

## Probable Causation, Episode 6: Manisha Shah

**Jennifer** [00:00:06] 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** [00:00:17] My guest this week is Manisha Shah. Manisha is Vice Chair and Professor of Public Policy at UCLA's Luskin School of Public Affairs. Manisha, welcome to the show.

**Manisha** [00:00:27] Thank you.

**Jennifer** [00:00:29] So we're gonna talk today about your recent work on the effects of criminalizing sex work. But before we get into that, could you tell us a bit about your research expertise and how you became interested in this topic?

**Manisha** [00:00:41] Absolutely. So I'm an applied microeconomist, and I'm primarily interested in topics related to health and international development. And I guess, you know, my interest in sex markets dates back to the late 1990s. Back in 1999 when I was applying to PhD programs, I think I knew two things. I knew I wanted to work on HIV AIDS issues, and I knew I wanted to work on international development. And I quickly learned that back then, most of the funding that was actually allocated to HIV interventions and HIV prevention strategies in the developing world really were targeting sex workers because, you know, sex workers were considered a high risk group. They had higher rates of HIV AIDS and STIs than the general adult population. And, you know, and were engaged in in having a lot of, you know, multiple partners, making them a really good target, right, for for prevention activities. And so that's basically how a lot of this work and this agenda started. The first few years of the research agenda was much more about, you know, understanding risk taking behavior and how financial incentives and other incentives impact risk taking behavior among sex workers. And more recently, I've I've been thinking more about these regulation issues. Like how how do we regulate sex markets and how do different types of regulation impact outcomes that we care about, you know, related to public health outcomes as well as crimes, right, crimes related to violence against women.

**Jennifer** [00:02:26] So lay some groundwork for us. What are you defining as sex work and sex markets? Where is it legal around the world? And why is it often illegal?

**Manisha** [00:02:34] So in my work, and I think in general, right, we we think about sex work as the exchange of sexual services as well as performances for some type of monetary compensation. And the key point I want to make here, though, is, is sex work really refers to voluntary transactions, right. And so it doesn't include or doesn't refer to a lot of the human trafficking and other coerced or nonconsensual transactions that that we hear about these days. In terms of, you know, where is it legal around the world? Well, prostitution law varies a lot. In the United States, I guess except for those six counties in Nevada, prostitution is illegal. And in fact, it's illegal in in much of the world. I think there are a few pockets where we have decriminalized systems, so decriminalized meaning there are no criminal penalties for sex work. You see some countries in Latin America, for example, where sex work is decriminalized. And then there's, of course, other places where the prostitution market has been, you know, fully legalized. And so when I talk about legalized, what I mean here is that sex work is both legal as well as regulated, right. So we might be in a world where there are actually regulations related to the sex market. Sex

workers may actually be able to collect Social Security. You know, countries like Australia, New Zealand, some European countries have have these these legal systems.

**Manisha** [00:04:09] You ask why, why it's often illegal. Look, I think generally from a public policy perspective, why it's often illegal is that there's just a lot of negative externalities we associate with sex markets, right. We think about crime, violence, drugs, sexually transmitted infections, HIV AIDS. A lot of these things are, you know, are associated with sex markets and and and sort of reasons that we- that from a public policy perspective, we we think about making these these markets illegal. I also, you know, want to add, though, that there is this sort of moral repugnance issue, right. And in general, I think a lot of people feel that this is one of these morally repugnant markets and and that we shouldn't be putting a price on sex. And so that I think that's another big reason. You know, morality does does play into a lot of the laws we have related to prostitution markets around the world.

**Jennifer** [00:05:09] Yeah, it's really interesting and it makes it a fundamentally different market to study in many ways. So what had we previously known about the effects of criminalizing or decriminalizing sex work before your paper?

**Manisha** [00:05:23] Before this- so I would say there's a few I would say there's a few relatively strong papers that have come out in the past few years. I mean, honestly, we didn't know much. And in the past two years, there's sort of two really strong empirical papers that come to my mind. Both of these papers look at the impact of decriminalizing sex work. Both of these papers also look at this issue from a developed or rich country perspective. So the first paper is this Bisschop et al paper, which came out in relatively recently. It was I think it was 2017 in AEJ policy. And what these three coauthors do is they study the effects of of what they call Tipplezones in the Netherlands. And so Tipplezones are basically these like legal these these neighborhoods where they create these legal street prostitution zones in the Netherlands. And they do this, if I remember correctly, in about nine different cities in the Netherlands. And so what this paper does is they look at the impact of creating these these legal street prostitution zones on things like sexual abuse and rape and drug related crimes. And they find a decrease in all of these things, right. So they find sexual abuse and rape decreases 30 to 40 percent. They also find reductions in in drug related crimes in the Netherlands.

