

# TEXAS CONTINUES TO RECOVER: TWO YEARS AFTER HARVEY

*Edited By:*

*Robert Sanborn  
Mandi S. Kimball  
Katie McConnell  
Chanel Brown  
Genesis Herrera  
Rebecca Harms  
Champale Watkins  
Mira Dani  
Patrick Gill*

children  
at Risk



# TEXAS CONTINUES TO RECOVER: TWO YEARS AFTER HARVEY

## Houston Program Staff

Robert Sanborn - President & CEO

Mandi Sheridan Kimball - Director, Public Policy & Government Affairs

Katie McConnell - Chief Operating Officer

James Caruthers - Senior Staff Attorney

Shay Everitt - Director, Early Childhood Education Initiatives

Kellie O'Quinn - Director, Center for Social Measurement & Evaluation

Yael Ross - Director, Center for New American Children & Education

Lissa Cordova-Leon - Program Coordinator

Patrick Gill - Associate Director, Center for Social Measurement & Evaluation

Gretchen Himsl - Policy Analyst, Center for Parenting & Family Well-Being

Sara Moran - Assistant Director, Center for Social Measurement & Evaluation

Caroline Roberts - Staff Attorney

Kelcie Silvio - Senior Research and Advocacy Fellow

Chanel Brown - AmeriCorps VISTA, Disaster Recovery and Research

Rebecca Harms - AmeriCorps VISTA, Disaster Recovery and Research

Genesis Herrera - AmeriCorps VISTA, Event and Disaster Research

## North Texas Program Staff

Jenny Eyer - Senior Policy Analyst / Manager, Center for Child Health Research & Policy

Julie Morris - Associate Director, North Texas Programs

## Interns

Mira Dani

Myra Kurjee

Amara Mattingly

Stephanie Phipps

Savannah Freitas

Mason Allenger

Fengying Dong

Abby Cohan

Champale Watkins

Arya Muralidharan

Daelon Clark

Luis Leon Medina

Gabriel Haddad

Mariana Leal

Sofia Opel

Norma Noonan

*We encourage utilization of the data included in this document, excluding the artwork. Please give credit to CHILDREN AT RISK if any statistics or information is used from this publication. We ask that the organizational name be printed in all capital letters. If the name needs to be abbreviated, please use C@R.*

## Letter from Dr. Sanborn, CHILDREN AT RISK CEO

Hurricanes are a fact of life in the Texas Gulf Coast Region. From flooded homes to lost school days, natural disasters disrupt lives and throw even stable families into chaos. For children from low-income families, the effects are even worse, but all children who are displaced—whose routines are disrupted and whose sense of safety and stability have vanished—experience unique and lasting trauma. While we cannot always foresee the magnitude of disasters or the precise form they will take, we can be assured that sooner or later, another will come. We can and must work together to mitigate the damage inflicted upon our children and communities.

When CHILDREN AT RISK released *Still At Risk: Children One Year After Hurricane Harvey*, in September 2018 we knew that the recovery process for children was not complete. As President and CEO of CHILDREN AT RISK, I encouraged the continuance of research on and advocacy for the long term recovery of Texas children and their families. *Texas Continues to Recover: Two Years After Harvey* is the result. This report identifies where we stand to date in the recovery process and opportunities moving forward.

Within these pages, the reader will find analysis, interviews and research on community engagement meetings, recovery efforts, legislation, personal stories collected during the recovery process and more.

The nineteen nonprofits interviewed for this publication have performed a tremendous amount of work and have supported countless individuals and organizations in effecting immediate and long term recovery. More than half of those profits to work on Hurricane Harvey recovery today. Furthermore, during the 86<sup>th</sup> legislative session, thanks to the support of many nonprofits and individuals, more than seventeen bills related to Hurricane Harvey and disaster recovery were passed into law. Recovery efforts from a multitude of agencies and organizations are still ongoing; much more still needs to be done.

We are grateful for the support of The Brown Foundation, Inc., The Houck Foundation, Give Back Brands Foundation and Rainwater Charitable Foundation, which made *Texas Continues to Recover: Two Years After Harvey* possible. Meeting the needs of children after a disaster must be among our state's highest priorities. *Texas Continues to Recover: Two Years After Harvey* enables parents, educators, and public officials to gain both further insight into the ongoing impact of Hurricane Harvey and how we can create a more resilient system for our children in anticipation of the next disaster. On behalf of CHILDREN AT RISK, I encourage everyone to use this publication to advocate for recovery and preparedness for all.

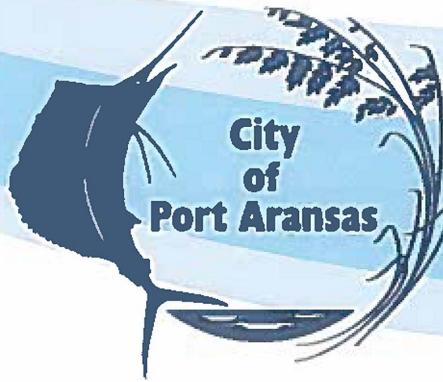
For children!



**Robert Sanborn, Ed. D**  
President and CEO



# *City of Port Aransas*



Hello from Port Aransas!

As Mayor of Port Aransas, I want to extend an extra special welcome to all the readers of Texas Continues to Recover: Two Years After Harvey. This research highlights the data collected through primary and secondary research to create policy recommendations for an equitable and fast recovery for all children in Texas.

Children at Risk is a nonpartisan research organization that dedicates its resources to addressing causes of poor public policies that are affecting our children. For over 25 years Children at Risk has provided many research publications that have reached many communities on the obstacles children face to help provide a better future for our children in our cities and community alike.

On August 26, 2017 Port Aransas was hit by a category 4 hurricane. Hurricane Harvey devastated our City and Community with wind gusts of over 150 mph and 10-12 ft water surge. Fortunately, through all that our city endured, there was no loss of life during this destructive storm. Our City had over \$500 million in damages to our homes, business and schools.

It has been a long road to recovery but through the help of FEMA, and other resources Port Aransas is making a full recovery. The schools have been repaired and one by one homes, condos and city structures are being rebuilt. We still have many more years of rebuilding to do, but our citizen stand strong and with the help of organizations like Children at Risk we will continue to rebuild, continue to help our children grow and prosper and continue to be the great community Port Aransas has always been.

Sincerely,

A handwritten signature in black ink, appearing to read "Charles R. Bujan".

Charles R. Bujan

Mayor



July 5, 2019

To Children at Risk:

In Rockport, Texas, the location of Hurricane Harvey's direct landfall in August of 2017, we have had the great privilege of benefiting from the work performed by Children at Risk in our Community.

This advocacy organization has done non-partisan research to identify public policy and issues that affect children.

Harvey devastated many families in so many ways; homes destroyed or damaged, employment lost as businesses were damaged and unable to open in a timely fashion.

Families have been displaced and children have been severely impacted and they struggle to understand what happened to their homes, schools and family units. The previous normal was wiped out in several hours.

Children at Risk has worked diligently to identify needs and services that will help restore our Community. Their services are important as the City of Rockport does not have trained, experienced staff to perform this work.

Our needs are great in this area. Restoring our family's stability will secure the future for the children and City of Rockport.

I personally thank you for all your service.

Best regards,

Patrick R. Rios  
Mayor

---

# Table of Contents

---

<b>Executive Summary</b>	7
<b>Introduction</b>	10

## **Chapter 1: Long Term Recovery**

Philanthropic and Federal Aid .....	12
Harris County Flood Control District Flood Bond .....	17
Nonprofit Organizations Response and Recovery Efforts .....	19
Community Coalitions Respond to Hurricane Harvey .....	22
86th Legislative Session - Hurricane Harvey and Disaster Preparedness Bills .....	25

## **Chapter 2: Harvey's Impact on Children**

Child Care and Early Education .....	32
Texas Public Schools.....	34
Children's Mental Health.....	41
SAY: Stories About You Application .....	44

## **Chapter 3: Comparing Multiple Storms**

Tropical Storm Allison.....	46
Hurricane Ike .....	48
Hurricane Katrina .....	49
Hurricane Sandy .....	51
Shared Hardships .....	51
Hurricane Harvey Successes.....	53
Potential Projects for Texas.....	54

<b>Conclusion</b> .....	55
Appendix .....	56
Endnotes .....	57
About CHILDREN AT RISK .....	67



### Executive Summary

Hurricane Harvey made landfall outside of Rockport, Texas on August 25, 2017, as a Category 4 storm. Hurricane Harvey proceeded to affect 13 million people and cause \$125 billion in damage.<sup>1</sup> Hurricane Harvey produced a maximum inundation level of six to ten feet above ground level, a rainfall record of 48-60 inches, and resulted in a total of 94 deaths in Texas.<sup>2</sup> As of June 2019, 60 counties in Texas remain disaster-declared counties including, Aransas, Nueces, Harris, and Montgomery counties.<sup>3</sup> While many have physically recovered from the storm, some Texans still struggle to obtain the necessary resources to repair the material and psycho-emotional damages Hurricane Harvey left behind. Among those still coping with trauma are children, more than three million of whom were impacted.<sup>4</sup>

This report provides information and resources on the recovery process of Hurricane Harvey. *Texas Continues to Recover: Two Years After Harvey* provides a high-level overview of different communities of children and families, with a heavy emphasis on the Greater Houston Area. Through the research, data, and stories collected, Texans will be able to better advocate for their children during the Hurricane Harvey recovery process, and be better prepared for future storms. It outlines the long term impact Hurricane Harvey had on children and their families, as well as funding, legislation, nonprofit services, child care, education, and mental health, lessons and recommendations learned from previous storms.

### Long Term Recovery

Many of the children impacted by Hurricane Harvey will need the next several years to recover from this event. Key topics for long term recovery include funding, nonprofit research, disaster-related coalitions, and the impact of the Texas 86th Legislative Session.

Government and philanthropic aid covered approximately 22.3% of the total amount of money needed to repair the damages caused by Hurricane Harvey.<sup>5,6</sup> The Texas Legislature allocated an additional \$8.2 billion allocated during the 86th Legislative Session.<sup>7,8</sup> The money from the most recent

legislative session is allocated towards Hurricane Harvey expenses, improving infrastructure, and developing disaster preparedness plans at the state and local level. Harris County was the only disaster declared county that held special elections for disaster recovery and preparedness bonds. The Harris County voters passed a \$2.5 billion flood bond, one year after Hurricane Harvey, for flood mitigation and improvement of infrastructure.<sup>9</sup>

CHILDREN AT RISK conducted interviews with nonprofit organizations that provided direct services to Hurricane Harvey victims after the storm. The majority of these organizations reported an increase to 12-15 hour work days after Hurricane Harvey from the standard eight hour day. The nonprofits interviewed recommended that organizations who aid in future disaster prioritize staff well-being, establish or utilize partnerships with other organizations, develop a communication system, and have a disaster response plan ready. These recommendations prepare the organizations for future recovery efforts and build capacity by suggesting that nonprofits establish relationships and expand their staff in order to quickly respond and support impacted individuals in the recovery process. Philanthropic organizations not only raised almost \$1 billion in funds for recovery, but also donated countless hours of service and labor to impacted communities.<sup>10</sup>

Philanthropies, government agencies, and businesses began and form and utilize coalitions immediately after Hurricane Harvey. The Children's Resiliency Collaborative, Harvey Recovery Leadership Group, Housing and Community Development Housing Advocate Collaborative, Harvey Task Force on School Mental Health Supports, and Children's Coalition of Aransas County provide different types of aid and serve various disaster-declared counties. *Texas Continues to Recover: Two Years After Harvey* provide an overview of the history, successes, and continuation of the five coalitions. Coalitions dedicated to disaster preparedness and recovery continue to address a high unmet disaster recovery need.

## EXECUTIVE SUMMARY

State and local communities need further preparation to endure the next disaster. Bills passed during the 86th Legislative Session will help Texas become a safer and more resilient state for children in the midst of disaster.

The Texas Legislature focused on methods to increase flood mitigation, improve infrastructure, and prevent damages of property and loss of life through disaster preparedness plans. There were 22 bills filed related to Hurricane Harvey or general disaster preparedness and recovery, with 18 successfully passing.<sup>11</sup> These laws will help the current generation of children impacted by Hurricane Harvey recover as well as prepare Texas for future disasters by improving the government's recovery response and building safer communities for future children.

### Harvey's Impact on Children

The report uses research gathered from community engagement meetings, interviews, and nonprofit reports on their Hurricane Harvey efforts to discuss how the storm continues to impact children. Topics include child care, education, mental health, and data collected from the SAY: Stories About You application.

After Hurricane Harvey, child care centers were not eligible to receive federal aid for storm-related expenses; their options were limited to using loans and personal savings. During Hurricane Harvey's aftermath, Aransas County had no operable child care centers. In Harris County, there were both slightly damaged and inoperable child care centers.

One year after Hurricane Harvey research showed that most child care facilities located in low-socioeconomic communities were assessed with damaged or in recovery. In contrast, high-socioeconomic communities have mostly recovered, undamaged centers.<sup>12</sup> With the existing lack of affordable high-quality child care in many communities, Hurricane Harvey exacerbated the problem of limited child care access for many working families.

Although each campus, district, and county was impacted by Hurricane Harvey differently, most of the disaster-declared counties had an increase in economically disadvantaged students. Student Mobility rates, however, do not show a significant change due to

Hurricane Harvey. The data reveals counties experienced an average 1-2% point percentage variance in student mobility.

There are ongoing reports from some children who still feel distressed when there was rain which required assistance with coping. For many children, a traumatic event, such as the experience of a natural disaster, can be triggered through sights, sounds, or internal reminders.<sup>13</sup> Principals at high performing schools whose campuses were damaged during Hurricane Harvey revealed that creating protective factors, such as social support, security, and coping skills, helps their students cope with the trauma. Hurricane Harvey will not only take several years for individuals to repair from physical damage, but they will also need to process the mental toll as well.<sup>14</sup>

Early support and development of coping strategies are beneficial to children not just for disaster preparation, but for daily encounters and stigma removal. Most importantly, children need a reliable, nurturing, and responsive caregiver to build resilience to trauma.<sup>15</sup>

SAY: Stories About You (SAY), a phone application developed by students in Fort Bend ISD who call their group "The Game Changers", provides a platform for children to express their thoughts and experiences about Hurricane Harvey or other disasters, as well as find needed resources for them or their families. The application, targeting students from Kindergarten through 12th grade, collects stories and survey responses from the users about their experiences during disasters. The survey responses show 61% of children claimed they helped their community or family recover from Hurricane Harvey by donating supplies, assisting in rebuilding, and cleaning the debris and damaged homes. The results show that children are naturally resilient but still need assistance and guidance to restore their mental health and physical well-being. As children themselves, the Game Changers understood children's needs to convey their emotions through a social platform.

### Multiple Storms

Texas has endured several catastrophic storms in recent history, such as Tropical Storm Allison and Hurricane Ike. Each of the previous storms has similarities and differences to Hurricane Harvey in terms of the response and recovery outcomes. This section of the report provides information on the background and recovery efforts of other storms and what lessons Texas can learn from each them.

Each storm impacted states, counties, and communities uniquely. During the year 2001, Tropical Storm Allison total damages equaled \$5 billion and caused 30,000 Texans to temporarily relocate to shelters.<sup>16,17</sup> Damages from Hurricane Ike in 2008 totaled \$30 billion and receiving only \$1.8 billion from federal and state governments for recovery assistance.<sup>18,19</sup> Although Hurricane Katrina in 2005 did not directly impact Texas, many Louisiana residents migrated to Texas and later experienced Hurricane Ike and Hurricane Harvey.<sup>20,21</sup>

Across these storms, shared hardships include inequitable recovery processes, issues with affordable housing, and a lack of prioritization of children. Attempts to aid the most vulnerable populations were made immediately after each storm, but the strategies and approaches utilized did not produce the desired results.

### Recommendations

As the two year anniversary of Hurricane Harvey approaches, the State of Texas is reminded that it is not ready to endure a storm of a similar magnitude. Throughout the past year, the Cities of Kingwood and Dallas flooded during severe thunderstorms due to lack of infrastructure.<sup>22</sup> Since the approval process for receiving recovery funds is lengthy, Texas recently received the funds necessary to begin working on long term infrastructure and flood mitigation projects throughout the disaster-declared counties. Additionally, two to four of the U.S. Department of Housing and Urban Development (HUD) housing programs began in late February of 2019, allowing many low-to-middle income families to begin the application process for housing programs for services that will be obtained by the end of this year.<sup>23</sup> Nonetheless, there are more

applicants than funds available resulting in many families unable to obtain services.

Texas has made several disaster recovery and preparedness accomplishments since Hurricane Harvey; however, children's specific recovery initiatives continue to lack. This report discusses the unmet needs of children and Hurricane Harvey's continued impact. Additionally, this report provides recommendations for key stakeholders to prioritize children's recovery and support.

These recommendations include:

- (1) A quicker and more efficient process to begin housing programs using HUD dollars. The first allocation of HUD funding occurred in 2017, but these programs just began in February of 2019.<sup>24</sup>
- (2) Child care centers are not eligible to receive FEMA assistance.<sup>25</sup> This is why it is important to provide state grants or reimbursement of natural disaster expenses to child care facilities that serve low-to-middle income communities. These centers are an integral part of the recovery process for many families and children.
- (3) Establish centers in low-income communities to provide support with FEMA and other types of government aid applications, as well as collaborating with nonprofits that focus on free legal aid. Vulnerable children living in these communities depend on their family's success in navigating the bureaucratic application system, in which many are unfamiliar with.

Hurricane Harvey shaped policies passed in the 86<sup>th</sup> Texas Legislative Session and future recovery efforts. At the forefront of conversations regarding Harvey, there is a need to focus on the preparation for future disasters as well as ensuring an equitable recovery.

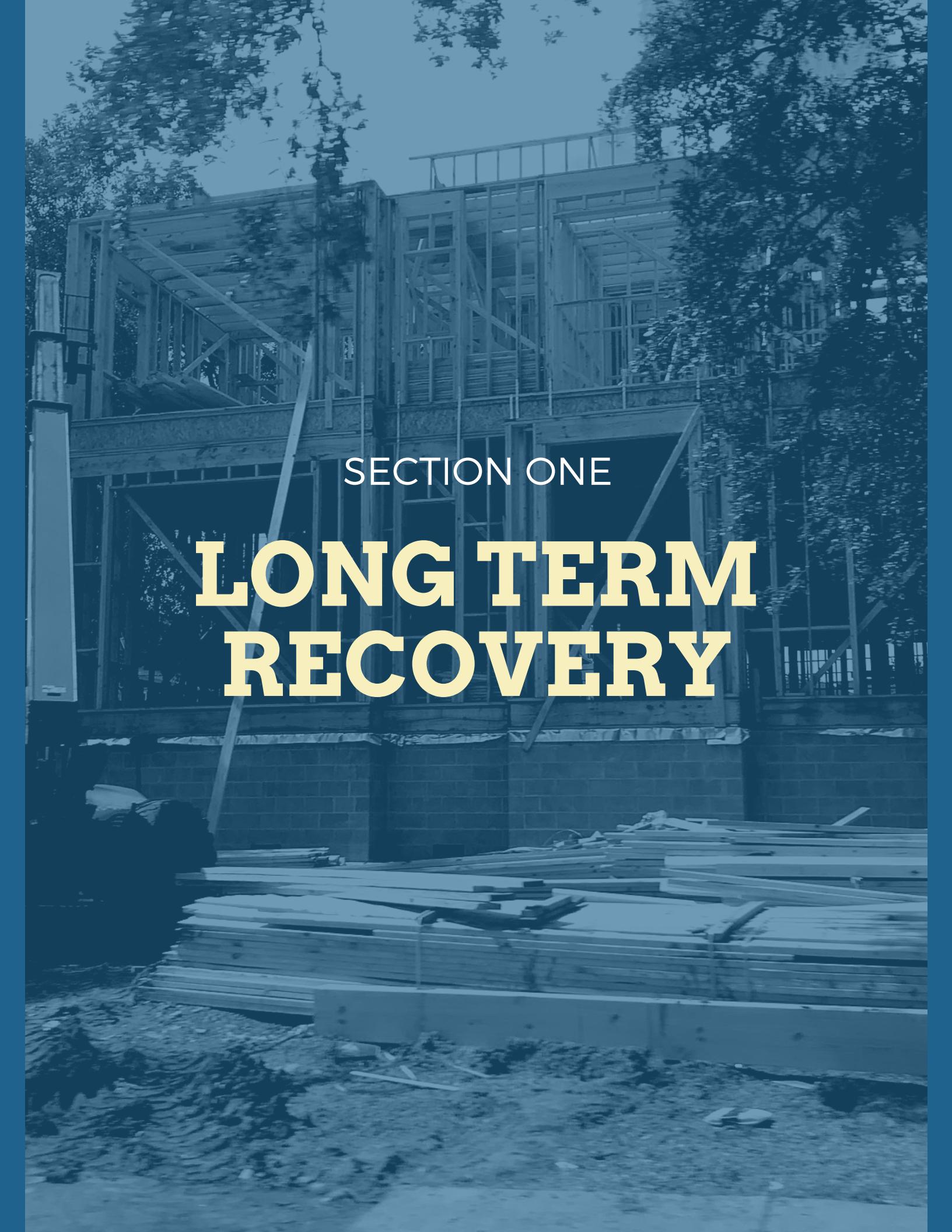
## INTRODUCTION

### Introduction

Hurricane Harvey made landfall right outside of Rockport, Texas on August 25, 2017, as a Category 4 storm. Hurricane Harvey caused 94 deaths, affected thirteen million people, and caused \$125 billion in damage.<sup>1</sup> As of June 2019, 60 counties in Texas have been designated as disaster-declared counties, including Aransas, Nueces, Harris, and Montgomery counties.<sup>2</sup> While many have physically recovered from the storm, some Texans still struggle to attain the necessary resources to repair the material and psycho-emotional damages Hurricane Harvey left behind. Among those still coping with trauma are children. Nearly three million children were impacted by Hurricane Harvey.<sup>3</sup> Despite this, the tools that children need to properly recover from the devastating aftermath of Hurricane Harvey still require attention. This report provides information and analysis of the overall recovery process of Hurricane Harvey in Texas. Through the research, data, and stories collected, Texans will be able to better advocate for their children during the Hurricane Harvey recovery process and will be better prepared for future storms.

Hurricane Harvey is considered one of the most devastating storms to hit the state of Texas. It forced many organizations, government officials, and individuals to look at unique and innovative approaches to the disaster recovery process. In the aftermath of Hurricane Harvey, nonprofit organizations were critical for recovery. This report will outline the impact Hurricane Harvey had on nonprofit organizations and the top recommendations for the next storm. Likewise, there were numerous bills passed addressing disaster recovery in the most recent Texas Legislative Session. This report provides an in-depth analysis of these bills and how they will help Texas better prepare for the next storm.

While Houston and Harris County were greatly impacted by Hurricane Harvey, other areas in Texas experienced an equal or greater amount of damage as a result of the storm. In areas such as Port Aransas and Rockport, the storm either significantly damaged or destroyed nearly a third of their homes, schools, and businesses. A goal of this report is to provide methods for equitable continued recovery and future preparation for all children and families through the publication of this report.



SECTION ONE

# LONG TERM RECOVERY

### Hurricane Harvey Long Term Recovery

Hurricane Harvey affected Texas residents across all levels of socioeconomic status; however, those who had access to money and resources were able to recover more quickly than those who did not. Many are still in the recovery process.

After Hurricane Harvey, public and private actors engineered an immediate response to help those impacted by the disaster. A year after Hurricane Harvey, state and federal governments, as well as many nonprofits, shifted to long term recovery efforts in the 60 disaster-declared counties.

During this time, Federal Emergency Management Administration (FEMA) reviewed applications for financial aid, and granted extensions for temporary housing until August 2019 for those still unable to move back into their homes.<sup>1</sup> Although funds were allocated to Hurricane Harvey relief within months of the storm, it would take almost two years before this money was distributed to individuals still working to fully recover from the storm.<sup>2</sup>

An increasing concern for areas prone to natural disasters, such as Texas, is climate change. Climate change may affect the intensity, duration, and location of natural disasters. It has even been reported to have increased the amount of rainfall by 15% during Hurricane Harvey.<sup>3</sup> If the climate continues to rapidly shift, extreme weather events and flooding, similar to Hurricane Harvey, will occur more frequently.<sup>4</sup> As the prevalence of severe weather events increases, damage to economic systems and infrastructure does as well. States, such as Massachusetts, have created a Climate Change Preparedness Plan already.<sup>5</sup> This plan provides information about the growing climate threats in their areas and presents recommendations on how to combat these challenges in their neighborhoods and communities, which would be beneficial in the gulf coast region.

### Hurricane Harvey Funding

Hurricane Harvey caused an estimated \$125 billion in damage, but as of July 2019, a total of only \$27.8 billion has been dedicated to Hurricane Harvey disaster relief in Texas. This money comes from a variety of sources.<sup>6</sup> Table 1 summarizes the various funding sources which contributed to disaster relief in the wake of Hurricane Harvey.

The \$27.8 billion in funds dedicated to recovery account for just less than one-fifth of the total need.<sup>7</sup> In addition to the amount above, an additional \$6.2 billion has been allocated to Hurricane Harvey Hazard Mitigation grants along with \$2 billion awarded towards the General Land Office for FEMA Disaster Recovery from Hurricane Harvey by the Texas Legislature in the 86<sup>th</sup> Legislative Session in 2019.<sup>8</sup> The \$6.2 billion amount goes towards reimbursements to Texas school districts and higher education facilities, and future disaster preparedness plans. The \$2 billion funds the state's role in future flood mitigation and Hurricane Harvey recovery.<sup>9</sup>

The \$27.8 billion also does not include the amount of money that Texans used from other sources, such as personal savings or loans. Many could not wait until federal dollars were approved for disbursement, were unaware of the resources available, or were denied.<sup>10</sup> The only disaster-declared county that held a special election to allocate additional funding into flood mitigation, infrastructure, and disaster preparedness was Harris County. The special election occurred one year after Hurricane Harvey and resulted in the passage of a \$2.5 billion flood bond.<sup>11</sup> Bond programs passed are not included in the total funding dedicated to Hurricane Harvey, as these amounts are based on the number of bonds purchased to complete flood mitigation and infrastructure projects.

