Economic Architecture Podcast - Episode 11 Transcript:

The following transcript has been edited for clarity:

Commissioner Mark Fowler: Just imagine what happens when a hurricane comes through and destroys your home. Or blows your roof off. If you lose your roof, you're going to lose your home. So, lives and livelihoods are at stake, and we take that very seriously in this process.

Stuart Yasgur: I'm Stuart Yasgur and this is Economic Architecture: the podcast.

Names like Katrina, Ivan, and Helene punctuate our years. Hurricanes like these have a devastating effect on people's lives, and we see the enormous economic toll they take on communities.

They bring with them things like increased insurance costs, which really affect our ability to recover after the storm's damage. But remarkably, when you go right to the heart of where people are affected by these powerful storms, there's hope for what we can do.

Stuart Yasgur: Alabama has reduced damage and insurance claims by implementing a key innovation. They're making their homes more resilient by doing what we call FORTYFYING Homes.

Stuart Yasgur: This week I wanted to turn to some of the folks who have been pioneers—innovators who are moving forward with unlikely innovations to help make their communities more resilient and are creating a ripple effect of benefits for homeowners and communities with the broader goal of creating more resilient homes.

Commissioner Mark Fowler: Well, you know, Stuart, this is really not rocket science. This is just: prepare before the storm comes. And what we've tried to do in our program here with Strengthen Alabama Homes is to help people just simply do that. Recognizing what happens to lives and livelihoods, recognizing what happens to local communities, just recognizing the effect of what happens when the storms come through there.

Stuart Yasgur: Mark Fowler is the Alabama Insurance Commissioner. He leads the Alabama Department of Insurance and its goal is to help regulate the insurance industry, improve consumer protections, promote market stability, and enforce state fire safety standards and laws.

Lars Powell: If we could predict the future, we wouldn't need insurance at all. But when we can start making the whole insurance market less expensive, because not just Alabama's done something, but Alabama's demonstrated it can work.

Stuart Yasgur: Dr. Lars Powell is Executive Director of the Alabama Center for Insurance Information and Research. His areas of research and expertise include insurance markets and regulations, insurance operations, insurer capitalization, and predictive analytics.

The benefit of their work in Alabama where homes have been built or retrofitted to fortified standards was proven by the ability of those homes to withstand the Category 2 hurricane of 2020's Hurricane Sally. Their innovations demonstrate that there's an effective approach that can make our communities safer while also reducing costs.

Stuart Yasgur: For people who are less familiar with it, can you help people understand what's at stake? What's the issue?

Commissioner Mark Fowler: That's a good question because that's what we all are focusing on. Insurance affects lives and livelihoods every day. And in this case, you're talking about potential property damage at the hands of a major hurricane or some weather event that may destroy your property and displace you.

Commissioner Mark Fowler: That could affect your job and your income. That could affect your livelihood in many ways. It could cost your local community in terms of pickup, debris, cleanup; it's going to have an effect on your insurance. It's going to have an effect on your daily life.

Commissioner Mark Fowler: Just imagine what happens when a hurricane comes through and destroys your home. Or blows your roof off. If you lose your roof, you're going to lose your home. So life and livelihoods are at stake.

Stuart Yasgur: What you do have is a lot of FORTIFIED Homes across Alabama.

Commissioner Mark Fowler: Yeah, we do.

Stuart Yasgur: And that's in part because of some really innovative work that this government has done. A great example of government pioneering something. Can you tell us a little bit about that story and how that came about?

Commissioner Mark Fowler: Well, Lars was with us from the beginning of this too. We credit Jim Ridling a good deal. It really was a huge team effort from a lot of people pulling the wagon together. I'll give you the real short version. Hurricanes Ivan and Katrina, the one-two punch of that made people realize that we need to do something different.

Commissioner Mark Fowler: It took some time. It took some effort. A lot of people were involved. A major study was done for the governor and the legislature, and it recommended a couple of things. It recommended the FORTIFIED Program, and it recommended the center that Lars operates.

