Episode 6: How and Why Do Disasters Disproportionately Impact Lower-Income People and What Could Improve Their Recovery Outcomes?

Introduction: Welcome to Ready to Recover, a podcast series in which guest experts take a closer look at what people may experience when seeking to finance their recovery after a damaging earthquake. These discussions consider common challenges and options, including what can be done to prepare before disaster strikes. This podcast series is produced by CREW@crew.org with funding from the National Earthquake Hazards Reduction Program.

In this episode, we've asked Dr. Carlos Martín and Dr. Divya Chandrasekhar to discuss research that shows how and why disasters disproportionately impact lower-income people and explain some of the factors that inhibit their recovery, as well as potential options and ideas for improving outcomes.

Kyra (CREW) We'll open with a quick introduction, but I also want to remind listeners to check out the show notes for this podcast at podcasts.crew.org to learn more about our guest speakers and the research they'll be discussing.

Shall we begin with you, Divya?

Divya Chandrasekhar Hi, my name is Divia Chandrasekhar. I am an associate professor at the University of Utah in City and Metropolitan Planning.

Carlos Martín I'm Carlos Martín. I am a Rubenstein Fellow at the Brookings Institution, and I'm also the Remodeling Futures Director at the Harvard University Joint Center for Housing Studies.

Kyra (CREW) Welcome to this episode and thank you for participating in this podcast discussion. So, let's start with the first question. In what ways are people financially vulnerable to natural disasters? Carlos, why don't we start with you?

Carlos Martín Sure. I think it's important to think about what finances mean and what financial vulnerability means. So, you typically–, when we think about financial vulnerability, we think about your income: so, loss of income when a disaster happens because you've lost your job or your employer has some other challenges, right? It also means your own personal assets. So, if you own a house—if you're lucky enough to own a house—having that be an opportunity to be

able to at least have some stability after a disaster happens. But then there are also a wide range of other things. If you think about all the costs that you have as a household, those are also all in jeopardy after a disaster. So, this includes whether you're able to pay your utilities, whether you have access to your credit cards or can apply for credit cards, whether you're bankable and have longstanding savings and emergency account, and all sorts of, a range of other financial tools.

So, all of those always come into light when you're at that moment of a disaster, right after a disaster, and whether you can actually have the resources to respond. I mean, I think we're all familiar with that famous federal reserve ongoing study that, I think the last number was 37 percent of Americans lack enough money to cover a $400 emergency expense. And that's up, it's going up. And in 2021, it was 32 percent of households. Now we're at 37 percent. So, think of an earthquake or a hurricane or any other kind of similar hazard as the same kind of a shock. And whether people are prepared for that financial shock certainly is a problem.

And sure enough, intuitively we would think that a shock, like a major emergency or a hazard event, will show disparities in people's ability to recover. And in 2019, my colleagues and I did a study titled *Insult to Injury*, where we found this to be the case. Using credit scores, we looked at changes among households who experienced a disaster, and we looked at disasters since 2011 to 2014, compared those households to similar households that didn't experience a disaster and tracked their credit scores and other credit conditions up to four years after the disaster happened. We also broke these households out into poor credit scores, that's 300 to 609, if you get your credit score; fair is 650 to 699, and good credit is 700 to 850. And there are three important things that I always make sure that people understand: 1) disasters lead to broad negative impacts on everyone's financial health; 2) those negative effects can persist—they can go up to four years after the disaster happened. And I remind everybody that our study just looked at four years of data after disasters, and it was continuously negative. So, one can imagine that that negative spiral continues to occur after the fourth year.

And then third, people and communities who are more likely to be struggling financially before the disaster are the hardest hit by disasters afterwards. So, this suggests that not only are they

negatively affected, but by a wider margin than their wealthier higher credit score households. And we see that pretty consistently. There's consistent evidence that people with low credit scores before the disaster have larger negative effects after, and they also face other financial hardships beyond the credit score decline. So when you have a credit score decline, your access to credit cards becomes harder. Debt collections become harder. And this includes utilities. So many utilities will continuously ask for payment after a disaster event. And things like your foreclosures on your mortgages, other kinds of debt collections all become worse for people who had a hardship before the disaster happened.

