

TRANSCRIPT

Environmental Insights

Guest: Kathleen Segerson

Record Date: May 22, 2023

Posting Date: June 1, 2023

LINK to podcast: <https://on.soundcloud.com/BzVPb>

Kathleen Segerson: Some approaches, or at least concerns that might have been bipartisan in the past have become quite polarized now, and that makes it very difficult to think about policy and how to move forward.

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 three years a significant number of leading environmental and resource economists, and today is no exception because I'm joined by [Kathleen Segerson](#), the Board of Trustees Distinguished Professor of Economics at the [University of Connecticut](#). Kathy is a member of the National Academy of Sciences and a fellow of the Association of Environmental and Resource Economists, as well as the Agricultural and Applied Economics Association and the Bayer Institute of Ecological Economics in Stockholm. In addition to having published a hundred articles or so in scholarly periodicals and a half dozen books, she's been an editor or co-editor of leading academic journals in her area, and she's also served on numerous state, national, and international advisory boards. Welcome, Kathy.

Kathleen Segerson: Thank you, Rob. It's a pleasure to be here, and I appreciate the invitation.

Rob Stavins: Before we talk about your research and your current thinking about environmental and resource policy, let's go back to how you came to be where you are. Where did you grow up?

Kathleen Segerson: I was born in a suburb of Chicago, and then my family moved to the west coast when I was about 10, so I pretty much grew up on the east coast in Connecticut.

Rob Stavins: Now I'm curious, what suburb of Chicago? Since I grew up in Chicago.

Kathleen Segerson: We lived in Villa Park.

Rob Stavins: I'm embarrassed to say, I don't know where Villa Park is. What direction would it be from downtown Chicago?

Kathleen Segerson: It would be West.

Rob Stavins: West. Okay.

Kathleen Segerson: Near Elmhurst.

Rob Stavins: Elmhurst, I vaguely remember. And then primary and high school for you were in Connecticut, is that right?

Kathleen Segerson: That's correct, yes.

Rob Stavins: And college, you didn't go terribly far away. You went up to Dartmouth?

Kathleen Segerson: I did go to Dartmouth. I was there in the 1970s, it was a time when Dartmouth had just gone co-ed. It's an interesting time to be at Dartmouth in those days.

Rob Stavins: Two questions. One is I want to know what your major was, but also what was it like to be apparently one of the first women students at Dartmouth College?

Kathleen Segerson: It was an interesting dynamic, to say the least. At that time, there were relatively few women on campus. I think the ratio was maybe 10 to one or so at the time. It was a time when women were just getting established there. And of course today it's quite different. The balance is quite different, and there's now a female president at Dartmouth. Women have come a long way obviously in that institution as well as more generally.

Rob Stavins: And what did you major in at Dartmouth?

Kathleen Segerson: I was an undergraduate math major. Interestingly, I took absolutely no economics as an undergraduate, and I was totally focused on math and abstract math and very different from what I do today in some sense, but in other ways very much related to what I do today.

Rob Stavins: What you're mentioning is actually been a theme with many of the people that I've had conversations with in this podcast series from academia, and I'm talking about academic economists, namely, they did not study economics as an undergraduate. That, by the way, includes me. And rather they studied things such as mathematics and physics. You're well positioned among that group.

Kathleen Segerson: I did find that having a math background was very helpful when I did make the change, did make the switch over to economics. I do think that for people who are considering environmental economics as a profession, having a math background is an extremely valuable thing and perhaps even more valuable than having an undergraduate econ major.

Rob Stavins: Now, did you go directly from Dartmouth to Cornell for your PhD degree?

Kathleen Segerson: I did not. I spent almost two years actually working at the federal government. As I said, I did not take any undergraduate economics courses, but I had the

pleasure, the good fortune, which changed my life in some sense of meeting Dennis and Donella Meadows of “Limits to Growth” fame back in those days. And as a result of that, I was able to get a position working down for the Congress for John Dingell, who was the chair of the subcommittee on Energy and Power of the Commerce Committee back in the 1970s when the key issue was the [National Energy Act](#). It was very timely, and I spent a couple of years there before going back to graduate school.