Commissioner Mark Fowler: And we did both of those. We created the center. We passed legislation to provide the FORTIFIED discounts, which I think are a key to a lot of this. When you fortify, you get very large discounts.

Commissioner Mark Fowler: Then it created the fortified program. That bill passed in 2012. So, it took some time to realize exactly what we needed to do, and it took a Herculean effort to get everybody on the same page.

Commissioner Mark Fowler: How many years before we had another hurricane?

Lars Powell: So it was 2005 to 2020. That's pretty good.

Commissioner Mark Fowler: By the grace of God, we had some time to plan before the next one came, but we knew any year one could come. So, we created the FORTIFIED Program.

Commissioner Mark Fowler: We give Jim Ridling a lot of credit in terms of the fortified. This was sort of a dream of his and an idea of his. And I'll repeat the words that I say all the time from Jim Ridling, my predecessor, Commissioner Ridling.

Commissioner Mark Fowler: And this was before he was commissioner. He said, you're not going to do anything about insurance rates until you change the economics of what happens after the storm hits, which means build stronger, have less damage. So that's the point of the program.

Commissioner Mark Fowler: Legislature let us create the program, passed the bill in 2012. It took some years again to actually put it together. We made our first grant in 2016, and we've been turning and burning ever since.

I think we're going to end this year at very close to a hundred million dollars in grants and 10,000 homes in the grants. I think we're going to cross that threshold in 2026, but we are like at 96 million, something like that, projected by the end of the calendar year.

Stuart Yasgur: So, 10,000 homes built will be built to fortified standard through the grant program funded by Alabama, and then that represents only 15% of the larger fortified homes across Alabama that are now resilient.

Commissioner Mark Fowler: I'm not sure what the total number is. I thought we were approaching 60,000, but it's probably going to be a little under that.

Stuart Yasgur: That's incredible. You're both in Alabama. Alabama's folks may know is susceptible to hurricanes. It's a regular part of your every year season. That has a tremendous effect on people who live in your communities.

Commissioner Mark Fowler: You're exactly right. We only have two coastal counties, but it's a lot of beach. We also are affected even by hurricanes that may go through Florida or Louisiana or Mississippi. They can come our way. And just because they may by the time get here be a tropical storm. Tropical storms can cause a lot of damage. Hurricane Michael hit in northwest Florida in the Mexico Beach area.

Commissioner Mark Fowler: It went through the Wiregrass area of Alabama through the Dothan, the far southeastern part of our state. So, we had a good deal of damage in Alabama from Hurricane Michael, even though it hit Florida. Hurricane Helene was coming our way at one point. We thought it was going to come here.

Commissioner Mark Fowler: So, and then Hurricane Sally did hit in Gulf Shores in 2020. And of course, Ivan and Katrina. Ivan was worse for us than Katrina. Katrina is known as a Louisiana, Mississippi storm. But trust me, we got a lot of Katrina here too. And we had a lot of damage from Katrina. So, hurricanes sometimes are smaller and larger, but if they're anywhere close, they're going to come our way. And don't be fooled by a tropical storm thinking that you're okay because tropical storms can cause just as much damage.

Lars Powell: Yeah. The hard part about having a coastline in your state and having houses there is that hurricanes tend to knock them over. And that's generally a bad thing. It doesn't help anyone that we haven't built to a standard that that withstands that for the last, or for the first however many hundreds of years we've been building structures and more recently structures at the beach and when insurance companies realize what it's going to cost to cover these weaker homes in the face of not just storms being worse but very obviously more, more population density and more property values at the coast, you all of a sudden have this problem that manifests in an insurance market that, oh my insurance premium went up.

But it really has nothing to do with insurance. This is a how you build your house problem and a where you build your house problem, and you feel the pain in insurance. So, you wind up with people like Commissioner Fowler and myself, who, who've never really known anything about building houses, being asked to fix a housing problem, and we just kind of dive in and do the best we can.

