

Probable Causation, Episode 77: Elizabeth Linos

Jen [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. My guest this week is Elizabeth Linos. Elizabeth is the Emma Bloomberg associate professor of public policy and management at the Harvard Kennedy School. Elizabeth, welcome to the show.

Elizabeth [00:00:29] Thank you for having me, Jen.

Jen [00:00:30] Today, we're going to talk about your research on reducing burnout among 911 dispatchers. But before we get into that, could you tell us about your research expertise and how you became interested in this topic?

Elizabeth [00:00:42] Yeah, absolutely. So, you know, my research really sits at the intersection of public management and behavioral science. So I spend all my time thinking about how we can use principles of psychology and economics to improve how government operates and a big chunk of my work over the past few years has really focused on the people of government. How do we recruit, retain and support government workers? Now, for anyone who has worked in government, this is kind of an obvious urgent challenge for the public sector. I really became interested in this topic when I was in government myself. I had the privilege of working for the Greek government during the last financial crisis, and in doing so it became really clear to me that we had so many smart people thinking about policy reform and policy design and policy evaluation. But we didn't have as much rigorous evidence on how to support the people who were calling to make all these changes the actual day to day civil servants who were called to innovate or change their practices or change the way they delivered services. And so I really wanted to dedicate my research agenda to understand that better. Burnout, it turns out, has been an issue for some years and was already top of mind for a lot of public sector leaders even before the pandemic.

Elizabeth [00:01:57] When I was first asked to work on 911 dispatchers, the challenge came to me as as a question of absenteeism and turnover. So across the country, there was a huge challenge with retaining and supporting 911 dispatchers and their work that ends up becoming really costly for cities across the country and so that was a starting point that led to a whole research agenda on burnout in this space.

Jen [00:02:21] Your paper is titled "Reducing Burnout and Resignations among Frontline Workers: A Field Experiment." It's coauthored with Krista Ruffini and Stephanie Wilcoxon, and it's forthcoming in the Journal of Public Administration Research and Theory. And as you mentioned, we are hearing a lot about burnout these days. So in this project, how are you thinking about burnout? What does that term mean?

Elizabeth [00:02:43] Yeah, it's a great question, especially because a lot of people have been using that that term, especially since the beginning of the pandemic. Burnout as defined by the World Health Organization is an occupational phenomenon, which means that it's something specific about work and workplaces and work experiences and it's really characterized by three dimensions. First, it's characterized by emotional exhaustion. So the sense that you just can't stand the thought of another day at work. The second kind of dimension is about depersonalization or cynicism or feeling like you have mental distance from the people that you're serving or the people that you're working with. And then the third dimension of burnout is really around self-efficacy and personal accomplishment, the

sense that you can't actually do the things that you want to be able to do in your work. And, you know, brought together all of those three components of burnout end up appearing in workplaces as something like depression or something like kind of detachment from your work.

Elizabeth [00:03:41] So it's kind of different from stress or anxiety or other, you know, other words that are used in this context, but it is something that is really linked to workplaces, and we're still learning exactly what causes it over time.

Jen [00:03:55] So why might 911 dispatchers be particularly susceptible to burnout?

Elizabeth [00:04:00] Yeah, I'm super fascinated by the work that 911 dispatchers do. If you look at some of the evidence that we have across the board, the main way of thinking about who is most susceptible to burnout comes down to understanding people's job demands and people's job resources. So job demands are kind of the the parts of our jobs that require sustained cognitive or emotional or physical effort. And then on the job resources side, the main kind of determinants of burnout are whether or not you have the resources to match the demands that your job requires. So do you have a supportive supervisor? Do you have training and development opportunities? Do you have autonomy to make decisions about your day?

Elizabeth [00:04:42] Now it turns out for 911 dispatchers that both of these things are risk factors for burnout. So what's interesting about burnout is that we know that there are certain job related risk factors associated with who is most susceptible. On the one hand, it's about job demands. So which parts of our job require sustained cognitive, emotional or physical effort? But also it has to do with job resources. So these are the resources that we have to manage our job demands. And they can be things like whether or not you have a boss who supports you or whether or not you have autonomy over your day to decide what needs to get done or whether or not you have training opportunities or development opportunities.

