RESILIENCE RISING

Market Demand for Resilient Building Certifications

April 2024

ABOUT RESILIENCE RISING

Resilience Rising a platform for collective impact, bringing together global and local mission-driven organizations, initiatives, and other entities to work in partnership and achieve systemic resilience to the world's most pressing challenges. For more information, visit the Resilience Rising website.

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Summary

The rising frequency and scale of natural hazards pose an unprecedented threat to the built environment, jeopardizing the structural and economic fabric of our communities. These challenges threaten the integrity of real estate assets, public infrastructure, and communities, leading to negative operational, economic, and societal consequences.

In North America, building codes generally focus on life safety as opposed to resilience-based design. Building certifications could offer a pathway for practitioners, owners and operators to implement credentialed resilience guidance while garnering industry recognition for climate-safe advancements and proactive measures. They can also meet the need for a standardized resilience benchmark to help inform real estate reporting and investments, as well as insurance premium adjustments for assets that have implemented resilience design measures. Green Building certifications, for example, have served as a conduit for accredited decarbonization practices, not only achieving industry accolades for proactive sustainability but also setting a gold standard for performance. These efforts have guided investments, informed real estate reporting, and influenced the building policy landscape in many local jurisdictions.

However, there are few third-party resilience certifications for buildings available on the market – none that are widely accepted – and inconsistent guidance on designing for resilience. Recognizing this shortfall, Resilience Rising conducted a comprehensive survey with 59 cross-industry practitioner respondents, confirming an escalating demand for a resilience certification system that extends beyond traditional codes – a system that encapsulates a holistic, multi-hazard approach to resilience for buildings. In the following report, we summarize the findings of this industry-wide survey, which underscores the necessity and enthusiasm for a robust multi-hazard resilience certification for buildings.

KEY FINDINGS

81% of respondents feel that there should be a rating system focused on resilience.

Most respondents indicated that there is currently a moderate level of demand for a resilience certification system, and many noted that putting one in place would change market dynamics by increasing demand for resilient buildings across the industry.

76% of respondents believe that existing resilience design guidance for the built environment does not meet their needs, citing an industry-wide need to better understand and address climate risks.

Resilience emerged as a universal driving force for investment considerations among all respondents.

Respondents identified **flooding** – arising from increased precipitation, coastal surges, and riverine flows – and **extreme heat** as the most critical climate hazards.

Respondents' **main drivers** for considering resilience include:

- Reduced damage and associated repair costs
- Business continuity or reduced downtime
- Improved community resilience
- Reduced insurance rates and/or improved insurance ratings
- Extended building life

81%

of respondents feel that there should be a rating system focused on resilience.

Resilience emerged as a universal driving force for investment considerations among all respondents.

Survey Background

STUDY OBJECTIVE

Resilience is a complex, multi-disciplinary concept that may be difficult to embed in decision-making, investments, and building practices. Ensuring that the built environment industry has access to proper resources is critical to protecting owners, investors, and communities from the impacts of climate change now and in the future.

Between 2015 and 2050, it's estimated that an additional 2.5 billion people will join the urban population. This expansion will concentrate climate change-related risks in the world's cities, exposing underlying issues like inequality, poverty, poor governance, and inadequate infrastructure, which all undermine sustainable development. Rapid urbanization, especially in hazard-prone areas, will place many people beyond the reach of current formal climate policies, necessitating new approaches to climate-resilient urban development.

Despite this mounting challenge, the market lacks a widely accepted or utilized tool or resource for building-scale resilience. This study was conducted to assess interest and market need for a standardized approach to resilient building standards and certifications. We theorize that a standardized approach to building certifications would offer an opportunity to drive and mainstream industry-leading resilience guidance, adaptable for specific project localities and climate risks.

SURVEY RESPONDENTS

The survey's respondent group included practitioners from the built environment and real estate sectors, with the majority (81%) operating within the U.S. These respondents fill various roles within the industry – approximately one-third are designers, including architects and engineers. More than 75% focus their efforts on both new construction and the upgrading of existing buildings.