Commissioner Mark Fowler: We're building and Alabama's no different than Northwest Florida or Mississippi or anywhere in Florida or any other coastal area. People want to live on the coast. And so we're, and they want to live on water even if it's not the coast they want to live on lakes.

Commissioner Mark Fowler: And Hurricane Sally riverine flooding was worse than the wind in some cases. But we're building in really high-risk areas a lot. We're building more and more in high-risk areas. And if you're not building those to FORTIFIED standards and you're building codes are not up to snuff, you're going to have a big, big, big problem when the hurricanes come.

Stuart Yasgur: We should pull that point out just for a moment because we don't control where the hurricanes go, but we can control where we build and what we're building. But how we build has a real impact on what kind of damages homes and people's lives, because when your home takes damage, your life is also dramatically affected now. And in Alabama, you've really pioneered something that is encouraging people to build their homes in a way that can be more resilient in the face of these kinds of storms.

Commissioner Mark Fowler: Well, you know, Stuart, this is really not rocket science. This is just prepared before the storm comes. And what we've tried to do in our program here with Strengthen Alabama Homes is to help people just simply do that. Recognizing what happens to lives and livelihoods, recognizing what happens to local communities, just recognizing the effect of what happens when the storms come through there.

Commissioner Mark Fowler: We wish we could make it all fortified and snap our fingers and then be done, but we're still building in these high-risk areas at really rapid rates, not just homes, but commercial as well.

Commissioner Mark Fowler: There's as much commercial down in the Alabama coast as anywhere, and that's a real issue. And it's showing up in insurance rates and the cost of doing business is incredible. And I hear people all the time come to me, friends, family, and people who build down there or buy down there. They're upset about their insurance. And I so often, sometimes just I catch myself and not do it.

Commissioner Mark Fowler: And I am so often going, but you knew you were building there; you knew what you were doing when you bought there. And they're fussing about their insurance.

Commissioner Mark Fowler: Sunday lunch after church the other day, in a line to go pay for Sunday lunch, and a guy I know was behind me and he was giving it to me about a house that he owns in the coast. And I'm just like, you knew before you bought that place that you were living in paradise down there and you knew you were at risk and oh, he wanted one of those grants. I can't flip my finger and give you a grant. I just can't do that.

Stuart Yasgur: Lars, can you give us a sense, how much safer is it if homes are fortified or built to the fortified standard, how much safer is it when these storms start to come through?

Lars Powell: Sure, from the study we did on Hurricane Sally the data call that Commissioner Fowler issued, we find that loss frequency reduces by 75%. So, you only have 25% as many claims if you have fortified houses. And then the severity decreases by 20 to 40% depending on how you measure.

Lars Powell: And so that's enormous, right? That makes it possible to insure almost everything at the coast without even really a surcharge. And even the highest risk properties at the coast, many of them that were fortified gold were completely unscathed. And Sally was a Category 2 storm.

Lars Powell: It was a strong Category 2 storm that moved about two to three miles an hour. To put that in perspective, you could have the eyewall of the hurricane, the strongest wind boiling on the same house for hours at a time, one or two hours at a time. Which is really difficult for a house that's not built to a better standard to withstand.

Lars Powell: We had a lot of claims. You had a lot of trees falling on houses, which is another big deal. That's an important part of having a resilient house or a resilient neighborhood, is managing the trees that grow around it. But yeah, when you don't have a tree to fall on your house, you do really well with a fortified system.

Stuart Yasgur: That is an incredible number. So, 75% less. So where there for every hundred claims previously, this would only be 25 claims. And then for each of those 25 claims, the severity, how badly damaged those were, is going to reduce 20% to 40%. That's astounding. And how big a deal is it to make a fortified home? What are people picturing? Are they picturing a fortress? Are they picturing the roofs being done differently?

Lars Powell: You can look at it and you can't tell a difference. There's some, some very subtle differences underneath the roof. They use stronger fasteners, ring shank nails, they glue down the edges of the roof around, around the drip edge, they connect ... (for the fortified gold) they connect the roof to the walls and the walls to the ground. That's really where you can get up to 130, 140, even 150 mile an hour winds and not have damage when you've got the whole thing secured together that way.