## Funds Awarded and Raised for Hurricane Harvey Disaster Relief

<i>Agency</i>	<i>Amount</i>
<i>Federal Aid</i>	\$11 billion
<i>Community Development Block Grant</i>	\$10.4 billion
<i>Small Business Administration</i>	\$3 billion
<i>Federal Emergency Management Administration (FEMA)</i>	\$2.4 billion
<i>The American Red Cross</i>	\$522.7 million
<i>Greater Houston Community Foundation</i>	\$114 million
<i>Rebuild Texas Fund</i>	\$93.1million
<i>Samaritan's Purse</i>	\$87.5 million
<i>J.J. Watt Foundation</i>	\$37 million
<i>Salvation Army</i>	\$30 million
<i>United Way</i>	\$24.2 million
<i>Center for Disaster Philanthropy</i>	\$14 million
<i>LGBTQ Hurricane Harvey Disaster Relief Fund</i>	\$1.2 million

Table 1- Funds allocated to Hurricane Harvey relief from the government.<sup>12</sup>

### Federal Aid to Texas

Texas received federal disaster recovery funding from several different sources. Texas received federal disaster aid totaling \$11 billion between September – December 2017. The three largest sources of federal aid include the Community Development Block Grant - Disaster Recovery (CDBG-DR) from the U.S. Department of Housing and Urban Development (HUD), Small Business Administration (SBA) Loans, and FEMA aid.<sup>13</sup>

### HUD Community Development Block Grant – Disaster Recovery

The Community Development Block Grant – Disaster Recovery (CDBG-DR) distributes funding from HUD through grants to states, cities, and counties to help aid in recovery from declared disasters, specifically in low-income areas.<sup>15</sup>

To date, three HUD allocations that total \$10.44 billion have been awarded from supplemental appropriations to the State of Texas for Hurricane Harvey recovery. This includes approximately \$5 billion towards the Texas Disaster Recovery Plan received in April of 2018 and an additional \$4.76 billion allocated in February of 2018.<sup>16</sup>

A plan still need to be created and approved by HUD in order for Texans to receive the \$4.76 .billion.<sup>17</sup>

Furthermore, HUD provided \$652 million in February 2019.<sup>18</sup> The largest allocations of funds have gone to the City of Houston and Harris County, each receiving \$1.1 billion for infrastructure and housing projects. The City of Houston and Harris County each had to draft action plans and receive approval from both the General Land Office and HUD.<sup>19</sup> The total CDBG-DR funding allocated to the State of Texas includes the

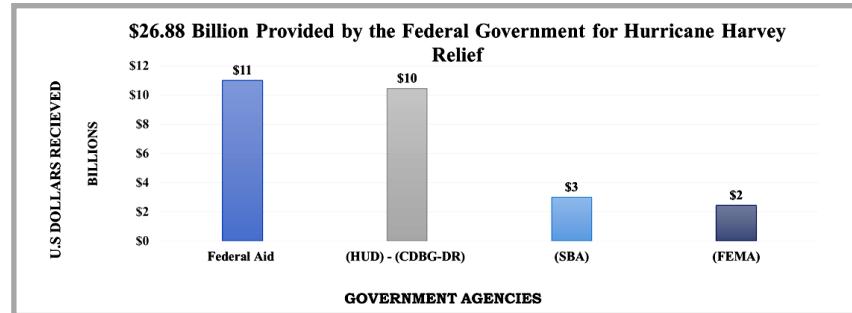


Figure 1 - \$26.88 billion provided by the government for Hurricane Harvey recovery.<sup>14</sup>

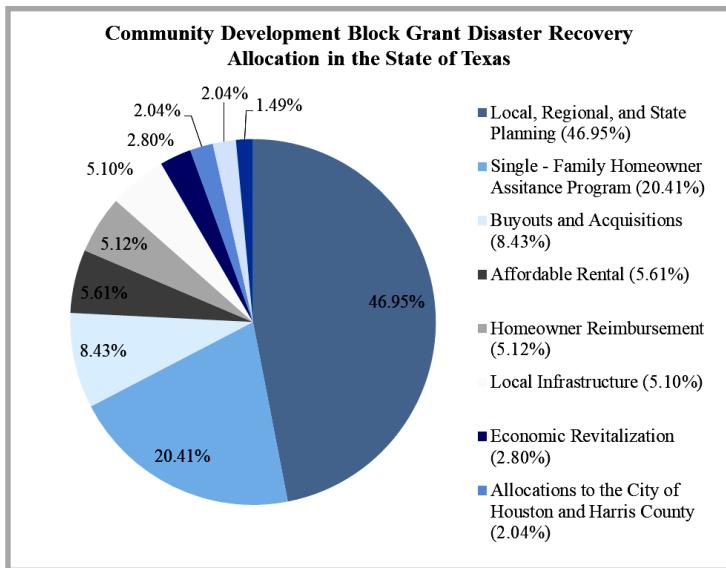


Figure 2 – Allocations of CDBG funds in Texas.<sup>20</sup>

#### Small Business Administration (SBA) Loans

The SBA issues low-interest disaster loans to businesses of all sizes, private nonprofit organizations, and homeowners and renters impacted by a declared disaster. Loan money can be used to repair or replace the following if damaged or destroyed:

- Real estate
- Personal property
- Machinery and equipment
- Inventory and business assets<sup>21</sup>

SBA approved more than \$3 billion in federal disaster loans for Texas businesses and residents impacted by Hurricane Harvey to rebuild and recover.<sup>22</sup>

**35,582 approved** SBA loans totaling **\$2,713,637,800** for residents

**2,823 approved** SBA loans totaling **\$290,985,100** for businesses<sup>23</sup>

#### Federal Emergency Management Administration

FEMA issued \$2.44 billion to Texas for disaster recovery after Hurricane Harvey. \$1.6 billion of this was for FEMA's Individuals and Households program. The other \$818 million is awarded through Public Assistance Grants that primarily intended for protective measures and debris removal.

FEMA's Individuals and Households Program provides financial aid and direct services to those eligible individuals and households impacted by a disaster to meet basic needs and supplement disaster recovery efforts.<sup>24</sup> FEMA approved 373,460 individual assistance applications for Hurricane Harvey recovery efforts out of almost 900,000 total applicants.<sup>25</sup>

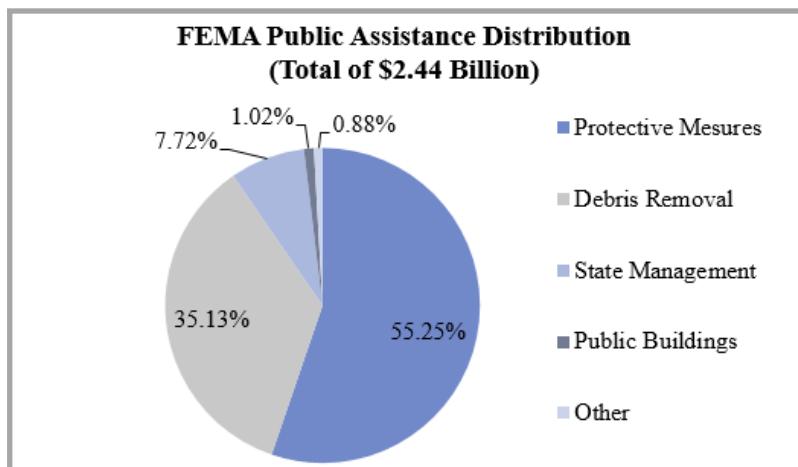


Figure 3 – FEMA public assistance distribution.<sup>26</sup>

## Philanthropic Aid to Texas

As of May 2019, the total amount of money raised by philanthropies for Harvey relief was \$924 million. These funds were predominantly raised by nine organizations. Each organization distributed the funds in multiple phases to other organizations that provide direct services and directly award monetary support to individuals' recovery needs.<sup>27</sup>

The funds went to multiple categories such as:

- Temporary housing/home repair
- Emergency financial assistance
- Disaster case management
- Legal services
- Educational services and assistance
- Nonprofit/business facility damage repair<sup>28</sup>

Philanthropic dollars covered a wide range of support services, helping many individuals and families in their recovery process. Additionally, philanthropies helped people navigate applications and gather the documentation required when applying for federal aid. The philanthropic support was critical because it arrived at a time when many individuals were waiting, or did not qualify, for government and state support.

It has taken approximately two years for The American Red Cross and Rebuild Texas Fund to fully distribute the money they have raised; these funds were channeled through different disaster recovery programs for nonprofit and individual assistance. Several barriers delayed the process of delivering recovery funds, including missing documentation, unsuccessful dissemination of available resources, and language barriers.<sup>29</sup>

The American Red Cross has provided more than \$230 million in immediate assistance and approximately \$99 million in recovery assistance to approximately 620,000 households severely impacted by Hurricane Harvey. The American Red Cross plans to issue approximately \$20 million more in recovery assistance to impacted households.<sup>30</sup> Rebuild Texas Fund will have fully allocated all remaining funds by the end of July 2019.<sup>31</sup>

The philanthropic community continues to advocate for transparency of funds and prioritization of families with children and the elderly. Additionally, a majority of the nine organizations highlighted above released reports on Hurricane Harvey detailing how their funds were distributed to individuals, organizations, and households. Some organizations still have funding available and the capacity to continue the work.<sup>32</sup>

### \$923.78 Million Provided by Philanthropies for Hurricane Harvey Relief

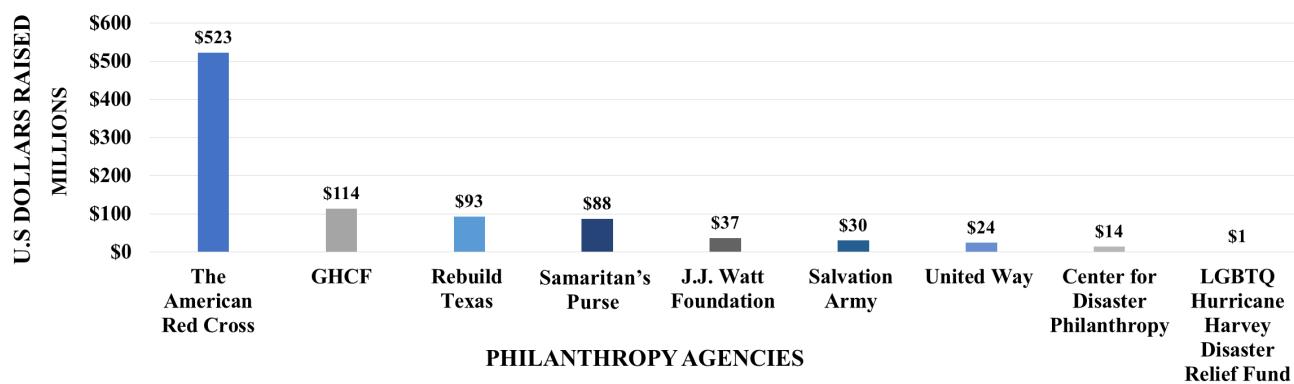


Figure 4 – Philanthropic aid totaled \$923.78 million for Hurricane Harvey relief.<sup>33</sup>

### Children Benefit from Philanthropic Support<sup>34</sup>

The Red Cross awarded \$62 million in grants for Hurricane Harvey recovery. Twenty one grants have gone to nonprofit organizations focusing on serving the needs of Harvey-affected children and youth. They also awarded 14 grants to organizations providing financial assistance in hard-hit counties, with the goal of helping to stabilize households experiencing barriers to recovery. A significant portion of the households receiving this financial assistance are those with children. Combined, these 35 grants represent only 24% of the total grants the Red Cross has awarded to the Gulf Coast Region.

## Harris County Flood Control District Flood Bond

A \$2.5 billion flood bond passed on August 25, 2018 to finance over 230 flood damage reduction projects throughout Harris County through the Harris County Flood Control District (HCFCD).<sup>35</sup> The purpose of this bond is to finance flood damage mitigation projects in order to diminish the impacts of future flooding events. The total approved amount will not be available immediately, as the bonds will be sold in increments over ten to fifteen years. These increments will be sold as needed by project and project phases in the coming years, starting in 2020.

The timing of these projects will be determined by several factors, such as acquiring the necessary environmental permitting, right of way acquisitions, and utility relocation. There is no specific timeline currently for completion of the projects.<sup>36</sup> The focus areas of the bond include channel improvements, regional storm water detention basins, voluntary home buyouts in areas defined as being at a high risk of flooding, a new mapping of floodplains, improvement on the Harris Early Flood Warning System, and repairs to flood-damaged drainage infrastructure.<sup>37</sup>

## Project Categories

The HCFCD is allocating the funding they receive from the bond and matching funds based on these six project categories.<sup>39</sup>

- *Local projects (38%)* include flood risk reduction projects relying solely on funding through the HCFCD.
- *Partnership projects (30%)* include flood risk reduction projects funded through a combination of the HCFCD and local, state, or federal partners, such as FEMA.
- *Home buyouts (13%)* will allow the HCFCD to purchase from sellers with flood-prone structures so far into in the floodplain that flood risk reduction projects would not be beneficial or feasible. This program includes demolishing the structures, rebuilding on higher ground, and leaving the empty plot as green space.
- *Community input (9%)* includes the projects that were suggested by community members at community engagement meetings held in all 22 watersheds in Harris county.
- *Subdivision drainage improvement (8%)* projects include partnership projects with the Harris County Engineering Department to provide drainage improvements to subdivisions in unincorporated Harris County.
- *Storm repairs (2%)* include any major maintenance projects that restore the functionality and capacity of a channel or storm water detention basin.<sup>40</sup>

**Flood Bond Funding Allocation**

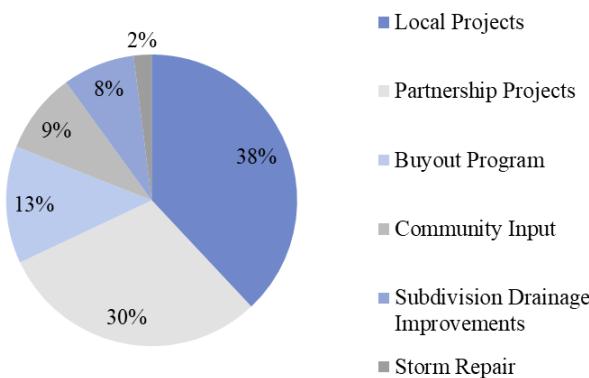


Figure 5 – Allocations of Harris County \$2.5 billion flood bond.<sup>38</sup>

## Project Updates

Many of the funds that have been received thus far have already been leveraged to begin and/or continue projects. Since the passage of the flood bond, multiple projects are currently underway by the HCFCD.<sup>41</sup>

**135 out of 237 planned projects are currently underway by the HCFCD throughout Harris County.**

Current and completed projects are highlighted in Table 2 below. Other projects currently in progress include channel widening of White Oak Bayou, Hunting Bayou, and Clear Creek, as well as de-silting projects along parts of the San Jacinto River and the Addicks Reservoir to restore the volume lost due to added sand from Hurricane Harvey.<sup>42</sup>

Project	Update
<b>Brays Bayou</b>	21 miles of the Brays Bayou has been widened
<b>Home Buyouts</b>	261 home buyouts have taken place so far
<b>Channel Repairs</b>	Seven miles of channel repairs have taken place across Harris County as well as the removal of 13,000 dump trucks worth of debris
<b>Storm Repair</b>	250 of 800 projects have been completed
<b>Infrastructure</b>	16 of 32 bridges have been replaced or adjusted as well as 4 detention ponds have been constructed

Table 2 - Harris County Flood Control District list of current and completed projects.<sup>43</sup>

## Nonprofit Organizations Response and Recovery Efforts

Hurricane Harvey took a toll on the resources and capacity of nonprofit organizations across Texas. Immediately after the storm, many organizations undertook additional work—on top of their day to day functions—to meet the urgent needs of Texas communities. Organizations sometimes had to completely set aside their usual tasks to focus on urgent recovery efforts.

The following section highlights research, conducted by CHILDREN AT RISK, measuring the impact Hurricane Harvey had on nonprofit organizations. It also provides recommendations on how nonprofits can better respond to the next disaster. This research illuminates the need for transparency and coordination in nonprofit recovery efforts, and provides insight into the struggles faced by nonprofit organizations with respect to disaster recovery efforts and identifies trends in recovery work.

**“We now had our regular job and our Harvey job”**

- Community Volunteer

In order to assess the impact on nonprofits, 18 nonprofit organizations that engaged in, or are currently performing Hurricane Harvey disaster recovery were identified through the Children’s Resiliency Collaborative (CRC) and interviewed. These organizations represent various sectors, including housing, food access, and religious. See Acknowledgements for full list of participants in the nonprofit research.

### Immediate Response to Hurricane Harvey

During the immediate response to Hurricane Harvey—from the day the storm made landfall through the following month—participating organizations mobilized to meet the needs of those impacted by the storm. This included volunteering at shelters, handing out supplies, and ensuring access to food. This time period has been described as “a 24-hour operation,” “all hands on deck,” and “Harvey Time.”

Many organizations were pushed outside of their comfort zones, expanding operations to include those that were outside of the regular purview. At least six of the organizations interviewed hired one or more additional employees to assist with Hurricane Harvey relief efforts.<sup>44</sup>

**The nonprofit organization BakerRipley established and operated shelter at the NRG center for up to 10,000 displaced residents from August 29 to September 23.<sup>45</sup>**

### Long Term Recovery Efforts

Hurricane Harvey recovery efforts continued long after the initial response. Organizations began incorporating long term recovery efforts into their daily work. The type of aid transitioned from handing out supplies and fulfilling immediate needs to forming coalitions, looking at long term mental health impacts, and assisting families in the legal and construction aspects of moving back into their homes.

Some continue to work on Hurricane Harvey recovery today and have developed special teams or departments at their organizations. The purpose of these new teams is two fold: continue Hurricane Harvey work and prepare for the next disaster. They are currently working on recovery efforts as well as establishing systems, assessments, and tools for staff to make information and resources more accessible.<sup>46</sup>

**“Our team worked an unprecedented number of hours outside normal working hours.”**

-Austin Disaster Relief Network

**100% of participating organizations**

Shifted entire focus on Hurricane Harvey recovery during the first moth after the storm made landfall.

**95% of participating organizations**

Increased their average work week hours by 20 hours, working 12-15 hours per day.

## Lessons Learned from Hurricane Harvey

The nonprofits interviewed represent different sectors and provided valuable insights and consistent recommendations.

Recommendations for the next storm:

- Take care of yourself and your staff;
- Establish a communication system with up-to-date contacts and relevant information;
- Have a disaster response plan with specified roles and responsibilities ready;
- Establish and utilize partnerships and collaborate with other organizations.<sup>47</sup>

### *Take care of yourself and your staff*

Many nonprofits recognized the stresses that recovery work took on individuals within their organizations. There was a strong emphasis on ensuring employees engaged in 'self care' and on prioritizing their mental health needs.

Recognizing that Communities in Schools (CIS) staff would be called upon as first responders on campuses throughout Houston, local and national funders provided immediate financial and crisis support to CIS staff members. This ensures their safety and security, which enabled them to provide the necessary level of response and support for thousands of Hurricane Harvey affected students and families."

Lisa Descant, CEO of CIS, said in reference to the types of resources organizations required to aid their staff. Some organizations met weekly to check up on one another and provide any services the staff members needed. This allowed different departments to come together, collaborate, and assess the capacity with which the organization could operate in the recovery process. In addition, some organizations provided three meals a day and set up a temporary child care area on site for their staff because food security and child care were two major stressors immediately after a storm. Several other organizations began holding conference calls with staff in the days immediately following the storm to check in and assess each person's needs.<sup>48</sup>

**"Don't just end Harvey work, integrate it."**

-Jerry Kenney  
Collaborative for Children

*Establish a communication system with up to date contacts and relevant information*

In addition to collaboration, it is important to set up an effective communication system within the organization. Examples include having a phone tree to make sure each person is accounted for with specified roles to contact the appropriate person/organization for any needs or requests. Social media served as a helpful platform for organizations to connect with one another and with the communities they were serving. Social media also allowed organizations to inform the public of the services available and important updates on recovery efforts.<sup>49</sup>

*Develop a disaster response plan with specified roles and responsibilities*

Organizations identified the need to develop an internal disaster response plan prior to the next event. This plan should identify the specific roles and responsibilities of individuals within the organization. Having a plan established beforehand allows organizations to respond quickly and efficiently, as well as provide better support to their community. This disaster plan should also include a record-keeping plan for resources, especially monetary resources, to remain transparent and organized with the allocations.<sup>50</sup>

### **95% of participating organizations**

Collaborated with at least four other organizations in recovery efforts.

### **58% of participating organizations**

Continue to work on Hurricane Harvey recovery today in Texas.

*Establish and utilize partnerships and collaborate with other organizations*

Different nonprofit organizations have access to varying sets of resources and embody distinct areas of expertise. Working together allows organizations to leverage these various strengths, and ensure that all of the affected communities' needs are being met. During the disaster recovery process, it is important to be able to identify key partnerships, highlight the capabilities of each organization, and collaborate strategically. Many coalitions arose from Hurricane Harvey, some of which are highlighted within this report. 95% organizations reported collaborating with at least four or more organizations. These partnerships allowed organizations to provide a more holistic, coordinated response than would have been possible had groups operated independently.<sup>51</sup>

### Conclusion

Overall, nonprofits worked tirelessly to serve their communities and meet the needs of those impacted by Hurricane Harvey. Nonprofits collaborated with one another and worked extra hours to ensure communities from across the impacted regions were served. Though many useful partnerships were developed and more effective communication strategies were learned, more work can be done to prepare for the next disaster. Improving communications systems, utilizing key partners to leverage organizational strengths, and taking care of staff members are key to ensuring that organizations can respond even more effectively to future events.

### Adore Ministries “Project Starfish”<sup>52</sup>

Adore Ministries is a nonprofit based in Houston, Texas serving as missionaries in the Catholic Church. In the first two weeks after Hurricane Harvey, Adore Ministries set up headquarters at St. Albert of Trapani in Houston and began a small operation taking in donations and forming a volunteer work crew. The need was so great following the storm that Adore Ministries created a Hurricane Harvey department, hired two additional staff members, and doubled the size of their original staff dedicated to recovery. After receiving a grant, the Harvey team spent the fall planning for long term relief. “Project Starfish” was born of these efforts.

Staff created a resource center where impacted community members could receive essentials, such as food and water. Additionally, Project Starfish helped individuals with rent payments and home repairs. Adore Ministries spread the word on social media, began a phone line for impacted individuals and families to contact Adore, and created a Google form for community members to submit needs and requests.

Through this network, Adore assisted the community and connected people with other organizations for needs that were beyond their scope. Adore partnered with other organizations to help fund furniture replacement programs and to assist with moving clients back into their homes. By the end of March 2018, the organization began to transition back to the pre-Harvey work. Project Starfish officially ended in June 2018.

## Community Coalitions Respond to Hurricane Harvey

The formation of coalitions between organizations working toward disaster response and recovery has been a crucial component in effective long term Hurricane Harvey recovery. These coalitions recognize the unmet need in disaster-declared counties, continue to serve these communities, and work to prepare for future disasters.

CHILDREN AT RISK identified five coalitions that continue to work on long term Hurricane Harvey disaster recovery and interviewed them between August 2018 and June 2019, on their history, structure, and present-day impact. These coalitions all include nonprofits, private organizations, and individual community volunteers.

The coalitions interviewed include: Children's Resiliency Collaborative (CRC), Harvey Recovery Leadership Group (HRLG), Housing and Community Development Housing Advocate Collaborative, Hurricane Harvey Task Force on School Mental Health Supports, and Children's Coalition of Aransas County.

### Children's Resiliency Collaborative

The Children's Resiliency Collaborative (CRC), formerly the Hurricane Harvey Children's Recovery Collaborative, currently consists of 20 engaged members, including CHILDREN AT RISK. When the collaborative first formed in September 2017, over 70 interdisciplinary nonprofit and government organizations connected to support families and ensure that children were a focus in conversations about recovery. CRC continues to focus on connecting and improving organizations that provide vital supports and resources for vulnerable populations, such as child care, education, food and nutrition, physical and mental health, housing, and legal assistance.

In the year following the storm, the Hurricane Harvey Children's Recovery Collaborative held press conferences to spotlight the continued needs of children, hosted a legislative event in Austin, and, in partnership with Save the Children and CHILDREN AT

RISK, released a report: *Still at Risk: Children One Year After Hurricane Harvey*. In the future, CRC hopes to create a platform for nonprofits to share their services and resources with the community in order to better coordinate recovery resources and services between organizations.<sup>53</sup>

### Harvey Recovery Leadership Group

The Harvey Recovery Leadership Group (HRLG) was established in September of 2017 to act as a forum for private and public businesses, community members, and political leaders. This forum promotes equitable relief resource distribution to the most vulnerable residents of Texas. Its focus is information sharing. The HRLG has been able to connect nonprofit organizations that served Hurricane Harvey victims to resources from the state and national government for long term recovery.

At a recent HRLG meeting, the National Oceanic and Atmospheric Administration provided information about nine predicted major storms in the upcoming hurricane season to ensure elected officials were prepared and aware of the potential damage. HRLG also focuses on helping nonprofits connect to sources of funding by bringing them together with businesses and larger foundations.