**Manisha** [00:06:49] The other big paper that comes to mind is I have a I have a paper with Scott Cunningham that was published in the Review of Economic Studies in in 2018. And in this paper, we're also looking at the impacts of decriminalization. We're doing this in the context of Rhode Island, where in in Rhode Island for a period of six years, there's this really nice natural experiment that happens because a district court judge basically rereads some old laws that were written in, you know, in the late 70s, early 80s in Rhode Island and realizes that much of the you know, much of the sort of legal the writing in the law is criminalizing street prostitution, because in the US back in the day, street prostitution was what we worried about much more from a public policy perspective. And she realizes that in this law, there's actually nothing criminalizing indoor prostitution. So for this period of six years in in Rhode Island sort of overnight, you have this decriminalization of of indoor prostitution. And so the main outcomes that we were interested in were, you know, the sort of two main outcomes were related to public health. We look at gonorrhea incidents and we also look at reported rape offenses. And again, in both cases, very similar to the Netherlands paper, we find that there is a decrease in gonorrhea incidence by around 40 percent and there is also a decrease in reported rape offenses by about 30 percent. The other thing we look at that, you know, I also want to mention, though, is, you

know, one of the things that people argue in terms of decriminalization is that the size of the sex market will grow. And we do find that it grows. It grows by a lot. And so what's interesting is, though, even though the sex market is growing and, you know, and presumably more sex work is happening, we're still finding these decreases in reported rape offenses as well as gonorrhea incidence.

**Jennifer** [00:08:58] Yeah, I love that paper that you have with Scott Cunningham. The graphs are beautiful. It's just this very clear natural experiment where there's nothing else going on, and you just see this dramatic drop in all of these different measures when the policy change happened. What was the response to that paper? Like you mentioned earlier, that, you know, this is not you know, this line of work is not about human trafficking, but I imagine that community I think- my understanding is- my sense is that they don't like these types of results that show that decriminalizing prostitution can be a good thing. So, yeah. So what was your experience of kind of dealing with the public response?

**Manisha** [00:09:36] It was overwhelming. I mean, first of all, I was amazed at how much press this paper got. And it was you know, it was both- it was wonderful to see some of the reactions, but I definitely also got a lot of hate mail. And the irony is a lot of it was coming from feminists. And, you know, I am someone who I feel like I've always been very pro-woman and pro-feminist. But I, I there is a whole strand of research and a whole strand of individuals who believe that all sex work is human trafficking and that these are one and the same. And I think that if you're coming from that perspective, then, you know, then then it's clear that that these results might both be surprising as well as, you know, they might not be results that you like. And I think that one thing that, you know, one of the things we look at in this paper is why do we see this decreases in reported rape offenses? And we can you know, in terms of the mechanisms, I think the mechanisms are a lot more suggestive in the paper. But one of the things that we think is going on is that there is this substitution happening, right. In the- because the supply of sex work increases and prices go down, we suggest that one of the reasons we might be seeing this decrease in reported rape offenses is precisely because there might be some men on the margin who are substituting between rape and sex work now, which is more readily available. And I know I think this is sort of a this is difficult, right? This is a difficult finding. I will say, though, that since we've written that paper, there's been another paper that's come out by Mica Sviatschi and Riccardo Ciacci who show that in New York when they basically have this amazing dataset where they follow the opening of like indoor prostitution sites in New York. And they show that when these when these places open up, they're also finding decreases in, you know, in reported crimes, reported rapes against women, reported sex crimes go down. And so it seems like there might be at least, you know, for the marginal guy, there might be something there going on. But but, look, this is a this is a difficult conclusion. If if you're in this, you know, if you are in this world where you think that all sex work is, in fact, human trafficking.

**Jennifer** [00:12:03] OK, so let's get back into the weeds of the paper. So you note in this paper that the effects of making sex work legal or illegal aren't necessarily symmetric. So if you kind of pass a law that legalizes or decriminalizes sex work and then pass another law that criminalizes it again, that doesn't necessarily just return us to square one. And I think that's a really important point that is certainly relevant in lots of contexts but that we don't often pay much attention to. I think in large part, just because we have the policy changes we have, and we don't we don't see things just like done and undone. But could you elaborate a little on why this might be important in this context?

