

Journal of Comparative Urban Law and Policy

Volume 5

Issue 1 *A Festschrift in Honor of Arthur C. Nelson on the Occasion of his Retirement - Agenda for Building a Changing World Responsibly: Commentaries and Reflections by Leaders in Urban Planning, Policy, and Design*

Article 9

Resilience Re-Examined: Thoughts on the COVID-19 Pandemic's Lessons for Communities

John Travis Marshall

Georgia State University College of Law, jmarshall32@gsu.edu

Follow this and additional works at: <https://readingroom.law.gsu.edu/jculp>



Part of the [Comparative and Foreign Law Commons](#), [Disaster Law Commons](#), [Environmental Law Commons](#), [Land Use Law Commons](#), and the [Urban Studies Commons](#)

Recommended Citation

Marshall, John Travis () "Resilience Re-Examined: Thoughts on the COVID-19 Pandemic's Lessons for Communities," *Journal of Comparative Urban Law and Policy*. Vol. 5 : Iss. 1 , Article 9, 52-62.

Available at: <https://readingroom.law.gsu.edu/jculp/vol5/iss1/9>

This Article is brought to you for free and open access by Reading Room. It has been accepted for inclusion in *Journal of Comparative Urban Law and Policy* by an authorized editor of Reading Room. For more information, please contact gfowke@gsu.edu.

**RESILIENCE RE-EXAMINED:
THOUGHTS ON THE COVID-19 PANDEMIC'S LESSONS FOR
COMMUNITIES PREPARING FOR DISASTERS**

John Travis Marshall*

ABSTRACT

Prompted by this century's major disasters, many local governments have adopted policies, plans, and laws to help guide their response to future natural hazard events. Some communities have prepared plans informed by their firsthand experience with recent catastrophic storms. Other communities have speculated about potential disaster scenarios; they have imagined the work involved in rebuilding their towns following an event that would threaten residents' homes, health, and livelihoods. COVID-19 gives communities reason to reshape thinking around natural hazards planning. The ongoing pandemic should cause local governments to revisit and rework their plans for facilitating community recovery following a disaster. By providing a detailed nationwide picture of populations at risk from acute shocks to our economic, healthcare, and educational systems, COVID-19 highlights how communities are broadly vulnerable—beyond even the significant adversities revealed by a major hurricane, flood, or earthquake event. This essay examines a few ways that COVID-19 is reframing how we must plan for disaster response and recovery. Discussion of these changes will include consideration of: (1) the core focus that both philanthropic and government funders must place on making investments that promote equity; (2) the increasing incidence of serial disaster events and the imperative that local governments plan to navigate response to and recovery from successive hazard events; and (3) the important role that a robust infrastructure for data collection and analysis must play in promoting effective disaster response and long-term recovery.

* Associate Professor of Law, Georgia State University College of Law. Cambridge University Press has kindly agreed to allow a portion of the introduction to the *CAMBRIDGE HANDBOOK ON DISASTER LAW AND POLICY* (forthcoming 2022) to appear in this piece. I am fortunate to be co-editing the Handbook with Ryan Rowberry, Georgia State University, and Susan Kuo, University of South Carolina School of Law. I am grateful to Ryan and Susan for co-authoring the introduction to that volume and for agreeing to allow a portion of the introduction to appear in this volume of the *JOURNAL OF COMPARATIVE URBAN LAW & POLICY*.

COVID-19 AND ITS LESSONS FOR DISASTER RESPONSE AND RECOVERY PLANNING

Leading up to COVID-19's early 2020 onset, the catastrophic events most immediately informing communities' consideration of disaster response and hazard mitigation plans may have been then-recent events such as Hurricane Michael, the first Category 5 hurricane to hit the continental U.S. in more than 25 years, California's horrific 2018 wildfire season, or perhaps even the September 2018 Indonesian earthquake and tsunami that killed more than 4,300 people and destroyed thousands of homes. Each of these recent disaster events devastated entire regions. They underscored well-known and deeply troubling problems surrounding a changing climate, the vulnerability of low-lying coastal areas, the perils of increased and unsafe development in high hazard areas, and substandard housing that lower-income individuals and families frequently call home.

