Probable Causation, Episode 43: Elizabeth Linos

Jennifer [00:00:08] Hello and welcome to Probable Causation, a show about law, economics and crime. I'm your host, Jennifer Doleac of Texas A&M University, where I'm an Economics Professor and the Director of the Justice Tech Lab.

Jennifer [00:00:18] My guest this week is Elizabeth Linos. Elizabeth is an Assistant Professor of Public Policy at UC Berkeley's Goldman School of Public Policy. Elizabeth, welcome to the show.

Elizabeth [00:00:27] Thank you for having me. I'm excited to be here today.

Jennifer [00:00:29] We're going to talk about your research on how to encourage more and different people to apply to become police officers. But before we get into all of that, could you tell us about your research expertize and how you became interested in this topic?

Elizabeth [00:00:42] Sure. So I think of myself as a scholar that cares a lot about government. So I work in public management. I also use a lot of tools from behavioral economics. But really my goal is to figure out how to improve government services and programs. And within that, I focus on how to recruit, retain, and support government workers because at the end of the day, they're the ones delivering the services. And we haven't really spent as much time as I think we should thinking about talent in government. So that's really the focus of my work.

Elizabeth [00:01:13] I became interested, kind of, in this topic because it's on everybody's mind. And so it was also on my mind. When we think about how to improve any of the major social challenges that the US is facing, but even globally, at least part of the solution has to be thinking through who delivers those services. And recruiting a diverse police force is one of those policy solutions that people proposed. We don't know yet if that is a solution, but it's certainly something that we wanted to study. And a lot of departments across the US were struggling with this issue. And so I wanted to work on it.

Jennifer [00:01:46] Yeah, so many police departments do have trouble recruiting enough officers to fill their ranks in the first place. And as you said, at the same time, they're under pressure to diversify their forces. So what does the recruitment process look like in a typical police department?

Elizabeth [00:02:00] You know, it varies quite a bit by police department, but for a lot of police departments across the country, it's a very long process. So it can take anywhere from six months to over a year, depending on what department we're talking about. And it involves a series of steps. So first you have to apply. You then usually go through some screening process to make sure that you meet the minimum requirements. And then depending on the department, you might have a written test, you'll have a physical test, you'll have a background check, you might go through a psych evaluation. And so each of those steps takes quite some time, leading to relatively long selection processes. Ultimately, there's drop off at each of those stages. But if you get through, then there's an interview and then finally you make it to the academy to start your training.

Jennifer [00:02:46] So your paper is titled "More than Public Service: A Field Experiment on Job Advertisements and Diversity in the Police." It was published in 2018 in the Journal of Public Administration, Research, and Theory. And in this paper, you conduct a

recruitment field experiment with the police department in Chattanooga, Tennessee. So how did that partnership come about and what problem was that department facing at the time?

Elizabeth [00:03:09] Yeah, so the partnership itself came out of a larger partnership that we had at the Behavioral Insights Team where I used to work with Bloomberg Philanthropies. So Bloomberg Philanthropies brought together a bunch of technical experts - BIT was one of them - to try to support cities that were innovating. It's a program called What Works Cities. It's a fantastic program that has brought a lot of technical capacity to mid-sized cities across the US.

Elizabeth [00:03:36] So Chattanooga was one of those cities. And the challenges that it face looked very similar to what we've seen across the US. Chief Fletcher, who was the chief at the time, a phenomenal leader, was struggling to diversify the police force. He really wanted to diversify his police force. At the time, his department was predominantly male, predominantly white. And he, like other leaders in the space, we're looking for tools to diversify kind of their application pool and also think about what's happening in selection as well.

Jennifer [00:04:07] So before this study, what did we know about how to recruit new police officers?

Elizabeth [00:04:12] That's a great question. So the key word there is 'no.' I can tell you a lot about how we recruit for police and then the real challenges that we didn't have a lot of good evidence about what works or doesn't work in this space. So the main way that recruitment happens in most police departments is there's someone on the police department side or usually the H.R. side that is responsible for recruitment that might involve going to career fairs, putting up a job ad. But basically, like with many government jobs, the onus is on the individual to figure out how to apply and what that process looks like. The kind of underlying theory in this space is that people join government and specifically join police forces because they want to serve their community. So if you look around, you'll always see job ads in police departments that say, come serve the community, come protect and serve. Answer the call. All of these are kind of the same type of job ad that you'll see on billboards or you'll see on their websites, and so the main kind of message that you hear from police departments is if you care about public service, come take on this position to serve the community. But the process itself is relatively opaque, I think, to the general public.

