

EGC Voices in Development Podcast, Episode 5: Kevin Donovan

Why do some countries advance while others fall behind? Who benefits from economic growth and who doesn't? How do inequality and climate change affect people, especially the most marginalized? And what role can data play in answering questions like these and informing policies that promote economic justice? Let's find out on Voices in Development.

Hello and welcome to our podcast. I'm your host, Catherine Cheney. We're coming to you from the Economic Growth Center at Yale University, which is focused on economics and data driven insights for equitable development. Today we're joined by Kevin Donovan, Assistant Professor of Economics at Yale University, and an affiliate at the EGC. His research focuses on economic growth, including constraints to business growth in low-and middle-income countries. Kevin has focused on the transition people make from the farm to the city, or from agriculture to manufacturing and services. He's investigated how to address some of the risks and costs that can arise.

His research has covered a range of important topics, from ways to improve agricultural productivity, to the value of knowledge transfer between small business owners in Kenya. Kevin will also share some really interesting work he's done with a nonprofit organization on the impact of building footbridges.

Most recently, Kevin and coauthors worked on Labor Markets and Development. They built a new data set from labor surveys across 49 countries. As you'll hear, it was a massive, and difficult, undertaking. But as a result, researchers and policymakers will be able to make comparisons of labor markets across countries and time.

Now, onto the conversation.

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Cheney: So, Kevin, you've described some of your research topics you're tackling as "eclectic". And I wonder what are some of the central questions that connect the really wide range of issues you've studied in your career so far?

Donovan: You know, the thing that most interests me is understanding the process by which countries grow and become richer and that involves a few key features. One is the transition from agriculture into manufacturing and services. And along with that, a movement of people across space from rural areas into more urban areas in the city. And so my research has focused on a few pieces of that.

One is trying to understand agricultural productivity. How do we increase the productivity of farms? How do we make the agricultural sector more efficient? And then what does that do to release workers into perhaps higher paying jobs in cities? And so I've worked on the agricultural sector, but this process of urbanization and the transition from agriculture into manufacturing and services doesn't come without hardship. People try and make this transition but they end up in slums, there aren't jobs that they think they're going to find there. And so the other part of my work has focused a lot on how do we help those people who are trying to make that transition, who end up in these informal settlement settlements on the outskirts of major cities, running businesses out of necessity and just trying to make ends meet on the fringes of urban areas?

Cheney: So I want to go back to – I believe it was the first paper you wrote – looking at how access to markets, or jobs, frees farmers up to make riskier investments and increase their productivity on their farms. So let's start with what led you to that work and that research question, and then we can connect the dots to some of your other work.

Donovan: Sure. Yeah. So I think one of the defining features of agriculture is the temporal sequencing of decisions that have to be made. So farmers make big upfront investments in fertilizer, in more productive seeds. And then they wait six months for that to pay off in the form of harvests that they can potentially take to markets or eat themselves. But of course, those decisions come with an immense amount of risk. In between, say, planting and buying the fertilizer and reaping the gains at harvest there are weather realizations, there is the potential for pests to show up. And the thing that I started thinking about a little bit was this idea that if you're in the United States and you make this big investment and it doesn't pay off things are bad, but things aren't that bad. But if you think about somebody who's perhaps in rural Sub-Saharan Africa, you make that investment and then it doesn't rain. Now, all of a sudden you're in a really bad spot. And so I was trying to think a little bit about what the cost of that missing insurance market was and how other types of informal insurance – like the ability to go to the market and and take a short term job to perhaps regain some income during this season. How those types of features, how those types of different access to markets interact with missing insurance markets and how we can think about agricultural productivity?

Cheney: And if those were some of your questions going in, what were some of your findings and how did that help to inform what you pursued next?

Donovan: Yeah. So I think the big takeaway from that work was, number one, that this type of risk that farmers are facing is in fact a very important constraint to agricultural productivity and to the productivity of farms.

The second thing that came out of that was that there's a potential for other types of interventions that we maybe don't necessarily directly associate with agriculture. Like access to urban markets, not necessarily for selling goods, but for the ability to say, go take a short-term job, picking coffee, cherries or something like that. And that was something that sort of came out of the theory a little bit, but we didn't have a great sense of – or I should say I didn't have a good sense of – how to test that at the time.

And that led to some work a few years later with my co-author, Wyatt Brooks, and working with the NGO Bridges to Prosperity (B2P), where we tried to test that idea that access to labor markets would have implications for farm productivity through some of the channels that I had developed in my earlier work.