**Manisha** [00:12:43] Absolutely. Right, so as I mentioned, prior to this paper that we're going to discuss, all of the work was on decriminalization. And when you decriminalize, what you're effectively doing is you're reducing costs to entry. And so you would expect to see new entrants, new sex workers, new massage parlors, et cetera, et cetera. What you can't predict, though, is what type of entry this is going to be, right. And so there's going to be selection on the types of individuals who enter. There's going to be selection on the new firms that enter. So in the Rhode Island world, our new entrants were relatively low risk, right. And so we find these like huge reductions in gonorrhea incidents. But part of this is because of what's happening in the market, right. So, you know, you find that transactions are getting less risky. The new entrants are less risky. Firm owners, you know, massage parlor owners anecdotally, we heard we're investing in new technology and security. They're investing in, you know, once you have legal property rights, there are all these incentives to invest in whatever the firm is that you own. And so that will definitely impact these outcomes that we care about, right. Whether it be disease or whether it be violence. And then similarly, you know, when you have the opposite experiment, which is you're criminalizing, you're basically shutting down stuff that was there, right. Women are going to leave the market. Perhaps brothels will close. But again, there will be selection on the type of individuals who leave, the type of places that close. And so, again, these impacts that we care about that are related to kind of violence and public health will really depend on who's leaving the market. And so in that way, it's you know, I don't think we can sort of unambiguously predict things one way or the other because of this sort of entry versus exit issue that happens when you either decriminalize or criminalize. These, you know, the new entrants or the people leaving will really impact how how these outcomes are affected.

**Jennifer** [00:14:47] So you mentioned all all the work so far has been looking at decriminalizing. And that even then, there isn't that much work. So why don't we know more than we do? What do you see as the the main constraints here on doing research in this area?

**Manisha** [00:15:02] I think there's two main constraints. I think one, you know, from from sort of a causal analysis perspective, these policies, one, they don't change very often, you know, policies related to sex work. And two, when they change, they often change at the country level, right. So in 2003, for example, New Zealand legalized. And we've heard a lot of great anecdotal evidence of what's happened in New Zealand post legalization. But the entire country legalized at the same time. And so for you know, as you know, we economists are obsessed with causality, causal inference. It's hard it's hard to think about a good counterfactual, right. Like what is the counterfactual to New Zealand? Same thing for Sweden, right. Sweden criminalized the purchase of sex. And that's a really interesting policy experiment. But again, they did this at the same time at the country level. And it's so it's hard to think about like what type of variation one might use to look at the impacts of these types of policies. So I think that's problem number one. Problem number two is just a data challenge, right. In that because of the nature of of what a sex market is, it tends to be hidden, especially in places where it's illegal. Again, we as economists are, you know, obsessed with having nice, large representative samples of data. It's very hard to get a nice, large representative sample of data when looking at questions related to sex markets. And so I think those two issues have have generally made it harder to study policies related to sex markets. But that is changing, right? We do have a lot of new and interesting. Well, not a lot, but we do have a few papers out there looking at some of these issues.

**Jennifer** [00:16:51] Yeah, it's been fun to see kind of as the you know, with every every new generation of economists that graduate with their PhD, there's a wave of creativity and new ideas about how to tackle some of these empirical challenges. And the data constraints in particular here, I think of as being highly related to studying other things like domestic violence and just like a lot of criminal behavior, right. I mean, it's just hard to study. You don't have good data on things that are illegal. So, but people are finding ways to do it. So the paper that you just released is coauthored with Lisa Cameron and Jennifer Muz. It's called "Crimes Against Morality: Unintended Consequences of Criminalizing Sex Work." And this paper focuses on the effects of a policy change in Indonesia, where sex work was unexpectedly criminalized in one district in East Java. But I gather that's not the paper you'd originally planned to write. And, you know, that happens a lot with all kinds of research, but I think especially when you're doing fieldwork like this, you're more at the whims of the local context and policy changes. So tell us the backstory of this paper. What had you originally planned to study and what happened when you tried to do that?

**Manisha** [00:17:57] Yes, this is this is one of these stories of, you know, when when life gives you lemons make lemonade. So we had originally raised a lot of money to do a randomized controlled trial with sex workers in East Java trying to understand how savings behavior impacts risk behavior. There's a few papers showing that sex workers are much more likely to engage in risky behavior when they have these negative income shocks, right. So when a kid, you know, your kid gets sick or someone in your household is falls ill and you need money to pay for medicine, for example, you see women engaging in much riskier behavior. The other thing we've seen globally is that sex workers have very low savings rates. And one of the things they say is that it's very hard, especially in the developing country contexts, to actually go to banks and open bank accounts because you need to show them all sorts of documentation and they ask you about what you do for a living. There's a lot of stigma.

