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# Catastrophe Is Not the End but the Beginning: Two Centuries of Evolution in US Disaster Law and Policy

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# Catastrophe Is Not the End but the Beginning: Two Centuries of Evolution in US Disaster Law and Policy

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*This awful catastrophe is not the end but the beginning. History does not end so. It is the way its chapters open.*

-- St. Augustine.[1]

If asked, most Americans would probably support the idea that helping households, businesses, and local governments recover from disasters is a basic function of a national government. But in the United States, that assumption has not always been true. While the idea of federal disaster relief is now completely normalized, the federal government's current ethic regarding disaster response and recovery was not inevitable and will likely continue to change. Modern federal disaster law and policy frameworks are a result of 250 years of ad hoc program development and slowly accrued acceptance. As Ernest B. Abbott, Alan D. Cohn, and Otto J. Hetzel argue, "Most limitations – financial, political, and philosophical – have given way over time to an expectation of federal response to catastrophe."[2] Indeed, the functions that most Americans expect and rely on from the federal government after a disaster have evolved from a patchwork of uncoordinated laws and federal programs that only began to coalesce into something resembling a coherent structure in the relatively recent past.

The slow, incremental development of US disaster law and policy does not mean, however, that the current iterations of disaster response and recovery programs are finely tuned or enjoy a rock-solid foundation. Despite centuries of precedent upon which today's systems are built, federal disaster-related programs rely on expansive readings of the constitution[3] drawing from both halves of the "common defense and general welfare" clause and there remains ongoing tension about the federal role in disaster management. Further, federal disaster policies are incredibly complex, owing to the unsystematic way these policies have evolved over more than two centuries. Far from being centralized, they are wide- ranging efforts involving a diverse array of federal, state, local, and tribal agencies; are often purpose-built in the immediate aftermath of individual disasters based on hunches, politics, and available resources; and are heavily reliant on local implementation of federally

[1] Quoted in Samuel Henry Prince, Catastrophe and Social Change: Based upon a Sociological Study of the Halifax Disaster (1920), https://www.gutenberg.org/files/37580/37580-h/37580-h.htm.
[2] Ernest B. Abbott, Alan D. Cohn, & Otto J. Hetzel, Catastrophic Events, the Law, and Federalism, in Homeland Security and Emergency Management: A Legal Guide for State and Local Governments 5 (Ernest B. Abbott & Otto J. Hetzel eds., 2nd ed. 2010).
[3] Michele Landis Dauber, The Sympathetic State: Disaster Relief and the Origins of the American Welfare State (2013).

allocated resources.[4] In a nation as large and diverse as the United States, it is also extremely challenging to create national policies that work well in every context.[5]

When looked at through a lens that incorporates diverse legal, geographical, philosophical, and political considerations, it may be easier to understand why federal disaster laws and policies continue to evolve, why they are so byzantine, and why they will probably never stop evolving. This chapter began with a quote by St. Augustine that also opens the book Catastrophe and Social Change by the sociologist Samuel Henry Prince (1920). Detailing events following the December 6, 1917, munitions ship explosion in Halifax, Nova Scotia, that killed almost 2,000 people and injured 9,000, Prince's book is now regarded as a foundational work in the systematic study of disasters. In using the St. Augustine quote for his epigraph, Prince foreshadows his own argument, now increasingly common, that disasters can create seemingly paradoxical opportunities to physically, economically, and socially remake the places struck by them in new and sometimes better ways. Or, as Prince writes, disasters are "preparation of the ground for an inrush of the spirit of progress."[6] The same is also true for disaster policies. Claire B. Rubin calls large disasters "focusing events" which have typically "[l]aid bare many deficiencies in the legislation, plans, systems, and processes used for all phases of emergencies and disasters at all levels of government."[7] Hopefully, exposing these deficiencies, in turn, forces us to reconsider what we think we know, refine the approaches that did not work, and codify those that seemed to succeed. Given enough time, enough experience, and enough self-reflection, this should lead to an increasingly effective system of disaster management.

The purpose of this chapter is to outline the challenges, limitations, and opportunities inherent in US disaster policy by highlighting the way today's frameworks have evolved over time. The chapter emphasizes two important and intertwined historical themes that can help empower the kind of improvisation and creative problem-solving that effective disaster recovery demands. The first point is that the history of US disaster policy is less of a linear progression of thoughtful, measured innovations than a series of tangled fits and starts, and the chapter offers a series of key historical episodes that triggered significant innovations. These innovations, in turn, become enshrined in policy and take on their own trajectories. Second, disaster policy is inherently complex. To illustrate this point, the chapter draws together the various strands of historical US disaster policy into a single narrative encompassing natural hazards, economic upheaval, national defense, commerce, public health, and myriad other aspects of culture and society. Though clearly the real story is many times more convoluted than can be summarized here, the chapter is an attempt to highlight that complex genealogy.

## The disaster cycle

Contributing to the inherent complexity of the history of disaster policy is the nature of how we think about disasters from a strategic planning perspective. Disaster management is often portrayed as a four-part cycle: (1) mitigation, (2) preparedness, (3) response, and (4) recovery. Mitigation activities blunt the quantifiable impacts of hazard events, such as constructing

[4] Holly M. Leicht, CPC (Cmty. Pres. Corp.), Rebuild the Plane Now: Recommendations for Improving Government's Approach to Disaster Recovery and Preparedness (July 2017), https://communityp.com/wp-con tent/uploads/2017/07/IMPROVING-DISASTER-RECOVERY-PAPER-FINAL.pdf.

[5] Donovan Finn & John Travis Marshall, Superstorm Sandy at Five: Lessons on Law as Catalyst and Obstacle to Long Term Recovery Following Catastrophic Disasters, 48 Envtl. L. Rep. 10494 (2018).

[6] Prince, supra note 1, at 144.

[7] Claire B. Rubin, Introduction, in U.S. Emergency Management in the 21st Century: From Disaster to Catastrophe (Claire B. Rubin & Susan L. Cutter eds., 2020).

seawalls or requiring up-to-date seismic-resistant construction techniques. Pre-event prepared- ness like stockpiling contingency supplies or creating pre-event strategic plans can help communities rebound from whatever impacts ultimately occur despite mitigation efforts. The response phase includes immediate lifesaving efforts in the hours and days after a disaster, as well as the return of basic societal functions such as transportation and communication infrastructure, even if only partially. Finally, long-term recovery involves the arduous processes of rebuilding damaged capital assets, reorganizing fractured systems, and finding new points of equilibrium for economic and social networks.

Despite this conceptual model's clarity, these four components are not particularly well integrated. They tend to operate in relatively distinct policy and professional silos with engineers, urban planners, architects, local EMS officials, local health departments, economists, social service providers, operations researchers, policymakers, and others all interacting in varied permutations within each sector or stage of this conceptual model. Thus, the history of US disaster law and policy is in many ways also the story of all these efforts proceeding along parallel and occasionally converging tracks. As the following account will detail, hazard mitigation was actually the earliest aspect of the disaster cycle to be addressed at the federal level, while response and recovery only garnered occasional, sporadic, and unsystematic federal attention, taking almost 175 years between the nation's founding and the passage of the first comprehensive federal disaster response and recovery legislation. Preparedness, in the sense of federally led civilian-focused efforts, also emerged for the first time around the mid-1900s and remains perhaps the least fully realized component of the federal disaster management toolkit. This chapter weaves these interlocking narratives together, illustrating how myriad and seemingly unconnected historical events have nonetheless worked together to influence the present US disaster policy framework.

## Early to mid-1800s: constitutional debates about a federal role

Many accounts of the nation's disaster policy history begin with February 1803 and Congress's passage of a disaster relief bill for the town of Portsmouth, New Hampshire. But scholars have found useful precedents even earlier. Cynthia A. Kierner argues that the Framers of the Constitution "did not envision disaster relief or assistance for suffering citizens as part of its charge," providing the example of Philadelphia's 1793 yellow fever outbreak, which killed one in ten residents of the nation's interim capitol but, even then, did not lead to a request for congressional relief.[8] Despite this early austerity, Congress did occasionally provide federal disaster relief for various kinds of calamities as riders or amendments to other bills, totaling less than fifty such episodes between 1789 and 1860.[9] These were mostly focused on political objectives, such as relief for settlers who incurred losses during the Whiskey Rebellion of 1794;[10] and even relief efforts after the New Madrid earthquakes of 1811–12 in Missouri, Arkansas, and Mississippi mainly supported speculators and white settlers by allowing them to swap land in high-risk zones for less risky locations in federal land holdings.[11]

[8] Cynthia A. Kierner, Inventing Disaster: The Culture of Calamity from the Jamestown Colony to the Johnstown Flood 141 (2019).
[9] Id.; Dauber, supra note 3, at 25.
[10] Kierner, supra note 8, at 143; Gaines M. Foster, The Demands of Humanity: Army Medical Disaster Relief (1983), https://history.army.mil/html/books/040/40-3/CMH_Pub_40-3.pdf.
[11] Kierner, supra note 8.

Despite this handful of earlier episodes, the Great Portsmouth Fire of December 26, 1802, marked an important turning point that is commonly cited as the first example of what we would today consider federal disaster relief. Over one hundred of Portsmouth's buildings burned in the fire, and the city was economically and physically devastated. Worried about the effect on the national economy due to the importance of the city's shipbuilding industry and port, the seventh Congress passed "An Act for the Relief of the Sufferers by Fire, in the town of Portsmouth" on February 19, 1803. The bill provided some relief for local merchants by suspending federal customs debts but there was no general assistance for affected citizens.[12] After Portsmouth, federal relief for local disasters continued to be piecemeal, ad hoc, and consistently contentious, with Congress debating time and again the constitutionality of federal largesse for victims. Notable exceptions to Congress's strict interpretation of its limited constitutional powers included the $20,000 allocated for relief after the Alexandria, Virginia, fire of 1827[13] and, like Portsmouth, federal debt forgiveness for business owners affected by New York City's Great Fire of 1835.[14] But into the 1880s, according to historian Gareth Davies, the federal government was more likely to simply do nothing after a disaster.

