## Probable Causation, Episode 95: Marcella Alsan

**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. My guest this week is Marcella Alsan. Marcella is a professor of public policy at Harvard University. Marcella, welcome to the show.

Marcella [00:00:27] Thank you so much for having me.

**Jennifer** [00:00:28] Today, we're going to talk about your research on the effects of immigration enforcement on take up of social insurance programs like SNAP and SSI, but before we get into that, could you tell us about your research expertise and how you became interested in this topic?

**Marcella** [00:00:42] It's a good question because I don't do law and I don't really do crime. I do do economics. So that's one out of three, but mostly I study health and health disparities. And so but I have been interested in the take up decision broadly, particularly as it applies to preventative care. And in that sense, the take up decision kind of makes sense in that you're deciding on the benefits and costs of that particular medical procedure, but, you know, in the U.S., we also have a take up decision for things like social insurance programs. And that is different than obviously than other countries where you're you're basically defaulted into these programs based on administrative data. And so it was an exciting time back in 2010 for health economists when the Affordable Care Act rolled out. And if these public subsidies for private insurance on the on the marketplace and this question of, you know, getting people to, quote unquote, take up health insurance and trying to understand the puzzle of why some people weren't taking up health insurance despite the generosity of these subsidies, kind of drew my attention.

**Jennifer** [00:02:03] So your paper is titled "Fear and the Safety Net Evidence from Secure Communities." It's coauthored with Crystal Yang and is forthcoming at the Review of Economics and Statistics. So tell us about Secure Communities. When did that program start and what does that do?

**Marcella** [00:02:19] Yeah, so the timing is really key here. So Secure Communities is actually best described as a data sharing program that existed between local law enforcement and the Department of Homeland Security and ICE. And importantly, it rolled out in the first term of President Obama between 2008 and 2014. So kind of tying these first two questions together. The ACA was passed in 2010, but started really to pick up steam and trying to get people to enroll circa 2014. And again, if you're a person that studies health insurance and again organizes it like we do in the U.S., which is we have quite a bit of commercial health insurance and the death spiral, so to speak, which means sorry, Jen, you've told me not to be too jargony. So let me explain what that means. So if if you don't have a system where everyone is in, if you don't have a health insurance system where everyone is in by default, like a universal health insurance system, publicly provided, publicly financed or publicly financed, privately provided, whatever it is, but if you allow it to be a choice, then you have selection issues, meaning that the cost of a particular person is related to their type.

**Marcella** [00:03:44] So are they a high cost individual or not? And that's a different type of market typically when you go buy a coffee, you don't get charged higher because you're

Jen Doleac versus Marcella Alsan per see, but if I'm a little bit older than some of your audience, then I, you know, I might get charged more for that for that coffee. So selection problems kind of bedevil trying to supply private health insurance. This was certainly a concern when the ACA marketplaces were unfurled. And one of the populations that would have been wonderful to have them subscribe in high, high numbers to the ACA were Hispanic Americans. Why? Because typically they would be eligible for the subsidies, given their income, and they would also be they're also typically healthier than the average low income individual for reasons that we're still trying to understand. There's sort of a Hispanic paradox, which is for their level of socioeconomic status, they tend to be healthier, have lower, therefore lower utilization. So these are the perfect type of folks that you would love to get in this marketplace, but for reasons that were a puzzle, it was unclear why they were not enrolling in droves at the beginning of the marketplace.

**Marcella** [00:05:08] And so with Crystal, we were always trying to look for topics that kind of fall into both law and health. And we were wondering whether, in fact, some of this puzzle of low uptake, despite the fact that this would have this positive externality, possibly kind of make the market more viable, could that partly be explained by Secure Communities? Now, ultimately, as you mentioned in the introduction, we look at two different federally funded safety net programs, SSI and SNAP, because we just didn't have the data, the length of time post the ACA rollout before Secure Communities actually gets revoked, but that was sort of the impetus for looking at this. So what Secure Communities was, was this data sharing agreement, as I mentioned, which now you can kind of see the timing of it 2008 to 2014 between those years is when it was rolled out across the country, county by county and that's just around the time the ACA is picking up steam. But we don't have the evidence to show whether that can explain some of the sluggish take up.

