Case Study: Houston’s Transformative Experiment in Disaster Response Coordination

Hurricane Harvey Relief Fund

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I was referred to Harvey Home Connect at a time when I was very distraught. I didn't know if I’d ever be able to return to my home. I placed my application and was very impressed with the timely response and all the work that was done. Without Harvey Home Connect, I don't think I would’ve been able to return home. I am so grateful.

Harvey Home Connect Client
Case Study

Harvey Home Connect: A human-centered collective action experiment in disaster home repair in the wake of Hurricane Harvey

At Harvey Home Connect (HHC), we assist eligible, low-to-moderate income seekers of home repair services in the Great Houston region affected by Hurricane Harvey. We serve as their common application and trusted guide for non-profit home repair.

We are committed to serving the most vulnerable populations, including but not limited to the elderly, low-income households, people with disabilities, families with undocumented household members, families with children, and households that did not qualify for FEMA assistance.
Our Story

On 08/25/2017, Hurricane Harvey hit Texas

Over four days, 1 trillion gallons of water fell across Harris County, enough to cover the entire county with an average of 33 inches of water. The sheer weight of the water depressed the Earth's crust: Houston sank two centimeters.

We quickly learned that our physical infrastructure was inadequate...

All the bayous in Harris County flooded. 600,000+ cars and 120,000+ homes, not counting commercial buildings and apartments, flooded. Thousands of families were displaced across the county. With the havoc caused by Harvey, there was an enormous need for assistance as soon as possible.

... and the social services system was inadequate

In response to the devastation and the need, millions of philanthropic funds flowed in. Leaders in Houston, Harris County Judge Emmett and Houston Mayor Turner set up their own relief fund, the Hurricane Harvey Relief Fund (HHRF), which was managed by the Greater Houston Community Foundation and raised $114M. The Fund’s focus was unmet needs in vulnerable populations.

Despite the millions flowing in to help the people of our city get back on their feet, many people seeking assistance were unable to access services and falling through the cracks.
The HHRF team stepped back to understand what was going on

The team wanted to uncover the unmet needs of the most vulnerable. We did so by looking at the available data and listening to people seeking services. In December 2017, we convened 40 nonprofits in different neighborhoods to listen to their stories and perspectives.

What we heard from Houstonians seeking help after Harvey:

“I did not know where to turn to receive help. When I call service providers, I get busy signals. I’ve been told that it will be months before I receive help because of waiting lists for services. I’ve wasted time filling out lengthy applications just to be told I’m ineligible for their services.”

Our key insight: The social services system is extremely hard to navigate for both seekers of services and their case managers.

Our aspirational vision: To better serve seekers, we must radically improve the social services infrastructure in the Greater Houston area.
We heard and responded to 3 main concerns

1. “Where do I go?”

Seekers of services in the wake of a disaster needed to know where to go. Most went to the commonly known service providers, inundating their capacity to process applications and provide service. However, some lesser-known providers that popped up in the wake of Harvey had excess capacity.

We decided to become guardians at the gate of social services: a one-stop shop, common application for most home repair social service providers in Harris County. Seekers could go to one place, harveyhomeconnect.org and submit a single application for multiple programs. Through our back-end technology built on Salesforce, we are able to track where each seeker is in the pipeline.
Seekers of home repair services were left frustrated with the application process. Most applications for home repair services are long and require various documents in order to assess eligibility. We took that pain point out.

We co-created a one-page eligibility pre-screen (see next page) with our partners. We convened them to learn about their process and the questions that matter most in determining client eligibility.

Furthermore, we decided to allow seekers to apply without all of their documents in place. We know document collection is a potential barrier to applying and receiving service. We took out this requirement, increasing the number of applications.

Finally, we conduct trainings for our service providers and disaster case managers (DCMs). We know that the social services world is complicated for everyone involved. As such, we regularly meet with DCMs to provide in-person training on our technology.
Harvey Home Connect - Eligibility Pre-Screen

**Para continuar en español, haga clic aquí.**

Note: If you have already started an intake form, please click this link to resume filling it out. You will need the password you created when you clicked save and resume when you exited the form previously.

Check to see if your home is eligible to begin the Harvey Home Connect application process.

Please enter the address of the home that was damaged by Hurricane Harvey and needs to be repaired.

Street Address *

City *  
State *  
ZIP Code *

Please check the boxes that apply to your household and the home that needs to be repaired. All boxes must be checked to proceed with Harvey Home Connect, but meeting these requirements does not necessarily guarantee that your home can be repaired.