**Manisha** [00:19:02] So the idea for this project was because mobile banking now is rolling out in Indonesia, and, you know, a lot more sex workers now have cell phones, the idea was we were going to randomize them into savings accounts that they would have via their mobile phones. So we had done an amazing job sort of mapping the universe of sex workers in three districts in East Java. We were working with a community based organization there who, you know, had strong contacts with with all of the sex workers. So we had collected our baseline data. We were about to do our randomization, you know, and randomize women into savings accounts and not when the mayor in one of the three districts that we're working in, the mayor of Malang, he basically announces that as a birthday present to Malang, he was going to shut down all of the, you know, the brothels, the indoor prostitution sites in this district. And so our, you know, our the our community based organization and the local Ministry of Health who we were collaborating with, basically told us, like, hey, we can no longer work with you guys in this district because we would effectively be breaking the law if we continue to do this intervention. And, you know, and we realized we just didn't have enough sample size and power to continue in the other two districts, given the sort of number of women we were working with, and so we quickly scrambled to figure out what we should do. And in the end, we said, hey, let's use the resources we have for this intervention to actually follow these women, post criminalization. See what happens to them. Try and track them and do something. You know, we we basically realized we had this nice natural experiment where business was going to continue as usual in our two neighboring districts. But we were going to have this one district where where indoor prostitution was getting criminalized. We had this nice baseline dataset of all of these women. And so that's basically the birth of this paper. It's

hey, let's study the impacts of criminalization on, you know, various outcomes of of interest.

**Jennifer** [00:21:18] OK. So it was announced suddenly in this one district as a birthday present, not to you and the research team. And so so how was the policy implemented then? And what were the actual effects on the ground? How was it enforced?

**Manisha** [00:21:34] Yeah, that's a great question. Because while it was announced that it would be criminalized, it was also announced that these you know, these big these are big establishments, right. They're brothels where women live and work and they're sort of these small communities. It was announced that they would become like alternative centers either for karaoke or they would become like, you know, big markets where food would be sold. As often as often happens with these types of policies, there were absolutely no resources allocated to any of this work. And so what ends up happening is criminalization happens. These they, you know, they put these big yellow signs up in front of the brothels, which basically say, you know, this place is closed for business now. Police start doing raids immediately after the policy goes into effect. But basically what's happening is there's sort of still this underground sex market happening, right. There's still some women who don't leave. You know, we find that about like there's sort of between our baseline and endline, which happens a year later, there's about like a 60 percent decrease in the number of women working in these criminalized establishments. But there's still sex happening, right. It's just a lot riskier. It's more underground. A lot of the relationships these brothels had with the local Ministry of Health, with these community based organizations that were sort of bringing condoms and bringing health checkups, and so all of that disappears, right. All of this sort of institutional support, the public health support, that goes away. There's definitely like a decrease in business, you know, so you see this decrease in supply. You also see a decrease in demand, especially in the beginning. But I think over time, like, you know, if we were to go back now, it would be interesting to see if things were sort of business as usual. But just from like the illegal perspective, right. Meaning like these women no longer have the support and collaboration of of a lot of these organizations they were working with.

**Jennifer** [00:23:42] And so how do you then use this policy change- so you've got the change in one district, but business as usual in the other districts, how do you use that policy change to measure the causal effect of criminalization?

**Manisha** [00:23:53] Right. So we basically estimate very simple, like difference in difference models where we have you know, we have the pre- so I mentioned that we collected this amazing baseline dataset, you know, pre-announcement pre-criminalization. About six months later, criminalization happens and then six months later, we go back everywhere again. So we go back to our, like, criminalized sites, we go back to our non-criminalized sites and we collect the same data again at the endline. And I think what I want to mention here is it was really hard to find the women who left, right. And so we had to spend a lot of time and energy, well our survey firm did, trying to find these women. And. And we you know, luckily for us, we had a great survey firm because one of the things we worry about, right, is that we're going to lose all the women who leave due to decriminalization. We end up finding actually the same rates of women across criminalized and non-criminalized. You know, we lose about 30 percent of our women, but we lose about 30 percent from the criminalized as well as the non-criminalized. And, you know, we can talk about this in a minute, but basically so what that means we're able to do is we're able to do kind of a pre-post analysis in our criminalized and non-criminalized sites and, you know, compare impacts of various outcomes of interest.

**Jennifer** [00:25:18] And so most of the data you have are survey data. So talk more about just the logistics of the survey, what kind of questions you're asking, what what data did you wind up having on all these women?

**Manisha** [00:25:31] You know, I think there's sort of three different datasets we use in this paper. So as I mentioned for us at baseline, it was very important to kind of we we basically interview the universe of sex workers in these three districts. So we're not doing any sampling. We're just like, hey, let's interview everyone at these sites. We do the same thing when we go back at endline. And we, you know, we collect all sorts of information related to like sociodemographics as well as economic outcomes that we might care about, like prices, hours worked, total earnings. We get a lot of information on their children. We also ask them for information on like client characteristics as well as, you know, their own characteristics. So that's the sex worker survey. We do that at baseline and endline. We also in fact, we we do a client survey, you know, so one of the things we were interested in and I think is really interesting about this paper is being able to corroborate some of the things that the sex workers tell us with client data. And so every worksite we went to at baseline and endline, we also interviewed clients who were there. And so for our sex workers, we'll have a panel. You know, we'll try and find the same women at baseline as well as endline. For our clients, we're just doing two repeated cross sections. We basically just interview whoever is there when when we go there. And then the third dataset we use in this paper is we we collaborated with the local Ministry of Health in these three districts to get biological outcomes for our sexually transmitted infection measure. Because, you know, we often worry about self reports when we ask individuals to tell us about their their STI status. And so I think one of the strong pieces in this paper is that we have actual like biological outcomes for each woman at baseline and endline on her STI status as long as she's still engaged in sex work.