HRLG has connected nonprofits with data and information that they may not otherwise have been able to access. Nonprofits and state and local agencies continue to meet and participate in the meetings to ensure transparency and accountability in the use and distribution of funds allocated for Hurricane Harvey relief. For example, the City of Houston, Harris County, and Texas General Land Office participate in these coalition meetings to update nonprofits on the progress made and the work that still needs to be done.<sup>54</sup>

## Housing and Community Development Housing Advocate Collaborative

In the spring of 2018, the City of Houston's Housing and Community Development Department (HCDD) began to host regular meetings for advocacy groups interested in the housing recovery response. These meetings include nonprofits that work on housing or disaster recovery issues, such as senior care, housing repair, and legal representation. Community representatives and legal groups who take part in these meetings are dedicated to researching and helping low-income communities obtain the legal documents needed to receive disaster relief aid for their housing as quickly as possible. The meetings facilitate the discussion of Houstonians' recovery challenges and up-to-date information about available housing recovery programs.

The HCDD developed the Local Action Plan for Harvey Recovery in May and June of 2018. This document provides an overview of how Houston's housing recovery funds were initially allocated following Hurricane Harvey and outlines new approaches to community engagement. It also offers a summary of available recovery programs and provides feedback on aspects of the housing recovery program design.<sup>55</sup>

Currently, the HCDD utilizes needs surveys to help direct eligible residents to the programs for which they qualify and to prioritize resources for children and the elderly. As of June 2019, the City of Houston has collected 16,000 completed surveys and has moved 4,000 to the application phase.<sup>56</sup>

## Hurricane Harvey Task Force on School Mental Health Supports

After the storm, Governor Greg Abbott requested that the Texas Education Agency (TEA), in partnership with the Texas Higher Education Coordinating Board and the Texas Health and Human Services Commission, form a task force to develop a response to potential storm-related mental health needs. Meadows Mental Health Policy Institute (MMHPI) was asked to support and staff both TEA, and the entire Task Force, in its efforts to connect schools with mental health resources.

The Task Force expanded to eventually include over 70 members, including representation from four state agencies, five universities, four Education Service Centers (ESCs) representing over 200 school districts, 20 nonprofit and trade organizations, and one federal partner. Since its creation, the Task Force's representation has expanded tremendously, allowing it to serve more communities and address greater needs. Its goal has been consistent: to connect schools with resources to address the mental health needs of students, families, and school staff.

Serving as a pivotal link between Task Force efforts and affected school communities, an ESC Response Group, led by ESCs in areas impacted by the storm, began meeting every two weeks to discuss their individual districts' mental and behavioral health needs and share available resources. The TEA, in partnership with the ESC Response Group and MMHPI, created and disseminated the *School Mental Health Challenges and Needs Post-Harvey Survey* to get an understanding of which schools and districts were experiencing heightened mental health challenges and to facilitate appropriate connections to resources.

The survey was distributed among school and district personnel, leaders, and staff in December 2017. Using the survey and other needs assessment information from affected campuses and districts, the Task Force identified high needs districts to connect them with resources and supports.

The Task Force prioritizes individualizing the resources they provide to each district, whether it be referrals to crisis services closer to the storm or helping them understand the specific developmental needs of children.

Additional grants and resources have been made available through the work of the Task Force, and directly contribute to these individualized resources. For example, through generous support from the American Red Cross, MMHPI, in partnership with ESCs 2, 3, 4, and 5, is implementing mental health support programs in multiple districts throughout the four regions, the programs being utilized include School-Based Trauma and Mindfulness Training, Youth Mental Health First Aid, and Psychological First Aid. The goal of this grant is to build a sustainable, direct-service infrastructure for all schools in impacted regions by providing behavioral health training for school personnel, students, parents, and community members.

Though originally created in response to the particular needs following Hurricane Harvey, the Hurricane Harvey Task Force on School Mental Health Supports recognizes that a need for services existed prior to the storm and will continue long after. The Task Force has formed subcommittees to focus on other topics, such as mental health early identification and the overall mental health ecosystem.

Finally, the Task Force is successfully moving towards an all-hazard response framework so that schools have the tools to support the mental health of their students when there is another large-scale disaster. By developing a stronger infrastructure for mental and behavioral health services and supports, they are hoping to put communities in a better position to respond to future incidents in a more robust fashion.

For example, nine months after Hurricane Harvey, the school shooting at Santa Fe High School outside Houston resulted in school and district personnel needing access to increased mental health services. Task Force members were able to provide support almost immediately after the tragedy as a result of their collaboration and efforts following Hurricane Harvey. This highlights the ongoing benefits that these coalitions formed after Hurricane Harvey can have on communities in need.<sup>57</sup>

### Children's Coalition of Aransas County

Aransas County experienced some of the most significant storm damage, and recovery efforts are ongoing.<sup>58</sup>

Immediately after Hurricane Harvey, Aransas County found itself with little to no child care resources for its residents due to the extensive damage that child care centers experienced. In response to this need, the community organized Camp Harvey at the Rockport Yacht Club to provide child care, allowing families to go back to work without the worry of finding care for their children.

Camp Harvey became incredibly helpful for working families and eventually grew into the Children's Coalition of Aransas County. This coalition now provides training for child care workers and tuition assistance for families who need child care in order to work or go to school.

Currently, the coalition has expanded to also provide families with physical needs assistance, such as home repairs, food distribution, and any other child-related needs. For those who have limited access to child care facilities, the coalition even provides at-home sitters.

Starting in 2018, this coalition began hosting a now-annual conference open to the public to discuss children's recovery needs. They have partnered with organizations such as Hands of Hope, Habitat for Humanity, and numerous faith-based organizations in Aransas County. With a grant from Rebuild Texas, the Children's Coalition of Aransas County is able to expand and serve more community members.<sup>59</sup>

**Children's Coalition of Aransas County has served over 1,000 people since September 2017**

### Conclusion

Many nonprofit organizations and community members encourage the creation of coalitions. In a time of crisis and recovery, the pooling of resources can be an effective way to increase impact and to create sustainable recovery and preparedness programs. Children's Resiliency Collaborative, Harvey Recovery Leadership Group, Housing and Community Development Housing Advocate Collaborative, Hurricane Harvey Task Force on School Mental Health Supports, and Children's Coalition of Aransas County exemplify how, even two years after a disaster, communal efforts continue to promote communal change.

## 86<sup>th</sup> Texas Legislative Session – Hurricane Harvey Recovery and Disaster Preparedness Bills

Hurricane Harvey's impact raised many issues regarding Texas' disaster readiness and recovery. Lawmakers filed 21 Hurricane Harvey related pieces of legislation during Texas's 86<sup>th</sup> Legislative Session, Texas's first session since Hurricane Harvey, of which 17 became law.<sup>60</sup> The table below summarizes the 17 House bills (HB) and Senate bills (SB) that passed.

Bill	Brief Overview
HB 3	The bill focuses primarily on reforms to school funding. However, because school districts receive a significant part of their funding based on average daily attendance (ADA), the bill gives guidance about what can be done when students are unable to attend school because of a natural disaster. HB 3 allows the Commissioner of Education to adjust the average daily attendance school districts need to ensure they receive comparable funding to what is usually received, even when attendance is disrupted because of disaster, flood, extreme weather conditions, fuel curtailment, or another calamity. In addition, the Commissioner can adjust the taxable value of property for a school district located in a disaster-declared area, ensuring districts whose property values have fallen are not being taxed at an inappropriately high rate. HB 3 also details state funding sources for reimbursement of schools' disaster remediation costs. <sup>61</sup>
HB5	The bill requires the Texas Division of Emergency Management (TDEM), in consultation with the Federal Emergency Management Agency (FEMA) and the Texas A&M Engineering Extension Service, to develop a catastrophic debris management plan and model guide for use by cities and local governments in the event of a disaster. <sup>62</sup>
HB 6	The bill establishes a disaster recovery task force to assist with long term disaster recovery. The task force must develop a disaster response guide (debris removal, obtaining federal disaster funding, coordinating the construction and availability of short and long term housing, and obtaining assistance from volunteers) and train local emergency management officers. Additionally, HB 6 establishes a Disaster Recovery Loan Program for political subdivisions meeting certain qualifications. <sup>63</sup>
HB 7	The bill requires the Governor's Office to compile and maintain a comprehensive list of regulatory statutes and rules that may require suspension during a disaster. HB 7 requires TDEM, in consultation with other state agencies, to develop a plan to assist political subdivisions of the state with executing contracts for services needed after a disaster. <sup>64</sup>
SB 6	The bill requires TDEM to create guidelines for disaster response, recovery, and debris removal. SB 6 also establishes a workgroup to study how to best train and credential local emergency management directors. <sup>65</sup>
SB 7	The bill establishes the Texas Infrastructure Resilience Fund (TIRF) to pay for flood prevention and control projects. The Texas Water Development Board will oversee administration of the fund and will issue an annual report, detailing the fund's usage, projects financed, and how these projects meet the fund's goals, leading to a less flood-prone, more resilient Texas. <sup>66</sup>
SB 8	The bill requires the creation and adoption of a State and Regional Flooding Plan. The State Plan includes preparation and response for flood conditions, evaluation, and analysis of flood control infrastructure, and legislative recommendations to facilitate flood control construction. The Regional Plan includes using research and scientific methods to update flood plane mapping, information on land use and population growth in flood-planning regions and identifying areas prone to flooding. Lastly, the flood plans must include a description of ten-year dam maintenance and repair processes and plans. <sup>67</sup>
HB 26	The bill requires emergency operation centers to notify the public when a release of water from a dam may contribute to flooding and may result in damage to life and property. Emergency operation centers must use all available means to notify the public and must include certain specified information, as well as a pre-determined disclaimer regarding the possible variance of actual flood conditions. <sup>68</sup>
HB 109	The bill ensures schools districts and charter schools can preserve Memorial Day as a school holiday. HB 109 allows the Commissioner of Education to approve a decrease to the minimum required instructional minutes to preserve Memorial Day as a school holiday when the reason for lost instructional time is a disaster, flood, extreme weather conditions, fuel curtailment, or another calamity. <sup>69</sup>
SB 443	The bill amends current tax code law for property owners whose properties are rendered uninhabitable or unusable because of a disaster. In these instances, the tax code law allows property owners to receive a residence homestead exemption from ad valorem taxation for up to five years. Previously, the tax code allowed property owners to receive this exemption for one year. In addition, to receive this exemption, active construction or physical preparation of the site must have begun and been in progress. <sup>70</sup>
SB 500	This bill appropriates monetary resources for a wide variety of uses, including appropriating funds from the Texas Rainy Day Fund to cover expenses from Hurricane Harvey. Some of the entities receiving resources are the Texas Education Agency (TEA), higher education institutions, natural resource agencies, healthcare providers, and other affected agencies. In addition, some money will be used to fund studies to update flood risk maps, create infrastructure plans, and implement flood mitigation strategies. <sup>71</sup>
HB1028	This bill amends the Penal Code to increase punishments for burglary of coin-operated or coin collection machines, burglary of vehicles, and arson to next highest category of offense if the offense was committed in an area that was subject to an emergency evacuation order or subject to a declaration of a state of disaster at the time of the offense. <sup>72</sup>

Bill	Brief Overview
HB 2315	The bill amends the Occupations Code to make it easier for government agencies, like FEMA, to obtain statements of ownership and titles for manufactured homes used to provide temporary housing after a natural disaster or another declared an emergency. During times of a declared natural disaster or emergency, statements of ownership and titles for manufactured homes will be automatically issued. In addition, HB 2315 amends the Transportation Code to require the Texas Department of Motor Vehicles to establish a process to automatically issue a title for any travel trailers used by a government agency to move manufactured homes providing temporary housing in response to the declared emergency. <sup>73</sup>
HB 2325	The bill seeks to address communication deficiencies during natural disasters or other emergencies, requiring the TDEM to conduct a study on communication formats and methods used by first responders. This study will be used to develop a common framework for the creation of public awareness campaigns, local emergency assistance registry plans, and a disaster web portal to act as a clearinghouse for information during a disaster. The framework must include the following: <ul style="list-style-type: none"> <li>• making 9-1-1 emergency service capable of receiving text messages,</li> <li>• developing standards for the use of social media as a communication tool by governmental entities during and after a disaster,</li> <li>• developing a disaster mobile application for wireless communication devices to communicate critical information during a disaster directly to disaster victims and first responders, and</li> <li>• developing a comprehensive disaster web portal.<sup>74</sup></li> </ul>
HB 2330	The bill requires the Health and Human Services Commission (HHSC) and TDEM to conduct a study to determine the feasibility of developing: <ul style="list-style-type: none"> <li>• a single intake form that would compile all information needed to obtain disaster assistance from multiple state and federal programs for an individual who needs assistance because of a disaster;</li> <li>• an automated intake system for collecting the information; and</li> <li>• a state case management system for disaster assistance, administered by HHSC, that is like the FEMA case management system and that includes contracting with nonprofit vendors to hire caseworkers and provide case management services.<sup>75</sup></li> </ul>
HB 2335	This bill requires disaster food programs, like Disaster - Accepting Supplemental Nutritional Assistance Program (D – SNAP), to collaborate with local government officials to evaluate, develop, and maintain a list of potential sites that meet federal requirements for in-person application for benefits under the federal program to provide D-SNAP benefits to victims of a disaster and to annually update the list. <sup>76</sup>
HB 3668	The bill requires the Governor's Office to establish a program that provides grants to non-profit food-bank organizations to help them better prepare for and respond to natural disasters. HB 3668 also specifies grant eligibility, program implementation, and reporting requirements. <sup>77</sup>

Table 3 - Brief summary of the seventeen bills that passed during this past 86<sup>th</sup> Texas Legislature.

The bills outlined will impact more than the three million children living in the disaster declared counties during Hurricane Harvey.<sup>78</sup> Six bills, in particular, will significantly impact children.

#### *HB 3, Huberty/Taylor*

This bill reforms the public school finance system by increasing funding for early childhood and K-12 education, as well as providing guidance about what can be done when students are unable to attend school due to a natural disaster.<sup>79</sup> After a catastrophic event, such as a natural disaster or extreme weather event, attendance in school districts is much lower than usual, therefore affecting the funding that a school receives. This bill ensures that districts receive comparable funding to what is typically received. In addition, the Commissioner of Education can adjust

the taxable value of property for a school district located in a disaster-declared area, ensuring districts whose property values have fallen are not being taxed at an inappropriately high rate. Lastly, the bill allocates state funding sources for reimbursement of schools' disaster remediation costs.<sup>80</sup> The bill addresses multiple issues that impacted public school funding after Hurricane Harvey. The fact that many schools missed out on various funding opportunities following the storm prolonged the educational recovery process for children.<sup>81</sup>

*SB 7, Creighton/Phelan*

This bill creates four monetary accounts for disaster relief, appropriating \$3.26 billion from the Texas Rainy Day Fund to the flood infrastructure fund. A description of each account is included below:

Hurricane Harvey Account – Provides financing to meet local match requirements leveraging federally appropriated money for flood projects related to Hurricane Harvey recovery, including creating both a hazard mitigation plan and a public assistance plan.

Flood Plan Implementation Account – The account finances flood mitigation projects included in the state flood plan.

Federal Matching Account – The account meets the matching requirement for projects funded partially by the United States Army Corps of Engineers.

Floodplain Management Account – Provides financing for the Texas Water Development Board's activities related to collection and analysis of flood-related information, flood planning, protection, mitigation or adaptation, outreach programs, and evaluation of the response to, and mitigation, of flood incidents affecting the residential property.<sup>82</sup>

*SB 6, Kolkhorst/Morrison*

This bill requires the Texas Division of Emergency Management (TDEM) to establish guides for local officials regarding disaster response and recovery, including debris management and removal.<sup>83</sup> It took over three months for a majority of Harris County to remove debris after Hurricane Harvey.<sup>84</sup> Two years later, there are areas in each of the disaster-declared counties that still need debris removed. The persistence of debris presents both public health and environmental concerns. This bill will positively affect children in impacted regions by ensuring more efficient cleanup of damaged and potentially harmful debris.<sup>85</sup>

*SB 8, Perry/Larson*

This bill develops a framework for the Texas State Flood Plan funded by the Texas Water Development Board, which will be the state's first flood plan.<sup>86</sup> Flood plans help officials prepare for future disasters and mitigate the risks of personal injury or property damage in at-risk communities. Flood prevention improves the safety of communities and the children who live in them.<sup>87</sup>

*SB 500, Nelson/Zerwas*

This bill allocates funding and reimbursement for Hurricane Harvey expenses statewide. The funds in this bill are allocated to the TEA for reimbursement of damages and losses of school property. The Texas Marine Science Center in Port Aransas, the University of Houston System, and other higher education institutions will also receive reimbursements for property damages. Lastly, the Department of Housing and Community Affairs in Port Aransas will receive funds for affordable rental housing which will help current displaced residents.<sup>88</sup> HB 500 impacts communities and children in many areas, including education, housing, and building resiliency for future storms.<sup>89</sup>

*HB 2335, Walle/Kolkhorst*

This bill assesses the feasibility of accepting Supplemental Nutritional Assistance Program (SNAP) benefits applications online, and staffing a high-volume call center to process those applications over the phone. Many households with children who may not have been eligible to receive SNAP benefits before a disaster become eligible following it. After Hurricane Harvey, many families experienced substantial delays in the approval process to receive benefits. Therefore, having a system that is readily accessible and can quickly approve families or individuals in need is critical. Furthermore, this bill creates a method for localities to respond more quickly in the event of a disaster, helping to identify D-SNAP application sites, and accelerating the approval process.<sup>90</sup>

### Port Aransas Highlight<sup>91</sup>

Port Aransas was one of the first cities to be hit after Hurricane Harvey made landfall, with its residents facing a devastating aftermath of debris, flooded homes, and destroyed buildings. The city suffered more than \$650 million in damages to buildings, infrastructure, and personal property. Following the storm, the city focused not just on physical rebuilding, but also on protecting the mental health of its residents. The City of Port Aransas implemented counseling for children within their school system and opened its doors to support animals from the American Red Cross for their residents.

Two years later, the Mayor of Port Aransas, Charles Bujan, states that the city's recovery is only about three-fourths complete. The city is currently repairing ferry lanes to ease traffic and is in the process of starting a non-taxpayer funded project that will build about 150 apartments to alleviate housing needs. The city was also given a \$5 million grant that will be used to begin public works recovery projects. Port Aransas was one of the hardest-hit cities by the storm, but with the support of a committed, responsive local government, they continue to rebuild and recover.

### City of Rockport Response and Recovery<sup>92</sup>

The City of Rockport staff began tracking Hurricane Harvey when it was just a pending tropical disturbance in the Gulf of Mexico. The County Judge, mayor of Fulton, and the then mayor of Rockport called the full Emergency Operations Center together on Wednesday, August 23, 2017, two days before the storm made landfall.

The city connected with the Corpus Christi National Weather Service (NWS) office and the National Hurricane Center in Miami to assess the situation. All emergency procedures and plans were reviewed, and all present confirmed individual responsibilities. The NWS reported Harvey as almost no threat and the NWS office in Corpus Christi agreed because Harvey appeared to be weakening and staying towards Mexico, with little to no chance of developing and moving into Texas.

The next day it was announced that Hurricane Harvey was projected as a Category 3 Hurricane heading directly towards Rockport. At 1:00 PM on the August 24, the County Judge whom presides over Aransas county, issued a mandatory evacuation order for the county, a mere 31 hours prior to the storm making landfall due to the inaccurate threat projections.

*City of Rockport, Continued*

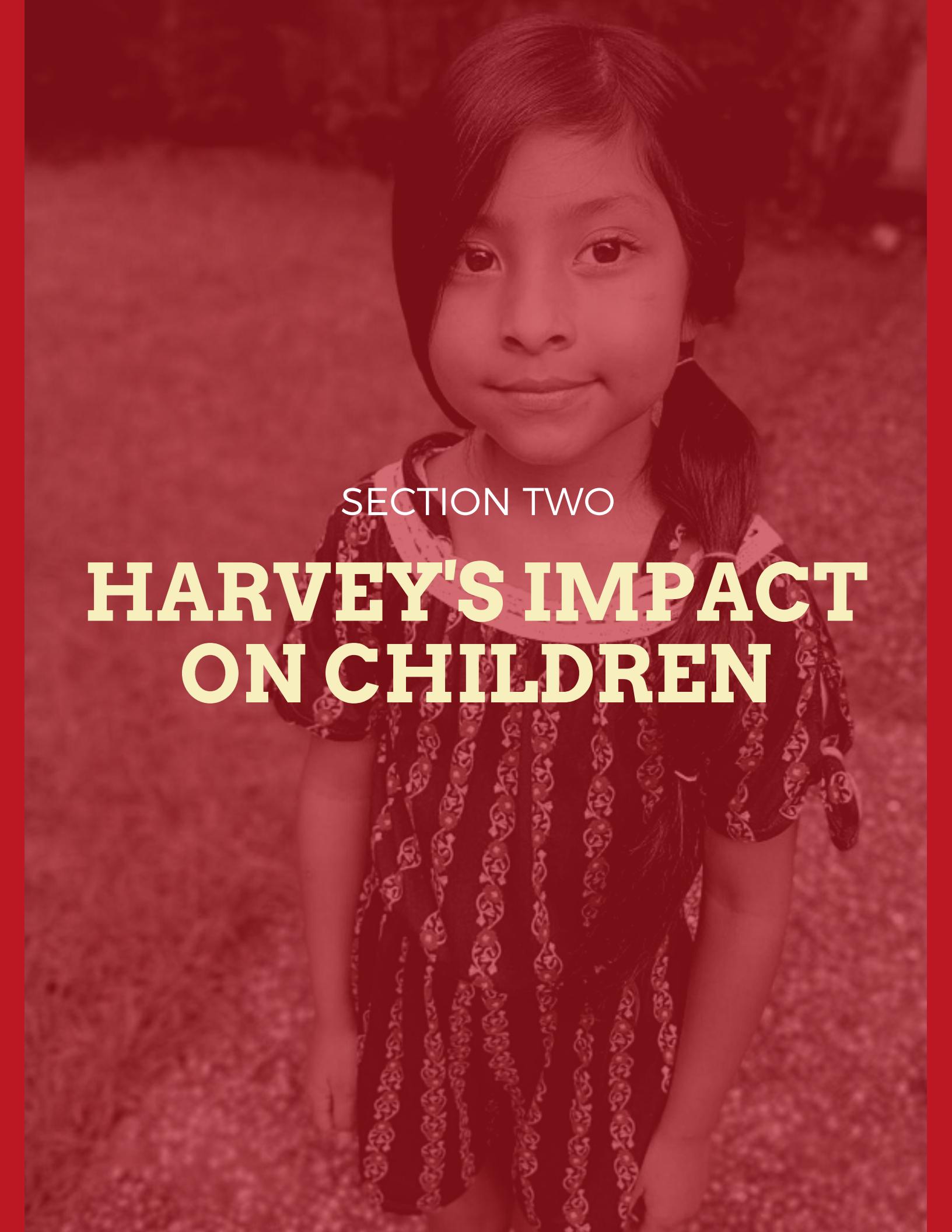
The city's plan included deploying staff to San Antonio and Bastrop while keeping a small group of officials in Rockport. Spreading teams around the state helped ensure that work could continue. After waiting out the storm, the city officials remaining in Rockport returned to the Law Enforcement Center and rejoined the rest of local officials that rode out the storm.

The top priority was search and rescue. The city joined first responders and went door-to-door looking for survivors. The city was without power, sewage, and any form of electronic communication, including satellite phones for fifteen days. It took a team effort between city, county, state, and federal officials, along with officials from nearby communities, to provide Rockport with the manpower and resources it needed to recover.

Looking at long term recovery, the city has made major strides in debris removal, restoration of services, and planning for future disasters. State and federal government aid continues to come in slowly as Rockport recovers. The Rockport Long Term Recovery Team is instrumental in providing direction and leadership in recovery efforts. In Aransas county, which Rockport is a part of, the area lost about 26% in total value of residential and business properties, and lost nearly \$900 million in damages to public facilities countywide. Harvey resulted in one death and at least 10 injured in the City of Rockport.

"Our journey is long and at times hard, but worth every inch of the trip," said Patrick R. Rios, current Mayor of Rockport.





SECTION TWO

# HARVEY'S IMPACT ON CHILDREN

### Hurricane Harvey's Impact on Children

The impact of Hurricane Harvey on children throughout the Gulf Coast was as catastrophic. Many children experienced significant trauma and, at the very least, had their routines altered for weeks as a result of damage to schools and child care centers. This trauma can potentially impact children throughout the rest of their lives.

Three million children were living in the disaster-declared regions when Hurricane Harvey hit.<sup>1</sup> Children's vulnerability increases when they are living in coastal regions that are susceptible to natural disasters.<sup>2</sup> Even with the ongoing threat of weather events or disasters occurring, the population in the coastal region of the Gulf of Mexico is still the fastest growing coastal region within the United States.<sup>3</sup>

### Child Care and Early Education

In Harris County alone there are 1,740 child care centers.<sup>4</sup> Six months after the storm, Save the Children released a report, *Save the Children's Response and Recovery for Children and Families after Hurricane Harvey*, which found that approximately 4,000 child care programs, afterschool programs, and schools closed for weeks in the Greater Houston area.<sup>5</sup>



#### 23,611 children in Harris County

Were served by child care providers that received response and recovery support from Collaborative for Children.<sup>6</sup>

Collaborative for Children, in collaboration with Child Care Aware of America, found that at least 151 child care centers were either permanently or temporarily closed following the storm throughout the disaster declared counties.<sup>7</sup> In the City of Port Aransas, all child care centers were completely inoperable.<sup>8</sup>

More than 650 providers reported damages around the City of Houston.<sup>9</sup> Working families depend on their child care providers to continue supporting their loved ones. This shortage of child care throughout the impacted regions prevented many families from returning to their 'normal' lives.