Cheney: I want to talk a little bit more about your partnership and work with Bridges to Prosperity. For those who don't know, this is an NGO that works with local governments to build pedestrian bridges. Can you talk through how you were connected with this NGO, how you started to work together and what came out of this research-NGO partnership?

Donovan: Yeah, indeed. I just happened to be watching CNN one night, and they were giving this guy an award for building bridges, I think it was in Ethiopia at the time. And I thought, boy, that would be really interesting to study. And I was working on this paper that I had just described. I thought, that's pretty neat. So I emailed him just sort of out of the blue as a random fourth year PhD student at the time. And he, to my unending surprise, actually wrote back. And so we had some conversations back and forth a little bit and it turns out that the organization that he had been running had been shutting down. But he put me in touch with a different organization that was doing similar things, that organization being Bridges to Prosperity. And so I took my first job at the University of Notre Dame And it just so happened that a board member of Bridges to Prosperity was getting her Ph.D. in engineering at Notre Dame at the same time. So we just started talking and I think to B2P's infinite credit, they sort of immediately understood what we were trying to do and why it would be beneficial for them as well. And so I think maybe three weeks later we were in Nicaragua scoping out the potential for a research collaboration.

Cheney: You mentioned that there was mutual benefit here. It was beneficial to you as a researcher, beneficial to the NGO in their work. Why is that? I mean, I know this is just one example of many partnerships between academia and NGOs, but what was kind of the win-win scenario here?

Donovan: I think the thing that maybe is a little bit different about our interactions is that infrastructure tends to be an incredibly expensive proposition. And so it's a hard thing when you start thinking about cost effectiveness and comparing different types of interventions it's hard ex-ante to think that infrastructure is going to come out on top in any type of comparison like that.

And so, our results in Nicaragua suggested that, in fact, there are big benefits to this type of infrastructure, this type of last mile infrastructure. And in large part, I think because one of the things we were able to sort of point to in our research was that there are lots of margins that get affected by the same intervention, the same bridge that gets built. So it's true that you get access to markets, which is great for selling your crops potentially and also getting access to higher paying jobs. But in addition, you're also connecting people to schools and to hospitals. And so once you start to build all of these things together **it turns out to be a pretty cost effective way to help people in rural areas.** I won't speak for BTP but I think it's fair to say that our results in Nicaragua got some attention, both academically and in the donor community. And that allowed them to scale up a number of their programs. which we're now studying in Rwanda where they're sort of concentrating their scale up at the moment.

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Cheney: I'm aware that this work is being scaled up in Rwanda, and I wonder if you can talk through the scale of this project as compared to what was done in Nicaragua, and how you're involved as well.

Donovan: In Nicaragua, the scale of the project was quite small. The way to think about it is thinking about one village where we build a bridge that connects it to, let's call it a peri-urban city. So think of a village of 4 to 500 people being connected to a city of maybe 15,000.

So that's certainly, you know, when we talk about people accessing jobs in that study that's 100 people maybe going and finding a job in a city of 15,000. But then if you think about what that means at scale, if we're going to scale this program up and if we're going to really think about last mile infrastructure as a key component of development policy, it's not really about 100 people going to a city. It's about thousands of people going to this city.

And one of the things that we couldn't answer in Nicaragua that we think is really critical is what happens to the people who are already connected to that market? Are we just taking jobs from one group of people and giving them to another? Or are we creating some gains somehow by increasing the size of these markets? And the same thing is true when you think about, say, trading crops. You know, are we giving people access to new goods, to cheaper goods or are we just redistributing who earns money from selling in these markets? And so those types of competitive spillovers aren't something we were able to capture in Nicaragua, but we think are really critical to the bigger picture here.

And so in Rwanda we're building 148 bridges that should affect about 9% of the Rwandan population directly. And so we're going to be working at a scale where not only can we think about those types of spillovers, but some of the things that we couldn't think about in Nicaragua, like maternal health. And these are things – going back to sort of the big picture of trying to measure the cost effectiveness of a program like this – those are things we just didn't have the capacity to think about in Nicaragua because of the scale we are working at, but that we really think are critical to getting a full picture of what the benefits of this type of program is.

Cheney: You've just been talking about this work on building physical infrastructure and last mile infrastructure as a key component of development policy. But your work has also looked at issues like how to support women running small scale businesses in Kenya. So I wonder if you can tell us a little bit more about that work, and again, the connection to these central research questions. I think that'll help us understand how this labor market dynamics and development project came about as well.

Donovan: As I was mentioning at the beginning the process of economic growth is characterized by the large scale movement of people off farms and into cities. And along with that, the transition from agriculture into manufacturing and services. But that process does not come without costs. There's risk associated with being the person that makes that move, and it doesn't work for everyone.

