“Well, things are better now because of the PETS Act, right?” When we tell people that we are investigating the social landscape of animals and disasters, some people knowledgeable about the issue (this includes emergency managers, journalists, and academic peers) often ask a variation of this question. While awareness about pets in disasters and issues for animals in disaster have certainly entered the mainstream of news media, disaster research, and even emergency management, there are still significant challenges in implementing various aspects of the PETS Act, which was passed in 2006. Contrary to popular belief, the PETS Act does not require hotels and other private entities to allow people to bring pets during a disaster or mandatory evacuation. Additionally, local public shelters are not required to accept pets. Under provisions of the Stafford Act, local jurisdictions decide how sheltering operations will run. In some cases, the city or township oversees sheltering, and in other cases, a nonprofit such as the Red Cross has the power to manage shelter rules. In many cases, city-run shelters partner with the Red Cross for sheltering during evacuations. Even as we are writing this book, the Red Cross website states that it cannot accept pets. In an emergency, this may mean that pets must be collocated with their owners or that evacuees must find other arrangements for their animals. The provisions of the PETS Act do stipulate that planning should account for the fact that people will attempt to evacuate with their animals and that funds can be requested to use supplies and space for purposes of managing pets of evacuees in disasters. This allocation
means that local officials can make a judgment about the pet population in their area and the need to consider and accommodate pets in sheltering. Additionally, local officials can decide if they will request support of state, federal, and outside agencies to assist with pet-sheltering activities.

This chapter introduces the context behind the PETS Act; how federal, state, and local emergency managers have implemented it since its inception; and how the care of animals in disasters was managed prior to the act. Hurricane Katrina and its well-publicized impact on pets in the affected areas significantly influenced the development of the PETS Act. Nearly 45 percent of the people surveyed about evacuation decision-making during Katrina indicated that their pets were a major factor in deciding whether to evacuate (Fritz Institute 2006). Additionally, many pets left behind were never reunited with owners. To understand the social landscape of pets, it is also important to understand the policy landscape that shapes how and why systems operate the way they do in the United States. We present the ways in which the PETS Act is a marker in the postdisaster policy landscape as explained through Thomas Birkland’s (1997) focusing events theory. The chapter also describes how states, local governments, and nonprofits have evolved in the ways they deal with pets and disasters from 2006 to 2018.

People may be hesitant to stay in a shelter because of their beliefs about the likelihood of crime (Farmer et al. 2017) or because of the stigma of using public sheltering facilities. Potential evacuees weigh these options against the risks of staying at home. To enforce evacuation orders, laws vary by state. However, it is rare for people to be arrested or fined for refusal to evacuate. For people to feel that they can evacuate, they must be able to identify information and gather resources that make it feasible. People with pets need to have a carrier or leash for transporting a cat or dog, the pet’s medical records, and food for the pet. They must also be able to identify a feasible destination for evacuation—that is, a hotel or friend’s house that is within a few hours’ driving distance. However, during the most recent major hurricanes, a drive that should have taken a few hours took ten to thirteen hours because of traffic caused by other people evacuating and because of hotels near the evacuation zone being at capacity.

During Hurricanes Harvey and Irma, people shared information across social media that the PETS Act mandated shelters and hotels to accept pets, which was inaccurate. These misunderstandings had consequences. Pet owners might choose an evacuation destination based on false or assumed information, which could add minutes or hours to the overall evacuation process. Similarly, local governments might be hesitant to allow practices such as co-sheltering if they were unaware of the potential for federal reimbursements outlined by provisions of the PETS Act. We saw evidence of decision-making driven by false or vague information throughout multiple
disasters. For instance, evacuees said they continued driving in Hurricanes Matthew, Irma, and Florence because they did not know where pet-friendly shelters were located. When a mandatory evacuation order is issued, people often go to hotels or other lodging or family and friends’ houses. But what do they do if these options cannot accommodate pets? Public sheltering is a last resort for many, and most people who stay at public shelters have lower income on average. After the hurricane, people condemned others for failing to evacuate because they believed that evacuating with pets should be an easy decision and task (Reed, DeYoung, and Farmer 2020), but in fact an excess of information and resources complicated the necessary decisions for families with animals.

Beyond misunderstandings, there are also limitations of the PETS Act that prevent certain people and animals from seeking safe shelter. For example, sheltering for families with multiple animals may be difficult because of space and logistics. The act does not include provisions that protect ad hoc sheltering, that address any long-term sheltering and relocation needs of humans with pets, or that accommodate for larger animals such as pigs and goats as pets in sheltering. The PETS Act also does not provide specific guidance for management of unowned animals. The population of animals affected by disasters includes stray and feral animals, as well as foster and shelter animals, wildlife, and livestock. Additionally, the PETS Act centers on mitigating problems that arise during the response phase of the disasters. Throughout this book, we argue that there are broader issues in managing animals in disasters that require attention before and after disasters (for example, spaying and neutering as disaster preparedness). ¹ This chapter focuses on the issues driving the passage of the PETS Act, as well as its features and limitations.

