How could rising sea level impact the National Flood Insurance Program?

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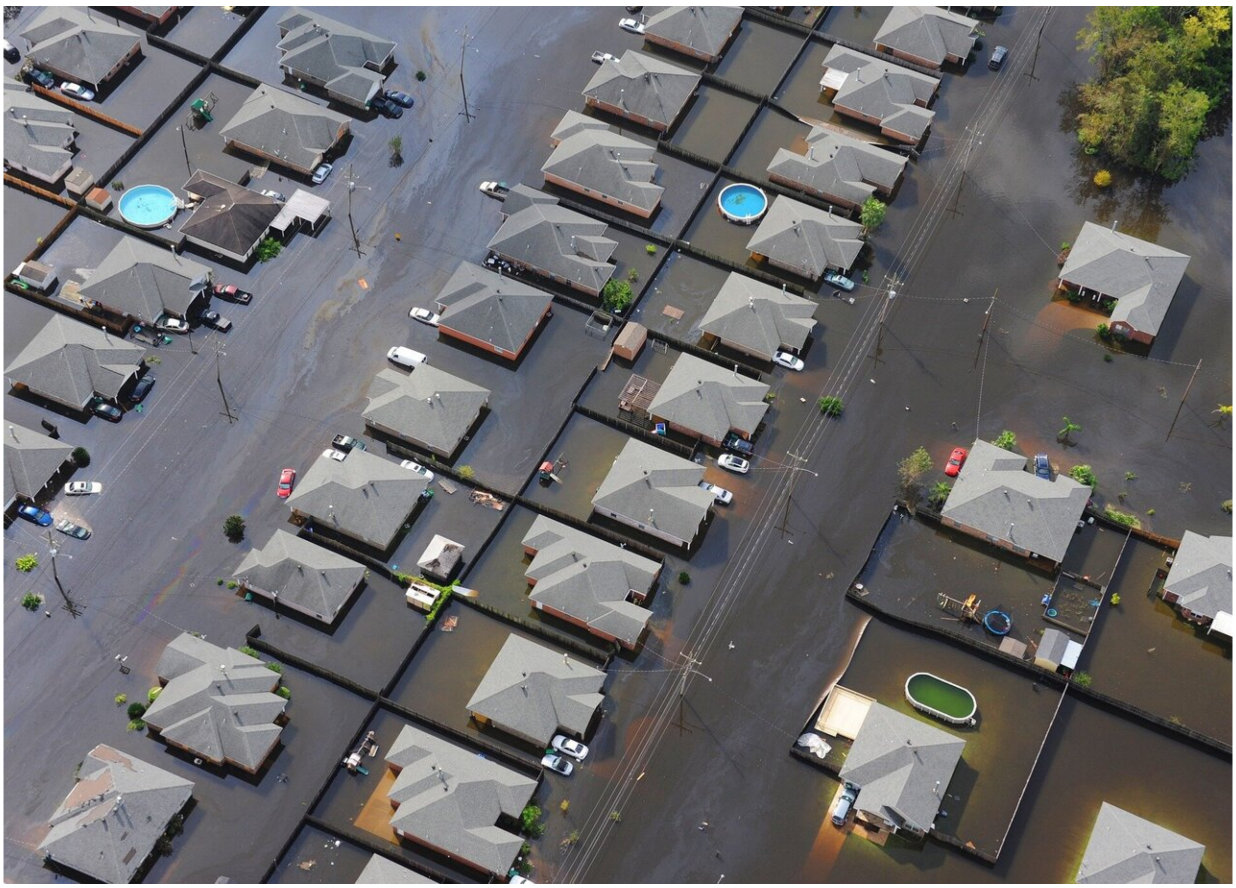

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Insurance policy premiums from the National Flood Insurance Program (NFIP) allow policyholders to maintain a lower, grandfathered rate even when the risk escalates. But as coastal flooding increases due to rising sea level and more intense storms, new research published in the journal *Risk Analysis* suggests this grandfathered policy could lead to big losses for the NFIP.

A team of experts led by Carolyn Kousky, executive director of the University of Pennsylvania's Wharton Risk Management and Decision Processes Center, studied the effect of sea level rise on a New York City neighborhood to illustrate how grandfathered rates could impact both policyholder premiums and program revenue for the NFIP over the next 30 years. Their results project losses to the NFIP as flood risk grows in the coming decades.

To prevent this outcome, Kousky and her colleagues suggest that grandfathering be replaced with a gradual phase-in of risk-based flood insurance prices. But because the higher rates would hurt lower-income households, in need of flood insurance for disaster recovery, the authors recommend that the phase-in of risk-based pricing be coupled to an affordability program to provide means-tested assistance to these households.

Managed by the Federal Emergency Management Agency (FEMA), the NFIP enables homeowners, business owners, and renters in participating communities to purchase federally backed flood insurance. FEMA characterizes flood hazards using Flood Insurance Rate Maps (FIRMs). When a flood map is updated every five years, some houses are reclassified at a higher flood risk and placed into a Special Flood Hazard Area (the 100-year floodplain). These properties should then face an increase in their insurance premium to reflect the greater chance of flood-related damage, but the NFIP's practice of grandfathering premiums can prevent such an increase. Under the policy, if a home was built in compliance with floodplain regulations and the homeowner maintains insurance, the property can keep a lower insurance rate indefinitely, despite revisions in the rate map.

"Preservation of widespread grandfathering in the face of growing risk would likely necessitate taxpayer funding of flood losses to make up the gap," the authors write.

Kousky and her colleagues suggest that NFIP grandfathering be replaced with a gradual phase-in of risk-based insurance prices whenever a flood risk map update indicates heightened risk. Map updates, they added, should also be conducted more quickly and frequently.

The authors argue that grandfathering sends the wrong financial signals to consumers by suggesting that they are at lower risk of experiencing flood damage than they actually are. A reduced premium also lowers the economic incentives for property owners to invest in cost-effective risk reduction measures.

However, if grandfathering is eliminated and premium prices grow as flood risk increases, insurance could become cost-prohibitive for some families. To preserve risk-based pricing but assist families in need, Kousky and her colleagues suggest a needs-based approach to assist low- and middle-income families with their flood insurance costs and the expenses associated with investing in loss-reduction measures.

If financial assistance were tied to cost-effective loss reduction measures, insurance premiums could be reduced to reflect lower future claims payments, thus reducing the necessary financial assistance from the public sector. As Kousky notes, "With such a policy, insurance could then be more affordable and future flood-related costs to the nation could be reduced.

More information: Carolyn Kousky et al. Adapting our Flood Risk Policies to Changing Conditions *Risk Analysis*. First published: 02

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