**Marcella** [00:06:21] So that's a still I think that's still an open question for those that are interested. Now, typically when someone is arrested, their fingerprints are taken by law, local law enforcement. And again, this is probably what your viewers know quite a bit have expertise in and those fingerprints are shared with the FBI, the Federal Bureau of Investigation, to see if they're wanted for criminal activity in other jurisdictions. And it was not the case that the same information was shared with the Immigration and Customs Enforcement, ICE and Secure Communities changed that. So now, as soon as those fingerprints were sent to the FBI, they also got routed to the Department of Homeland Security and to ICE and they looked for a match. They looked for a biometric identification that would suggest that that person was potentially removable, meaning that they could be deported and they were in the country without authorization. Now, this represents, I think, a pretty massive shift in terms of data sharing.

**Marcella** [00:07:26] Before, there were sort of bespoke programs 287G programs that counties could elect to have agreements with with the feds to do this, but this was nationwide and your listeners were probably also have heard of sanctuary cities. So when the when ICE found a quote match, they would then submit a detainer request back to those local authorities, telling them that they had to actually keep that individual in custody for up to 48 hours while they could while ICE could determine whether they were going to send someone and treat them, possibly move them to a detention facility or start deportation proceedings and sanctuary cities were and then counties and states and so on were sort of in response to that certain communities said, we're not going to actually honor these detainer requests, but these detainer requests, you were this new two way communication that was happening between local law enforcement and the federal authorities. So individuals that, you know, would have been released, you know, possibly

not charged or released on bail or so on and so forth we're now being asked to basically remain in custody until ICE could start their proceedings or interview them, etc..

**Jennifer** [00:08:52] Okay. So you're going to measure whether Secure Communities reduced U.S. citizens participation in those anti-poverty programs I mentioned before, like SNAP, which we also know is food stamps and the Supplemental Security Income Program, or SSI. Of course, Secure Communities targets non-citizens. So why might this increase in immigration enforcement and these detainer requests affect citizens participation in programs for which they're still eligible?

**Marcella** [00:09:20] Right. And you could kind of divide immigration enforcement into two buckets. There is border security, obviously, and then there's forcible removals from the interior. And this was as I described, this was the latter this was not preventing individuals from coming in, this is taking people out who are in the country without authorization and forcibly removing them. And so we were drawing on a lot of other scholars who looked at immigration and the effects of immigration enforcement in the past, just to mention a couple of those names like Catalina Amuedo-Dorantes at UC Merced, Liz Cascio and Ethan Lewis have some very nice contributions. Probably our largest source of inspiration was work by Tara Watson in AEJ policy, where she was looking at illegal immigration reform and Immigration Responsibility Act of 1996, which was another attempt or another policy to, quote, locate and remove undocumented immigrants.

**Marcella** [00:10:30] And she was looking at the take up of Medicaid so public health insurance, particularly for children. So in that instance, the children were eligible, many of them being born in the United States, but their mothers who were often not authorized to be in the United States, might have had concern about going through the application process because it might, you know, put them at risk for removal. And so, Crystal and I felt like it was just kind of a natural extension to think about and sort of building on the work of of George Borjas and Marianne Bertrand, who looked at sort of social networks and how social networks play a key role in giving people information about anti-poverty programs and other social programs that they might be eligible for.

**Marcella** [00:11:26] So we thought, well, you know, if they give them information that allows them to take up those same networks are in operation, that might make them fearful to apply. And so this is sort of the spillover effect or the indirect treatment effect that we were really after that clearly by signing up for something myself, if I'm authorized to be in this country, that this is a program that is targeting unauthorized individuals, but if I have a connection to those individuals and it is in fact axiomatically a data sharing program and many of these forums, again, we don't have administrative data that default people into these programs. We ask them to supply information on their households and on their circumstances on an annual basis typically, then there is a concern that that information might not only be used to determine my eligibility for SNAP or SSI or another social insurance, but it might also be used to remove those that I care about.

**Jennifer** [00:12:37] So what makes this challenging to study? When you and Crystal were first thinking about studying the effect of circular communities on take up? You already mentioned you didn't have data on ACA, which was sort of your main channel, your main interest going into this use data on these other programs. So tell us about the other challenges here. What data challenges did you have to overcome, ID, challenges, that sort of thing?