How Sheltering and Evacuation of Animals Works

Here is a common scenario that unfolds during hurricane season in the United States. When a hurricane is looming in the Atlantic, emergency managers in the southeastern United States work with state meteorologists and the National Hurricane Center to understand probabilities for location of landfall. As the system approaches land, certainty increases about the location and severity of impact. Unfortunately, the closer the system gets, the less time that state and local officials have to set up emergency shelters. Amid all the decisions about evacuation and issuing evacuation orders, they decide what kinds of resources to mobilize to assist with the evacuation. During this time, the governor declares a state of emergency that frees up funds to mobilize the resources needed to assist in evacuation, sheltering, and staging responders for the emergency. The PETS Act stipulates that any
supplies used to assist with evacuating companion animals can be reimbursted with federal funds. This means that a convention center in Raleigh, North Carolina, for example, can rapidly purchase dog kennels for displaced dogs or dogs sheltering with owners because the cost will be offset by emergency funds. This process, however, does not eliminate all complications that go along with animals in emergencies. If the shelter is in Raleigh but residents live in Carteret County, they still need to drive three hours to get to the convention center. The gridlocked traffic caused by the evacuation turns into a seven-hour drive. But first, the family must also fit the dogs into the vehicle and make sure to have leashes, crates, and water for the dogs. The drive is hot, and the family may not have a working air conditioner in their car because suggested repairs were too expensive for the household. On the drive from Carteret County to Raleigh, the evacuees might be searching social media to find out information about whether they can bring their pets to the shelter. They are relieved to see pet-friendly sheltering at the convention center. However, one of the dogs is a pit bull mix. There is some conflicting information online and confusion about the policies at convention centers about breed restrictions. The family decides to bring the dogs with them to a hotel, which charges a fee for the dogs. The family uses the last of their funds to secure lodging for one night.

Another scenario is that other families have already experienced this nightmare and decide to try to “weather the storm,” but the water rises so quickly around their home that they must evacuate in the middle of the night. The people and dogs wade through waist-deep water. A neighbor with a boat helps the family and dogs out of the floodwaters. As they seek shelter, dogs, cats, horses, and many animals drift through the water. Some owned, some unowned, the animals are searching for dry land. Some do not make it.

**Origin of the PETS Act**

Disasters that raise the profile of ongoing or potential harm to the point at which legislators prioritize preventing these harms are known as focusing events (Birkland 1997, 2006; Birkland and DeYoung 2011). The failure to manage pets in Hurricane Katrina and the resulting public attention drawn to the issue of pets and disasters during and after Katrina served as focusing events for the PETS Act. While focusing events do not always result in policy change, they have the potential to cause policy change based on the lessons learned from the disaster. However, not all events that might theoretically motivate policy qualify as focusing events. They must achieve three criteria: issue salience, group mobilization, and implementation. Hurricane Katrina motivated all three, leading to the eventual passage of the PETS Act.
Issue salience is arguably the driving force behind the way pets are prioritized in emergency planning and has motivated the changes in systems related to pets in disasters in the past fifteen years. Issue salience describes the ways in which problems are presented and at which level they remain important: “The nature of the actors and the nature of the problems interact with each other to promote or impede issue expansion” (Birkland 1997, 10). As Leslie Irvine describes in *Filling the Ark* (2009), mass execution of companion animals by first responders, refusal to evacuate, and forced separation from family pets during Hurricane Katrina all made the issue of pets in evacuation a salient public issue. Although media depictions of the emotional trauma associated with pets at risk and pets separated from families proliferate during hurricanes, they are also common in other hazard events, such as wildfires, earthquakes, and lava flows. For example, during the 2018 Kilauea lava flows, when more than two thousand people evacuated from their homes (Hughes 2018), Hawaii news media focused on “lava dogs,” goats, cats, and other animals affected by the evacuation. Debra Stone’s (2002) description of how narrative and emotional appeal influence policy was evident during news coverage of the Kilauea disaster. The stories focused on emotions such as worry, despair, anger, and longing. News stories about pets dominate the news cycle during evacuations because they are highly emotional, relatable, and thus engaging to the audience. This was also evident in the bushfires in Australia during 2020 in which thousands of people donated money and other supplies to support injured wildlife. Even though koalas and other Australian wildlife are not companion animals, the increased attention to animals more broadly can also shift focus onto pets in disasters. In an interview with us after Hurricane Harvey, one national program coordinator explained the differences that the PETS Act brought before and after Hurricane Katrina:

The emergency management didn’t know what to do either with animals. They were all varying as to what to do. They weren’t including them in rescues—it was chaos, really, with Hurricane Katrina. So after that, the PETS Act helped. The PETS Act provided funding—would only provide federal funding—if these states had plans for the animals, so that helped tremendously, because all of a sudden, states were required to plan for animals [if they wanted federal funding]. So that was huge. . . . And I also think that because of the amount of media exposure and the amount of kind of consistent disasters over the years, people are a little bit more aware of the need to bring their animals with them. I think seeing a few scary stories of dogs left on roofs and being rescued by helicopters, I think that’s enough to kind of—has done a lot to put that in people’s minds.
However, issue salience alone is not enough to compel state or federal actors to engage in policy making. Group mobilization is also an important part of the policy process. As Thomas A. Birkland indicates, “Theories of group mobilization and issue expansion thus explain how ideas, problems, and policies start with a rather small number of people but, for various reasons related to the nature of problems and the political skill of groups, become much more important throughout society” (1997, 10). Animal rights groups, veterinarians, and concerned community members were angry, shocked, and saddened by events that occurred during Hurricane Katrina, such as the separation of children from their pets, law enforcement officers shooting dogs, and news images of drowned cats and dogs. Social scientists gathered data in which it became clear that animals were a major factor in difficulties and refusal to evacuate. These groups circulated petitions, created documentaries about pets in Katrina, and urged their senators and congressional representatives to pass legislation to protect pets in disasters.

