

# **TRANSCRIPT**

**Environmental Insights Episode #5, 2025** 

**Guest:** Anna Russo

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## **Anna Russo:**

When I was an undergrad, when I was a pre-doc, when I was in early graduate school, I actually wasn't interested in environmental economics per se. I was interested in economics, and I was interested in learning more about various domains to apply the tools of research. And when I came to this realization of the richness of this area of study, there's kind of no going back.

#### **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 outstanding economists who have not only carried out important research in the environmental, energy, and resource sphere, but who also in many cases have served in important government positions. Now, that's inevitably brought with it the reality that many of the people I've spoken with have been senior leaders in the profession with the emphasis on the word senior. So, today I am very delighted to break that mold with someone who is a young rising star in the world of environmental economics – my Harvard colleague, Anna Russo, who is a junior fellow with the Harvard Society of Fellows and will join Harvard's Department of Economics as an assistant professor in July of 2026. Welcome Anna.

# Anna Russo:

Thank you. So happy to be here, Rob.

## **Rob Stavins:**

So, before we talk about your research and perhaps your thinking about some policy issues, let's go back to how you came to be where you are. So where did you grow up?

## **Anna Russo:**

I grew up just about 20 minutes from Harvard in Brookline. So didn't go far.

# **Rob Stavins:**

So, did that mean you went to primary and high school in Brookline or was it elsewhere?

## **Anna Russo:**

Yes, in Brookline. Brookline Public schools all the way.

### **Rob Stavins:**

All the way. Okay, excellent schools, excellent schools that drive up the real estate prices in Brookline actually. So, then you, after high school, you went off to college. Where was that and what did you study?

#### Anna Russo:

That was at Yale. I did actually leave the state of Massachusetts and go to Connecticut, and I was a double major in applied math and economics.

## **Rob Stavins:**

You graduated summa cum laude in 2017. Do I have the year correct?

### Anna Russo:

Yes.

## **Rob Stavins:**

So, what was your first job out of college?

## **Anna Russo:**

My first job was working for Amy Finkelstein as a predoctoral research assistant. When I was an undergrad I ruled out a lot of things in terms of what I wanted to do with my life, but I hadn't really ruled in anything yet. And so, I thought it was a good opportunity to do a trial period of research and learn from someone incredibly smart about how research is done to see if it was something that I wanted to do. And in the end it was.

## **Rob Stavins:**

Apparently it did appeal to you because then you applied to PhD programs in economics and matriculated at MIT.

## **Anna Russo:**

Yes

# **Rob Stavins:**

And tell me then, what was your topic in your dissertation or your topics and who served on your committee?

# Anna Russo:

So, my dissertation was formally titled Three Essays in Empirical Market Design. It was broad and my dissertation was broad, and my dissertation committee was broad. So, my two co-primary advisors were Amy Finkelstein and Nikhil Agarwal. And the rest of my committee included Ben Olken and Parag Pathak.

## **Rob Stavins:**

A stellar committee. So, your first position then you graduate in MIT 2024 with PhD in economics. What did you do next?

## **Anna Russo:**

Yes, so I did next, and it's what I'm still doing right now is a postdoc with the Harvard Society of Fellows, which is a very unusual and honestly amazing postdoctoral fellowship that I feel so lucky to have been given the opportunity to do. Basically for most people, it's a three-year postdoc. I have a little bit of a hybrid situation because I deferred an assistant professor position here and I'm doing about two years of postdoc and it's across all disciplines. So, I'm the only economist in my cohort of 12. And so, I get to learn from English people, art historians, scientists. It's really a lot of fun.

### **Rob Stavins:**

Everyone at Harvard knows about the Society of Fellows and the position of being a junior fellow, but maybe most of our listeners probably don't know anything about it. So ,could you please, Anna, just say a few words, tell us about the Society of Fellows, the role of a junior fellow, and what life is like for you?

### **Anna Russo:**

Sure. So, in short, in one word, life is good. The Society of Fellows is an amazing postdoc that Harvard offers that provides kind of maximal freedom typically for three years to everyone in the Society of Fellows. And it's open to any field. And so that means that in my cohort of 12 junior fellows, I'm the only economist and actually I'm the only social scientist, so I'm interacting with humanists, scientists, and we're also interacting very frequently because we convene for meals on a regular basis throughout the semester. And so, it's a really nice time to both have lots and lots of free time to work on our research while also having an environment where we can both socialize and learn from our peers across a range of fields.

# **Rob Stavins:**

Now, it used to be that Monday dinners with senior fellows were something of a celebrated tradition. Has that continued?

## **Anna Russo:**

That has very much continued. So, we still have our Monday dinners with the senior fellows and the junior fellows all together. It's actually also part of the interview process. When you interview at the Society of Fellows, you not only have a kind of standard interview where you talk about your research, but you also go to the dinner.