- [ ] Hurricane Harvey damaged the home
- [ ] I lived in the home prior to Hurricane Harvey in August 2017
- [ ] The home is located in one of the following counties: Brazoria, Fort Bend, Montgomery, or Harris
- [ ] Before Harvey, my property taxes were paid in full, deferred, or placed on payment plan.
- [ ] The home is owned by myself, another member of my household, or a family member (living or deceased)

Is the home in need of repairs a mobile home or a trailer? *
- [ ] Yes
- [ ] No

Is the home in need of repairs a condo or townhome? *
- [ ] Yes
- [ ] No

How many people live in your household? *
- [ ] 1
- [ ] 2
- [ ] 3
- [ ] 4
- [ ] 5
- [ ] 6
- [ ] 7
- [ ] 8
- [ ] 9
- [ ] 10+

Annual Household Income Limit

Is your annual household income less than the amount shown above? *
- [ ] Yes
- [ ] No

Next Page
3. There is no final accountability of home repair applications.

We saw that some seekers were not served. Home repair providers blamed disaster case managers (DCMs) for incomplete applications that could not be processed. DCMs blamed providers for complex requirements. At the end, some seekers were left in limbo and without a livable home.

We took that accountability for the applications. Once a seeker passes the quick pre-screen and submits the full HHC application, we work with seekers and DCMs to collect any missing information and verify eligibility. Then, looking at the needs of the seeker and partner capacity, we match seekers to the partner best positioned to help. If someone cannot be matched or our partners determine that repairs cannot be made, we close the loop and provide seekers with next steps.

To ensure the service is being provided in a timely fashion, we meet with our partners regularly, once a month, over phone, where they report on their progress and their capacity.

Our Guides communicate with seekers, process applications, collect missing documents, and verify eligibility. In hiring our Guides, we prioritized the following skills to build a caring, fast-moving team that can process a high volume of cases:
1. Demonstrated empathy towards clients, e.g., via a previous customer service role
2. Experience working in a detail-oriented role with high-level of organization
3. Strong communication skills, including hiring bilingual staff
4. Experience working with technology, preferably software, given that we work with Salesforce

Our team size has gone from 8 during high-demand times to 5 during low-demand times, and we are set to increase in size to respond to the next disaster.
Summary of Our Story

Harvey Home Connect was born as a pilot to improve social services infrastructure. To deploy fast and intently, we focused on home repairs in Houston. We accepted our first application on June 1 and completed our first home repair by July 25, 2018.

Today, we are a common application for home repair services in Houston. We built HHC with our partners, taking off their burden of doc collection and verification. Seekers go to one place: our website. We get them through the door and track their case.

As we continue to grow, we are rooted in our values:

**Built for Humans**
We started by listening to seekers and non-profits. Today, we are improving through engaging with the community. We constantly ask: “how can we make this more equitable for and accessible to our most vulnerable clients?”

**Treat Customer Like Loved Ones**
We prioritize customer service. To measure how seekers and DCMs view our services, we calculate a Net Promoter Score, a proven metric used in the business world to measure customer experience and predict growth.

**Have a Bird's-Eye View of the System**
We convene various home repair providers. This allows us to see bottlenecks and solve problems at the systems-level rather than at an agency level. We strive to make this systems-level data available to clients and partners.
# How We Work

We use data to match eligible homeowners to reputable, vetted home repair service providers. After a seeker or case manager fills out an application, our Guides confirm their eligibility, match them to a provider, assess Harvey damage, and help stabilize their home.

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
<th>Est. Duration</th>
<th>Additional Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Seekers of home repair services fill out eligibility prescreen</td>
<td>5 mins</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Seekers fill out our intake application, even if they don’t have all documents ready</td>
<td>30 mins</td>
<td>After a seeker successfully submits an application, we send weekly SMS and email updates on their status</td>
</tr>
<tr>
<td>3</td>
<td>We verify submitted documents submitted</td>
<td>7-15 business days</td>
<td>At the end of this step, it is possible the seeker may be deemed ineligible to continue</td>
</tr>
<tr>
<td>4</td>
<td>We match seekers to non-profit partners</td>
<td>5 business days</td>
<td>This may vary based on our partners’ waitlists.</td>
</tr>
<tr>
<td>5</td>
<td>Our partners complete assessment and secure permits and start construction</td>
<td>2-4 weeks</td>
<td>Construction time varies based on needs. We work with our partners to ensure homes are repaired in a timely manner</td>
</tr>
<tr>
<td>6</td>
<td>Construction is complete!</td>
<td></td>
<td>Our goal is to provide a stable living environment. We may not be able to bring a home to its previous state</td>
</tr>
</tbody>
</table>
Our Partners

“A Baker Ripley Case Manager

“HHC represents the possibility of a relief channel for our seekers’ greatest concern: housing security. I’ve helped 20 clients complete the application. The process is very simple and easy, and the Guides are always ready to respond to any question.”