**Jennifer** [00:27:34] Yeah. That's amazing. And so how, just logistically, how did you- was it just as simple as offering women the opportunity for a free checkup and then you just got the data or how how does how do you actually implement that kind of data collection in this in this phase?

**Manisha** [00:27:51] Right. So at the in the at baseline, it was easy in that- so the women who work in these like formal brothels are used to getting tested and getting checkups all the time with the local Ministry of Health. That's sort of a norm. And that's actually, I think, one of the great things about these indoor establishments in East Java. What was a little more difficult, you know, we we also sampled a lot of these like informal sex workers who sell sex, you know, on the street every so often. It was a little more difficult to encourage them to get tested. But for the most part, you know, they were willing. At endline, we did the same thing, but in fact, at endline, we got a little pushback from the Ministry of Health in that they were no longer collaborating with these criminalized brothels, right. They were no longer sort of going in and encouraging them to get health checkups and get tested. And so, you know, we sort of had to encourage them to, hey, can you do this for us just this one last time? Because we really need this data. And they were willing to do it. But uh, you know, I will say that testing at endline, you know, as as many things, they it just gets a lot harder with criminalization, right. Because nobody wants to be breaking the law. And so I think it's an important thing to to think about when we're, you know, enacting these types of policies.

**Jennifer** [00:29:14] OK, so what do you find? What are the main results?

**Manisha** [00:29:17] So I think the big headliner result is there's just a huge increase in in STI prevalence, you know, post post criminalization. So, in these criminalized sites at endline, there's about a 60 percent increase in sexually transmitted infections. We then try and spend some time understanding like why? What's going on here? And I think the most compelling story here is it's very much a condom story. So. So prior to criminalization, as I mentioned, all of, you know, you have these CBOs, you have the local Ministry of Health. They're all basically bringing a lot of free condoms to these women, encouraging condom use, encouraging health checkups. There's there's just a lot going on in terms of, you know, public health interventions. Post criminalization, all of that disappears. And so, you know, we we ask women things like we asked them this at baseline as well as endline, like, hey, do you have a condom on you right now? Right. And I think one of the most interesting findings we have is this, that at endline, you know, women are something like 50 percentage points less likely to just have a condom on their body at the time of the survey at endline in these criminalized sites relative to, you know, when we interviewed them at baseline. The other thing that happens is there's just a huge increase in price of condoms. And, you know, over 100 percent reported increase in price. And I think part of this is because at baseline, they're getting them for free. At endline, if you're in a criminalized workplace, you're basically now having to buy your own condom. And then we just asked them about use, right. We have information on whether or not you used a condom in the last three transactions. And what's really nice here is we also use the client data, right. We also ask the client about their last three transactions with sex workers. In both cases, both sex workers as well as clients are corroborating that they're significantly less likely to be using condoms at these criminalized worksites at endline.

**Manisha** [00:31:31] So those are sort of the, you know, the big STI results. We also looking at- one of the things we were interested in is how these things also just impact some more general welfare indicators related to, like the women and the children. You know, I think one thing a lot of people don't know is that most sex workers have children, you know. So in our Indonesian sample, something like 90 percent of these women have kids. And we look at how kids of criminalized workers fare at at endline. And it does look like, you know, children under the ages of 18 are significantly more likely now to have to work to supplement household income. Sex workers and criminalized worksites do report that, you know, household income has been affected and that their children have been negatively affected by by this criminalization and that they're, you know, significantly less likely to report that, you know, they have enough money or adequate income to sort of meet their household needs.

**Jennifer** [00:32:37] Yeah, that's- the kids' outcomes, I agree, is just is a really interesting contribution here in addition to the other stuff because it's- I don't know that- do any of the other papers in this area do anything like looking at kids' outcomes of the women involved?

**Manisha** [00:32:53] No, I think that I think this is one of the first to look at the children.

**Jennifer** [00:32:57] And so how do the other results in terms of the impact on STIs and condom use- how do those- when you think about the results in this context relative to other papers that have been done, are they similar in magnitude? How did those results compare?

**Manisha** [00:33:14] Yeah. So the STI results are amazingly similar. You know, I remember when we when we did the Rhode Island study and we thought, wow, these are big STI results and we're getting big STI results in Indonesia as well. And so these are big effects.