> When the Mississippi River and its tributaries burst their banks during the annual spring rise, or when hurricanes ravaged the Atlantic or Gulf coasts, Congress was invariably silent. . . . And on those rare occasions when they did act, legislators emphasized the wholly exceptional circum- stances that motivated them, never embracing the idea of a general responsibility to relieve the victims of disaster.[15]

But although responsibility for disaster relief and recovery remained mostly in the purview of philanthropies, neighboring communities, and churches, the federal government actually began to intervene in disaster prevention efforts relatively early in the nation's history. As far back as 1824, in Gibbons v. Ogden,[16] the Supreme Court ruled that the Commerce Clause of the Constitution allowed the federal government to regulate commerce across state lines, thus also facilitating federal intervention in riverine maintenance and subsequent congressional approval of US Army Corps of Engineers (USACE) navigation and flood control improvements on the Ohio and Mississippi Rivers in the 1820s and 1830s.[17] Later the Swamp Land Acts of 1849, 1850, and 1860 permitted the transfer of federally owned lands to states to facilitate construction of flood control measures and empowered the USACE to conduct nationwide river surveys that typically advocated for levees to protect vulnerable areas from riverine flooding.[18] Federal oversight of navigable waterways continued to grow with the creation of the Mississippi River Commission in 1879. But in a theme that will recur multiple times in the nation's history, the triggering event for the next period of disaster policy innovation was not a physical disaster at all, but a social one, the American Civil War of 1861–65.

[12] An Act for the Relief of the Sufferers by Fire, in the Town of Portsmouth, ch. 6, 2 Stat. 201 (1803).

[13] Kierner, supra note 8 at 145.

[14] Gareth Davies, Dealing with Disaster: The Politics of Catastrophe in the United States, 14 Am. Nineteenth Century History 53 (2013), https://doi.org/10.1080/14664658.2013.768422.

[15] Id. at 60.

[16] Gibbons v. Ogden, 22 U.S. 1 (1824).

[17] Marion Chastain, FEMA (Federal Emergency Management Agency), A Chronology of Major Events Affecting the National Flood Insurance Program (2005), https://www.fema.gov/sites/default/files/2020-07/fema_nfip_eval_chronology.pdf.

[18] John M. Barry, Rising Tide: The Great Mississippi River Flood of 1927 and How It Changed America (1997).

## The civil war, reconstruction and beyond: important early precedents

Given the Civil War's devastating impact on southern states, the postwar Reconstruction period significantly affected how the federal government viewed its role in the recovery of local economies and infrastructure. The Bureau of Refugees, Freedmen, and Abandoned Lands (Freedmen's Bureau),[19] in particular, was a key component in the process of reconceptualizing how the federal government could intervene in local affairs in order to promote the general welfare. Created in 1865 as part of the War Department and intended to help support the transition of freed slaves to citizenship and economic autonomy, the Bureau ultimately became an opportune mechanism to distribute unprecedented federal aid in 1866 and 1867 after widespread economic devastation caused by southern crop failures. This relief was provided to all southerners – including former rebel soldiers suffering from drought- induced famine – and not only to the Bureau's core constituency of freedmen and Civil War refugees. While this expansion of constituencies clearly called into question the Bureau's remit as a strictly postwar recovery mechanism, the famine relief also helped establish important precedents for subsequent broad-based federal assistance to disaster victims.[20]

Though the Freedmen's Bureau was disbanded in 1870, the destructive Mississippi floods of 1874 led Congress to authorize the Army to enact relief efforts modeled closely on those previously undertaken by the Bureau. In February of 1875, a grasshopper infestation in the Great Plains caused widespread famine, and before long, "the first congressional funds had been appropriated for disaster relief in the North, as the power of precedent easily overrode the generally parsimonious instincts of the 44th Congress."[21] At the same time, there were other structural and technological forces at play influencing congressional attitudes about the federal role in disaster response. For one thing, the nation was continuing to grow in both area and population. Newly admitted states, immigration, westward expansion, and urbanization all created dynamics wherein more people faced situations wherein a disaster could befall them. The federal government was also evolving into a more mature bureaucracy, with increasing capacity to deal with complex challenges. Concurrent advances in communication technology like the railroad and telegraph and nationally distributed magazines like Harper's Weekly connected the nation to calamities previously known only as local affairs. The growing ability of humans to shape and manage nature through mechanized firefighting, civil engineering, medicine, and other increasingly professionalized occupations also played a part in the ongoing evolution of public and policymaker perceptions about the government's role in disaster relief.[22]

At the same time, many politicians strove to keep public involvement in disaster relief at arm's length. The American National Red Cross was founded in 1881 by former US Patent Office clerk Clara Barton,[23] who was inspired by her exposure to the work of the International Committee of the Red Cross in Europe. Barton's nascent organization responded to many large disasters in the waning years of the nineteenth century including the September 1881 Thumb Fire in

[19] An Act to Establish a Bureau for the Relief of Freedmen and Refugees, 13 Stat. 507–09 (1866), https://www.umbc.edu/che/tahlessons/pdf/The_Freedmens_Bureau_Success_or_Failure_RS_4.pdf.

[20] Gareth Davies, The Emergence of a National Politics of Disaster, 26 J. Pub. Hist. 305 (2014); Dauber, supra note 3.

[21] Davies, supra note 20, at 309.

[22] Kierner, supra note 8; Davies, supra 20.

[23] The International Committee of the Red Cross was founded in Geneva, Switzerland, by Swiss entrepreneur Henry Dunant in 1863. Barton had been a battlefield medical volunteer during the US Civil War and learned of Durant's organization when traveling in Europe after the War.

Michigan;[24] the 1889 Johnstown, Pennsylvania, flood;[25] and the 1893 Sea Islands, South Carolina, hurricane.[26] The Red Cross's success in responding to disasters in the United States and abroad led Congress to issue the organization a congressional charter in 1900 (amended in 1905 and 1947) as the sole "treaty obligation organization" found in the US Code as well as the country's official disaster relief entity.[27] Providing a quasi-public mechanism for disaster relief but simultaneously insulating the federal government from any responsibility to fund it, the 1905 charter made the American National Red Cross legally responsible for soliciting and distributing private donations to fund disaster response.[28]

Yet, there continued to be significant pressure on the federal government to provide more direct aid to affected localities after disasters. Congress haltingly and sporadically provided such aid, though always as an adjunct to Red Cross efforts. After the 1906 San Francisco earthquake, federal response efforts included the deployment of Army peacekeepers and the US Marine Hospital Service plus $2.5 million in federal funds for food and relief supplies.[29] Eight years later, in 1914, a massive fire in Salem, Massachusetts, destroyed over 3,000 homes. Extensive congressional debate ensued over President Woodrow Wilson's proposed $200,000 federal appropriation, but it was ultimately approved and overseen by the War Department while the newly created US Department of Labor was also involved in finding jobs for 1,200 local workers who lost their employment. Notably, the Red Cross opposed these federal relief expenditures on the grounds that local and state relief committees were negligent in their fund-raising duties, fearing that federal largesse would simply reward recalcitrant local donors.[30]

During this period, the federal government also took several other steps that, in hindsight, set the stage for more significant subsequent federal intervention and oversight in disaster prevention and mitigation. Justifications for these efforts varied widely and included fortifying the nation's overall ability to effectively conduct trade and commerce, as well as piecemeal efforts focused on specific local risks. The importance of the Mississippi River in the nation's growing industrial and agricultural economy was one clear driver of these new policy directions, and the Committee on the Mississippi Levees was created by the Forty-Fourth Congress at the end of 1875 to oversee levee construction and maintenance on the river. Establishment of the Inland Waterways Commission in 1907 by President Theodore Roosevelt was also predicated on more effective use of waterways to transport agricultural, extractive, and manufactured goods.[31] In 1912 Congress appropriated $350,000 to strengthen levees on the Mississippi River between the Head of Passes and Cape Girardeau, Missouri.[32] On February 3, 1916, the Sixty-Fourth Congress authorized the creation of the US House of Representatives Committee on Flood Control, effectively inheriting oversight of flood control issues from the Committee on Rivers and

24 Philip G. Terrie, "The Necessities of the Case": The Response to the Great Thumb Fire of 1881, 31 MICH. HIST. REV. 90 (2005).

25 FRANK CONNELLY & GEORGE C. JENKS, OFFICIAL HISTORY OF THE JOHNSTOWN FLOOD (1889).

26 Betty Joyce Nash, Economic History: The Sea Island Hurricane of 1893, 10 ECON. FOCUS 45 (2006), https://fraser .stlouisfed.org/title/econ-focus-federal-reserve-bank-richmond-3941/winter-2006-476932/economic-history- 503970.

27 KEVIN R. KOSAR, THE CONGRESSIONAL CHARTER OF THE AMERICAN NATIONAL RED CROSS: OVERVIEW, HISTORY, AND ANALYSIS (2006).

28 David Moss, Courting Disaster? The Transformation of Federal Disaster Policy Since 1803, in THE FINANCING OF CATASTROPHE RISK 307, 362 (Kenneth A. Froot ed., 1999).

29 KIERNER, supra note 8, at 207.

30 JACOB A. C. REMES, DISASTER CITIZENSHIP: SURVIVORS, SOLIDARITY, AND POWER IN THE PROGRESSIVE ERA (2015).

31 Donald J. Pisani, Water Planning in the Progressive Era: The Inland Waterways Commission Reconsidered, 18 J. POL'Y HIST. 389 (2006).

32 An Act Appropriating three hundred and fifty thousand dollars for the purpose of maintaining and protecting against impending floods the levees on the Mississippi River, ch. 69, 37 Stat. 78 (1912).

Harbors and the Committee on Levees and Improvements of the Mississippi River, both of which had been eliminated in 1911. The next year, the Flood Control Act of 1917 – the nation's first – approved $45 million for strategic flood control measures on the Mississippi and Sacramento rivers.[33] Each of these efforts had the effect of slowly moving the nation closer to a formalized national program of risk mitigation, though full realization of that innovation was still two decades away.