Hurricane Michael was a ferocious storm that ripped through largely rural and poorer areas of Florida and Georgia, where many structures were built long before contemporary building codes were adopted. The 2018 Indonesian earthquake and tsunamis swept away thousands of homes and left the government facing the enormous challenge of quickly creating temporary housing options. The Carr, Camp, and Woolsey fires together made 2018 among the most devastating wildfire years suffered by any state in U.S. history. These three California wildfires killed more than 90 people and destroyed more than 22,000 structures. At the time, the combined financial losses were estimated at \$15.5 billion.

Each year brings extraordinary and tragic new events to the study of disasters. Most such disaster events, including pandemics, have been matters of long-running speculation. But even the best prognosticators may not have been able to foresee what the next few years would bring. Beginning in late 2019, COVID-19 spread rapidly from China. In March of 2020, the World Health Organization (WHO) declared a global pandemic, and thus began a public health crisis that has visited almost every nation with devastating consequences. The pandemic has taken millions of lives, afflicted hundreds of thousands with debilitating long-term health conditions, left tens of thousands of young children without one or both parents, and completely upended the world's economy.¹ Generations of policymakers, researchers, and scholars will unpack the pandemic's lessons. However, its dramatic and far-reaching impacts here in the U.S. have already exposed critical shortcomings in how local governments respond to and bounce back from disasters.

¹ *Covid-19 Coronavirus*, CTR. DISASTER PHILANTHROPY (Aug. 20, 2021), <https://disasterphilanthropy.org/disaster/2019-ncov-coronavirus/>. All 50 U.S. states, five territories and the District of Columbia are covered by federal disaster declarations. See FEMA, *Covid-19 Disaster Declarations*, <https://www.fema.gov/disaster/coronavirus/disaster-declarations>.

This essay suggests at least three opportunities for improvements in hazard planning highlighted by the pandemic—improvements that may prove particularly valuable as communities nationwide face widespread, repetitive, and persistent hazard events associated with the onset of climate change and sea level rise.

LOCAL GOVERNMENTS MUST EVALUATE THEIR INVESTMENTS AND PROGRAMS FOR CONTRIBUTIONS TO CREATING MORE EQUITABLE AND RESILIENT COMMUNITIES

We will continue to see the pandemic play a role in framing the future study of disasters. Practitioners, policymakers, and scholars are just beginning to write about the pandemic’s lessons;² however, an important lesson that the pandemic provides is that the foundation for meaningful disaster response and recovery is best laid with pre-disaster “blue skies” investments, fostering more equitable development.

Past major disasters have provided snapshots of localized vulnerability. In North Carolina and Texas, hurricane-driven rains inundated low-lying areas frequently home to low- and moderate-income families. To make matters worse, the floodwaters caused nearby landfills and petrochemical plants to release toxic contaminants, spreading them throughout these down-at-the-heels neighborhoods and thus exacerbating the pollution and environmental justice concerns that already disadvantage these poorer, minority neighborhoods.³ Post-disaster recovery programs have also inadvertently helped create even greater disparities between a community’s low-income and upper-income families. Aid programs aimed at facilitating broad-based community recovery have often been deployed with programmatic requirements that prove challenging for low- and moderate-income families. FEMA and HUD post-disaster recovery programs have long required occupants of storm-damaged homes to establish fee simple title (i.e., ownership) to their homes to receive federal disaster recovery assistance. While these programmatic restrictions have the constructive purpose of ensuring that federal grant monies assist people who will have the legal right and responsibility to make repairs to damaged properties, these federal rules have the practical effect of withholding assistance from family members who have occupied and maintained storm-damaged family homes for years and even decades, but whose families’

² Broad consensus exists that the pandemic represents a transformative crisis event, but we acknowledge there is an active debate as to whether it constitutes the type of “focusing event” that usually influences agenda setting and policymaking. See Rob A. DeLeo et al., *During Disaster: Refining the Concept of Focusing Events to Better Explain Long-Duration Crises*, 3 INT’L REV. PUB. POL’Y 5 (2021), <https://doi.org/10.4000/irpp.1868>.

