



## Why Climate Scientist Nicole Hernández Hammer Takes the Fight to the Streets

There's a direct connection between climate scientist Nicole Hernández Hammer's childhood in rural Guatemala and her tireless work to teach the rest of us how to adjust our lives so we can preserve our planet for our grandchildren. And the life that unfolded between those two points is remarkable, including that time she stepped on Michelle Obama's foot.

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Alicia Menendez: Hey, if you love Latina to Latina and I know you do and you want to support the show, it's as easy as listening on Radio Public, a free, super easy app that works on iPhone and Android. When you listen to Latina to Latina on Radio Public, we earn a little bit with every episode you here. Thanks for listening and for loving the show.

Clip (Nicole Hernández Hammer): *If we avoid the worst and we're able to adapt in a way where we really kind of changed our approach to things like equity and how we deal with the environment. If we do that, and I want my son to know I was a part of it, even just a small part of it, but part of it, and if we don't and we fail, I want him to know that I tried.*

Menendez: Nicole Hernández Hammer was an established climate scientist and respected academic. But a few years ago she left it all behind. Her sense of urgency about climate change pushed her to direct advocacy. Since then, her work has made her a national leader in environmental justice, even earning her an invitation to join Michelle Obama at the 2015 State of the Union. Today, she and I trace her passion for saving the planet back to her upbringing in rural Guatemala and discuss the loneliness of being a Latina in STEM. Like me, you'll end up inspired to do your part. Welcome Nicole.

Hernández Hammer: Thank you.

Menendez: You were born in Guatemala of Cuban heritage. How did that happen?

Hernández Hammer: My dad went to medical school in Guatemala and he met my mom there.

Menendez: She's Guatemalan.

Hernández Hammer: My mom, Guatemalan, yes.

Menendez: So can I as a Cuban count you as one of my own?

Hernández Hammer: Sure.

Menendez: Okay, good.

Hernández Hammer: That'd be great.

Menendez: Early on, what was your awareness of the environment?

Hernández Hammer: So my father being Cuban and going to medical school in Guatemala, he was at a disadvantage. So Guatemalan doctors got to do their residency in the city and foreign doctors had to find it somewhere else in the country. So we went to Quiche in the highlands of Guatemala and I remember I was very small, but we would take a small plane out there and then get in a truck and drive out to a Mayan village. He did everything from delivering babies to pull teeth and we lived in a little trailer in the middle of the jungle and it was amazing. We would wash, hand wash our clothes in the river and I would climb trees and eat fruit out of the trees and at night, we could hear the wild animals walking around our mobile home. For me that just left such an incredible ... I have impression and love of nature and feeling like that was my place. So when we moved to the United States-

Menendez: Where did you move?

Hernández Hammer: When I was about four years old.

Menendez: Where to?

Hernández Hammer: To right outside of Baltimore, Randallstown, which is nothing like Quiche, Guatemala. My mother and I, we both felt starved for nature and so we went out walking from our apartment building looking for like a little forest or something and we found kind of someone's yard and they had a little river and we would sneak there from time to time and sit by the river, look at the trees, collect the rocks and sneak back to our apartment just because we felt so distant from where we had been.

Menendez: Looking back, what would you say was the first scientific thing you ever did as a kid?

Hernández Hammer: Actually, it was an experiment that I didn't realize I was doing. I didn't know the caterpillars turned into butterflies when we first came to the US and so there was this tree outside of our house that was covered in caterpillars and I just thought they were the cutest things. So I went, I had them all over my arms and on my face and my mom said, "Okay, you could take one inside." So we went inside and we took one of those plastic Coke bottles and we cut off the top and made a little habitat for him and we put him in there and every day after school I would come in and check on him. Then one morning I woke up and he was gone. But there was just like a little casing there which I didn't know what it was. So I was really disappointed and I went to my mom and I said, "The caterpillar is gone." She's like,

"Well, just wait. Maybe he'll come back." So I waited. I'm like, "I'm just going to throw this out. He left."

Menendez: No.

Hernández Hammer: She's like, "Well, just give it another day." So one morning I woke up and there was a butterfly flying inside the Coke container and I was so excited and mom was like, "See, that's where butterflies come from." So we went outside and let it out and I thought that was just the coolest experiments. It really turned me on to science.

Menendez: At the end of each of our episodes, we ask our listeners to send us their thoughts, their requests, and we've been getting just a ton of requests for Latinas in STEM. So sitting here with you as a Latina in STEM, what is that experience like?