Harvey Home Connect partners with best-in-class home repair providers in the Greater Houston area that mobilized to serve our neighbors in the devastating wake of Harvey.

We also partner with local governmental entities, disaster case managers, and other service providers to ensure our clients have access to the resources they need.
Clients We Serve

- **86%** have a vulnerability*
- **87%** report <80% of AMI
- **68%** have an elderly person living in the household
- **46%** have a person with a disability in the household

* Households with an elder, child, and/or person with disabilities
Our Impact
as of September 2019

Improved access to home repair for those affected by Harvey

696 homes Repaired

257 homes in Assessment or Construction

Improved speed of home repair, with our partners, for those affected by Harvey

Throughput of cases increased from less than 25% to 49%

60% of completed homes repaired within 5 months of submitting an HHC application

165 days on average, to repair a home once an HHC application is submitted. This is slightly above our goal of 151 days (5 months).
Our Impact (continued)
as of September 2019

Improved the client experience by empowering seekers and service providers with information about and connections to available services

Customer Service Rating

★★★★☆
4.1/5

Net Promoter Score** of 70 for our seekers and 44 for disaster case managers

**Net Promoter Score is an index ranging from -100 to 100 to measure the willingness of customers to recommend a product to others, as a proxy for overall customer satisfaction.

Enabled better matching and coordination between seekers and home repair agencies

Increased agency capacity, i.e. the HHC cases matched to partner as % of total partner capacity from 30% to 100%
We take a **system-wide view of recovery**, enabling us to identify and fill gaps across agencies for seekers, and provide transparency about what is and is not working in the system.

We have identified and resolved several advocacy issues:
- New path forward for homeowners with heirship issues through new document created by pro-bono legal partners
- New fund (Avenue CDC’s Home Preservation Fund) for homeowners significantly behind on their mortgage or property taxes since Harvey
## Critical success factors for implementation

<table>
<thead>
<tr>
<th>Change management</th>
<th>Our technology means nothing without the people we serve. Through 30+ trainings, we got buy-in from our partners and developed change champions across the community</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human centered design</td>
<td>We are rooted in the stories and pain points of our seekers and DCMs. We conducted 10 1:1 interviews with seekers and DCMs. We organized 15 convenings with 100+ organizations.</td>
</tr>
<tr>
<td>Culture of excellence</td>
<td>We hired a talented, customer-service oriented team. We balanced service with speed and rigorous adherence to goals. Through this, we exceeded our Net Promoter Score, measure of client satisfaction, goal of 30: 44 for DCMs, 70 for seekers</td>
</tr>
<tr>
<td>Funding attached to use</td>
<td>We required HHRF home repair grantees to use HHC. This helped adoption and ensured system wide coverage. Having discretion to let partners go above funding limits was also valuable</td>
</tr>
<tr>
<td>Willingness to experiment</td>
<td>GHCF &amp; SBP took a risk in incubating HHC. We’ve maintained an agile, quick-to-prototype philosophy, which has allowed us to experiment and improve</td>
</tr>
<tr>
<td>Data, data, data</td>
<td>Our system-wide data have allowed us to remove barriers to recovery for large groups of Houstonians. When we saw a community underrepresented in applications, we partnered with agencies in that community to get the word out. When we saw over 12% of our clients were close to foreclosure, we created a program to bring them current.</td>
</tr>
<tr>
<td>Challenges</td>
<td>Opportunities</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Disaster recovery system</strong></td>
<td></td>
</tr>
<tr>
<td>Federally funded home repair programs (CDBG-DR) did not ramp up until two</td>
<td>Advocate at the federal level for improving how funds are allocated after disaster</td>
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<tr>
<td>years after the storm</td>
<td></td>
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<tr>
<td>Approximately 15% of clients’ homes were too damaged for our repair programs,</td>
<td>Explore more options for homeowners with significant damage, including, but not limited to, longer-term temporary housing and nonprofit reconstruction programs</td>
</tr>
<tr>
<td>requiring them to wait years for federal funding</td>
<td></td>
</tr>
<tr>
<td>Limited resources for long-term temporary housing for homeowners pre-construction</td>
<td>Rethink philanthropic funding for temporary housing in the wake of future disasters</td>
</tr>
<tr>
<td><strong>Local affordable housing</strong></td>
<td></td>
</tr>
<tr>
<td>In lower-income neighborhoods, most homes have significant deferred</td>
<td>Seek funding to provide deferred maintenance programs during peace times, i.e., when we are not reacting to a disaster. Keep repair programs active, enabling them to quickly activate after a storm</td>
</tr>
<tr>
<td>maintenance, which increased cost and time to repair</td>
<td></td>
</tr>
<tr>
<td>Limited affordable housing resources in Houston meant that home repair was</td>
<td>Expand housing counseling services in the Greater Houston area; rally local public and private options around expanding housing choices</td>
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<tr>
<td>often our only good option, even if, there may have been a better sustainable</td>
<td></td>
</tr>
<tr>
<td>solution, e.g., moving to a new location or building a new foundation for the</td>
<td></td>
</tr>
<tr>
<td>house</td>
<td></td>
</tr>
<tr>
<td><strong>Nonprofit capacity building</strong></td>
<td></td>
</tr>
<tr>
<td>Nonprofits had to build repair programs from scratch in the midst of a crisis,</td>
<td>Provide training and capacity building during peace times, including providing funding for preparedness efforts</td>
</tr>
<tr>
<td>which meant capacity, training, and implementation had to happen all at once.</td>
<td></td>
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<tr>
<td>As a result, organizations experienced avoidable growing pain</td>
<td></td>
</tr>
<tr>
<td>Individual nonprofit data systems were often inadequate, resulting in excess</td>
<td>Develop standard data and technology standards for local nonprofits to improve systems during “blue-sky days”</td>
</tr>
<tr>
<td>time for reporting and file management</td>
<td></td>
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</tbody>
</table>
Data Deepdive
as of September 2019
unless stated otherwise
Overview

