Community Disaster Recovery

Disasters can serve as focusing events that increase agenda attention related to issues of disaster response, recovery, and preparedness. Increased agenda attention can lead to policy changes and organizational learning. The degree and type of learning that occurs within a government organization after a disaster may matter to policy outcomes related to individual, household, and community-level risks and resilience. Local governments are the first line of disaster response but also bear the burden of performing long-term disaster recovery and planning for future events. Crow and Albright present a framework for understanding if, how, and to what effect communities and local governments learn after a disaster strikes. Drawing from analyses conducted over a five-year period following extreme flooding in Colorado, USA, *Community Disaster Recovery: Moving from Vulnerability to Resilience* presents a framework of community-level learning after disaster and the factors that catalyze policy change toward resilience.

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Community Disaster Recovery

Moving from Vulnerability to Resilience

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To Jason, Anderson, and Josephine, who give me hope that
we'll find a more resilient future.
D.C.

To Judy and Terry Albright, who provided much love and
support that made this book possible.
E.A.

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Foreword

I am excited to provide the foreword to *Community Disaster Recovery*, because this book sets an important standard in studies of the policy process in general, and of disaster recovery in particular. While the title of the book may suggest that this is a book primarily about disaster policy, this book also makes an important contribution to public policy theory. It does this through the careful application, assessment, and refinement of policy theory to advance both our theories of the policy process and to apply those theories to a better understanding of how communities confront disasters, assess their vulnerability, and develop policies and practices that promote resilience.

This book is the result of eight years of intensive research. Those of us who have followed Crow and Albright's research will be pleased to see the results of their work compiled in one book; those who are novices to this research field are in for a treat, because you will find a very readable book on how communities can learn and become resilient after a disaster. This readability does not come at the cost of theoretical and empirical rigor. Instead, what Crow and Albright have done is draw upon an exceptionally large body of literature in the policy process, public administration, public participation, disaster studies, and related disciplines to not only illuminate how communities can learn from disaster but also what differentiates communities that are better able to learn from other communities that may have greater challenges to overcome to promote learning.

The theoretical contribution this book makes is straightforward. The theory is that sudden, shocking events – called *focusing events* in John Kingdon's seminal *Agendas, Alternatives, and Public Policy* (2011), and that in my work (1997, 1998, 2004, 2006) I amended to call *potential* focusing events – lead to greater attention to the problems revealed by these events. I argued that the attention sparked by these potential focusing events may trigger attempts to learn about policy failure, which in turn may yield efforts to improve policy based on this

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learning. The book you are about to read engages deeply with the link between focusing events and learning. My work has painted this learning process with a broad brush. By contrast, this book takes a very deep look at the processes of attention, perceptions of policy failure, and potential policy learning, at the very local level.

Unfortunately, in much of the literature on disasters and on the policy process, the term "focusing event" has become a catch-all term for "big event" or "crisis," but such superficial treatments of the term fail to take seriously my definition of *potential* focusing events. This definition is important because not all crises or big events yield much in the way of policy change or learning. Nor do such superficial treatments of the term explain *how* major events matter in the policy process beyond serving as important events, leaving the mechanisms of policy change either implicit or unspecified.

Certainly, big, shocking, and damaging events can gain a great deal of attention. But crises and disasters are *potential* focusing events – that is, they are only potentially consequential in the history of a body of public policy – because we can almost never know, *a priori*, whether and to what extent an event will gain broad and sustained attention. But does this attention translate to actual policy *learning* and change? This book tackles this seemingly simple yet deeply important question by relating the event to efforts in a community to learn from the event and to emerge from the event less vulnerable and more resilient in the face of ongoing risks than the community was before.

This book comes at an important time in the history of both policy studies and of disaster studies. Students of this field know that our societies – our communities, our economies, and our political systems and institutions – are being tested by events that, depending on their scope and scale, are called extreme events, disasters, or catastrophes. This characterization of an event in a particular community or unit of government is a matter of perspective: One house fire may not be a disaster to a community, but it can be catastrophic to a homeowner. The 2013 Colorado floods described in this book were, to some people, and some communities, a nuisance, or a challenge, but to other people and communities they were catastrophic. The same is true of communities: As you will learn in this book, the City of Boulder found that the 2013 floods were an important managerial and financial challenge, but the event was catastrophic in Lyons and Longmont, which continued to work on recovery *seven years* after the floods.