Commissioner Mark Fowler: It's really under the surface. You can take a fortified home and an unfortified home next to each other, and you may not see any difference at all, but you'll know the difference when the storm comes. It's not near as expensive as you would think to fortify the roof. It's more than it used to be because of building costs.

Stuart Yasgur: And obviously this is something that Alabama pioneered, and other states are now starting to look to the work that you've done. We start to see it. If you're a homeowner, what can you actually do to move in this direction to start to fortify your home?

Lars Powell: Number one, if you're an individual who is buying insurance, check with your insurance company and see if they have an endorsement that allows you to replace a damaged roof with a fortified roof that, every company in Alabama is required to offer that. And it's offered not at any sort of discount, but just for a premium that's got the same profit margin as anything else they sell.

Lars Powell: But the worst thing that can happen is you have a huge loss and all these homes are damaged. It's a perfect time to renovate or retrofit a lot of your housing stock. Like, no, we can't do it now. We got too many problems. We got to fix them all as fast as we can and, put them back just like they were before.

Lars Powell: No, this is the perfect time to build fortified. You need to be ready on the front end which Alabama is. So having that endorsement is good. If you're an insurance company and you want to have a supply of these roofers and builders, then say, "Hey, if you want to be on our preferred list," that policyholder says, "Hey, we got a claim, we need a roofer." And we give them a list of roofers.

Lars Powell: If you want to be on that list, you have to be certified as a fortified builder. That's going to maybe give a year or two to do it. You don't want to upset the marketplace, but these small things that, that let us have the capacity to build fortified after a storm that's when you can make the biggest difference.

Stuart Yasgur: You mentioned Louisiana, we see it in the Carolinas. Are there other states who are moving in this direction as well?

Commissioner Mark Fowler: Yeah, now other states, I think South Carolina and North Carolina and some other states have had programs a long time that were trying to do something similar to this. And so, credit those states for jumping out there. We may have the program they're all trying to copy, but other states have done great things too. North and South Carolina in particular, give Florida a ton of credit too. Florida's had this kind of work going on since long before any of us.

Commissioner Mark Fowler: We are very careful to make sure that people don't think we're taking credit for starting this resilience movement that you see around the world in a lot of cases. Because people all over the world are talking about resilience all over this country. We didn't start in Alabama by any stretch of imagination, but we were very proud to have had a hand in it.

Stuart Yasgur: Well said. And I think the way you're framing it, you're helping to align interest between the state, homeowners and the insurance industry. I think people often think that those relationships are not as easy, but this is a place where they are actually creating alignment.

Commissioner Mark Fowler: The insurance industry in Alabama has been amazingly supportive of this from the very beginning. They realized early on that this was going to help in what they do as well. Like Lars said, lots less claims. And the insurance industry realized that. In fact, the reason we did the Hurricane Sally study to start with is because the insurance industry was coming to us with data that they had done themselves.

Commissioner Mark Fowler: After Hurricane Sally, they're coming to us saying, “Hey, by the way, these fortified roofs have performed as advertised.” That was the first actual hurricane to go over a critical mass of the fortified roofs. And they're telling us how well they did and we're asking them, “Hey, fantastic. Give us the data. We'd love to use it.”

Commissioner Mark Fowler: And then they were the ones going, Lars was there with us. They were the ones going, oh, we can't. What do you mean we can't? It's proprietary information. We can't do that. We can't give it to you. I said, well, can you scrub it out enough? And what they could do was absolutely not enough for us to really use.

Commissioner Mark Fowler: We called Lars. Lars, what can we do? The idea of the data call came out of that conversation. So, we worked with the same companies, and we worked with the insurance industry in Alabama to develop that data call.

Commissioner Mark Fowler: And it was a collaborative effort of the insurance industry, Lars in the center and the department, and that's how it all worked. It was a big team effort. It wasn't just, we're just going to do a data call.

