

## **Methodology**

NAR estimated the number of home sale closings affected by a lapse of the National Flood Insurance Program.

### ***Calculating Floodplain Weights***

First, we calculated the share of housing units, which are located in a 100-year floodplain called Special Flood Hazard Areas (SFHAs). Federal Emergency Management Agency (FEMA) publishes the National Flood Hazard Layer (NFHL), which enables us to determine the flood zone, base flood elevation, and floodway status for each Census block. Meanwhile, 2010 Decennial Census publishes the housing units counts for each block. For 2010 Census, it is possible for a block to contain a mix of land and water. This will generally occur only when small bodies of water, such as ponds or small lakes, exist within the area of the block. For any given geographic entity-- block, tract, county, etc.-- the Census Bureau publishes total area, land area, and water area measurements. Therefore, we used only land area in our calculations of floodplain weight for each block.

Overlaying these two datasets, we estimated the share of housing units in a 100-year floodplain.

### ***Estimating the number of housing units in a 100-year floodplain for each state***

While there has been subsequent construction and destruction of the housing stock within the period 2010 and 2016, the 2016 ACS housing estimates were used in order to calculate the number of housing units in a 100-year floodplain for each state. Thus, we simply multiplied the floodplain weights with the 2016 ACS housing estimates for each state.

### ***Estimating the number of home sale closings affected by a lapse***

The American Community Survey publishes estimates about the number of owners who moved into their home within the last 12 months. This number also represents the number of existing and new home sales (single-family and condominiums) occurred in the last 12 months. Multiplying the floodplain weights by state with the number of owners who moved within the period 2015-2016, NAR estimated the number of home sales affected by a NFIP's lapse for each state.

### ***Sources:***

U.S. Federal Emergency Management Agency:  
National Flood Hazard Layer (NFHL) last updated in March 2017

U.S. Census Bureau:  
2010 Decennial Census, 2016 1-year ACS estimates