The devastating Great Mississippi River Flood of 1927, which affected 16 million acres (6.5 million hectares) and took almost 700 lives, was another important moment in the expansion of federal relief efforts, and also marked the government's most ambitious intervention yet in developing a national flood control program.[34] While the Red Cross organized a massive relief effort and collected more than $23 million in cash and in-kind contributions to support its relief work, the federal government also contributed $10 million in resources, mostly through the allocation of personnel and equipment, marking a significant expansion over previous federal efforts.[35] But perhaps more importantly, the floods created an opportunity for Congress to expand the USACE's role in riverine flood control. The 1928 Flood Control Act allocated $325 million for the USACE to develop comprehensive flood controls for the lower Mississippi River,[36] the single largest infrastructure expenditure in the nation's history to that point.[37] Thus, as the United States inched closer to the Great Depression, a growing number of impactful hazard events were placing increasing pressure on the federal government to engage in disaster prevention, mitigation, response, and recovery and the federal role had incrementally expanded in response to this pressure. The Depression itself would be the next major impetus for enhanced federal engagement, despite the triggering event being an economic – as opposed to physical – disaster.

## The great depression and the new deal: a growing appetite for federal intervention

The federal government's response to the Arkansas Drought of 1930 presaged some of the ways that the Great Depression would ultimately pave the way for a true federal disaster framework, though that would not occur for another twenty years. As historian Roger Lambert argues, at the outset of the Depression, with crop failure already causing widespread hunger and economic devastation, both President Herbert Hoover and the Red Cross sought to minimize federal relief assistance, instead emphasizing local relief and self-help with Hoover especially anxious to avoid any appearance of a federal dole.[38] Still, even once a $20 million aid package was passed by Congress for drought relief, the Red Cross initially refused to accept it, echoing the negative opinion of federal relief contributions it voiced after the Salem fire sixteen years earlier. Lambert cites both a disdain for handouts by President Hoover and Red Cross leadership, as well as a

[33] Matthew T. Pearcy, A History of the Ransdell-Humphreys Flood Control Act of 1917, 41 Louisiana Hist. 133 (2000), https://www.jstor.org/stable/4233654.

[34] See Ned Randolph, River Activism, "Levees-Only" and the Great Mississippi Flood of 1927, 6 Media & Commc'n 43 (2018), https://doi.org/10.17645/mac.v6i1.1179; Jason David Rivera & DeMond Shondell Miller, A Brief History of the Evolution of the United States' Natural Disaster Policy, 12 J. Pub. Mgmt. & Soc. Pol'y 5 (2006).

[35] Moss, supra note 28.

[36] Randolph, supra note 34; Matthew T. Pearcy, After the Flood: A History of the 1928 Flood Control Act, 95 J. Ill. State. Hist. Soc. 172 (2002).

[37] Mary Jean Pedersen, Boudreau v. U.S.: Government Immunity Under the Flood Control Act of 1928 and the Effect of Outdated Legislation on Society, 41 Vill. L. Rev. 1487 (1996).

[38] Roger Lambert, Hoover and the Red Cross in the Arkansas Drought of 1930, 29 Ark. Hist. Q. 3 (1970), https://doi.org/10.2307/40030702.

desire by the Red Cross to remain above politics by refusing to accept federal aid of any kind, instead preferring to rely on donations to fund its work. But bowing to continued political pressure, the Red Cross eventually distributed federally funded aid to those affected by the drought and became increasingly involved in distributing federal resources as the Depression deepened. Simultaneously, the perception of a halting and ineffectual Red Cross response helped to further advance the notion among lawmakers and the public that large-scale catastrophes required some level of direct federal response.[39]

President Franklin D. Roosevelt's inauguration on March 4, 1933, kickstarted a series of rapid federal policy innovations as part of his First 100 Days including a reconceptualization of the federal role in assistance to local governments and individuals. On May 12, 1933, for instance, the Federal Emergency Relief Act of 1933[40] created the Federal Emergency Relief Administration (FERA), which provided federal grants to states, primarily for work relief programs. The Civilian Conservation Corps, the Agricultural Adjustment Administration, and other Roosevelt programs were in many ways the foundational programs of the modern welfare and regulatory state and, for the time, the apotheosis of slow but steady growth of federal involvement in all manner of issues, not only disaster relief but certainly with important implications in that arena.[41]

One element of Roosevelt's New Deal with clear implications for disaster management was the Reconstruction Finance Corporation (RFC), though it was actually established on January 22, 1932, in the last full year of the Hoover administration under the Reconstruction Finance Corporation Act of 1932.[42] The RFC was originally chartered to assist state and local governments, rural banks, and other businesses, but was amended within months by the Emergency Relief and Construction Act of 1932 granting the RFC the ability to make loans to state and local governments for infrastructure projects and unemployment programs.[43] Less than a year later, the Emergency Relief and Construction Act was itself amended, empowering the RFC specifically to make disaster reconstruction loans after the devastating Long Beach (California) Earthquake of 1933. Most notably, for the first time ever, this amendment made $5 million worth of low-interest reconstruction loans available to private property owners though only if facilitated through a local non-profit corporation acting as a fiscal conduit.[44] Between 1933 and 1936, Congress empowered the RFC to issue additional loans for post-disaster reconstruction and in 1937 strengthened the RFC's disaster-related functions by creating the Disaster Loan Corporation within the RFC following damaging floods along the Ohio River in January of that year. By 1939, the RFC had made more than 10,000 disaster loans to affected residents in 33 states totaling over $12 million ($223 million in 2021 dollars).[45]

Moreover, the Depression – or, more precisely, responses to it like the New Deal – saw not only an ongoing accretion of federal involvement in disaster relief, but a simultaneous increase in federal oversight of disaster prevention and mitigation. While many of these efforts, like other components of the New Deal, were aimed primarily at economic stabilization and revitalization, they also had a normalizing effect generally on federal bureaucratic oversight and

39 Gareth Davies, Pre-Modern Disaster Politics: Combating Catastrophe in the 1950s, 47 J. Federalism 260 (2017), https://doi.org/10.1093/publius/pjx016.
40 Federal Emergency Relief Act of 1933, 15 U.S.C. §§ 721–728 (1934).
41 Cass R. Sunstein, Constitutionalism After the New Deal, 10 Harv. L. Rev. 421 (1987).
42 Reconstruction Finance Corporation Act and Emergency Relief and Construction Act of 1932, 15 U.S.C. §§ 601–613b (Suppl. 2 1934).
43 The Emergency Relief and Construction Act of 1932, 15 U.S.C. §§ 601–617.
44 James Stuart Olson, Saving Capitalism: The Reconstruction Finance Corporation and the New Deal, 1937– 1940 (2017).
45 Jesse H. Jones, Reconstruction Fin. Corp., Reconstruction Finance Corporation Seven Year Report to the President and the Congress of the United States, February 2, 1932 to February 2, 1939 (1939), https://babel.hathitrust.org/cgi/pt?id=mdp.39015016727656&view=1up&seq=5.

intervention in what had previously been seen as either wholly market-driven or wholly local matters. One example is the Tennessee Valley Authority (TVA),[46] launched in 1933 to help modernize and improve quality of life in the Tennessee Valley.[47] It is sometimes forgotten that the TVA was also a de facto flood control project for the region, as an early TVA promotional tract proclaimed:

> Before the men of the Tennessee Valley built these dams, flooding was a yearly threat to every farm and industry, every town and village and railroad on the river's banks, a barrier to progress. Today there is security from that annual danger in the Tennessee Valley. With the erection of local protective works at a few points this region will be completely safe, even against a flood bigger than anything in recorded history.[48]

This bombastic tone is consistent with the fervor that overtook many of the projects – especially flood control projects – of the New Deal era, as Roosevelt and congressional allies methodically expanded the federal government's reach. But while the TVA and other programs of the era (such as the Public Works Administration and Bureau of Reclamation's water resource management projects) often had some ancillary flood control benefits, those projects were not specifically focused on hazard mitigation, nor were they part of any nationally coordinated mitigation effort.[49] Up to the mid-1930s, along with piecemeal USACE projects, they amounted to the sum of the nation's flood control efforts, which remained contentious in Congress owing to longstanding debates about constitutionality. By 1936, with FDR in the White House and a Democratic supermajority in both houses of Congress, Louisiana Congressman Riley J. Wilson initially spearheaded an effort to advance the cause of federal flood control.[50] After much debate and political maneuvering, Wilson's efforts, further buttressed by Louisiana Senator John H. Overton, ultimately resulted in the landmark Flood Control Act of 1936 which allocated more than $300 million for hundreds of levee, floodwall, and channelization projects and for the first time ever stated that "flood control on navigable waters or their tributaries is a proper activity of the Federal Government."[51]

## World war II, the cold war, and beyond: foundations of the modern disaster management system

With the commencement of World War II in 1939 began an important new era of federal involvement in disaster management, this time emerging not from the welfare state machinery of the New Deal nor the nation's growing flood control apparatus but in the form of civil defense efforts designed to engage Americans in collective protection against enemy attack.[52] FDR first established an Office for Emergency Management within the Executive Office of the President on September 8, 1939,[53] to which an Office of Civilian Defense (OCD) was later added in May of 1941.[54] By war's end, these

[46] An Act to improve the navigability and to provide for the flood control of the Tennessee River and the proper use of marginal lands in the Tennessee Valley; to provide for the agricultural and industrial development of said valley; to provide for the national defense by the creation of a corporation for the operation of Government properties at and near Muscle Shoals in the State of Alabama, and for other purposes. Pub L. No. 73-17, 48 Stat. 58 (1933).
[47] The Tennessee Valley Authority Act of 1933, 16 U.S.C. §§ 831.
[48] David E. Lilienthal, Tennessee Valley Authority: Democracy on the March (1944).
[49] Joseph L. Arnold, The Evolution of the 1936 Flood Control Act (1988).
[50] Id.
[51] Flood Control Act of 1936, 33 U.S. Code § 701a.
[52] Patrick S. Roberts, The Lessons of Civil Defense Federalism for the Homeland Security Era, 26 J. Pol'y Hist. 354 (2014), https://doi.org/10.1017/S0898030614000165.
[53] Exec. Order No. 8248, 4 Fed. Reg. 3864 (Sept. 12, 1939) (to be codified at 3 C.F.R.).
[54] Exec. Order No. 8757, 6 Fed. Reg. 2517 (May 22, 1941)

offices had recruited between five and eleven million Americans to participate in civil defense programs via thousands of local councils.[55] Throughout the immediate postwar period, responsibilities for civil defense – as well as federal disaster relief – were regularly shifted around the federal bureaucracy as the perceived need for such programs waxed and waned. Anticipating that civil defense was no longer a pressing priority, President Harry S. Truman eliminated the OCD in June of 1945 as World War II was drawing to a close.[56]