Hernández Hammer: Lonely and hard, I think.

Menendez: Thank you for being honest about that. How did you, how do you mitigate that loneliness?

Hernández Hammer: By having a life that's more than just one thing. So I'm a scientist, but I also love spending time with my family and spending time with friends and gardening and doing yoga and all these different things. Then also talking to a lot of young women and girls about STEM and climate change. I'm really lucky, every few months I get an email from a young Latina that's interested in writing about me as kind of their STEM role model, which I feel like, "Oh, it's terrible. There should be better," and they choose me and it's like ... I'm so flattered.

Menendez: I'm rolling my eyes, Nicole.

Hernández Hammer: It's so nice and I kind of overdo it because I'm like, "Call me, we'll talk. Whatever you need, I will help you figure it out." So I see that shift already happening and it's so exciting and it's so exciting that I could help encourage folks to kind of reach beyond anything that I've done in my career, being the only Latina in most of my science classes and certainly not having any Latinos, let alone Latinas to look up to in terms of mentors, kind of put it upon me to do better, to represent my community. So that's tough. So you kind of have to do both. You have to represent your community at the same time. You want to hold your own as a scientist and not feel like you're going to only be doing research that affects your community. So I actually stayed away from that for a long time until-

Menendez: Stayed away from?

Hernández Hammer: From incorporating my perspective as a Latina into the work that I was doing as a scientist and later I realized it was a huge mistake.

Menendez: How did you realize that?

Hernández Hammer: Because it's an advantage. I have a different perspective. When you're in a room and everybody's coming from the same experience and the same perspective, the research is going to be one note and coming into the research with the

experiences I had as a child, as an immigrant, as a woman, as a person of color helped me perceive different dynamics within research. Even just speaking two languages. When you read a narrative, you're better able to craft it because you can think of words differently when you're bilingual. So I started to bring that in more into my work and that's really the most exciting part of my career is when I started to do that.

Menendez: Was there a moment when that crystallized for you?

Hernández Hammer: Yeah, I was working on a report looking at the impacts of sea level rise on transportation infrastructure in Florida and I was looking at different sea level rise projections and Climate Central had some good work on that and I happened upon a list that they had put together of the places that are most vulnerable to the impacts of sea level rise. So Florida, Texas, New York.

Menendez: Latino, Latino, Latino.

Hernández Hammer: Exactly.

Menendez: Like I know this place, this could be a map for something else.

Hernández Hammer: Yeah. The research for a long time had showed how Latinos and in general communities of color are disproportionately vulnerable to the impacts of pollution. But at the time we weren't talking about how those same communities are disproportionately vulnerable to the impacts of climate change. So I thought, "Well, this is such an important thing to be talking about." At the same time, I was doing something called ground truthing where you make a map that shows where flooding should be happening and then you go to that place to verify the elevation. I decided to go to that place to verify the elevation on the days of the highest tides. So what is the lowest point I could find on Miami Beach, Alton and 10th, and when are the highest high it's going to hit, in the fall.

So I went out there with one of my graduate students and we were looking at our maps and we were standing there and it was one of those beautiful Miami days where there's not a cloud in the sky. At first I'm like, "Well, I mean, we're probably not going to see anything." There's still a kind of a sense of denial because it just sounds too awful to be true. Then water started coming in from the storm drains and filling up the street.

Menendez: Even though it's not raining?

Hernández Hammer: Not a drop of rain. It hadn't rained I think for a week at that point.

Menendez: Wow.

Hernández Hammer: The water just started coming up and it was salt water. Within 15 minutes there were about, I don't know, eight or nine inches of standing water on that corner and I couldn't believe it was happening and I couldn't believe that the people that were just carrying about their day and just kind of dealing with it probably didn't know why that was happening and probably did not understand that it was going to get worse. So at that point I decided that I have an opportunity and an

obligation and a duty as a scientist, as a mother, as a Latina to sound the alarm. So I switched gears and over the following year I moved away from academia into outreach and education. There weren't other Latinas talking to Latinos about climate change at the time and so if I wasn't doing it, then who was going to do it.