Clearly, these kinds of events test the resilience of a community. Resilience is a term that has become more common in the study and practice of disaster preparedness and recovery in the last two decades. Like the term it in many ways replaced in disaster studies, "sustainability," resilience runs the risk of becoming a buzzword, so broadly and carelessly applied that it loses most of its meaning. But resilience has at least two advantages as a term to help us to understand the long-term effects of disasters. First, resilience is a quality that we can understand intuitively, as an expression of the ability of a community to withstand a shock and then "bounce back" or even improve upon its pre-disaster state, or something close to it. Second, resilience is a quality that we can assess at various scales, from the micro – individuals who experience disasters – to the meso – the community level – to the macro, at the national level. Remarkable progress in understanding resilience at these scales has been made over the last two decades.

For students of the policy process, the degree to which a community is resilient can be considered in terms of its ability to withstand a shock and to *learn* from that shock so as to make policies that are likely to mitigate the effect of future events, and to develop the experience necessary to respond to future events should they occur. Put simply, more resilient communities are better able to learn from disaster experience and improve upon how they manage disasters in the future. Learning from events is important because extreme events, such as floods, are not new to the world generally, or to Colorado in particular. As Crow and Albright make clear, Colorado's hazard profile has long included floods, not least of which was the 1976 Big Thompson Flood, an event that led the pioneers in disaster studies, such as Dr. Gilbert White at the University of Colorado, to redouble their efforts to help communities understand how to work *with* nature to reduce the risks posed by floods. In this way, Colorado's experience has taught lessons that have been learned worldwide.

This is the underlying logic of the idea of *focusing events* in the literature. John Kingdon sought to help students of American politics understand the conditions under which policies can change. He argued that "windows of opportunity" for policy change are opened when policy problems gain attention. One way in which attention is drawn to problems is through focusing events. Kingdon's definition of the term was overly broad and includes sudden events that "bowl over" other issues on the agenda, as well as the life experiences of key policy

makers and those times when symbols of problems suddenly take hold. In my work, starting with *After Disaster* (1997), I sought to more clearly specify the things that make focusing events *focal*. To be a focusing event is to gain *attention* to a problem. In my work I sought to explain the features of events that make them focus attention. In this and later work, I argued that *potential* focusing events reveal policy failure, thereby gaining attention and triggering efforts to learn what happened so that a similar event is less likely to happen again. Put more simply, the event *reveals* failure and triggers *learning.*

Formulating the function of focusing events in this way brings together several bodies of literature in the policy process. It draws on theories of agenda setting, both in terms of the "multiple streams" approach launched by Kingdon and built upon by others (Herweg, Zahariadis, & Zohlnhofer, 2017). It also draws upon the ideas of Frank Baumgartner and Bryan Jones, the originators of punctuated equilibrium theory in the policy process (2009). One of their many key insights is the idea that greater attention to an issue is usually greater *negative attention.* Drawing on the work of E. E. Schattschneider (1975), they argue that an event that reveals some sort of problem, including possible policy failure, will generally attract a great deal of attention to the problem, leading to some form of mobilization to address perceived shortcomings of policy. The idea of focusing events revealing failure and triggering learning relates to the advocacy coalition framework (ACF) most closely associated with Paul Sabatier and subsequent work by among others, Hank Jenkins-Smith and Chris Weible (Jenkins-Smith, Nohrstedt, Weible, & Ingold, 2018). The ACF describes how core and peripheral beliefs can change and evolve as coalitions of groups learn about policies and form to pursue change.

The idea of learning from disasters draws upon the insights of the policy learning literature. The link between failure and learning is made particularly clear in an article by Peter May (1992), in which he argues that policy failure can stimulate instrumental policy learning (learning about the nature and function of various policy instruments or tools), social policy learning (learning about the things that cause problems to arise to begin with), and political learning, which is learning about better ways to advocate for different policy positions. Focusing events can influence all of these aspects: For example, a focusing event might induce us to review whether existing regulations are the most effective way to achieve a policy goal. They can also cause