³ See Brie D. Sherwin, *After the Storm*, CAMBRIDGE HANDBOOK ON DISASTER LAW AND POLICY (forthcoming 2022).

inability to navigate state probate or property law processes has prevented the occupants from establishing clear title to their residence.⁴

Citizens, businesses, nonprofits, philanthropic interests, and governmental entities have, with varying degrees of success, used these stories detailing the inequitable dimensions of disaster response and recovery to inform their disaster response and recovery programs. On the one hand, COVID-19 has presented local governments and their partners with a formidable challenge for reducing instances of inequitable recovery. On the other, given the pandemic's global reach and enduring nature, COVID-19 has supplied a comprehensive, contextual, and penetrating image of community vulnerability. The pandemic helps us understand and preview how major and widespread stressor events, such as disasters associated with climate change, may cause distress to the communities where we live and work. Whether or not a region has been spared the effects of a major disaster in the recent past, COVID-19 puts local, subnational, and national governments on notice regarding some of the most serious vulnerabilities that communities face.

Each disaster is laden with tragedies that we wish could have been avoided or prevented. The COVID-19 pandemic has been unspeakably horrible, ravaging almost every nation. In the U.S., the pandemic spotlighted alarmingly high levels of food and housing insecurity. As detailed below, the pandemic's early stages revealed that a significant number of Americans who otherwise could afford to pay for their daily meals in the months and years leading up to the pandemic lacked savings to cover basic food costs just weeks after losing their jobs due to the pandemic's sudden onset. Similarly, many Americans who lost their jobs during the pandemic's early stages were without money to pay their monthly rent or mortgage payments. Less apparent to many Americans, but perhaps even more compelling, is the vulnerability of older and disabled Americans. During the pandemic's first year, it claimed an astounding 8 percent of Americans living in long-term care facilities and nearly 1 in 10 Americans living in nursing homes.⁵ For those who were disabled and contending with acute health challenges, the pandemic also exposed the fragile system of care on which they rely. Many disabled Americans could not easily receive the special care they required due to the unprecedented burdens that the hospitals faced caring for COVID patients. Further, and perhaps most haunting, when COVID caused states and other governmental entities to evaluate their crisis standards of care plans for allocation of health care

⁴ See John Travis Marshall, *Cost-Effective Local Initiatives to Promote Resilient Disaster Recovery*, 343, 360-62 in *THE COMMUNITY RESILIENCE HANDBOOK* (2020) (Huff, McNabb & Thomas eds.).

⁵ See Lance Gable, *Disasters and Disability*, *CAMBRIDGE HANDBOOK ON DISASTER LAW AND POLICY* (forthcoming 2022). See also *LONG-TERM CARE COVID TRACKER*, <https://covidtracking.com/nursing-homes-long-term-care-facilities>.

resources in emergent circumstances, there were widespread questions as to whether disabled Americans would receive equal consideration for critical care when compared with those without disabilities.

The pandemic points out that local sustainability and disaster resilience plans must do more to foreground the concerns of marginalized members of our communities. There are early indications that local governments and their nonprofit and philanthropic partners are beginning to heed this call. The City of Memphis ranks as one of the most dangerous cities in the nation with more than 18,000 violent crimes in 2020.⁶ The City plans to dedicate more than \$4 million of its pandemic relief funds to neighborhood-level interventions that help respond to and diminish violence.⁷ Cleveland and Houston have both rolled out procedures to help ensure that expenditure of pandemic relief funds responds to pressing community needs as identified by community members, not just the cities' well known private, non-profit, and institutional stakeholders.⁸ Each COVID recovery project paid for by Harris County (Houston's) pandemic relief funds has been validated by an equity "framework" confirming that the proposed expenditure addresses historic oversights and imbalances with regard to fund-allocation for neighborhood-level projects and services. Cleveland has created an online form to gather citizen input regarding possible projects that should receive pandemic relief funding.⁹