*Ad: When to start a family is a really personal decision. Some of us want kids now and some of us aren't sure we'll ever want them. Before I got pregnant with my daughter, my friends and I would often talk about how we wished we knew more about our own fertility because the not knowing only made decisions and plans more confusing. I wish at the time I'd had access to Modern Fertility's at home hormone fertility test. I recently took their fertility quiz and explored their timeline tool. It helped me think about how many kids I want, when I plan to have them and how my hormones play into those decisions. Modern Fertility is really convenient. They ship a kit to your home and a physician reviews your results which arrive in a few days. Similar tests could run over a thousand dollars at a doctor's office, but Modern Fertility gives you access to this information for \$159 and you can even use a work flexible spending account or health savings account.*

*In addition to your kit, Modern fertility connects you with a fertility nurse. You can also join their weekly Webinar and participate in their active online community. Most of all, Modern Fertility offers peace of mind by giving you knowledge and information to help inform some of life's biggest decisions. Tests are conducted in a CLIA certified lab and affiliated physicians and clinical advisors work at top fertility clinics. Visit [modernfertility.com/latina](https://modernfertility.com/latina). Take their fertility quiz and get \$20 off your Modern Fertility test. That's [modernfertility.com/latina](https://modernfertility.com/latina) to take the fertility quiz and get \$20 off. [Modernfertility.com/latina](https://modernfertility.com/latina).*

Menendez: It's hard to believe that there are still climate change deniers, but there are. What in your experience is the most effective way of dealing with someone who either doesn't believe that the climate is changing and/or doesn't believe that it's manmade?

Hernández Hammer: So as a scientist, I had the opportunity to speak with elected officials about climate change and when I went as a scientist, I had graphs and charts and numbers that I thought were incredibly compelling and I was frustrated not to see kind of action on that. Then as an activist, I went back to those same elected officials and I told them the stories of people that weren't able to get out of their house to go to work during sunny day flooding events in Miami and one elected official, in particular congressman Carlos Curbelo said, "You can show me graphs and charts all day. But the most compelling piece of evidence that I have about the climate change impacts that we're dealing with are these stories. So please bring me more of these stories."

Menendez: It's just so interesting to me because you are bilingual. You have probably spent her entire life code switching. So even after all that work to realize the language I am speaking, the language of science and graphs and charts, they don't understand. I have to code switch into this entirely different narrative language that's actually going to land.

Hernández Hammer: Yeah, and I think my experience as a Latina, as an immigrant allowed me to be able to recognize when a code switch was needed and allowed me to make that transition in a more efficient way.

Menendez: Not to be like, "But I've got another chart. Maybe that chart."

Hernández Hammer: Yeah. All I know is charts.

Menendez: A lot of your work now focuses on mobilizing communities of color around climate change. What's the most effective way to engage someone who either doesn't believe that they're impacted or believes it but is just caught in the hustle of their job and providing for their family and getting through the day to day where when you talk about 20 years from now, 30 years from now, they're like, "That's just a problem for another day."

Hernández Hammer: I think it's my approach. I don't have an issue that it care about so much that I'm trying to wiggle it other people's lives. It's the other way around. I'm seeing how people are being hurt by climate change and I want to be there to help them make decisions. I talk about, like for example, in 2018 this is the fourth hottest summer and the other three were the last three years. So we need to start talking about heat and today it's really hot and you don't have air conditioning and what can we do to make your life better and how can we take this opportunity to talk about the bigger picture of climate change and what we can do in the long run as a community. So that's kind of the conversation I'm trying to have and the same happens with sea level rise. I do ground truthing on the days where we're more likely to see tidal flooding.

It's those days that I meet people that say, "I walked through this water yesterday, I had a wound and now it looks infected. Do you think there's something in the water?" I can say, "Well, let's call a researcher from FIU to come out here and test the water quality." He says, "Yes, in fact there's E. coli in this water and we need to make sure that we let all the neighborhood know that they need to keep their kids and pretty much everybody needs to stay out of the water." So that's when it becomes useful and that's the spot that I think is where the climate change discussion needs to be happening. There are some impacts that are already baked into the system that we can't avoid and we need to learn to adapt and adapt in a way that's equitable. But we also need to do everything we can to prevent the worst. So that maybe if you buy a house in Miami, that's not so close to the water, you might be able to have an investment in 30 years to pass onto your kids.

Menendez: Which is particularly relevant when you consider how much of Latino's understanding of the American dream and middle class wealth acquisition is tied to home ownership.