Quality child care especially benefits children from lower socioeconomic backgrounds both in school and later in life, but their access to affordable quality care is limited. When a storm puts further strain on the child care system, the inaccessibility of affordable child care becomes more pronounced.<sup>10</sup>

Most child care providers are for profit businesses and thus are ineligible for FEMA public recovery assistance.<sup>11</sup> The inability of these providers to receive emergency assistance further inhibits children's development and the ability of families to return to work, compounding an already stressful situation.



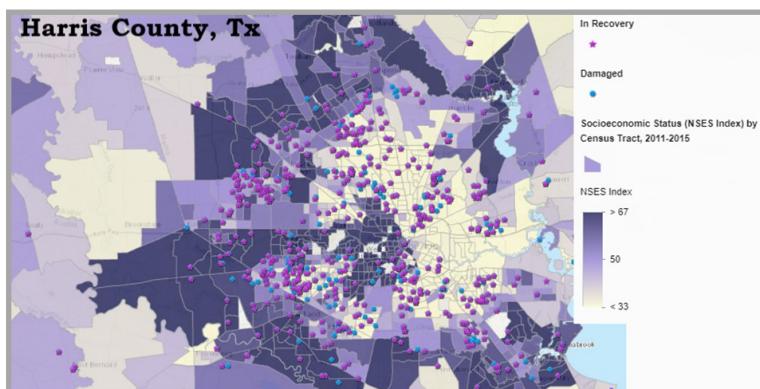
**420 damaged child care providers** in Harris County received **\$2,919,036** from Collaborative for Children<sup>12</sup>

## HARVEY'S IMPACT ON CHILDREN

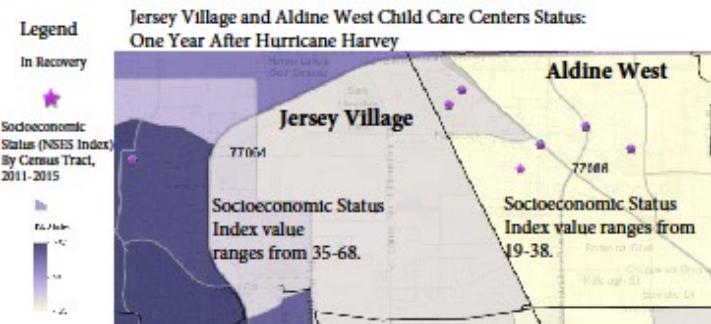
Collaborative for Children created a map that displays the child care centers assessed as containing damage or recovering. This data is overlaid with the Neighborhood Socioeconomic Status Index (NSEI Index by the Census Tract, 2011-2015) in Harris County. The NSEI index is on a scale from 0 to 100, with 50 being the national average and considers the following indicators:

- Median household income
- Percent of households with income below the Federal Poverty Line
- Educational attainment of adults (age 25+)
- Unemployment Rate
- Percent of households with children under the age of 18 that are "female-headed" (no male present)<sup>13</sup>

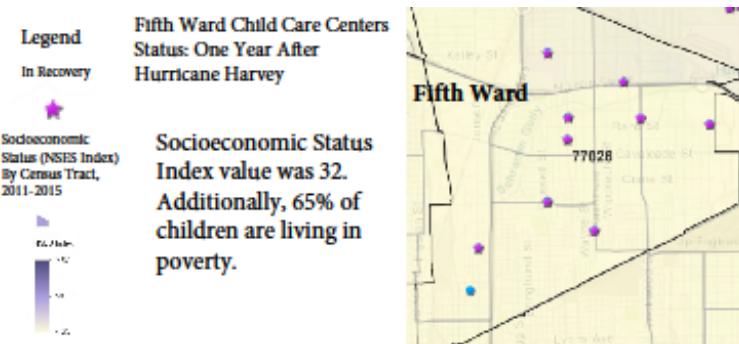
The areas darkly shaded in purple are considered affluent neighborhoods. The regions filled with a lightly colored purple, or without color, are considered low socioeconomic neighborhoods. This map also shows more damaged or recovering child care centers in low socioeconomic neighborhoods than in more affluent areas. Nearly two years after Hurricane Harvey, there is not an up-to-date information database on the status of these damaged or recovering child care centers.



*Figure 1- Map of Harris County with Socioeconomic Status Index overlaid with child care facilities that were assessed as damaged or in recovery right after Hurricane Harvey.<sup>14</sup>*



*Figure 2 - Map of Jersey Village and Aldine West. Surveys from 1 year after Hurricane Harvey found that in Jersey Village, there is 1 centers that was in recovery and in Aldine West, there were 6 centers that were in recovery.<sup>15</sup>*



*Figure 3 - Map of 5th Ward Community—Shows the Socioeconomic Status Index value as 32.2. Surveys from 1 year after Hurricane Harvey found that there were 9 centers in recovery and 1 assessed with damages.<sup>16</sup>*

## HARVEY'S IMPACT ON CHILDREN

### Texas Public Schools

Hurricane Harvey and similar disasters have a measurable effect on students. Nearly 3 million children in Harris County alone were impacted by Hurricane Harvey.<sup>17</sup> This section of the report provides information on the impact for students following the storm and the response from public schools, as well as the policy implications of this disaster. Hurricane Harvey resulted in increased numbers of economically disadvantaged students, in cases of mental health issues, in student homelessness, and in varying changes in mobility rates in the disaster-declared counties following the storm. These challenges are highlighted through the lived experiences in Aransas, Harris, Montgomery, and Nueces County.

Schools play a major role in preparedness and resiliency within the communities they serve. For example, schools often serve as shelters for displaced residents and provide key mental health services to students after a storm.<sup>18</sup> This section examines the role of public schools during and after storms and relates stories of educational resiliency in the affected counties. Additionally, the policy implications of the educational response to this disaster are explored.

### Harvey's Impact on Students

Part of Hurricane Harvey's impact on students was an increase in student mobility and economically disadvantaged students who attend schools in disaster-declared counties, as well as mental health issues and homelessness following the storm. These challenges are shown through experiences in Aransas, Harris, Montgomery, and Nueces County. The obstacles faced by these counties were substantial, with one of the counties examined, Nueces County, having the schools with the largest significant change of all of the disaster-declared counties. Nueces County, which includes the City of Port Aransas and parts of Corpus Christi, was severely impacted by Hurricane Harvey.<sup>19</sup> In the City of Port Aransas, 100% of the businesses and 85% of homes were damaged. Harris County contains the largest school district in Texas.<sup>20</sup> The extent of the damage and community impact for schools in these counties are explored in more depth below.

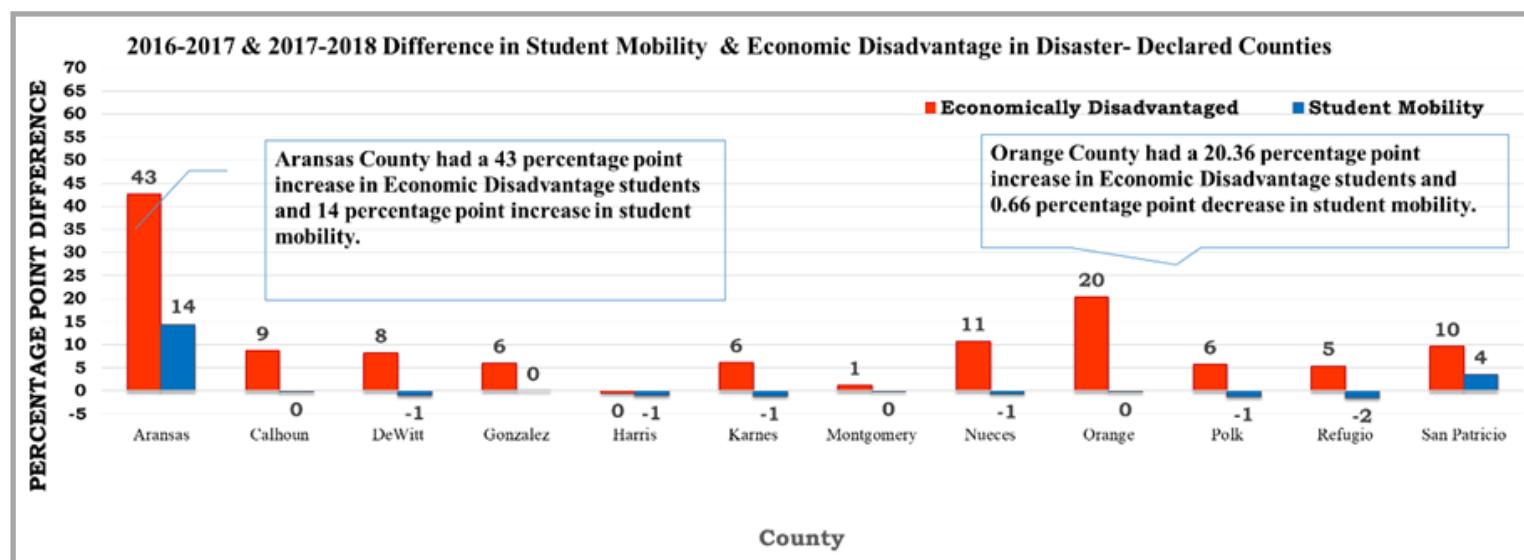


Figure 4—Comparison of the Economic Disadvantage percentage difference and the Student Mobility percentage point difference between 2016-2017 & 2017-2018 in disaster-declared counties located in the Southeast and Gulf of Texas.<sup>19</sup>

## HARVEY'S IMPACT ON CHILDREN

Figure 4 shows considerable variance in student mobility and in the number of students who are economically disadvantaged from the 2016-2017 to the 2017-2018 school year, based on the student mobility and economic disadvantage data from TEA's Texas Academic Performance Reports (TAPR). While the increasing economically disadvantaged population is different across counties, the trend is generally positive. The variation is more extreme for student mobility, defined in the Appendix, with several counties showing small negative or almost no effects while others show increases up to 14 percent as in Aransas County. Due to these differences in trends, each issue is explored individually in more depth.

### Student Mobility

Student Mobility can impact the learning of both students leaving schools as well as the students that remain. Highly mobile students may result in them falling a year behind their peers in educational level. Research shows that each time a student changes a school, they lose approximately three months of reading and math learning. Furthermore, students with high rates of mobility are at higher risk of falling a year behind educational level compared to those with low levels of mobility.<sup>21</sup>

Studies which assessed the impact student mobility has on the learning and development of a student show that higher mobility can result in lower school engagement, poorer grades in reading, and a higher risk of dropping out or experiencing behavioral issues when enter high school.<sup>22</sup>

Student mobility should be considered when assessing

the impact a storm can have on schools after a disaster like Hurricane Harvey. Affected school districts in Aransas County experienced an increase in student mobility rates by 14 percentage points. While Aransas County experienced an increase, other counties, such as Harris County, contained a slight decrease in student mobility. As seen in Figure 4, there is no definitive trend seen across counties. However, in counties, such as Aransas County, it is important to note the impact the high increase in student mobility can have on the student population.

### Economic Disadvantaged Students

Students with high economic disadvantages may have additional challenges when learning in school. Research indicates that students experiencing high economic disadvantage develop general academic skills at a slower rate compared to students from schools with lower numbers of disadvantaged students. At a young age, this may result in poor cognitive development, language, memory, and socioemotional processing. School systems in areas with a high economic disadvantage population are often under resourced, further affecting student academic progress and outcomes.<sup>23</sup>

Hurricane Harvey exacerbated the problem for affected counties with high economic disadvantage rates. Most of the school districts impacted by Hurricane Harvey experienced an increased in the number of economic disadvantaged students. In the school year prior to Hurricane Harvey, the four campuses in Aransas County had an average of 55% economically disadvantaged. The year Hurricane Harvey hit, the average increased to 98%.<sup>24</sup>

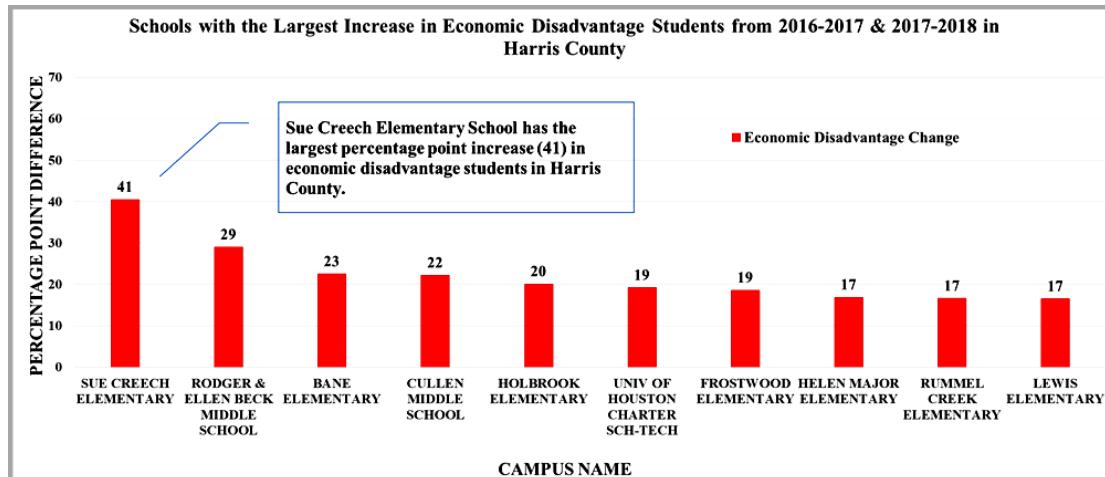


Figure 5 - The ten campuses with the largest increases in economically disadvantaged students in Harris County.<sup>25</sup>

## HARVEY'S IMPACT ON CHILDREN

Figure 6 represents the increase in economically disadvantaged students from schools in Nueces County. Port Aransas High School experienced the largest increase in economically disadvantaged students in Nueces County, with their rates going from 18% to 78%. The median income of Nueces County residents also decreased by nearly \$2,000 following Hurricane Harvey. The rate of individuals living below the Federal Poverty Level in Nueces County rose slightly from 14% to 16%.

Three separate counties in Texas experienced a drastic increase in economically disadvantaged students after Hurricane Harvey. Given the impact that this can have on the cognitive development of students, it is vital to continue to monitor this data to see the impact future storms may have on economically disadvantaged students and develop strategies to assist those families to prevent educational delays after a disaster.

### *Student Homelessness*

Student homelessness is an additional obstacle students may face after a disaster. The biggest challenge student's face with homelessness is toxic stress, which is stress due to prolonged adversity and deprivation that accompany poverty and

homelessness. Toxic stress can impair a student's learning and memory. Students may also experience a delay in developing language and vocabulary. The environment engendered by homelessness is far less likely to have educationally rich materials for students, and the language they are surrounded by is less likely to be abstract and adjective rich, limiting language development. In addition, students are less likely to have access to a calm and quiet environment to work on their homework. Overall, student homelessness can cause developmental delays, slower ability to learn, and poor performance on standardized testing. After Hurricane Harvey, many schools had to address an increase in student homelessness as houses were flooded and destroyed.<sup>26</sup>

In Harris County, schools reported an increase in student homeless populations following Hurricane Harvey. An investigation conducted approximately two months after the storm revealed 2,063 homeless students in Pasadena ISD.<sup>27</sup> Two years after the storm, research showed Hurricane Harvey displaced at least 2,000 district families and tripled the number of homeless students to approximately 13,200 in the 2017–2018 school year in Pasadena ISD.<sup>28</sup>

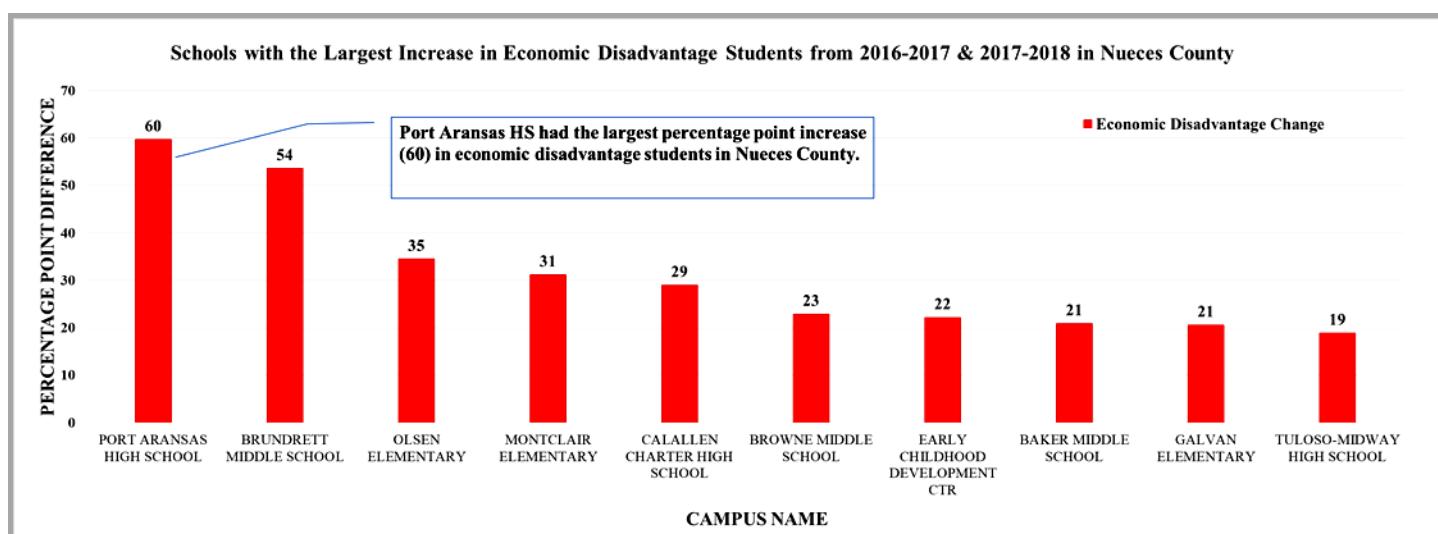


Figure 6 - Campuses in Nueces County with the largest increases in economically disadvantaged students .<sup>29</sup>

## HARVEY'S IMPACT ON CHILDREN

For Montgomery County, the number of sheltered residents and unsheltered homeless residents increased from 149 to 203 for sheltered and from 44 to 74 for unsheltered the year after Hurricane Harvey hit in 2018.<sup>30</sup> The population of students considered homeless doubled in the months following Hurricane Harvey, from 475 during the 2016-2017 school year to 945 in the 2017-2018 school year.<sup>31</sup> Although no schools located in Montgomery County received water damage, the start of the school year was delayed until September 5, 2017 from August, to allow families additional time to secure shelter.<sup>32</sup>

### *Mental Health*

After experiencing a disaster, students may experience an adverse impact on their mental health. Disasters disrupt the functioning of schools and educational processes which can cause students to be unable to master important academic concepts and skills. Furthermore, traumatic experiences, such as a natural disaster, can cause an increase in irritability, aggression, anger, and physical ailments, such as headaches and stomach aches. Traumatic experiences also impact a child's relationship development, school attendance, and motivation which can result in increased disciplinary infractions and poor academic performance. Schools can serve as a resource for students after a disaster by providing access to mental health care providers as well as a strong support system to assist students in the recovery process.<sup>33</sup>

The State of Texas created Hurricane Harvey Task Force on School Mental Health Supports for Harvey-affected schools, as previously discussed in the Long Term Recovery section. The Task Force was formed to address the mental health needs of affected staff, students, and families in Texas recovering from Hurricane Harvey. The Task Force does this by connecting schools with counselors, training, and funding opportunities for long term mental health resources and services. Due to the large scale impact from Hurricane Harvey, thousands of families were displaced from flooded homes resulting in more students needing help to process their trauma for months to years after the storm. The Task Force serves impacted areas across the state, including Nueces, Montgomery, Aransas, and Harris Counties.<sup>34</sup>

### Public Schools and Storm Resiliency

Schools play a major role in preparedness and resiliency in the communities they serve. Many of the challenges outlined in the previous section were addressed by public schools in affected counties in Texas. Through the efforts of the schools staff and administration, the necessary goods and services were provided to those in need and these experiences influenced the policy enacted during the most recent legislative session.

#### *School Preparedness and Response*

Public schools banded together to support their community by providing vital goods and services during Hurricane Harvey. Some of the ways that campuses and districts served their communities was by providing; shelter, mental health services, and resources for families.

With respect to shelter and resources, Conroe ISD was able to fill an important service that local agencies were not equipped or prepared to handle. The Texas General Land Office (GLO) manages the HUD housing programs in Montgomery County. As of July 2019, the GLO received 349 applications for the Housing Assistance Programs (HAP) from residents in Montgomery County. Out of those 349, only 4 are approved for construction or underway with repairs.<sup>32</sup> Conroe ISD, in Montgomery County, has a Homeless Program that directs students experiencing homelessness to resources that include food, clothing, shelter, housing, employment, and financial assistance with rent.<sup>35</sup>

The Center for School Behavioral Health at Mental Health America of Greater Houston partnered with UNICEF and The City of Houston to begin trainings in schools to prepare Houston area schools to meet the needs of students experiencing trauma due to Hurricane Harvey. The trainings provided allows schools to send two staff members to be trained in trauma-informed classroom strategies and wellness module to then conduct trainings for their school staff. This is to address the high need of mental health support systems in schools following such a large disaster like Hurricane Harvey.<sup>36</sup>

## HARVEY'S IMPACT ON CHILDREN

Frazier Elementary in Pasadena ISD, which is located in Harris County, served as a donation center for families in need of supplies after Hurricane Harvey. 50% of the houses in the neighborhood were flooded as well as the school building. The school rapidly identified the needs of the children and quickly responded to address those needs to ensure students had a safe learning environment and strong support system in Hurricane Harvey's aftermath. Staff worked together to locate all students in high flood areas and assist in the cleanup process of both the school and the neighborhood. Many students were now facing homelessness due to the flooding in their community. The school, with the help of members of the Parent Teacher Organization, set up a small "donation store" in the school. Within the store, members of the community as well as teachers and staff, could come stock up on needed items. The store provided clothing, food, and other supplies to help students and families get back on their feet after Hurricane Harvey. The store quickly expanded as donations poured in and, through the use of social media, the school became a hub for the broader community to access items they desperately needed. The store continued to receive donations from around the country throughout the fall semester. It did not officially close until the Winter Break in December of 2017.<sup>37</sup>

### Resiliency

During and in the aftermath of Hurricane Harvey, stories of resiliency stood out among the affected counties. The following are examples of schools banding together and keeping performance high despite drastic changes in circumstances and living experiences for the students and families in attendance. In these examples comparing C@R school rankings data before and after Hurricane Harvey, the hard work and resilience of schools can be seen in the limited changes in grades from the year prior to Hurricane Harvey to the year after despite the new challenges the schools and districts faced.

In Harris County, there were no statistically significant findings in the school rankings data between the 2016-2017 and 2017-2018 school years. There is not evidence that Hurricane Harvey impacted student performance. Table 1 provides the C@R grade information for each of the campuses from Figure 5, the highest economically disadvantaged schools in Harris County after Hurricane Harvey.

In the year prior to Hurricane Harvey, **21%** of **Sue Creech Elementary** students were considered **economically disadvantaged**. The **year after Hurricane Harvey**, that figure jumped to **61%**.<sup>38</sup>

Campus Name	C@R 2018 Grade	C@R 2019 Grade	District
PORT ARANSAS H S	A-	A+	PORT ARANSAS ISD
BRUNDRETT MIDDLE	B+	B+	PORT ARANSAS ISD
OLSEN EL	B	B+	PORT ARANSAS ISD
MONTCLAIR EL	N/A	N/A	CORPUS CHRISTI ISD
CALALLEN CHARTER H S	N/A	N/A	CALALLEN ISD
BROWNE MIDDLE	F	D-	CORPUS CHRISTI ISD
EARLY CHILDHOOD DEVELOPMENT CTR	A-	A	CORPUS CHRISTI ISD
BAKER MIDDLE	C+	B-	CORPUS CHRISTI ISD
GALVAN EL	C+	C+	CORPUS CHRISTI ISD
TULOSO-MIDWAY H S	B-	B	TULOSO-MIDWAY ISD

Table 1-The table shows the C@R School Rankings for 2018 and 2019 for each campus in Figure 5.<sup>39</sup>

## HARVEY'S IMPACT ON CHILDREN

All three Port Aransas ISD schools performed well in C@R's 2019 School Rankings; each achieved Gold Ribbon status for the first time. In fact, Port Aransas High School was the highest performing Gold Ribbon high school in the entire state. These three schools were never eligible to be Gold Ribbon schools previously due to few of their students being considered as economically disadvantaged.<sup>40</sup>

### Conclusion

Schools play an important role in recovery for students and communities after a disaster. Schools are able to provide shelter immediately after a disaster, as well as provide the necessary support systems and resources to help students recover in the long term. It is important to maintain a quality instructional practices and safe environments for children after a traumatic event like Hurricane Harvey. Although Hurricane Harvey had a severe impact across several counties, schools and the students they served were resilient in their recovery efforts and experienced little change in their C@R letter grade from prior to post Hurricane Harvey.

