

Kelly Brownell:

Hello. I am Kelly Brownell, Dean of the Sanford School of Public Policy at Duke University. This is Policy360 where we explore pressing worldwide policy concerns. Today I'm talking with Billy Pizer. Billy has taught at Sanford since 2011 and as professor of public policy. Billy has had a career in research government and academia, seeking solutions to some of the important environmental challenges of his time, in our time. Much of his work focuses on the economics of climate change. The impact certain behaviors and policies have on the way the planet is changing. Welcome, Billy.

Billy Pizer:

Thank you, Kelly.

Kelly Brownell:

So you've been looking closely at the economics of climate change. What would economic theory suggest be done in this arena?

Billy Pizer:

And also economic theory has a pretty clear take on this problem or most pollution problems. Climate change is caused by the emission of carbon dioxide and other greenhouse gases, which carbon dioxide especially is just pervasive in using fossil fuels. When you drive your car, when you plug something into the electrical outlet or heat your house with natural gas, that's all emitting carbon dioxide. So when you have all these many, many hundreds of millions of sources, really in the United States of a pollution problem, economists say the way to get people, to change their behavior and reduce their emissions is to simply charge for it. Right now, you don't pay anything for your carbon dioxide emissions.

Economists would say you need to pay. There are different policy tools for doing that. There could be a tax on emissions, you could set up a tradable permit system. It's kind of hard to imagine individual people trading permits, but you could require permits at the gas pump or a power plant or something like that. And those sorts of policies with their cap and trade, or our taxation have really been the mantra of economists for the past 20 or 30 years about how we solve problems like climate change or sulfur dioxide or lead in gasoline, all these different problems. The answer has always been the same from the economists.

Kelly Brownell:

Could you explain more about what's meant by cap and trade?

Billy Pizer:

Sure. Well, if you think about a tax for a second, which is a little bit easier, every time you emit carbon dioxide, which is basically to be clear, it's really tied to just burning fossil fuels. So every time you buy a gallon of gasoline or a BTU of natural gas or whatever the unit is there, you should be charged more based on the carbon dioxide that gets emitted when you burn that fuel. So a permit trading system is the same idea, but instead of paying a tax, you have to buy a permit and that permit could be collected when you buy the gasoline or it could be collected by the refiner when he or she makes the gasoline just somewhere in the supply chain of the gasoline, a permit has to be associated with the production of it that accounts for the amount of carbon dioxide that's going to be in the emissions when you eventually burn it.

So for example, when we talked about trying to do a national emissions trading program for carbon dioxide in the United States, what we generally had in mind was probably regulating at the point where the fuel was produced. So at the coal mine or the refinery, or the natural gas wellhead, you would require permits for the carbon dioxide that would eventually be burned.

Kelly Brownell:

Makes perfect sense. Now, so for example, that might change the relative price a consumer might pay for the electricity coming into their home, depending on how it was generated.

Billy Pizer:

That's right. I mean, there's two effects. One is that it encourages you to use less carbon-intensive energy. So you're more interested in putting solar panels on your roof, or you're more interested in a vehicle that may be battery-powered or ethanol-powered as opposed to gasoline. The other thing it makes you do is it makes you use less energy period. So you're more interested in insulating your house or buying a more fuel-efficient car or using your car less and biking. So it both encourages less carbon-intensive energy use and less energy use overall.

Kelly Brownell:

So for example, if I have the option as a consumer of buying power from a provider that created the power through wind energy. Right now, if I had that option, I'd be paying for whatever the technology costs to create the energy, but I wouldn't be benefiting in any way from the lower emissions created by the generation process.

Billy Pizer:

That's exactly right. That's exactly right. And it's whether you're the one making the decision where to buy the power or your energy provider making that decision for you, the economics are the same. Right now, there's no incentive to try to use cleaner technologies. It's just whatever the cost of the technologies are. What you would like to see is that there's an advantage to cleaner technologies because they don't have the emissions associated with burning fossil fuel.

Kelly Brownell:

So given what economists, including you, might suggest be done, what's actually happening?

Billy Pizer:

Right. So a couple of things. So since 2003, the US Congress has been contemplating some sort of national emissions trade program or a national tax. There have been proposals for a national tax. Legislation has gone nowhere for 13 years. In the absence of new national law, states such as California and nine states in New England. Now eight states in New England together created their own local or regional, or state emissions trading program to do exactly what we were talking about a minute ago to price carbon dioxide. More recently what's happened is two things. One is, I guess, probably about five or six years ago, the US government strengthened fuel economy standards for automobiles. So that's a way to get people to use less carbon, less gasoline in their cars without having to charge them for the gasoline through a carbon tax or a trading program.

The second thing which is more recent and somewhat more controversial is the Obama administration using the Clean Air Act is now finalized a regulation to limit emissions from power plants.

And that regulation does not say exactly what states have to do, but it sets goals for the states that they have to meet. And a lot of states are thinking about setting up emissions trading programs. And among them states that themselves say they're opposed to regulation, but given they're being required to do it by the federal government or contemplating use and emissions trading.

