a core methodology, but to read widely because this sort of serendipity of knowledge, it's sort of exciting when an idea comes to you when you don't expect it.

Robert Stavins:

That's really well said. And I want to pick up on one thing you mentioned earlier that I had neglected, and that was the name of Larry Goulder. When I was talking about the development of AB32 and the cap-and-trade system within it through the market advisory committee, Larry Goulder played an extremely important role in that. And in fact, he has been a previous guest on this podcast. So, my fault that I didn't mention him and thank you, Matt, for having mentioned his name.

Matthew Kahn:

So, Larry was one of my mentors at Stanford in 2003. And Rob, am I right that he, on top of his incredible economic skills, is formally trained in music. So, this is an example of an interdisciplinary model mind.

Robert Stavins:

Yes, he trained in Paris with Nadia Boulanger, so he's quite a pianist and musician. Absolutely. So, listen, thank you very much, Matt, for taking time to join us today.

Matthew Kahn:

Thank you. This was a lot of fun.

Robert Stavins:

So, my guest today has been Matthew Kahn. He's the Provost Professor of Economics at the University of Southern California. I hope you will all join us again for the next episode of Environmental Insights: Conversations on Policy and Practice from the Harvard Environmental Economics Program. I'm your host, Rob Stavins. Thanks for listening.

Announcer:

Environmental Insights is a production of the Harvard Environmental Economics Program. For more information on our research, events, and programming, visit our website, heep.hks.harvard.edu.