You end up not finding a job in the city and ending up in some informal settlement where most of the work is informal and you're not sort of connected to the formal government sector, or the social safety net or anything of that sort. And so what you end up with is these areas where most of the operations, most of the economic activity is run by what I would call subsistence entrepreneurs. People who are running small businesses not necessarily because they want to become, or they are going to become the next Google, but because that's the opportunity. That's the opportunity to earn some money in the absence of any sort of formal safety net. And so the other arm of my research agenda looks at those types of firms. In particular young women who are running these types of firms in Dandora, Kenya, which is on the outskirts of Nairobi.

And we've been thinking a lot about how do you help these businesses grow? And again, growth here not being "become the next Google". But just sort of make life a little bit easier, and make these businesses a little bit more productive. And we had been thinking a lot about programs that involve trying to get these young women skills they need to run a business. So think about, for example, the idea of sitting these entrepreneurs down in a training class and teaching them about marketing and accounting, tools like that. But we were trying to think about something a little bit different, which is the idea that, well, those skills are almost surely important on some level. But also there's a lot of things about Dandora that you might think are incredibly specific that would be helpful.

So where do the customers go? Who do you have to bribe to make sure your business is in the right spot? Those types of things that certainly I, as an economist, would have no idea about unless I had spent years understanding the Dandoran economy. And so what we were trying to figure out is how do you get that specific information to these young women without hiring McKinsey consultants to come in and do the work for you? And the idea we came up with was essentially a mentoring program.

And the idea behind that was that we don't know what the right information is or what the right skills are to grow a business in Dandora. But if you look around Dandora, if you look around any of these slums around the world, it's not like every business is unproductive and tiny. There are some people who really figure out how to make this work. And we thought, all right, well, I don't know what the correct information is, but I know that they have it because they're incredibly successful in this same economic environment.

And so the idea behind our mentorship program was to link those two types of people together. So take women who had succeeded in the same same economy – the same Dandoran economy – and have them mentor young women who are just starting out.

And we've found some pretty impressive results so far. I mean, in our first randomized controlled trial of this program, profit went up by about 20%. We compared that to this classroom training style program I was describing that didn't change profit at all. And so now we've been over the last few years trying to build out some of the detail to understand exactly what's going on behind that result.

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Cheney: It sounds like a major reason that many of these women are running these small businesses is because that's their only option, because there aren't jobs. And that really connects with your other research. You know how important access to labor markets is, how important access to jobs is. And so I wonder if you can just help us understand, do you see that as sort of the unifying theme, or unifying take away, the importance of access to labor markets and jobs? And if so, how did that lead to this work on labor market dynamics and development?

Donovan: Yeah, I think that's right. I mean, it shouldn't come as a surprise that the labor market is sort of a critical piece to understanding economic development or even more broadly the success and the earnings of an individual over their lifetime. That's true in the United States, that's true in Kenya, that's true in Nicaragua. And part of what we wanted to think about, given some of the results we've just been talking about, is just to take a step back and ask, well, what does it mean to be employed in Nicaragua or in Kenya compared to a place like the United States? How should we interpret information about unemployment rates or people moving between jobs? Does that mean the same thing in Nicaragua as it means in the United States? And what does that sort of teach us about the structure of labor markets and how we should be thinking about labor market policy across countries?

And, one of the things as we started thinking through those ideas that we realized was that even very basic information about making cross-country comparisons about labor market indicators. So somebody who's employed today, how likely are they to be unemployed in three months from now? Or as somebody who's employed today, how likely are they to move to a new job in the next quarter? We just didn't have any of that information.

And those types of moments, those types of economic indicators are really critical for thinking about a large number of labor market policies in developing countries. And so this work on labor market flows and development was sort of born out of that idea. Could we just go out and could we collect the data and could we harmonize the data to just say something very simple. Which is, you know, is somebody in Nicaragua more likely to leave their job than someone in the United States or vice versa? And then what does that represent for our understanding of the economy of Nicaragua relative to the United States?

Cheney: As you mentioned, you wanted to collect and harmonize this data, but probably easier said than done. So can you take us through the process? You know, how did you come together with your collaborators and how exactly did you compile these datasets from countries around the world? And maybe you can get into some of the challenges as well?

Donovan: This paper is work that I started with a former grad student of mine, Will Lu, who is now at the Central Bank of Chile, and Todd Schoellman, who's at the Minneapolis Federal Reserve Bank. And it got started when, well, before I worked at Yale, I worked at Notre Dame where Will was one of my students. And at some point I just started talking with Will about, you know, let's just see how much data is out there.