Kelly Brownell:

I gather there's some, or maybe even a lot of variability state by state in policies again enacted to help encourage this decrease in emissions. So for example, there could be incentives for homeowners using solar panels, or there might be incentives for people to buy fuel-efficient cars or electric cars or whatever it happens to be. Is there enough experience to know which of these policies is the most promising?

Billy Pizer:

Well, I think it's a great question. I think the states have been a little bit of a laboratory for policies. California, especially as has been kind of a leader in trying out various things. North Carolina, for example, has had a tax credit for renewable energy that expired at the end of last year. They also have a renewable energy standard that requires power plants to generate a certain amount of energy from renewables. So we have learned quite a lot. I think the puzzle is kind of the lessons you take away from these policies. Economists tend to think a lot about total costs and that's what gravitates them towards these taxes are tradable permit systems that really find the cheapest reductions wherever they occur. I think a lot of consumers and a lot of policymakers are much more concerned about distributional consequences.

So they are much more thinking about the fact that, okay, a carbon tax would be the best way for the society to reduce its emissions at the lowest costs. But people who buy energy are going to be paying a lot more for their energy. That money is a transfer. It goes to somebody else who gets the tax revenue, but it's a huge distributional change. So I think one of the things that we've been learning and is the subject of a lot of research is thinking about these distributional consequences as well as just the overall cost to society. And I think there's a much greater recognition now that's something that has to be grappled with. And it may not be a question of just the least cost solution. It's some combination of least cost, but least redistributive.

Kelly Brownell:

In the political arena, there's considerable debate about whether climate change is even a real thing. What role is that playing on the ability of the nation to make progress on these issues?

Billy Pizer:

It's playing a huge role. I mean, I think if you back up and you think about where the country is right now, it's a pre polarized situation. Whether you're talking about climate change or immigration or gun control, you can name half a dozen topics where the two sides just are not talking very well to one another. And I think policymaking generally has been a casualty to that. And climate change is no exception. I think what's interesting is to realize that historically climate change and environmental policy has not been a particularly partisan topic. The 1990 Clean Air Act amendments were passed by the first Bush administration. The original Clean Air Act and Clean Water Act were passed by President Nixon. In the 2008 election, both candidate Obama and candidate McCain were both pro cap and trade or something to deal with climate change. So traditionally, it has not been that polarized. So I don't think

it's really a feature of climate change. I think it's more of a feature of the general politics that have created divisiveness and people just gravitated to different sides.

Kelly Brownell:

Do you see any way to break through that polarization here? Are there ways of framing the issue or are there data that might be relevant? How might one break that problem?

Billy Pizer:

There is a framing that I think is helpful. A lot of what happened during the Bush administration and other situations where it's been harder to get conservatives on board is to frame it more as an energy issue than an environment issue. People generally like the idea of clean energy, regardless of whether you're specific about what it's cleaning up. So that has tended to be pretty popular. And you saw that, I guess it was in 2012 or 2011, the Obama administration proposed a clean energy standard.

It didn't have the word climate change in it, but it was basically targeting carbon dioxide. And I think it was an attempt to try to get around this. That didn't go anywhere either. And so I think now they're just back to calling it climate change. The other thing that is what the Obama administration has actually done is just use the existing legislative authority and not try to pass new legislation. And again, you've seen that in a lot of areas, not just climate change, whether it's immigration or gun control. So I think that that's just what you do when you can't reach legislative outcomes.

Kelly Brownell:

So if you were creating the legislative agenda for the nation on this, what would be the first steps you would recommend taking?

Billy Pizer:

Well, that's a great question. I think like all economists, I would say if we could do a carbon tax politically, it would be the best thing. Right now we raise money in the tax system by taxing labor. I mean, how bad is that? People work less because you're taxing it and we want people to work more. So if we tax things like pollution, so they pollute less and we cut the taxes on labor, that would be a really wonderful thing. That's sort of a grand tax bargain is not going to emerge in my mind from an environmentally minded agenda. It will emerge from just a general tax reform agenda. So if you take that off the table, you could go back to try to do an emissions trading program, which is what was really done throughout the 2000s. The other idea that I think is gaining a lot of traction, or I shouldn't say gaining traction, is beginning to be thought about right now is more of a surgical approach where we have the Clean Air Act.

We were using it now to try to regulate power plants. We can use it to regulate other sectors, but there are some problems with using the Clean Air Act. So what you could do is you could go in and try to clean up the Clean Air Act, straighten out the Clean Air Act so that it was more amenable to dealing with climate change without creating a whole massive new architecture. If you go back and you look at the legislation they were trying to pass in 2009, it was a thousand pages to try to set up this apparatus. I think you go in with a much shorter 50-page bill that would simply make the Clean Air Act more naturally amenable to regulating climate change. And that would probably be the right solution.

Kelly Brownell:

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Good. Well, let's hope things will move in a positive direction and I know the nation very much appreciate your contribution on these important issues. We've been talking with Billy Pizer, professor of public policy at the Sanford School of Public Policy at Duke University. Thank you for listening, until the next podcast.