## **Rob Stavins:**

And so they can check on your table manners.

# Anna Russo:

Exactly.

## **Rob Stavins:**

Yeah. But apparently you passed it all ways.

## **Anna Russo:**

Apparently.

### **Rob Stavins:**

Yeah. So, have there been any memorable conversations that you had at one of these dinners that were sort of surprising? You don't have to name names, or you could if you like.

## **Anna Russo:**

Well, so I had one dinner conversation that comes to mind, which is one where two of my committee members who I already mentioned, Amy and Ben, were actually also junior fellows. Actually three of my committee members were also junior fellows, but two of them are married and junior fellows. And so they came with me to dinner one night in February. And it's memorable because we got into a very fun and very heated debate about how we as economists think about the role for government intervention in markets and when and why we should distort or prevent distortions in unfettered markets versus what non-economists think that economists think, which is that we always think that free market is best and that we should never touch that.

## **Rob Stavins:**

Right, exactly. Something that I read, I think I read this, that you have described the research process, at least your research process as solving puzzles. Did you employ that metaphor? And if you did, why did you

### Anna Russo:

I think so. I mean that sounds right. I think it's like solving puzzles because at least for me, research is a very, very non-linear process. You don't solve a puzzle by finding the piece in the top left corner and then trying to circle around the puzzle to fill in the perimeter all the way until you spiral into the centerpiece. You're finding multiple pieces that are kind of slowly coming together into a smaller picture within the big picture. And only at the very end do you get this amazing, satisfying feeling of putting all of the different pieces together and figuring out what you've actually learned in the process. And for me, those pieces are typically either different components of empirical analysis, reduced form facts, summary statistics, components of the model. And it really for me takes all of them together to figure out what I really want to say in a paper.

# **Rob Stavins:**

That's great. I get the metaphor, but I will take note of the fact that my wife, who loves doing these multi-thousand piece jigsaw puzzles, she seems to always start, I've noticed, by doing the entire periphery.

# Anna Russo:

Oh, interesting.

# **Rob Stavins:**

Because those pieces are all flat on one side, and so they're easily separated out, but we can stick with the metaphor.

## **Anna Russo:**

But she doesn't spiral into the center.

### **Rob Stavins:**

No, no, that's true.

### **Anna Russo:**

Yeah, exactly. True. So, there's a well-defined starting point, but the mapping from beginning to end is unclear.

#### **Rob Stavins:**

Yes, exactly. Now your advisors at MIT, I also read somewhere else, emphasized your collaborative spirit and your generosity with junior scholars. Do you agree with their characterization of you?

## **Anna Russo:**

I mean, I've honored with their characterization of me. I hope to be like that. I think... I mean within graduate school I try to help out the younger students when I could. And one reason that I'm really excited to be at Harvard is all of the PhD students that I'll hopefully have the opportunity to work with over the next few years.

#### **Rob Stavins:**

And speaking of that... So, you list your research fields as environmental economics, public finance, industrial organization, and market design, which sort of covers at least everything except macroeconomics. That covers quite a bit. How is it that you came to identify those areas for your research focus?

## Anna Russo:

Yeah, that's a great question. So, as you can probably tell by the broadness of those fields, I think of myself as having a somewhat directed approach to research and set of questions that excite me. And then I tried to define the fields that touched on those research directions. And in fact, that was also sort of how it happened in the sense that in graduate school it was totally unclear what fields I had. I just was working on the research that I was interested in and then I sort of ex post applied those fields to myself. And the way that I found that direction also took a bunch of time. It came about from taking field courses and figuring out the classes of questions that got me excited, which are typically settings in which we think there's some kind of market that could provide a lot of value to society or to participants, but for some kind of nebulous, but probably pointing to some sort of market or policy failure reason, is not functioning well. So, that is exciting to me because I want to try to think about how I can fix it and taking a range of field courses from topics to methods like IO methods taught me how to apply a range of methods to try to figure out how to answer those questions.

# **Rob Stavins:**

Right. Now looking at that list of four fields, I'm thinking about your work with Karl Aspelund, who I knew when he was an undergraduate student at Harvard College. I believe in your work with him, you've combined auction bids data with something that seems very, very different, which is satellite

land use information in order to assess the impact of the conservation reserve program in the United States. Now, first of all, let's start with whether or not that's a fair characterization of your work.

# **Anna Russo:**

That is a very fair characterization. You got it exactly right.

## **Rob Stavins:**

And then what's the leverage you get from combining two such disparate sources of information?