However, as important as groups are in pushing an issue agenda, in Lessons of Disaster, Birkland also points out that those with policy-making power will probably inherently pay more attention to key issues after major focusing events because of media coverage and increased exposure to the ideas that there are potential policy solutions: “Rather, a focusing event itself, without the intervention of interest groups, causes the same actors that dominated policymaking before the event to consider ideas more intensively than they did before” (2006, 165). Hurricane Katrina crystallized the issue of pets in disasters. We view the PETS Act as a product of the realization of failings in managing pets in Katrina. However, its issue salience has reappeared in each major disaster evacuation. News reporters still focus stories on pets in disasters despite the policy progress at the federal level. This reflects that the PETS Act has not solved the issue of supporting pets in disasters.

Concerns about the management of animals in disasters are not new. Sebastian Heath (1999) wrote about animal management in disasters and emergency management plans in earlier disasters long before passage of the PETS Act. Emergency management programs did not concern themselves with animal welfare, aspiring only to promote self-sufficiency of animal owners, because owners were (and notably still are) individually responsible for their pets, leaving the care of all other animals to animal disaster relief agencies. Emergency management officials considered the care of animals only as it related to public health, largely because animals were—and are—technically considered property. Notably, animals do significantly affect public health first through their owners who refuse evacuation but also through those who leave and later attempt to come back and rescue pets.
Research has demonstrated that pet ownership can impede evacuation, with one study noting that the more pets a household owns, the higher the risk of evacuation failure (Heath et al. 2001). That study also mentioned further impediments to pet evacuation, including potential evacuees owning outdoor dogs and not having a cat carrier.

Animal care in disasters had been a concern for veterinarian associations for some time, although it was not until the 1990s that much of the animal care community became exposed to issues surrounding animals in disasters (Heath 1999). In the 1980s–1990s national and local veterinary associations developed ad hoc groups, called Emergency Animal Rescue Programs (EARPs), through which members would search for animals to rescue and put up for adoption after disasters. Veterinary associations also recognized the need to integrate with emergency management agencies at the local level (Heath 1999).

Research on pets in disasters prior to Hurricane Katrina noted that animal deaths seemed to be uncommon, and injuries were primarily associated with trauma. For example, after Hurricane Fran in 1996, foot abrasions and heat stress were common (Heath 1999). In the preparation for Hurricane Fran, one animal shelter reportedly boarded 153 pets brought in by owners, a surge mostly the result of public-service announcements. After Hurricane Andrew in 1992, approximately two thousand pets were treated for various injuries and ailments.

One key issue prior to the PETS Act was the lack of coordination among the agencies involved with animal-related issues after a disaster. As Heath noted, “Lack of acceptance of existing emergency management structure and lack of training of animal care personnel by professional emergency management have been major holdups” (1999, 145). Furthermore, when emergency management officials would advise the public about animal management in disasters, the only option they could recommend was that pet owners take animals with them and seek pet-friendly destinations. Simultaneously, many emergency managers suggested that shelters for owned pets were mostly unnecessary unless large human populations were displaced (Heath 1999). With the passage of the PETS Act, these recommendations have shifted. Pet owners are still responsible for their animals, but now more emergency managers recognize that, regardless of the number of displaced persons, pets can be an issue that impedes evacuation. Sheltering options for and with pets became more common.

What is most interesting about animal management prior to the PETS Act is that many of the hurdles and issues identified then remain salient issues today. For instance, human evacuation failures because of pets and reentry to rescue pets remain problems. Owners are still individually responsible for disaster plans for pets, and local emergency management
officials still bear most responsibility for developing plans for public awareness and effective intervention after disasters.

The PETS Act

The PETS Act of 2006 was an amendment to the Robert T. Stafford Disaster Act, which was itself a revision of the 1974 Disaster Relief Act (DRA). The U.S. Congress designed the DRA and subsequent Stafford Act to ensure that states and tribal governments have plans in place to respond to and recover from disasters. The core provisions of the PETS Act ensure that local and state governments include domestic animals in evacuation planning. For example, the act holds that animals should be included in county and state hazard-mitigation planning documents, including a requirement that emergency plans must specify that all pet owners are responsible for the care of their pets during disasters. Furthermore, townships and entities in charge of sheltering can request reimbursement from the Federal Emergency Management Agency (FEMA) after a disaster if resources are used for sheltering evacuees and their pets. This legislation was an important step forward in planning for animals in evacuation, but it has limitations. Individuals, households, and animal shelters must all still do their part to plan for animals in evacuation and engage in preparedness activities.