Elizabeth [00:05:25] And so the research suggests that when job demands are high and job resources are low, people are more susceptible to burnout and that's exactly what we see among nine on one dispatchers. Dispatchers are this really fascinating group of civil servants who day in and day out face trauma in their work. The nature of their work means that they are listening to people in crisis, sometimes hundreds of calls where they have to make life or death decisions without a lot of information. So that in itself is incredibly emotional and challenging, but for various reasons they are treated organizationally as call center workers, and so they don't get a lot of the mental health resources or other supports that other parts of the law enforcement community get. Let's imagine there's like a big crisis or there's a, you know, God forbid, a shooting the firefighters or the police officers or others who respond as first responders are going to get a lot of support surrounding that incident. But the dispatchers often just have to go back to work because they're considered just a call center worker. And so those two components together, really high job demands, really emotionally demanding work and low resources means that we see very high rates of burnout, absenteeism and turnover among 911 just veteran.

Jen [00:06:42] And so you're alluding to this. But why why is this a concern from a policy perspective? What are the main consequences and costs associated with burnout from, I guess, mostly the employers, but since in this case the employers are the government from you know the government's perspective.

Elizabeth [00:06:59] Yeah, we're still measuring kind of what all the consequences and costs are of burnout. What we know mainly from the medical literature is that there are huge healthcare costs associated with burnout.

Elizabeth [00:07:12] So some of these estimate up to \$190 billion in healthcare costs because of burnout in the U.S. workforce. And the second kind of large cost that we know exists is around turnover. So when someone quits, especially one of these roles, it is very costly to find a replacement, to train them up, to be ready to go depending on your estimate, that's somewhere between 30% or 200% of of annual salary that is lost every time someone turns over. And so those costs are real, both from a individual perspective and from an organizational perspective. What we're studying now is whether or not we can measure the consequences and costs that are then associated with service delivery. So what I mean by that is if you have a burned out physician, are they more likely to make mistakes? If you have a burned out correctional officer, are they going to treat residents differently? If you have a 911 dispatcher who is burnt out, how does that change their ability to deliver services that we depend on for the entire kind of process of public safety to work well. We're still trying to figure out exactly how to measure that well and also what those costs and consequences look like.

Jen [00:08:24] So before this paper, what did we know about how to reduce burnout?

Elizabeth [00:08:28] It's a great question. We've we've been thinking and measuring and talking about burnout as an academic community for over four decades now. And a lot of the work that has been done in this space has really been to establish burnout as a thing, a real thing, where we understand it's antecedents, where we understand how to measure it and who is most affected by. It was only in 2019 when the W.H.O. really recognized this as an occupational phenomenon.

Elizabeth [00:08:52] So we're still early in our learning about what this means in workplaces. So what that means is even though we have a lot of data about people being burnt out and who is most likely to be burnt out and what's correlated with that, we don't actually have a lot of successful case studies where we've tried to reduce burnout [00:09:13]in its work [0.2s] some of the early work that's happened in this space are in smaller samples, but they're promising that look at things like mindfulness or cognitive behavioral therapy or reduced work hours. But we're still at the beginning of really understanding what works to reduce burnout, even though we've been talking about burnout for a very long time.

Jen [00:09:33] So what makes this so challenging? What are the main hurdles that researchers like yourself have to overcome in order to figure out what does work, which interventions reduce burnout and improve the associated work outcomes that we care about?

Elizabeth [00:09:49] Yeah, I mean, the problem of studying burnout is similar in some ways to the broader challenge that social scientists face when they're trying to figure out what works in the real world. And we have ways to solve that through field experiments, but the fundamental question that is always asked any time you try to implement the pilot program or the intervention, is what would have happened had you not implemented that. So when it comes to burnout, we know that burnout moves over time. We know that things that are happening in the news or things that are happening in people's work environments are going to affect, you know, who gets burnt out and when. And so any time you start a new program, it's very hard to measure kind of before and after and get a sense of

whether or not the program works unless you also have a group of statistically identical people that didn't get that same program.

Elizabeth [00:10:39] Because burnout, you know, as we can see during the pandemic, can go out for everyone, can go up for an entire country at the same time. And we wouldn't want to miscalculate or mis measure the effect of a program just because the world is changing at the same time. So what we do in our work and and a lot of social scientists do, who we try to think about what works is when these field experiments are randomized controlled trials where we're testing a very specific program, but we're also measuring burnout in a comparison group, a control group that looks statistically identical.