Lars Powell: When I was in grad school, I thought the hard things to do were to deal with all this data and measure things and do statistics. And turns out that the real hard work in this...it's the politics and the people. You've gotta get the bills passed and you've gotta get people to participate. And that's not something they teach in school.

Lars Powell: That that's something that you've gotta have some learned experience to do that. And I may never get there, but I'm, glad to hang out with some people that know how that works. We sat around and talked about this for a couple of years, then all of a sudden we figured out how to get people to do it. And that's when things started to change.

Lars Powell: Once we got some of the volume builders to really appreciate the fortified program and learn that they're making money in it, all of a sudden it was just get outta their way and let 'em reroof houses.

Commissioner Mark Fowler: Yeah, exactly. Well said. Listen, all this stuff works a lot better when you're not shoving it down people's throats. If you work collaboratively, it's amazing how well it all works and with stakeholders from all around. It's a lot of cat herding, a lot of cat herding.

Stuart Yasgur: Where does the herd go next? What are the next steps and how does this develop from here?

Lars Powell: There's still a lot of room for improvement. I think we've got close to 20% of our single-family residential properties and our two coastal counties have been retrofit or built to a fortified standard, which is fantastic. But there's another 80% that aren't, and then there's all the commercial properties and all the infrastructure. You can still have a huge economic loss just from having the supply chain disrupted as we learned during COVID.

Lars Powell: You're not really resilient until your economy is resilient and your people are resilient. It's really nice for people to be able to go home and have a house and have all their things after a storm, but you really need people to go to work and go to the stores and restaurants and everywhere else that they spend money and keep that economy going.

Lars Powell: So, Alabama, you could make everything in Alabama fortified and, made out of steel if you want to. And it's not going to change the greater insurance market globally. But if we could have the same sort of penetration in Texas and Louisiana and Florida, and some of these larger states get it all around the East Coast and Gulf Coast, then everybody starts seeing this cost of capital go down and insurance goes back to not having as terrible a problem to solve. They can start worrying about wildfires or whatever else because there's always going to be something, right?

Lars Powell: If we could predict the future, we wouldn't need insurance at all. When we can start making the whole insurance market less expensive, because not just Alabama's done something, but Alabama's demonstrated it can work. And I think, North Carolina and Louisiana are both on a trajectory to catch up with the number of fortified homes and exceed us in a number of years.

Commissioner Mark Fowler: We have wildfires here too, and we're going to eventually have to address that. If I had all the money in the world with the department, we'd be tackling that now and we'd be issuing grants in all 67 counties. We're in five counties right now in a general way. We make general grants now. We've been in 48 of our counties, but other than those five, it's special project type stuff that we've done in collaboration with someone else.

Commissioner Mark Fowler: And the city of Birmingham and the University of Alabama and Birmingham, Habitat for Humanity, local economic developers and local, you name it, it was probably about 10 organizations involved in all that. We provided the grants for a hundred homes, it was our part of it. We need to be doing this in every county in a general way, and there's nowhere close to enough money, government money, for us to do that. I say government money, it's not tax money we're doing, we're doing all of this with insurance fees.

So, the insurance industry supports mildly, what we're doing. We put not one dime of general fund money into this program since we started. It's all been from fees we collect from insurance companies. We're not going to the legislature every year and asking for general fund money, thank goodness. But we're in those, you know, three counties in our coastal areas, the two coastal counties, one nearby county, and we're in now in Jefferson and Tuscaloosa counties, which are more northern counties.

Commissioner Mark Fowler: We need to be in all 67 counties. because it's a mistake to think just because you're inland, you don't need to be fortified. You do need to be fortified for wind and fire. We have a lot of work to do, with all this. And one of the great things about so many other states copying this program is they're going to be finding new and better ways to do it. They're going to adapt it to their states, and in the process we're going to learn new and better ways to do it and we'll be copying them when they do.