Hernández Hammer: I was involved in a survey that some folks came down and did in Miami several years ago and they wanted to know what Cubans thought about climate change and so they interviewed millennials. They interviewed kind of this gap generation where they had come over when they were very small. The doctors, the lawyers of Miami, the elected officials, and then the grandmas, the abuelitas. They found that

of those three groups, guess which group was most concerned about climate change?

Menendez: I'm going to say the grandmothers because it's the most counter intuitive.

Hernández Hammer: You're right. It was the grandmothers because they said, "We went through so much. We were displaced and we came here to build a better life for our kids and we did it. But now there's another threat and what we worked so hard to build might be taken away, not from us, but from our grandkids."

Menendez: I've cared about this issue for a long time, but I have to say when I had my daughter, it became much more acute to me, my concern over it. Because I think there's a reality among those of us who are in our 30s or 40s where it's like, "I could be the last one to make it out of here okay." But then when you start hearing these years and these numbers that you're saying, it's like, "Well, that's my child. That's her growing up in a world where her planet is in peril." It changes the sense of urgency around it and I have to imagine for you as a person who is dedicating your life to this and as a mother, that those two concerns intersect.

Hernández Hammer: Very much so. I did an interview and he said, "What if you fail?" I said, "Well, if we avoid the worst and we're able to adapt in a way where we really kind of changed our approach to things like equity and how we deal with the environment. If we do that, then I want my son to know I was a part of it. Even just a small part of it, but part of it, and if we don't and we fail, I want him to know that I tried," and that's my message.

Menendez: The stakes are high.

Hernández Hammer: Yeah.

Menendez: Damn it, Nicole. We almost made it through this one.

Hernández Hammer: You started it.

Menendez: No, I know. Just it's that image of all those women who just sacrificed so much and the threats come in many forms.

Hernández Hammer: So we have an obligation, right? We have an obligation to our abuelitas that sacrifice so much for us and we have an obligation to our kids that deserve that much too.

Menendez: I sometimes worry that when we talk about climate change in the context of Florida or Texas, that then if you're living somewhere that's not Florida, Texas, you're like, "Sorry guys, but not my problem."

Hernández Hammer: Well, first of all, Florida and Texas are probably going to be coming to you in the next 15 to 20 years and second of all, there is no get out of jail free card for anyone when it comes to climate change. We're all going to be dealing with either direct impacts. So ocean acidification for folks that work in, for example, fishing industries, storms for anybody that lives along the coast, sea level rise for folks that live along the coast as well and heat, which is pretty much everybody. So I

think to think that anyone is immune to the impacts of climate change is delusional.

Menendez: For me, I'm not a scientist. I'm not going to be able to contribute to this fight the way that you are. What does an ordinary person like myself, what can we do if we care about this issue?

Hernández Hammer: I feel like my biggest contribution to dealing with the climate change issue is not as a scientist. It's actually as a mom and as a Latina and you're both.

Menendez: Yes.

Hernández Hammer: I think sharing the information and we're so lucky, our community, poll after poll, shows that Latinos more than anybody else are aware of climate and on board with dealing with the issue and are even willing to pay taxes or whatever it may be to help communities address climate change impacts.

Menendez: Do you believe that it fundamentally needs to be fixed at a policy level? Does that let us off the hook then for our personal consumption habits?

Hernández Hammer: All of it. How can we look at our kids and say we're fighting climate change and we're driving SUVs and eating steak every night and soaking up energy. It's hypocritical. We need to kind of walk the walk.

Menendez: But do I have to become completely plant based?

Hernández Hammer: No, I guess.

Menendez: But like no, real talk.

Hernández Hammer: I mean, that-

Menendez: Can I sit here and be like, "I really care, but I love a burger." Do you have to make really hard choices?

Hernández Hammer: At some point we're going to have to make her choices. What is that? The IPCC said we've got what like 11, now 10 years to do everything we possibly can to prevent the worst. So at what point are we going to make the real hard life changes to contribute to a different world? But if we're still going to be living like we've always lived, business as usual, you can look at the business as usual scenarios for IPCC and it's terrifying.

Menendez: IPCC is?

Hernández Hammer: The Intergovernmental Panel on Climate Change. It's the UN's group of scientists that are working on climate change issues.

Menendez: What do you need me to do? Tell me. Tell me. I'm serious. Tell me what to do.

Hernández Hammer: I mean, I think make the changes that you feel reflect your values in your life, right? So if you feel like-



Menendez: This is not the type of person I am. I'm an all or nothing person.