Will and I just started calling around, sort of as simple as that. We found a few countries you could find online. We started calling statistical agencies asking for their data. And just to give you some sense, what we're using is we're using the underlying micro data that countries use for their official employment statistics. So, for example, when you see the unemployment rate reported on The New York Times, that's the data we're using for the United States.

And then the same thing is true all over the world. Many countries run this type of data collection for the same reason. They're trying to understand high frequency changes in employment, how governments,

how the fiscal authorities, how monetary authorities should respond to these things. And so our hope was that the data was out there and it was just a matter of someone sort of putting it all together. In the end, we were able to collect 49 countries worth of data and it amounts to a dataset that's about 80 million people who we can track for at least two quarters in a row.

So we're able to study how people move between employment states over relatively short time horizons. And then, of course, the hard work is that India doesn't think about or doesn't have the same notion of employment as the United States does. England doesn't have the same notion of unemployment that, say, Nicaragua does, and none of them define occupations or industries in the same way. And so, then the big task for us was trying to think through, okay, so let's go into this, let's redefine everything to make them comparable across countries. This was so that at the end of the day, we could ask those questions I started with. Is somebody who's employed in Nicaragua more likely to leave their job than they are in the United States? And then what does that tell us about the structure of the labor market and the health of the labor market?

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Cheney: In terms of getting permissions from these countries' statistical offices, I mean, there are probably reasons this data hadn't been compiled before and you had to kind of push past those. Were there any challenges in terms of permissions?

Donovan: To be clear, all of these countries care very much about anonymity. This is data at an individual level. There's details about the jobs they have, etc. But at the same time, we're trying to match people over time. And so, we need ways to identify people over time. And so usually what happens in the data that the government collects is that they link them via something like a Social Security number in the United States. And of course, we don't want that. I do not want anyone's Social Security number on my computer.

And so, there were some discussions that had to be had about data security. What we ended up doing was, I think we have something like 35 different contracts written with different statistical agencies around the world that we were negotiating, for years in some cases.

But, at the end of the day, I think – well – I hope we were able to convince them that we're not interested in any individual person's information. We're trying to say something a little bit more aggregated. But at the end of the day, everyone was fairly receptive to our ideas.

Cheney: What were some of your findings? And what are the larger implications of what you all were able to discover?

Donovan: There's been a lot of work looking at these types of labor market moments within rich countries. So understanding job to job transitions between the U.S. and Europe, for example. And the big takeaway from that research, just to paraphrase slightly, is that higher flows – more turnover in the labor market – is indicative of a more healthy labor market. In the sense that more flexible labor markets allow the economy to respond more quickly to shocks, to adjust more quickly and that has benefits for the economy as a whole. And so there has been this stylized fact that if you look within rich countries, there's this positive correlation where richer countries have more labor market turnover. And so the first thing we wanted to ask was just whether that result held if you broadened out the scope of the income distribution around the world that you were looking at. And in fact, we find the opposite. So there's substantially higher labor market turnover in poor countries than there are in rich countries.

And so the second thing we tried to figure out was what those flows represented. So you could imagine, for example, that this process that I was talking about at the beginning, this evolution of an economy as it gets richer, this movement off farm into cities. You could imagine that what we're observing is we're

observing exactly that type of transition. We're observing poor countries that are getting richer and catching up. And so, we're seeing movements towards more productive jobs, more productive industries.

That would certainly be one reasonable explanation. So we dig into this a little bit and try and think about what these flows represent. And we find the opposite. It doesn't seem to be the case that these aggregate measures, these aggregate turnover measures that we're observing represent flows to more productive jobs. What it seems to represent is the fact that the job ladder is just much more difficult to get on and stay on in poor countries.

Most of what we're observing is turnover of people. You know, starting a job, then losing a job, then taking one of these subsistence entrepreneur jobs, then finding another job, then losing it again. And it's really just that the bottom of the job ladder in poor countries is incredibly slippery. It's just hard to get on and stay on the job ladder.

And so we think that's a very important point for thinking about what flows represent across countries and how we should interpret the relationship between flows and the health of a labor market more broadly.

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Cheney: And where does this research stand now? I mean, are you continuing to work with some of this data you work so hard to pull together? And what are some of the big questions that remain?

Donovan: Yeah, we are. So we've sort of broken this up into a few different tracks. One is that we've received some interest from policymakers in better understanding and utilizing our results. So, we're now working with the ILO, the International Labour Organization, to put together some more policy focused documents on what the results suggest for the evolution of what it means to work over time and across countries, which has been really exciting and interesting to work on.