**Marcella** [00:13:01] Okay, great. Yes. So first of all, when you're focusing on noncitizens, it's actually guite difficult to estimate the number of non-citizens. Generally, there's not very good administrative data or any that quantify it. So, you know, we focus on citizens and because over 94% of the detainers were issued against Hispanic individuals, we focus on Hispanic citizens and we can then compare them to non-Hispanic white or black individuals as we get into identification. I can talk about that a little bit more, but even measuring citizenship is not as straightforward as one might think. There has been some work kind of if you just again, without access to administrative data on who is a citizen typically, researchers will use just as self-identified citizen status, which is actually what we use as well and there is misrepresentation has been documented, for example, in the census. And so we kind of take our cues from a report from Brown et al., in 2018, where we conservatively define an individual as a citizen if he or she was born in the U.S. or naturalized and living in the U.S. for over a decade at the time of the response. And then one of the ways that we try and verify this is we actually have we can compare our aggregated responses to counts published by the Office of Immigration Statistics on, for example, naturalized counts.

**Marcella** [00:14:42] And we see that we have a very tight correlation between the two. So between the census measure of naturalization and figures coming out of the Office of Immigration Statistics, because, you know, an actual concern is people might actually self-report a different citizenship status in response to immigration enforcement. We don't actually see that when we do have a panel is the PSID, which you can see, you know, individuals over time. And in that sense, we don't see people changing their their citizenship status and we don't actually see huge responses and non-response rates as well, which is something else you would want to look out for. So, again, I think the fact that we were interested primarily in spillover effects and and the effects on individuals that were eligible for these programs and authorized to be in this country. I think that kind of mitigated or muted any effects that one might suspect or we be more worried about non-response rates or on misrepresentation, etc. and that's been reported in the literature.

**Marcella** [00:15:53] In terms of identification, the causal challenge is that immigration enforcement is not randomly assigned to even this program. So as I mentioned, it rolled out county by county basis between 2008 and 2014. But those counties, you know, it's the reason why it didn't go everywhere all at once is technical issues and of course, this has to be a two way street. So people need to be sending and have a capacity to receive the information and detain the individuals, etc., but still, there are things that might predict how quickly that rolled out in certain places than others, which might mean that we we still might not just want to use the dates themselves alone as our identification strategy, even though this was a federally imposed program.

**Jennifer** [00:16:41] Yeah. So you are going to use this this staggered rollout of the program as a natural experiment here and kind of look at trends over time. So tell us a little bit more about how you do this. What's the intuition of the empirical strategy here?

**Marcella** [00:16:55] Yes, indeed the we don't just use the the rollout. The issue there being that the roll out, even though it was federally imposed, is not random. So it's predictable by things like distance to the border, the share of Hispanic population living distance to the Mexican border I should have said that the share of Hispanic population, whether that county had a to 287G agreement with ICE so that was that precursor that I mentioned that was a local agreement between ICE and law enforcement. So you could imagine that the technology transfer was eased in those situations. And so instead of just using that, we used the staggered rollout, but we interact it with race and ethnicity

indicators, with the timing of the SC activation, the Secure Communities activation. So we compare program participation for Hispanic households within a given location to program participation for non-Hispanic white and black households, net of counties that had not yet activated before versus after SC activation. And that basically requires the triple differences identification assumption requires that there be no location specific shocks timed with the staggered Secure Communities rollout that differentially would influence the dynamic path of safety net outcomes for Hispanic headed households and not other households.

**Jennifer** [00:18:25] Great and you were able to obtain really cool data on actual detentions and removals. So tell us about that data set. What information does it provide and perhaps of even greater interest to listeners? How did you get it?

**Marcella** [00:18:41] You know, I looked at the data for this, and I often do randomized trials with some administrative data buttressing it and I'm just it's just there were a lot of data that we ended up kind of pulling together. So we used, as I mentioned, the PSID, the panel study of income dynamics, which you can apply for geographic identifiers online through Michigan. It's it's pretty straightforward process and that's fantastic as a resource. We used the ACS American Community Survey for things like program participation, for citizenship status as I mentioned trying to compare that as well as food stamp participation with any administrative records we could find from states that were would report their aggregates, for example.

**Marcella** [00:19:27] And then we got detainer information from "Track Fed". So we had initially tried to FOIA these data one by one ourselves, and then we realized that there is this fantastic organization in Syracuse who has been doing this for "FOAIng" if I can use that as a verb all along. They have this incredible, you know, an incredible resource, some think tanks might already have a subscription, otherwise you could probably write it into a grant that they had been just slowly putting together the universe of all of the detainer requests and the removals from this program over time. And that was really rich data that allowed us to get at the intensity of the program and and kind of to verify that it was specifically, you know, as I mentioned, 94% of the detainers were issued against Hispanic individuals. So it really motivated our empirical design as well.