However, the true watershed event in American disaster management occurred with the passage of the Disaster Relief Act of 1950[57] signed into law by President Truman on September 30, 1950, and marking the birth of a modern federal disaster response framework.[58] The importance of the precedents established by the 1950 Act cannot be overstated although its importance seems not to have been obvious at the time. For one thing, Congress ceded much of its own control over disaster-related decisions and, in finally codifying the structure of federal disaster relief, departed from the more deliberative, makeshift federal disaster response process up to that point. In addition to creating a standing disaster relief fund and giving the president the power to declare a disaster – thus removing much of the congressional wrangling that had been typical of prior disaster relief allocations – the Act also made the federal government responsible for emergency repairs of local government property and refocused Red Cross efforts more narrowly on short-term relief for affected individuals while expanding direct federal roles and responsibilities especially in the context of long-term rebuilding and recovery.[59]

Yet, for all its innovation as the first definitive codification of US national disaster policy and the foundation of all subsequent federal activity in this area, the 1950 Act seems to have been relatively noncontroversial and passed easily. Most histories of federal disaster policy, in fact, will note the 1950 Act's foundational importance, yet neglect to provide any context for understanding how and why it came to exist at all. The backstory, though, is consistent with the thesis of this chapter that the federal role in disaster recovery is a story of uneven evolution and occasionally fortuitous happenstance. As documented by Federal Disaster Assistance Administration (FDAA) official Frank P. Bourgin,[60] the Act was built on some modest legislative actions in the years just prior to 1950, but the focusing event was 1950's series of impactful floods in the Red River of the North and Winnipeg River basins in Minnesota and North Dakota. In response, legislation was proposed by Congress members William Lemke of North Dakota and Harold Hagen of Minnesota to provide event-specific relief, as was typical over the previous two centuries. At the time, however, three other disaster relief bills were before the House and four more were in the Senate. The intent of Lemke's and Hagens' individual bills, eventually submitted as H.R. 8396, seems to have been simply to streamline the process of allocating aid to localities struck by these various disasters, and not necessarily to establish any groundbreaking precedent. But it also built on a series of recent legislative actions including Pub. L. No. 80–233 (July 25, 1947) making surplus federal equipment available to states and localities for disaster relief with only presidential approval and no congressional oversight; Pub. L. No. 80–785 (June 25, 1948) which enumerated hundreds of incidental federal appropriations including $500,000 for "Disaster Relief" at the discretion of the president; and Pub. L. No. 81–266 (August 24, 1949) renaming this program the "Emergency Fund for the President" and expanding its allocation to $1 million.

55 Roberts, supra note 52.

56 Exec. Order No. 9562, 10 Fed. Reg. 6639 (June 6, 1945).

57 Pub. L. No. 81-875, 64 Stat. 1109, ch. 1125 (Sept. 30, 1950).

58 Robert B. Olshansky & Laurie A. Johnson, The Evolution of the Federal Role in Supporting Community Recovery After U.S. Disasters, 80 J. AM. PLAN. ASSOC. 293 (2014), https://doi.org/10.1080/01944363.2014.967710.

59 MOSS, supra note 28.

60 FRANK P. BOURGIN, A LEGISLATIVE HISTORY OF FEDERAL DISASTER RELIEF, 1950–1974 (1983).

Each provided powerful precedent and momentum and, in some cases, detailed procedural guidance and even verbatim language for the 1950 Act. Thus, it was really the coincidental confluence of these various strands – a series of obscure procedural decisions enacted by the 80th and 81st Congresses followed by a handful of disasters thus inspiring a need for more streamlined relief programs – more than any concerted strategic effort that ended up permanently and powerfully reshaping federal disaster response policy in the form of the 1950 Act.

1950 was also an important year on the civil defense front. While Congress had anticipated in the 1950 Act that civil defense and disaster management would be handled by a single agency, Truman instead split the responsibilities between two entities.[61] Three years prior to the Act's passage, on July 24, 1947, Reorganization Plan No. 3 of 1947 created the Housing and Home Finance Agency (HHFA), subsuming a number of predecessor agencies including the Home Owners' Loan Corporation, United States Housing Authority, Defense Homes Corporation, Federal Housing Administration, and Public Housing Administration. The HHFA would later become the Department of Housing and Urban Development (HUD), but it would first serve as Truman's choice for a civilian disaster relief agency. Owing to the nuclear threat posed by the Soviet Union, Truman also reinvigorated civil defense by creating the Federal Civil Defense Administration (FCDA) on December 1, 1950,[62] which subsequently attained agency status under the Federal Civil Defense Act of 1950.[63] Though poorly resourced, the FCDA nonetheless was highly visible due to a widespread marketing campaign, and facilitated creation of a network of state and local civil defense directors that helped integrate civil defense into municipal governance structures.[64] Also in 1950, the Office of Defense Mobilization (ODM) was created within the Department of Defense to facilitate mobilization of critical public and private sector resources during wartime. By 1952, Truman had transferred HHFA's disaster responsibilities to the FCDA, marking a swing back to military oversight of civilian disaster preparation. After Hurricane Diane in 1955 and the California floods of 1956, ODM also started testing its own civilian disaster relief capabilities.[65] Based in part on this confluence of roles and expertise across military and civilian preparedness sectors, President Dwight D. Eisenhower subsequently combined the FCDA and ODM in 1958, creating the Office of Civil and Defense Mobilization (OCDM) and consolidating all federal disaster relief and civil defense functions under one roof.[66]

In parallel with these changes in federal level preparedness, the scope of federal disaster response and recovery responsibility also continued to slowly expand – such as funding for emergency housing for those displaced by the 1951 Kansas-Missouri floods – and mostly with little in the way of organized congressional opposition.[67] Title II of the Small Business Act of 1953[68] created the Small Business Administration (SBA), but this was not a wholly new concept, since the SBA was really an evolution of previous federal entities including the Reconstruction

[61] FOSTER, supra note 10.

[62] Exec. Order No. 10186, 15 Fed. Reg. 8557 (Dec. 5, 1950).

[63] Federal Civil Defense Act of 1950, Pub. L. No. 81-920, 64 Stat 1245, (1950).

[64] Andrew D. Grossman, The Truman Administration and the Public Policy of Civilian Defense: Making the Best of a Nightmare, in A COMPANION TO HARRY S. TRUMAN 246 (Daniel S. Margolies ed., 2012).

[65] Stephen J. Collier & Andrew Lakoff, The Vulnerability of Vital Systems: How "Critical Infrastructure" Became a Security Problem, in SECURING "THE HOMELAND": CRITICAL INFRASTRUCTURE, RISK AND (IN)SECURITY 40 (Myriam Dunn Cavelty & Kristian Søby Kristensen eds., 2008).

[66] Reorganization Plan No. 1 of 1958, National Plan for Civil Defense and Defense Mobilization, 23 Fed. Reg. 4991, 3 C.F.R. (Oct. 1958).

[67] MOSS, supra note 28.

[68] An Act to create the Small Business Administration, Pub. L. No. 83-163, 67 Stat. 230 (1953).

Finance Corporation.[69] While the mission of the SBA was generally to support small businesses and strengthen their contribution to the national economy, one of the SBA's clear charges was also to make recovery-focused loans after disasters, not only to businesses but also homeowners. The Small Business Act of 1953 is unequivocal on this point, stating clearly at the conclusion of Section 202: "Further, it is the declared policy of the Congress that the Government should aid and assist victims of floods or other catastrophes."[70] Even today, SBA disaster loans continue to be among the most important lifeline programs for businesses and homeowners affected by hazardous events.[71]

A spate of powerful Cold War-era disasters including Hurricane Hazel (1954), Hurricane Diane (1955), Hurricane Audrey (1957), the Hebgen Lake Earthquake (1959), Hurricanes Donna and Ethel (1960), Hurricane Carla (1961), and the Ash Wednesday Storm (1962) continued to highlight the need for an increased federal role in disaster preparedness and response. In less than three years in office (1961–63), President John F. Kennedy issued more than fifty disaster declarations, and while disaster management was not a core focus of his administration, Kennedy did make significant strides in elevating the status of civil defense by, among other steps, undoing President Eisenhower's efforts to combine civil defense and disaster relief. This resulted in the creation of the Office of Civil Defense (OCD)[72] within the Department of Defense in 1961 and a new Office of Emergency Planning (OEP) with a disaster response remit in the Executive Office of the President in 1962 through Executive Order No. 11,051.[73]

The postwar period's continued population growth and urbanization (and especially suburbanization) portended the increasing importance of federal flood control and disaster efforts. As illustrated by a comprehensive timeline developed for FEMA in 2005 by the American Institutes for Research, the 1950s witnessed Presidents Truman and Eisenhower advocating for creation of a nationwide flood insurance program. As early as 1951, floods in Kansas and Missouri caused damages of more than $870 million, with devastating consequences since the private insurance industry had effectively ceased covering flood losses after the Great Mississippi River Flood of 1927. In addition to a $400 million federal aid request, President Truman immediately asked Congress to create a national flood insurance program modeled on World War II-era war damage insurance. But Congress was skeptical and, as the New York Times noted, what Truman was actually proposing was a federal reinsurance program to support a private flood insurance program, in order "to avoid new charges of state socialism."[74] In May of 1952, Truman formally submitted a plan to Congress for a national flood insurance program but was unsuccessful in getting it passed.