## Anna Russo:

This is a very fun question for me because I'm still to this day, even years after getting this data, I'm still so happy that it worked out because it's so special and unusual. So, usually in most procurement contexts, you don't really think about or care about what a participant or a bidder would have done anyways, would have done absent the, absent the procurement context. For example, if I'm a local government and I'm thinking of procuring construction crew to build a road or a bridge, I'm not worried that that road or bridge is going to spontaneously get built without my purchasing it.

### **Rob Stavins:**

Right.

### Anna Russo:

But in environmental economics, this question of what would have happened anyways, or actually rather in public economics more generally when we're trying to incentivize someone to do something good, for example, conserve their land, we care deeply whether they would have conserved that land anyways, in which case the finances spent on that are potentially wasted or could have been used elsewhere. And so that's where linking the bids to the satellite data really come in handy because it allows me to learn about both individual participants' costs and behavior in this auction mechanism because bids reveal a lot about the amount that an individual participant would be willing to accept to participate in the conservation reserve program with the satellite data, which measures their behaviors on their land, both inside the program and outside the program.

## **Rob Stavins:**

And so, from combining those are there any striking insights or even surprises that have emerged for you from that work?

# **Anna Russo:**

Yes. So, the first surprise, and I think it's a surprise because maybe it is a surprise or maybe it's not a surprise because I don't know which way I was surprised, but I was surprised, which is that the first thing that I use this data for is in a regression discontinuity design, looking right around the winning score in this auction, what is the impact of participating in CRP?

Mm hmm.

# **Anna Russo:**

And I find that participating in the CRP causes participants to conserve their land more but at the same time, only about a quarter of participants are additional at this RD margin. And by additional, I mean the CRP contract fully induces them to change their conservation behavior. So, on the flip side, three quarters would've conserved anyways. So, why do I say I'm surprised? But I'm not sure in which direction I'm surprised. Well, it's that I actually think that both null hypotheses loom really large in this class of programs and class of questions. The first null hypothesis is there's no effect at all, which is in some ways compelling because people are voluntarily selecting into this market. And so, you would think that the people who voluntarily select in would be the ones who aren't planning on doing anything with their land, in which case you'd get kind of nothing across the distribution. The other compelling hypothesis is the hypothesis sort of held by the USDA, which is that everybody in this market is changing their conservation behavior, and that's actually how this auction is designed. So, from that perspective, 25 percent approximately additional participants is kind of a real problem for how they're organizing their auction.

### **Rob Stavins:**

So, then that takes me to the point of asking you what are the policy implications of this? Are there design tweaks that you would like to see made to the program to improve it?

# **Anna Russo:**

Yes. So, one thing that's nice about the CRP auction is that it's a scoring auction in the sense that each individual participant is already being scored based on both their bid and characteristics of their land, like its environmental sensitivity.

## **Rob Stavins:**

I see.

### **Anna Russo:**

And so, that's a nice design feature because it lends itself naturally to pretty straightforward tweaks, which is just about changing those scoring rule weights themselves. And actually, throughout this process, I've been very engaged with individuals at the USDA, and they've helped me learn about the program, get access to the data, and after I wrote the paper, I was discussing with them the possibility of potentially introducing changes in the CRP scoring design.

## **Rob Stavins:**

So, looking forward, as we said earlier, you're going to be transitioning to an assistant professorship in the Harvard Department of Economics in July of 2026. I imagine you've had opportunity to think about that. It sounds like you have been thinking about it perhaps in regard to courses, teaching philosophy, the research you're going to be doing. What can you share with us in terms of your thinking going forward?

# Anna Russo:

Yeah, so I guess I'll split that up into two main components, research and teaching. So, with research, I plan to keep doing what I'm doing in the sense of working on these sort of market design style questions. I've worked following the stream of the USDA paper thinking about conservation markets more globally and I also am generally very excited by questions related to climate change adaptation. And I think it's a sad truth, but the truth is that climate change is already really affecting how we live our

lives and imposing lots of risks, particularly related to natural disasters, and I'm interested in studying those further. And most of my research relates to these high-level questions or themes about information economics, imperfect information, and how participants engage in these environments with imperfect or asymmetric information.

## **Rob Stavins:**

And then with regard to teaching,

## **Anna Russo:**

With regard to teaching, I mean, I'm just generally very excited and I think I will learn as I go. What I'm thinking right now is I will teach one undergraduate course and one graduate course. My undergraduate course actually will be in social studies, which is a concentration at Harvard that is not economics and is rather a broader mix of social sciences and philosophy.

## **Rob Stavins:**

But it's a wonderful concentration.

### Anna Russo:

But it's a wonderful concentration. And one reason that I'm excited about that comes back to the Society of Fellows dinner conversation. And so one goal that I have for that class is through the lens of environmental economics, trying to teach people who might not necessarily think about environmental problems like an economist to start seeing the value of thinking about those problems with the tools and with the framework of an economist and with the tools to study empirical questions related to environmental economics.