us to completely revisit our understanding of a problem to ensure that
our policy approaches are correct. For example, for decades people felt
that the best ways to prevent floods were to build levees and dams in an
often-futile effort to "conquer nature." In disaster studies, Gilbert
White and his intellectual progeny have taught us that a better way
to think about flood management is thinking about working *with*
nature, attempting to accommodate our built environment to natural
processes such as annual floods. And disasters as focusing events have
provided opportunities for political learning, because dramatic events
can be used by advocates for policy change as exemplars and as lessons
to be learned about how current policies failed, and why they should
change. In the broader sweep of all this theorizing about dealing with
floods, what Crow and Albright have written may seem to address a
small matter – how some small communities and a modestly large city
in Colorado responded to – and learned from – damaging floods.
While this may, on its face, seem consequential only for the commu-
nities that were challenged by these floods, Crow and Albright have
shown that studying policy learning at the local level is a remarkably
promising way to study event-driven policy learning. Indeed, this sort
of research is fundamental to our understanding of how people and
communities address the flood hazard.

A key insight of this book is that "disasters are fundamentally
policy-related." This is true for at least two reasons: policies made
before disasters help shape whether a disaster will be, in some way, a
challenging disaster or a community-crippling catastrophe, and disas-
ters can shape the follow-on policies that themselves shape the nature
of the next disaster. Our governments often create the conditions under
which disasters are worse than they might otherwise be – they damage
more property and kill and injure more people than would have
happened had government taken effective measures to mitigate the
worst effects of a disaster. It is this problem about which learning is
most important in communities threatened by disasters.

The results of Crow and Albright's years of research are well sum-
marized in the "key lessons" boxes in each chapter. The results of their
research are exciting, opening new avenues for scholarship and new
insights for practitioners. Some of these lessons are not new, such as
their finding that different communities have different resources and
capacities that they can mobilize in the face of disasters. But this
heterogeneity in disaster response is often missed in popular accounts

of disaster, and puts the lie to the idea that major disasters are "equal opportunity disasters" that harm the rich and poor indiscriminately. And Crow and Albright document how disaster effects are heterogenous within communities.

What does this mean for theory and practice? Crow and Albright link together *capacity* and *resources*, arguing that communities mobilize these attributes to pursue recovery. This matters because communities with greater human capacities can often devote these resources to improve learning from a recent disaster, so as to mitigate the impact of future events. From a practice perspective, this means that local policy makers should seek to develop their human resources to learn from disasters, and state and national leaders should investigate how they can invest in human resources that promote learning.

How, then, can a community learn and work toward resilience? These processes are profoundly shaped by the nature of individual beliefs around disaster causes and risks. Crow and Albright's book digs deeply into the role of individual beliefs at a level not often seen in studies of public policy, because most studies of the policy process are meso-level studies that tend to focus on the actions of groups and institutions. Here, in this book, Crow and Albright tell the story about how individuals, working together in a community, learn about disasters not simply through their direct exposure to hazard impacts, but through a complex set of interactions involving individuals, their local elected and appointed officials, and the public participation processes in which residents are involved to shape their communities' recovery from disasters. Central to that relationship – and therefore learning – is residents' trust in their local officials, because higher levels of trust are, in the data shown in this book, positively associated with deeper engagement with participatory processes focused on disaster recovery. Put simply, people who trust their local governments are more likely to engage in the very sorts of activity that lead to social policy learning – that is, learning not just about how to do what we do better, but also learning about why we do what we do at all. This has significant implications for the development of policy adoptions in communities that would mitigate or reduce flood risks, such as changes to land use patterns or building codes.

I stress this aspect to draw your attention to the important link between individual perception, trust, and broad community participation in the development of disaster recovery plans and policies in their communities. Crow and Albright put it very clearly: "Participation by

residents and other stakeholders leads to higher levels of learning by local governments." But for this learning to occur, the process must include a diversity of stakeholders – the process of engagement cannot simply be one-way – pro forma information sharing, and the process must promote long-term and sustained engagement. These features of engagement are well known to experts in community engagement across a range of disciplines and policy domains, but this study empirically validates what public-participation professionals have long known intuitively: that public engagement requires diversity of viewpoints, trust, shared information, and extended participation. These findings make good the book's promise to be useful to practitioners. The book does not seek to say precisely how any given community should undertake participatory processes to improve recovery planning and implementation. But it does note that the process is intensive and time-consuming and must therefore be taken seriously. This once again highlights the importance of the mobilization of resources after disasters to help communities not only recover from disasters, but to learn *how* and *why* some recovery policies are better, based both on local residents' preferences and on professional criteria, than other policies. Those resources include money, of course, but they also include the resources the community can bring to the discussion, both from the city or town government itself, but also among the people of the community in whose name policies are made. In the end, the process of harnessing of these resources and of effectively deliberating about how those resources are used will influence community resilience.

