

## We're All in This Together — The Blessings of Disaster

By Michel Bruneau, Ph.D., P.Eng, F.SEI, F.CAE, Dist.M.ASCE

any of you reading this commentary are what I call "silent heroes" in my book

The Blessings of Disaster. That is, you're one of the many professionals devoted to enhancing the world's safety by minimizing the risk posed by many hazards, to possibly avoid some future disasters. You know that achieving disaster-resilient communities is important, that functional recovery must happen, and that changing the status-quo is critical because just promising life-safety

is not sufficient anymore. Your work is important. It's having an impact, "moving the needle" to some degree, one nudge at a time — as all the silent heroes have done for decades when it comes to earthquakes and other hazards, always fighting an uphill battle. I'm on your side.

However, while *you* may think about this all the time, chances are that most everyone else is not. It's often been said that "nobody cares about the work done to prevent disasters, until a disaster strikes, and then people

all of a sudden care a lot" (even the governor of Utah said so in his remarks during the opening ceremony of the 12th National Conference on Earthquake Engineering in 2022). Indeed, nothing is as effective as a disaster by itself: it not only moves the needle, but it also puts jet engines on it. A disaster is a truthful and reliable messenger, and an attention grabber.

As such, an effective solution is to wait for disasters, each one being a necessary (and very painful) rite of passage to the next step along the ride up to a more robust and resilient society. Another approach is to try to find other ways to make everybody care *before* a disaster strikes. Literally, everybody — the whole neighborhood. Because we're all in this together.

## Resilience Is a Team Sport

Decades ago, professionals from many disciplines reached consensus and used judgment and experience to make educated guesses about what the public would consider acceptable economically and politically. Some would argue that the public doesn't know what it wants - or actually that the public knows that it wants everything, while wanting to pay for nothing. As a result, "what the market will bear" has been taken as a proxy for the voice of the public, and has been interpreted as the lowest possible cost - especially when that voice is expressed by developers driven by the goal of maximum return on investment. This is something the general public has been shocked to discover following disasters, such as after the 2011 Christchurch earthquake. Contrary to the engineers who deemed the ductile performance of buildings designed to the latest seismic codes to be a success because the structures behaved during that earthquake exactly as they were intended and provided life safety, the general public was far from impressed to see more than 1,000 buildings declared too expensive to repair being demolished in the downtown business district. Far from what anyone would consider a resilient performance, the reconstruction of Christchurch has now stretched on for more than a decade.

If the objective is to achieve a resilient society, then this requires a knowledgeable public that understands some of the complex factors that make it so difficult to prepare against disasters. For example, the general public should gain an appreciation for the fact that:

 Disaster'R'Us. Most hazards will not create disasters — if we aren't there.
 This is sort of like the metaphysical question, "If a tree falls in a forest and no one is around to hear it, does it make a sound?" — but with disasters

- instead. It is, in fact, the very infrastructure that we've built to protect us from the environment that collapses and kills us during earthquakes, tornadoes, hurricanes, and so on.
- 2. Our brain is amazingly hard-wired in ways that are challenging when trying to deal with things that can create disasters. We're hard-wired for denial, for procrastination, for binging on french fries (fully aware that veggies are healthier), for blaming Yoko Ono for everything — and things like that.
- 3. We have a propensity for reacting. We patch rips and plug holes instead of being proactive. We all say, "An ounce of prevention is worth a pound of cure," but instead live by "We'll cross the bridge when we get there," or "If it's not broken, don't fix it."
- 4. We get stuck with a "What are the odds?" mindset because we get entangled in statistics and probabilities that aren't intuitive and are far less simple than calculating batting averages.
- 5. There are folks who attempt to paint catastrophes as Black Swan events because well that's a convenient way to say nobody could see it coming, sweeping under the carpet the fact that actually tons of people saw it coming and said so loud and clear.
- It doesn't pay to have blind faith in building codes, or in politicians.
- 7. And so many more factors.

And then, "sugar coating the pill" by making all of this an entertaining read and bringing everybody on board. This is not a guarantee of success, but it is a critical first step — or, as they say in math, it's a necessary condition, but not a sufficient one. What happens from there on is up for debate, but at least the conversation has been ignited. All options are on the table, and if nothing changes, at least it will be done willingly, accepting the risks and consequences with open eyes, which would still be a giant step forward (ignorance is bliss, but maybe not sustainable).

## It's Not Preaching, It's Surviving

I'm grateful that my book has received a phenomenal reception and positive reviews

from various professional communities, and endorsements from many leaders and top achievers for whom I have the greatest respect. This suggests that, while the book targets the general public, professionals clearly get double enjoyment, because they not only read what's written (as they, too, are part of the general public), they also read a lot of what's between the lines. However, if their engagement with the book stops after reading the last page and closing the cover, then it's a missed opportunity, because the book wasn't written to preach to the choir, it was written to bring everybody up to speed. Don't think of The Blessings of Disaster as a book; think of it as a tool to raise awareness, but also to seek an answer to the question, "Are we doomed?" Maybe we are (says the pessimist in me). Maybe not.

An educator for executive MBA programs who called me over the phone to share how he truly enjoyed the book, expressed his concern that, "It will be a challenge to reach the general public, to get them interested and educated on the topic." True. Yet, given the alternative, it's certainly worth trying. Word-of-mouth referrals to people from all walks of life, by those who enjoyed the book, is one of the best ways to get there. If, someday, The Blessings of Disaster is sold in airports, the challenge will likely have been met, and we'll be able to have real conversations on this topic with the general public - which will be great, because we're all in this together.

## ► MICHEL BRUNEAU, PH.D., P.ENG, F.SEI,

**F.CAE, DIST.M.ASCE**, is a SUNY distinguished professor at the University at Buffalo, and

author of The Blessings of Disaster: The Lessons That Catastrophes Teach Us and Why Our Future Depends on It. He's spent decades developing engineering strategies to enhance the resilience of infrastructure. He's director emeritus of



an NSF-funded engineering center that focused on enhancing the disaster resilience of communities. You can check out his website at *michelbruneau.com*.