Rob Stavins: It's interesting that you worked for the Meadows of “Limits to Growth” fame, as you said, because to some degree, one of the things which actually stimulated quite a few economists to turn their intention to environment and resources, which they hadn't previously, was really to respond to the “Limits to Growth” book because many economists had problems with it.

Kathleen Segerson: That's right. There were a lot of criticisms of the assumptions that were built into some of the models that they were using, but for me, it was more about just asking the questions. What were the questions that they were asking and thinking about how to blend analytical methods with environmental questions. And for me, that was very instrumental in terms of getting me thinking about that as a possible career path.

Rob Stavins: After that couple of years, you went on to Cornell to do your PhD, was that in economics or was that what used to be called the agricultural economics department?

Kathleen Segerson: It was in the agricultural economics department. Actually when I went to Cornell, I didn't go there with the intention of going to graduate school. My husband was going up there and I was looking for a job, but I was put in touch with one of the faculty members in the ag-econ department. Actually at that point, I didn't even know there was such a thing as environmental or agricultural economics, but he introduced me to the field and told me that I could become a graduate student, and in that program I could blend my mathematical background with my interest in environmental issues. And I did. And that launched me on that part of my graduate studies at Cornell, first in a master's program, not immediately in a PhD program, but then I stayed on and did the PhD there as well.

Rob Stavins: You got there in 1979?

Kathleen Segerson: Yes.

Rob Stavins: That's interesting. I don't know if we've talked about this before, but I did a master's degree in agricultural economics in that same department, and before I went on for PhD here at Harvard, and I believe, best of my recollection that I received the master's degree in 1979.

Kathleen Segerson: We may have just missed each other there then.

Rob Stavins: You enrolled in September of that year, is that right?

Kathleen Segerson: That's right.

Rob Stavins: And I probably graduated in May or June of the same year. How interesting. What was your dissertation topic and your dissertation chair, committee or advisor, whatever?

Kathleen Segerson: I was actually a student of Tim Mount.

Rob Stavins: Of course,

Kathleen Segerson: Who was more of an energy economist than an environmental economist.

Rob Stavins: An excellent econometrician.

Kathleen Segerson: Yes, very much so. And Duane Chapman, you recall Duane Chapman from your days there?

Rob Stavins: Of course.

Kathleen Segerson: Duane was actually the one who got me into the program and got me to think about that as a possible field. For my dissertation, I worked on trans-boundary pollution, thinking about the relationship between the emissions that were happening in Canada and what was happening in the U.S. and the impact of that on trade. It was really about trans boundary pollution and trade. I did a large, you would call it a computable general equilibrium model, although back in the day I was working on that, I don't think it was as sophisticated certainly as the ones that we have today. But that was the general topic of my dissertation.

Rob Stavins: So, I certainly knew Tim Mount and I worked with him a bit. My committee chair just for the master's degree was Ken Robinson.

Kathleen Segerson: Oh, yes.

Rob Stavins: Who we've sadly lost many years back. I think that Duane Chapman has also sadly passed away. Isn't that right?

Kathleen Segerson: That is correct.

Rob Stavins: But Tim Mount is very much with us.

Kathleen Segerson: He's retired, of course, but he's still, I believe, active to some extent in the department and in the profession. Works very closely or did work very closely with a lot of the utilities in New York state.

Rob Stavins: Yes. So, you graduated in 1984 with a PhD from Cornell. What was your first position out of graduate school?

Kathleen Segerson: My first position was in the, what was called the ag-econ department at that time at the University of Wisconsin. I was recruited, if you will, by Dan Bromley, who is of course a well-known environmental economist who works more on property rights and institutional issues. But he was instrumental in getting me to the University of Wisconsin. I spent a relatively short time there only about two years because for personal reasons, I wanted to be back on the East Coast. So, I made the move from the ag-econ department at the University of Wisconsin to the economics department at the University of Connecticut.

