

# 2021 Building Code Adoption Tracking: FEMA Region 5

This fact sheet provides a high-level overview of the status of hazard-resistant building code adoption in each state and territory within a FEMA region. The regional fact sheets show an annual metric of the percent of communities adopting hazard-resistant<sup>1</sup> building codes.

## Why Building Codes?

Disaster resilience starts with building codes because they enhance public safety and property protection.

## Why Track Codes?

- Represent the best evidence for disaster resistance
- Create best overall return on investment
- Comply with Technology Transfer Act
- Cornerstone of effective mitigation
- Codes = better built buildings, better performance
- Codes enable uniformity, efficiencies, and predictable performance
- Recognize the disaster preparedness of communities when determining level of federal funding



Figure 1. FEMA Region 5

## Purpose of the Building Code Adoption Tracking

- Track the adoption rate of the latest consensus-based codes across the nation
- Track the results of adoption in improving disaster-resistant buildings in natural hazard areas
- Use the emerging data to inform FEMA policies and laws in pre-disaster and post-disaster goals
- Federal funding assistance requirements may be correlated to adoption of the latest published building code editions as required by legislation and/or FEMA policies such as the Disaster Recovery Reform Act of 2018 and the associated Federal Cost Share Reform Incentive

<sup>1</sup> Hazard-resistant codes mean the 2015 or later International Building Code and International Residential Code, without weakening of any resilience provisions related to any of the five tracked hazards for which the jurisdiction is at high risk.



## FEMA’s Role Will Be Continuous

- Proposing building code changes to maintain consistency with the National Flood Insurance Program (NFIP) and to incorporate best practices identified in post-disaster investigations.
- Defending against changes that weaken flood, wind, and seismic provisions.
- Contributing to requests for interpretations by International Code Council.
- Supporting the training of state, local, tribal and territorial officials.

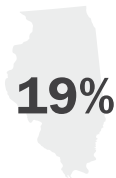


**Figure 2. Building Code Adoption Tracking Process**

The following percentages indicate the tracked jurisdictions which have adopted hazard-resistant<sup>2</sup> building codes within each state. The percentages are based upon jurisdictions within each state which are at high risk<sup>3</sup> to one or more hazard types (Region 5’s hazards are flood, damaging wind, tornado, and seismic):

### ILLINOIS

19%

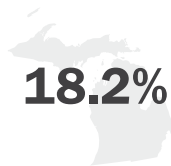


#### LOWER RESISTANCE

- IBC** Commercial construction must comply with the 2015 or 2018 International Building Code (IBC) in jurisdictions which have not adopted a building code, but jurisdictions are permitted to adopt any model building code.
- IRC** No statewide residential code.

### MICHIGAN

18.2%



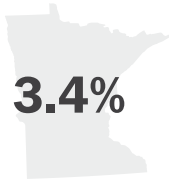
#### LOWER RESISTANCE

- IBC** State adopts the 2015 IBC, but weakens tornado resistance by removing Sections 423.3 and 423.4 requiring ICC 500 storm shelters for critical facilities and Group E Occupancy buildings in areas where the shelter design wind speed for tornadoes is 250 mph or greater.
- IRC** State adopts the 2015 International Residential Code (IRC).

<sup>2</sup> Hazard-resistant codes mean the 2015 or later IBC and IRC, without weakening of any resilience provisions related to any of the five tracked hazards for which the jurisdiction is at high risk.

<sup>3</sup> High-risk is defined according to national consensus-based standards, the National Flood Insurance Program, and the Building Code Effectiveness Grading Schedule. For a detailed description of the high-risk methodology, visit the FEMA Building Code Adoption Tracking landing page at [www.fema.gov/emergency-managers/risk-management/building-science/bcat/](http://www.fema.gov/emergency-managers/risk-management/building-science/bcat/).

## MINNESOTA



### LOWER RESISTANCE

**IBC** State adopts the 2018 IBC. State weakens flood provisions by deleting Sec. 1612, and by referencing an outdated floodproofing standard from 1972, in lieu of ASCE 24-14, *Flood Resistant Design and Construction*. State weakens tornado resistance by exempting Kanabec, Mille Lacs, Pine, and Pope counties from Sections 423.3 and 423.4 requiring ICC 500 storm shelters for critical facilities and Group E Occupancy buildings in areas where the shelter design wind speed for tornadoes is 250 mph or greater.

**IRC** State adopts the 2018 IRC. State weakens flood provisions by deleting Flood-Resistant Construction (R322) and referencing an outdated floodproofing standard from 1972, in lieu of ASCE 24, *Flood Resistant Design and Construction*. State also deletes Chapter 1 and refers to state administrative provisions, which lack NFIP requirements of variance criteria (R104.10.1) and documentation of lowest floor elevation (R106.1.4; R109.1.3), and determination of substantial improvement/repair (R105.3.1.1).

## INDIANA



### LOWER RESISTANCE

**IBC** State adopts an outdated IBC (2012 edition). State weakens the flood provisions by removing establishment of flood hazard areas (Sec. 1612.3). State weakens the seismic provisions by eliminating Seismic Design Category D requirements for buildings and structures in Risk Categories I, II, and III in Sec. 1613.3.5, other than for H and E occupancies.

**IRC** State adopts the 2018 IRC. State weakens flood resistance by: (1) amending R322.2.1 to lower design flood elevation from 3ft to 2ft in AO zones when no flood depth is specified on the Flood Insurance Rate Map, and to remove the elevation requirement for basement floors which are below grade on all sides; and (2) amending R326.1 to remove the International Swimming Pool and Spa Code reference, losing application of ASCE 24 to pool construction in Flood Hazard Areas; State also amends R105 to exempt existing portions of structures from compliance with the latest code during substantial improvement or repair. State weakens seismic resistance by replacing Table R301.2(1) with a new table including weakened seismic categories for some counties.

## OHIO

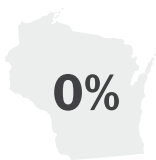


### LOWER RESISTANCE

**IBC** State adopts the 2015 IBC. State weakens the tornado storm shelter requirements by placing a moratorium on the storm shelter requirement for schools until November 30, 2022.

**IRC** State adopts the 2018 IRC, but only for communities with a state-certified building department.

## WISCONSIN



### LOWER RESISTANCE

**IBC** State adopts the 2015 IBC, but weakens tornado resistance by removing Sections 423.3 and 423.4 requiring ICC 500 storm shelters for critical facilities and Group E Occupancy buildings in areas where the shelter design wind speed for tornadoes is 250 mph or greater.

**IRC** State adopts its own non-resistant standards for residential construction. State requirements lack certain flood resistant provisions found in the 2018 IRC, such as: R322.1.3, R322.1.4.2, R322.1.8. State provisions also lack any freeboard requirement. State wind design provisions allow for less conservative wind pressures and reference an outdated standard: ASCE 7-05, *Minimum Design Loads for Buildings and Other Structures*.