Commissioner Mark Fowler: In fact, we've already heard of a great idea out of Oklahoma with Strengthen Oklahoma Homes, and we're already adapting some of that in Alabama. I've told Glen Mulready in

Oklahoma we're copying him. He copied us totally on our program. He said he uses the “R&D” method, “Rob and Duplicate,” and I love that. I told him the other day, I said, “Well, guess what? We're now copying something you're doing.”

Commissioner Mark Fowler: I mean, gosh, this is a residential grant program. We're not making grants to the local businesses, but I sure wish we had the money to do it because they need it too. I'd love to be able to fortify a local salon or a local, you name it, a restaurant on the coast, or a condominium building on the coast.

Lars Powell: Or power lines.

Commissioner Mark Fowler: Or power. Oh gosh, yeah. Roads and bridges. Yeah. Roads and bridges. These are the kind of things we're looking at for the future. In the Alabama Resilience Council. Governor Ivey asked me and my colleague from the Alabama Emergency Management Agency to co-chair the resilience council and that organization is looking at, what we call harmful society impacts, not just the windstorm, and where do we need to fortify our state?

Commissioner Mark Fowler: We're looking at everything from local water systems, protecting them from cyber-attacks, not just the pipes breaking, dam safety in our state, roads and bridges ... the whole bit. How do we protect Alabama citizens from harmful societal impacts, which are not limited to windstorms?

Stuart Yasgur: It's an empowering mandate to look at as well. That might be subject also for a future conversation if the three of us can all get back together. Thank you both, great seeing you. Mark, Lars, great seeing you. Thank you for spending time with us today.

Commissioner Mark Fowler: Thank you for having us. It's been a pleasure.

Stuart Yasgur: Hi, I'm Stuart Yasgur, the founder of Economic Architecture and host of the Economic Architecture Podcast.

Stuart Yasgur: As part of our Safe, Healthy, and Resilient Homes series, we've explored a variety of structural innovations that help individual homeowners and communities build resilience in the face of hurricanes and other weather-related events.

All too often people think about issues as a zero-sum game. When we focus on resilience and we do it well, it's one of those opportunities where we can actually mutually benefit.

For example, with home fortification. We just discussed with Commissioner Fowler and Dr. Powell, there's an innovation that can improve home safety and have ripple effects of making home safer, decreasing the burden on insurance companies, and ultimately decreasing the cost of insurance for homeowners.

Stuart Yasgur: Fortifying homes and building resilience in our communities is one of those places where, if we can address the underlying risk, we can make our homes much safer and make the process of fortifying homes more cost effective.

Stuart Yasgur: Fortifying homes lowers the risk. Lower risk creates lower costs. Those lower costs create savings.

Stuart Yasgur: Here at Economic Architecture, we are really interested in thinking about, what could the next step look like? We spend a tremendous amount of time speaking with innovators to learn about emerging structural innovations.

Stuart Yasgur: There are some times in those conversations, when we can start to glimpse a new possibility. When that happens, we bring it to the design studio. So, let's walk through a design question that we've been wrestling with recently at Economic Architecture.

When we fortify our homes and we invest in it, we lower the risk that our home will be damaged by storms. The lower risk lowers the cost to insurance companies.

And some of the savings from those lower costs can be passed back to homeowners in the form of lower insurance premiums. This model is at the heart of the work that Alabama has been pioneering, and as a result in Alabama, there are now nearly 60,000 FORTIFIED homes.

An incredible example of government pioneering an innovation that markets can really bring to fruition. So, the question is, how do we redesign our markets to make that happen?

The issue is that in order to fortify a home, we have to pay for it out of our own pockets upfront, and we realize the benefits over the long term.

The question is, can we use those cost savings to pay to fortify those homes in the first place? How do we bring those future savings to bear today in order to pay to fortify our homes? If we take a market-based approach to this, it has the potential to scale at a totally different magnitude.

Stuart Yasgur: I'm Stuart Yasgur and this is Economic Architecture: the podcast. Stay tuned for future episodes of the Economic Architecture podcast available every Monday at 9:00am Eastern Time, wherever you get your podcasts.