From our research, there are two overarching findings regarding the PETS Act. First, the PETS Act has improved evacuation compliance and reduced barriers for evacuation over time, especially in hurricanes. Comparing Hurricanes Katrina, Andrew, and Ike to the more recent hurricanes of 2016, 2017, and 2018 (Matthew, Harvey, Irma, Maria, Florence, and Michael), we find that people who work in animal rescue agree that people with pets now receive more support in disasters than before the PETS Act. Second, the failure of the act’s implementation, limited community capacity, and lack of household-level resources all remain challenges for predicting and carrying out successful animal evacuations. Consider the following news excerpt:

Many pet owners unable to completely evacuate an area are faced with a difficult decision when a storm is bearing down on them: save their own lives but leave their pets behind, or risk death by staying with their pets? Most of us know that our animals are family members and we would never leave them, no matter the consequence to ourselves, but thankfully fewer people had to make that choice because of shelters who were taking people and their pets. (Melanie 2016)
This media account captures the spectrum of the possibilities post–PETS Act: people’s care for their companion animals driving them to include pets in their evacuation when possible or to risk harm at home with pets when adequate provisions remain unavailable. Practices such as colocation of evacuees and pets can improve evacuation compliance and reduce loss, trauma, and suffering.

The PETS Act made resources available for sheltering pets and encouraged planning but left implementation to localities, so results varied. During Hurricane Harvey approximately nineteen hundred human evacuees were sheltered in the Kay Bailey Hutchison Convention Center in Dallas, Texas, in an example of co-sheltering; adjacent to the convention center, a parking garage provided an ad hoc staging area to shelter pets that evacuated with the humans in the convention center. Many of those people were rescued from floodwaters because of delayed and failed warnings in Southeast Texas. Residents there were rescued by the U.S. Coast Guard or other rescue organizations. As families and individuals climbed onto C-130 transport planes, they brought their pets with them to Dallas. The distance from Beaumont and Port Arthur to Dallas is a four-and-a-half-hour drive. This means that residents could not have easily driven there in a short amount of time. Additionally, our observations of the co-sheltering, of course, do not account for the pets that did not make it out of Southeast Texas floodwaters. This supports our theory that many rural areas do not have extensive sheltering operations that accommodate pets. Consider the scenario in Dallas during Hurricane Harvey in 2017 with that in coastal Virginia during Hurricane Florence in 2018:

“One of the top calls that came into the EOC (Emergency Operations Center) when we were open (during the recent hurricane state of emergency) was about pets—specifically, could they bring their pets to any of the shelters that we had that folks are located in,” said Michael Mason, Accomack County Administrator. The answer to that question was no, Mason said. (Vaughn 2018)

The experience of this EOC demonstrates how the readiness of local emergency planners, sheltering coordinators, and community liaisons often determines whether residents will be able to evacuate safely with their animals. Because many families do consider pets members of their family, they express reluctance to evacuate when they encounter barriers that make it harder to bring their pets with them in disaster scenarios. Emergency managers and other officials sometimes view animal and pet rescue as separate from preventing human loss of life. This often means rescuing people first.
and foremost, with animals given secondary attention. This reasoning especially holds in a rescue where space is limited and there is a short time frame in which to get people evacuated. When emergency managers decide to include pets in shelters during a disaster, their level of knowledge about the PETS Act (that they can request reimbursement for funds used to shelter animals during the disaster), their perception of the bond between people and their pets (accounting for the idea that people will refuse evacuation because of their pets), and the local culture surrounding treatment of animals all play a role in their decision-making. For example, in Hawaii during the lava flows in the summer of 2018, some evacuees perceived that government officials did not make reasonable attempts to support rescuing animals trapped near the lava flows. The many free-roaming cats, pigs, and other animals in Hawaii prior to the disaster might possibly reflect how people manage animals in that community. ²

How the PETS Act Improved Animal Welfare in Disasters

The PETS Act does not specify the way in which states will allocate funding to the county and city levels for setting up shelters prior to and during disasters. This allows local emergency managers to adapt to the needs of the situation. Despite the variety of outcomes possible depending on the preparedness of local officials, the PETS Act represents a formal attempt at reducing loss of life in disasters. Implementation and interpretation of the act are influenced by the ways in which people who manage animals ascribe value to animals in their homes and community. If resources for animals are not a priority for local leaders and organizational managers before a disaster, they are unlikely to be included in decision-making during a disaster, as many of our respondents indicated throughout our fieldwork, including this animal rescue program coordinator:

In my years of doing disasters, I’ve come to believe more and more and more and more and more that if there is not already on-the-ground good animal welfare infrastructure and human infrastructure—meaning decent, competent, not gold standard but decent, competent animal control agencies, sheltering capacities, rescue groups—then it’s going to be a complete disaster when a disaster strikes. There are going to be more animals and people dead than would otherwise be. You can’t go in after the [event], so the local agencies own the disaster. If there is not animal control; if there’s a shitty relationship between animal control and sheltering; if there is
no money for spay and neuter so that you have animal overpopulation; if you don’t have that network and those agencies on the ground, then it’s just going to be an absolute—there is going to be way more human and animal suffering than otherwise would be because it can’t be created. It’s night and day. We see it night and day going into an area that doesn’t have animal control. I can’t put into words how awful it is.

The frustration expressed by this program coordinator suggests another shortcoming of the PETS Act: it focuses solely on the response and evacuation phases of the disaster. Planning for the well-being of pets before the disaster would also reduce problems during the disaster. Emergency managers know that preparedness and mitigation are important parts of disaster planning, yet there are few predisaster efforts to prepare for animal issues beyond delegating households to have “pet kits.” A more comprehensive and effective solution for reducing poor management of pets in disasters includes minimizing animal issues before the disaster. In Paradise, California, pet overpopulation was associated with many households having multiple pets and many families losing their pets in the Camp Fire of 2018. Policy solutions for enhancing the PETS Act would include provisions that promote comprehensive animal wellness programs in disaster-prone communities.