And so this is individual households, and certainly at a community scale, this plays an even bigger role. And I know, Divya, you've been talking about a lot of your work is focused on the community scale and I wonder if we're seeing a similar pattern play out there.

Divya Chandrasekhar

Yes, certainly. You know, the biggest thing that you see at this–, at the community scale is displacement and displacement being a big financial hardship for most households. You know, when you are in a place, you have a job in that place, you have housing, you know, you’re pretty certain where you will live. But if you are displaced, there's a huge cost to finding a new place to live. You know, finding schools, finding a new job. This is a long process. So it's not just about the repair that you have to sort of incur at the house that you were living at, if you own the house, but also having to deal with the rental, you know, that you may need. So there's a lot of interim costs that people don't often realize is very big.

And the idea that FEMA, for example, would help you with rental assistance only goes so far. If there's a cap on how much rental assistance you can get, both in terms of amount, but also in terms of duration and, certainly, in, for instance, in New Orleans, and we found that, after Hurricane Katrina, that the rental assistance needs were way, way beyond what FEMA could officially provide. I would like to remind people that the Stafford Act (under which FEMA operates) limits FEMA's assistance to 18 months. FEMA is an emergency management agency, so the emergency part of things can only last for 18 months. So once that 18-month mark is gone, you have to have a reauthorization. You have to have an extension to the rental assistance programs for you to keep getting it. So this has been happening for the past 10, 20 years,

right, we survive in the long run–, FEMA provides money by extending the programs ad hoc—it's not in the act. So, after 18 months, whether you will have rental assistance or not kind of depends on what happens after that disaster. It's not written into any policy. And our experience shows that our rental assistance needs go way beyond 18 months. So there's a lot of cost here that we might not be, you know, either not giving enough or not for long enough.

The other thing I really want to point out is that true home ownership—and Carlos mentioned that, the mortgage aspect, you know, the number of people who actually own their homes—is much less than the people who are in the market cycle, and mortgages, you know, they can–, sometimes mortgage companies give you a moratorium on the payment after a disaster, but that doesn't last that long. So you might be stuck with having to pay a mortgage on a house that you can't even live in, right? And it's in need of major repair.

So hence the foreclosures. So just being in a mortgage sort of status also is a vulnerability. It's–, you don't own your home yet. In fact, you might lose all the equity in the home because you–, no one's–, unless you have hazards insurance for that particular hazard, you may not get enough money to recoup the losses. You might lose all your equity. So, it's a pretty dramatic impact. And then the final thing: there is–, you know, even if you did own all your assets—like you own your home—and to rebuild that home (again, if you don't have hazards insurance), you might have to take on debt. So you might be debt free, but in the process of experiencing a disaster, you might end up with debt. And that is not age dependent. You could have new debt at age 60. So you might have taken an SBA loan or something to rebuild the house. So this is impactful for a long time and in many, many dimensions. And so definitely what you had before really does matter, but it's not just a matter of assets, but it's also about how you're protecting those assets in the pre-disaster model.

There's one more thing I want to mention is, you know, when we think about the community scale, how–, the way communities function, we use a word called *social capital*, which is basically resources that you accrue from your social networks, right? Sometimes these are monetized, but sometimes they cannot be monetized. But they have a value. So, I give an example of