Jennifer [00:05:29] And you talk in the paper a bit about how a lot of that underlying hypothesis there that appealing to the public service motivation that's stemming from basically looking at who is currently a police officer, is that right?

Elizabeth [00:05:41] That's right. So this is true in policing. It's true actually across the public sector. If you ask people, why did you take this job, oftentimes the only answer you get, or at least the correct answer seems to be because I want to serve my community. And that's not necessarily wrong. A lot of us did enter government at some point because we wanted to make a difference. Now, the challenges, if you're trying to get new and different people that aren't just motivated by this standard public service message, saying it again in a job ad doesn't seem to make a big difference. So one of the theoretical leaps we've seen is just because people say that they're motivated by public service that doesn't necessarily mean that it's the most effective strategy to actually recruit new people. And that's really where my research comes in to try to fill that gap.

Jennifer [00:06:25] So why don't we know more than we do about how to recruit new and different people? This seems like such a fundamental topic. As you said, it's something that's on everyone's minds. So what are the constraints that researchers like you face in making progress in this area?

Elizabeth [00:06:38] I mean, that's a great question. So one thing I want to note is that this has changed quite rapidly in the past few years. So today I would say there are a lot more city governments, state governments, local PDs, but also other kind of agencies that are thinking about these questions in a data driven way. Traditionally, we haven't really thought about these types of recruitment or H.R. challenges as really fundamental to service delivery. Oftentimes, the H.R. department that's doing the actual recruitment is separated from the police department. So they're not even speaking to each other on kind of the back end in terms of administrative data. So there's there's a fundamental challenge with data.

Elizabeth [00:07:18] The challenge that we're trying to solve in this project was reaching out to people who have never, in fact, interacted with the police, who don't already have a connection with the police. That's a broader public management challenge. So it's really hard to find people that don't show up on your door if you are a government agencies. And so figuring out what data to use to find them or to communicate with them is a challenge in and of itself. But to answer your primary question, why don't we know more than we do? I think that just has to do with how we've thought about both causality and evidence in the public sector for a long time. It's only recently that we started thinking about randomized control trials like this one as fundamental to understanding what works in government settings and really recognizing that even kind of AB tests that we see in tech quite often can be done in government, that it's not costly, it doesn't add layers of complexity to the process. So I think we're all kind of quickly adjusting to a new world. And government departments certainly are where this is going to become the norm. Until recently, it wasn't. And we've evaluated what works in this space based on people's intuition, based on anecdotal evidence, and certainly based on what people who made it through the process tell us. The problem with that is that you're missing the viewpoints of the perspectives of all the people who didn't apply or who didn't make it through the process. And that can be particularly problematic in policing.

Jennifer [00:08:46] So you lay out a framework in the paper for thinking about what aspects of a job to emphasize and advertise to potential recruits. And I thought this was super interesting. So you say that a job advertisement should provide information that is 1) new, 2) realistic, and 3) nontrivial. So walk us through that. Why are each of these features important?

Elizabeth [00:09:05] Sure. So in some ways, this is a really simple way of thinking about what the purpose of a job ad is. So we all have opinions about professions. We have opinions about specific organizations that come through our broader experience, our lived experience, what we hear in the news. Every organization has some sort of reputation.

Elizabeth [00:09:26] And so the job ad, at least from my perspective, is this unique opportunity for a department itself to either contribute to that conversation or add something to affect people's perceptions or not. So that first point, make sure that the information is new, is really about saying, are you telling people something they don't already know about what it's like to be a police officer? If you are just kind of repeating the general perception, it's not clear you're going to be enticing people to apply to the job that

would not have applied otherwise. And that's an important perspective here. We're always thinking about what we're adding compared to what would have happened if we hadn't even put out a job ad. So the analogy I like to use is Google and Facebook don't put out job ads that say we hire really smart people. Everybody knows they hire really smart people. They put out ads that say we're trying to change the world. That's new information given the general perspective that people have about those types of jobs or about what it means to be an engineer. So number one is really just providing new information in order to to shift people's perspectives.

Elizabeth [00:10:32] Now, the second part of that realistic is really the boundary that I like to think about when we think about job ads. Imagine a world where you present a job in a way that doesn't really reflect what happens in real life. It's not realistic. It's too rosy. Yes, you might get some more people to apply. But very quickly, you've done two things. One is everyone is going to quit when they start the job and they realize that that's not an accurate reflection of the job. But you're also going to kind of lose your reputation as a trustworthy organization. And so balancing providing new information, but a realistic perspective on what the job entails, I think is really crucial.

