



Building code enforcement protects your citizens every day

*Maximize your community's resilience
with ISO's BCEGS® program*



Building code enforcement can have a major influence on the economic well-being of a municipality and the safety of its citizens. Municipalities that adopt up-to-date, unamended codes — and rigorously enforce them using a sufficient number of trained and certified code enforcement professionals — minimize damage from natural hazards, fire, and other perils, ultimately reducing insurance costs.

How can you determine the effectiveness of code enforcement in your community?

Building Code Effectiveness Grading Schedule (BCEGS®)

ISO, an independent statistical, rating, and advisory organization that serves the insurance industry, manages the BCEGS® program. BCEGS is an evaluation system that has reviewed building code enforcement for more than 20,000 communities nationwide. Approximately 87 percent of the U.S. population lives in jurisdictions classified in the BCEGS program. Since 1995, trained ISO field analysts have visited communities to survey and collect information on building code adoption and enforcement practices. We analyze the data and develop a Building Code Effectiveness Classification from 1 to 10 for both commercial and residential construction. In some parts of the country, there are significant differences in enforcement efforts for one- and two-family dwellings and all other construction. Class 1 communities represent exemplary commitment to building code enforcement. Insurers can use the classifications to grant premium credits for buildings constructed in jurisdictions that enforce the latest code revisions.

Why should you participate in ISO's BCEGS program?

When your community participates in the BCEGS program, you get a free independent review of your building department by highly qualified field analysts. Program participation has many other benefits:

- Property owners can benefit from insurance premium discounts or decreased deductibles.
- FEMA's National Flood Insurance Program's Community Rating System (NFIP/CRS) uses the BCEGS information and classification as a component of the community rating schedule that determines flood insurance discounts in participating communities.
- After the review is complete, ISO provides a comprehensive benchmarking report that explains where your community earned points, allowing you to identify potential areas for improvement. The report also contains valuable comparisons between your community's building code enforcement efforts and those of similar communities in your county and state and across the country.

Building Code Effectiveness Classifications

- Participation may help your residents be in a better position to secure property coverage that might not otherwise have been available.
- The BCEGS program encourages good public policy and rigorous code enforcement.



Saint Louis County, Missouri, officials receive a Class 1 BCEGS rating plaque from ISO. Pictured, from left to right, are Daniel W. Dreisewerd, P.E., Code Enforcement Division Manager; Ralph Dorio, ISO Community Mitigation Manager; David R. Kasl, R.A., Code Enforcement Division Assistant Manager; Sheryl L. Hodges, D.E., P.E., L.P.G., Director, St. Louis County Departments of Highways & Traffic and Public Works; Dale Thomure, C.B.O., C.F.M., ISO Field Representative; Charles A. Dooley, former St. Louis County Executive; and David Wrone, St. Louis County Public Information Manager.

How does ISO evaluate a community?

Here are the steps in the evaluation process:

- ISO gives the community's building official a detailed questionnaire to complete.
- A trained ISO field analyst meets with the building official to review and verify the community's commitment to code enforcement.
- ISO analyzes the questionnaire data and arrives at a total score, which determines the community's Building Code Effectiveness Classification for both commercial and residential construction.
- ISO notifies the community of the results and publishes the classification for participating insurers.

"The Federal Alliance for Safe Homes (FLASH®) is a not-for-profit corporation with the mission to promote life safety, property protection, and economic well-being by strengthening homes and safeguarding families from natural and man-made disasters. We achieve our goals through education programs and other projects and initiatives.

"Building code adoption and enforcement are key elements in accomplishing our mission. The BCEGS program from Verisk Insurance Solutions offers an unbiased nationwide snapshot of a given community's commitment to building code enforcement efforts — yet the BCEGS program maintains its local relevance. BCEGS classification has demonstrated a strong correlation to hazard resilience and day-to-day building safety."



Leslie Chapman-Henderson
President
Federal Alliance
for Safe Homes

The BCEGS analysis and ultimately the community's classification depend on some key criteria, including staffing levels and qualifications of plan reviewers and field inspectors, code adoption and amendments, and the community's commitment to building code enforcement.

ISO also takes into account:

- public awareness programs and code development activities in a community
- thoroughness of the inspection process

- details of the building department’s review of plans for residential and commercial buildings
- zoning provisions in force to mitigate natural hazards

During the evaluation, we also collect and analyze additional data when determining the classification:

- underwriting information, including natural hazard data in the area
- number of permits issued
- number of plan reviews conducted
- number of inspections completed
- building department funding and expenses
- size and population of jurisdiction
- fair market value of all buildings

Building departments and code enforcement efforts change frequently. That’s why our field analysts evaluate communities approximately every five years. Or we can survey a community sooner if its building code enforcement agency has made significant changes or when a community requests a resurvey.