And then the other thing that we haven't spent too much time on yet, but we also think is useful, is thinking about how different countries' labor markets respond to economic crises. So, take COVID, for example. Here's this big economic shock. And one of the big questions over the past couple of years for policymakers is how should we respond? Where should we be targeting aid? How should we be thinking about different policies to help cushion this blow? And one important input into that is to understand how jobs have changed, how people's unemployment behaviour has changed over time, and across a large set of countries. So that's something we're trying to put together right now, both for COVID and more broadly, thinking about all sorts of different recessions that have been happening over the last 20 or 30 years.

Cheney: Can you tell us about your path into this work? And who were some of the mentors or what were some of the moments that that led you to tackle these questions?

Donovan: I did my undergraduate degree in math, thinking sort of broadly that I liked the idea of using math to understand how the world worked. But I didn't really know what that meant or how one goes about doing it. So, I was lucky enough to have an advisor when I was an undergraduate who suggested just sort of offhand one day, "Hey, you might want to think about going to get a Ph.D. in economics." And as an impressionable 20-year-old at the time, I said, why not? So, I joke when people ask me about this that it's not like a particularly inspiring story. I just sort of fell backwards into it.

So it's hard to overstate how lucky I was, both in terms of the university I ended up at and the time at which I at which I arrived there. So, I went to Arizona State and started in 2007. My eventual advisor, Ed Prescott, had won the Nobel Prize in 2004, and there was just a large group of people, including Ed and a

number of others, who were working on really like the foundational pieces of the macroeconomics of economic development at the time.

I think it was my second year of graduate school where I was taking classes from Richard Rodgerson and on how labor markets work. It was a class that was co-taught by David Lagakos and Ed Prescott on economic development. And seeing the interplay between those two types of skills – so those development questions using macroeconomic tools – was really sort of young at that point. It was a really exciting place to be with, you know, five or six people who are all working on those same ideas. And I think now if you look at the field, it's clear that there's value in what was being done then. And I don't think anyone would sort of think twice about the relationship between development questions and structural macroeconomic models. But at the time, it was really exciting. And I was lucky enough to be in a place where there were a lot of people working on those types of questions.

Cheney: Can you tell us what brought you to Yale and what this setting has meant for your work? And then we'll talk about what's next.

Donovan: I've been incredibly lucky throughout. You know, I just described ASU. My first job was at Notre Dame where there was a really exciting group of people working on sort of the same topics that I was interested in.

And then I had the opportunity to move to Yale, where in large part that sort of continued and perhaps even branched out a little bit. The thing that's great, that I really enjoy about the Yale Economics group at large, is sort of the various overlaps in tools that people use and questions that people ask across a wide variety of fields. So that's sort of intellectually what I find most exciting.

And then specifically, I think the Growth Center has been really fantastic in perpetuating some of this. So, they've been great helping with funding some of the data collection for this labor flows paper that I've talked about. They're hosting the data – hopefully whenever I get around to making it public – hosting the data on their website. Rohini has been fantastic about bringing in interesting visitors who contribute to the culture of development at Yale and interesting speakers. So yeah, it's been really great, it's been a really exciting culture to be a part of.

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Cheney: And I know a big focus of yours right now is this labor market dynamics and development work. But anything else to note in terms of what's next? Whether it's that work or something else. What are you focused on and where should we be looking to follow your work moving forward?

Donovan: I'm fascinated by this idea of if you look at the data of how countries evolve as they get richer. This movement from farms to cities, and this movement from agriculture into manufacturing and services, we don't have a very good understanding of the details of that process. I think we know it happens but it's understanding what that process looks like at the microeconomic level and how that informs how we think about the process of structural change more broadly. I think it's something that pulls in questions about how the labor market – the health of the labor market – and the frictions that exist in the labor market.

It pulls in issues of trade and market access that I'm focusing on in projects in Rwanda right now. And it includes understanding what happens to people who perhaps don't make that transition well, who end up in these informal settlements and running these small businesses.

I think even looking back at things like the Industrial Revolution, this process does not come without pain. There are winners and losers in this process. And I don't think we have a very good sense of

understanding how that process operates and what that process looks like, and how we should be thinking about policy in light of it.

Cheney: Well put. Well, Kevin, thank you so much for taking the time to speak with us today.

Donovan: Thanks so much for having me.

Cheney: That's all we have time for in this episode of Voices in Development. Thank you to everyone who helped to make it happen including our guests who joined us at the Yale Broadcast Studio and several members of the Economic Growth Center team including EGC Communications and Policy Associate Zahrah Abdulrauf, Vestal McIntyre Communications Director at EGC and EGC Production Intern Bomi Okuyiga.

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