1. When did the voluntary program start? 1985
   1. Did it start at the same time across different neighborhoods?
      1. Has the voluntary map regions changed over time with updated/adjusted risk assessments?
   2. If not, different start dates by neighborhood
   3. Have the program “rules” changed over time? (Not the mandatory bit)
2. Can any current or recent owners have purchased from someone who took a previous buyout? Answer: cannot, they turn it into an empty lot
   1. Acquisition??
   2. Does empty space get turned into a neighborhood park or stay empty? (This might change people’s land value assessment…)
3. Offers. How are the households being communicated with? Phone? Mail? House call?
   1. Who is doing the communicating with the household?
4. Voluntary can get multiple offers. How is the decision to return and make another offer made? Timing? Amounts? Updated risk assessment?
   1. Any implications for insurance if I am voluntary? If I reject an offer?
5. Mandatory: Forces me to take my second offer. What if I had only had one offer first. Do I get a second offer with the mandatory or do I take the first?
   1. How long do I have to move out if mandatory?
6. What aid (monetary and non-monetary) do people get under mandatory and voluntary?
   1. Expedited processes? Bonus for staying in the county? Bonus for also buying out with neighbors (agglomeration bonus)? Target constraint on buyouts (need a minimum number)?
   2. Language/legal help for non-English speakers? Legal for anyone not just about langauge
   3. We want to know what differential incentives are between vol and mandatory
7. Can we get the data/indicator on who became mandatory?
   1. Did mandatory zones phase in or all at the same time? (Seems to have stayed the same)
8. Can we get data on people who received offers but have not yet taken it?
9. Can we build maps of properties? Also can we update these maps over time with bought out space?
   1. Are the observations we have complete in terms of spatial map of voluntary and mandatory areas?
   2. Measure of how many of one’s neighbors have moved prior to time t
10. We know some moves and this could be within county, within state, or beyond. Not knowing does not imply anything about where you go, necessarily.
    1. How many (percent) do we know where they go? (Maybe around 25%)
       1. We do not know why they stayed or moved far… (e.g., family)
       2. Can we find out if local stayers got a “local” bonus?
11. County (or State?) level reports and other documentation related to the buyouts
12. Who is funding this? FEMA aid, funding from the state as well? Do we know how the funding arrangement is done and how the decision-making is done? (HMGP is FEMA hazard mitigation grant program aid source)
    1. E.g., does FEMA get a say in this?
    2. Is this being done in other states? Mandatory programs are small in 3 other states (ND, IA,), but there are more voluntary programs.
       1. Any research on other programs from other states? Some stated preference papers, a lab experiment, some revealed preference papers, one uses Zillow data (NY program leads to increase in property value??), lots of papers saying there are savings from avoided disaster costs
13. Does any of the bought out land turn over to private ownership at some point down the line? Even if homes are not built…

The following is more for us and not for the County officials…

1. What can we learn about neighborhood characteristics?
   1. US census block groups to get median HH income, other statistics? Ratio of whites to non-whites? Population density?
      1. Can we separate non-whites into black and Hispanic?
      2. Can we figure out language spoken at home (primary)?
      3. Concerns that the mandatory was targeting minority (Hispanic?) populations
      4. News articles about racial/ethnic disparities. Are they claiming unfair offers?
   2. Crime rates by block?
      1. Usually separated by violent and non-violent crime
   3. Education data by block? If it is median, then in Census? Could be school district dummies
   4. Addresses can be used to compute distance to nearest park, city center, grocery store?
2. IPUMs or another dataset have information on neighborhood turnover? If so, what spatial level?

Descriptive statistic: do two-headed households behave different from (plausible) one-headed household?

* More likely to buyout? Which round of offer? Stay or move far?

Main hypothesis: did the switch to mandatory improve or exacerbate racial disparities in the voluntary program?

* Household level benefits/costs? Incentives?
* Community level effects after the buyouts (e.g., parks in nice neighborhoods, empty lots in other neighborhoods?)