Elizabeth [00:11:14] To do that, well, you need a lot of employees to study and so one of the most exciting parts of this paper and a challenge for the field is that you actually need more employees than any given city has to be able to study something like this. We were so lucky that in collaboration with the Behavioral Insights Team, we were able to get nine cities to work together on this burnout reduction intervention, but that's a rarity. And so a lot of the studies that we have are almost too small to tell us something that we can scale up or generalize more broadly.

Jen [00:11:47] Yeah. The fact that you had multiple cities here was very cool. I agree. Okay. So in this paper, as you mention, you use a field experiment to study an intervention focused on perceived social support. So tell us about this intervention.

Elizabeth [00:12:02] Yeah. So one of the things that we know from the previous work that has happened on burnout is that there's a strong association between people who feel like they have someone at work that they can turn to when things are rough and burnout.

Elizabeth [00:12:17] So if you ask people in a survey, do you have someone at work that you can turn to? Do you have someone who has your back? Are there people that you can lean on for support? And then you also ask them if they're burnt out. Those things move in the same direction. What we didn't know before the study is which way that causal arrow moves is that the people who are more burnt out are less able to make those social connections or is it that actually we can somehow induce those social connections or create that social support in a way that reduces burnout?

Elizabeth [00:12:49] So our goal with this study was to take that insight and see if there was a way that we could create social connections and social support for people who didn't already have it. Now, one thing that I want to emphasize, because it's a bit bizarre and I think really interesting, is that the literature tells us that it's not actually getting help or support from people that reduces burnout or could reduce burnout. It's believing that you have someone that you could turn to so you're not actually getting help or advice that makes a difference in terms of mental health. It's having a community of people that you think you belong to and that you think understand what you're going through day to day. It ends up mattering. And so that's really what we focus on in our intervention. What we did in practice is over a course of six weeks, we invited people to share their experiences and stories about what it's like on the job. And we framed this as an opportunity for them to talk to newbies about what it's like. And then every week people would share their stories or their experience, and we would put them up on a common, anonymized platform.

Elizabeth [00:13:56] So dispatchers could also read other people's stories or see that other people were having similar experiences. So every week they would get an email in their inbox that said, Hey, you know, last week we asked you about about this. You wrote

a story. Here's a story that someone had shared this week, tell us, for example, what advice you have for a newbie about what it's like on the job. And this process continued for six weeks for the people that were in the pilot group or the perceived social support group.

Jen [00:14:23] Okay. So that's what the treatment group received. So this is a randomized trial. So you're going to randomize some people to this treatment group and you're going to randomize the rest to the control group. So what did that control group receive, if anything?

Elizabeth [00:14:35] Yeah, in this case, you know, because this was the first time that we were testing something like this, the control group got very little. So what they got was an email at the beginning that said that this program existed, that this platform existed, and that they could share their stories if they would like, but they didn't get the weekly reminders that the treatment group got. So essentially, you should think of this as the treatment group getting weekly nudges to share their experiences and also weekly emails that told them that other people were going through the same thing and the control group didn't get that during this period at all. Later, we can talk about how we've done more studies in this space to really disentangle other types of control groups, but in this version, it was it was a pretty simple treatment versus very, very light control.

Jen [00:15:18] Okay. And then what are the mechanisms we should have in mind here for how how this would affect burnout and the employment outcomes you're in to look at?

Elizabeth [00:15:27] Yeah.

Elizabeth [00:15:27] So the main thing that we were trying to induce is the sense that there was a group of other dispatchers that had similar experiences. So in some professions there's a really strong professional identity, like police officers or firefighters or physicians, and that hasn't really been the case for dispatchers as much. So we wanted to create the sense that there is this peer group across cities. It's not just people who work with you across cities who know what you're going through. And really, you're the only ones who know what you're going through. And that, at least according to the research, should be helping people handle and when they come their way. Now, it's a little bit of a convoluted mechanism, but the argument is if I feel supported and I feel like I have a community to turn to, my sense of self and my sense of self-worth is bolstered by that.