Eisenhower likewise attempted to engender congressional action, requesting an experimental $100 million flood indemnity program in January of 1956. In August of that year, the Federal Flood Insurance Act of 1956[75] created the Federal Flood Indemnity Administration within the HHFA, protecting dwellings from flood losses up to $10,000 and providing reinsurance for private coverage. But after a subsequent pessimistic analysis by the American Insurance

69 Indeed, Title I of the Small Business Act of 1953 was the Reconstruction Finance Corporation Liquidation Act, Pub. L. No. 83-163, 67 Stat. 230, (1953).
70 See id.
71 Keith Bea, The Formative Years: 1950–1978, in EMERGENCY MANAGEMENT: THE AMERICA EXPERIENCE 81 (Claire B. Rubin ed., 2007).
72 Not to be confused with the FDR-era Office of Civilian Defense.
73 27 Fed. Reg. 9683l, 3 C.F.R. (1962); Naim Kapucu et al., U.S. Presidents and Their Roles in Emergency Management and Disaster Policy 1950–2009, 2 RISK, HAZARD & CRISIS IN PUB. POL'Y 1 (2001), https://doi.org/10.2202/1944-4079.1065.
74 Truman Requests Flood Insurance, N.Y. TIMES, August 21, 1951, at 1.
75 Pub. L. No. 84-1016, 70 Stat. 1078.

Association, Congress subsequently failed to fund the program, effectively eliminating it.[76] Despite this, Congress did authorize the USACE to collect more detailed flood information and create the Flood Plain Management Service in 1960.[77]

## 1964 to 1979: the pace of disaster policy innovation accelerates

The fifteen-year span starting in 1964 with the Good Friday Earthquake in Alaska through Hurricanes Betsy in 1965 and Camille in 1969 and ending in 1978 with the creation of the Federal Emergency Management Agency (FEMA), was a momentous period in the evolution of US disaster policy. The period also resulted in: the first use of direct government categorical grants for disaster recovery, creation of HUD as a cabinet level agency in late 1965,[78] multiple updates to the Disaster Relief Act of 1950, creation of the National Flood Insurance Program in 1968, the first federal focus on pre-disaster mitigation, and culminated in the creation of FEMA. If the Disaster Relief Act of 1950 was the birth of the modern US disaster management system, the mid-1960s to late 1970s ushered in its significant growth and maturation.

Initially, legislation in 1962, 1964, and 1965 expanded appropriations for specific disasters in those years beyond the $5 million annual funding in the Disaster Relief Act of 1950. While these allocations were intended to provide one-time relief after specific events, they had the same effect as earlier eras in that they set precedents that were difficult to walk back in the face of subsequent disasters, despite Congress's expectation that they were unique and singular exceptions. As the 1960s wore on, the result was that the amount and scope of federal funding continued to expand.[79] In part this period's entire trajectory was instigated because the first major disaster of the 1960s proved singularly momentous for a variety of reasons. The Good Friday (or Great Alaska) Earthquake of March 27, 1964, was a magnitude 9.2 quake lasting more than four minutes and remains the most powerful earthquake ever recorded in the United States and the second-largest globally.[80] The earthquake itself took nine lives and the ensuing tsunami another 122, causing $311 million in damages in 1964 dollars ($2.3 billion today) despite Alaska's relatively low population density.[81] More importantly for this account, the earthquake also resulted in at least two major and enduring innovations to US disaster policy: the concept of direct financial aid to individuals as well as the use of the more flexible block grant approach for providing community-level aid.

Prior to 1964, direct federal disaster grant aid was primarily focused on rebuilding local infra- structure. Individuals were typically eligible for short-term humanitarian relief through the Red Cross as well as recovery loans starting with the RFC loan program in 1932 and later through the SBA disaster loan program. Less than a week after the Alaska earthquake, President Lyndon Johnson appointed a cabinet commission, the Federal Reconstruction and Development Planning Commission for Alaska (aka the Anderson Commission) to oversee relief and reconstruction.[82] The first key innovation to emerge from the Alaska earthquake was the Anderson Commission's emphasis on loan forgiveness programs aimed at Alaskans with outstanding debts to the Veterans Administration, the Rural Electrification Administration, and the Farmers Home Administration.

76 NAT'L RSCH. COUNCIL, AFFORDABILITY OF NATIONAL FLOOD INSURANCE PROGRAM PREMIUMS: REPORT 1 (2015).
77 CHASTAIN, supra note 17.
78 An Act to establish a Department of Housing and Urban Development, and for other purposes, Pub. L. No. 89-174, 79 Stat. 667 (Sept. 9, 1965).
79 WILLIAM L. PAINTER, THE DISASTER RELIEF FUND: OVERVIEW AND ISSUES (2019).
80 THOMAS M. BROCHER ET AL., U.S. GEOLOGICAL SURV., THE 1964 GREAT ALASKA EARTHQUAKE AND TSUNAMIS – A MODERN PERSPECTIVE AND ENDURING LEGACIES (2014), https://pubs.usgs.gov/fs/2014/3018/pdf/fs2014-3018.pdf.
81 CARL W. STOVER & JERRY L. COFFMAN, U.S. GEOLOGICAL SURV. SEISMICITY OF THE U.S. 1568–1989 (REVISED) (1993).
82 Exec. Order No. 11150, 29 Fed. Reg. 4789 (Apr. 4, 1964).

The Commission's notion of providing direct aid to individuals, not just communities, quickly became yet another entrenched aspect of US disaster policy and was employed again after the Midwest tornado outbreaks of April and May 1965 and Hurricane Betsy in August of that year, thus beginning an expectation of replication for subsequent disasters.[83]

The second major innovation was the use of block grants to fund reconstruction activity. Instead of piecemeal infrastructure grants or loans, the August 1964 amendments to the Alaska Omnibus Act[84] authorized the Housing and Home Finance Administration (predecessor to HUD) to administer $25 million in urban renewal funds in the form of direct grants not tied to any one specific project but simply to fund any kind of qualifying recovery and reconstruction projects. This single act set the stage for what eventually became one of the federal government's largest and most important forms of recovery funding. By establishing precedent for using direct block grants to communities to fund disaster recovery, the 1964 Act would eventually lead to utilizing HUD's Community Development Block Grant (CDBG) program for this purpose, which today has become "a rapidly growing piece of the federal government's disaster recovery toolkit."[85] Additionally, use of HUD urban renewal funds allowed for a wider variety of reconstruction activities thus providing Alaska cities with opportunities to replan in safer ways, an idea that has increasingly become ingrained in federal recovery though not without critique.[86]

These two elements of the Alaska case are also important for a broader understanding of how an enhanced federal role in disaster management has emerged over time. And as previous examples have shown, oftentimes seemingly ephemeral policy decisions have a way of hardening into precedent.[87] This was certainly the case after the Alaska earthquake, as these important innovations might never have happened if not for President Johnson setting up the Anderson Commission, led by the President's ally, New Mexico Senator Clinton P. Anderson. In addition to Anderson having Johnson's full faith, his committee was composed of cabinet members and other senior officials. As a result, the short-lived Commission nonetheless wielded considerable political power and secured significant advances.[88] The rationale for appointing the Commission, moreover, was itself purely a function of Alaska's lack of internal governing capacity and its simultaneous strategic importance. Having only achieved statehood in 1959, Alaska was devastated by the unprecedented earthquake but had less than a quarter million residents and a climate suitable for construction only for a few months per year. Yet over half the jobs in the state were federal jobs, including management of significant military resources.[89] Given the young state's precariousness, Johnson made Alaskan recovery a priority with the effect of setting a precedent that would prove difficult to undo.[90] Less than two years later, and influenced additionally by the subsequent deadly 1964 Atlantic hurricane season and 1965's Hurricane Betsy, the Disaster Relief Act of 1966[91] further codified expansion of the federal role in disasters, particularly by updating the National Housing Act to address disaster relief and amending the Disaster Relief Act of 1950 to expand the federal role in long-term recovery.

[83] Gareth Davies, The Historical Presidency: Lyndon Johnson and Disaster Politics, 47 PRESIDENTIAL STUD. Q. 529 (2017), https://doi.org/10.1111/psq.12384.
[84] Pub L. No. 88-451, 78 Stat. 507.
[85] Olshansky & Johnson, supra note 58, at 298.
[86] GEORGE G. MADER, LAND USE PLANNING AFTER EARTHQUAKES (1980).
[87] DAUBER, supra note 3.
[88] Davies, supra note 83.
[89] MADER, supra note 86.
[90] Davies, supra note 83.
[91] Pub. L. No. 89-769, 80 Stat. 1316.

Meanwhile, congressional debate continued over the creation of a national flood or disaster insurance program. 1965's Southeast Hurricane Disaster Relief Act[92] was passed in the wake of the active 1963–65 seasons but it also directed the HUD Secretary to undertake another study examining the idea of a national flood indemnity program.[93] In August of the following year, the House of Representatives released its own study, A Unified National Program for Managing Flood Losses.[94] Written by the Task Force on Federal Flood Control Policy, chaired by the eminent geographer and water management expert Gilbert White, the report documented how urbanization was becoming increasingly common in floodplains, thus placing more and more Americans in harm's way. Of the report's sixteen recommendations including floodplain management and better data collection, recommendation #11 called on HUD to perform a detailed feasibility study for a flood insurance program. The same month, the HUD study mandated in the Southeast Hurricane Disaster Relief Act, entitled Insurance and Other Programs for Financial Assistance to Flood Victims, was released. Like the House report, it supported the idea of a private-market flood risk program with a significant federal subsidy.[95]

Finally, under the weight of overwhelming support, Congress created the National Flood Insurance Program (NFIP) on August 1, 1968, through the National Flood Insurance Act,[96] later strengthened and expanded by the Flood Disaster Protection Act of 1973.[97] The 1968 law had two purposes: (1) it incentivized local governments to adopt floodplain development regulations, while, (2) creating the Federal Insurance Administration within HUD to provide flood insurance to homeowners through federally backed private insurance policies.[98] Perhaps no single federal program is a better illustration of the long and convoluted way that disaster recovery programs are built than the NFIP. Starting with the private insurance industry's retrenchment from flood insurance after the Great Mississippi River Flood of 1927, the idea of a federal flood insurance program took over forty years to implement despite strong support from Presidents Truman, Eisenhower, and Johnson, who signed the NFIP only months before leaving office. The idea had even been enshrined in law once before, with the creation of the Federal Flood Indemnity Administration in 1956, before being defunded by Congress. Ultimately, the first NFIP policies were written in 1969 and the program, though often criticized, still survives in 2022 in much the same form as when it was founded.