Elizabeth [00:11:11] And then the third part of this framework talks about things that are non trivial. And what I mean by that is there's a lot of different job characteristics that matter to people and that are not trivial to them. So that could be anything from job security to great benefits to family paid leave to flexibility over your schedule. Now, those are going to be trivial to some people and very non-trivial to others. And so thinking about who you're trying to to target or who you're trying to recruit should help you determine which characteristics of the job matter or which characteristics of the job you should highlight in a job advertisement. My sense is if you are able as an organization to create job ads that provide new information that realistically capture the job and really target kind of non trivial characteristics of the job for the people that you're trying to recruit, we can make progress on getting new people to apply that would not have done so otherwise.

Jennifer [00:12:07] Okay, so you decided to run a field experiment in Chattanooga testing four different messages, and you did this using simple postcards. So first, describe these postcards for us. What did they look like and who were they from?

Elizabeth [00:12:20] This is a great question because sometimes we see these really exciting results and we forget that actually there's nothing high tech about what we did. So you're right, we sent postcards. The postcards had a couple of things in them. So, one, they had a picture of a real police officer. His name is Worlie Johnson, and he's a black man who was on the force at the time. On the front, we had his picture and a picture of Chattanooga, and a message, which I will describe in a second. And then on the back, there was a personalized message from Worlie that described some part of the job. So it had people's first names, so it would say 'Dear Jen,' and then it would have this message from Worlie, and it would be signed by Worlie. So just for those those viewers that care about behavioral science, you'll note a lot of behavioral economics, kind of best practices in that we have a person on the front that exemplifies the type of people we're trying to attract. The message is personalized that hopefully catches people's attention and it's in simplicity. And then what we varied in these postcards is the message. So what exactly Worlie highlighted in that message.

Jennifer [00:13:25] So what were the four messages that you decided to test?

Elizabeth [00:13:28] So the four messages that we decided to test were trying to capture different types of motivations that might get someone interested in applying for the police. So on the one hand, we did want to try a message that captured the more traditional recruitment or advertising strategy that we've seen across police departments, this public service motivation message that I mentioned before. So one postcard focused on that just said, you know, if you're the kind of person who wants to serve their community, this is a job for you. We tried a slight variant on that message that talked about impact. And so in the front it said, what would it mean to you? And on the back, Worlie asked, what would it mean to you and your community if you were a police officer? So both of those messages were really trying to capture social impact in the more traditional sense. Things that are much more similar to what we've seen on billboards and other recruitment.

Elizabeth [00:14:16] The other two messages that we wanted to test were capturing very different types of motivation. So on the intrinsic side, we tried a message that really focused on the challenge of being a police officer. So the message said something like, you know, being a police officer is really hard. If you're the kind of person who thrives in a challenging environment, this is the job for you. So that's really focusing on intrinsic motivation but the idea that people might be attracted to jobs that are challenging for them. And then on the extrinsic side, we tried a message that tried to highlight the job security that comes with being a police officer. So we didn't explicitly say, this is all about job security. The message said, if you're looking for a long term career, this is the job for you. So really tried to highlight some of the extrinsic benefits that come with the job. And so we have this basic service message, a slight variant, which is this impact message, and then the challenge message, and finally the job security or career message.

Jennifer [00:15:12] Okay, so you come up with these postcards and then you have to figure out who to send them to. So where was your sample drawn from and how did you decide who got a postcard?

Elizabeth [00:15:22] These are great questions and actually a lot of the work went into that part of the process. So, as I mentioned before, one of the challenges that every government has is like, where do you find the people that you're going to invite to apply for a job in government? What we did in this case is go as wide and as broad as we could. So we ended up using the voter registration database for a couple of reasons. So if you are - if you have voted or if you registered to vote in Chattanooga, or in Tennessee more broadly, you actually meet some of the minimum criteria that exist for being a police officer. So you're over the age of 18, you don't have a criminal record, and one could argue that if you've registered to vote, you have some sense of civic duty. It's not implausible that you would consider a job in public service.