Local and statewide disaster preparedness strategies often do not include schools, nor provide disaster response curriculum resources to help prepare school faculty for their role in crisis management.<sup>18</sup> In order to help prioritize children and the schools that serve them, legislation requiring campuses to have preparedness and response plans in place in the event of a disaster are often recommended. Texas began taking such steps during the 86<sup>th</sup> Legislative Session in 2019, passing House Bill 3 and Senate Bill 500, both of which had measures that addressed schools and disaster preparedness. House Bill 3 provides guidance about what can be done when students are unable to attend school because of a natural disaster (*see Table 3 in 86<sup>th</sup> Texas Legislative Session – Hurricane Harvey*

*Recovery and Disaster Preparedness Bills section of the report*). In particular, HB 3 allows the Commissioner of Education to adjust the average daily attendance for school districts due to disaster, flood, extreme weather conditions, fuel curtailment, or other calamities that have a significant impact on attendance. The adjustment must be comparable to the amount of funding received had the disaster not occurred. The bill also provides details regarding state funding for disaster reimbursement costs for schools, including a two year window to apply for reimbursement through the commissioner. Senate Bill 500 appropriates monetary resources for a wide variety of uses, including appropriating funds from the Texas Rainy Day Fund to cover expenses from Hurricane Harvey. Some of the entities receiving resources are TEA and higher education institutions. These two financial resources now available will allow schools to be better prepared for future storms, as well as allow schools to access resources not available during Hurricane Harvey. These financial resources will ultimately help children recover quicker from the various challenges they may be facing after a disaster, such as increased homelessness, economic disadvantage, or mental health crises.

### Port Aransas ISD Highlight<sup>41</sup>

#### A Legacy of Excellence

Port Aransas, Texas was one of the cities in Texas hardest hit by Hurricane Harvey. The storm caused catastrophic damage to homes and businesses in this popular tourist destination. The Port Aransas Independent School District was no different, as three public schools sustained extensive damage and had to be closed for weeks. This sudden shutting down of schools could have easily hindered the learning and development of the Port Aransas students. However, through community support and dedicated staff members, students were able to successfully continue their studies.

The superintendent of the Port Aransas Independent School District, Sharon McKinney, stated that, after Hurricane Harvey, the schools were closed for seven weeks. While these schools were shut down and being renovated, some students and staff members temporarily relocated to the nearby school district, Flour Bluff ISD, and the Seashore Charter Schools.

Port Aransas students and staff were anxious to get back to their home schools. When the Port Aransas schools reopened in mid-October, the classes were held in portable buildings until January 2018. Parents forced to temporarily relocate their families, drove long distances, in some cases two hours, so their children continue their education with familiar faculty and staff.

The teachers, who were able to return a week before students, were concerned about navigating the experiences of their students and how they would provide necessary gaps. Superintendent McKinney, nevertheless, said that their focus remained on making sure their students achieve a year worth of growth and were promoted to the next grade.

As soon as the Port Aransas schools reopened, 78% of students returned to their designated schools and this number increased to 90% by winter break. James Garrett, Principal of Brundrett Middle School, wanted his students to feel a sense of positivity and excitement as soon as they returned.

Principal Garrett believed that the relatively small number of students enrolled in the Port Aransas schools was helpful with recovery. Brundrett Middle School, for example, has a student population of fewer than 150 students. This smaller student population allows Principal Garrett and other staff members to have one-on-one meetings with students.

This type of guidance was heavily utilized by students after the storm.

Principal Garrett praised the faculty and staff at Brundrett Middle School as they stayed after school, arrived before school, and spent a majority of their free time helping their students examine their emotions and return to normalcy after Hurricane Harvey. Local community members also helped by feeding school staff members and providing additional resources.

Port Aransas schools finished the 2017-2018 year strong, with students performing well on the STAAR tests and student enrollment remaining high. All the school buildings were physically repaired for the 2018-2019 school year. Many students and staff members spent the summer after Hurricane Harvey renovating and moving back into their homes.

Much of the physical damage had been repaired, yet the emotional damage continues to linger, according to Superintendent McKinney, who related that whenever minor flooding or severe rainfall occurred in the area, students and staff members would demonstrate signs of anxiety and panic. The Superintendent recognizes that her students and administration are still undergoing stress.

For Principal Garrett, the 2018-2019 school year has allowed himself, his students, and staff to assist others. Because of all of the generous donations, Brundrett at this point has an abundance clothes and supplies,. Port Aransas ISD administrators and students witnessed hardships that only a few can relate to. However, by having a spirit of perseverance and endurance, they were able to maintain, what Superintendent McKinney calls, a "legacy of excellence."

### Impact on the Mental Health of Children

Mental health plays an essential role in the overall wellbeing of children. Traumatic experiences, such as Hurricane Harvey, can negatively impact a child's mental health. This causes an increase in irritability, aggression, anger, and physical ailments, such as headaches and stomach aches. Traumatic experiences also impact a child's relationship development, school attendance, and motivation which can result in increased disciplinary infractions and poor academic performance.<sup>42</sup>

In Hurricane Harvey's aftermath, children lost their homes and precious possessions such as toys, blankets, and stuffed animals. They experienced a disruption in their routines, had to attend different schools, and may have had to stay in hotels, shelters, and other unfamiliar settings.<sup>43</sup> Children still continue to be surrounded by visuals and reminders of Hurricane Harvey through social media and news outlets. Seeing this footage from the disaster can cause re-traumatization, making it difficult for children to recover if they do not have the resources to healthily cope with their trauma.<sup>44</sup>

The disruptions associated with disasters like Hurricane Harvey can cause a significant impact on the development of a child, especially in young children. This can lead to developmental milestone regression, fear of strangers, and severe anxiety.<sup>45</sup>

There are protective measures, such as the development of a strong support system and coping skills, which help children build resiliency and reduce the negative effects a disaster can have on a child's mental health.<sup>46</sup> After a major disaster, it is important for children to receive the proper support and resources that allow them to build these protective elements.

### Mental Health Resources After Disaster

There are a wide variety of resources to help children and families cope with such trauma and build coping skills to effectively navigate in the future. The resources below highlight commonly accessed options. Many schools and/or child care centers have implemented such programs although as noted previously are not required.

#### *On to Better Health App*

The “On to Better Health App” was created through a partnership between UTHealth and Magellan Health to help survivors cope with the effects of Hurricane Harvey. The app can be used in combination with therapy or by individuals who do not have adequate access to mental health care.<sup>47</sup> The app launched in January of 2019 and provides cognitive behavioral therapy consisting of six modules each targeting a different concern.<sup>48</sup> The specific topics for each module were chosen due to a high rate of these conditions in the population. According to Texas Medical Center’s Shanley Pierce, “these conditions are present in over 25% of all adults and make up 90% of behavioral health complaints.”<sup>49</sup>

#### *Therapeutic Methods*

Individuals and families can access and incorporate several different resources into their daily routine to help process a disaster. There are a variety of therapeutic methods used to treat trauma, including Trauma-Focused Cognitive Behavioral Therapy (TF-CBT), Play Therapy, and Family Play Therapy.

Play Therapy	Family Play Therapy	Trauma-Focused Cognitive Behavioral Therapy
Helps children by establishing a sense of safety, managing symptoms, and retelling the traumatic event.	Parents and children connect on an emotional level. Parents are able to see the world from their child's perspective.	Particularly helpful for PTSD as well as the negative consequences of trauma such as depression, anxiety, and behavioral issues.

Table 4 -Therapeutic methods that children and families can utilize.<sup>50,51,52</sup>

### *Trauma-Informed Practices*

Trauma-Informed Practices for K-12 Schools (TPS) is an interactive role-play simulation program developed through a partnership between Mental Health America (MHA) of Greater Houston, United Nations International Children's Emergency Fund (UNICEF USA), and Kognito, a health simulation company. TPS prepares educators to recognize and respond to trauma with virtual students.<sup>53</sup> The participants in this app program undergo a thirty to forty-five minute session consisting of content provided by trauma experts, teachers, counselors, nurses, and other school-based mental health professionals.<sup>54</sup>

“UNICEF USA funding includes access to the simulation at no cost for all 31 Houston-area school districts and other community and faith-based organizations which are members of MHA of Greater Houston’s Center for School Behavioral Health (CSBH) Collaborative, representing more than 57,000 educators serving 940,000 students.”<sup>55</sup>

### *Harvey Resiliency and Recovery Program*

The Harvey Resiliency and Recovery Program (HRRP) was created through a partnership between the Children’s Health Fund and Texas Children’s Hospital’s Trauma and Grief Center. The program is also supported by the Hurricane Harvey Relief Fund. This program is for children ages seven to seventeen and helps evaluate and treat those who have been exposed to trauma and loss.<sup>56</sup> HRRP also offers screening tools to help others identify those struggling with psychological issues due to Hurricane Harvey.<sup>57</sup> Furthermore, HRRP provides information and resources to caregivers and professionals regarding expectations of children after the hurricane.<sup>58</sup>

### Conclusion

To help mitigate the impacts of traumatic events on mental health, schools and parents should teach children coping skills and focus on building resiliency. Schools and families can prepare for natural disasters by ensuring that mental health resources are available and that children have a safe, nurturing, and loving environment. These steps will help ensure that school communities and families are ready to provide children the mental health resources they need in the event of a disaster.

### ***Harvey Bear Gets Rescued/ El osito HARVEY es rescatado<sup>59</sup>***

When the rain started, Aurora Margarita González de Freire, a teacher in the Houston area, initially thought that Hurricane Harvey would be one of the countless storms that pass through Houston and that she, her family, and her students would be unharmed.

Unfortunately, Harvey would be a much bigger disaster than she imagined.

During Hurricane Harvey, Aurora expressed emotions similar to that of most residents along the Gulf Coast. She watched the water rescues, saw the flooding spread throughout the regions, and began to feel apprehensive. After the storm, these emotions intensified as she was going into her students' neighborhoods to search for those that had not been in contact with her.

Aurora became physically exhausted and emotionally drained. She began to process what she was going through by drawing and sketching on paper. One of these sketches would become a symbol of hope and healing for those who had been traumatized by this particular storm: Harvey Bear.

When she was able to return to work and ready her classroom to receive her students once again, Aurora was instructed to create a lesson for her students that would help them process their trauma. She realized that the Harvey Bear storyboard illustrations could guide her students through the distress they were experiencing.

Using Harvey Bear, she was able to address difficult subjects, such as flooding, evacuating, and shelters. As she read and showed her students the Harvey Bear sketches, the children began to well up with tears. They told her that this story was "their story" and that it needed to be shared with other children and families who are experiencing the same thing.

The encouragement Aurora received from these students inspired her to complete her bilingual children's book, *Harvey Bear Gets Rescued/El osito HARVEY es rescatado*, and share it with others all across the country. Many children responded by writing letters to Aurora, which included their own Harvey Bear drawings and words of gratitude for this beloved character and his book.



This book has been well received not only by children, but also adults who had not yet realized that they also needed a way to process their storm-induced trauma.

Aurora ended her book by letting readers know that Harvey Bear would be okay after the storm. This showed children and parents that if Harvey Bear was able to recover, they could as well. In the future, Aurora hopes that this book can be placed in shelters and be part of standard relief supplies provided to shelter organizations. This way, when children are afflicted by disasters, such as Hurricane Harvey, they can turn to Harvey Bear to help them process their experiences.

She is currently working on writing a second Harvey Bear book that will describe the methods and ways in which Harvey Bear continues to heal during the storm's aftermath. Hopefully, Harvey Bear's message of hope and healing can continue to be shared to all who need a "bear hug" of encouragement during times of difficulty and uncertainty.

#### *Contact Information:*

*Aurora M. Gonzalez de Freire M.Ed*

[www.harveybearauthor.com](http://www.harveybearauthor.com)

### Stories About You: Impact of Hurricane Harvey on Children

SAY: Stories About You (SAY) is an app developed by two former Fort Bend ISD middle school students, who call themselves “The Game Changers.” The app provides a platform for children to share their stories about Hurricane Harvey. In processing their own Hurricane Harvey experiences, the Game Changers realized they could create an app to help others affected by the storm.

The students wanted to create a platform to bring children together and give them a voice. The retelling of a traumatic event is often a helpful way for children to cope after a disaster.<sup>60</sup> The SAY app not only allows children to retell their own story and thereby process their own trauma, it also allows children to read the stories of others so they can find comfort in their shared experience. This aligns well with research in children’s mental health which shows that children require opportunities to feel connected to their peers and express their thoughts and feelings.<sup>61</sup>

The Game Changers hope their app will help children recover and bring awareness to how Harvey and similar tragedies affect children. In addition to assisting children recover emotionally, the Game Changers encourage app users to donate to community organizations still working on Hurricane Harvey recovery as well as those preparing for the next storm.

#### Findings from SAY App

The app contains a survey component that CHILDREN AT RISK used to gather responses from over 90 children across more than 20 zip codes in the greater Houston area to assess the continued impact Hurricane Harvey. The children surveyed are in grades Kindergarten to 12<sup>th</sup> Grade. The survey shows that most respondents are in high school. 89.1% of respondents reported that they currently live in their original house from before the storm while 6.5% report living in a new house. The remaining 4.4%

report living with family, friends, or in apartments. 23% of respondents were required to evacuate during the hurricane.

Furthermore, most of the respondents recorded positive emotions, such as relief or happiness, about adjusting back to school after the storm. However, 25.6% reported feeling stressed and 12.2% reported feeling anxious. 39% expressed that they continue to have feelings of nervousness adjusting back into their regular school routines.

#### Conclusion

The survey results show that the majority of the children had positive recovery experiences, including feeling well adjusted when returning to school and volunteering in their communities. Nonetheless, the survey also brings light to the importance of mental health services, as 40% of children reported feelings of anxiety, stress, and fear.

Mental health services must not only be present immediately following disasters but also as a part of long term recovery. Without proper mental health services and platforms to share their experiences and feelings, such as the SAY app, children will have a more difficult time processing trauma and developing resiliency.

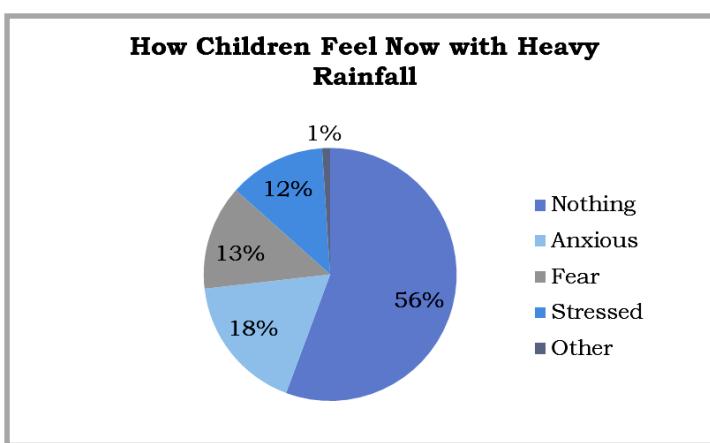
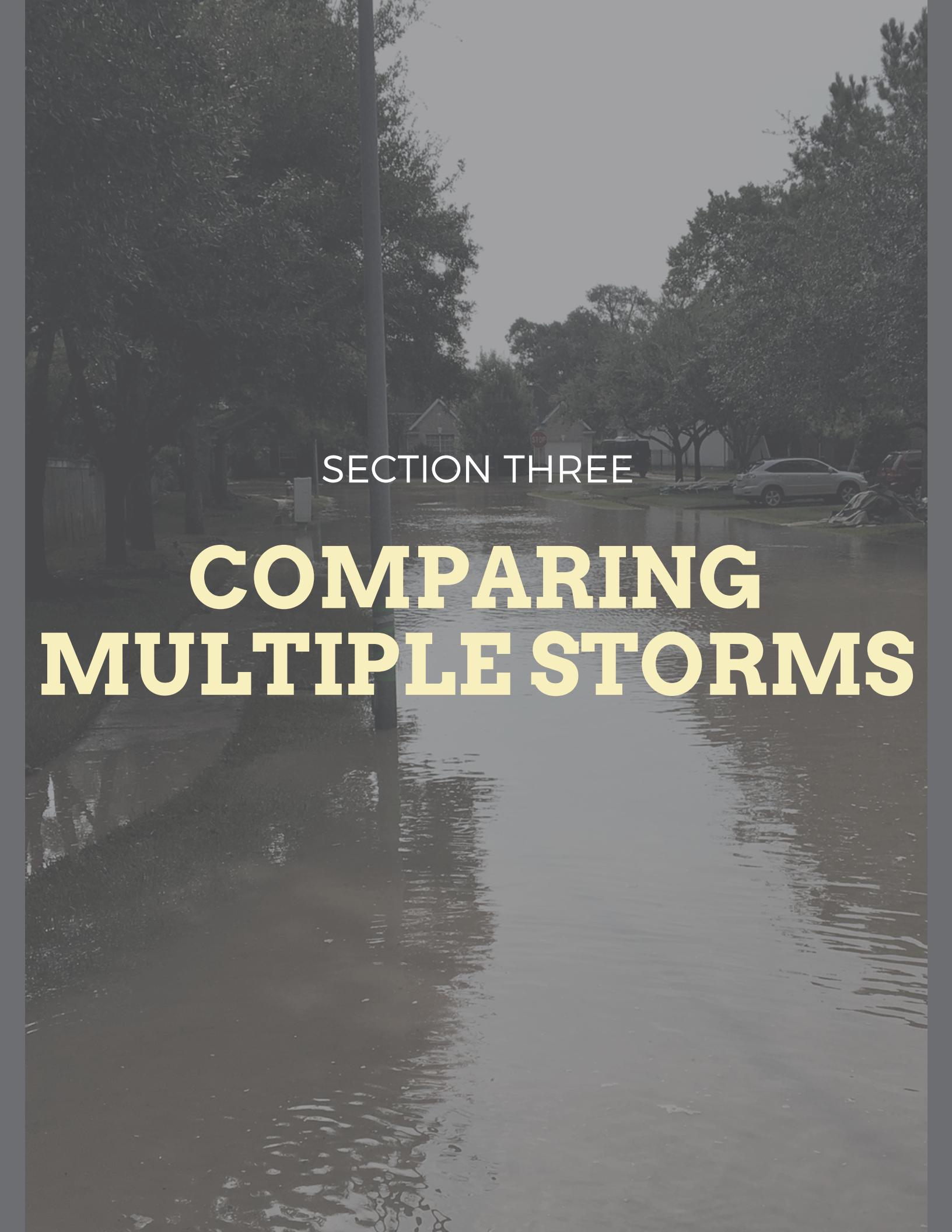


Figure 14– The pie chart displays the percentages of the students that were surveyed through the SAY APP by grade level.

**61% of children responded that they helped their community and family recover from Harvey by: donating needed items, assisting with rebuilding, and assisting in clean up.**



SECTION THREE

# COMPARING MULTIPLE STORMS

# COMPARING MULTIPLE STORMS

## Comparing Multiple Storms

**Table 1: Overview of Storms**

Storm	Tropical Storm Allison	Hurricane Katrina	Hurricane Ike	Hurricane Sandy	Hurricane Harvey
<b>Date of Landfall</b>	June 5, 2001 <sup>1</sup>	August 29, 2005 <sup>2</sup>	September 13, 2008 <sup>3</sup>	October 29, 2012 <sup>4</sup>	August 25, 2017 <sup>5</sup>
<b>Cost of Damage</b>	\$5 Billion <sup>6</sup>	\$161 Billion <sup>7</sup>	\$30 Billion <sup>8</sup>	\$65 Billion <sup>9</sup>	\$125 Billion <sup>10</sup>
<b>Number of People Impacted</b>	2 Million <sup>11</sup>	15 Million <sup>12</sup>	4 Million+ <sup>13</sup>	60 Million <sup>14</sup>	13 Million <sup>15</sup>
<b>Number of Deaths</b>	22 (in Texas) <sup>16</sup>	Over 1500 <sup>17</sup>	74 (in Texas) <sup>18</sup>	Over 159 <sup>19</sup>	94 (in Texas) <sup>20</sup>

*Table 1– Brief details and facts of five natural disasters*

Several major storms have impacted the coastal regions since the start of the 21<sup>st</sup> Century. These storms caused widespread damage, as highlighted in Table 1 above. After each storm, concerns are raised as to whether these regions are equipped to withstand future extreme weather events. This section of the report dives deeper into the impact of these storms and their investments in recovery. It will also identify and examine gaps outstanding and how the state of Texas can eliminate these gaps in preparation for future storms.

### Tropical Storm Allison

Making landfall on June 5, 2001, Tropical Storm Allison moved slowly over the Houston region, producing large amounts of rainfall, and remaining in the area for several days. According to the Harris County Flood Control District (HCFCD), 30,000 individuals had to temporarily relocate to shelters.<sup>21</sup> As shown in Table 2, Tropical Storm Allison exceeded Hurricane Harvey’s massive rainfall totals over the 6, 12, and 24-hour periods in Harris County.<sup>22</sup>

After Tropical Storm Allison, the HCFCD created the Tropical Storm Allison Recovery Project. The estimated cost of the project was \$19 million and funded by FEMA and the HCFCD.<sup>23</sup> The recovery project included newly updated computer models that estimated flood elevations, flood insurance rate maps, and floodplain maps for all of Harris County.

The storm also resulted in the creation of the Tropical Storm Allison Home Buyout program,

which was a more streamlined process compared to previous home buyout programs. The HCFCD purchased homes inside floodplains and converted them into open spaces, such as parks or wetlands, to help reduce the impact of flooding.<sup>24</sup> The Tropical Storm Allison Home Buyout program involved a “fast track” home buyout process with the first buyout purchase being executed about five months after Tropical Storm Allison.<sup>25</sup> Over 200 homes were bought within ten months.<sup>26</sup>

While there were innovative recovery projects that came following Tropical Storm Allison, gaps remain nearly 18 years later. For example, the Harris County flood risk maps that were updated in response to Tropical Storm Allison have not been revised since 2001.<sup>27</sup>

There are also projects produced by government entities after Tropical Storm Allison that have yet to be completed. Project Brays is an example of one of these delayed projects. Construction of Project Brays began in 2001 and consists of 75 individual projects designed to reduce flooding in the Brays Bayou area.<sup>28</sup> Project Brays is now expected to be completed by 2021, 20 years after Tropical Storm Allison made landfall and this project was initiated.<sup>29</sup>

Maximum Amount of Rainfall (inches)		
Duration	Hurricane Harvey	Tropical Storm Allison
6-hour	18.9	21.2
12-hour	20.9	28.3
24-hour	25.6	28.4

*Table 2– The rainfall totals during the 6-hour, 12-hour, and 24-hour periods<sup>30</sup>*

### Tropical Storm Allison Perspective<sup>31</sup>

In 2001, Courtney Reynolds, a native Houstonian, had what she would describe as an “atypical experience” when witnessing a disaster. When Courtney was in the sixth grade, she and her friends went on a mission trip to Galveston. While there, Tropical Storm Allison made landfall, bringing pounding rain and roaring winds.

During the trip, her group was lodged in different beach houses in a time before the popularization of cell phones, Courtney ventured out into the storm with some of her classmates to ensure the safety of the rest of her class. Drenched in water and fighting through the strong winds, Courtney made it to the other beach house with the rest of her classmates as they rode out the rest storm. Thankfully, she and her peers were all fine physically, but for Courtney, this was something that she still continues to process.

For Courtney, Hurricane Harvey was a different experience in comparison to Tropical Storm Allison. While she was not physically impacted by Hurricane Harvey, it was still emotionally draining as she had family and friends evacuate due to flooding. Courtney commended the rapid response from the media and quick mobilization of shelters. Courtney still feels the city is not prepared for the aftermath of another natural disaster, as she follows the slow progress of Hurricane Harvey recovery efforts.

### Hurricane Ike

The damage that occurred due to Hurricane Ike was so unprecedented, that then Houston Police Chief, Harold Hurt, issued a citywide curfew for the first time in the city's history.<sup>32</sup> Federal and state assistance totaled \$1.8 billion and 280 shelters were established.<sup>33</sup> According to FEMA officials, at least 68% of child care centers and family child care homes were damaged.<sup>34</sup> Hurricane Ike also caused approximately \$3.4 billion in total housing damage, with some housing issues having yet to be fixed.<sup>35</sup>

When the Houston Housing Authority director, Tory Gunsoley, learned that the agency would be receiving \$45 million in federal funding, he saw this as an opportunity to build more affordable housing units.<sup>36</sup> Initial plans included building at least 2,000 new housing units across the Houston area that would be funded through HUD.

Ultimately, only \$12 million was spent building 154 affordable housing units due to concerns over where the units would be placed.<sup>37</sup> These concerns came from housing advocates who asserted that putting these housing units in predominately low-income, communities of color would only serve to maintain racial segregation in housing.<sup>38</sup>

The Houston Housing Authority director then envisioned placing these housing units in more affluent neighborhoods. This was met with resistance from residents in these areas as they feared this would lead to a decrease in their property values and an overcrowding of schools.

While millions of Hurricane Ike recovery dollars remain, there is still uncertainty as to how the money will be used and if the money will be reallocated to Congress.<sup>39</sup> Many leaders are worried that the funding reserved for the rebuilding and construction of affordable housing units from Hurricane Harvey will meet the same fate.

### Hurricane Ike Perspective<sup>40</sup>

Dr. Peta-Gay Ledbetter, the Director of Clinical Services for The Alliance Wellness Center, encountered many storms prior to Hurricane Ike. However, after Hurricane Ike, she stated that she was "blessed to be alive." A tornado resulting from the storm system hit her home, damaging the electrical poles in between her home and her neighbor's home. The pole fell into her chimney, damaging the structure, as well as damaging the second story roof of her house. The roof had to be replaced and it took three weeks to get the electricity reinstated.

When Hurricane Harvey hit, she experienced flooding and was unable to leave her subdivision for two weeks. Nonetheless, it was completely different from what she personally experienced from Hurricane Ike. She hopes that, in the future, there will be a more comprehensive and better-organized emergency response plan in place when dealing with disasters such as Hurricane Ike and Hurricane Harvey.