## **Rob Stavins:**

I was going to say, maybe I'll clarify for the audience that at Harvard instead of referring to majors, there are concentrations and at Harvard, they're not dormitories, they're houses. And at Harvard, they're not course assistants, they're teaching fellows. We just like to use different language for some reason.

## **Anna Russo:**

I know I'm still catching on. I was actually pretty proud of myself for calling it a concentration and not a major just now. And then for graduate students, I'm hugely excited. I mean, I don't know if this has been discussed on the podcast historically. I think maybe when you interviewed Wolfram, you did discuss it, but Harvard and MIT have jointly introduced a PhD environmental economics sequence across the two schools and I am looking forward to fitting into that sequence, hopefully with my own spin on the syllabus and getting students excited about working on questions in environmental economics.

And one thing that I love about environmental economics is that what I'm hoping to do is bring in students who both come into the PhD for the reason of doing research on questions related to the environment and helping bring them to the frontier and write great dissertations. And then also for students who are potentially not necessarily exposed to or interested in topics related to environmental economics or policy, teaching them how, even if students are primarily labor students, public students, macro students, IO students, if environmental questions can be great application for their questions and tools.

## **Rob Stavins:**

That's great. Since you mentioned the joint PhD level environmental economics sequence, Harvard and MIT, maybe I'll just announce right now, I'm not sure if you know about this, Anna, but beginning in the spring semester 2026 coming up, the <u>Harvard Seminar on Environmental Economics and Policy</u>, which I chaired for 30 years or so with Marty Weitzman and five years or so with Jim Stock will become the joint Harvard MIT seminar in Environmental Economics and Policy. And the sessions will be held in alternate weeks in the two institutions as some other seminar series are.

### **Anna Russo:**

That'll be so fantastic.

## **Rob Stavins:**

It's a step certainly in the right direction. So, finally, for the younger members of our audience, although you're a young person yourself obviously, but for even younger people who are maybe, I don't know, maybe they're undergraduates early on, thinking about what their major might be or their concentration in college or maybe they're thinking about graduate school. If someone's considering studying environmental economics, is there some advice you would give to them?

# **Anna Russo:**

That's a good question.

## **Rob Stavins:**

How should they decide? How should one decide whether or not they want to pursue environmental economics?

## Anna Russo:

How should they decide? One initial reaction to that is my view is that if they think about the different trade-offs of environmental economics versus other fields, it's hard not to come to the conclusion that environmental economics deserves serious consideration. I mean, what other field offers the combination of a hugely pressing societal problem that is fundamentally linked to economic incentives that we have a decent understanding of how to potentially solve, but much is still left unresolved both from a theoretical and from an implementation standpoint. The data that's available to studying environmental economics questions is expanding dramatically due to satellite data and improvements in remote sensing. And so, the combination just presents an incredibly exciting avenue to ask questions at the intersection of policy and economics. So, maybe I'm copping out of the question because I'm just too excited about environmental economics, but the reason that I'm giving this answer is because when I was an undergrad, when I was a pre-doc, when I was in early graduate school, I actually wasn't interested in environmental economics per se. I was interested in economics, and I was interested in learning more about various domains to apply the tools of research. And when I came to this realization of the richness of this area of study, there's kind of no going back.

## **Rob Stavins:**

No, that's great. I find it particularly interesting because my route was sort of the opposite of yours. I was interested in environment and I was actually thinking of going the typical route at that time was going to law school to work on environment. But because of having studied physics as an

undergraduate, which I've since learned is not unusual among economists, I wanted to do something that was more quantitatively oriented. And so that's what took me from sort of general environmental studies, maybe environmental law, into environmental economics.

# **Anna Russo:**

That's awesome. And I think that that combination of those two types of people working in the field is also what makes it very fun. So, for example, Karl, my co-author that you mentioned, and that you know, I think of him as more in your camp.

# **Rob Stavins:**

Yes.

#### Anna Russo:

Environmental first, economist second. And so, our combination, I think, works really well because we have different knowledge bases and expertise and things that get us excited.

# **Rob Stavins:**

Yeah, that's excellent. Well, listen, thank you very much, Anna, for having taken time to join us today.

## Anna Russo:

Thank you for having me. It was so fun.

## **Rob Stavins:**

So, my guest today has been <u>Anna Russo</u>. She's a junior fellow in the <u>Harvard Society of Fellows</u>, and soon to be an assistant professor of economics at Harvard University. Please join us again for the next episode of <u>Environmental Insights: Conversations on Policy and Practice</u> from the <u>Harvard Environmental Economics Program</u>. I'm your host, <u>Rob Stavins</u>. Thanks for listening.

## **Announcer:**

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