Elizabeth [00:16:10] And so really we did a blanket pull across the city from the voter registration database and then in order to decide who received which postcard or who didn't receive a postcard, because we also had a group that didn't receive anything or our main control group, our comparison group, we randomized. So what that means is we picked out of a hat 10,000 households that we're going to receive these postcards. The benefit of doing this at random, as you know, is that in each of the groups that got a postcard, we had the same number of men and women, same number of motivated people, same number of people who hate the police, same number of people who love the police. Anything that you could potentially either observe or not observe about motivation in these groups should be relatively equal between different groups because we've randomly assigned who gets which post card and who doesn't get a postcard. So what that does for us is really quite simple. We can just send out the postcards and wait and

see who applies without any additional kind of evaluation strategy. And then just by looking at the differences in who applied by group, we get a sense of which postcard was most effective because there's nothing else that's different between these groups except the fact that they got the postcard.

Jennifer [00:17:23] Okay, so you have this nice randomized experiment, which, as you said, makes the data analysis pretty straightforward. You can just compare the outcomes across the different treatment and control groups. So what were the outcome measures you were interested in? Was it just who applied?

Elizabeth [00:17:37] Yeah. So the main outcome that we were interested in is who applied. And that's kind of the primary outcome in the paper as well. Beyond that, we were able to follow people through the recruitment process. So I was also interested in checking that we were getting the right kinds of people. What I mean by that is that we didn't have a surge in applications of people who would ultimately fail the written test or not make it through background checks. So we were able to follow kind of as secondary outcomes, the rest of the recruitment process. But the main thing we cared about was did we get people to apply - to take that first step?

Jennifer [00:18:11] All right. So what did you find? What were the effects of the different postcards relative to receiving no postcard at all?

Elizabeth [00:18:17] So the the main finding, which I think is really interesting, is that if you receive a postcard at your home with your name on it, with Worlie Johnson's face on it, and the postcard says, come serve, you are no more likely to apply to the police than not receiving anything at all. And that's really important and actually quite surprising, if you think about it. So the service messages did no better statistically than the control group that didn't receive a postcard. However, the groups that received the challenge message and the career message were three times as likely to apply to the police than the control group. So we see a pretty significant jump in applications, but only for the messages that say challenge or talk about the career, not just the regular service messages.

Jennifer [00:19:06] And just to reiterate, the - that service messages is the standard one that's used in this field, and in government service more broadly. So basically an advertisement that appeals to public service in the current context, where that's what people have in mind when they think of joining the police force, it essentially is the same as doing nothing.

Elizabeth [00:19:24] That's exactly right. There's I mean, two ways of thinking about why that didn't work. So one way of thinking about the service message is this is exactly what they've been hearing for a while. This is how people think about broader policing. And so saying it again in a job ad or in a postcard makes no difference. There's an alternative interpretation that says actually that message doesn't really ring true anymore, or at least the people that we're targeted. Either way, from a practitioner perspective or from a policy perspective, we've learned from this context and other context that a public service message does not increase applications.

Jennifer [00:20:01] All right. So your main result is that those challenging career messages work much better. Do your results vary at all across different subgroups?

Elizabeth [00:20:08] So the most exciting subgroup that we were looking at are people of color. So we found very similar results for people of color. So the public service message

was not effective compared to the control group, but the career message and the challenge message were four times as likely to encourage people of color to apply. So we just had a larger effect for people of color than for white people. So that's really exciting. We saw similar results in other places for gender as well. So the challenge message works well for women as well in some of the context that we've looked. So the subgroup analysis that we were able to do here was really just on race and gender. You could imagine doing different types of subgroup analyses that look at specific neighborhoods or specific backgrounds. We didn't do that in this study. But I think it's an interesting question to think through as I think about this broader research agenda, which is what message works for whom.

Jennifer [00:21:00] And you also mentioned that you consider the quality of the additional applicants recruited through these different messages. So you want to recruit people who are actually going to be able to make it through the process. So what data do you have available to measure quality and do you find any effect on those outcomes?

Elizabeth [00:21:15] So the measures of quality that we have are relatively constrained. So the administrative data allows us to look at things like whether or not they passed the tests that are involved in selection. So what we can say with confidence is that we don't see a drop in quality in these new applicants. They're not any less likely to pass. They're not any less likely to drop out. Now, I want to be thoughtful about what that means. What that means is that they're doing as well statistically as people who - candidates who applied through other channels or through kind of the regular recruitment process. Whether or not that's a sign of quality is a much broader debate that this - kind of out of scope for this project. But certainly we don't - we can answer the question or the fear that people had before we did this project, that we were just going to get a bunch of people who got excited by a flashy postcard and that they're not the kind of people that would have made it through recruitment and selection. And we can say that we don't see that - that they're as good as other candidates, at least in getting through the selection process.