“The BCEGS rating system is an invaluable tool that confirms — in an unbiased, external manner — our commitment to the safety and well-being of our community. Our ISO rating sends a powerful and unmistakable message to the residents and business owners of St. Louis County that our plan reviewers and inspectors are among the best-qualified in the entire nation.”

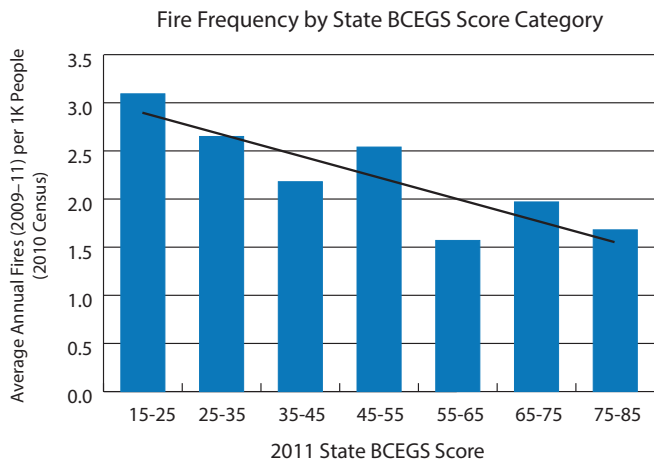
Charles A. Dooley
 Former County Executive
 Saint Louis County, Missouri
 Class 1 BCEGS community – commercial construction
 Class 2 BCEGS community – one- and two-family residential construction

Mitigation reduces building damage and economic loss

Here are just a few examples of how improved building codes can save billions of dollars and reduce damage from all types of natural disasters:

- Louisiana State University (LSU) conducted a modeling study to determine the mitigation effectiveness of the latest building code improvements following Hurricane Katrina. The study results, released in January 2006, were similar to results of studies conducted in Florida following Hurricane Andrew in 1992. The LSU study concluded that if communities had adopted and effectively enforced the latest building codes, the residential wind damage suffered in Mississippi during Hurricane Katrina would have been 65 percent less, a reduction from \$4.8 billion to \$1.7 billion.
- A 2005 study conducted by a council of the National Institute of Building Sciences concluded that funds directed toward hazard mitigation before an event reduce losses by almost four dollars for every dollar spent. The federal government supports that concept with predisaster grants to communities that effectively institutionalize natural hazard mitigation strategies in their building code adoption and enforcement.
- A 2013 study from the Wharton Risk Center looked at residential losses due to hailstorm damage, focusing on storms in Missouri between 2008 and 2010. The study found that proper roof construction and enforcement of related building code provisions resulted in less hail damage. Communities with effective building code enforcement experienced a 10 to 20 percent reduction in losses due to hailstorms. The study concluded that strong building code enforcement could reduce the average loss per claim by \$1,500 per home. We used BCEGS classifications to quantify the level of code enforcement for the communities in the study. Communities with more favorable BCEGS classifications experienced less financial loss due to hailstorm damage.

Building Code Effectiveness Classifications



This chart is the result of an internal study comparing fire frequency to points earned in the BCEGS program. The study indicates that rigorously enforced codes reduce the frequency of fires.

BCEGS schedule revisions

We're currently developing a revision to our BCEGS scoring schedule. While one may assume unamended, updated codes are most important to a community's resilience, our internal studies on points earned in the current BCEGS schedule and claims indicate enforcement efforts are even more critical. That's why our revision aims to emphasize code enforcement. We'll adjust the points deducted for an unamended code that is not within six years of the publication year.

Our studies also indicate that enforcement efforts play a key role in a building's resilience and day-to-day claims. Therefore, we propose increasing points earned for communities that staff their building code departments with professionals who are fully certified and earning continuing education credits.

We're also proposing additional credit for Master Code Professional (MCP) designations. And we're looking at a closer examination of the enforcement efforts for energy, wildland-urban interface (WUI), and fire code.

We want the plan review and special inspection section to better reflect the efforts put forth by a community's department. We're also considering methods to streamline the survey process.

For more information about the BCEGS program, please call ISO at 1-800-444-4554 or send e-mail to communitymitigation@iso.com. Be sure to visit ISO Mitigation Online at www.isomitigation.com — your source for up-to-date information on community efforts to mitigate the risk of losses from fire and natural hazards.



A Verisk Analytics Business

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