In the wake of Hurricane Harvey, the Greater Houston Community Foundation and SBP, a national disaster recovery nonprofit, formed a coalition of home repair agencies to improve access to home repair in Harris County. We imagine a resilient Greater Houston, in which no one is ever left behind in the wake of a disaster.

Collectively, we have been able to provide more people access to home repair, improve speed and customer experience of home repair, and make system-wide improvements fill gaps in local recovery efforts.

As of September 2019, we’ve received 2836 cases, over 52% of which we have processed -- either as active cases or referred them to into the City of Houston, Harris County, and GLO programs.

Of the 2836 cases, 1266 are active, 233 have been referred to CBDG-DR/City or County program, and 1337 are closed.
Active Cases by Area Median Income (AMI): 65% of households have less than 50% of AMI or report no income

Active Cases by Race: Roughly 82% of those we work with are Black/African-American or Hispanic/Latino/Spanish

Note: race is self-reported and collected at an individual level. Of the 6725 individuals with active cases, 640 or 9.5% of individuals chose not to disclose race.
Active Cases By Pipeline Status: As of September 2019, there are 1266 active cases. Construction has been completed on 696 households or 55% of all active cases.
As of September 2019, we have received 2836 applications and referred 1562 to a home repair service provider or a City/County program. Note some cases are closed after we refer them out.
Time Based Goals: Along with our partners, we developed time-based goals for each step of the process. Note, this data is from June 2019.
Closed Cases:

Roughly a third of the cases closed were because the client was unresponsive. We will open these if the client responds.

* Reasons for ineligibility could include income too high, owns multiple properties worth more than $100K, only minor repairs need, and others.

** Reasons for No HHC match could be that client is outside of service area or that the HHC partner in their service area has restrictions that limit its ability to repair the home. We refer them to City and County CDBG-DR programs.

The need for those recovering from Harvey continues to be great. We see large gaps in funding for mobile homes, full rebuilds, and deferred maintenance.
Net Promoter Score

We use Net Promoter Scores to measure and improve our customer experience. Net Promoter Score is an index ranging from -100 to 100 used to measure the willingness of customers to recommend a product to others, as a proxy for overall customer satisfaction.

2019 Net Promoter Score by Sector*

Additionally, seekers have given us a 4.5/5 for customer service. Our agencies a 4.2/5 for satisfaction with repairs and DCMs have given us a 4.1/5 for customer service.

* NPS data from Rently: https://www.retently.com/blog/good-net-promoter-score/