Rob Stavins: Now, tell us about that. The culture must have been somewhat different. I don't mean Wisconsin versus Connecticut, although that also, but rather going from an ag-econ department to an economics department. Can you say something about that experience?

Kathleen Segerson: It was quite a change, particularly I'm sure as you know, Rob, back in those days, there was much more of a separation, I think, between ag-econ and economics. Ag-econ, the training was very much on the micro side, of course, and in the economics departments, they didn't really know much about people who had been trained in agricultural economics, but many of the people who worked on environmental issues were coming out of ag-econ departments in those days. That's not true of course, today. Today it's very, very different. But there was of course a very applied emphasis in ag-econ, more so I would say than in economics, although of course I do a fair amount of theory. In that sense, I was a bit of an outlier within ag-econ, but it really is a much more focused in that time on applied work on policy and of course on agriculture initially and land types of issues more so than say air quality issues.

Rob Stavins: You joined the faculty in Connecticut in the department of economics as an assistant professor, and then through a series of promotions to your named chair today. And then somewhere along the line, isn't it right that you started up a joint appointment with the department of agricultural and resource economics at Connecticut?

Kathleen Segerson: I do have a courtesy appointment there I would describe it as more.

Rob Stavins: I see, okay.

Kathleen Segerson: They don't pay any of my salary, but what it does allow me to do is to serve as a major advisor for students in that department. And that has been very, very rewarding. I've had a couple of students come out of that department who were advisees of mine that having that appointment, that affiliate appointment over there allows for that. And unlike some universities, we have quite a close relationship between the two departments here at the University of Connecticut.

Rob Stavins: Let's turn to your work in the world of environmental and resource economics scholarship before we turn to policy. You already mentioned one change that's taken place over the years since you received your PhD degree in 1984, that's almost 40 years ago. So, you have seen some significant changes in this scholarly world, which I would love to hear your thoughts on whatever they are. And certainly one of them I want you to comment on is the role of women in the profession in graduate school on faculties, but anything else as well.

Kathleen Segerson: I think it's certainly notable, and I'm not the only person to note this, that there has been quite a shift within environmental economics from work that was very much theory-based back in the late 1970s, early 1980s, because there really were not good data sets to look at some of the questions that we were interested in empirically. And there really was a much more of a focus on theory than I think there is today. We've, of course, developed methods and data sets that have allowed for people to study questions in ways that simply wasn't possible back then. I've argued in other places that I think maybe we've gone a little too far in relying only on the empirical analysis these days. I'd like to see us swing the pendulum back just a little bit toward more theory. But I think that is a very noticeable change that we've seen in the profession.

And then of course, the other one I mentioned was bringing in people who trained in economics as opposed to coming out of ag-econ departments. People who are coming out of fields like I/O, public, even institutional or labor, or even macroeconomists who are using those other fields in economics to then look at environmental problems because they of course intersect with so many fields. That I think has been a real change. I've seen that. I've seen my health economist colleagues and my labor economist colleagues also working on environmental issues, coming at it, of course, from their lenses.

Rob Stavins: And what about women both in graduate school and on the faculty in various institutions?

Kathleen Segerson: I think that what I've experienced is something that is not uncommon, which is that there are a lot of women in graduate programs. That percentage of women in PhD programs is much higher than the percentage of female full professors. And we have seen that unfortunate loss of PhD academic women as we move up the ranks. And that, of course, is really unfortunate for a variety of reasons. I don't need to tell you that, but I've witnessed that as well. I never felt in graduate school, even though I came from Dartmouth where, as an undergraduate, women were certainly a minority in that day, but in graduate school, I didn't feel that. And the number of contributions that women have been making are just incredibly significant. I've been part of writing a couple of papers recently trying to highlight some of those contributions. And I think a lot of that is being recognized now, but we still have a lot of biases and I think subtle and implicit biases that affect women in the profession.