## COMPARING MULTIPLE STORMS

### Hurricane Katrina

Hurricane Katrina flooded over 80% of the city of New Orleans.<sup>41</sup> It is classified as a National Catastrophe that demolished 300,000 homes, displaced 770,000 people, and caused at least ten oil spills.<sup>42</sup> There is a strong agreement among experts that a significant amount of damage and destruction could have been prevented if there were updated and improved preparedness measures in place.

The citywide levee system, which failed, proved to be poorly designed and built using incorrect elevations.<sup>43</sup> The Lake Pontchartrain and Vicinity Hurricane Protection Project system, which includes structures in St. Charles, Jefferson, Orleans, and St. Bernard Parishes, suffered the worst damage as 169 miles of its levees and floodwalls were compromised.<sup>44</sup> Many of the existing pump stations that could have helped remove some of the floodwaters were considered inoperable during and after the storm. A modeling study conducted by the United States Army Corps of Engineers showed that if the levees did not fail and the pump stations were properly utilized, nearly two-thirds of the deaths would not have occurred.<sup>45</sup>

Strong beliefs remain that the risks were not communicated effectively with the public and the importance of evacuating and protecting property was under-estimated.<sup>46</sup> These factors combined to create the conditions for the costliest and one of the deadliest storms in the history of the United States. The federal government spent more than \$120 billion in disaster recovery following Hurricane Katrina; \$76 billion went to projects in Louisiana.<sup>47</sup>

There has been a vast improvement in infrastructure, but it has not come without its challenges. The \$14.6 billion upgrade of the levee system in Louisiana<sup>48</sup> included a concrete surge barrier and the world's largest pump station located in Belle Chasse, Louisiana.<sup>49</sup> Unfortunately, due to the increasing sea levels, these upgraded levees are now beginning to sink. The Army Corps of Engineers has concerns regarding the continued sinking soil and risk of catastrophic storm surges due to increased prevalence

of extreme weather events. If it continues to sink at its current pace, the levee system could stop providing adequate protection in as little as four years.<sup>50</sup> In addition to the unprecedented death toll, Hurricane Katrina had other human effects. Following the storm, a large number of residents evacuated and moved their lives elsewhere. A considerable amount of the New Orleans population moved to the Houston area: Approximately 150,000 residents of New Orleans relocated to Houston and remained in Houston a year after the storm.<sup>51</sup>

Initially, those that evacuated from Hurricane Katrina were welcomed in the Houston area. However, after a few months, the social interactions between Houstonians and Hurricane Katrina evacuees became increasingly hostile and cold.

There were accusations that crime and murder rates were heightened due to Hurricane Katrina evacuees being in the Houston area. While crime rates did increase after Hurricane Katrina evacuees arrived in Houston, there is no data that suggests increased crimes due to the evacuees.<sup>52</sup> Hurricane Katrina evacuees began to feel isolated and discriminated against; some evacuees were so deterred, they moved back to New Orleans.<sup>53</sup> Others stayed in Houston because they saw it as an opportunity to thrive financially and a great place to raise a family.<sup>54</sup>

### Hurricane Katrina Perspective<sup>55</sup>

When Ruby Bullock, who was born and raised in New Orleans, initially heard about the potential extreme effects that Hurricane Katrina could produce, she thought that the likelihood of this happening was improbable. She assumed that it would be one of the many storms that drift through the city.

Ruby decided not to evacuate from New Orleans and continued to go about with her daily activities. After falling asleep as Katrina made landfall, she would wake suddenly to her home being inundated with water. She and two other family members had no choice but to evacuate their home and leave everything behind.

They proceeded to swim in the flooded streets of New Orleans, desperately seeking shelter. They were able to locate an empty high school, that was converted to a temporary shelter, and stayed on the third floor of that facility for seven days.

Unfortunately, Ruby was unable to find any system of communication to contact any out of state family members. As a result, she was considered missing and her family and friends were filled with anxiety.

Thankfully, she and her two other family members were eventually rescued by military personnel, transported to Houston, and made contact with other relatives that lived in the area. For Ruby, Houston was drastically different than New Orleans. However, after some adjusting and learning more about the culture of Houston, she was able to become acquainted with the city. Then, more than ten years later, she was met with a moment of déjà vu as Hurricane Harvey approached the Texas coast.

When Ruby heard about Hurricane Harvey reaching the Houston area, she thought that “it was going to be another Katrina.” She thought back to what she experienced during that catastrophic storm, which caused her to have panic attacks. Fortunately, the house that she and her daughter were living in was not flooded as a result of Hurricane Harvey. Nonetheless, she spent most days looking out of windows and watching the water.

She believed that Houston was prepared for Harvey, but there are still many people who are out of their homes and she still sees debris. She also stated that, after experiencing two fatal storms, she is grateful to be alive and hopes to never witness anything of that magnitude again.

## COMPARING MULTIPLE STORMS

### Hurricane Sandy

Hurricane Sandy damaged at least 650,000 homes and impacted 24 states.<sup>56</sup> On the day it made landfall in New Jersey and New York, more than 1,500 personnel from FEMA were on the ground across the east coast.<sup>57</sup> After the storm, HUD issued its first CDBG-DR in record time, eight days after Congress appropriated the funds.<sup>58</sup>

The State of New York set aside \$838 million for housing programs; New Jersey dispersed \$1.16 billion, and New York City devoted \$648 million.<sup>59</sup> In 2013, the New York City mayor's office created an innovative housing restoration program called the Build it Back Program.<sup>60</sup> Its purpose was to provide money for construction to eligible New Yorkers who sought to rebuild their homes.

Although navigating the process resulted in some applicants withdrawing from the program, those that stayed were successful. According to a report produced by New York City officials, 97% of the 5,962 applicants received their full benefits and completed the repairs on their homes.<sup>61</sup>

The destruction of homes was traumatic for homeowners, and it was also just as stressful for children. According to the Sandy Child and Family Health Study, 42% of children that lived in households with minor damage experienced symptoms of depression, anxiety, and/or insomnia, along with other mental health issues.<sup>62</sup> This sort of instability translated into their places of learning, such as schools and child care centers.

As reported by the Department of Health and Human

Services Office of Inspector General, several child care providers in New York and New Jersey areas stated that they witnessed numerous challenges when trying to rebuild their child care centers.<sup>63</sup> Obstacles included paying for repair services out of pocket and navigating a tedious application process for disaster assistance. These problems only make it harder for children to get back into their normal routine and begin to thoroughly process their trauma.

### Shared Hardships

These cities and states were devastated by different storms, yet they experienced similar challenges in short and long term recovery.

#### *The Inequities of Disaster Recovery*

Natural disasters exacerbate inequities and other issues that low-income communities already face due to factors such as affordable housing, income inequality, and gentrification. People of color and low-income individuals are less likely to have insurance that might assist them when reconstructing their homes.<sup>64</sup>

Table 3, provided by the FEMA Congressional Affairs Division, shows the income disparities between those that live in Special Flood Hazard Areas (SFHA) and those that live outside. These inequalities become more exaggerated when comparing household incomes of those with flood insurance to those without. Lower income households tend to be much less likely to have flood insurance policies. Researchers at FEMA also found that more than 50% of low-income households live in a 100-year floodplain, yet only 26% have coverage through the National Flood Insurance Program (NFIP).<sup>65</sup>

Median Household Income of Policyholders and Non-policyholders (number of households in parentheses)			
	In SFHA	Outside SFHA	Total
<b>Policyholders</b>	\$77,000 (1.8 M)	\$88,00 (1.9 M)	<b>\$82,000 (3.7 M)</b>
<b>Non-policyholders</b>	\$40,000 (3.3 M)	\$56,000 (101.1M)	<b>\$55,000 (104.4M)</b>
<b>All Households</b>	\$50,000 (5.1 M)	\$57,000 (103.0 M)	<b>\$56,000 (108.1 M)</b>

Table 3– This table provides the median incomes of households that possess flood insurance policies and those that do not possess flood insurance policies. It also gives information of households in the SFHA and those that are not in the SFHA.<sup>66</sup>

## COMPARING MULTIPLE STORMS

### *Problems with Housing*

As previously mentioned, these devastating storms only magnified some of the underlying issues, such as limited affordable housing options, that were already in existence. Houston, like many areas, experienced a shortage of affordable housing prior to being struck by disaster.<sup>67</sup>

The effects that Hurricane Harvey had on affordable housing were unparalleled. The Houston Housing Authority stated that there was damage to nearly 5,800 affordable housing units.<sup>68</sup> Some areas now have fewer and more limited affordable housing units to choose from.

In New Orleans, nearly 5,000 affordable housing units were destroyed years after Hurricane Katrina.<sup>69</sup>

Affordable housing units are being rebuilt but on a much slower and smaller scale, which directly impacts lower-income communities. After Hurricane Harvey, the U.S. Department of Housing and Urban Development issued funding for Texas, for the sole purposes of reconstructing homes. However, this money could be redistributed, elsewhere, if it is not spent in a timely manner.<sup>70</sup>

### *Rising Sea Levels*

Sea levels are continuing to rise all across the country. Sea levels intensify factors that contribute to coastal flooding: high tides, storm surge, high waves, and high runoff from rivers and creeks.<sup>71</sup> This is already becoming a problem for New Orleans as rising sea levels are causing the levee protection system to sink.<sup>72</sup>

Sea levels have been increasing faster in the Mid-Atlantic region in states such as Virginia, Maryland, Delaware, and New York. According to experts, if sea levels continue to rise at such a rapid pace, more extreme storm surges could take place in areas such as Lower Manhattan, which would cause 37% of its properties worth \$13 billion to experience significant damage.<sup>73,74</sup>

### *Lack of Prioritization Around Children*

When legislators and government officials analyze measures and protocols addressing the aftermath of a disaster, they tend to overlook many of the problems that directly impact children. After a storm, children experience many levels of trauma they may not know how to process. It was reported that eight months after Hurricane Ike, about 10% of children reported symptoms of depression. An investigation after Hurricane Katrina revealed that about 12% of children showed symptoms of depression and anxiety.<sup>75</sup>

As a result of the destruction of their homes, schools, and child care centers, their normal routines are disrupted while trying to comprehend what they have witnessed and adjust to the new normal. In 2010, the National Commission on Children and Disasters published a report describing the ways disasters affect children, recommending a focus on federal disaster laws and prioritizing children more effectively.<sup>76</sup> However, according to the Save the Children 2015 Report Card, 79% of these recommendations have yet not been implemented by the federal government.<sup>77</sup>

## COMPARING MULTIPLE STORMS

### Hurricane Harvey Successes

There were significant recovery strategies that should be recognized and acknowledged that helped Houston and the Gulf Coast region manage Harvey's impacts.

#### *Usage of Social Media*

Social media was one of the most utilized tools during and after the storm. People used Facebook Live to reach out to others and secure help. Through Twitter, people would tweet out their location to solicit rescues from their homes and spaces that had been flooded. The Twitter account @HarveyRescue was created to provide the names and addresses of those that were unable to evacuate their homes.<sup>78</sup>

After the storm, the City of Houston's Facebook page was very active with postings of recovery updates and resource centers. Social media was a resource that people could use to update their family and friends of their status, allowing for an immediate response to their loved ones. Hurricane Harvey is now described as the first major natural disaster of the social media age.<sup>79</sup>

#### *Volunteer Mobilization*

One aspect of the recovery efforts that continues to receive praise is the immediate response and work ethic of volunteers. Representatives from over 300 volunteer, non-government organizations were in Houston working around the clock trying to provide resources for effected individuals and families.<sup>80</sup>

The nonprofit organization BakerRipley established and operated a shelter at the NRG center for up to 10,000 displaced residents from August 29 to September 23.<sup>81</sup> Some volunteer groups that formed due to Hurricane Harvey have continued to work on disaster relief efforts in areas outside of Texas, such as the Houston Relief Hub which was established to provide clothes, food, and other donations to victims of Hurricane Harvey.<sup>82</sup> Since then, they have done similar work for the victims of Hurricane Maria and Hurricane Michael. Not only did people donate their time, but they also donated monetarily to different nonprofit organizations.

According to a report from Charity Navigator, 5,426,016 individuals donated specifically for Hurricane Harvey relief.<sup>83</sup> By December of 2017, approximately \$743 million had been donated as Hurricane Harvey restricted funding.<sup>84</sup> The selflessness of Texans, many of whom had experienced loss themselves, before and after the storm, should not be forgotten.

#### *Preparedness Measures*

Hurricane Harvey was a wake-up call for many in Texas. In response, local, state, and federal government officials created and proposed policies to ensure preparedness for the next storm.

During the 86<sup>th</sup> Texas Legislative Session, the legislature passed House Bill 5. This law states that the Texas Division of Emergency Management (TDEM) must create a Debris Management Plan and model guide that will be used by cities and counties in the event of a disaster. It allows waste and rubble to be properly disposed of and alleviates the recovery process in afflicted neighborhoods.

The Army Corps of Engineers is also working on improving and renovating the Addicks and Barker reservoirs.<sup>85</sup> They are completing a \$75 million project to replace the gates of both dams. Hopefully, when the next storm arrives, these measures will help protect against further catastrophe.<sup>86</sup>

.

### Potential Projects for Texas

There are many projects specific to the Gulf Coast that have the potential to help with recovery from and preparation for future storms. There are also impactful projects that have been implemented in other states that Texas can implement as well. These projects, which are outlined below, could help Texas become much more resilient to the effects of a natural disaster.

#### *Flood Protection System*

A mechanism that could help the coastal regions of Texas prepare for the next storm is the implementation of a Flood Protection System. This structure would be designed to alleviate and prevent severe flooding. This type of construction is being deliberately considered as the U.S. Army Corps of Engineers is conducting the Coastal Texas Study.<sup>87</sup>

This study involves research and analysis of a potential concrete barrier that would be placed alongside Galveston Bay. Many who live in the Galveston area have expressed concerns about the construction of a flood protection system. Some of the criticisms include the potential for environmental effects and uncertainty as to where the system would be placed.

Environmentalists are worried that the system would interfere with the flow of water which would affect marine life.<sup>88</sup> Residents are concerned that this barrier would decrease their property values or could jeopardize the longevity of the property itself.<sup>89</sup> The Corps of Engineers have taken these comments into consideration as they are continuing to actively work on this project.

The study is expected to be completed by 2021 and will then be sent to Congress, who will approve or deny funding for the project.<sup>90</sup>

#### *Sea-Level Rise Calculator*

Following Hurricane Sandy, the Hurricane Sandy Task Force recommended that a sea level rise calculator be created that includes localized data.<sup>91</sup> This would be used to predict 100-year flood elevations that would be due to sea level rise. This sort of device could be instrumental for the coastal cities as sea levels continue

to rise and infrastructure becomes more susceptible to flooding.

This tool could aid floodplain managers and engineers in incorporating necessary data when designing and constructing new buildings. It could also help those in the community better understand the potential future risks facing their neighborhoods and surrounding areas.

#### *Infrastructure Resilience Guidelines*

The Hurricane Sandy Task Force also recommended that Infrastructure Resilience Guidelines be put in place when repairing communities and neighborhoods.<sup>92</sup> These guidelines are to ensure that federal agencies are incorporating key principles of resiliency into their rebuilding process. They identify seven principles which include long term efficacy and fiscal sustainability, environmentally sustainable and innovative solutions, and comprehensive analysis. When these guidelines are used, it inspires other entities to look at rebuilding and renovation through a resiliency lens.

#### Conclusion

Storms as severe as Hurricane Harvey will certainly impact the Texas Gulf Coast region again, yet our region remains unprepared to handle another intense storm. Unanswered questions and incomplete information related to the aftermath of previous storms that made landfall in Texas still remain. Additionally, the reconstruction of infrastructure and homes continues to be delayed due to the gradual disbursement of funding. However, innovative solutions have been proposed that could help protect the Gulf Coast from future cataclysmic storms.

Individuals and organizations, in Houston and cities within the Gulf Coast region, contributed a substantial amount of time and resources helping their citizens recover. This type of service and generous spirit continues to be a prominent aspect of Hurricane Harvey recovery.

### Conclusion

Texas has taken several large steps in the recovery process during the past two years, but there is still a long road ahead. Federal dollars continue to slowly arrive at the state level. The preparedness and recovery response from the Texas and U.S. governments during Hurricane Harvey improved compared to previous disasters in Texas. However, there are still significant lessons to be learned from Hurricane Harvey for when future disasters strike Texas and other coastline states.

Texans have seen many successes in disaster recovery after Hurricane Harvey. Immediately after the storm, nonprofits devoted countless hours of additional work to help the community and ensure the needs of Texans were being met to the best of their abilities. When comparing Harvey to other storms, those responding to Hurricane Harvey improved upon and utilized resources that were unable to previous storm responders, or which they were unable effectively employ.

These resources include the wide usage of social media to secure help and alert others, as well as for posting recovery updates and resource center information.

Hurricane Harvey is now described as the first major natural disaster of the social media age.

Another success in Hurricane Harvey recovery was volunteer mobilization. Texans immediately responded to the need of their communities and worked tirelessly to provide resources for affected individuals and families, despite experiencing hardships themselves.

Finally, over seventeen proposed bills were passed during the 86<sup>th</sup> legislative session related to Harvey relief and disaster preparedness. This includes bills passed to create monetary accounts for disaster relief, develop projects under the Texas State and Flood Plan (which would be the state's first flood plan), implement an accessible system for Disaster SNAP (D-SNAP) after a storm, and require the Texas Division of Emergency Management to establish local guides for local officials on disaster response and recovery.

While there were many victories present during the Hurricane Harvey Recovery Process, there are still recommendations for key stakeholders to prioritize children's recovery and support.

These recommendations include:

- Creating a more efficient process to begin housing programs using HUD dollars. The first allocation of HUD funding occurred in 2017, for Hurricane Harvey recovery but the programs funded just began in February of 2019.
- Providing state grants or reimbursement of natural disaster expenses to child care facilities that serve low to middle-income communities. These centers are an integral part of the recovery process for many families and children. After Hurricane Harvey, child care centers were not eligible to receive FEMA assistance.
- City officials should establish centers in low-income communities to provide support with FEMA and other types of government aid applications, as well as collaborating with nonprofits that focus on free legal aid. Vulnerable children living in these communities depend on their family's success in navigating the bureaucratic application system, which many are unfamiliar with.

Moving forward, Texas has the opportunity to implement these recommendations to create a safer and more resilient state for the growing population of children during the next disasters.

## Appendix

Acronym	Meaning
ACS	American Community Survey
ADA	Average daily attendance
C@R	CHILDREN AT RISK
CDBG-DR	Community Development Block Grant-Disaster Recovery
CDP	Center for Disaster Philanthropy
CIS	Communities in Schools
CRC	Children's Resiliency Collaborative
D-SNAP	Disaster Supplemental Nutrition Assistance Program
Economic Disadvantage	The count and percentage of students eligible for free or reduced-price lunch, or eligible for other public assistance. The percentage is determined by the number of students eligible for free or reduced-price lunch or other public assistance divided by the total number of students.
ESC	Education Service Centers
FEMA	Federal Emergency Management Administration
GHCF	Greater Houston Community Foundation
GLO	General Land Office
Gold Ribbon School	CHILDREN AT RISK classifies Gold Ribbon as 75% or more of a campus' students must be classified as economically disadvantaged, and the school must receive an A or B grade in C@R's annual school rankings. Gold Ribbon Schools must be traditional public schools; charter and magnet schools are not eligible.
HAP	Housing Assistance Programs
HB	House Bill
HCDD	Housing and Community Development Department
HCFCD	Harris County Flood Control District
HHDRF	Hurricane Harvey Disaster Relief Fund
HHSC	Health and Human Services Commission
HRLG	Harvey Recovery Leadership Group
HRRP	Harvey Resiliency and Recovery Program
HUD	U.S. Department of Housing and Urban Development
ISD	Independent School District
MMHPI	Meadows Mental Health Policy Institute
NFIP	National Flood Insurance Program
NSES	Neighborhood Socioeconomic Status
NWS	National Weather Service
PTSD	Post-Traumatic Stress Disorder
SAY app	Stories About You application
SB	Senate Bill
SBA	Small Business Administration
SFHA	Special Flood Hazard Areas
SNAP	Supplemental Nutrition Assistance Program
Student Mobility	The count and percentage of students who have been in membership at a school for less than 83% of the school year (i.e., missed six or more weeks). The percentage is determined by the number of mobile students divided by the number of students who were in membership at any time during the school year.
TAPR	Texas Academic Performance Reports
TDEM	Texas Division of Emergency Management
TEA	Texas Education Agency
TF-CBT	Trauma-Focused Cognitive Behavioral
TPS	Trauma-Informed Practices
UNICEF	United Nations International Children's Emergency Fund

# Endnotes

---

## Executive Summary

- 1 Amadeo, K. (2019, June 25). Hurricane Harvey Shows How Climate Change Can Impact the Economy. Retrieved from <https://www.thebalance.com/hurricane-harvey-facts-damage-costs-4150087>
- 2 Blake, E. S., & Zelinsky, D. A. (2018, May 9). *National Hurricane Center Tropical Cyclone Report/ Harvey* (Rep. No. AL092017). Retrieved from [https://www.nhc.noaa.gov/data/tcr/AL092017\\_Harvey.pdf](https://www.nhc.noaa.gov/data/tcr/AL092017_Harvey.pdf)
- 3 Governor Greg Abbott Extended The State Disaster Declaration In June 2019 For Texas Counties Affected By Hurricane Harvey. (2019, June 6). Retrieved from <https://gov.texas.gov/news/post/governor-greg-abbott-extended-the-state-disaster-declaration-in-june-2019-for-texas-counties-affected-by-hurricane-harvey>
- 4 CHILDREN AT RISK (2018). *Still at Risk: Children One Year After Hurricane Harvey*(Rep.). TX.
- 5 H. (2018, August 27). Harvey charities. Retrieved from [https://public.flourish.studio/story/13234/?utm\\_source=showcase&utm\\_campaign=story/13234](https://public.flourish.studio/story/13234/?utm_source=showcase&utm_campaign=story/13234)
- 6 HUD Provides \$652 Million To Texas In Harvey Recovery Funds. (2019, February 25). Retrieved from <https://gov.texas.gov/news/post/hud-provides-652-million-to-texas-in-hurricane-harvey-recovery-funds>
- 7 NASW/TX 86th Legislative Session Wrap-Up Released. (2019, July 8). Retrieved from <https://www.naswtx.org/news/459829/NASWTX-86th-Legislative-Session-Wrap-up-Released.htm>
- 8 Landin, T. (2019, June 20). 86th Legislative Session Summary. Retrieved from <https://www.houston.org/news/86th-legislative-session-summary>
- 9 Rubio, J., Gleason, R., & Despart, Z. (n.d.). Harris County's \$2.5 billion flood bond: Search the projects in your neighborhood. Retrieved from <https://projects.houstonchronicle.com/flooding/2018-harvey-bonds/>
- 10 Texas Legislature Online. (n.d.). Retrieved from <https://capitol.texas.gov/Search/> Search ‘Harvey’
- 11 Harvey Damage and Vulnerable Populations [Map]. (n.d.). Retrieved from <http://cfchildren.maps.arcgis.com/apps/View/>
- 12 Australia, Government of Western Australia, Department of Communities. (n.d.). *Child Development and Trauma Guide*. Retrieved from <https://www.dcp.wa.gov.au/ChildProtection/ChildAbuseAndNeglect/Documents/ChildDevelopmentAndTraumaGuide.pdf>
- 13 Fernandez, M., & Panich-linsman, I. (2018, September 03). A Year After Harvey, Houston's Poorest Neighborhoods Are Slowest to Recover. Retrieved from <https://www.nytimes.com/2018/09/03/us/hurricane-harvey-houston.html>
- 14 Dym Bartlett, J., & Steber, K. (2019, May 09). How to Implement Trauma-informed Care to Build Resilience to Childhood Trauma. Retrieved from <https://www.childtrends.org/publications/how-to-implement-trauma-informed-care-to-build-resilience-to-childhood-trauma>
- 15 Flooding & Floodplains. (n.d.). Retrieved from <https://www.hcfcd.org/flooding-floodplains/storm-center/tropical-storm-allison-2001/>
- 16 *Off The Charts: Tropical Storm Allison Public Report* (Rep.). (n.d.). TX.
- 17 Flooding & Floodplains. (n.d.). Retrieved from <https://www.hcfcd.org/flooding-floodplains/storm-center/hurricane-ike-2008/>
- 18 Berg, R. (2014). *Tropical Cyclone Report/ Hurricane Ike* (Rep. No. AL092008). Retrieved from [https://www.nhc.noaa.gov/data/tcr/AL092008\\_Ike.pdf](https://www.nhc.noaa.gov/data/tcr/AL092008_Ike.pdf)
- 19 Thomas, J., & DeWeese, J. (2015). *Reimagining New Orleans Post-Katrina: A Case Study in Using Disaster Recovery Funds to Rebuild More Resiliently* (Rep.). Retrieved from [https://www.georgetownclimate.org/files/report/GCC-Reimagining\\_New\\_Olivia\\_Post\\_Katrina-August2015-Final.pdf](https://www.georgetownclimate.org/files/report/GCC-Reimagining_New_Olivia_Post_Katrina-August2015-Final.pdf)
- 20 Hussey, A., Nikolsko-Rzhevskyy, A., & Pacurar, I. (n.d.). *Crime Spillovers and Hurricane Katrina*(Rep.). University of Memphis.
- 21 Sturges, W. (2017, September 13). Ask the editor: How did Harvey affect Conroe ISD? Retrieved from <https://communityimpact.com/houston/education/2017/09/13/ask-editor-hurricane-harvey-affect-conroe-isd/>
- 22 Abramson, David & Van Alst, Donna & Merdjanoff, Alexis & Piltch-Loeb, Rachael & Beedasy, Jaishree & Findley, Patricia & Peek, Lori & Mordy, Meghan & Moroso, Sandra & Ocasio, Kerrie & Park, Yoon Soo & Sury, Jonathan & Tobin-Gurley, Jennifer. The Hurricane Sandy person report: Disaster exposure, health impacts, economic burden, and social well-being. Retrieved from <https://doi.org/doi:10.7282/T3DF6T1Z>
- 23 Hurricane Harvey: Kingwood Information. (n.d.). Retrieved from <https://www.hcfcd.org/hurricane-harvey/kingwood-information/>
- 24 Recovery Programs. (n.d.). Retrieved from <https://recovery.houstontx.gov/programs/>
- 25 United States, City of Houston, Housing and Community Development Department. (2018). *The Harvey Data Project*. Houston, TX.
- 26 Swaby, A. (2017, November 27). Without recovery funds, more than 50 Texas day cares close after Harvey. Retrieved from <https://www.texastribune.org/2017/11/27/texas-child-care-centers-storm/>

## **Endnotes**

---

### **Introduction**

- 1 Amadeo, K. (2019, June 25). Hurricane Harvey Shows How Climate Change Can Impact the Economy. Retrieved from <https://www.thebalance.com/hurricane-harvey-facts-damage-costs-4150087>
- 2 Governor Greg Abbott Extended The State Disaster Declaration In June 2019 For Texas Counties Affected By Hurricane Harvey. (2019, June 6). Retrieved from <https://gov.texas.gov/news/post/governor-greg-abbott-extended-the-state-disaster-declaration-in-june-2019-for-texas-counties-affected-by-hurricane-harvey>
- 3 CHILDREN AT RISK (2018). *Still at Risk: Children One Year After Hurricane Harvey*(Rep.). TX.