**Marcella** [00:20:30] For other things we used like Google Trends to get at fear, which think we might be talking about in a little bit "q" data also so just, you know, trying to fill in the pieces wherever you could with with data sources that might speak to your mechanism. And then, as I mentioned, the administrative records to try and verify that your right hand side variable, your left hand side variable are measured accurately because that is a concern in this space.

**Jennifer** [00:20:57] Yeah. So using that that data on detentions and removals, what did you find was the effect of Secure Communities on detentions?

**Marcella** [00:21:06] So yes. So we found that one, Secure Communities was activated. We see a 15% increase in detainers.

Jennifer [00:21:16] So it actually did something.

Marcella [00:21:17] Yeah. So it actually did something. So we've got a first stage.

**Jennifer** [00:21:21] Okay. And then what are the main outcome measures you're going to be most interested in here?

**Marcella** [00:21:25] So our main outcome measures again, would be SNAP take up. So food stamps take up and SSI take up or enrollment participation as measured in the ACS. And now I should mention that these are we actually aggregated things up to the county level from the 1% sample. Our initial application to the RDC floundered for this, and it's been delightful to see that some of the more recent studies they have received permission to study this at the individual level, which I think is fantastic. But if you were wondering when you were reading the paper, because we do have this rich data at the individual level coming from Track Fed and obviously the ACS is available with geographic identifiers and lots of other richness in the VRDC, but at the time we were not allowed to bring those two things together.

**Jennifer** [00:22:26] Interesting. Out of curiosity, why didn't they let you do that? What did they say?

Marcella [00:22:31] I am similarly curious.

Jennifer [00:22:36] Fascinating. Well, I'm glad they've changed their tune.

Marcella [00:22:40] Exactly. Exactly that's where we're at we're not where we were.

**Jennifer** [00:22:45] We'll take it. Okay. All right. So let's talk about the results. When Secure Communities is implemented in a county. What happens to participation in SNAP and SSI across your various ethnic groups?

**Marcella** [00:22:56] So they decline and they decline I think, you know, fairly substantially so. So 2.1 percentage points, which is a 10% decrease from the pre-period Hispanic mean. This is for food stamp participation. And this is a two percentage point decline relative for Hispanic citizen heads of household relative to non-Hispanic individuals or heads of household. And we you know, the nice thing about the triple difference approach is that we don't find the same thing, you know, if we're looking at this is comparing Hispanic headed households to non-Hispanic white households. We don't find the same things for black heads of households versus white heads of households. So that kind of gives us a natural, quote unquote, placebo test of our strategy. And then similarly, for SSI, we see a 1.7 percentage point decline after a SC activation for Hispanic heads of households, which is a 30% decrease from the pre-period Hispanic name and again, not similar results found for black or white had households in response to secure communities.

**Jennifer** [00:24:08] Okay, so big effects and big effects. And then you consider the possible mechanisms that are driving these big effects. So the first mechanism you consider is fear, particularly the fear that a friend or family member will be deported. So how do you measure effects on fear and what do you find?

**Marcella** [00:24:27] You know, I, I actually just I love the entire turn of economics towards thinking about, you know, mental models and how things work in practice. And I think that, you know, going back to our initial initial question on why I was studying this, because I'm interested in take up I mean, sort of theoretically having these ordeals of having people sign up should work really well. And then you look at the evidence and you realize that a lot of times these ordeals just tend to screen out those who are most vulnerable. And similarly, like theoretically, you might think, oh, if people are taking up, it must be that they

don't know or it must be stigma. And we kind of took something off the shelf from Anna Aizer and Janet Currie, who had this really clever test to kind of look at information as a reason or even stigma, as a rationale for lack of take up using the PSID. And we could see people that had previously taken up food stamp drop it. So that clearly isn't now know that isn't entirely consistent with an information story that they don't know how to apply or they're, you know, stigmatized. And this deep shame is inhibiting them from putting forward their application, but, you know, and. I was fortunate never to have to fill out to see a food stamp form prior to this project. But if you look at those forms and we have a few in the appendix, you can see that just the level of detail on who's sharing food with you that is required to obtain access to these programs and similarly for SSI.