	childcare, right? So, if you were a low income homeowner somewhere and you have family living next to you, instead of paying for childcare, you might be getting help for childcare from your neighbors or your close, you know, your family who lives close to you. And so you're basically saving that dollars–, that number of dollars by saving on childcare cost. Now, disasters can displace all of you, right? So, imagine if you were displaced in a disaster, and all of you went in a different way, which happens a lot. And there's a loss of social networks, right, in the process of displacement. And that means now you are having to incur extra childcare costs in addition to all the other costs, because you don't have those neighbors or your grandparents who can help you with the childcare. So, there's a loss of social capital because of this displacement issue. And so there is a–, there's also additional costs because of the community-level impact, you know, because of disasters. So these are all–, I feel like it's a rather multi-dimensional thing that we tend to think of simply as assets and income; but actually, it is a lot more, well, multi-dimensional than that.
Kyra (CREW)	So how does the scale, type, or frequency of a disaster impact financial recovery?
Divya Chandrasekhar	You know, the larger the scale of disasters, the longer the recovery. That's the fact of our life. So, at the simplest level, you can say: if you are expected to pony up money for renting while your house is being rebuilt or something, you are going to do it for much longer in a catastrophic disaster, because the damage is going to be a lot more significant, right? And then, if you think about insurance coverage, you know, you may not really have the insurance that, you know, would cover the level of damage that you have. So, insurance has a certain number of deductible that you have to be responsible for. The more the catastrophe or disaster, the less you might be able to pay. And in terms of frequency, at least one of our studies—which was for hurricane, not an earthquake—but in hurricane–, post-hurricane study, a recovery study found that households that had incurred repeated losses from disasters were four to eight times less likely to think they have recovered. So, the recovery perception was lower by four to eight times, which shows that there is an effect of having repetitive loss at your

household level and how that might truly affect your recovery trajectory. You know? Whereas—I'm not sure of the difference between earthquakes and floods. Maybe Carlos's study has something to say about that specifically.

But repetitive loss actually also has effect on the policy level. Governments that are dealing with repeated disasters may not have the capacity to deal with every new impact, right? And this is not just a matter of rebuilding the same public infrastructure. Because Governments do both things in the post-disaster environment: public entities not only provide help to rebuild public level infrastructure like, you know, government buildings or water and power stuff, but they also provide funding to households. And so the compound effect of repeated disasters on governments could actually have an effect on both rebuilding public infrastructure, but also the level of help they can provide to households and businesses to recover. Carlos, did your study mention repetitive loss in any way?

Carlos Martín

There have been a lot of other studies I've been involved in some questions around the capacity building of the state and local governments regarding repetitive loss. Maybe my findings are a little different than what you suggested with regard to repetitive loss. Jurisdictions tend to have built in the capacity or at least built it up over time. So, while individual households suffer much more and are sort of constantly in this wheel of recovery—disaster, recovery, disaster—the jurisdictions have built a little bit more sophistication and capacity on how to deal with it. The problem is, we're at a point where these are happening so much more frequently in a lot of these communities, and we're talking about places like, for hurricanes, Texas and Louisiana—and certainly for wildfires in the West. I do want to come back to something you said just in terms of the severity of the disasters.

So, you mentioned that FEMA's individual assistance goes up to 18 months and that there's a very–, like the clock starts ticking pretty quickly. Like, at the disaster event, households have about two months to be able to just apply for that. And if they have–, if they missed that, that could be extended with a petition from the governor. But usually that clock starts ticking right away. So, two months to apply; then you get about 18 months of recovery if you're lucky, if that actually matches the kind of assistance that you need. What happens in the bigger disasters? By bigger I mean

the bigger, more severe disasters that affect more people, there's more damaged property, and we're seeing the billion-dollar disasters playing out more frequently. But in those cases, we actually see a little bit of a different thing happening. So in those cases, the big funding that goes to HUD and the community development block grant for disaster recovery kicks in.

That only happens on special occasions. It requires a congressional special appropriation, because there is no permanent authorization for that program. So, in a big disaster, you're going to get congress saying, “Okay, we’ll allocate more money.” And for that same study that I talked about where you see differences between communities at different credit score having longer term effect, the federal funding that comes in from that actually is very helpful and helps mute that difference. So let me give you a case: So for–, in our study, we were able to include Hurricane Sandy, for example. So, for good credit score holders, in the first year after Sandy, their credit scores went down about an average of 2.5 points; and by year four, it was down by about 6.8 points—so still a negative effect, but relatively muted. These are again, the good credit score.

For the poorest credit score holders, it went down 2 percent in the first year—so almost exact same as the good credit scores, down 7.9 points by the fourth year. So, 7.9 points compared to 6.8 points. Still bigger and still negative, but very muted.

