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Density and Disaster: New Models of Disaster Recovery for Housing in High-Density Cities

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When Superstorm Sandy struck the New York City metropolitan area, it brought to light serious limitations in the ability of federal disaster aid programs to serve the residents of high-cost, high-density cities. Our current models of rehousing, repair, and rebuilding are geared towards low-density, owner-occupied, single-family homes. Yet, over half the world's population lives in dense, urbanized areas, many of which are susceptible not only to hurricanes, but also to earthquakes, tsunamis, and tornadoes.

Many high-density cities have few vacant housing units, which limits rehousing choices after disasters. In New York City, finding vacant, available housing units with rents affordable to those displaced by Superstorm Sandy proved to be extremely difficult, given the city's rental vacancy rate of just 3.4 percent. This was especially true for low-income households, and the rules of housing subsidy programs further limit those who qualify for the limited supply of vacant, subsidized units. Although the city identified 800 vacant, subsidized rental units, only 45 displaced households were able to move into them, largely because the incomes of most of those displaced were either too high or, more typically, too low to qualify under the income targeting rules of the subsidy programs. Without the availability of vacant housing units or vacant land for temporary structures, many people were moved to hotel rooms, which were costly, crowded for families, and often far removed from the social networks that survivors so critically need.

As for repairs, FEMA grant programs are only available to owner-occupants of single-family homes—who make up less than one-third of households living in areas flooded by Superstorm Sandy—or renters who suffered personal property damage. FEMA offers no programs to compensate owners of multi-family properties for damage to their building systems or common areas. Owners of rental properties are eligible instead only for loans from

the Small Business Administration, which has little experience dealing with landlords, as it offers few services or programs for them in non-emergency times. While property owners are eligible for grants from CDBG disaster relief funds, these funds typically don't become available until months or years after a disaster, and building owners are not able to receive reimbursement for repairs they have already completed. A lack of financing for repairs to systems in multi-family properties is not unique to hurricane damage. This problem was also documented following the 1989 Loma Prieta Earthquake and the 1994 Northridge Earthquake (Comerio 1997).

Finally, dense cities also face challenges in rebuilding effectively. Most of the existing programs and guidance for rebuilding and retrofitting focus on detached, single-family homes, when most of the residents of dense cities live in attached or multifamily structures. For example, flood insurance requirements to raise homes to base flood elevation are simply not feasible for most multifamily or attached structures.

Given the serious risks many dense coastal cities face, we must develop more effective models to respond to disasters in dense, urban areas before the next disaster strikes.

References

Comerio, M. C. (1997), Housing Issues After Disasters. *Journal of Contingencies and Crisis Management*, 5: 166–178. doi: 10.1111/1468-5973.00052