**Marcella** [00:26:14] And so it struck us as possible that fear would be playing a role here, just as Tara's work and Catalina's work had kind of shown at the direct level. And so, you know, the problem is how do you really measure fear? Is it just the residual once you kind of rule out the sort of common, the more traditional economic theories? And so, you know, that was a struggle. I think we we looked towards things like heterogeneity by mixed status families with the caveat that, you know, mixed status is going to lean on people in a household saying that they're non-citizens and then that aggregation process up to the county level so there's going to be a lot of noise. And that we were able to get some data from Pew they had done a survey that asked about whether individuals knew anyone that had been removed by ICE and whether they were fearful that it could happen to someone in their own family and we see this very strong positive correlation. And then we use Google searches for things like that. So we looked for the Spanish and the English version of typical things that might arise if you're worried about being removed.

**Marcella** [00:27:43] And we did an event study around that, and we see a spike up in searches for those types of things after Secure Communities is rolled out in your county or in your I think the geographic identifier there is for a media market. And then the last thing is using heterogeneity by sanctuary city status. So those are places where, you know, politicians generally made pretty public statements that they were not going to honor these detainers and basically all of our effects are coming from places that didn't have such policy in place.

**Jennifer** [00:28:20] Yeah, it's super interesting the way that you're you're able to it's like fear is impossible to measure directly, but you kind of you have all these different outcomes that kind of dance around. It paints a nice picture.

Marcella [00:28:32] Yeah. Yeah. Thank you.

Jennifer [00:28:34] It's great.

Marcella [00:28:34] Thank you.

**Jennifer** [00:28:35] And the last thing you might be wondering is compositional changes. So if part of the policy here is that they're you're removing Hispanic people from these counties, then maybe that is why you see a decline in take up or something like that. So what would you test for there and how did you rule that out?

Marcella [00:28:52] Exactly.

**Marcella** [00:28:53] So we looked for compositional changes, and I think that's really important again, that we were focused on individuals who are potentially more established citizens and the like. And so we were looking for compositional changes among that set of individuals. And again, this was in first order, but whenever you're looking for and I'm sure a lot of your listeners who work in enforcement in general, but immigration enforcement I think is no exception. You do have to worry about people, you know, shifting around in response to enforcement in one area, moving to a different area. But I think the nature of our question kind of mitigated the scope for that sort of response.

**Jennifer** [00:29:35] Okay. So those are your results. What are the policy implications of this paper? What should the policymakers and practitioners out there take away from your study?

Marcella [00:29:44] So for policymakers, you know, it's interesting. I teach masters of public policy, and I'm always struck by how pragmatic their their training is. And so they introduced me to this term, you know, policy coherence, which I was immediately thinking, even though it's been guite a while since I had looked at this particular paper, I thought, wow, you know, I wish I had known that term when we were writing this paper, because I think it really shows how if the objective of policymakers is to build human capital, build social capital in communities and invest in our future, that's one really lofty goal, but it could be our results are just kind of undone by this particular type of immigration enforcement, which is forcible removals from the interior. I hope we have convinced the reader pretty sizable effects on individuals who are authorized to be in this country and a lot of research by Hilary Hoynes, Marianne Bitler has shown Martha Bailey has shown how important these programs are for Manasi Deshpande, sorry to just keep rattling off names, but how important these programs are for improving the life circumstances of young people, keeping them, you know, Manasi's work with Michael Mueller-Smith keeping them out of crime and giving them, you know, prospects for good paying jobs in the future, their nutrition, treatment of their disabilities, support for their disabilities and so on and so forth. So these two things are kind of battling it out if we don't have that policy coherence.

**Jennifer** [00:31:34] Yeah, we didn't mention it, I don't think. But there is another there was an earlier study that showed that Secure Communities has no impact on crime. So like you could imagine, right, that like the whole the whole goal of this policy is to improve public safety. And so if it did, if crime went way down, but then you're you're reducing take up, then maybe, you know, their costs and benefits and tradeoffs, but there are only costs here.

**Marcella** [00:31:59] So that's the Cox and Miles and I should have mentioned them. We owe them for, you know, why we didn't want to just use the staggered component is because they had shown those were the things that predicted Secure Communities. And then also they did not find using that staggered design, they did not find that it had a significant effect on on crime, but in that actually, to us, that made sense when we looked at the detainers, like, again, the goals of the program were to reduce these criminal offenders, habitual criminals offenders remove them from the interior, but if you look over time, the program really the only violation or the only legal infraction was the immigration status as the program went on, it just started just taking detaining really anybody and everybody. I mean, they were mostly almost wholly men, Hispanic men, but that's pretty much it and I think so that was definitely it doesn't seem like a classic trade off in the economic sense. Okay, fine. You're going to get this sort of lower take up of these programs that we know have these positive benefits for society. But, you know, we have

this other thing, too, this other thing that we're accomplishing. It doesn't really seem like that was the case.