*Map of active buyouts*: <https://www.hcfcd.org/Portals/62/Home-Buyout-Program/2025/Active%20Buyout%20Projects%20-%202025%20March.pdf?ver=2B71IuICOCwzyfccqmJ_fg%3d%3d>

*Identification and Prioritization of Buyout areas*

To qualify as a new buyout area the property should be (1) be clustered with a minimum of ten total properties or five combined acres, (2) Meet at least two of the following: be in the floodway, in the ten-year (ten percent) floodplain, or over two feet depth in the one-hundred-year (one percent) floodplain, and (3) be cost effective, meaning the cost must be less than the benefits. If this criteria is met, adjacent properties can be added if they meet at least one of the following: (1) FEMA repetitive loss properties adjacent to current or proposed areas of interest or existing District right of way having paid claims greater than 50% of HCAD total market value, (2) property needed to remove infrastructure for few remaining residents, (3) properties greater than three feet deep in 100-year floodplain can override lack of other criteria, (4) property needed for future flood reduction project or floodplain preservation. If qualified, properties are ranked to determine prioritization. Firstly, they are ranked by flood depth and life safety. Structures in extreme depth (5 feet or greater) in the 1% annual exceedance probability (100-year) are ranked as top priority. They are also ranked by future land use. A larger land area will be ranked higher, since it can be used for more flood risk reduction. Another rank criteria is the percentage of publicly owned land. The greater the percentage of publicly owned land, the higher the priority. Owner and community interest is also a factor in the ranking. Finally, property maintenance influences the ranking. The levels of maintenance range from no maintenance (return to nature areas) to routine maintenance areas (Harris County Flood Control District, n.d.).

*Funding*

Over 75% of the District buyouts use FEMA funding. Federal-level grantors include the US Department of Housing and Urban Development and FEMA, which fund through community block development grants, the Hazard Mitigation Grant Program (HMGP), and Flood Mitigation Assistance Program (FMAP). State level grantees include the Texas General Land Office, the Texas Department of Public Safety, and the Texas Water Development Board. Local Level grantees include the City of Houston and the Harris County Flood Control District (HCFCD) (Harris County Flood Control District, n.d.).

*Checkerboard Effect*

Since participation in buyouts is sometimes voluntary, some people choose not to participate. As a results, HCFC may own single lots in the interior of a subdivision, leading to a checkerboard effect. This increases the maintenance costs for HCFCD and sometimes leads to complaints from residents about inadequate maintenance, dumping, and illegal activity on the property (Harris County Flood Control District, n.d.).

*Maintenance of buyout lots*

After properties are purchased and cleared of structures, the land is turned over to HCFCD’s Facilities Maintenance Department for maintenance. Maintenance varies depending on proximity to occupied structures, type of land use in the immediate area, and plans for the lot. Limited development is allowed and is generally restricted to only those non-insurable facilities that would not impede stormwater during flood events (Harris County Flood Control District, n.d.).

*Benefits of a home buyout*

A home buyout relocates people out of harm’s way, eliminates future flood damages and health and safety issues, reduces repetitive flood insurance payments and federal disaster assistance, restores land to natural function for stormwater storage, and creates open space for potential community amenities. Since the Flood Control District’s voluntary buyout program began in 1985, nearly 2,500 structures have been purchased with federal grants (98% from FEMA). Over 1,035 properties (65% with structures) have been purchased with Flood Control District funds (Harris County Flood Control District, n.d.).

*Home buyout process*

The buyout process typically takes eight to twelve months to get started. For the voluntary program, if your property is identified as eligible and you have submitted a Notice of Voluntary Interest form, the Flood Control District Property Acquisition Team will contact you directly. If you are selected for the buyout, then owners are provided pre‑flood appraised values for their homes and relocation assistance (Harris County Flood Control District, n.d.).

*Project Recovery*

The Project Recovery Program assists property owners whose homes were damaged by Hurricane Harvey (2017). As part of this effort, the Project Recovery Post-Disaster Relocation and Buyout (PDRB) Program) is a mandatory buyout program jointly operated by Harris County Housing and Community Development, the Harris County Engineering Department’s Real Property Division (HCRPD), and the Harris County Flood Control District (HCFCD). Property owners are offered the fair market appraised value of their homes along with relocation assistance, which may include advisory services, moving expenses, business re-establishment support, replacement housing payments, rental assistance, and down payment assistance for new homes. Once properties are acquired, structures are demolished, and the land is repurposed as natural floodplain, retention areas, or green space to mitigate future flood risks (Harris County Community Services Department, n.d.).