If we look at the mid–, what I call the mid-sized disasters—so these are medium-scale disasters that get FEMA assistance, but don't get the HUD funding—we see that the decline for both of them will go much deeper, and the disparity for lower income, for the low-credit-score holding families will be even deeper. So let me give you more numbers, if this isn't confusing enough for you to imagine via podcast, for the good credit score holders in the smaller disasters, they went from minus four points on average to minus 8.4 on average. So lower than they had in hurricane Sandy. You look at the low score–, low credit score holding, they went, in the first year, 12.5-point decline; by the fourth year, a 29-point decline. So clearly, the big disasters have more effect, but there's more of a safety net that we have established in this country to help make sure that particularly low-income communities are recovering more quickly.

Divya Chandrasekhar	No, I don't think people realize how much the HUD's community development block grants disaster recovery funding–, really, how much of that proportionally–, how much that comprises recovery funding.
Carlos Martín	Exactly right. It's the second biggest pot of money now, after FEMA—after the Federal Disaster Relief Fund.
Divya Chandrasekhar	And it's actually something that is rather versatile as well. So whereas FEMA funding can only be used for certain things, really, emergency operations, the HUD funding has the flexibility to be used for things like re-development planning for the future. CDBG has started to even delineate some part of the disaster recovery funding for mitigation. So, CDBG-DR-MIT, which could be also used in addition to, like FEMA funding, et cetera. And I think recent CDBG-DR, if I remember correctly has the–, the rules have been changed, so that some of the double counting is prevented. So earlier, if you had received X amount of funding from FEMA, it might not count to, as something else. And I think they have . . . .
Carlos Martín	So, that's not yet, that's still a work in progress. Yeah, the benefits duplication, so we may want to cut that out, right. No worries.
Divya Chandrasekhar	It's still in the works, I think. So, it's–, I think these are good moves. I think the idea that–, not realizing, really, the versatility of the CDBG-DR funding and the fact that many entities could qualify for this kind of funding, for instance, nonprofits, right? And to do long-range recovery planning. There is some–, there's some flexibility there, which I think is useful.
Carlos Martín	The grantees are state and local government only, so—
Divya Chandrasekhar	Right.
Carlos Martín	So, I think the important thing to remember in CDBG-DR is it—correct—the size of it and the flexibility of it. The challenge with that kind of flexibility is that it could have good and could have not so great consequences. And so, part of the challenge that CDBG-DR, particularly in the current administration is looking at, is making sure that the prioritization that state and local grantees, because remember these are block grant dollars. So the state, the recipient government gets to make a lot of decisions about how the money is spent. Historically, they've overemphasized the recovery of single-family homeowners and not renters, not multi-family

property development, not economic development for a large part. So, it's a very set group of beneficiaries.

So, a lot of the lower-income people, which should with–, that's the benefit of CDBGDR, is that it also has a low- to moderate-income requirement stream that applies to all, almost all, HUD block grant programs. So that's a positive, but all these programs need to be thought of, as, sort of, in their entirety. And certainly when you're a household, you're less concerned about how do you spell F E M A versus C D B G D R. So it's more of a concern that we need to develop state disaster policy that focuses not only on the household and what their recovery needs are, but also on the range of recovery needs. Right? And not just housing; it's also the financial barriers that may be tied in, in some cases, if they have mortgages, et cetera. But all of the range of financial tools that should be at hand for a survivor community.

Divya Chandrasekhar: Definitely. I think–, I recently was talking to somebody in California, and they were talking about how Plumas County has just used CDBG, not just CDBG-DR, but CDBG money to do some recovery planning, which has always been possible to do. But I don't know how many people actually use CDBG funding to do recovery planning. It seems like a great suggestion. It might also allow them to do more pre-disaster planning, which I hope we'll speak a little bit more about as well, and the impact of that on financial recovery. But there's a fairly–, you know, I don't think people realize how much of the recovery aid that they get to the homeowner actually comes from the HUD funding, and not necessarily, especially in terms of reconstruction and recovery, particularly for small businesses, as much as it comes from FEMA.