Jennifer [00:22:17] Say a little bit more about big picture quality questions. What are sort of the dream data you would love to have to be able to evaluate whether someone is a high quality police officer?

Elizabeth [00:22:26] Yeah, it's such a good question. I mean, the main thing that we haven't been able to do well is think about how what we test in recruitment reflects what happens on the job. And there's a couple of ways of thinking about that. So, of course, there are kind of psych evaluations that are trying to capture psychometrically, who's right for the job or has some sort of psychometric characteristics that they think predicts quality on the job. But I think, you know, at a really fundamental level, we haven't been able to link - or I haven't been able to look causally what happens on the recruitment front and how that predicts performance on the job.

Elizabeth [00:23:02] The challenge is that we don't have kind of a common understanding of what good performance on the job looks like. We have a lot of terrible events that happen on the job that are rare events, thankfully, but are tragic. We have general performance metrics like, you know, process metrics, how many arrests, how many stops, and things like that that we could look at. But fundamentally getting a performance - what it means to be a successful police officer is really quite hard to capture in the administrative data right now. It involves thinking about how police officers interact with residents, principles of procedural justice, principles of community policing that we don't capture in the administrative data right now. But I think the kind of the million dollar question, at least

in my space, is how do we build recruitment processes that then can predict who does well on those fronts, on those really key performance metrics? And I think we can work towards that. But it requires levels of data set linkages that we don't have yet. It also requires a much crisper understandings of how we're going to measure performance on the job.

Jennifer [00:24:06] So is this intervention cost effective relative to other common recruiting efforts?

Elizabeth [00:24:12] It's really cost effective. So one of the beauties of behavioral science, and I think one of the things that has caused these types of behavioral tweaks to really explode in government is that oftentimes they're very, very cheap compared to the outcomes. So this is sending around a postcard, which, of course, in and of itself is relatively cheap. Because they're targeted, the return on investment is no better than if you did a large marketing campaign. But what we can also do is measure how effective this postcard is compared to really much higher touch interventions. So one thing that police departments often do is things like giving a recruitment or referral bonus, which is a real financial reward if you bring someone on who meets the criteria and who actually makes it through the application process and gets hired. So we can measure this intervention against that. And it's at least as cost effective as that does just in terms of the amounts of money spent. I think the main learning here for police departments is that even zero cost tweaks to the language that you use can have real impact in terms of who is attracted to these jobs. And that certainly has a really positive return on investment because it really is just about changing the message on communication that would already be going out.

Jennifer [00:25:27] Yeah, and I think the comparison you make to the referral bonus is also interesting because it highlights this question of, you know, you don't want to just recruit more people. You also want to recruit different people, or at least that's part of the goal of a lot of these departments. And if you're recruiting from within the existing networks of current police officers, it's probably less likely that you're going to be getting those different people than if you do the kind of campaign that you were doing in this experiment, right?

Elizabeth [00:25:53] Yeah, absolutely. A lot of the efforts - and this is true in policing, it's true in a lot of public sector environments. People joke that it's kind of a hereditary profession. You ask people, why did you become a cop? And they have an uncle or a father who was a police officer. So it's certainly a relatively close, predominantly male, white network. And so it really matters in this case to find recruitment strategies that don't depend on that specific referral system. That's already happening, of course, and it happens in a lot of professions. So I think it's even more crucial in these situations to think about outreach strategies that seem too broad to really kind of cast a wide net across the city and say, hey, have you ever considered applying for a job in policing to people and to households that might have zero connections to the police at all.

Jennifer [00:26:41] So, okay, so that was your result in Chattanooga. Have you had a chance to conduct similar experiments with other departments?

Elizabeth [00:26:47] Yeah. So through the Behavioral Insights team, we've now done these types of experiments at over 20 departments or jurisdictions across the country, mostly in smaller police departments. And one thing that's exciting about that is, well, it's twofold. Firstly, we're seeing the same challenges across the country. So this is not a Chattanooga specific problem. The second is that we're seeing some things that replicate. So across the board, I'm relatively confident that a public service message isn't the most

effective strategy to recruit new and different people to the police. What we're also learning is that there's some variation. Right. So it's not always the case that the challenge message does best, although in many cases it does. Sometimes there's other potential messages that are more appropriate for certain subgroups or certain age categories. So there's still a lot to learn. But what we have found by replicating in so many different places is firstly that there is a willingness to think about RCTs as just the way we do recruitment from now on - that you can build that into H.R. Systems across the country. And the second is that really we have to move beyond just a public service motivation message if we're going to get new and different people into this space.