How Local Implementation Affected Outcomes

Broad misconceptions about the PETS Act, lack of knowledge about the funds available, and personal beliefs about pets as nonessential members of the family led to lower implementation of mechanisms available through the PETS Act. Despite the misconception that the American Red Cross runs every disaster shelter, the entity in charge of sheltering varies greatly across each disaster and is largely dependent on local planning for sheltering operations. For example, although the Red Cross had a presence in the convention center in Dallas during Hurricane Harvey, it was not the lead organization in charge of the sheltering facility. At that time the shelter was run by the city of Dallas. This distinction is important because it determines not only participation of volunteer organizations but also the incident command structure and other core operations and rules of the shelter. The incident command structure is the outline for how communication should unfold between organizations engaged in response, mass care, and other essential operations during a disaster. For example, the medical first responders staged at the convention center had daily meetings with the emergency management officials to discuss unmet needs (such as supplies for incoming evacuees and reports of illnesses) so that approval for additional
supplies could be granted rapidly. For the management of pets at the convention center, Red Rover (a national animal welfare nonprofit) staffed the care of pets in coordination with the Dallas Society for the Prevention of Cruelty to Animals (SPCA). Coordination and cooperation between groups ensure that there is no duplication of efforts and the response is efficient.

Not only do states vary in their interpretation and implementation of the PETS Act; states also vary in terms of policies related to reunification of pets, which may lead to confusion and conflict among evacuees and people managing shelters for humans in the disaster. For example, states vary in the number of days for which an animal should be kept in a shelter before it can be adopted or euthanized (Wisch and Dillingham 2017), and these standards might change during the disaster. Holding time for impoundment ranges from three to ten days. The holding times caused conflict among volunteers and pet owners after Hurricane Irma and the Camp Fire. After Hurricane Irma, we interviewed volunteers who shared a case in which an owner and a new adopter were both fighting for “custody” of a dog that was left unattended during the hurricane. In the Camp Fire, volunteers issued an outcry on social media when cats were moved outside Paradise and Chico (to Marysville), making it more difficult for evacuees to find their missing animals. There were also cases in which a cat was adopted out across state lines after the Camp Fire and the original owner saw that the cat was adopted on social media. Therefore, a standard holding period during a disaster scenario would make it easier for owners to reunite with their missing animals. However, this is a challenge when shelters have limited space and supplies. Creative decision-making can make a difference in managing pets.

Variation is driven in part by differences in implementation, which describes the degree to which a policy has been carried out across multiple levels, including local, state, and federal. For example, there are many obstacles to achieving the levels of earthquake mitigation and residential building retrofitting that experts recommend. Despite states’ rigorous construction standards, if buildings were constructed before new regulations were enacted, it is not likely that all the buildings in, for example, California will be updated to adhere to the new standard for several reasons: funding capacity, risk perception, and limited understanding of the potential consequences for failing to retrofit a building to earthquake-resistant standards. Contractors in residential neighborhoods can choose to build to bare-minimum requirements of building construction. These standards are based on preventing building collapse that would cause loss of life, not necessarily preventing costly damage or salvaging the livability of the home. Similarly, in tornado-prone areas, residents may choose to use public tax funds for a community storm shelter, but only if there is enough community
buy-in, a feasible location for the shelter, and often a private corporation to match some portion of the funds for construction of the shelter. The PETS Act faces similar obstacles to implementation across levels. States have undertaken various levels of planning and preparedness regarding pets and evacuation because of varying interpretations of the PETS Act, variations in the perceived risks associated with having or not having pets in emergency planning, and funding capacities. A state veterinarian responder in a hurricane-prone state explained that many responders, shelter coordinators, and volunteers working at the local level were not aware that they would be eligible to apply for federal money to offset costs of managing pets.

The program coordinator believes that the animal shelter may not have been inundated with lost and surrendered pets because humans could bring their pets to public sheltering places. The coordinator’s experience also supports the theory of a possible increase in general evacuation compliance because of the PETS Act.

Coordination among Shelters: Challenges, Risks, and Advancements

Lack of communication across organizations can cause tensions between the community of evacuees and the local government. Tension can also occur between nongovernmental groups that have different approaches in managing animals. Many local animal shelters transport stray animals from a shelter in the disaster area to an area outside the disaster, even across state lines, usually in preparation for an influx of “disaster” animals. Thus, animals that are adopted after disasters are not actually “hurricane” animals that were potentially separated from their owners. However, it is important to note that organizational practices do vary and no streamlined protocols exist for disaster holding times. Another issue is that rescued pets after disasters were allegedly euthanized by animal control because they were found to be FIV (feline immunodeficiency virus) positive (even though such cats can and do live long and healthy lives) or deemed to be unadoptable. Lack of coordination also means that there is not a central location for information on lost and found pets. Residents looking for lost animals then have to contact or search social-media pages for multiple shelters.