Carlos Martín: Right? The tranches, then—this official Stanford Acts policy, right—are your private insurance, if you have either homeowners or the appropriate hazard insurance (to your point earlier, Divya)—or renters insurance, even though we know most renters tend not to have renters insurance compared to homeowners, because homeowners are required by their lender to have the appropriate insurance. That's first tranche. Second is FEMA, and FEMA's individual assistance. Third is the actual Small Business Administration. And then fourth is, and that's, again, only if you're "lucky" to have a big enough disaster where Congress says, "We have to allocate more money for recovery," would you get CDBG-DR—and that's always through your state or local government,

	whoever is given the grant from HUD CDBG. So, it's a wide pool of–, I shouldn't say pool, because the money isn't enough. We don't have, clearly, enough financial resources to support the recovery of everybody, particularly those that are most financially vulnerable. But the sort of bureaucracy, the train of opportunity and backstop in the federal government is structurally there. That just needs to be funded appropriately.
Kyra (CREW)	What strategies are there, at the personal and community level, to help households recover financially? Carlos, would you like to start with that?
Carlos Martín	Sorry, I forgot which order we were doing. So, I would argue that there may be two groups that you could think of in terms of strategies. And the first is the personal, right? We certainly encourage people to have the right insurance, including renters insurance. Renters should know that they can get a renters national flood insurance program, right? There is a rental policy that could be purchased for renters. So having the right insurance, because that's going to be the first stop that you go to as a person. You'll have somebody much more accountable because of the claims agents that are associated with insurers, et cetera. But there's a whole bunch of other things, and that includes making sure you have those emergency savings, right? That you have those resources, that you have your own preparedness plan, that you're investing in your own mitigation for your strategies for your house and that you have health insurance. Now, notice that I'm saying all of this is personal, but the reality is most people without financial resources can't afford any of that. So, the second part is actually institution: What are the institutions—including our public sector—doing to ensure that those things are available to individual households? And so there are a lot of interesting concepts. None of them are that well-funded, or that well-developed in some cases, but certainly having things like emergency savings funds that public sector as well as philanthropy and civil sector can invest into to have households have that $400 for a small emergency, regardless of what it is, whether it's an environmental hazard or a medical emergency, for the household, that's absolute number one. Having an appropriate amount of relief and response and recovery money and assistance, that's going to make the difference. We know not only from those Hurricane Sandy cases and the larger scale disasters,

but also from a wide range of studies, that people, when there's enough resources that are going to the lowest and moderate-income households, that they're able to recover more quickly.

Second, I think we need to think a little bit more about household-centered assistance. So, we, like I said, we talk a lot about housing assistance, but there's also the unemployment insurance program. Department of Education gets resources to rebuild schools. Department of Transportation gets resources to rebuild roads. Thinking about all of the costs that individuals have, and especially in a disaster that has potentially wiped out significant portions of their community, is going to be–, is another, I think, important thing to think about.

We referenced some of the forbearance opportunities. Divya mentioned these in terms of mortgage. There are, certainly, when you have those large-scale disasters, that's more likely, when your lender, or the Fanny [Mae]s and Freddy [Mac]s of the world that securitize that mortgage, are likely to create some forbearance plans, or at least treat the surviving household mortgagees with some compassion, right?

But obviously for the homeowner in a smaller scale disaster that doesn't get those, all those resources, they're personally going to suffer as much as somebody that would've been in the bigger one. So, thinking more robustly about all of these kind of credit forbearance opportunities, and this includes local utilities—making sure utilities don't shut off households that can't afford their utility bills in the first couple of months—are absolutely critical.

I do want to say, if we do know that there are a lot of state rent-gouging laws, which means that after a disaster happens, local retailers, local apartment owners, et cetera, aren't allowed legally to gouge. They're not always enforced that well, but even where those exist, they usually only last a month or two. So within about three or four months, and well after that year, where there are no–, some apartments have actually been taken off the market, that rent gouging occurs and rents go up, the effective rents go up.