It is, however, important not to lose sight of the fact that this public health crisis must be carefully sifted for the valuable, albeit deeply painful, lessons. Disasters vividly identify those who are struggling and those debilitated by the loss of their home, health, jobs, or social support networks. By functioning as a kind of x-ray that illuminates all that is broken, disasters provide an opportunity to rectify unjust circumstances that helped give rise to a catastrophe. Further, the pandemic also highlights and reminds us that the greatest disasters jeopardize the well-being of those we typically consider insulated from significant environmental or

⁶ Samuel Stebbins & Douglas A. McIntyre, *This is America's Most Dangerous City*, 24/7 WALL ST. (Dec. 5, 2021), <https://247wallst.com/special-report/2021/12/05/this-is-americas-most-dangerous-city-2/11/>.

⁷ See Georgia Health Policy Research Center, *Maximizing Federal COVID-19 Recovery Investments for Resilience and Equity: Examples from Across the Nation*, 1, chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/viewer.html?pdfurl=https%3A%2F%2Fghpc.gsu.edu%2Fdownload%2Fmaximizing-federal-covid-19-recovery-investments-for-resilience-and-equity-examples-from-across-the-nation%2F%3Find%3D1633612879343%26filename%3DAligning%2520in%2520Crisis%2520Funding%2520Innovations.pdf%26wpdmdl%3D4756370%26refresh%3D619d11db748b01637683675&cld=420981.

⁸ See *id.* at 2.

⁹ See *id.* at 4.

economic shocks. By taking jobs away from a wide range of people working in service-related industries, we now see that the pandemic revealed a broader profile of vulnerability—a profile that suggests potentially widespread exposure to major hazards associated with climate change.

The pandemic can be used by policymakers and scholars as an inflection point for allowing communities to correct their course and to refashion and improve the historic systems that have made a community inequitable.¹⁰ Over the last two years, governments, nonprofits, and philanthropies have had to serve this broad population of need. With this information in hand, policymakers, scholars, and practitioners must focus on developing plans for equity-driven community investments. All public sector investments should be driven in part by the need to counter this broader understanding of vulnerability. Resilience must now be understood to be principally about achieving greater equity in our communities. Investments should be about raising up the least of those in our community and, by doing so, strengthening the ability of communities to navigate disaster and to continue to thrive during a community’s long-term recovery.

POST-DISASTER RECOVERY PLANS MUST INCLUDE STRATEGIC GUIDANCE FOR MANAGING DISASTER EVENTS THAT OCCUR IN RELATIVELY RAPID SUCCESSION

There is reason to vouch for the valuable roles planners and lawyers continue to play in preparing our communities for the challenges of an uncertain future. We need to look no further than the proactive community planning efforts to address natural hazard threats and promote resilience that have emerged slowly but steadily over the past decade. Chastened by disaster events, prodded by federal regulatory requirements, or prompted by a city’s competitive drive to become a more sustainable or resilient community, many local governments have invested in strategies for dealing with a range of potential shock or stressor events.

But in life, as in law and planning,¹¹ change is constant. Some changes unfold in gentle increments. Others are tectonic, as the COVID-19 pandemic proved to be. The local sustainability ordinances and resilience plans crafted over the last decade or so have been subject to an exacting “stress test” that began in the late winter and spring of 2020 and continues into 2022.¹² Although it may be years

¹⁰ Remarks by Bobby Milstein, Director of System Strategy, ReThink Health, to Georgia Health Policy Center (July 20, 2021).

¹¹ Oliver Wendell Holmes underscored that lawyers should expect life to be in flux, reflecting that “the life of the law has not been logic: it has been experience.” O. W. Holmes, *THE COMMON LAW* 5 (M. Howe, ed., 1963).