Despite some astute actions in response to the Alaska earthquake in 1964 that resulted in important long-term changes to disaster policy, President Johnson's overall record on disasters was mixed. On civil defense in particular, his actions only weakened it.[99] Although Johnson issued the National Plan for Emergency Preparedness[100] in December of 1964, clarifying the nation's civil defense framework, in 1968 he renamed the disaster-focused Office of Emergency Planning, which became the Office of Emergency Preparedness. He also designated the office's director to hold a joint title as Assistant to the President for Federal-State Relations, serving as liaison between the President and the states on a wide range of disaster and non-disaster programs.[101] This position was short-

[92] Pub. L. No. 89-339, 79 Stat. 1301.

[93] Chastain, supra note 17.

[94] Gilbert F. White, Task Force on Fed. Flood Control Pol'y, A Unified National Program for Managing Flood Losses (1966). Also, H. Doc. 465, 89th Congress, 2d Sess.

[95] Chastain, supra note 17.

[96] Title XIII of the Housing and Urban Development Act of 1968, Pub. L. No. 90-448, 82 Stat. 476 (1986).

[97] Pub. L. No. 93-234, 87 Stat. 975.

[98] Nat'l Rsch. Council, supra note 76.

[99] B. Wayne Blanchard, FEMA, American Civil Defense 1945–1984: The Evolution of Programs and Politics (1985), http://www.all-hazards.com/LGP/library/fema107/FEMA_107.pdf.

[100] Off. Emergency Plan., The National Plan for Emergency Preparedness (1964), https://biotech.law.lsu.edu/climate/FEMA/npep-1964.pdf.

[101] Exec. Order No. 11426, 33 Fed. Reg. 12,615 (1968).

lived and eliminated the following year by President Richard Nixon through an Executive Order issued less than a month after being sworn in.[102]

President Nixon was confronted with twenty-nine major disasters in 1969, his first year in office. He would ultimately sign 196 Presidential Disaster Declarations, more than any previous president,[103] and oversee several important changes to the nation's disaster management framework. One of the disasters from Nixon's first year was Hurricane Camille, which cut a destructive path through Mississippi and other states, leading to passage of the Disaster Relief Act of 1969,[104] again incrementally expanding federal relief assistance. The Act also mandated designation of a Federal Coordinating Officer to oversee all federal disaster relief after a declared disaster.[105] On April 22, 1970, Nixon issued his Special Message to Congress on Federal Disaster Assistance, urging a more robust and streamlined federal disaster management system.[106] The congressional response was the Disaster Relief Act of 1970,[107] which combined most of the post-1950 federal disaster provisions into one Act[108] and codified the use of federal funds for 100 percent of the cost of replacing disaster- impacted public facilities.[109] Following the San Fernando (or Sylmar) Earthquake in California in 1971 and the widespread impacts from Hurricane Agnes in 1972, Nixon issued Presidential Reorganization Plan No. 1 of 1973, eliminating the Presidential Office of Emergency Preparedness and consolidating federal disaster programs into a new Federal Disaster Assistance Administration (FDAA) inside HUD.[110] The Disaster Relief Act of 1974[111] passed without a dissenting vote in either house of Congress and attempted to significantly modernize the disaster management infrastructure by codifying the disaster declaration process, enhancing preparedness planning, providing direct assistance to households, and further integrating civil defense and natural hazards efforts. Most importantly, the 1974 law was the federal government's first explicit encouragement of hazard mitigation efforts such as land use planning and building codes, including the notable creation of a grant program for state preparedness and prevention plans. However, despite Nixon's continued attempts at refinement and reorganization, in the eyes of most observers, the nation's disaster framework remained "complex, disjointed and torn between civil defense and disaster recovery missions" at the end of his presidency.[112]

The next major event in the evolution in federal disaster management occurred in June of 1978 when President Jimmy Carter issued Presidential Reorganization Plan No. 3 of 1978 and Executive Order Nos. 12127 and 12148 in 1979 consolidating a variety of disaster-related functions into a new Federal Emergency Management Agency (FEMA).[113] More ambitious than previous attempts, Carter's reorganization plan argued forcefully for the logic of combining preparedness, response, and mitigation efforts into one agency. FEMA comprised several existing federal

[102] Exec. Order No. 11455, Establishing an Office of Intergovernmental Relations (Feb. 14, 1969).

[103] Kapucu et al., supra note 73.

[104] Pub. L. No. 91-79, 83 Stat. 125.

[105] FEMA, DISASTER OPERATIONS LEGAL REFERENCE, VERSION 2.0 (2013), https://biotech.law.lsu.edu/blog/Disaster-Operations-Legal-Reference-June-1.2013-dolr.pdf.

[106] President's Special Message to Congress on Federal Disaster Assistance, 1 PUB. PAPERS PRESIDENTS OF U.S. 379–84 (Apr. 22, 1970), https://library.cqpress.com/cqalmanac/document.php?id=cqal70-1290778.

[107] Pub. L. No. 91-606, 84 Stat. 1744.

[108] PAINTER, supra note 79.

[109] FEMA, NATIONAL DISASTER HOUSING STRATEGY (2009), https://www.fema.gov/pdf/emergency/disasterhousing/NDHS-core.pdf.

[110] Presidential Reorganization Plan No. 1, 38 Fed. Reg. 1089 (July 1, 1973).

[111] Pub. L. No. 93-288, 88 Stat. 143.

[112] KARL F. SCHNEIDER, DISASTER RELIEF – IS IT SPELLED F-E-M-A? 6 (1993).

[113] See Presidential Reorganization Plan No. 3 of 1978, 43 Fed. Reg. 41943, 92 Stat. 3788, https://uscode.house.gov/view.xhtml?req=granuleid:USC-prelim-title5a-node84-leaf187&num=0&edition=prelim; Exec. Order No. 12127, 44 Fed. Reg. 19367 (Mar. 31, 1979); Exec. Order No. 12148, 44 Fed. Reg. 43239 (July 20, 1979).

agencies and programs including the NFIP, National Fire Prevention and Control Administration, Emergency Broadcast System, Federal Preparedness Agency in the General Services Administration, Defense Civil Preparedness Agency in the Department of Defense, Earthquake Hazards Reduction Program and "all authorities and functions under the Disaster Relief Acts of 1970 and 1974 . . . now delegated to the Federal Disaster Assistance Administration in the Department of Housing and Urban Development."[114]

With the creation of FEMA, so concluded roughly a decade and a half of the most ambitious, rapid, and wide-ranging activity ever seen in the sphere of federal disaster policy. At the beginning of 1964, the nation's disaster framework was marked by piecemeal federal efforts scattered across a variety of agencies and each president experimenting with attempts to streamline these functions. However, looking back at the comparatively incremental changes of the fifteen years from 1950 to 1964, it is also clear that actions in that period – Truman and Eisenhower's advocacy for federal flood insurance, expansion of assistance to individuals through the SBA disaster loan program, Eisenhower's attempts to consolidate and combine civil defense and disaster relief – were, in fact, critical steppingstones in setting the stage for the rapid and expansive innovations of the post-1964 period ultimately culminating in the creation of FEMA. In theory, FEMA gave the federal government a single agency responsible for coordinating all aspects of federal disaster management. However, FEMA's early years were tumultuous, given the challenge of combining so many formerly disparate agencies and dealing with political realities. Though some aspects of emergency management improved under the new agency, more challenging tests of FEMA's effectiveness were found wanting, and the political nature of leadership appointments led to a series of scandals and allegations of corruption and mismanagement.[115] In part, some of FEMA's early missteps are also due to the particularly complex challenges of disaster management, and it is also worth remembering that even with the advent of FEMA, disaster management responsibilities remained distributed across the federal bureaucracy.

## 1988 to 2000: the Stafford act begins a new era of federal disaster management

After FEMA's creation in 1979, the next major leap in federal policy came a decade later with the passage of the 1988 Robert T. Stafford Disaster Relief and Emergency Assistance Act.[116] Named after the former Vermont Senator, the Stafford Act updated and modernized the Disaster Relief Act of 1974 and, as of 2022, remains the guiding legislation for federal disaster management. Among other things, the Stafford Act established statutory authority for federal assistance to supplement local and state resources and legislated the role of the federal government, especially FEMA, in responding to presidentially declared disasters.[117] As dictated by the Act, the President is authorized to declare disasters and release federal funding and assistance to local governments when local resources are insufficient.[118] Initial federal expenditures for disaster response come from a standing pool of funds, the Disaster Relief Fund (DRF), which has grown to over $12

[114] Presidential Reorganization Plan No. 3 of 1978, 43 Fed. Reg. 41943, 92 Stat. 3788.
[115] Patrick S. Roberts, FEMA After Katrina, 137 POL'Y REV. 15 (2006), https://www.hoover.org/research/fema-after-katrina.
[116] The 1988 Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. §§ 5121–5206.
[117] Olshansky & Johnson, supra note 58.
[118] KEITH BEA, FEDERAL STAFFORD ACT DISASTER ASSISTANCE: PRESIDENTIAL DECLARATIONS, ELIGIBLE ACTIVITIES, AND FUNDING (2010), https://www.everycrsreport.com/files/20070306_RL33053_c917ac4a34348369f0133da1f165d7ce44ef f0ea.pdf.

billion from its initial appropriation of $500,000 in 1948.[119] Congress can also appropriate additional disaster-related funds for FEMA and other agencies, such as the Disaster Relief Appropriations Act of 2013[120] or "Sandy Supplemental" that provided $50.7 billion in assistance for Hurricane Sandy and other presidentially declared disasters in 2011, 2012, and 2013.[121] Similar supplemental funding bills have also been passed after the 1994 Northridge Earthquake ($11 billion), the September 11 attacks ($40 billion), and Hurricanes Katrina and Rita ($110 billion).[122]

Though not always recognized, 1993 marked another important moment in the evolution of federal disaster policy. While HUD had at one point been a major federal stakeholder in disaster management, overseeing the NFIP from its inception in 1968 and the Federal Disaster Assistance Administration (FDAA) from its founding in 1973, HUD later lost its disaster-related mandate in 1979 with the creation of FEMA, which absorbed both the NFIP and FDAA. However, in 1993 the federal government first used HUD Community Development Block Grants (CDBG) through the Supplemental Appropriations Act of 1993,[123] to fund recovery from 1992's Hurricane Andrew, Hurricane Iniki, and Typhoon Omar, as well as 1993's Midwest floods. CDBG funds were again allocated after the 1994 Northridge, California, Earthquake[124] with Congress ultimately appropriating more than $1 billion in CDBG funds for disaster recovery between 1993 and 1995.