So we need to think about all these potential financial ways in which people slip through the cracks. I do–, I want to make one more plug for something that I know my colleague Dr. Carolyn Kousky and I have been saying for years, and that is we also have

to have a means-tested insurance assistance program for property owners and for renters themselves, and including rental property owners that serve low-income households. So right now, insurance in most parts of this country, insurance is doubling, rates are going through the roof. We're talking about the Floridas, the Louisianas and Californias of the world. So it's one thing for me to say, oh, well, you should have insurance to protect yourself and to have a financial safety net, but if your insurance almost costs the same as your mortgage, then that poses a whole different sort of set of questions. And so we need to have a conversation in this country about property insurance as much as we've had about healthcare insurance over the last decade. (And that I'll shut up.)

Divya Chandrasekhar

Yeah, I think, you know, it's a very important point there about just the systems-level thinking that we need to do about, say, insurance. And California is actually a really good example, because I think in the last year, both Allstate and State Farm have decided they're no longer going to give insurance to private new construction, right? New homes or new people, no more new insurance policies, basically, to homeowners in California. That's a huge, it's a huge issue, right? For places that are growing really fast, like California, that makes a really big impact. And it's not just hazards insurance. They're talking about homeowners insurance, right? They're basically saying that they can no longer be in this business if they keep adding new policies. So even if you wanted to, you have fewer and fewer options of getting insurance.

So it's kind of going the way the flood insurance used to go. And the reason why the NFIP, the National Flood Insurance Program, exists in the first place is because the private industry is getting out of insurance in some ways. And it also, to me, it indicates that maybe we need to move the conversation beyond just individual capacities to recover, to maybe planning these communities better to reduce the overall risk. Like to ask what are the risk reduction strategies at the spatial scale level, at the broader community level? Are we thinking about, "Should we be rebuilding in these spaces? What are the right codes for these places?" Right? "What are the right zoning that we need to do, land use planning for these communities?" These are the levels of conversations that we need to start having. We can't just simply depend on, say, insurance to protect people financially; but to provide risk reduction more comprehensively.

When you talk about comprehensive planning, that's another point that Carlos sort of raised, and I thought that was just–, it matches what we find in our household-level studies as well—is this notion that the government doesn't quite keep up with the diverse recovery needs, right? So, if you consider how much funding goes out to different types of recovery needs, housing is probably the biggest, right? And, okay, housing is very, very important. Housing is sort of like the–, it anchors you in your recovery process; but your recovery needs change over time. In our studies, for example, we find that people initially are very, very worried about personal safety, and they would like shelter; but, like, two years, three years down the line, they are moving more towards income, employment, "I need a job." But the policies continue to be more about housing recovery and repair.

So there's not an as equal emphasis on things like livelihood restoration, employment, workforce development—you know, economy, just economic development as much as households, or (sorry) as housing. And so we do need to think about recovery more comprehensively.

In our studies, we also find that household recovery is very much linked to how businesses are recovering in their neighborhood, or how infrastructure in the neighborhood is recovering. And so there is a need to think of this at an assistance level, as household recovery being linked, like individual household recovery being linked to recovery of small businesses, for example, or of other types of infrastructures. So, this is what I meant by comprehensive thinking. In the urban planning world, we used to use the word "comprehensive" planning. In some ways, recovery planning has sort of forgotten that. We tend to do infrastructure recovery separately, economic recovery separately, housing recovery separately. But there is a need to coordinate some of these actions a little bit closer, I think. And maybe some of that has to happen before the disaster strikes.

Not everything is possible to do in the recovery moment. The notions of urgency and wanting to get back as quick as possible sort of overtake a lot of the deliberative thinking that we could be doing. But before the disaster is a really good opportunity to think about recovery, not just response. We do really great response planning before the disaster strikes, but we don't really do a lot of recovery planning before the disaster strikes. Really, not only what

damages would there be, but what are the various ways that we might want to recover? What are the ways—financial instruments—we might want to start preparing for, right? Whether it's funds, whether it is, you know, organizational arrangements, whatever it is that would help us to recover 10 years, 20 years down the line: right from there. So, we really–, we used to do more pre-disaster recovery planning at some point in this country, and then people just stopped talking about it enough. But we–, I think it's time that we started to think about recovery planning before the disaster strikes. So, I think these are all opportunities for us to sort of think about capacity building in the pre-disaster moment at the individual level, at the community level, such that it actually helps us to recover, you know, bigger, better, stronger, whatever words you'd like to use.