¹² See, e.g., Abygail C. Magnar, *4 Ways to Achieve Equitable City Resilience*, National League of Cities, <https://www.nlc.org/article/2021/10/13/4-ways-to-achieve-equitable-sustainability-resilience/> (“The Covid-19 pandemic presented numerous challenges that tested

before it is possible to assess fully the successes and failures associated with local responses to the pandemic, the struggles of cities and regions to cope with the pandemic's effects on residents and neighborhoods are already well-documented. Communities now know that they must reframe and recalibrate their plans for navigating major adversities. As wildfires, hurricanes, and floods have coincided with COVID-19, local governments now understand quite well, if they didn't already know, that one way in which they must adapt is to plan to manage not just one, but two disasters and crises at a single time.

Recent disaster events suggest that lightning does sometimes strike twice. Eminent disaster scholar Susan Cutter writes that one of the critical challenges facing local and state governments is the increasing incidence of serial disaster events.¹³ That is, a disaster strikes a community and then weeks, months, or even a year or two later the community's recovery is interrupted by another major disaster event. Recent occurrences of disasters that are geographically and temporally proximate means that communities have less time, if any, to recover and rebound. Further, this enhances the likelihood that disaster events will drive an ever greater economic and social wedge between low- and moderate-income families.

The COVID-19 pandemic emphatically underscores that it is no longer sufficient to plan to manage and navigate a single disaster event and that federal, state, and local governments' failure to do so could put citizens' health and lives at risk. In the wake of Hurricane Michael, the first Category 3 hurricane to hit Georgia in more than 100 years (and more alarmingly, a storm so powerful that it traveled through north Florida to reach landlocked southwest Georgia), residents living in substandard homes were displaced by the October 2018 storm. These residents sought shelter with nearby relatives or in one-room hotel accommodations.¹⁴ Many of these families remained in these overcrowded living situations until the spring of 2020 when the pandemic swept through Georgia and Dougherty County. Rev. Ken Bevel, an associate pastor and community outreach coordinator with a well-established Dougherty County church doesn't doubt that there's a correlation between the acute local affordable housing shortage that followed Hurricane Michael and Dougherty County's dramatically high incidence of COVID cases and

the [Cincinnati's] resilience and underscored the fact that some communities are well-prepared for crisis, while some are more vulnerable.”).

¹³ See Susan Cutter, *Governance Structures for Recovery and Resilience*, CAMBRIDGE HANDBOOK ON DISASTER LAW AND POLICY (forthcoming 2022).

¹⁴ Phone Interview with Rev. Ken Bevel, Assoc. Pastor, Sherwood Baptist Church, Albany, Georgia (July 8, 2021). Notes on file with the author.

deaths.¹⁵ His anecdotal observation is backed-up by recent scholarship. Researchers examining the social and environmental determinants of COVID-19 transmission found that “household overcrowding . . . appear[s] to impair the pandemic resilience of individual families, medically vulnerable communities and cities, as a whole.”¹⁶

In an era of sometimes delayed or qualitatively uneven federal responses to disasters,¹⁷ local and state governments must take the lead in devising disaster recovery plans that could unfold under the stress of repetitive disaster events. The best bulwark against the shock of multiple disasters is, as discussed in the preceding section, an ongoing commitment to reducing economic, educational, and public health disparities across a state, county, or city. Another important approach is for local governments to develop and/or expand partnerships with nonprofit and philanthropic entities that can help staff, organize, and administer essential disaster recovery programs. Most local governments lack in-house expertise for managing disaster recovery programs. Even those local governments that have retained or developed such expertise would certainly not be expected to maintain the extraordinary level of resources required to address more than one disaster event. But just because a local government lacks staffing to address a potential need, the local government shouldn’t be relieved of the responsibility to develop a plan to secure the necessary capacity. Developing this redundant capacity to deploy federal aid proved vital for Bay County, Florida in the early days of COVID response. Still, in the initial stages of its recovery from the catastrophic damage caused by Hurricane Michael, the County leaned on half-a-dozen or so nonprofits to deliver assistance to individuals and families affected by the pandemic.¹⁸ In particular, it asked nonprofit Rebuild Bay County to help identify the gaps in the provision of services to vulnerable county residents and to assist the county in getting meals to those without money to buy food. “It takes a village,” noted Col. (retired) Donna

¹⁵ Priyank Shah et al., *Demographics, Comorbidities and Outcomes in Hospitalized Covid-19 Patients in Rural Southwest Georgia*, 52:7 ANNALS OF MEDICINE 354 (July 2020), <https://doi.org/10.1080/07853890.2020.1791356> (“At one point during the outbreak, Albany, Georgia (Dougherty County) ranked fourth in the world for the number of confirmed cases per 100,000 population, only trailing behind New York, New York; Lombardy, Italy; and Wuhan, China.”).