Jennifer [00:28:01] And then beyond those experiments that you've been involved with and that that the Behavioral Insights Team has been involved with, are there any other papers related to police hiring or recruiting that have come out since you started this work that add to our understanding here?

Elizabeth [00:28:14] I mean, I think there's a lot of ongoing work in this space, which is really exciting. Some of the work that we've been doing now focuses on the actual selection process and thinking about the administrative burden in the selection process. So if you think about a six month or year long process where people drop out of different stages, one potential question is how can we shorten that process so that we don't lose our best talent to some other department or to some other type of job. So there's some interesting work there around police recruiting. There's also a much wider range of studies that look at how to take bias out of the selection process. A lot of that work started when we started looking at gender. So if you think about companies like Applied and other companies that are now trying to debias the selection process, what they're trying to do is figure out a way to improve the overall diversity of the workforce that gets hired. Really interesting work there. We still have some mixed evidence on whether or not things like anonymizing CVs works. It's not super clear that that's an effective solution. But I think there's a lot more work on the gender side and on the broader recruiting for diversity side more broadly that we can then bring into policing. In policing, I think we're still learning what works and there's a lot more to do. But if we address who applies, and we also address the administrative burden of going through selection, and then we also address the bias in the people who are doing the selecting, I think we can make a lot of progress.

Jennifer [00:29:41] So what are the policy implications here? What should policymakers take away from your study and the other work in this area?

Elizabeth [00:29:48] I mean, the main thing that I love to say to policymakers is that evaluation is not as scary or as costly or as time consuming as it has been in the past. One of the benefits of kind of administrative data getting better and our technology getting better is that we can run AB tests of this nature quite quickly. So what that means is the main policy implication is that we should be testing on strategies for recruitment across the board. The second is that we might need to expand how we think about motivation in the public sector. I really do think it's almost taboo to say that you're motivated by anything else except public service. But there are a lot of reasons why people take jobs and that doesn't make them better or worse at those jobs. So if you're motivated by wanting to feel like you belong in a community or if you're motivated by a need for autonomy over your day, or if you're motivated by a better paying salary or good benefits that doesn't make you any less good at delivering a public service. And so if we expand our understanding of who's kind of allowed in, we might be able to not only recruit talent, but also retain talent over time.

Jennifer [00:30:57] And then what's the research frontier? What are the next big questions in this area that you and others will be thinking about in the years ahead?

Elizabeth [00:31:03] I mean, one thing that I struggle with now and I'm excited to think about more is whether or not recruitment and recruiting a more diverse police force is really helping us answer the types of questions that we all care about in terms of better policing or better community police relations. The one big question is to really try to understand how the demographic makeup of our police forces actually affects outcomes. We have some promising evidence that it matters and it matters in a positive way. So we know, for example, that having more female police officers improves outcomes for things like domestic violence cases. But it's certainly a question that we should be studying further to think about how decisions on recruitment affect overall policing.

Elizabeth [00:31:45] The second area that I care about a lot is what happens when you're on the job. So if we have a challenge with diversity in our workforces, part of it might be that we - we're not recruiting the right people or getting more diverse candidates through the door. A second challenge is retention and who stays. And so one of the things that I've been working on now is really thinking about retention as the next frontier of the talent pipeline. What that means is thinking about burnout and who burns out early, thinking about belonging and who feels like they belong in these organizations, and how that affects who quits. And so if we think about a much broader strategy around the government workforce we'll have to pay a lot more attention to what happens on the day to day work environment and how that affects who stays if we're going to change people's perceptions about these jobs over time.

Jennifer [00:32:37] It's all so interesting. My guest today has been Elizabeth Linos from UC Berkeley. Elizabeth, thanks so much for talking with me.

Elizabeth [00:32:42] Thanks for having me.

Jennifer [00:32:49] You can find links to all the research we discussed today on our website, probablecausation.com. You can also subscribe to the show there or wherever you get your podcasts to make sure you don't miss a single episode. Big thanks to Emergent Ventures for supporting the show and thanks also to our Patreon subscribers. This show is listener supported. So if you enjoy the podcast, then please consider contributing via Patreon. You can find a link on our website. Our sound engineer is Jon Keur with production assistance from Haley Grieshaber. Our music is by Werner and our logo was designed by Carrie Throckmorton. Thanks for listening and I'll talk to you in two weeks.