NYC Climate Displacement
Rebuild by Design & Milliman Collaboration

How might future storm surge flooding impact NYC neighborhoods and cause displacement of residents?
Research objectives

1. Better understand how future storm surge flooding, driven in part by sea level rise, could impact New York City neighborhoods and cause displacement of residents.
2. Evaluate this in the context of both the physical threats posed by flooding and the social and financial threats caused by people moving.
3. Better understand how the socioeconomic makeup of a coastal city such as New York may change as climate change worsens.
4. Add to the growing body of data about possible displacement to allow the City to plan for climate adaptation and provide people across the economic spectrum with the best possible options.
Step 1: Identify which block groups are impacted by flooding in 2050

Source: NPCC & US Census
Step 2: Identify lowest-income block groups

Source: US Census
Displacement quadrants

- **Stable**: High Income, Low Flood Risk
- **Destination**: Low Income, Low Flood Risk
- **Emigrating**: High Income, High Flood Risk
- **Crisis**: Low Income, High Flood Risk

Increasing income ↑

Increasing flood risk →
Step 3: Assign block groups to a displacement “quadrant”
Step 4: Aggregate additional demographic data by quadrant

Over 40% of New Yorkers will be at risk of displacement without comprehensive and proactive government planning, the EMIGRATING population could add additional pressures to limited housing stock in inland neighborhoods with lower rents (DESTINATION).

Over one third of households in DESTINATION areas live below the poverty level and are at the highest risk for displacement.

This data can help Local and State governments to anticipate and plan for population shifts to give all people across the economic spectrum the best options for adapting to a future climate.

Notes:
- This study does not evaluate stormwater / extreme rain flooding, which could cause significant flooding in “lower risk” areas
- Rent prices represents minimum estimate of median rent, as census data is capped at $3500.
Initial takeaways

**Emigrating population**
- Mostly comprised of White, single-family homeowners.
- Neighborhoods such as Seagate, Manhattan Beach, Williamsburg, and Malba.

**Destination population**
- Neighborhoods such as Brownsville, Bushwick, Harlem, and Morrisania
- Currently comprised of majority non-White residents living in rented, multi-family dwellings.
- Current median rental prices are at least $500/month lower than Emigrating areas.

**Crisis population**
- Comprised of majority non-White residents living in multi-family rented units
- Neighborhoods such as Coney Island, Rockaway Park, Seaside, East Harlem, and Port Richmond in Staten Island.
- Current median rents are some of the the lowest throughout the city.

**Stable population**
- The majority of residents in New York City (roughly 5 million)
- Inland neighborhoods on higher ground, such as Brooklyn Heights and Jackson Heights.
- Likely to be less impacted by others moving in from risky areas given the high rental costs and incomes of existing residents.
### Recommendations

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<th>The development of a voluntary, government-led, predictable retreat program that is informed by the people most at risk with a prioritization for CRISIS community members. This program must be coupled with the input of inland communities, as well as the planning and creation of new affordable housing in inland neighborhoods to ensure these Destination areas do not see widespread displacement.</th>
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<td>The planning and creation of affordable housing options focused in inland neighborhoods so that all New Yorkers can continue to remain in the city. Meaningful collaboration with local community organizations who understand the residents’ specific needs and can act as a trustful partner when working with the local community.</td>
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<td>Address the social implications of breaking up tightly knit communities and, where possible, give residents a choice to relocate near one another, maintaining community networks and social infrastructure.</td>
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<td>Plan for the impact on critical services and physical infrastructure, such as schools, medical facilities, transportation, the power grid, and the sewer system for both the CRISIS and DESTINATION communities to ensure that government services are ready for increased populations and are ready for the increased and decreased population.</td>
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