Rob Stavins: But I would think, now I don't have the data in front of me that among the various sub-fields of economics, one of the fields that has the largest share of

women faculty, possibly including at the tenured level, would be environmental and resource economics.

Kathleen Segerson: I believe that's true. Yes. So, I do think that we are a field where a lot more progress has been made and where there's much more representation by women, yes.

Rob Stavins: Let me ask you, again, looking back over these 40 years, you no doubt made a series of decisions as we all do in life, and I'm focusing on the professional decisions, not the personal and family decisions. And I'm wondering, as you look back on that... if you had to do over again, is there anything that you might have done a little differently and of course, that you're willing to share in what is a very public forum in this podcast?

Kathleen Segerson: I like the type of topics that I've worked on. I really like the methods that I've used, but if I had to do it over again, I would perhaps have developed better training in econometrics than I currently have. And I think that is something that's in some sense specific to someone who has been around for a long time, because now the training and econometrics of students is, of course, extremely good. I think that I feel as though maybe I missed out on that a little bit, not through any fault of anybody's, but just because of the time during which I was essentially having my training, my early career. I didn't put as much emphasis on that as perhaps I should have.

Rob Stavins: But that's also because you chose to start out really focusing on theory, no?

Kathleen Segerson: That is true. But I think I could have pivoted.

Rob Stavins: I see.

Kathleen Segerson: I'm not saying I would've wanted to have pivoted, but I could have pivoted a bit more as the profession pivoted to be more empirical. I could have followed that. I didn't. I don't know if I regret that, but it's certainly something that might have changed the type of work that I do.

Rob Stavins: Now before we turn to the policy world, I want to ask you just a bit more about your research and writing. I know this is like asking you to identify your favorite child, but if there's one research publication that you would hold up as the one that you're most proud of, what would it be?

Kathleen Segerson: This is probably not the answer you might have expected, but I recently published [a review paper](#) in the *Annual Review of Resource Economics* that synthesizes work on collective approaches. And the reason that I really like this paper personally is because it brings together issues that I've been interested in for the past 40 years.

Rob Stavins: I see.

Kathleen Segerson: Stretching all the way back to work I did on agricultural non-point pollution way back in the 1980s and then moving on from that to some work I've done on joint and several liability, work on voluntary approaches, work on payments for ecosystem services, work on fisheries. In doing all of that work, I didn't realize it at the time, but there's actually a common structure to many of those problems that I tried to pull out in some of this recent work that synthesizes some of those approaches. For me, I really enjoy seeing the common threads across different, what seem to be quite disparate contexts. And in that paper, I was able to do that, in some sense for my own benefit as much as anybody else.

Rob Stavins: Sure. Turning to current times, Kathy, in regard to environmental and resource policy, what are some of your greatest concerns? That could either be in terms of naming policy issues or in terms of areas that you're particularly interested in following yourself?

Kathleen Segerson: I think, of course, we have all types of problems that everyone is well aware of, and for which we don't really have good solutions right now. And of course, the climate area is one that you've worked extensively on and know the challenges there. I think that it is really quite concerning how polarized we are now in this country, at least, on some of these issues. Some approaches, or at least concerns that might have been bipartisan in the past have become quite polarized now and that makes it very difficult to think about policy and how to move forward.

One of the things that we've done, of course, recently is to enact the [Inflation Reduction Act](#) which includes a lot of climate measures. Many of those are subsidy based. And as you know, economists wouldn't typically be looking to subsidies as the ideal policy instrument to use to try to foster transformational change. Where that goes? I don't know. That, I think is a concern because it sets a precedent for policy. It obviously has large budgetary implications. We'll see whether those subsidies can be effectively phased out if and when no longer needed. Let's hope they're no longer needed at some point, that they've been sufficiently successful, that they aren't needed in the future. But that's an area where I think it's really potentially quite concerning, and we'll see how effective those policies will be going forward.