Hernández Hammer: Okay, all of it?

Menendez: So just give me the full .... Yeah, so just top to bottom.

Hernández Hammer: Reduce the amount of meat that you eat. Think about transportation, how you can reduce the amount of flying that you do. How can you not drive as much as you do? If you're going to buy a house, think about energy efficiency and think about what you really need in terms of house. Do you need a 5,000 square foot house or 15,000 or 1500 be okay? So I think making those kinds of decisions is really important. If you're going to be in a coastal community, find out kind of what the flood plan is. Find out what sea level rise projections look like for that area. There are a lot of resources from Climate Central and the Union of Concerned Scientists, you can actually go in and type your address and it'll tell you your elevation and your vulnerability so you can get that information.

So make choices that encourage development in places that aren't as vulnerable to climate change. Then use whatever platform you have as a parent, as someone that works in media to talk about the issue. Everyone has some sort of circle of influence and of course the most important thing is vote and put pressure on elected officials to make the high level policy changes that can really shift those towards kind of a clean, renewable economy, that's rooted in justice and equity.

Menendez: When President Obama was still president, first lady Michelle Obama invited you to be her guest at one of his State of the Union addresses. Did you just pass out when you got that?

Hernández Hammer: Oh yeah, I couldn't believe it. The first thing I did was call my mom and tell her, "We did it. We did something really great."

Menendez: Okay, and you also didn't say it to her in English. So tell me exactly how that call went down.

Hernández Hammer: Okay. Give me a minute. Because she passed away two years ago.

Menendez: Oh. I'm sorry.

Hernández Hammer: So I'm going to take a minute.

Menendez: No take all the minutes.

Hernández Hammer: No, it's just-

Menendez: Who knew it was going to be the one on climate change that really rocked us.

Hernández Hammer: I know. Yeah, I called my mom.

Menendez: What did you say?

Hernández Hammer: I said, "Vista mamá, vale la pena. Todos los sacrificios-" Well, I'm not going to do it, I'm not going to be able to do this. This is not going to happen.

Menendez: It's worth it.

Hernández Hammer: Yeah. I was like, "You made so many sacrifices." We did something great. It was nice.

Menendez: Then when you met Michelle.

Hernández Hammer: I actually stepped on her foot. I was so excited and I brought my mom and I was like, "Mom, who would have thought? When we were in that plane in Guatemala that one day we would go to the White House." I had a picture, I wore a jacket and there was like little pocket inside of it and I had a picture because after we came to Guatemala, I was just terribly homesick. My grandparents found a way to come over for a week and they said, "You should be so proud of your new country. We're going to take you to the White House." So they took me to the White House and I got an American flag and I just felt really patriotic. So I had that picture of my grandparents. They had since passed away and I was holding an American flag in front of the White House and so I took that in my pocket and I said to my mom, "Who would think that Guatemalans coming here struggling, we didn't even know how to turn the water on. We had to like try to figure it out and we get to go to the White House. We could get to go inside." It was amazing. It gave me the opportunity to do a lot of media that I was able to leverage to get more attention on the environmental justice issues I was working on in Miami.

Menendez: What do you still want to do that you haven't done?

Hernández Hammer: I feel like the issue of climate change is so, so huge and I feel like what I've done so far is such a tiny contribution that I just want to continue to work in that area. So I think that's something I want to continue to dedicate my life to. It's nothing very complicated or necessarily very ambitious, but at the same time it's kind of-

Menendez: What? It's incredibly complicated. It's incredibly ambitious. Just the lovely thing for you is that these things have aligned for you, that your natural gifts, your earned skills, your interests and your sense of justice are now all in alignment, where I think a lot of us struggle with the fact that those things don't always all line up.

Hernández Hammer: Yeah. I'm really lucky.

Menendez: Thank you so much, Nicole.

Hernández Hammer: Thank you.

Menendez: Thanks for joining us today. Latina to Latina was originally co-created with Bustle. Now the podcast is owned and executive produced by Juleyka Lantigua-Williams and me. Maria Murriel is the sound designer on this episode. We want to hear from you. Tell us who you want to hear from and how you're making the show a part of your life. Email us at [hola@latinatolatina.com](mailto:hola@latinatolatina.com). Remember to subscribe or follow us on Radio Public, Spotify, Apple Podcast or wherever you're listening.

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