The PETS Act’s Narrow Focus

The PETS Act is designed to protect a very specific group of pets: cats and dogs. While the issue of selectivity regarding which pets qualify has been discussed in the context of breeds such as pit bulls and other large dogs
(Cattafi 2008; Glassey 2018), the PETS Act also does not provide support for stray or feral animals. A program coordinator expressed her concern for the gap between the accommodations provided for owned animals and strays. It is not always easy to identify whether an animal is owned because not every owned animal has a microchip, collar, or other form of identification. Many adoptable but unowned animals are displaced in disasters, she explained:

One thing that always makes me a little nervous is that there have been great strides made in sheltering and evacuation plans for owned animals but nothing for unowned animals. So it’s always scary. We had some of our animals in the shelter here, and, believe me, it was scary to think that our building may flood with animals in it. And there’s no place to take them to. Now during Hurricane Ike there were—they were simple—I’ll just call them pop-up shelters that opened. Texas A&M opened one. Just a pop-up at their rodeo grounds, and they were able to shelter animals from—homeless animals there.

While shelters may want to keep animals close to where they are found to increase their chances of being reunited, there are consequences for keeping too many animals in a shelter in harm’s way. The risk was apparent in 2019 during Hurricane Dorian in the Bahamas, in which shelter animals perished:

Employees were still trying to save the animals when the water reached their chests. They scrambled to stack crates and put dogs up on tables. But the water that had come rushing in far faster than they anticipated was threatening to sweep them away, staff say. As Hurricane Dorian battered the Bahamas last week, they took refuge in the ceiling crawl space of the Humane Society of Grand Bahama’s office, listening as their dogs howled—and then the cries stopped. Most of the 85 cats were able to get up high on perches, they learned later. But about half of the 190 dogs died. (Knowles 2019)

Although that disaster took place in the Bahamas, the United States also lacks federal policies that designate specific protections for shelter animals and other stray animals. If an animal shelter evacuates, depending on the type of organization (nonprofit or county shelter), it relies on funds and planning from its own donors or local government. Many times, organizations rely on a memorandum of understanding (MOU), an agreement be-
between two organizations with partner organizations; foster networks; or transport of animals out of state.

While the purpose of the PETS Act is to reduce evacuation refusal by people who own companion animals, we found evidence of people refusing evacuation because of their feral cat colonies. Feral cats are extremely difficult to trap and transport, yet their caretakers remain dedicated to the feeding, veterinary care, and sheltering of the cats. The PETS Act also fails to account for families with multiple animals. While sheltering one or two dogs or cats is feasible, the process becomes difficult for families with multiple pets. The PETS Act also does not create provisions for pets that may be considered large or agricultural animals, such as pigs, horses, goats, cows, chickens, and llamas. Some of the animal sanctuaries we visited during fieldwork, in addition to the livestock that formed most of their clientele, took in pets of families who had nowhere to board the animals while the families were displaced from home during disasters.

For larger animals, costs make evacuation difficult. As a coordinator and evacuee told us, “By far, the biggest reason most people won’t try to move their horses [is] they can’t afford to.” A program coordinator in Miami, Florida, described some of the difficulties of multiple pet ownership encountered during Hurricane Irma:

Not enough places to go, that’s for sure. I was only aware of one place, and you could only bring one animal. What if I have six or I have birds? People were driving ten to twelve hours to Orlando, which normally takes you three hours. But the storm is still in Orlando, and then where do you go when you have fourteen animals? They’re not going to get you anywhere. Some hotels are accepting animals—not fourteen of them.

If emergency coordinators expand their plans to account for large animals, unowned animals, families with many animals, and other varieties of animals that humans care for, more families will be able to evacuate in emergencies.

Timing of Planning the Evacuation

Another limitation of the PETS Act is that the law assumes that evacuees will have adequate time between the identification of a threat and evacuation to deliberate and plan for bringing their animals with them. In these situations, public officials have greater cause to entrust planning for animals to individual families. The PETS Act was designed with a “Katrina-like”
event in mind or, more specifically, hurricanes as a hazard. While disaster managers still face uncertainties about time lines when planning for a hurricane, the storm’s slower onset makes evacuation planning more feasible. Compare the multiday notice of evacuation orders in hurricanes with the rapid onset of the firestorm that destroyed Paradise, California, in November 2018, and there are stark differences in what pet owners can feasibly do for evacuation planning. In fact, many of the evacuees we encountered during our fieldwork were separated from their pet because they had to evacuate very quickly, and their cat or dog was hiding somewhere in the house or got scared and ran away and the evacuees did not have time to look for it. The limits of what can be accomplished in the short time frame of some disasters have long-term implications for pet owners. One evacuee of the Camp Fire described her devastation in searching for her cat:

As for my sweet cat, Lily, I looked for her from day one at every single shelter and Facebook or website that appeared. When I was allowed into the fire zone with an escort, I had fifteen minutes to look for her. I didn’t care about looking for one material thing. Just my cat.

The complexities that evacuees face in fast-onset disasters is another reason that the PETS Act should incorporate additional measures that assist people with animals, including incentivizing pet-friendly accommodations for the displaced evacuees, financially assisting and working with organizations that specialize in matching (matching lists of lost animals with animals that are found), and recruiting experts who specialize in finding lost animals after disasters. Shannon Jay is an expert cat finder who spent thousands of hours in burn zones after the 2017 Tubbs Fire in Sonoma County and 2018 Camp Fire in Butte County to locate lost cats. He brought the lessons learned from the Tubbs Fire (such as effective trapping of displaced cats) to the town of Paradise after the Camp Fire.