¹⁶ Ying Yang, et al., *Urban Design Attributes and Resilience: COVID-19 Evidence from New York City*, 2:1 BUILDING & CITIES 618 (July 2021), <https://journal-buildingscities.org/articles/10.5334/bc.130/>.

¹⁷ It took the federal government seven months to pass a federal long-term recovery package for the region devastated by Hurricane Michael. The federal government’s 2017 response to Hurricane Maria’s widespread damage to Puerto Rico and the U.S. Virgin Islands has been broadly criticized as poor. See Cutter, *supra* note 13.

¹⁸ Phone Interview with Col. (retired) Donna Pilson, Executive Director, Rebuild Bay County (July 19, 2021). Notes on file with the author.

Pilson, Rebuild Bay County's Executive Director, who emphasized that "collaboration between government agencies and nonprofits is a must." She further reflected that it is imperative to have relationships between local governments and nonprofits because nonprofits are closer to the community and, in some instances, residents may not fully trust the government. The nonprofit can serve as a "bridge between government and community."

A STRONG LOCAL DATA INFRASTRUCTURE IS AN EFFECTIVE TOOL FOR PROMOTING MORE EFFECTIVE DISASTER RESPONSE AND LONG-TERM COMMUNITY RESILIENCE

As the immediately preceding section suggests, meaningful steps to protect vulnerable communities don't just mean brick-and-mortar investments in housing infrastructure. Local governments can quickly advance protections for communities by rethinking how they remain mindful of vulnerable populations and, when necessary, partner with nonprofit and philanthropic entities to coordinate resource deployment to those individuals and families.

The natural disasters in the years preceding the COVID-19 pandemic are well documented with pictures of post-disaster desperation. It is still easy to recall images of the families living in partially gutted homes in post-Sandy Long Island and, more recently, post-Harvey Houston. We now recognize almost-iconic images of individuals and families who have lost their homes, possessions, and the support of their neighborhood communities. Major disasters don't necessarily cause poverty, poor health, or social isolation, but natural hazard events are known for shining a bright light on extant community vulnerabilities.

Images of the COVID-19 pandemic are certainly seared in our minds as well. We have all seen countless photographs of medical professionals covered in personal protective equipment tending to critically ill patients on ventilators. But other tragic and deeply troubling aspects of the pandemic have unfolded mostly out of view of cameras and the public eye. Hunger, residences abandoned for failure to pay rent or mortgage, homes over-crowded—and unsafely so—with displaced relatives or friends: these scenes have unfolded mostly behind closed doors. It isn't difficult to locate families whose homes or livelihoods were destroyed by catastrophic storms like Superstorm Sandy and Hurricane Harvey. However, COVID-19 ravaged communities in ways that were much more difficult to identify and track. In fact, one of the major lessons of the pandemic is that local governments and their nonprofit and community partners do not have ready access to basic information concerning the welfare of the communities they serve.

Access to reliable data about a community facilitates efforts to craft, amend, and implement robust plans, policies, and procedures.¹⁹ The COVID-19 pandemic underscores that local governments of all sizes struggle to maintain a detailed understanding of the vulnerable populations in their midst. During the Spring of 2020, Americans from coast to coast lost their jobs, strained to pay for basic food staples, and some even lost their homes. Unfortunately, local governments—and even the nonprofit entities that help serve them—often could not answer basic questions about community needs in more than a general way.²⁰ In cities like Atlanta, community organizations were stumped when it came to seemingly straightforward questions such as where specifically do the older members of the community live, and where do our Black and Brown families live?