It is rare to see a book that is deeply grounded in both policy theory and of the substantive area of public policy that it studies. This book is one of them. This book shows how years of dedicated effort to understand the policy decisions made even by smaller communities can yield important insights about the policy process and can point the way to objectively better policy. And, like all good scholarship, this book is likely to inspire other scholars to take up this challenge in their communities and their particular fields. This book both teaches us important lessons and shows the way forward. It is one you will enjoy reading and will value for years to come.

Dr. Thomas A. Birkland, professor of public policy, School of Public and
    International Affairs, North Carolina State University

Preface

Humans are resilient beings. We face risk and overcome it, often, but not always. We build, we engineer, and we think our way out of problems – both those that nature sends and ones we create for ourselves. Over the coming decades, humans will face unprecedented levels of risk. The most common forms of risk faced by humans are those we create when we interact with nature, by building our houses in fire-prone mountain landscapes and on hurricane-prone shorelines, or by developing dense forested areas and unleashing disease, among many examples.

As we complete this manuscript, people worldwide are confronting a new challenge. Cities and towns have come to a standstill. Multinational corporations and mom-and-pop businesses are shuttered. The most powerful nations appear helpless to the global pandemic of the novel coronavirus and the disease it causes – COVID-19. The most powerful nation with the most unstoppable economy in history has shed millions of jobs in just months, greater than at any similar point in history. The effects of the crisis will be felt for many years to come and countless lessons may be – or may not be – learned from this event. But this pandemic is not the first, nor will it be the last crisis that humans face.

The risks humans face and the myriad factors that cause events such as pandemics, natural disasters, technological accidents, and other crises will increase in the twenty-first century. From climate change and human development, to overpopulation, resource exploitation, and nation-state conflicts, the foundations for future crises are laid everyday around the globe.

So, what are humans to do about these risks? Are we helpless in the face of growing risk and increasing likelihood of crises and disasters?

Having dedicated our attention to understanding these questions, we think people can be resilient, and if not now, we think they can become so.

We think communities can change, adapt, and learn from past mistakes to do better in the future.

This book is rooted in hopefulness about the possibility of change and progress and the importance of making change happen. Only through learning from our past mistakes, changing based on new information, and adapting to future scenarios can we become more resilient. Our communities are on the frontlines of crisis response and planning. The age-old mantra in emergency management that "all disasters are local" guides this book. It is communities, their local governments, and their residents that must make changes to become more resilient in the face of a changing world.

Daily, we are surrounded by images of human failings and government failure. From ignoring public health experts on risk mitigation efforts during a pandemic to intergovernmental strife that can lead to insufficient critical supplies during crises, it is easy to come away with the impression that governments and the people who constitute them are self-centered, inept, and lacking in the empathy necessary to keep people safe and provide for secure futures. In the midst of those same images, however, are also images of public servants and frontline workers leading with courage, risking their own health and well-being to protect their neighbors, and making difficult choices that may not be politically popular but that can keep people safe.

Building more resilient communities will take the fortitude of such government leaders who serve the public interest and know that the risks are simply too great to fail this time. It will also take community members, businesses, advocates, and the rest of us to engage and push for the changes we need.

This time, we must get it right. To keep our communities safe and adapt to risks we naturally face or that we have helped create, we must learn, we must adapt, and we must become more resilient to the risks we face.

This book tells the story of communities in Colorado that faced disaster in 2013. These communities responded in a variety of ways. Those responses shaped the changes – if any – that they made after disaster. Whether the communities and their governments learned after the disaster affected if and how they changed. And whether they change will affect if they are resilient to future risks that they will inevitably face. Observing these communities and learning from them

over seven years, we have come to see the possibilities and hope that
disaster-affected communities embody. But we have also witnessed
failures and frustration. We hope that this book provides some insight
so that other communities and governments can begin on the path to
resilience through learning and toward change.

Acknowledgments

A project such as this includes people without whom this book would not be possible. Those who contributed to the research, the process, the ideas, and the product were invaluable to ensuring that this book saw the light of day.