I think what is different here or what you know, one of the things that I didn't mention is, you know, so we also look at things like prices and earnings and hours worked and in Indonesia, we're not actually finding any significant results here. And so, you know, because one of the things we thought was you might see an increase in price because in these criminalized worksites, now you're engaging in riskier behavior, right. And we know that there's this sort of risk premium associated with, you know, and that often prices will increase. We don't find that in this context. And I think what's happening is, is demand is also decreasing at the same time, right. So you have you have criminalization that happens like some of the women leave. You might think that the women who are left now are going to see more clients, right. So if demand stays the same that you would expect like intensity to increase, right. Like, they would either be having more sex or working more hours or you don't see any of that happening. And I think part of the reason is simply because men are also now showing up at lower rates at these criminalized worksites. So I think, like in terms of the you know, like the Rhode Island story where we did see this average decrease in price due to this like increase in supply, we're not seeing that effect on on prices here. And I think it's because you have both supply and demand moving kind of at the same time.

**Jennifer** [00:35:01] So in that way, the intention of the policy presumably was to shrink dramatically shrink the size of this market. And it worked on that front.

**Manisha** [00:35:10] At least in the short run it did. My sense, though, is that, you know, and I'm saying in the short run, it did, because there was there was, you know, a lot of enforcement police doing these raids. We've heard anecdotally that a lot of that now has slowed down. And that things are picking up again. But but you're absolutely right. I think in the short run, it definitely did shrink the size of the market.

**Jennifer** [00:35:34] So you do a whole bunch of additional tests in the paper to make sure that the effects you're finding represent real effects on individual women rather than just a change in the composition of women that you're you're finding in the surveys. You've talked a little bit about already how just the logistical challenges there. So tell us about what you're worried about there, with the compositional changes, and then how you're able to convince yourselves that these results you're finding aren't just a compositional effect.

**Manisha** [00:36:03] Right, exactly. So, you know, one of the things we were worried about was that criminalization happens. And, you know, and that the women who end up sticking around are the real, like, risk loving women, right. The ones who are willing to engage in more risky behavior. And so this increase that we observe in STIs might not actually be due to STIs increasing, but might just be due to the fact that it's sort of these risky women who are left. You could make the same argument for clients, right. We might also be worried that in this post criminalization world, the only types of clients that show up at these criminalized worksites are going to be the real risk loving clients, right. And because of that fact, again, we might observe this this increase in STIs. So so sort of lucky for us, we collected a lot of information on both from the sex workers as well as the clients on just their own characteristics, you know. And so, in fact, we played we borrowed from experimental economics and we actually played some risk games with both our sex workers as well as our clients. And, you know, we played some discount rate games. We also just collected a bunch of information like, you know, how clean do you think your client was? How how likely was he to have an STI? And so we have a lot of this sort of self reported risk behavior, self reported characteristics, and we can basically test whether they change from baseline to endline, right. We can say, like, hey, you know, are the women who are left in the criminalized work sites differentially more risky or are the clients who

come, you know, post criminalization differentially more risky? We find absolutely no evidence of that. In fact, we find like almost none of the characteristics look different between baseline and endline in terms of like who's left working and, you know, being a client in these criminalized worksites.

**Manisha** [00:38:04] Because the you know, and I guess the other thing that we worry about is, is differential attrition, right. In that, again, you know, we might be worried about the fact that the women who just leave sex work because of criminalization look different. And again, we just don't find any evidence of this. And I think one of the nice things also is because we have this, like, panel dataset of, you know, we're following the same women over time. We can also, you know, I guess one of the things I haven't mentioned that we might also worry about is sorting, right. So one of the things we had thought might happen was that you shut down these criminal you know, you shut down these worksites in Malang. But these women actually just sort to other places in these other two districts because remember, like geographically speaking, these places aren't that far away from each other. We, in fact, were really surprised. We don't find any evidence of that. So it's not that like, you know, women in our panel are going from like one worksite to the next. They're either staying in their worksite or they're just leaving to move back home or to take on other jobs. But again, you know, we we don't have to worry about the fact that, you know, women in the criminalized worksites at baseline are moving to some of our other worksites at, at endline because we just don't observe any of that in the data.

**Jennifer** [00:39:30] I agree, that is kind of surprising, right. Do you have a sense of a sense of why they didn't just move? Something like, you know, my clients are here and so I'd have to start over if I moved. You know, is there something like that going on or do you have any any hypotheses?

**Manisha** [00:39:44] I think there's definitely some of that going on. You know, a lot of these women have regular clients. They also have, you know, as I mentioned, these these formal worksites, they're very organized. They have varying, you know, formal relationships with the people who run them. They live there. I guess it's not just that easy to, like, get up and move. And in fact, what we find is most of the women who leave in the criminalized worksites, they're reporting that they're just going home, right. Because a lot of these women are migrants from rural places or other places. And so my sense is they're going home for a while. They're waiting it out. And then they're going to figure out what to do next, because at the end of the day, as I mentioned, all of these women are supporting children. The majority of them are divorced or widowed. You know, they don't have men that they can depend on for financial support. And so at some point, you know, they're they're going to have to either go back to sex work or find some other type of employment.