Elizabeth [00:16:20] We all turn to our social identities to manage our own self-worth. And so when a difficult call comes our way or we're and, you know, something really challenging happens at work, we don't interpret that as a threat to our identity or our competence. Rather, we realize that it's just a hiccup at work and we have kind of the resources or the peer support resources to manage that adversity. We've seen this in other contexts, mainly in educational psychology, literature, but this would be the first time that we've tested this.

Jen [00:16:50] Okay. And so, as you said, you do this in a number of different cities. So where did you conduct this experiment and who were the eligible workers here?

Elizabeth [00:17:00] Yeah, we were really lucky to work with the Behavioral Insights team on this. We have nine mid-sized cities that were involved in this project, and the way it was set up is that the city as a whole signed up to participate.

Elizabeth [00:17:12] So every dispatcher in the city was then followed over time we encouraged people to participate in surveys, but we were able to look at administrative data on turnover and absenteeism for every dispatcher in that city. And as we noted before, the group that participated in the peer support component versus the control group was selected at random. So we just pick out of a hat who gets to be in the treatment group in this phase and who who is in the control group?

Jen [00:17:41] And what data do you have available for all of this?

Elizabeth [00:17:44] We use three primary kind of sources of data. So first we look at survey results. The main outcome, of course, was a validated burnout scale, the Copenhagen burnout inventory. So that's survey data that we collected at multiple times throughout this process at baseline, right after the intervention and essentially six months after the launch of the project, we also had access to administrative records on turnover. So any type of separation and we think we had access to absenteeism, although we're not 100% sure that we got that data exactly right in this case.

Jen [00:18:23] The challenge of doing any sort of work with partners.

Elizabeth [00:18:27] Absolutely. Absolutely.

Jen [00:18:29] Okay, great. And then so the outcome measures you're most interested in here are what?

Elizabeth [00:18:34] The main is, is burnout itself as measured by this CBI scale. It's a validated scale. And then sick leave and turnover, the turnover, we're measuring any sort of resignation. We don't really know a lot of details about how voluntary or involuntary that is, but if it's listed as a resignation, we can tell this.

Jen [00:18:54] Got it. Okay. All right. Let's talk about the results. What do you find was the effect of your social support intervention on burnout?

Elizabeth [00:19:02] So what we find is really fascinating and exciting.

Elizabeth [00:19:05] I think for more research in this space, what we find is that this essentially zero cost intervention in a six week program of email not only reduces burnout, but also has an effect on resignations. So we see a reduction in turnover over the six month period. It's all concentrated in the post intervention period. And so one thing that we're learning more about is kind of how long it takes to go from developing your sense of self worth, developing your sense of peer support until that shows up and reduced burnout and resignations over time. So there's a there's a temporal component to that that's really. We don't see a similar effect on sick leave. We don't see much on sick leave, but as I as I alluded to, part of that is how how sick leave versus other types of absenteeism are coded potentially in cities. So I'm not sure that we we know either way whether or not there was an effect on that.

Jen [00:20:01] What was interesting as I was reading the paper. It made me think that I think the coefficient you find on sick leave is actually positive and made me think that one way it could actually be healthy if people are taking a day off when they need to just step back for a day and need a break. Right? Like, I feel like that's the kind of advice I find myself giving to colleagues, right? It's like one who've had a rough week. It's like, just take

a day. If you're burned out, you need to take some time off. You can't just like keep showing up at work every day. That's not how you're going to get through your burnout.

Elizabeth [00:20:33] Absolutely. And one thing that I'm dying to test more rigorously is what if we just gave people a little bit more time off.

Jen [00:20:39] Mm.

Elizabeth [00:20:40] Would that benefit, kind of organizationally benefit the employer in terms of reduced turnover? So, you know, sometimes it's really hard to convince organizational leaders that their employees just need 30 minutes, an hour a day, that they can make decisions for themselves about how they spend that time. I really think the costs of turnover are so high that it's worth exploring how we give people a little bit more time, especially in these jobs like dispatch jobs, where you're essentially on 24/7, you're always manning the post if someone doesn't show up for their shift, you have to stay for extra mandatory overtime. It's really difficult to take the time that we all know is so consequential for mental health.