First and most importantly, we thank the Colorado study communities for letting us in. When disaster strikes, communities are inundated with volunteers, media, researchers, and ne'er-do-wells. Among those who descend on communities are researchers like us who hope to understand complex, difficult, and sometimes hidden processes that can benefit society if we can understand them and shine light on them. Despite the predictable inundation many of our study communities experienced, they let us in. They welcomed us into small Town Halls in Lyons where they fed us Christmas cookies. They sat with us in conference rooms to tell their stories. They walked along rivers and through destroyed neighborhoods with us. They made sure that their stories were heard and recorded. We hope that we did justly by their stories and helped ensure that these stories matter and can help others. We thank the communities and the people who govern and comprise these communities. Without them this project would not exist.

We must also thank those who inspired us and our ideas and made this project possible. The three-year study this book describes was funded by the National Science Foundation. Before he retired, Dr. Dennis Wenger served as our program director in the Infrastructure Management and Extreme Events program where he guided us, encouraged our ideas to develop, and eventually funded our first major grants as junior scholars. We cannot thank him enough for that mentorship and support.

Readers will note that this book builds upon a rich literature in disaster policy and learning. One scholar you will read in the pages to come has provided mentorship, guidance, and the intellectual foundations for our work. Dr. Tom Birkland is a friend and a mentor to us

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and to countless other disaster policy scholars whom he has encouraged and supported over his career. This book would look very different if not for Tom's work and the foundations he laid in our field of study. Thank you, Tom, for paving the path for so many of us.

A group of people quite literally made this project into a robust, exciting, and enjoyable part of our professional lives for half of a decade. The research assistants who worked on this project were invaluable to the data collection and development of the project, including Dr. Jack Zhou and Dr. Corrie Hannah. Two of our former graduate students in particular became collaborators and invaluable colleagues during the course of the project. Dr. Lydia Lawhon and Dr. Elizabeth Koebele were as much a part of this endeavor as we were. Their dedication to the project, to our team, to good science, and to being amazing humans made this the most fulfilling project in our professional careers.

Our collaborators and friends who helped make portions of our work come to life include Dr. Todd Ely, who enriched the product presented in this book, and we thank him for sharing his expertise with us.

No book would be possible without the editorial team. Thank you to our editors – Dr. Jorge Rivera and Dr. J. Alberto Aragon Correa – for supporting this work. Thank you to the team at Cambridge University Press, including Valerie Appleby and Tobias Ginsberg, for your hard work to publish this book.

Deserai would like to thank her husband, Jason, who fights for a better world and future every day and makes sure they always do it together. Her resilient, incredible children, Anderson and Josephine, are her reasons to hope for a better future. Also, her parents – Paula, Rick, and Bart – who made her love the places we studied and understand the importance of community.

Elizabeth dedicates this book to her parents, Judy and Terry Albright, who through their support and love encouraged her to question and seek knowledge in the service of society. Elizabeth also thanks the many folks who agreed to share their lived experiences that helped shape this book, and also the many students, friends, family members, and colleagues who have offered their support, which made this book possible.

Studying disasters and writing a book during a pandemic – while juggling online teaching, isolation, homeschooling children, and

feeling the weightiness of the topics we research – is not an easy task, but it is best done with someone you trust, respect, laugh with, and call a friend. We met in graduate school at Duke University and this collaboration is truly a labor of love. From this project, if we were to give a piece of advice to junior scholars it would be this: Study something that is important. Research things that can make our world better. And find good people to do it with who make your ideas better and make your life more enjoyable. That will make it all worthwhile.

Abbreviations

ACF	advocacy coalition framework
BCC	Boulder County Collaborative
CDBG-DR	Community Development Block Grant Disaster Recovery Program
CRO	Colorado Resiliency Office
CRS	Congressional Research Service
CWCB	Colorado Water Conservation Board
DHS	Department of Homeland Security
DOLA	Colorado Department of Local Affairs
FEMA	Federal Emergency Management Agency
HHS	Department of Health and Human Services
HSEM	Department of Homeland Security and Emergency Management
HUD	Department of Housing and Urban Development
IPCC	Intergovernmental Panel on Climate Change
NCA4	Fourth National Climate Assessment
NGO	nongovernmental organization
PET	punctuated equilibrium theory
SBA	small business administration
TABOR	Taxpayer Bill of Rights
USFS	U.S. Forest Service
WUI	wildland–urban interface