Shannon does his own fund-raising. However, since his services and expertise are essential, it would be advantageous for the PETS Act to incorporate funds for local training and expertise for people like Shannon before disasters and to prevent unnecessary bureaucratic barriers from keeping them from doing their work. As in the case of the Butte County and Sonoma County wildfires, reuniting pets with owners is usually the most time-consuming part of postdisaster efforts for groups involved in animal rescue. Volunteers conduct many of the reunification efforts. Additionally, smaller nonprofit organizations and individual owners usually fund feeding and medical care for displaced pets. The displacement, care, and loss of pets can be a core aspect of recovery for a family and a community. Therefore, amending the PETS Act to broaden the scope of postdisaster funds to cover
longer searches, more care, and training of experts for tracking and reunifying can directly contribute to long-term community resilience. We offer more solutions later, including incorporating technology, using social capital, and centering harm reduction as a primary outcome.

**Lack of Long-Term Planning**

The PETS Act is designed to meet short-term needs during the acute phase of the emergency and does not account for the long-term needs of individuals and families who need space, supplies, and shelter to continue to care for their pets in the wake of a disaster. A shelter official who took in animals temporarily and agreed to foster them for a time so families could evacuate brings up the range of time lines faced by families trying to return home or take back their animals after evacuation:

People have flooded completely out of their homes, and they were in hotels and living with relatives; they had those issues. But it was a temporary thing. So we agreed to take their animals and hold them for thirty days to give them time to get into a stable living...
relationship. Unfortunately, that worked for a lot of people, but we still have some of those animals way past the thirty days.

Animal owners had difficulty reestablishing their resources to allow them to take back the animals they had sheltered before evacuation, not only in the major hurricanes of 2017 and 2018 but also during the Kilauea lava flow, where many people could not afford rent outside their original home because housing is so expensive on the island. If their own homes were damaged or destroyed, they could not return or house their animals. The Hawaii Lava Flow Animal Rescue Network on Facebook was filled with posts searching for foster families for animals that had been surrendered by families who needed to leave Hawaii to find more affordable housing.

The high cost of staying in the area evacuated after the disaster was also a problem during the Sonoma County wildfires. Many families evacuated to rental properties that charged approximately three thousand dollars a month or more and did not allow pets because the properties were also vacation rentals in a tourist-driven area. Thus, families were not in a position to return to reclaim their pets, and the shelters were forced to house them long term. Similarly, officials began making announcements in the weeks after the Butte County wildfires about long-term planning for displaced pets. On Twitter, Butte County posted an announcement at the end of November 2018 after the Camp Fire: “In order to try and ensure sheltered animals are as healthy as possible, the County requests that residents begin planning for long-term care options for their animals.” People needed to retrieve their animals. However, this was difficult for the evacuees who were still living in temporary housing after the disaster. At that time, 1,601 displaced animals were located at four shelters. While the county acknowledged that it was healthier for animals to be placed in homes, there were limited options for many displaced evacuees for long-term housing. Additionally, many people were still unable to locate their missing pets or confirm if their pets had perished in the fire. The problems call for many potential policy solutions: To ease the burden on displaced evacuees and their pets, temporary pet-friendly housing for families should be available so that people can return to reclaim and reunite with their pets. To make this happen, a new provision to the PETS Act could offer incentives (tax breaks) to owners of rental properties who adjust pet policies for disaster-displaced families.

Geographic Limitations

Despite the example of colocation in Dallas during Hurricane Harvey, local shelters can decide not to accept pets, which may cause evacuees to either refuse evacuation or drive a great distance to find pet-friendly accommoda-
tions. When there are not shelters accepting pets, evacuees face a burden in finding alternative solutions for sheltering. As one evacuee from Hurricane Irma indicated, finding alternative arrangements for pets during an evacuation can be stressful, time-consuming, and difficult in terms of logistics: “Taking my pets to a relative’s house they’d never been to, under the stress we were under, was one of the hardest things. They inconvenienced my grandmother greatly. But no shelter was available in Monroe County.”

Great distance poses problems for residents in rural areas and those who are displaced far from their community, such as residents of Beaumont and Port Arthur during Hurricane Harvey, who were flown to Dallas by the U.S. Coast Guard. Similarly, residents from the 2016 Fort McMurray wildfire relocated to Calgary and Edmonton, Canada, cities that were several hours away from their community. Nearly every person in the town evacuated, except for essential personnel. There were no people left to check on pets and feed them and provide water. Additionally, after the Camp Fire, many people left Paradise permanently, so volunteer groups had to coordinate feeding of animals left behind. Being so far away from pets that were accidentally left behind can also cause anxiety and uncertainty because families worry about who will feed and provide water for the animals while they are away.