Because of their flexible nature compared to FEMA funds, using CDBG to fund recovery after these events was an important innovation that allowed important recovery and mitigation tasks to proceed quickly and effectively.[125] It is also worth remembering that this approach to using flexible block grant funding was actually piloted almost thirty years earlier, following the Great Alaska Earthquake of 1964, when HUD's predecessor, the Housing and Home Finance Administration, allocated $25 million in urban renewal block grants for recovery purposes. Then and now the flexible nature of block grants is central to their appeal for disaster recovery because the CDBG program is not prima facie a disaster funding mechanism at all, but rather a program created in 1974 to fund local economic and community development projects in business-as-usual times.[126] Congress has subsequently used CDBG to supplement DRF funds for almost every major disaster since 1993, including $3.48 billion for New York City after the September 11, 2001, terror attacks; $19.7 billion for 2005's Hurricanes Katrina and Rita; $6.8 billion after Hurricanes Ike and Gustav in 2008; and $16 billion for Hurricane Sandy in 2012.[127] From 2001 to 2016, Congress appropriated $48 billion to the CDBG Disaster Recovery program.[128]

119 PAINTER, supra note 79.

120 Pub. L. No. 113-2, 127 Stat. 49.

121 WILLIAM L. PAINTER & JARED T. BROWN, CONGRESSIONAL ACTION ON THE FY2013 DISASTER SUPPLEMENT (2017), https://fas.org/sgp/crs/homesec/R44937.pdf.

122 Mitchell Moss, Charles Schellhamer & David A. Berman, The Stafford Act and Priorities for Reform, 6J. HOMELAND SEC. & EMERGENCY MGMT. 1 (2009), https://doi.org/10.2202/1547-7355.1538.

123 Pub. L. No. 103-50, 107-241.

124 EUGENE BOYD, COMMUNITY DEVELOPMENT BLOCK GRANT FUNDS IN DISASTER RELIEF AND RECOVERY (2011), https://fas.org/sgp/crs/misc/RL33330.pdf.

125 Robert B. Olshansky, Laurie A. Johnson, & Kenneth C. Topping, Rebuilding Communities Following Disaster: Lessons from Kobe and Los Angeles, 32 BUILT ENV'T354 (2006), https://www.jstor.org/stable/23289510.

126 BRETT THEODOS, CHRISTINA PLERHOPLES & HELEN HO, URB. INST., TAKING STOCK OF THE COMMUNITY DEVELOPMENT BLOCK GRANT (2017), https://www.urban.org/sites/default/files/publication/89551/cdbg_brief_finalized_1.pdf.

127 BOYD, supra note 124.

128 KILAH S. WHITE, COMMUNITY DEVELOPMENT BLOCK GRANT DISASTER RECOVERY PROGRAM, AUDIT REPORT NUMBER: 2018-FW-0002 (July 23, 2018), https://www.oversight.gov/sites/default/files/oig-reports/2018-FW-0002.pdf.

While HUD has been using CDBG for disaster-related uses consistently since 1993, a Disaster Recovery and Special Issues Division (DRSI) was only created in 2006 to oversee Disaster Recovery funding awards and the current CDBG-DR (Disaster Recovery) moniker only came into use around the time of Hurricane Sandy in 2012.[129] The program remains, however, somewhat ill-defined. As Rob Olshansky and Laurie Johnson point out, CDBG-DR has grown large enough that its decadal funding now averages about the same as the regular CDBG program and thus, "with the continuing growth in disaster CDBG, the federal government has, without any overarching legislation or explicit statement of policy, significantly deepened its financial commitment to long-term recovery of communities."[130] In 2018, HUD's own Office of the Inspector General faulted the department for not codifying CDBG-DR as a formal program but rather as an ad hoc system of grant-making within the traditional CDBG infrastructure, creating undue complexities and burdens for grantees, and urged HUD to work with Congress to formalize the existence of the CDBG-DR program.[131]

In a small but noteworthy footnote, another significant event in the early 1990s was the 1994 repeal of the Federal Civil Defense Act (FCDA) of 1950. When that Act was originally passed, civil defense efforts were housed in the Department of Defense with a focus on attack preparedness. But as this chapter recounts, responsibility for natural hazards-related disaster response and recovery were still primarily a nongovernmental undertaking in the 1950s. With passage of the Disaster Relief Act of 1950 the same year as the FCDA, the federal role in response and recovery expanded but there was still a strict division between the approaches to prepare for military attacks as opposed to weather and geotechnical hazards. In 1981, the 1950 FCDA was first amended, directing some civil defense resources for the "dual use" of disaster and post-attack response. The growing though uneven influence of FEMA and increasing salience of disasters caused by natural hazards as compared to threat of nuclear attack led to a continued integration of civil defense and peacetime disaster preparation. In 1994, the FCDA was finally repealed, with the vestiges of remaining civil defense programs transferred to FEMA, thus "complet[ing] the evolution of civil defense into an all-hazards approach to preparedness."[132]

## 2000 to 2021: continued evolution of federal policy to meet modern needs

One of the single most significant changes in the history of federal disaster management policy occurred with the October 30, 2000, enactment of the Disaster Mitigation Act (DMA) of 2000,[133] which amended the Stafford Act and further advanced the federal focus on pre-disaster mitigation that began with the Disaster Relief Act of 1974. The DMA provided additional incentives and requirements for mitigation planning and an allowance for utilizing up to 7 percent of a state's FEMA Hazard Mitigation Grant Program (HMGP) funds for development of state, local, and tribal hazard mitigation plans. These aspects of the DMA have also provided significant impetus to further combine and coordinate

[129] Joseph V. Jaroscak (2020) The Community Development Block Grant's Disaster Recovery (CDBG-DR) Component: Background and Issues, Congressional Research Service report R46475. https://crsreports.congress.gov/product/pdf/R/ R46475.
[130] Olshansky & Johnson, supra note 58, at 298.
[131] White, supra note 128.
[132] Homeland Sec., National Disaster Recovery Framework (2d ed. 2016), https://www.hsdl.org/?abstract&did=793553.
[133] Pub. L. No. 106-390, 114 Stat 1552.

disaster preparedness and hazard mitigation efforts with one another as well as with parallel planning efforts such as land use and transportation, economic development, and climate change adaptation.[134]

On the heels of the DMA in 2000, the terror attacks of September 11, 2001, prompted yet another rapid and significant evolution of federal disaster policy with passage of 2002's Homeland Security Act.[135] The Act stripped FEMA of its cabinet-level status, which it had attained in 1996 under President Bill Clinton, and placed FEMA and twenty-one other federal agencies inside the new Department of Homeland Security (DHS). This significantly reduced FEMA's influence in federal policy circles while simultaneously recalibrating federal priorities away from disasters caused by natural hazards and toward terrorism prevention and other goals redolent of a new era of civil defense.[136]

Regrettably, FEMA's reorganization came at an inopportune time, with Hurricanes Katrina, Rita, and Wilma occurring just shortly thereafter in 2005, throwing the government's (and especially FEMA's) weaknesses into sharp relief. Causing 1,833 deaths and $108 billion in damages, Katrina was one of the deadliest (and the single most expensive) hurricanes in US history up to that point.[137] But the federal response, including tactical missteps and public gaffes by FEMA administrator Michael Brown, created a public relations and political firestorm, and Brown resigned two weeks after Katrina made landfall in New Orleans. In response, the post-Katrina Emergency Management Reform Act of 2006 (PKEMRA)[138] amended the Stafford Act, redefined FEMA's structure and mission, and reconfigured federal agencies' disaster-related roles and processes. PKEMRA also required the FEMA administrator to lead the creation of a new National Disaster Housing Strategy (NDHS).[139] Issued in 2009, the NDHS recommended creating a multi-agency National Disaster Housing Task Force and adopting six key goals designed to modernize the nation's disaster housing system such as emphasizing flexibility and considering the role of housing as it relates to other individual and community-level recovery needs and strategies.[140] Another required outcome of the PKEMRA was the creation of a National Disaster Recovery Strategy,[141] which was issued in 2011 as the National Disaster Recovery Framework (NDRF). The NDRF represents "a milestone as the first statement of national recovery policy," and as the name implies, focuses on long-term rebuilding and recovery after a major disaster.[142] It places local governments at the center of recovery efforts and provides eight principles to guide recovery along with another set of eight "recovery core capabilities" and a structure for post-disaster planning and management, emphasizing coordination, communication, pre-disaster planning, and flexibility.

The following year, the Biggert-Waters Flood Insurance Reform Act of 2012 updated the NFIP by removing many existing insurance subsidies, raising caps on premium increases, and making changes to the hazard mapping and floodplain management aspects of the program.[143] Biggert- Waters was intended to solidify the NFIP's finances and assure that flood insurance rates were more

[134] Kathy Smith, The Disaster Mitigation Act of 2000: 20 Years of Mitigation Planning, FEMA (Oct. 19, 2020), https://www.fema.gov/blog/disaster-mitigation-act-2000-20-years-mitigation-planning.

[135] The Homeland Security Act of 2002, Pub. L. No. 107–296, 116 Stat. 2135.