# Endnotes

---

## Long Term Recovery

- 1 Hurricane Harvey temporary housing program extended until August 2019. (2018, November 30). Retrieved from <https://www.fema.gov/news-release/2018/11/30/hurricane-harvey-temporary-housing-program-extended-until-august-2019>
- 2 Willis, A. (2019, May 17). Texans in Congress push for release of billions in Harvey aid approved more than a year ago. Retrieved from <https://www.texastribune.org/2019/05/17/texans-congress-push-release-billions-harvey-aid-approved-more-year-ag/>
- 3 Trenberth, K. E., Cheng, L., Jacobs, P., Zhang, Y., & Fasullo, J. (2018). Hurricane Harvey Links to Ocean Heat Content and Climate Change Adaptation. *Earth's Future*, 6(5), 730-744. doi:10.1029/2018ef000825
- 4 Banholzer, S., Kossin, J., & Donner, S. (2014). The Impact of Climate Change on Natural Disasters.
- 5 Energy and Environmental Affairs. (2011). *Massachusetts climate change adaptation report*. Boston, MA: Commonwealth of Massachusetts, Executive Office of Energy and Environmental Affairs.
- 6 Table 1
- 7 H. (2018, August 27). Harvey charities. Retrieved from [https://public.flourish.studio/story/13234/?utm\\_source=showcase&utm\\_campaign=story/13234](https://public.flourish.studio/story/13234/?utm_source=showcase&utm_campaign=story/13234)
- 8 Landin, T. (2019, June 20). 86th Legislative Session Summary. Retrieved from <https://www.houston.org/news/86th-legislative-session-summary>
- 9 Landin, T. (2019, June 20). 86th Legislative Session Summary. Retrieved from <https://www.houston.org/news/86th-legislative-session-summary>
- 10 Housing Advocates/HRLG Meeting
- 11 Rubio, J., Gleason, R., & Despart, Z. (n.d.). Harris County's \$2.5 billion flood bond: Search the projects in your neighborhood. Retrieved from <https://projects.houstonchronicle.com/flooding/2018-harvey-bonds/>
- 12 Table 1 and H. (2018, August 27). Harvey charities. Retrieved from [https://public.flourish.studio/story/13234/?utm\\_source=showcase&utm\\_campaign=story/13234](https://public.flourish.studio/story/13234/?utm_source=showcase&utm_campaign=story/13234)
- 13 1 year after Harvey: How have the hundreds of billions of federal relief, donations been distributed? (n.d.). Retrieved from <https://www.accuweather.com/en/weather-news/hurricane-harvey-an-analysis-of-the-trail-of-donations/70005787>
- 14 1 year after Harvey: How have the hundreds of billions of federal relief, donations been distributed? (n.d.). Retrieved from <https://www.accuweather.com/en/weather-news/hurricane-harvey-an-analysis-of-the-trail-of-donations/70005787>
- 15 Community Development Block Grant Disaster Recovery Program. (n.d.). Retrieved from <https://www.hudexchange.info/programs/cdbg-dr/>
- 16 Willis, A. (2019, May 17). Texans in Congress push for release of billions in Harvey aid approved more than a year ago. Retrieved from <https://www.texastribune.org/2019/05/17/texans-congress-push-release-billions-harvey-aid-approved-more-year-ag/>
- 17 Texas Receives \$5 Billion Grant From Department Of Housing And Urban Development For Disaster Recovery. (n.d.). Retrieved from <https://gov.texas.gov/news/post/texas-receives-5-billion-grant-from-department-of-housing-and-urban-development-for-disaster-recovery>
- 18 HUD Provides \$652 Million To Texas In Hurricane Harvey Recovery Funds. (2019, February 25). Retrieved from <https://gov.texas.gov/news/post/hud-provides-652-million-to-texas-in-hurricane-harvey-recovery-funds>
- 19 Campbell, P. (2018, June 25). HUD Approves \$5 Billion Texas Disaster Recovery Plan. Retrieved from [https://www.hud.gov/press/press\\_releases\\_media\\_advisories/HUD\\_No\\_18\\_060](https://www.hud.gov/press/press_releases_media_advisories/HUD_No_18_060)
- 20 HUD Provides \$652 Million To Texas In Hurricane Harvey Recovery Funds. (2019, February 25). Retrieved from <https://gov.texas.gov/news/post/hud-provides-652-million-to-texas-in-hurricane-harvey-recovery-funds>
- 21 Disaster Loan Information. (n.d.). Retrieved from <https://disasterloan.sba.gov/ela/Information/Index>
- 22 TX 15274-20 SBA Tops \$3 Billion in Disaster Assistance Loans to Businesses and Residents Impacted by Hurricane Harvey: The U.S. Small Business Administration. (n.d.). Retrieved from <https://www.sba.gov/content/tx-15274-20-sba-tops-3-billion-disaster-assistance-loans-businesses-and-residents-impacted>
- 23 TX 15274-20 SBA Tops \$3 Billion in Disaster Assistance Loans to Businesses and Residents Impacted by Hurricane Harvey: The U.S. Small Business Administration. (n.d.). Retrieved from <https://www.sba.gov/content/tx-15274-20-sba-tops-3-billion-disaster-assistance-loans-businesses-and-residents-impacted>
- 24 Disaster Loan Information. (n.d.). Retrieved from <https://disasterloan.sba.gov/ela/Information/Index>
- 25 *Individuals and Households Program Fact Sheet* (Rep.). (n.d.). FEMA.
- 26 *Individuals and Households Program Fact Sheet* (Rep.). (n.d.). FEMA.

# Endnotes

---

## Long Term Recovery

- 27 H. (2018, August 27). Harvey charities. Retrieved from [https://public.flourish.studio/story/13234/?utm\\_source=showcase&utm\\_campaign=story/13234](https://public.flourish.studio/story/13234/?utm_source=showcase&utm_campaign=story/13234)
- 28 Housing Advocates/HRLG Meeting
- 29 Interview with Melanie Fahey
- 30 *One Million Lives and Counting: 18 month report* (Rep.). (2019). Rebuild Texas Fund.
- 31 Housing Advocates/HRLG Meeting
- 32 Interview with Melanie Fahey
- 33 1 year after Harvey: How have the hundreds of billions of federal relief, donations been distributed? (n.d.). Retrieved from <https://www.accuweather.com/en/weather-news/hurricane-harvey-an-analysis-of-the-trail-of-donations/70005787>
- 34 Rubio, J., Gleason, R., & Despart, Z. (n.d.). Harris County's \$2.5 billion flood bond: Search the projects in your neighborhood. Retrieved from <https://projects.houstonchronicle.com/flooding/2018-harvey-bonds/>
- 35 2018 Bond Program. (n.d.). Retrieved from <https://www.hcfcd.org/2018-bond-program/>
- 36 2018 Bond Program. (n.d.). Retrieved from <https://www.hcfcd.org/2018-bond-program/>
- 37 2018 Bond Program. (n.d.). Retrieved from <https://www.hcfcd.org/2018-bond-program/>
- 38 2018 Bond Program. (n.d.). Retrieved from <https://www.hcfcd.org/2018-bond-program/>
- 39 2018 Bond Program. (n.d.). Retrieved from <https://www.hcfcd.org/2018-bond-program/>
- 40 2018 Bond Program. (n.d.). Retrieved from <https://www.hcfcd.org/2018-bond-program/>
- 41 Bludau, J. (2019, May 08). What's being done with the \$2.5 billion flood bond Harris County voters approved? Retrieved from <https://www.khou.com/article/news/local/whats-being-done-with-the-25-billion-flood-bond-harris-county-voters-approved/>
- 42 Bludau, J. (2019, May 08). What's being done with the \$2.5 billion flood bond Harris County voters approved? Retrieved from <https://www.khou.com/article/news/local/whats-being-done-with-the-25-billion-flood-bond-harris-county-voters-approved/>
- 43 Bludau, J. (2019, May 08). What's being done with the \$2.5 billion flood bond Harris County voters approved? Retrieved from <https://www.khou.com/article/news/local/whats-being-done-with-the-25-billion-flood-bond-harris-county-voters-approved/>
- 44 Analysis of Nonprofit Interviews
- 45 Coleman,, R., Chair. (2018, February 06). Baker Ripley Testimony. Retrieved from <https://capitol.texas.gov/tlodocs/85R/handouts/C2102018020609151/8e5abe10-7b6f-46eb-8966-8ff5362bee25.PDF>
- 46 Analysis of Nonprofit Interviews
- 47 Analysis of Nonprofit Interviews
- 48 Analysis of Nonprofit Interviews
- 49 Analysis of Nonprofit Interviews
- 50 Analysis of Nonprofit Interviews
- 51 Analysis of Nonprofit Interviews
- 52 Analysis of Nonprofit Interviews
- 53 Analysis of Coalition Interviews
- 54 Analysis of Coalition Interviews
- 55 Analysis of Coalition Interviews
- 56 *City of Houston Local Action Plan Summary* (Rep.). (2018). Houston, TX.
- 57 Analysis of Coalition Interviews
- 58 Analysis of Coalition Interviews
- 59 Analysis of Coalition Interviews
- 60 Texas Legislature Online. (n.d.). Retrieved from <https://capitol.texas.gov/Search/harvey>
- 61 HB 3, Bicameral Body, 86<sup>th</sup> Legislative Session, (TX 2018)
- 62 HB 5, Bicameral Body, 86<sup>th</sup> Legislative Session, (TX 2018)
- 63 HB 6, Bicameral Body, 86<sup>th</sup> Legislative Session, (TX 2018)
- 64 HB 7, Bicameral Body, 86<sup>th</sup> Legislative Session, (TX 2018)
- 65 SB 6, Bicameral Body, 86<sup>th</sup> Legislative Session, (TX 2018)
- 66 SB 7, Bicameral Body, 86<sup>th</sup> Legislative Session, (TX 2018)

## Endnotes

---

### Long Term Recovery

- 67 HB 26, Bicameral Body, 86<sup>th</sup> Legislative Session, (TX 2018)
- 68 HB 109, Bicameral Body, 86<sup>th</sup> Legislative Session, (TX 2018)
- 69 SB 443, Bicameral Body, 86<sup>th</sup> Legislative Session, (TX 2018)
- 70 SB 500, Bicameral Body, 86<sup>th</sup> Legislative Session, (TX 2018)
- 71 HB 1028, Bicameral Body, 86<sup>th</sup> Legislative Session, (TX 2018)
- 72 HB 2315, Bicameral Body, 86<sup>th</sup> Legislative Session, (TX 2018)
- 73 HB 2325, Bicameral Body, 86<sup>th</sup> Legislative Session, (TX 2018)
- 74 HB 2330, Bicameral Body, 86<sup>th</sup> Legislative Session, (TX 2018)
- 75 HB 2335, Bicameral Body, 86<sup>th</sup> Legislative Session, (TX 2018)
- 76 HB 3668, Bicameral Body, 86<sup>th</sup> Legislative Session, (TX 2018)
- 77 CHILDREN AT RISK (2018). *Still at Risk: Children One Year After Hurricane Harvey* (Rep.). TX.
- 78 HB 3, Bicameral Body, 86<sup>th</sup> Legislative Session, (TX 2018)
- 79 HB 3, Bicameral Body, 86<sup>th</sup> Legislative Session, (TX 2018)
- 80 How'd the 86th Texas Legislature do? [Analysis]. (2019, June 03). Retrieved from <https://www.houstonchronicle.com/opinion/editorials/article/How-d-the-86th-Texas-Legislature-do-Analysis-13922924.php>
- 81 SB 7, Bicameral Body, 86<sup>th</sup> Legislative Session, (TX 2018)
- 82 Anchondo, C. (2019, May 27). Legislation with \$1.7 billion for flood control and mitigation projects goes to governor. Retrieved from <https://www.texastribune.org/2019/05/26/lawmakers-approve-bill-to-help-fund-floor-control-projects-in-texas/>
- 83 Foxhall, E. (2017, November 22). After 3 months, removal of Harvey debris nears end. Retrieved from <https://www.houstonchronicle.com/news/houston-texas/houston/article/After-3-months-removal-of-Harvey-debris-nears-end-12376149.php>
- 84 SB 6, Bicameral Body, 86<sup>th</sup> Legislative Session, (TX 2018)
- 85 How'd the 86th Texas Legislature do? [Analysis]. (2019, June 03). Retrieved from <https://www.houstonchronicle.com/opinion/editorials/article/How-d-the-86th-Texas-Legislature-do-Analysis-13922924.php>
- 86 SB 8, Bicameral Body, 86<sup>th</sup> Legislative Session, (TX 2018)
- 87 SB 8, Bicameral Body, 86<sup>th</sup> Legislative Session, (TX 2018)
- 88 Kolkhorst touts successful legislative session for Senate District 18. (n.d.). <http://sealynews.com/stories/kolkhorst-touts-successful-legislative-session-for-senate-district-18,81586>
- 89 SB 500, Bicameral Body, 86<sup>th</sup> Legislative Session, (TX 2018)
- 90 Miles, J. (2017, September 30). People wait for hours for Harvey disaster food benefits. Retrieved from <https://www.khou.com/article/weather/harvey-help/people-wait-for-hours-for-harvey-disaster-food-benefits/479657534>
- 91 Mayor of Port Aransas Interview and Torres, C. (2019, January 04). Hurricane Harvey: 25 percent of Port Aransas still in repair. Retrieved from <https://kristv.com/news/local-news/2019/01/04/hurricane-harvey-25-percent-of-port-aransas-still-in-repair/>
- 92 Mayor of Rockport Interview

## Endnotes

---

### Harvey's Impact on Children

- 1 CHILDREN AT RISK (2018). *Still at Risk: Children One Year After Hurricane Harvey* (Rep.). TX.
- 2 Cohen, D. (2019, July 15). 94.7M Americans Live in Coastline Regions. Retrieved from <https://www.census.gov/library/stories/2019/07/millions-of-americans-live-coastline-regions.html>
- 3 Cohen, D. (2019, July 15). 94.7M Americans Live in Coastline Regions. Retrieved from <https://www.census.gov/library/stories/2019/07/millions-of-americans-live-coastline-regions.html>
- 4 C. (2019). Harris County Child Care Centers. Retrieved July 28, 2019, from [https://childcarecenter.us/county/harris\\_tx](https://childcarecenter.us/county/harris_tx)
- 5 *Save the Children's Response and Recovery for Children and Families after Hurricane Harvey* (Rep.). (2018). Save the Children.
- 6 Collaborative for Children
- 7 C. (2019). Harris County Child Care Centers. Retrieved July 28, 2019, from [https://childcarecenter.us/county/harris\\_tx](https://childcarecenter.us/county/harris_tx)
- 8 Interview with Children's Coalition of Aransas County
- 9 Recovery: Hurricane Harvey. (n.d.). Retrieved from <https://usa.childcareaware.org/advocacy-public-policy/crisis-and-disaster-resources/harvey/>
- 10 Interview with Children's Coalition of Aransas County
- 11 Save the Children (2018) *Save the Children's Response and Recovery for Children and Families after Hurricane Harvey* (Rep.).
- 12 Collaborative for Children
- 13 Clavery, D. (2017, July 27). Neighborhood Socioeconomic Status Index. Retrieved from <https://www.arcgis.com/home/item.html?id=c9fcad275db846838e747e417a66ca7a>
- 14 Collaborative for Children
- 15 Collaborative for Children
- 16 Collaborative for Children
- 17 CHILDREN AT RISK (2018). *Still at Risk: Children One Year After Hurricane Harvey* (Rep.). TX.
- 18 Mutch, C. (2014). The role of schools in disaster preparedness, response and recovery: What can we learn from the literature? *Pastoral Care in Education*, 32 (1). doi:10.1080/02643944.2014.880123
- 19 Analysis of Data from TEA. (2018). *2017-18 Texas Academic Performance Reports*. Retrieved from <https://rptsvr1.tea.texas.gov/perfreport/tapr/2018/index.html>
- 20 Noll, S., & Kuzydym, S. (2017, November 23). Months after Harvey, tens of thousands of students remain homeless. Retrieved from <https://www.khou.com/article/news/investigations/months-after-harvey-tens-of-thousands-of-students-remain-homeless/>
- 21 Sparks, S. D. (2019, May 14). Student Mobility: How It Affects Learning. Retrieved from <https://www.edweek.org/ew/issues/student-mobility/index.html>
- 22 Sparks, S. D. (2019, May 14). Student Mobility: How It Affects Learning. Retrieved from <https://www.edweek.org/ew/issues/student-mobility/index.html>
- 23 American Psychological Association. (n.d.). Education and Socioeconomic Status. Retrieved from <https://www.apa.org/pi/ses/resources/publications/education>
- 24 TEA. (2018). *2017-18 Texas Academic Performance Reports*. Retrieved from <https://rptsvr1.tea.texas.gov/perfreport/tapr/2018/index.html>
- 25 Analysis of Data from TEA. (2018). *2017-18 Texas Academic Performance Reports*. Retrieved from <https://rptsvr1.tea.texas.gov/perfreport/tapr/2018/index.html>
- 26 Firesteel. (2014, September 17). Homelessness and Academic Achievement: The Impact of Childhood Stress on School Performance: Part Three in Our Homelessness in the Classroom Series. Retrieved from <http://firesteelwa.org/2014/09/homelessness-and-academic-achievement-the-impact-of-childhood-stress-on-school-performance/>
- 27 Noll, S., & Kuzydym, S. (2017, November 23). Months after Harvey, tens of thousands of students remain homeless. Retrieved from <https://www.khou.com/article/news/investigations/months-after-harvey-tens-of-thousands-of-students-remain-homeless/>
- 28 Van Hamersveld, C. (2019, April 24). Rethinking K-12 Library Services after Hurricane Harvey. Retrieved from [https://www1.pasadenaisd.org/about/news/current\\_news/rethinking\\_k-12\\_library\\_services\\_after\\_harvey](https://www1.pasadenaisd.org/about/news/current_news/rethinking_k-12_library_services_after_harvey)
- 29 Analysis of Data from TEA. (2018). *2017-18 Texas Academic Performance Reports*. Retrieved from <https://rptsvr1.tea.texas.gov/perfreport/tapr/2018/index.html>
- 30 Summer, J. (2018, August 22). Montgomery County continues to tally costs to rebuild after Hurricane Harvey. Retrieved from <https://www.yourconroenews.com/neighborhood/moco/news/article/Montgomery-County-continues-to-tally-costs-to.php>
- 31 Iracheta, M. (2018, April 06). CISD: Homeless students in district double after Harvey. Retrieved from <https://www.chron.com/neighborhood/woodlands/schools/article/CISD-Homeless-students-in-district-double-after-12813054.php>
- 32 Rogers, J. (2018, August 27). Montgomery County region seeking federal funds for Harvey relief. Retrieved from <https://communityimpact.com/houston/conroe-montgomery/news/2018/08/21/region-seeking-federal-funds-for-harvey-relief/>
- 33 Lai, B. S., Esnard, A., Lowe, S. R., & Peek, L. (2016, October 24). Schools and Disasters: Safety and Mental Health Assessment and Interventions for Children. Retrieved from <https://par.nsf.gov/servlets/purl/10025972>

## Endnotes

---

### Harvey's Impact on Children

- 34 Swaby, A. (2017, October 11). Texas creates task force to address students' post-Harvey trauma. Retrieved from <https://www.texastribune.org/2017/10/11/mental-health-harvey-tea-partnership/>
- 35 Housing Assistance Program (HAP) Application Pipeline (Rep.). (2019).
- 36 Center for School Behavioral Health at Mental Health America of Greater Houston. (n.d.). Greater Houston Area Post-Harvey Trauma-Informed Training and Counseling Services. Retrieved from <https://www.esc4.net/Assets/greater-houston-area-post-harvey-trauma-training.pdf>
- 37 Interview with Wendy Wiseburn
- 38 Analysis of Data from TEA. (2018). *2017-18 Texas Academic Performance Reports*. Retrieved from <https://rptsvr1.tea.texas.gov/perfreport/tapr/2018/index.html>
- 39 CHILDREN AT RISK School Rankings for 2018 and 2019
- 40 Analysis of Data from TEA. (2018). *2017-18 Texas Academic Performance Reports*. Retrieved from <https://rptsvr1.tea.texas.gov/perfreport/tapr/2018/index.html>
- 41 Interview with Principal of Brundrett Middle School, James Garrett; Interview with Superintendent of Port Aransas ISD, Sharon McKinney; and CHILDREN AT RISK School Rankings for 2018 and 2019
- 42 Saxton, J. (n.d.). *Student Mental Health After The Storm* (Rep.). 2017: Texans Care for Children.
- 43 *Hurricane Harvey's Impact on the Mental Health of Children, Youth and Adults* (Rep.). (n.d.). Texas Education Agency.
- 44 *Behavioral Health Conditions in Children and Youth Exposed to Natural Disasters* (Rep.). (2018). SAMHSA.
- 45 *Behavioral Health Conditions in Children and Youth Exposed to Natural Disasters* (Rep.). (2018). SAMHSA.
- 46 Dym Bartlett, J., & Steber, K. (2019, May 9). How to Implement Trauma-informed Care to Build Resilience to Childhood Trauma. Retrieved from <https://www.childtrends.org/publications/how-to-implement-trauma-informed-care-to-build-resilience-to-childhood-trauma>
- 47 Dym Bartlett, J., & Steber, K. (2019, May 9). How to Implement Trauma-informed Care to Build Resilience to Childhood Trauma. Retrieved from <https://www.childtrends.org/publications/how-to-implement-trauma-informed-care-to-build-resilience-to-childhood-trauma>
- 48 Lake, D. M. (n.d.). Tips for behavioral therapy just a click away in free program. Retrieved April 4, 2019, from <https://www.uth.edu/news/story.htm?id=7e76a664-f6a5-46e1-82ea-e2d80155ca16>
- 49 Lake, D. M. (n.d.). Tips for behavioral therapy just a click away in free program. Retrieved April 4, 2019, from <https://www.uth.edu/news/story.htm?id=7e76a664-f6a5-46e1-82ea-e2d80155ca16>; Pierce, S. (2019, March 4). Replacing a pill with an app. Retrieved from <https://www.tmc.edu/news/2019/03/replacing-a-pill-with-an-app/>
- 50 *Behavioral Health Conditions in Children and Youth Exposed to Natural Disasters* (Rep.). (2018). SAMHSA.
- 51 Baggerly, J., & Exum, H. A. (2007). Counseling Children After Natural Disasters: Guidance for Family Therapists. *The American Journal of Family Therapy*, 36(1), 79-93. doi:10.1080/01926180601057598
- 52 Baggerly, J., & Exum, H. A. (2007). Counseling Children After Natural Disasters: Guidance for Family Therapists. *The American Journal of Family Therapy*, 36(1), 79-93. doi:10.1080/01926180601057598
- 53 About Trauma-Focused Cognitive Behavior Therapy. (n.d.). Retrieved from <https://tfcbt.org/about-tfcbt/>
- 54 Lake, D. M. (n.d.). Tips for behavioral therapy just a click away in free program. Retrieved April 4, 2019, from <https://www.uth.edu/news/story.htm?id=7e76a664-f6a5-46e1-82ea-e2d80155ca16>; Pierce, S. (2019, March 4). Replacing a pill with an app. Retrieved from <https://www.tmc.edu/news/2019/03/replacing-a-pill-with-an-app/>
- 55 Baggerly, J., & Exum, H. A. (2007). Counseling Children After Natural Disasters: Guidance for Family Therapists. *The American Journal of Family Therapy*, 36(1), 79-93. doi:10.1080/01926180601057598
- 56 Baggerly, J., & Exum, H. A. (2007). Counseling Children After Natural Disasters: Guidance for Family Therapists. *The American Journal of Family Therapy*, 36(1), 79-93. doi:10.1080/01926180601057598
- 57 Post-Harvey, Houston Teachers Learn to Respond to Trauma. (2018, October 25). Retrieved from <https://kognito.com/articles/post-harvey-houston-teachers-learn-to-respond-to-trauma>
- 58 Trauma & Grief Center: Harvey Resiliency and Recovery Program. (n.d.). Retrieved from <https://www.texaschildrens.org/departments/trauma-and-grief-center/harvey-clinic>
- 59 Interview with Aurora Gonzalez
- 60 Talking to Children about Traumatic Events. (2019). Retrieved from <https://centerforparentingeducation.org/library-of-articles/healthy-communication/when-disaster-strikes-talking-to-children-about-traumatic-events/>
- 61 Talking to Children about Traumatic Events. (2019). Retrieved from <https://centerforparentingeducation.org/library-of-articles/healthy-communication/when-disaster-strikes-talking-to-children-about-traumatic-events/>