Jen [00:21:23] Yeah. Especially for such intense jobs like these. Okay. And then then you ran an online experiment on MTurk in order to dig into some of the mechanisms. So what did that experiment involve and what did you find?

Elizabeth [00:21:38] Yeah. So, you know, we were really excited to see these results of the field experiment. We see this reduction in burnout, we see a reduction in resignations. But as we discussed before, you know, there's a lot of things happening any time you're running something with real partners, maybe it's possible that just receiving any email, right once a week where someone's thinking about you or telling you that they recognize that you're you're doing important work, maybe that in and of itself was the mechanism and it's not about belonging or perceived social support. Maybe there's something else that's happening at the same time and just, you know, in how we ran the intervention. So we wanted to go to a different sample and really try to tease out what's changing between receiving these types of emails and the ultimate result that we care about, which is burnout.

Elizabeth [00:22:25] What we find when we go to an online sample is that when we ask people to talk about their experiences at work in exactly the same way that we did in the email intervention, and we compare that to a control group that is also asked to give advice, but not about their work experiences with their peers, but rather just generally give advice to a high school student about what it's like to go to college. So they're still giving advice, but it's not really about peer support or social belonging with a peer group. We find that just talking about how you support your peers increases your sense of belonging, it increases your sense that you feel connected with others. It even has these consequences on feeling valued and being heard. And so all of the things that we think are associated with building your self-worth and the sense of perceived social support end up going in the right direction.

Elizabeth [00:23:20] Now that in and of itself is not proof that that's what happened in our experiment. But it's certainly suggestive evidence that what we're moving as, what we think we're moving, that these types of interventions really do make people feel like they belong. They do make them feel like they're more valued or that they have someone turn to when things get difficult or should they need it. And so that to me is promising evidence

that that's the mechanism through which we see this reduction in burnout and resignations.

Jen [00:23:47] Yeah. So what are the policy implications of all of this? What should policymakers and practitioners who are listening take away from your results?

Elizabeth [00:23:55] Well, I mean, the first thing that I have to say, I think probably contractually obligated is that we have so much more to learn about what works in reducing burnout.

Elizabeth [00:24:07] So we should be some things left and right with the same level of rigor that we would test any sort of large policy reform or, you know, medical change. There is a whole industry that is developing in multiple ways around wellness and wellbeing and burnout and a lot of the things that people suggest sounds great, but we don't really have a strong evidence base on whether or not they work. So this study, if anything, tells us that we can move burnout with things that are not incredibly expensive or infeasible, but that we really have a lot of testing to do to see what works before we scale that back. I'm excited about this. I don't want to imply through this work that we don't need to make other, larger structural changes to our workplaces because of course we do.

Elizabeth [00:24:58] But, you know, one of the areas that I focus on in my work are jobs where the nature of the job is so emotionally taxing that it's hard to change, you know, when you're working with trauma in various form, we're never going to get to a point where that where the work itself isn't a risk factor for burnout. So I think it's really exciting that we have workplace solutions that don't focus on the job demands, but rather focus on bolstering the job resources that we provide for employees who are working in this space.

Jen [00:25:28] So I know you're continuing to work on this topic and actually have another paper focusing on reducing burnout among corrections officers so the staff at jails and prisons. So tell us about that project.

Elizabeth [00:25:40] Yeah I'm really excited about that project. It's a collaboration with Jesse Harney, who's a Ph.D. student at UC Berkeley and part of the reason I'm excited about that project is because it gives us an opportunity to do two things.

Elizabeth [00:25:53] One is we're trying the same kind of intervention in a totally different population. So 911 dispatchers, at least in our sample, were primarily female, correctional officers are primarily male and not necessarily known for talking about mental health and their feelings, so to speak, for, you know, what does it mean to scale this up to other groups, the frontline workers. But we've also made some adjustments to the intervention to be able to really disentangle what's happening. So as you remember, in the 911 dispatcher work, the treatment group got this peer support program and the control group got nothing essentially in the study that we're doing now with Jesse Harney, the treatment group is getting something that looks like this, the peer support program, but the control group is actually also getting a different type of program. So they are getting individual wellness support.

Elizabeth [00:26:49] Now, when I say individual wellness support, you can imagine the types of emails that wellness officers are sending to their employees every day.

Jen [00:26:58] Mm hmm.