Harris County's Post-Disaster Relocation and Buyout Program includes two components: the Mandatory Acquisition Program and the Mandatory Buyout Program. Properties that have changed ownership or undergone significant repairs since the 2017 flood will be acquired at current fair market value (FMV), while properties that remain unrepaired or vacant will be acquired at pre-flood appraised value. Property owners in high-risk flood areas who have received federal disaster aid (such as FEMA grants or SBA loans) must maintain flood insurance to be eligible for future assistance. Those who fail to obtain required flood insurance or are unlawfully present in the U.S. will only receive post-flood FMV and will not qualify for incentives. The County is exercising eminent domain to acquire properties in high-risk areas and reduce flood exposure, following federal regulations and conducting acquisitions in phases based on available funding (Harris County Community Services Department, n.d.).

Property owners will receive an initial written purchase offer, along with a copy of the appraisal and a written summary statement outlining the basis for the offer and the amount being offered for their property. Once they receive the offer, they have thirty days to accept it. If they reject the offer and receive a new one, they have fourteen days to make a decision. Owners can also submit a counteroffer in writing, including any supporting documentation. If no agreement is reached, the case will go to court, and if no settlement is made, the property will be acquired through eminent domain. The process may include a Special Commissioner’s Hearing where the seller can present additional information regarding fair market value. All acquired structures are typically demolished within nine months of closing, though this timeline can vary based on specific circumstances. Property owners and tenants will also be notified of their eligibility for relocation assistance, if applicable, and any financial assistance from other sources will be considered when determining the final compensation. In addition to the buyout award, displaced tenants or owner-occupants who have resided in a property for at least 90 days prior to the Initiation of Negotiations are eligible for a replacement housing payment of up to $7,200 for rental or down payment assistance. It is important to note that owners or tenants receiving replacement housing benefits cannot relocate within the buyout area if that area falls under Area "A" on the Harris County flood hazard maps or within the 100-year floodplain. Displaced residential owner-occupants or tenant-occupants are entitled to payment for moving and related expenses, with coverage limited to moving costs within 50 miles of the buyout property. Additionally, Harris County provides two activities to assist vulnerable populations through its HUD-supported acquisition/buyout program: Down Payment Assistance of up to $35,000 for eligible low-to-moderate-income participants needing gap financing for a replacement home, and a Location Incentive of $19,875 for homeowners who relocate outside the 100-year floodplain while remaining within Harris County (Harris County Community Services Department, n.d.).

The Post Disaster Relocation and Buyout Program is intended to begin June 1, 2020, and terminate on May 31, 2024, except for close-out activities with GLO (Harris County Community Services Department, n.d.).

Out of 403 total property purchase offers, 213 have been accepted, and 390 properties have closed, including those settled through eminent domain. There have been 257 eminent domain cases filed, with 221 hearings completed. Relocations are ongoing, with 620 still to be completed and 509 already finished. The average price for comparable properties is $195,330 as of September 2024.

The relocation process involves working with a Relocation Specialist to determine eligibility, find a suitable new home, secure financing if needed, and complete the move. The County covers costs such as a comparable home, moving expenses, rental assistance, and down payment assistance if eligible. A “comparable” home is one similar in size and function to the current home, meeting safety and structural standards, and located in a preferred area. While the County uses market comparisons to determine financial assistance, individuals are free to choose any home they want. There is a 12-month window to close on a new home and 18 months to submit paperwork for reimbursement. The relocation program provides financial assistance for renters, homeowners, and businesses affected by relocation.

Process: receive offer, have 30 days to accept or reject. If accept, have minimum 90 days to move out. Have up to 12 months to find and purchase a new home and an additional six months from closing date to submit all required documents to the County. The Disaster Recovery Residential Buyout Program follows a structured timeline that spans approximately nine months. The process begins with eligibility determination for buyout, which takes about 4.5 months and includes intake, prequalification, appraisal/inspection, and pre-award approval. Following that, the replacement home purchase process takes 1.5 months, involving advisory services, GLO approval, and securing a replacement home. Next, the loan and property approval phase lasts 2.5 months, including final award calculations and Commissioners Court approval. The final phase, buyout and replacement home closings, takes about 2 weeks, where homeowners complete transactions and vacate properties. After closing, compliance reviews continue for five years.