[136] Olshansky & Johnson, supra note 58; Moss, Schellhamer, & Berman, supra note 122.

[137] Richard D. Knabb, Jamie R. Rhome, & Daniel P. Brown, Tropical Cyclone Report: Hurricane Katrina, NAT'L HURRICANE CTR. (Dec. 20, 2005), https://www.nhc.noaa.gov/data/tcr/AL122005_Katrina.pdf.

[138] Pub. L. No. 109–295, 120 Stat. 1355.

[139] 6 U.S.C. 772 §§ 683.

[140] FEMA, supra note 109.

[141] 6 U.S.C. § 771.

[142] Olshansky & Johnson, supra note 58, at 299.

[143] The Biggert-Waters Flood Insurance Reform Act of 2012, 42 U.S.C. §§ 4001–4131 (2012).

reflective of actual flood risks. However, cost increases generated vigorous opposition and in 2014 President Barack Obama signed the Homeowner Flood Insurance Affordability Act of 2014,[144] halting planned premium increases.[145]

Beginning with the incoming Obama administration in 2008, many of the reforms outlined in the PKEMRA took on new momentum, as did an emerging discourse about the imperative of building resilient communities as an important aspect of disaster response and recovery. In 2011 President Obama's Presidential Policy Directive 8: National Preparedness (PPD-8),[146] implemented outstanding elements of the PKEMRA and placed an increased emphasis on hazard mitigation and resilience both before and after hazard events.[147] While major disasters have always served as focusing events that reconceptualize disaster management approaches, the protracted recovery efforts following Hurricanes Katrina and Rita highlighted the limitations of longstanding federal policy viewing recovery as strictly an exercise in repair and reconstruction. These disasters forced the federal government to consider hard questions about whether, in the face of climate change and sea level rise, it made sense to pour billions of dollars in federal relief into rebuilding the Gulf Coast in its pre-storm image. The first real application of this more resilience-focused rebuilding mindset was the recovery process after Hurricane Sandy, which made US landfall on October 29, 2012. The storm caused severe damage to the US eastern seaboard and devastated some of the nation's oldest and most densely populated coastal communities, ultimately causing 159 deaths and $65 billion in damages and economic losses.[148]

President Obama created the Hurricane Sandy Rebuilding Task Force[149] on December 7, 2012, led by HUD Secretary Shaun Donovan. Working within the guidelines of the NDRF, the task force developed a sixty-nine-point Hurricane Sandy Rebuilding Strategy that became a critical guidebook for integrating resilience into the long-term recovery process and also led to other innovations such as the National Disaster Resilience Competition (NDRC) and the Rebuild by Design (RBD) program.[150] In January of 2013, the Sandy Recovery Improvement Act (SRIA) was signed into law as Division B of the Disaster Relief Appropriations Act (DRA) of 2013.[151] Division A of the DRA (the "Sandy Supplemental") had allocated $50.7 billion to recovery from Sandy and other disasters in 2011, 2012, and 2013,[152] but Division B (the SRIA) amended the Stafford Act by reforming FEMA's Public Assistance and Hazard Mitigation Grant Programs, adding flexibility to emergency housing procedures and making childcare an allowable expense for disaster victims, among other refinements.

The most recent significant revision to US disaster policy is the Disaster Recovery Reform Act of 2018 (DRRA).[153] Like many previous efforts, the DRRA was instigated by the nation's experience with a new disaster – or disasters plural in this case. In 2017, the

144 Pub. L. No. 113–89, 128 Stat. 1020.

145 Alexander B. McDonnell, The Biggert-Waters Flood Insurance Reform Act of 2012: Temporarily Curtailed by the Homeowner Flood Insurance Act of 2014 – A Respite to Forge an Enduring Correction to the National Flood Insurance Program Built on Virtuous Economic and Environmental Incentives, 49.WA. U. J. L. & POL'Y 235 (2015).

146 Presidential Policy Directive 8: National Preparedness, HOMELAND SEC. DIGIT. LIBR, (Mar. 30, 2011), https://www.hsdl.org/?abstract&did=7423.

147 JARED T. BROWN, PRESIDENTIAL POLICY DIRECTIVE 8 AND THE NATIONAL PREPAREDNESS SYSTEM: BACKGROUND AND ISSUES FOR CONGRESS (2011), https://fas.org/sgp/crs/homesec/R42073.pdf.

148 Press Release, Hurricane Sandy Rebuilding Task Force, Hurricane Sandy Rebuilding Strategy (Aug. 19, 2013), https://archives.hud.gov/news/2013/pr13-125.cfm.

149 Exec. Order No. 13632 (Dec. 7, 2012).

150 Donovan Finn, Divya Chandrasekhar & Yu Xiao, A Region Recovers: Planning for Resilience After Superstorm Sandy, J. PLAN. EDUC. & RSCH. (2019), https://doi.org/10.1177/0739456X19864145.

151 Pub. L. No. 113-2, 127 Stat. 4.

152 JARED T. BROWN ET AL., ANALYSIS OF THE SANDY RECOVERY IMPROVEMENT ACT OF 2013 (2013).

153 Pub. L. No. 115-254, 132 Stat. 3438.

US experienced more than 9,500 wildfires in California[154] as well as Hurricanes Harvey, Irma, and Maria. Lessons learned from these events led to another significant overhaul of the Stafford Act[155] in the form of the DRRA with fifty-six provisions that increase house- hold assistance, make federal support more flexible, and enhance local response and recovery capacity. Continuing the evolution of a federal focus on mitigation that began in the 1974 Disaster Relief Act, the DRRA also established a new Building Resilient Infrastructure and Communities (BRIC) funding program for state, territory, local, and tribal governments that was inaugurated with a $500 million allocation for Fiscal Year 2020.[156] As of 2022, many of these reforms are still being implemented and have yet to be tested in practice.

## Discussion

Although too brief to tell the entire story of US disaster policy, this chapter attempts to illustrate how the US disaster management framework has evolved since the nation's founding. From early acts granting short-term assistance to individual communities in the form of tax relief through the Disaster Recovery Reform Act of 2018, the nation's approach has continued to evolve in response to new risks, new knowledge, new experiences, and newly salient goals. Today, for instance, the notion of an "all-hazards" approach to disaster management means that the old notions of civil defense as separate from natural hazards-related disaster preparation, response, and recovery are mostly abandoned. Likewise, advances in technology and macro-scale changes in the US economy have upended the impacts of disasters and reoriented the focus of most disaster management efforts. As historian Gaines M. Foster points out, the Galveston, Texas, hurricane of 1900 caused at least 6,000 deaths and $30 million in damage on Galveston Island. In essentially the same location, 1965's Hurricane Camille resulted in only forty-six deaths but $400 million in damage. Better forecasting systems, more robust communications infrastructure, modern building codes, and even better medical care and supply chain operations have continued to help reduce the physical danger from disasters.[157] But more private property and public infrastructure than ever before is at risk, with climate change only exacerbating this dynamic, and these realities continue to shape the policies used to respond to disasters.

Mostly unexplored in this chapter but important to consider are the implications of this somewhat erratic and opportunistic story of policy evolution. Despite many decades worth of attempts to think more holistically about all aspects of hazard mitigation and disaster preparedness, response, and recovery, there is a persistent divide in the way various stakeholders view these topics. The response and preparedness mindset advocated by uniformed emergency services remains rooted in a military-oriented civil defense approach prioritizing top-down command and control structures. Pre-event hazard mitigation and long-term recovery require the expertise of urban planners and other experts, who often advocate for more grassroots or "bottom-up" strategies that have not always been well integrated into the disaster management system. Battles for funding continue, with ongoing debates about how best to pay for post-disaster

[154] 2017 Statistics and Summary, NICC NAT'L INTERAGENCY COORDINATION CTR. (2017), https://www.predictiveservices .nifc.gov/intelligence/2017_statssumm/2017Stats&Summ.html.

[155] Elizabeth M. Webster & Bruce R. Lindsay (2019). The Disaster Recovery Reform Act of 2018 (DRRA): A Summary of Selected Statutory Provisions. Congressional Research Service report R45819. https://www.everycrsreport.com/files/ 20190708_R45819_a0c5be964c60f0090fb3c22048fded6a8e268693.pdf.

[156] FEMA, DISASTER RECOVERY REFORM ACT (DRRA) ANNUAL REPORT: OCTOBER 2019 (2019), https://www.fema.gov/ sites/default/files/2020-07/fema_DRRA-annual-report_2019.pdf.

[157] FOSTER, supra note 10.

recovery, and often about whether to fund pre-event hazard mitigation at all. Congressional oversight of disaster management programs often devolves into ideological battles that hamper effective mitigation, response, and recovery. Even rational attempts by Congress to eliminate graft can often stifle creative problem-solving and slow the speed of urgent mitigation and recovery efforts. The utility and equity of available approaches for disaster response and recovery also involve tradeoffs that, in turn, benefit certain stakeholders over others. This can be seen in debates over loans versus grants as more effective mitigation and recovery mechanisms, or the fact that federal recovery policy is largely designed to work best for politically powerful middle-class suburban homeowners even though other sociodemographic groups may have more urgent needs for assistance. Even more fraught are the complex deliberations about the role of public policy and public funding in climate change adaptation measures such as coastal retreat.

This chapter charts some of the reactions that the federal government has made to these ever-shifting societal conditions and the tensions that arise when attempting to allocate finite federal resources in the most effective and equitable way. These debates are likely to continue, but it seems clear that the approaches we use will also continue to evolve. At the founding of the nation, the very idea of federal responsibility for disaster relief was unheard of. Today, with rare Libertarian exceptions, it is demanded. As this public sentiment has changed, the federal approach has changed along with it. Usually, the changes have been well-intentioned responses to lessons learned from previous disasters. Sometimes they have worked out well, but not always, and debates persist about how best to allocate federal resources in order to protect communities from disaster and help them rebuild when these protections fail. Luckily, as the St. Augustine quote from the beginning of this chapter reminds us, disasters always create an opportunity to learn from our most recent experiences and try something new.