Elizabeth [00:26:59] So when we think about what the control group is getting, they're getting the kinds of emails and support that you have likely seen by wellness officers give to their employees. They're really focused on tips and tricks that you can do for your self at the individual level to protect your mental health. So things like journaling or reflecting on what you're thankful for. And so what we really want to test in this version, the program is, you know, is the peer support intervention really about connecting to others or is it just general support? Like is there something at the individual level that can be done? Or is, you know, our solution to burnout really about understanding communities and how people can help each other.

Elizabeth [00:27:43] And what we find is that that peer component really matters. My sense so far is that you can't really deal with burnout alone at an individual level and so all those kind of individual level interventions might be less effective than trying to connect people with each other and try to build a sense of social support. We've been able to disentangle that in the correctional environment. The other thing I'm really excited about in that project is that we're able to also link to the beliefs and mindsets of the correctional officers themselves. So in public management, we have this, I guess, theory or belief that if you invest in the workforce, you're going to see improvements in service delivery, but we don't actually have a lot of causal evidence of that.

Elizabeth [00:28:25] And so what we're trying to do in this study is say, if I successfully reduce your burnout, how does that translate into how you treat the people that you are interacting with, in this case, residents in jails? How does that change both behavioral outcomes as well as kind of mindset outcomes on the service delivery side? So we're really looking forward to seeing where that goes.

Jen [00:28:46] Yeah, and I know that this is a work in progress, but do you want to give us a little preview of the results?

Elizabeth [00:28:52] Sure. So the it is a work in progress, but--

Jen [00:28:55] We won't hold you to it.

Elizabeth [00:28:58] The good news is that it does look like we were able to reduce burnout in this context again. So we did an eight week intervention six months later it does look like the group that got the peer support is significantly less burnt out than the group that got individual type support. And it looks like we're moving mindsets, and I'm super excited about that because it could have gone either way.

Elizabeth [00:29:20] But it seems like the people who received this peer support were less likely to believe that inmates are dangerous or more likely to see inmates as having shared values and beliefs as them. And so, you know, we're not all the way there yet, but it's looking like reducing the burnout of correctional officers could improve empathy and interactions with residents. We're still digging through the administrative data on how that translates into, you know, administrative records about incidents and things like that, but just the idea that investing in the mental health of law enforcement officers can improve interactions with other people to me is a really fascinating area of research that we know very little about, but I'm excited to dig into.

Jen [00:30:04] Yeah, I agree. This is super exciting. And just thinking back to like what you were saying about how important it is to randomize the stuff or, you know, find a way to rigorously evaluate what works. I mean, you could imagine all of this totally backfiring,

right? Like getting people giving people a way to tell each other about all the terrible things that have happened to them on the job. You could imagine it sort of spiraling and making everyone feel worse about the job. So it's super interesting that it went the other way.

Elizabeth [00:30:33] Absolutely. You know, one thing and this is why we test things, right?

Jen [00:30:36] Mm hmm.

Elizabeth [00:30:37] There's a lot of good ideas out there. Most things don't work in theory, but some things backfire. Right. And so it's really important that we we get that right. We were explicitly building peer support and belonging among officers. So there was a real potential that that would worsen interactions between correctional officers and residents and that's not what we see.

Elizabeth [00:31:01] We actually see an improvement, at least in terms of mindsets. So, yes, this is definitely something that we should be testing and testing again in different contexts before we can see something bigger. But I'm really excited that we are seeing replications of this work in other contexts.

Jen [00:31:18] Yeah, very cool. Okay. So aside from your own work, are there any other papers related to this topic that have come out since you all first started working on the 911 study?

Elizabeth [00:31:28] So one thing that has happened during the pandemic is that there's a ton of really interesting work happening around burnout a lot of that is in progress. I think we're going to see some studies coming out in the future. I know that there are some RCTS and other studies is that look at similar types of interventions in progress. I can share some of those, but they are testing things like failing groups or flexibility based interventions or, as I mentioned, cognitive behavioral therapy. And those of all are actually either in progress or are about to be completed. So I'm really excited to see in which direction those results come out.