**Jennifer** [00:33:24] Yeah, since it's been a while since you all first started up this paper. Have any other any other papers related to this topic and we can interpret that broadly take up, immigration endorsement, whatever, whatever you have in mind. Any other papers that have come out more recently?

**Marcella** [00:33:39] Yes. I am so excited that there have been other papers and many fantastic ones there's a set of papers by Chloe East looking at the effects on short of working women and it's forthcoming in THR. And basically she's looking at native born populations and seeing like what happens when you take away some of the workforce or at least make them more fearful perhaps about going to work both of these things that she finds effects on, for example, women who might have relied on Hispanic women for taking care of their children, therefore not being able to provide labor to the market, college educated women, white women. So she's led a series of papers along those lines. Paper that is preliminary, though I have been told I can talk to you about it by Felipe Goncalves, Elisa Jacome, and Emily Weisburst. It's called "Immigration Enforcement and Public Safety" and so they're looking at victim crime reporting and public safety.

**Marcella** [00:34:49] So they're kind of trying to understand if Secure Communities, immigration enforcement led people to not report crime as much. And indeed, they find that if there's more detentions and deportations is correlated with both a reduction in reported crime and also increasing victimization. So if you just look across the board, you might see a null effect, but that's because you have increasing victimization on top of a decline in reporting for Hispanic individuals.

**Jennifer** [00:35:26] So those previous results that there is no effect on crime as the actual result is that there's an increase in crime basically, it's just not reported to the cops anymore.

Marcella [00:35:35] I believe that is correct.

Jennifer [00:35:37] Yeah. So more costs.

**Marcella** [00:35:40] Yes. And there is a set of papers. So I have one more to discuss, which is work by Catalina Amuedo-Dorantes and coauthors on immigration enforcement and the institutionalization of elderly Americans. So using the staggered implementation of Secure Communities showing that it increase the likelihood of living in an institution. So these are, again, supply shocks to household services, just kind of building off of Chloe East's findings as well. So lower personal care aides, housekeepers, home health workers, etc., leading to greater institutionalization. So it's great to see this additional work and I think it will just continue to grow as we have, you know, more time. It is a bit complicated because the program was stopped by President Obama and then restarted under President Trump and then stopped again by President Biden. So maybe that's all just amazing variation.

Jennifer [00:36:49] Exactly exactly.

Marcella [00:36:52] It's hard to know what's going through people's heads, you know?

Jennifer [00:36:55] Right.

Marcella [00:36:56] When you have all of that.

**Jennifer** [00:36:58] Right. Do they really think that it's turning on and off in the way that the government saying it is? And do they trust people yeah. All right. Well, so given all of those changes and that this is a very active policy area, what's the research frontier? What are the next big questions in this area that you and others will be thinking about going forward?

Marcella [00:37:17] I think the next big research frontier is when should there be choice under what conditions because I think when we think about having people decide when to take up and have ordeals imposed to try and increase targeting, which ordeals are these this paperwork and providing information on the family and things like that in order to have better targeting, meaning that the highest marginal benefit individual will receive will receive the program. I think more and more research is suggesting that that's really not what these ordeals are doing. And there's evidence on that from SNAP with Matt Noto and Amy Finkelstein. There's evidence on that from health insurance, from my colleague here, Mark Shepard, just showing kind of time and time again that if we if we introduce these ordeals, we end up excluding the people who might have the highest marginal benefit highest ROI. And I think that the question then becomes, you know, not just when do we enforce an ordeal, but when do we have it take up, be something that people choose to do and what are the externalities associated with that which, you know, which just poses a whole lot of conceptual issues for treating the demand curve as, you know, consumer surplus and things like that. So I'm I'm very excited about that research agenda. And I think empirical studies have started to interrogate the theoretical foundations of targeting in this way. And now there needs to sort of be a dialog back and forth with the theory to help guide us into not only when should we be doing or deals, but what should we be doing this this take up at all.

**Jennifer** [00:39:12] I love it. My guest today has been Marcella Alsan from Harvard University. Marcella, thank you so much for talking with me.

Marcella [00:39:19] Thank you so much, Jen.

**Jennifer** [00:39:25] 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 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.