**Jennifer** [00:40:43] So let's talk a little bit about the welfare implications of this policy change. So I gather the main tradeoff here is between basically local residents' feelings about sex work. They just don't like that it exists and then the health and livelihoods of the women affected. So first, does that sound accurate? And second, do you think most people who are opposed to sex work just do you do you think they realize that this tradeoff exists? Or do they think that criminalization will help the women involved?

**Manisha** [00:41:12] I think that's a great question. And I think you framed it exactly right in that none of us like to see sex work around us, right, as sort of residents. There is very much this like a NIMBY, not in my backyard, feeling that that people have about sex work. And and I think this is true where wherever you go. What I think is interesting, though, is my sense is that one of the reasons people don't like to see sex work is because they think

it's associated with all of these kind of social ills related to like crime and drugs and violence and and STIs. And it actually seems to be the case, you know, I you know, both now we have this evidence of criminalizing. We also have the prior evidence with decriminalizing that a lot of these kind of negative externalities that we associate with with sex markets, that, in fact, it seems like things get better when when we allow these markets to sort of exist in in this like decriminalized or legal setting. And so I think it's a tough call. You know, I definitely do think we do some analysis in our paper looking at the women who left sex work because they had to, right, so because they were criminalized. We can compare these women who leave sex work just by their own choice. And again, you know, as you might expect, the women who leave because they have to, because they're forced to because of this policy are so much worse off in terms of like income and their kids relative to women who, you know, who leave because they just find a better outside option, right. They have a better, better job.

**Manisha** [00:42:58] And so, you know, in terms of like welfare implications, I think forcing these women out of their livelihood is is not great for them. And I also think, you know, more and more now from like a societal perspective, there seems to be a lot of evidence that, you know, figuring out a way to allow these markets to to sort of exist in either a decriminalized or legal fashion does improve, you know, and this is improve public health outcomes for the general adult population. We're not just talking about sex workers in that like our Rhode Island work, we were looking at, you know, we were looking at everyone. We weren't just looking at sex workers. The Indonesia STI result is just sex workers. But I will tell you, we actually collected some neighborhood data. So these are all self reports. So I don't want to make a big deal about this, and the results are coming off of, you know, a few individuals. But we do find a small self reported increase in STIs of households that live near these brothels. And, you know, one of the reasons we went to these households is we thought, look, it's most likely that, you know, guys in these neighborhoods are are frequenting these brothels. And the other thing I didn't mention, right, is something like 60 percent of the men, the male clients have wives at home. And so, again, from, you know, a disease transmission perspective, I think how we regulate these markets is critical.

**Jennifer** [00:44:32] Are you able to say anything about the human trafficking aspect of this story? Is there any- do we have any evidence about how human trafficking interacts with these kinds of policy changes?

**Manisha** [00:44:42] Oh, I wish we had some empiric. So there's some, you know, so Petra Persson at Stanford has done some theoretical work on on looking at, you know, various ways of regulating these markets. I think there is a theoretical argument to be made that decriminalization increases human trafficking. And it just goes back to this idea that you're decreasing costs to entry. We need really you know, this is sort of the research frontier, right? I would love to see a paper, I would love to write a paper on the impact of, you know, decriminalization or criminalization on on human trafficking, because this is something we hear about so much in the press these days. But because of the lack of availability of good data on human trafficking, it's it's just something that we don't have good evidence on. And in fact, I'll tell you, in Rhode Island, when they finally recriminalized in 2009, the reason they were able to recriminalize was they sold it as very much this human trafficking angle like, oh, it's increased a lot. But when you look for the data, there's just no data. It's hard, it's hard, it's a hard question.

**Jennifer** [00:46:01] So this paper's pretty new. But you're just you're just presenting it around. But is there any other new or ongoing work related to this topic that's come out

since you first started presenting it that might add to our understanding these policy effects? Or is this is the the most recent paper here?

**Manisha** [00:46:19] So this is the most recent paper. And I think the only paper that I'm aware of on criminalization. There's also a new working paper out looking at the impact of banning the purchase of sex in Sweden. And so this is he's an assistant professor based in Spain. His name is Riccardo Ciacci. And he he has a very interesting research agenda that he's you know, he's one of the authors I mentioned in that New York study where they look at the opening of indoor prostitution sites in New York and how that decreases sex crimes against women. So he's basically looking at very similar outcomes in Sweden, right. He's looking at he's basically testing this question of whether, you know, when you banned the purchase of sex in Sweden, what happens to violence against women? And he is actually finding that it's increasing rape and it's increasing reported rape offenses. And he's arguing that this is due to a shift in demand. And so it's not like a sort of supply side story, but it's very much this like demand side story from men. When you kind of increase, you know, costs to men that you do see this this increase in rape.