Elizabeth [00:32:07] One thing that I hope will happen in the next few years is that we get a better sense across studies of what's possible. So each of these studies are relatively small in numbers because as I said, it's really hard to get big numbers, but as we have more and more of these studies, you know, bring them together and some sort of meta analysis I think would be really useful.

Jen [00:32:26] Yeah. And that's a huge advantage of actually doing these RCTs, right? You've got all these well identified studies you could potentially combine. So aside from that, what's the research frontier? What are the next big questions in this area that you and others are going to be thinking about going forward?

Elizabeth [00:32:43] Yeah, I think there's a lot of work to be done.

Elizabeth [00:32:45] And as I mentioned, we're still at the early stages of designing and testing solutions. So I think that's really where the research frontier is. The sense is that in the next few years, hopefully we'll shift away from just thinking about any sort of mental health challenges in the workplace as something that you can fix at the individual level. And so I'm hoping that we'll see more efforts to think about both, you know, peer or social support interventions like what I'm doing, but also more systemic changes like changing people's, you know, schedules and timing or autonomy over their jobs or course wages or

the amount of work they have. The pandemic has opened up a whole host of questions around working from home and how that affects social connectedness and social support and ultimately how that affects things like burnout and turnover. So I think there are a lot of interested parties to understand how do we can make workplaces where people don't burn out into years and quit, especially in the public sector.

Elizabeth [00:33:45] The other big frontier that I'm, you know, thinking about and I alluded to earlier, is what does this mean in terms of public policy outcomes. So can we have a few strong cases with rigorous evidence behind them that say an investment in the mental health of the workforce has an impact on all sorts of service delivery outcomes, whether it's bias in decision making or productivity or mistakes. And we have really interesting correlational evidence that suggests that things like fatigue matter, but I'm hoping for some more rigorous, you know, studies that we can point to to say, look, it's worth it to think about mental health in the workplace if you care about employees, of course, if you care about organizational costs like turnover, but ultimately, even if you don't care about those things and you care about service delivery and better government resident interactions, one of the levers that hasn't been considered enough, or certainly under study, is these investments in the workforce itself.

Jen [00:34:47] Yeah, I agree. Those are both interesting and important questions. I also it also comes to mind that to bring it back to the other work you've done that we talked about on this podcast before on how to recruit more in different people into these different professions. We talked about law enforcement in particular, seems like these issues around burnout and sort of your ability to kind of connect with other colleagues and feel like you're part of a community that you could go to if you need help. That might be particularly challenging for for employees that are a minority in whatever their workplaces. So it sounds like men maybe among 911 call dispatchers and women among corrections officers, racial minorities among all of these groups. So as we're thinking about if we want to diversify these different workforces, perhaps also because we're concerned about service delivery, I would imagine figuring out how to retain those those different populations that we want there is going to be even more important.

Elizabeth [00:35:49] Yeah, I think you're absolutely right. You know, one thing that is only starting to emerge in the data is that, you know, we've been thinking about burnout as just how much work you have, right? Where the solutions look very different. If I'm right and burnout is really a belonging question then all the efforts that are happening in parallel to improve equity, inclusion and belonging in the workplace might end up having impacts on things like burnout and resignations. And so we do see that in our data, in other settings, there's a strong correlation between feeling like you belong at work and things like burnout. And of course, in a lot of work environments, people of color in particular, black employees and black women are less likely to report feeling like they belong with consequences on all sorts of important outcomes. And so I think that we can, you know, bring these worlds together not only as a recruitment and retention strategy, but also, as, you know, as we think about broader [00:36:42] **debate** [0.0s] questions at work. I think these things fit together in a way that requires a lot more a lot more data, a lot more studying, but there's certainly something there to look into.

Jen [00:36:54] So interesting. My guest today has been Elizabeth Linos from Harvard University. Elizabeth, thank you so much for talking with me.

Elizabeth [00:37:01] Thanks so much for having me.

Jen [00:37:08] 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 patrons, subscribers and other contributors. Probable causation is produced by Doleac Initiatives, a 501(c)3 nonprofit, so all contributions are tax deductible. If you enjoy the podcast, please consider supporting us via Patreon or with a one time donation on our website. Please also consider leaving us a rating and review on Apple Podcasts. This helps others find the show, which we very much appreciate. Our sound engineer is Jon Keur with production assistance from Nefertari Elshiekh. 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.