# Endnotes

---

## Comparing Multiple Storms

- 1 Flooding & Floodplains. (n.d.). Retrieved from <https://www.hcfcd.org/flooding-floodplains/storm-center/tropical-storm-allison-2001/>
- 2 Thomas, J., & DeWeese, J. (2015). *Reimagining New Orleans Post-Katrina: A Case Study in Using Disaster Recovery Funds to Rebuild More Resiliently* (Rep.). Retrieved from [https://www.georgetownclimate.org/files/report/GCC-Reimagining\\_New\\_Olivia\\_Post\\_Katrina-August2015-Final.pdf](https://www.georgetownclimate.org/files/report/GCC-Reimagining_New_Olivia_Post_Katrina-August2015-Final.pdf)
- 3 Flooding & Floodplains. (n.d.). Retrieved from <https://www.hcfcd.org/flooding-floodplains/storm-center/hurricane-ike-2008/>
- 4 *Hurricane Sandy Rebuilding Strategy* (Rep.). (2013). Hurricane Sandy Rebuilding Task Force.
- 5 United States, Texas Health and Human Services, Texas Department of State Health Services. (2018). *Hurricane Harvey Response: After-Action Report*. Texas.
- 6 *Off The Charts: Tropical Storm Allison Public Report* (Rep.). (n.d.). TX.
- 7 Hurricane Costs. (2019, May 1). Retrieved from <https://coast.noaa.gov/states/fast-facts/hurricane-costs.html>
- 8 Berg, R. (2014). *Tropical Cyclone Report/ Hurricane Ike* (Rep. No. AL092008). Retrieved from [https://www.nhc.noaa.gov/data/tcr/AL092008\\_Ike.pdf](https://www.nhc.noaa.gov/data/tcr/AL092008_Ike.pdf)
- 9 *Hurricane Sandy Rebuilding Strategy* (Rep.). (2013). Hurricane Sandy Rebuilding Task Force.
- 10 *Senate Finance Committee Interim Report* (Rep.). (2018). Senate Finance Committee.
- 11 Flooding & Floodplains. (n.d.). Retrieved from <https://www.hcfcd.org/flooding-floodplains/storm-center/tropical-storm-allison-2001/>
- 12 Frey, A. E. (2009). *The impact of climate change on hurricane flooding inundation, property damages, and population affected* (Unpublished master's thesis, 2010).
- 13 Jenner, L. (Ed.). (2008, October 10). Hurricane Season 2008: Hurricane Ike (Atlantic Ocean). Retrieved from [https://www.nasa.gov/mission\\_pages/hurricanes/archives/2008/h2008\\_ike.html](https://www.nasa.gov/mission_pages/hurricanes/archives/2008/h2008_ike.html)
- 14 AON Benfield. (n.d.). *Hurricane Sandy Event Recap Report* (Rep.).
- 15 2017 Hurricane Harvey: Facts, FAQs, and how to help. (2019, June 26). Retrieved from <https://www.worldvision.org/disaster-relief-news-stories/2017-hurricane-harvey-facts>
- 16 *RMS Event Report, Tropical Storm Allison* (Rep.). (2001). Risk Management Solutions.
- 17 Beven, J., II, Avila, L., Blake, E., Brown, D., Franklin, J., Knabb, R., . . . Stewart, S. (2008). *Annual Summary Atlantic Hurricane Season of 2005* (Vol. 136, Rep.). doi:10.1175/2007MWR2074.1
- 18 Zane, D. F., Bayleyegn, T. M., Hellsten, J., Beal, R., Beasley, C., Haywood, T., . . . Wolkin, A. F. (2011). Tracking Deaths Related to Hurricane Ike, Texas, 2008. *Disaster Medicine and Public Health Preparedness*, 5(1), 23-28. doi:10.1001/dmp.2011.8
- 19 AON Benfield. (n.d.). *Hurricane Sandy Event Recap Report* (Rep.).
- 20 United States, Texas Health and Human Services, Texas Department of State Health Services. (2018). *Hurricane Harvey Response: After-Action Report*. Texas.
- 21 *Off The Charts: Tropical Storm Allison Public Report* (Rep.). (n.d.). TX.
- 22 Lindler, J. (June 4, 2018). *Immediate Report- Final Hurricane Harvey- Storm and Flood Information* [Memorandum]. Houston, TX: Harris County Flood Control District. Retrieved from <https://www.scribd.com/document/381190731/Immediate-Flood-Report-Final-Hurricane-Harvey-2017>
- 23 *Off The Charts: Tropical Storm Allison Public Report* (Rep.). (n.d.). TX.
- 24 Hurricane Harvey. (n.d.). Retrieved from <https://www.hcfcd.org/hurricane-harvey/home-buyout-program/frequently-asked-questions/>
- 25 *Off The Charts: Tropical Storm Allison Public Report* (Rep.). (n.d.). TX.
- 26 *Off The Charts: Tropical Storm Allison Public Report* (Rep.). (n.d.). TX.
- 27 Handy, R. (2017, October 10). Flood maps out of date. Retrieved from <http://digital.olivesoftware.com/Olive/ODN/HoustonChronicle/shared>ShowArticle.aspx?doc=HHC/2017/10/10>
- 28 Construction Activities Update. (n.d.). Retrieved June, 2019, from <https://www.projectbrays.org/about-project-brays/construction-activities-update/>; Brays Bayou. (n.d.). *The Brays Bayou Flood Damage Reduction Project* (Rep.). TX.
- 29 *Brays Bayou Federal Flood Risk Reduction Project Fact Sheet* (Rep.). (2015). TX.
- 30 Lindler, J. (June 4, 2018). *Immediate Report- Final Hurricane Harvey- Storm and Flood Information* [Memorandum]. Houston, TX: Harris County Flood Control District. Retrieved from <https://www.scribd.com/document/381190731/Immediate-Flood-Report-Final-Hurricane-Harvey-2017>
- 31 Interview with Courtney Reynolds
- 32 Flooding & Floodplains. (n.d.). Retrieved from <https://www.hcfcd.org/flooding-floodplains/storm-center/hurricane-ike-2008/>
- 33 Flooding & Floodplains. (n.d.). Retrieved from <https://www.hcfcd.org/flooding-floodplains/storm-center/hurricane-ike-2008/>

# Endnotes

---

## Comparing Multiple Storms

- 34 ESF #14 (Ed.). (2008). Hurricane Ike Impact Report (Rep.).
- 35 ESF #14 (Ed.). (2008). Hurricane Ike Impact Report (Rep.).
- 36 Satija, N. (2018, March 29). A decade after Ike, Houston still hasn't spent tens of millions it got to build affordable housing. Retrieved from <https://www.texastribune.org/2018/03/29/houston-texas-affordable-housing-hurricane-ike-harvey/>
- 37 Satija, N. (2018, March 29). A decade after Ike, Houston still hasn't spent tens of millions it got to build affordable housing. Retrieved from <https://www.texastribune.org/2018/03/29/houston-texas-affordable-housing-hurricane-ike-harvey/>
- 38 Satija, N. (2018, March 29). A decade after Ike, Houston still hasn't spent tens of millions it got to build affordable housing. Retrieved from <https://www.texastribune.org/2018/03/29/houston-texas-affordable-housing-hurricane-ike-harvey/>
- 39 Satija, N. (2018, March 29). A decade after Ike, Houston still hasn't spent tens of millions it got to build affordable housing. Retrieved from <https://www.texastribune.org/2018/03/29/houston-texas-affordable-housing-hurricane-ike-harvey/>
- 40 Interview with Dr. Peta-gay Ledbetter
- 41 Kevin Fox Gotham (2014) Reinforcing Inequalities: The Impact of the CDBG Program on Post-Katrina Rebuilding, *Housing Policy Debate*, 24:1, 192-212, DOI: 10.1080/10511482.2013.840666
- 42 United States of America, Department of Homeland Security. (2006). *The Federal Response to Hurricane Katrina, Lessons Learned, February 2006*, \*.
- 43 American Society of Civil Engineers Hurricane Katrina External Review Panel. (2007). *The New Orleans Hurricane Protection System: What Went Wrong and Why* (Rep.). Reston, VA: American Society of Civil Engineers.
- 44 American Society of Civil Engineers Hurricane Katrina External Review Panel. (2007). *The New Orleans Hurricane Protection System: What Went Wrong and Why* (Rep.). Reston, VA: American Society of Civil Engineers.; U.S. Army corps of Engineers. (2013). *Lake Pontchartrain and Vicinity* [Pamphlet]. New Orleans, LA.
- 45 American Society of Civil Engineers Hurricane Katrina External Review Panel. (2007). *The New Orleans Hurricane Protection System: What Went Wrong and Why* (Rep.). Reston, VA: American Society of Civil Engineers.
- 46 American Society of Civil Engineers Hurricane Katrina External Review Panel. (2007). *The New Orleans Hurricane Protection System: What Went Wrong and Why* (Rep.). Reston, VA: American Society of Civil Engineers.
- 47 Alpert, B. (2015, August 21). \$120 billion in Katrina federal relief wasn't always assured. Retrieved from [https://www.nola.com/news/article\\_338b3dd9-30e5-576d-b52a-d91ee07a499a.html](https://www.nola.com/news/article_338b3dd9-30e5-576d-b52a-d91ee07a499a.html)
- 48 Picazo, M. (2019, April 23). New Orleans' levees are sinking, city in vulnerable position. Retrieved from <https://www.theweathernetwork.com/ca/news/article/new-orleans-levees-sinking-rising-sea-levels>
- 49 WDSU Digital Team. (2019, July 13). The largest pumping station in the world was opened on the West Bank Saturday to drain water from the streets. Retrieved from <https://www.wdsu.com/article/world-s-largest-pumping-station-opens-during-barry/>
- 50 Picazo, M. (2019, April 23). New Orleans' levees are sinking, city in vulnerable position. Retrieved from <https://www.theweathernetwork.com/ca/news/article/new-orleans-levees-sinking-rising-sea-levels>
- 51 Bliss, L. (2015, August 25). 8 Maps That Explain Why We May Never Fully Know Where Katrina Survivors Ended Up. Retrieved from <https://www.citylab.com/equity/2015/08/10-years-later-theres-still-a-lot-we-dont-know-about-where-katrina-survivors-ended-up/>
- 52 Hussey, A., Nikolsko-Rzhevskyy, A., & Pacurar, I. (n.d.). *Crime Spillovers and Hurricane Katrina* (Rep.). University of Memphis.
- 53 Asad, A. L. (2014). Contexts of Reception, Post-Disaster Migration, and Socioeconomic Mobility. *SSRN Electronic Journal*. doi: 10.2139/ssrn.2463426
- 54 Asad, A. L. (2014). Contexts of Reception, Post-Disaster Migration, and Socioeconomic Mobility. *SSRN Electronic Journal*. doi: 10.2139/ssrn.2463426
- 55 Interview with Ruby Bullock
- 56 AON Benfield. (n.d.). *Hurricane Sandy Event Recap Report* (Rep.).
- 57 *Hurricane Sandy Rebuilding Strategy* (Rep.). (2013). Hurricane Sandy Rebuilding Task Force.
- 58 *Hurricane Sandy Rebuilding Strategy* (Rep.). (2013). Hurricane Sandy Rebuilding Task Force.
- 59 *Hurricane Sandy Rebuilding Strategy* (Rep.). (2013). Hurricane Sandy Rebuilding Task Force.
- 60 Pereira, J., McCabe, M., Mollenkopf, J., Van Epps, J., Zernich, H., Banerjee, S., & Howard-Cooper, E. (2019). *Patterns of Attrition and Retention in the Build It Back Program* (Rep.).
- 61 Pereira, J., McCabe, M., Mollenkopf, J., Van Epps, J., Zernich, H., Banerjee, S., & Howard-Cooper, E. (2019). *Patterns of Attrition and Retention in the Build It Back Program* (Rep.).
- 62 Abramson, D., Van Alst, D., Merdjanoff, A., Piltch-Loeb, R., Beedasy, J., Findley, P., . . . Tobin-Gurley, J. (2015). The Hurricane Sandy Person Report: Disaster Exposure, Health Impacts, Economic Burden, and Social Well-Being. *Columbia Academic Commons*, 2nd ser. doi:10.7916/D8ST7P3Q

# Endnotes

---

## Comparing Multiple Storms

- 63 United States., Department of Health and Human Services., Office of Inspector General,. (n.d.). *The response to superstorm Sandy highlights the importance of recovery planning for child care nationwide.*
- 64 Daniel A. Farber, Disaster Law and Inequality, 25 Law & Ineq. 297 (2007). Retrieved from <http://scholarship.law.umn.edu/lawineq/vol25/iss2/1>
- 65 Scata, J. (2018, April 24). Flood Insurance Subsidies Must Include Options to Lower Risk. Retrieved from <https://www.nrdc.org/experts/joel-scata/flood-insurance-subsidies-must-include-actions-lower-risk>
- 66 United States, Department of Homeland Security. (2018). *An affordability framework for the National Flood Insurance Program.*
- 67 Dickerson, M. (2018, August 22). Affordable, Safe Housing is the Key Issue in Hurricane Harvey's Aftermath. Retrieved from <https://news.utexas.edu/2018/08/22/more-affordable-safe-housing-needed-after-hurricane-harvey/>
- 68 Coalition for the Homeless. (2018). *2018 Homeless Count & Survey* [Pamphlet].
- 69 Freeman, A., McDaniel, M., & Despard, M. (2018). *Assessing and Promoting Opportunity in Low- and Moderate- Income Communities: Findings from New Orleans and San Francisco* (Rep.).
- 70 Interview with Brittany Eck, Director of Communications, Community Development and Revitalization at the General Land Office
- 71 Storm Surge Overview. (n.d.). Retrieved from <https://www.nhc.noaa.gov/surge/>
- 72 Picazo, M. (2019, April 23). New Orleans' levees are sinking, city in vulnerable position. Retrieved from <https://www.theweathernetwork.com/ca/news/article/new-orleans-levees-sinking-rising-sea-levels>
- 73 Chiwaya, N. (2019, January 10). Along the East Coast, rainy days, high tides and sea rise make floods a part of life. Retrieved from <https://www.nbcnews.com/mach/news/east-coast-sea-level-rise-high-tides-flooding-ncna957241>
- 74 NYCORR, & NYCEDC. (2019). *Climate Resilience Study Lower Manhattan* (Rep.).
- 75 SAMHSA. (2018, September). Behavioral Health Conditions in Children and Youth Exposed to Natural Disasters. Retrieved from <https://www.samhsa.gov/sites/default/files/srb-childrenyouth-8-22-18.pdf>
- 76 National Commission on Children and Disasters. 2010 Report to the President and Congress. AHRQ Publication No. 10-M037. Rockville, MD: Agency for Healthcare Research and Quality. October 2010.
- 77 Save the Children. (2015). *Still at Risk: U.S. Children 10 Years After Hurricane Katrina* (Rep.).
- 78 King, L. (2018). Social Media Use During Natural Disasters: An Analysis of Social Media Usage During Hurricanes Harvey and Irma. *Proceedings of the International Crisis and Risk Communication Conference*, 1, 20-23. doi:10.30658/icrc.2018.6
- 79 King, L. (2018). Social Media Use During Natural Disasters: An Analysis of Social Media Usage During Hurricanes Harvey and Irma. *Proceedings of the International Crisis and Risk Communication Conference*, 1, 20-23. doi:10.30658/icrc.2018.6
- 80 Sebastian, A., Lendering, K., Kothuis, B., Bran, N., & Jonkman, B. (2017). *Hurricane Harvey Report* (Rep.). TUDelft.
- 81 Coleman, R., Chair. (2018, February 06). Baker Ripley Testimony. Retrieved from <https://capitol.texas.gov/tlodocs/85R/handouts/C2102018020609151/8e5abe10-7b6f-46eb-8966-8fff5362bee25.PDF>
- 82 Houston Relief Hub. (n.d.). Retrieved from <https://houstonreliefhub.org/>
- 83 Nason, S. (2018). *One Year Later Hurricane Harvey* (Rep.). Charity Navigator.
- 84 Nason, S. (2018). *One Year Later Hurricane Harvey* (Rep.). Charity Navigator.
- 85 Schneider, A. (2019, May 06). Army Corps Nearly Finished Replacing Gates On Addicks And Barker Dams. Retrieved from <https://www.houstonpublicmedia.org/articles/news/energy-environment/2019/05/06/332130/corps-nearly-finished-replacing-gates-on-addicks-and-barker-dams/>
- 86 Schneider, A. (2019, May 06). Army Corps Nearly Finished Replacing Gates On Addicks And Barker Dams. Retrieved from <https://www.houstonpublicmedia.org/articles/news/energy-environment/2019/05/06/332130/corps-nearly-finished-replacing-gates-on-addicks-and-barker-dams/>
- 87 Coastal Texas Study Overview. (2018, December 03). Retrieved from <https://coastalstudy.texas.gov/overview/index.html>
- 88 Powell, N. (2018, November 09). Ike Dike concept raises more questions than it answers for environmentalists and Rice University. Retrieved from <https://www.houstonchronicle.com/news/houston-texas/houston/article/Ike-Dike-concept-raises-more-questions-than-it>
- 89 Collier, K. (2018, December 13). Galveston residents weigh in on hurricane levee proposal that some call "a really bad, bad plan". Retrieved from <https://www.texastribune.org/2018/12/12/galveston-weighs-hurricane-levee-proposal-texas-coast-army-corps/>
- 90 Coastal Texas Study Overview. (2018, December 03). Retrieved from <https://coastalstudy.texas.gov/overview/index.html>
- 91 Hurricane Sandy Rebuilding Strategy (Rep.). (2013). Hurricane Sandy Rebuilding Task Force.
- 92 Finucane, M., Clancy, N., Willis, H., & Knopman, D. (2014). *The Hurricane Sandy Rebuilding Task Force's Infrastructure Resilience Guideline* (Rep.). RAND Corporation.

# About CHILDREN AT RISK

Established in 1989, CHILDREN AT RISK is an organization dedicated to improving the quality of life of Texas children through strategic research, public policy analysis, innovation, community education, collaboration, and advocacy. We envision a world where children's needs are made a priority, and where children and their families have the resources needed to truly thrive. In order to bring this vision to fruition, CHILDREN AT RISK focuses its efforts on parent education, public education, child trafficking, and child health. We would like to extend a special recognition and thanks to Give Back Brands Foundation, The Brown Foundation, The Houck Foundation, and Rainwater Charitable Foundation for supporting recovery research efforts. We would also like to thank the members of our board, the CHILDREN AT RISK Institute, and the following partners for providing us with research, data, wisdom, and feedback on the report.

## BOARD OF DIRECTORS

### **Chris Watt, Chairman**

Reed Smith LLP

### **Erich Almonte**

King and Spalding LLP

### **Claire Bocchini, MD**

Texas Children's Hospital

### **Donald Bowers**

Federal Reserve Bank

### **Erich Canseco**

Morgan Stanley

### **David Cordúa**

Cordúa Restaurants

### **Jason Durham**

American International Group

### **Nancy Edgar**

Community Health Choice

### **Kindel Elam**

Mattress Firm

### **Sukanti Ghosh**

APCO Worldwide

### **Maddy Kulkarni**

PepsiCo

### **Devika Kornbacher**

Vinson & Elkins

### **Lance Gilliam**

Waterman Steele

### **William Gordon**

King and Spalding LLP

### **Theresa Hildreth**

Metromorphis Design LLC

### **Rebecca Hove**

Greater Houston Community Foundation

### **Pamela Humphrey**

Chubb

### **Kyle Jennings**

American International Group

### **Steve Jones**

Core Midstream

### **Manon Kebodeaux**

Sable Permian Resources

### **Nicole Lewis**

Fort Bend ISD

### **Timmy Newsome**

Newtec Business Solutions

### **Manish Panjwani**

Accenture

### **LaToyia Watkins Pierce**

XL Catlin

### **Benjamin Samuels**

Victory Packaging

### **Robert Sanborn, EdD**

CHILDREN AT RISK

### **Sebastien Solar**

Commerce Bank

### **Myron F. Steves Jr.**

Myron F. Steves & Co.

### **Jasmine Turner**

Occidental Petroleum

### **Laurence Wisniewski**

Senmina

## NORTH TEXAS ADVISORY BOARD

**Timmy Newsome, Chairman**

Newtec Business Solutions

**Breanna Anderson**

Cook Children's Health Care System

**Calvert Collins-Bratton**

Methodist Health System Foundation

**Vlad Hernandez**

ProStar Energy Solutions

**Genai Walker-Macklin**

Morgan Stanley

**Jaime Hanks Meyers**

Victory Search Group

**Sidney Moncrief**

Moncrief One Team

**Scott Murray**

Murray Media USA

**Lee Papert**

Texas Parks and Wildlife Foundation

**LaToyia Watkins Pierce**

XL Catlin

**Collette Portis**

Destined Designs Business Solutions

**Todd Ranta**

PricewaterhouseCoopers

**Greg Rubel**

Myron F. Steves &amp; Co.

**Chris Wallace**

North Texas Commission

**Carol Wise**

DART

**Michael Zangoei**

Outdoor Powersports USA

## EMERITUS BOARD

**Philamena Baird**

Community Volunteer

**Michael Maher**

Presenture, LLC

**Jeffrey Starke, M.D.**

Texas Children's Hospital

**Robert Westendarp**

Griffin Americas

**Robert Zincke**

Former President, Kroger

## CHILDREN AT RISK INSTITUTE

**Jean Raphael, M.D., MPH - Chair**

Texas Children's Hospital, Baylor College of Medicine

**Andrea Backscheider Burridge, Ph.D.**

University of Houston

**Jayna Dave, Ph.D.**

Baylor College of Medicine

**Alan Dettlaff, Ph.D., MSSW**

University of Houston

**Christopher Greeley, M.D., FAAP**

Texas Children's Hospital, Baylor College of Medicine

**Deanna Hoelscher, Ph.D.**

The Michael &amp; Susan Dell Center for Advancement of Healthy Living, UT School of Public Health

**Quianta Moore, M.D., J.D.**

Rice University, Baker Institute for Public Policy

**Stephen L. Klineberg, Ph.D.**

Rice University, Kinder Institute for Urban Research

**Rebecca Pfeffer, Ph.D.**

University of Houston-Downtown, Department of Criminal Justice

**Cathy L. Rozmus, Esq.**

University of Texas Health Science Center - Houston

**Diane Santa Maria, DrPH, MSN, RN, PHNA-BC**

University of Texas Health Science Center School of Nursing

**Ruth SoRelle, M.P.H.**

Baylor College of Medicine

**Whitney Stewart, Ph.D.**

University of Texas at Dallas

**Lori Taylor, Ph.D.**

Bush School of Government and Public Service, Texas A&amp;M University

**Ben Wright, Ph.D.**

University of Texas at Dallas

## ACKNOWLEDGEMENTS

Give Back Brands Foundation  
The Brown Foundation  
Harvey R., Jr. and Patricia W. Houck Foundation  
Rainwater Charitable Foundation  
HP Foundation  
Children's Resiliency Collaborative  
Harvey Recovery Leadership Group  
Houston and Community Development Housing  
Advocate Collaborative  
Hurricane Harvey Task Force on School Mental Health  
Supports  
Children's Coalition of Aransas County  
The Texas Education Agency  
Frazier Elementary School  
Harris County Flood Control District  
Port Aransas Independent School District  
City of Houston  
City of Rockport  
City of Port Aransas  
Aurora Margarita González de Freire  
Small Business Administration  
Brundrett Middle School  
Courtney Reynolds  
Ruby Bullock  
Dr. Peta-gay Ledbetter, The Alliance for Multicultural  
Community Services

## NONPROFIT RESEARCH PARTICIPANTS

Houston Food Bank  
Avenue  
UNICEF  
Adore Ministries  
Collaborative for Children  
Communities in Schools  
Undies for Everyone  
Children's Museum of Houston  
Alliance for Multicultural Community Services  
Attack Poverty  
Mental Health America  
Main Street Ministries Houston  
Austin Disaster Relief Network  
Houston Volunteer Lawyers  
Austin Diaper Bank  
Coastal Bend Disaster Recovery Group  
The Harris Center  
Houston Habitat for Humanity  
Family Life Ministry at Archdiocese of Galveston-Houston





"Our journey is long and, at times hard, but  
worth every inch of the trip,"  
- Patrick R. Rios, Mayor of Rockport.



# children at Risk

*Speaking Out + Driving Change for Children*

CHILDREN AT RISK would  
like to thank:

**B** THE BROWN  
FOUNDATION, INC.

**RAINWATER**  
*Charitable Foundation*

**THE HOUCK FOUNDATION**

**GIVE BACK BRANDS  
FOUNDATION**

**HP FOUNDATION**

Houston Office  
2900 Weslayan St.  
Suite 400  
Houston, Texas 77027  
T: 713-869-7740

Dallas Office  
2900 Live Oak St.  
Dallas, Texas 75204  
T: 214-599-0072

Fort Worth Office  
T: 214-599-0072

Email for more information:  
[info@childrenatrisk.org](mailto:info@childrenatrisk.org)