

Bay Area Housing Precarity Risk Model

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What is the HPRM?

The Housing Precarity Risk Model (HPRM) is an interactive mapping tool developed by the Urban Displacement Project at UC Berkeley that identifies neighborhoods (census tracts) at the highest risk of eviction and economic displacement.

Precarity refers to how well people can handle sudden changes, like job loss or rising housing costs (Pendall et al., 2012).

The Housing Precarity Risk Model (HPRM) measures this by looking at two main risks:

- Eviction, when renters lose their housing because they can't keep up with rent or face sudden changes in lease terms.
- Low-income renters are being pushed out of a neighborhood due to rising costs, making it unaffordable to stay.

The model works like a forecast, pointing out where people are most at risk of being forced to move. It's important to check the results locally to make sure they match what's really happening to people on the ground.

The tool covers all census tracts in the 9-counties of the Bay Area with more than 50 people per square mile, providing data to help policymakers target resources to communities that need them most.

The first version of the HPRM was created in response to the COVID-19 pandemic to understand how economic shocks from the recession interacted with housing risk. The tool has been updated to continue to identify structural vulnerabilities in housing markets and disparities in housing security.

Key Findings Relevant to the Bay Area

The HPRM reveals significant disparities in housing precarity:

Over 91% of all Black Renters in the Bay Area Live in Precarious Neighborhoods.

The HPRM highlights deep inequities in housing security across the Bay Area. About 73% of all renters live in neighborhoods exposed to some level of displacement risk, with the largest proportion residing in areas classified as “At Risk.” Strikingly, over 91% of Black renters live in precarious neighborhoods.

Practical Applications for Bay Area Policymakers

1. Resource Allocation and Targeting

The HPRM can be used to identify which census tracts should receive priority for emergency rental assistance, legal aid programs, and eviction prevention services. Tracts with HPRM scores of 7-8 should be evaluated for early intervention.

Example: If a jurisdiction is distributing \$5 million in rental assistance, the HPRM can help to identify the highest-risk census tracts to conduct targeted outreach to residents.

2. Anti-Displacement Strategy Development

The HPRM supports comprehensive anti-displacement planning using the “Three P’s” framework—Protection, Preservation, and Production:

- Protection Policies for high-risk areas: Just cause for eviction ordinances, rental assistance programs, right to counsel in eviction proceedings, and extended eviction moratoria
- Preservation Policies to stabilize at-risk neighborhoods: Rent stabilization, community land trusts, right of first refusal for nonprofit housing purchases
- Production Policies for long-term affordability: Land banks, mandatory inclusionary housing, upzoning high-income areas to create more affordable housing supply

Example: A city identifies five census tracts with the highest HPRM scores of 8. In response, they implement just cause eviction protections and emergency rental assistance in those tracts (Protection), work with a community land trust to acquire properties before they're sold to private investors (Preservation), and zone nearby high-opportunity areas for more affordable housing development (Production).

3. Racial Equity Planning

The HPRM helps jurisdictions meet HUD's Affirmatively Furthering Fair Housing (AFFH) requirements by revealing how housing precarity intersects with racial disparities. Use the tool to apply a racial equity lens to housing policies and identify where structural racism has created precarious housing conditions.

Example: To identify predominantly Black and Latino neighborhoods with high displacement risk, cross-reference the HPRM layer with demographic data in the tract information panel to the left and target culturally specific outreach and tenant protection programs in these communities.

4. Grant Applications and Policy Justification

The HPRM provides data-driven evidence to support funding applications and policy proposals. Reference specific census tract scores and demographic data to justify the need for affordable housing investments and tenant protections.

Example: In a grant proposal for a right-to-counsel program, cite HPRM data showing that 15 local census tracts have scores of 8, affecting approximately 25,000 renter households, with 65% being households of color.

5. Community Engagement and Local Validation

While the HPRM provides valuable estimates, they are conservative and may underestimate risks. Engage with local stakeholders, community organizations, and residents in high-risk areas to validate findings and understand local nuances not captured by the model.

Example: Host community meetings in the five highest-scoring census tracts to gather qualitative data on displacement pressures, landlord practices, and unmet needs. Use this information to refine your policy response beyond what the HPRM alone reveals.

How to Use the HPRM

The HPRM dashboard includes three interactive maps—the Housing Precarity Risk Map, Eviction Risk Map, and Economic Displacement Map—each providing tract-level risk scores. Tracts are color-coded from yellow (at risk) to purple (extreme risk). Tracts without color represent either lower precarity or low population density, but may still contain households in need. Dotted tracts indicate high concentrations of seniors, students, or active military personnel, which can skew model accuracy.