Carlos, did you want to add anything?

Carlos Martín

No, you're absolutely right. It has to be comprehensive. And I think part of the challenge is that, at least in the last 30 years, the focus on recovery is on housing, is on the physical quality of housing. We're starting to do more on the physical mitigation of housing. But for the purpose of this conversation, we have to remember the housing is certainly—and I'm a houser, very proud of being a houser—but I'm also very conscious of all the other financial exposures that people have: their house being one of the primary, but also your job, your bank accounts. Like, all of these tools that can be used to best support people.

To that point, I would–, I'm going to add to my list of previous recommendations, because I do feel it's important that people know that oftentimes in post-disaster scenarios, credit agencies aren't particularly fair about reporting and treatment for survivors. And there should be some moratoria on credit scores—at least a freezing of somebody's credit score for much longer than a couple weeks that typically might happen. And I'm also very concerned about predators in the financial space. So, anybody who has worked in the disaster world from the housing perspective knows that there are contractors out there that sell a bill of goods saying that they'll rebuild your house or repair your house—in Louisiana after Katrina, elevate your house—and people got stuck with no work being done, or half of the work being done, and the contractor being nowhere to be found. Well, there are also predatory lenders that come in, including our favorite non-bank

providers like payday loan places. So, all of these ways in which people can be screwed financially, if I can say the word screwed, it's important to be as conscious of, as well as the housing institutions and framework that can help us move forward.

Divya Chandrasekhar And, you know, some of this is also education that can be done before a disaster strikes. If you are a higher at-risk community, this is not a bad conversation to have. You know, I was watching recently, I think the Department of Commerce up in the state of Utah has started doing a campaign for, like, anti-scams, right? How to avoid scams in your personal life, whether in real estate, et cetera. Well, it's not a bad thing to talk about: how in the post-disaster environment you might want to avoid–, you know, how to, like, check out whether there's a legitimate contractor. There's licenses, you know, there's all kinds of things that you might want to look at—the same things that you would look at when you hire a contractor before—pretty much the same things that you might want to look at, you know, afterwards.

I think the other issues there, of course, are also just having enough contractors, right? Having enough of that workforce to depend on. And that's a conversation, it's a different conversation, not necessarily related to individual finances, but at a community level and thinking about who are the people who will actually be doing the work, right? And where they will come from, whether we are actually building that workforce that are required to do that.

You know, I also wanted to talk a little bit about nonprofits, because nonprofits actually play a huge role in helping households individually. We find they are significant mediators in providing financial help to households, but also information to households and representation for these, for community stakeholders at larger levels of government. They represent them in, say, recovery plans. And so this is a very important stakeholder. And I think we should be, as public administrators should be focusing on engaging them before the disaster in planning processes and making sure that they have the capacity to do the kind of work that households–, you know, that will help households eventually.

We've found, for example, in our research that small nonprofits, which tend to be more local and have a lot of knowledge about local, you know, actors or local residents—they have a much better

finger on the pulse of the community. They tend to not be as involved in recovery planning and, like, recovery activities as much as large nonprofits, which may not be local and don't have the same level of understanding of the local, you know, things. And so there's also a great range of nonprofits that you should be engaging with: it's not just the big ones, but you should also be seeking out the small ones—the civic associations, right, the boys and girls clubs in your neighborhood. These are all important actors in the recovery moment, and often they pivot: they may not start out by doing disaster work, but in the disaster moment, they also stand and show up and do disaster recovery kinds of things. So, really thinking broadly about this sector—nonprofit—making sure that we are engaging them, making sure that we are providing the right information. We find also from our nonprofit studies that nonprofits say that they need more information about how to apply for grants, how to apply for, you know, relief aid themselves to help, because they may have themselves been affected; but also how to help their constituents (for lack of a better word), their memberships, at the local level. So also thinking about capacity development of the sector is, I think, beneficial.