Rob Stavins: I recently saw an estimate of the implicit marginal abatement cost per unit of CO₂ of the various subsidies in the Inflation Reduction Act, and then compared that to the level of a carbon tax, for example, a carbon pricing mechanism that would achieve the same aggregate abatement cost and the ratio was close to an order of magnitude. It was close to ten to one. It's very costly to use these subsidies, which is what you were suggesting.

So, I'd like to know your reaction to something that has been striking, at least to me, it's been striking over the last few years, and that's increasing attention in both the policy world and the scholarly world of environmental resource economics to what's often labeled environmental justice or just transition

frequently in the case of climate change policy, but not exclusively. I'd like to know what's your reaction to that increased degree of attention?

Kathleen Segerson: I think it is certainly warranted. The challenge, of course, is what to do about it. I am currently serving on a committee for the National Academy of Sciences that is charged with helping the CEQ in the development of their CEJST tool, which is, I believe CEJST stands for Climate Economic Justice Tool. And it's designed to help the administration implement the [Justice40 Initiative](#) which, as you know probably, seeks to ensure that a certain amount of investment goes to communities that are identified as disadvantaged in some way. The tricky part, the challenge is identifying those communities. Which communities should be considered eligible for helping to meet the Justice40 goals? How do you define that? How do you measure it? Of course, the challenges are very different across different communities. So, how do you compare, calculate cumulative burdens? There are a lot of, I think, challenges associated with implementing policies to try to address the environmental justice concerns that are out there, and obviously very legitimate and need to be addressed.

Rob Stavins: And as I'm sure the recently proposed changes to Circular A-4 of the Office of Information Regulatory Affairs, OIRA, at the Office of Management and Budget, which would be the first changes since 2003 in essentially the guidelines for carrying out benefit cost analysis in the proposals where a set of means of doing a better job of measuring for purposes of RIAs distributional impacts.

Kathleen Segerson: And that's the first step, of course, is being able to measure the disparities.

Rob Stavins: Now, I want to ask you finally, your reaction to one other change that we've seen recently, and it's less in the analytical world and more in the rest of the universe, and that's the youth movements of climate activism. They're most prominently associated with the name Greta Thunberg but it's much broader than that. I know when I observe my own students at my university, I've noticed a tremendous rise, not just in intellectual attention to climate change, but in terms of climate activism, not unlike earlier periods of activism going way back on the Vietnam War. I would love to know, what's your reaction to these youth movements?

Kathleen Segerson: I think that certainly one can question some of the tactics that are being used to draw attention to the issue. But I think that we need the young generation to be the ones who are, in some sense, drawing increased attention because the older generations, at least some parts of them are not stepping up to that challenge. And I know that myself, my children are in their thirties now, but I have a granddaughter, and as I think about the future for her, I know that the people who are young parents now, or teenagers or college students now, it's really about their future and their right to feel indignant that those of us who are much older are not doing what we can or should be doing to try to ensure that future.

I do think that there's some hope, if you will, in the increased activism that we're seeing from that group of students and people in that generation. Will it be enough? Maybe we need to wait until they are in positions where they can actually pass legislation and make those kinds of changes happen. I think at this point, they're sufficiently young that they can try to demand it, but actually putting it in place is more challenging. Let's hope that they can translate that activism or that it does translate into some real change at some point.

Rob Stavins: That's a great note of hope on which to bring this conversation to a close. Thank you very much, Kathy, for having taken time to join us today.

Kathleen Segerson: My pleasure, Rob. Thanks again for having me.

Rob Stavins: So, my guest today has been [Kathleen Segerson](#), the Board of Trustees Distinguished Professor of Economics at the [University of Connecticut](#). Please 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 from the [Harvard Environmental Economics Program](#). For more information on our research, events, and programming, visit our website, www.heep.hks.harvard.edu.