Distinguishing between eviction and displacement is important: while eviction represents a form of forced relocation, economic displacement reflects the cumulative effect of market pressures that make neighborhoods unaffordable to long-term residents. Together, these processes represent a continuum of involuntary mobility that defines overall housing precarity. The HPRM is the first national model to visualize both dimensions together at the census tract level.

The HPRM features three core analytical layers:

- **Eviction Risk (Hard Displacement):** Based on neighborhood characteristics correlated with eviction filing rates, this layer captures forced displacement pressures. It primarily affects populations earning below 50% of the county median household income. Estimates are conservative because the model excludes eviction notices and Sheriff lockouts. Eviction risk scores range from 1 (at risk) to 4 (extreme).
- **Economic Displacement Risk (Soft Displacement):** Identifies communities experiencing above-average out-migration of low-income households, often due to rising rents and housing costs. This risk more frequently affects households earning between 50% and 80% of the county median income and reflects moves made under economic duress rather than direct eviction. Displacement risk scores range from 1 (at risk) to 4 (extreme).
- **Overall Precarity (Composite HPRM Score):** Ranging from 0 (low) to 8 (extreme), this layer integrates eviction and displacement risk to show overall housing precarity. The model draws on more than 600 socio-demographic and economic variables linked to observed displacement and eviction data from across the United States.

Policymakers can use these distinctions to design targeted interventions across the displacement continuum—for example, addressing hard displacement (eviction) through right-to-counsel and just-cause protections; reducing soft displacement through rent stabilization, tenant purchase rights, and preservation of affordable housing; and mitigating overall precarity through rental assistance and new affordable housing development.

Understanding HPRM Limitations

The HPRM provides conservative estimates; meaning actual eviction and displacement rates may be higher depending on local resources, recent policy changes, recovery efforts, and shifts in the housing market. To improve local accuracy, jurisdictions are encouraged to:

- **Engage directly with community stakeholders:** partner with tenant groups, legal aid providers, and neighborhood organizations to gather on-the-ground perspectives on displacement pressures and eviction trends.
- **Analyze local administrative data:** supplement HPRM risk scores by reviewing recent local eviction filings, court records, utility shutoff data, and service requests for housing assistance.
- **Conduct targeted outreach:** organize interviews, focus groups, or community meetings in

census tracts classified as high risk to validate the model's findings and identify emerging issues not captured in the data.

- **Share feedback and corrections:** communicate with the HPRM team if you believe certain tracts are misclassified, providing documentation to support your assessment.
- **Incorporate the HPRM as one piece of a broader needs assessment:** combine the tool's outputs with qualitative data, program waitlists, and local knowledge to inform policy and resource allocation decisions.

Note that the HPRM's eviction risk metric does not include eviction notices or informal evictions, so the model may underestimate true eviction risk in many communities. Local validation is essential for effective, responsive policy-making.

Getting Started

To begin using the HPRM for your jurisdiction:

1. **Select your geography:** Zoom to your city/town/county.
2. **Explore each layer:** Start with the Overall Precarity layer to identify your highest-risk census tracts.
3. **Cross-reference layers:** Toggle between the Eviction Risk layer and Displacement Risk layer and view tract characteristics in the left-hand column to understand what's driving precarity in different neighborhoods. Characteristics include renter demographics, rent burden, median rent and median income.
4. **Pull data:** Identify specific census tracts/neighborhoods with high scores for use in policy documents, reports, grant applications, etc.
5. **Validate with local stakeholders:** Engage community partners and stakeholders to review local eviction data and confirm, contextualize, and add nuance to findings.
6. **Develop targeted strategies:** Use the policy recommendations framework to design interventions appropriate to each neighborhood's risk profile.

Policy Options by Risk Level

- **High Risk (HPRM Score 7-8):** Immediate tenant protection measures including emergency rental assistance, eviction moratoria, just cause protections, and legal assistance or right to counsel.
- **Moderate Risk (HPRM Score 4-6):** Preservation strategies such as rent stabilization,

community land trust acquisitions, and eviction record expungement programs.

- **Lower Risk (HPRM Score 0-3):** Production-focused policies including affordable housing development, housing trust funds, and inclusionary zoning.

Additional Resources

The HPRM is one tool in a broader ecosystem of housing data and policy resources. The [Urban Displacement Project](#) also provides white papers on anti-displacement strategy effectiveness, and organizations like the [National Low Income Housing Coalition](#), [Eviction Lab](#), [The Legal Services Corporation](#), and [Local Housing Solutions](#) offer complementary tools and research.

For technical questions about the HPRM or to report data concerns, the Eviction Research Network at UC Berkeley welcomes feedback to continuously improve the model. Email evictions@berkeley.edu for feedback, information, and general contact.