Kyra (CREW) Are there any topics or questions that you haven't–, that's in the back of your mind that you haven't actually had a chance to mention in this discussion that you'd like to add?

Carlos Martín I think that something that occurs to me, when Divya was talking about nonprofits is that, I mean, the reality is nonprofits certainly play a role in most people's lives in some way; but when it comes to their finances, it's still the private sector that dominates their interaction with the financial systems as well as the credit systems in this country. So, one role nonprofits can play in that is helping with financial literacy: home pre-purchase, homeowner counseling. I mean, there's a range of tools. The challenge is always when, and Divya knows this as well as I do, that all of these tools that are set up before to help people prepare and mitigate and be ready are always placed in these contexts where people don't have redundant resources. So financial literacy for somebody who is in a modest-income, minimum-wage household—you know, living hand-to-mouth, essentially living from paycheck to paycheck: it's going to be hard for them to even anticipate financial counseling. So, I would encourage any of the listeners who are out there who work in philanthropy to really think

about these opportunities to invest in these buffer programs—not just in creating the program, but actually just giving the money, giving people emergency savings so that they can have that and not have to repeat the cycles that we see, not only after disasters, but after every emergency scenario that plays out disproportionately among low-income people in this country.

Divya Chandrasekhar There's another–, there's other things that I think I–, the other thing I would like to have mentioned as being really important is a language barrier. So oftentimes you find that immigrant communities—non-English-speaking communities—that also tend to be on the lower-income spectrum, right, in the income levels, they also have a harder time accessing governmental aid, right? They may not know about all the FEMA programs. They may not have access to the, you know, the right language application. And so there are a lot more barriers to accessing aid by just not having the aid information presented in the right medium or the right–, through the right modes, right?

And so there needs to be a significant consideration of how this information about, say, recovery aid, et cetera, is being sent out into the community and whether it's being sent out through channels that residents really trust and they understand, and it's in the right mode, right? That you do not, for example, hold community meetings about aid programs in the middle of the day, in the middle of the week, where a lot of these residents might be at work, right? And so thinking about these kinds of barriers that might be additional to just not having a financial aid, but also not being able to get to the right financial aid.

And there's another sort of thing that I wanted to point out. This came from the initial discussion about assets, right? Now having an asset and having the paperwork to show that you own the asset are two different things, right? So, if we've learned this lesson in Puerto Rico, and that's definitely also true for some of the colonials in the Texas areas—you know, in the south, where you may not have the title or the deed for the property that you have historically ancestrally owned, right? And in Puerto Rico, that's a huge issue—having to prove that this is your property, and the official–, FEMA, you know, paperwork requirements not allowing you–, or requiring that you showed these specific forms of proof of ownership. And that was a big issue in Puerto Rico, and I think there was a lot of back and forth with it, and they had to come up

	with ways to just live with the fact that Puerto Ricans don't often have titles to the properties. It's not recorded anywhere, right? So there's also that aspect of the forms of proof, the paperwork, that you might be required to produce for aid that you may not have or you may not have collected, right? So, there is this–, that additional barrier to just paperwork. Not to mention that paperwork is probably the biggest complaint we hear from households and businesses in recovery: just that–, the fact that to get to whatever SBA/FEMA funding, the amount of paperwork that they have to produce is just staggering, and that many people don't apply for things like SBA loans because they just–, they don't have that kind of paperwork. So these are also sort of additional barriers to financial capital.
Kyra (CREW)	Well, thank you both very much for a very insightful and helpful discussion. We really appreciate your time and expertise.
Pascal (CREW)	This episode of the Ready to Recover podcast series was produced by CREW.org, with funding from the National Earthquake Hazards Reduction Program. The podcast transcript and show notes—including links to resources mentioned by the speakers—are available at podcasts.crew.org. You can continue to explore this and related topics by tuning in to the other episodes in the Ready to Recover series. Thank you for listening.