Ad Hoc Care

The PETS Act’s intention to increase evacuation compliance among families with pets limits its effectiveness as a protection of animal welfare. It misses several opportunities to offer necessary protections, coordination, and best practices for governmental and nongovernmental organizations necessary to aid animal evacuation and protection in disasters. The PETS Act does not provide guidelines or provisions for ad hoc groups carrying out rescues. During our data collection, we interviewed volunteers who pointed out the benefits and shortcomings of untrained animal rescue volunteers. For example, while these groups have the potential to supplement official rescue operations, many of their members lack technical expertise. Groups such as the “Cajun Navy” emerged as citizen responders during Hurricane Katrina and have redeployed for Hurricanes Harvey, Florence, and Maria and numerous other disasters. Multiple groups identify as the Cajun Navy, but they all have similar operating structures of deploying citizen rescuers. While these groups serve an important role in human and animal rescue, group members may not have specific training related to handling, transporting, and managing large animals. A specific example of this is equine rescue. Some of the equine groups we interviewed were concerned that ad hoc volunteers lacked the technical training and materials needed to carry out the successful rescue of horses without causing injury or death to the horses.
The PETS Act does not protect those who participate in ad hoc sheltering and animal rescue, even given the extraordinary circumstances a disaster situation creates and the constraints on official resources. As Hurricane Florence made landfall, Tammie Hedges of North Carolina was taking in animals found in the floodwaters or surrendered by owners (Brown 2018). She was caring for twenty-seven cats and dogs when Wayne County Animal Control forced her to give them up to the county. Hedges was arrested on twelve counts of practicing medicine without a veterinary license, including dispensing and administering pain medications to the animals. A volunteer was quoted in the news as saying, “It was all over-the-counter stuff you could literally find at the Dollar Tree,” and the charges were “bogus” because vet offices were closed during the hurricane (Brown 2018). One of the drugs she was allegedly using was Tramadol, which is a narcotic and available only by prescription. Shortly after her arrest, petitions circulated online demanding she be released and the charges dropped. The volunteer makes a valid point. Not only were vet offices closed, but shelters were inundated during this time and traveling during the hurricane would have been dangerous. However, citizens without veterinary training who operate without credentials and training can also put animals in danger. There should be a balance between supporting people who carry out ad hoc sheltering in extreme circumstances and protecting animals from fraudulent and unsafe veterinary care.

Effect of Rumors and Fraud on Evacuation and Recovery Efforts

In disasters, rumors abound and can influence decision-making for evacuation and sheltering. During Hurricane Harvey, FEMA listed information about the PETS Act on a web-based rumor-control list in response to public confusion surrounding terms and provisions set forth by the legislation. This was the main rumor that FEMA was seeking to dispel during Hurricanes Harvey, Irma, and Maria. Social-media posts by less informed parties falsely claimed that evacuees with pets had to be accepted at hotels and other lodging facilities. The PETS Act does not mandate private companies, such as hotels and lodging industries, to alter their policies during evacuations. The risk posed by misinformation is significant; false rumors could lead to mass abandonment of pets if evacuees’ plans did not work out. Social media seems to be one of the key sources of rumors or confusion surrounding provisions of the PETS Act.

The impact of the confusion about the act was evident throughout the data we gathered, both from evacuees and program coordinators. One com-
monly shared post during Hurricane Irma read, “JUST A REMINDER: If you’re evacuating to a hotel/motel & they don’t accept pets, don’t be angry, calmly tell them that’s against the law & after Hurricane Katrina Congress created the Pets Evacuation and Transportation Standards Act (PETS) to require states seeking Federal Emergency Management Agency (FEMA) assistance to accommodate pets and service animals in their plans for evacuating residents facing disasters. Please share by COPYING and PASTING.” While some of the information in this post is correct, the information about hotels being required to accept pets is false, regardless of the state in which they operate. Of course, as private organizations, hotels may decide to waive the pet fees, accept pets, or adapt their policies to accommodate people with pets, but they are not required to do so by the PETS Act.

The emotional stakes of pets in distress leads scammers to organize fraudulent fund-raisers for pet rescue. Some of the volunteers we interviewed after Hurricane Florence reported that multiple groups claimed that they were carrying out equine rescue and providing warehousing space for hay for large animals affected by disasters. Some of the fraudulent groups posted social-media videos from inside actual warehouses that stored supplies for horse evacuation, falsely claiming those warehouses as their own. One interviewee described a fund-raising video for a fraudulent group that showed a warehouse she recognized as belonging to a legitimate organization. It is unclear how the scammers obtained access to those spaces or what role they played in the actual relief efforts. Instances such as these may lead potential donors to rethink donating resources or money to animal rescue groups, even if they are legitimate. The mere existence of so many groups using animals for emotional appeals during disasters also demonstrates that people are highly motivated by their concern for disaster animals. It also demonstrates that people are aware that there are many organizations working in animal disaster issues. Indeed, many small ad hoc groups form specifically to meet the needs of pets in disasters.

Rumors about what the PETS Act can and cannot do in providing resources for government groups and other actors can ultimately affect evacuees and their animals. Communication about shelters that are pet-friendly and transparency about co-sheltering can prevent some level of confusion and decrease the amount of time that people spend deliberating about their evacuation.

**Conclusion**

The PETS Act reacted to the increasingly salient public problem of pet evacuation with an explicit goal to increase evacuation compliance. This limit in focus and unclear perceptions about decision-making related to pets also
limited its effectiveness for helping families evacuate with confidence that their animals were being adequately planned for and for protecting animal welfare in disasters more generally.

The PETS Act can be viewed through the focusing event framework because it reflects that failures of managing pets in Hurricane Katrina led to major policy change. The PETS Act has limitations because of varying levels of state- and local-level implementation and local resources. Rumors created confusion about provisions of the PETS Act. The act also has limitations because it is designed to meet the short-term needs of families evacuating with animals, of specific breeds and species, and of single-animal families. Further limiting the act’s effectiveness, the provisions assume that disasters will be slower in onset rather than fast events such as wildfires and earthquakes, that evacuee decision-making will be deliberate, and that residents will not only have made plans that include their pets but also have adequate resources and time to decide how they will evacuate with their pets. We challenge these assumptions in exploring the true social landscape of animals in disasters.