**Jennifer** [00:47:34] Yeah, that's fascinating. So what are the when you put it all together, what are the policy implications of this most recent paper and then all of the other papers that we've talked about?

**Manisha** [00:47:45] I you know, look, I think when I started doing this work, I was I didn't have a prior. In that I think I could have been convinced either way. But I think with all of the research coming out, I've I've really come to the conclusion that decriminalizing seems to be, you know, would be an effective policy if if we're interested, right. If sort of our outcomes are of interest, are related to like public health outcomes related to like violence against women and sexually transmitted infections. I think there's a lot of evidence now that that decriminalization is the way to go. But at the same time, you know, realizing that that will mean that there will be an increase in the size of the market. And, you know, and that that's something I think we we need to to accept. You know, again again, when I started, I don't know how familiar you are with this whole decriminalized sex work in New York movement that that's going on. But when I started this work, it wasn't clear to me that there would even be a day that we'd be discussing these things. But there is a big movement in New York right now in terms of, you know, trying to to change laws, to to decriminalize sex work in New York. And it will be interesting to see what happens there.

**Jennifer** [00:49:07] And has there been any movement in Rhode Island since you guys wrote that paper that's so directly relevant to policy there?

**Manisha** [00:49:16] I know, you know, some of these New England states have developed like these commissions to research the idea and then investigate it. You know, and I know there has also been a push in Rhode Island by certain individuals and groups. But again, it's it's tough, right? You know, I I think part of what makes it tough in that is that something like marijuana that, you know, often, you know, I'll often have people ask me things related to, you know, marijuana. And I say, hey, I don't really work on marijuana, but there are there are aspects of the market that's related. But I think unlike marijuana, which we have no problem putting a price on, it's this this whole idea of selling sex because of these moral issues, of talking about pricing sex, I think it gets a lot harder from a from a policy perspective.

**Jennifer** [00:50:08] And so we've we've already talked a little bit about the human trafficking issue as a as an area that's a research frontier. But aside from that, what do you

think of as the next big questions that need to be answered here? What will you and other people who work on this topic be thinking about in the years ahead?

**Manisha** [00:50:28] I think one of the interesting questions, at least from the US perspective, is all the FOSTA SESTA stuff that's going on right now. And so this is this was a federal law that was passed in July 2018. And FOSTA stands for Fight Online Sex Trafficking and SESTA's Stop Enabling Sex Traffickers Act. And these these laws were passed to basically curb online sex work and sex trafficking in the US. And you know, what's happened, though, is basically overnight a lot of these actually almost all of the big websites where women sell sex have been shut down. And again, you know, this happened at the federal level like sort of overnight. And so it's going to be hard to do good causal analysis on this. But anecdotally, from a sex work perspective, it seems to be, you know, a lot of sex workers have been negatively impacted by this. And in that, you know, they used to advertise online. I should mention that, like over time, there have been estimates, at least in the US, that about like 80 percent of the sex market of sex work is now online. And so when you shut down these websites, effectively, what you're doing is pushing these women back on the street. And we already know that indoor sex work, right, online massage parlor, et cetera, is a lot safer on sort of any dimension relative to street sex work. And so I think this is another big area where we have a lot of open questions and, you know, interesting research will need to happen post post FOSTA SESTA.

**Jennifer** [00:52:20] I feel like I've been hearing a lot about how, you know, the online systems allowed sex workers to screen their clients in a more productive way, right, just on a variety of dimensions. It does seem like it could contribute to their own personal safety. I think Scott Cunningham has a paper looking at the impact of- was it Craigslist?

**Manisha** [00:52:44] Exactly, of the rollout. So he looks at the rollout of Craigslist and basically finds this like, again, a pretty large decrease in female homicide. And I think, again, their argument, and you're exactly right, Jen, that it's a very much a screening, right, that you can use the Internet to screen potential clients. You can also use the Internet to talk to other sex workers. And they do this, right. They have all these forums where they can talk about clients. They can, you know, alert each other about risky clients. And so it's been this huge source of information for them and a huge source of community, which basically overnight, you know, all of these websites were shut down. And so I think it's been, at least again, for the sex workers, right, the women who are participating in this market voluntarily, it's been very difficult for them.

**Jennifer** [00:53:37] This is all so fascinating. My guest today has been Manisha Shah from UCLA's Luskin School. Manisha, thanks so much for doing this.

**Manisha** [00:53:45] Thank you so much for having me.

**Jennifer** [00:53:52] You can find links to all the research we discussed today on our website, [probablecausation.com](http://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. Our sound engineer is Caroline Hockenbury. Our music is by Werner and our logo is designed by Carrie Throckmorton. Thanks for listening and I'll talk to you in two weeks.