Communities without adequate resources for data collection and analysis will largely “fly blind” when they encounter a disaster. To be sure, the local government and its partners will have anecdotes and public meetings with which to cobble together programs that are at least generally responsive to community needs. However, without access to relatively detailed information about the pre- and post-disaster status of neighborhood housing, businesses, infrastructure, and economy, local governments and their partners will find it difficult to craft the most appropriate programmatic tools to help the community bounce back from disaster. An essential lesson that this pandemic teaches us is that local governments must develop the capacity for “routine, rapid and reliable diagnostics of at-risk populations.”²¹

CONCLUSION

In an era when we are beginning to experience the profound effects of climate change, the pandemic serves as a dramatic reminder that investments in more equitable housing, community resources, and infrastructure are essential to achieve a greater—and necessary—degree of disaster resilience. COVID-19 has yielded a biting and detailed picture of vulnerability at national and local levels. It has exposed in vivid detail the critical shortcomings almost all communities harbor in their responsibility to help residents with special needs and challenges, whether they be people of color, the oldest or youngest among us, the chronically ill or

¹⁹ See Arthur C. Nelson, John Travis Marshall, Julian C. Juergensmeyer & James C. Nicholas, *MARKET DEMAND BASED PLANNING AND PERMITTING* (2017).

²⁰ Video Conference Interview with Tommy Pearce, Executive Director, Neighborhood Nexus, Atlanta Regional Commission (ARC) (June 30, 2021). Notes on file with the author.

²¹ Robert Muggah, et. al., *Interactive Maps Reveal Urban Vulnerability and Resilience to COVID-19. Here's How*, WORLD ECONOMIC FORUM (Sept. 30, 2021), <https://www.weforum.org/agenda/2021/09/interactive-maps-reveal-urban-vulnerability-resilience-covid-19/>.

disabled, or LGBTQ, or undocumented. For better or for worse, COVID-19 has given every community in the country a snapshot of what vulnerability looks like. It is now the responsibility of scholars, policy professionals, elected officials, community advocates, nonprofit and philanthropic stakeholders, to use the pandemic's lessons to prepare us to face down the future adversities that we must expect await us and the generations that will follow us.

POST-SCRIPT IN HONOR OF ARTHUR C. NELSON

It is 7 AM in Atlanta. I'm feeling quite proud that I've already begun to answer emails while sipping a strong cup of coffee. I send an email to Chris to seek his guidance about resources or ideas for an upcoming class or research project. What happens next will never cease to amaze me. The timestamp of Chris' response from Tucson is 7:15 AM, where it is really 5:15 AM (Mountain Time). As is typical of a Professor Nelson response, it includes not only precise references and people to whom I should talk, but probably also a piece that Chris wrote a decade ago on the topic—and the correspondence is prepared with Chris' characteristic wit and humor. This is the Arthur C. Nelson I know. It is the deeply thoughtful, productive, and energetic scholar who is fully engaged in trying to tackle the toughest problems of our day in the areas of urban growth and development and beyond. Although I live and teach in Atlanta, far away from Arizona, Chris has generously invited me to collaborate on presentations and publications and, in so doing, has helped shepherd my career as a legal scholar and teacher. I'm enormously appreciative of Chris' example and his mentorship. But there's a virtue for which I'll always remain even more grateful. As serious and committed as Chris may be to his teaching and scholarship, he is equally as dedicated to his colleagues and their well-being. If you have the privilege of chatting with Chris about the arc of his career as planner, teacher, and scholar, you know that he is ever mindful that he not only stands on the shoulders of those who have preceded him, but also that he has enjoyed the fruits of many wonderful collaborations. As Chris' current and former colleagues have stepped away from their practice or writing, he remains connected, and his friendship is particularly steadfast when these former colleagues or their families encounter adversity. So, it is this inspiring generosity of spirit that I most admire and for which I will always be thankful to Professor Nelson.

As for my early morning emails seeking his advice and counsel? I wish I could say that I'll curb my correspondence. But I can't promise that, so I encourage Chris to begin giving himself a little grace and maybe a little more sleep. I hope he'll wait until at least 12 Noon (Mountain Time) before sending one of his always enlightening responses.