SURVEY RESPONDENTS

Figure 1. Percentage of respondents per role in built environment

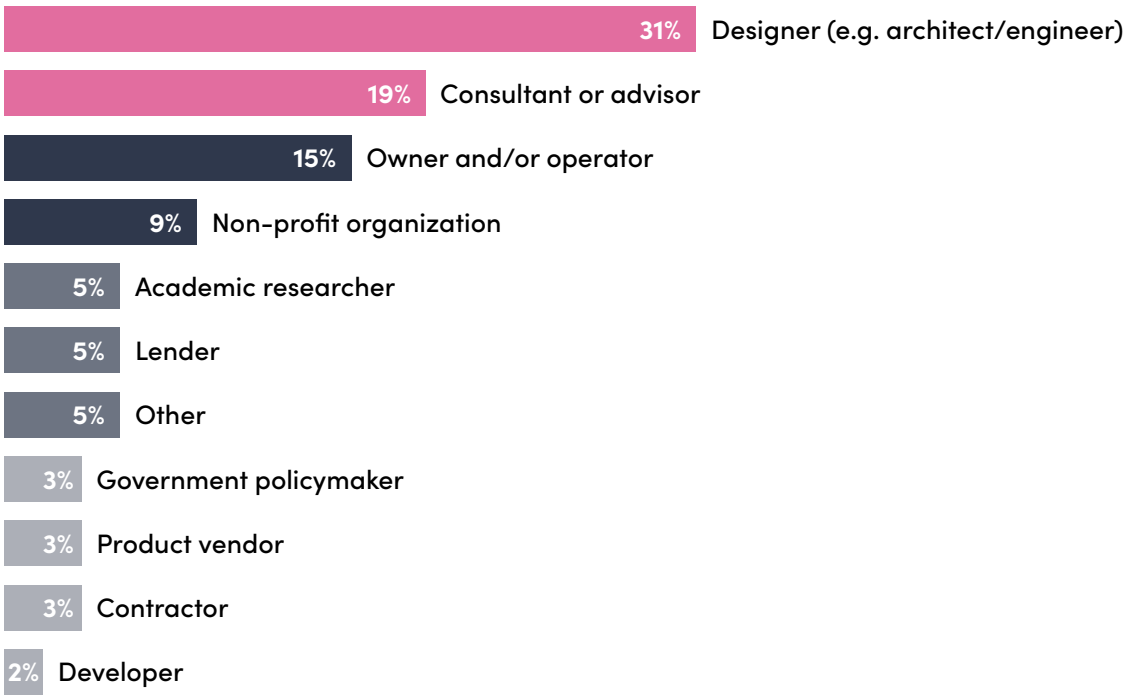
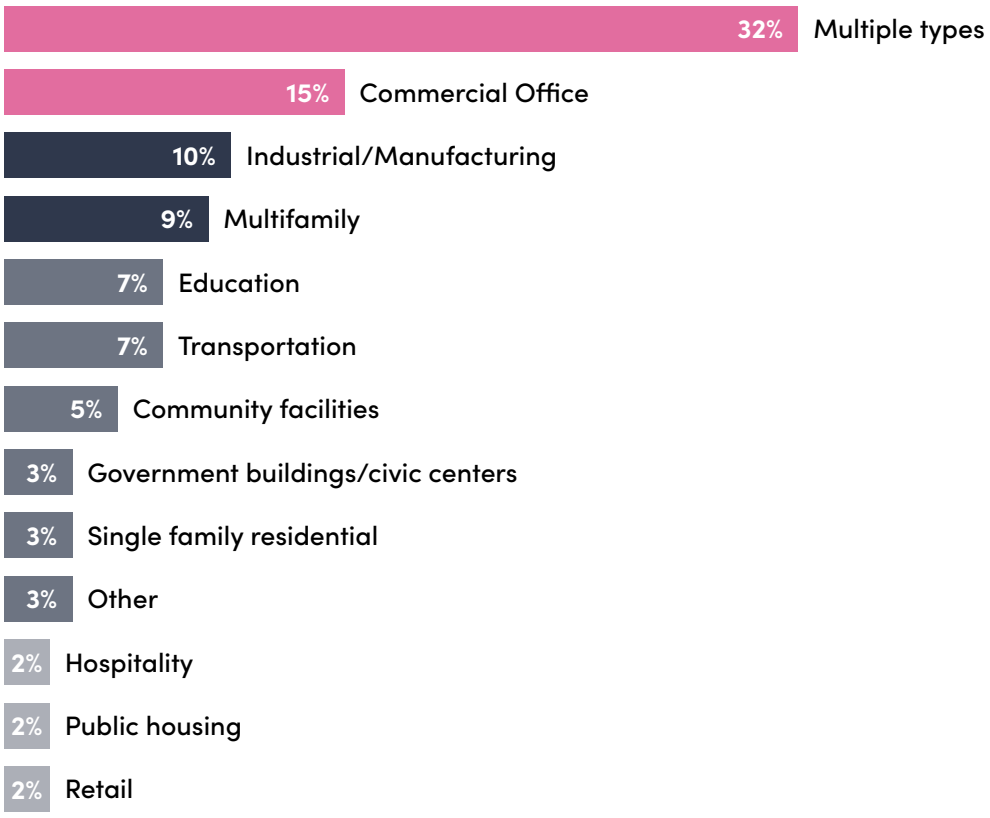


Figure 2. Primary use type in respondents' portfolios (Percent of respondents)



Key Takeaways

A GAP IN BUILDING CERTIFICATIONS

The industry currently lacks a universal standard for resilience, with over **76%** of respondents indicating the absence of a certification that meets their needs. Bridging this gap with a tailored resilience rating and certification system would enable the targeted implementation of hazard-specific mitigation measures in building design and retrofits.

Figure 3. Are there resilience certifications in existence to satisfy your needs?

FAVORABILITY & DEMAND FOR RESILIENCE CERTIFICATIONS

Incorporating resilience-focused building certifications early in the design process guides the integration of vital physical and organizational elements to minimize damage and bolsters operational continuity during extreme events. Utilizing a resilience certification received support from the vast majority of respondents, with **81%** acknowledging clear benefits and expressing demand for a resilience-focused certification system. Such a system would align with market needs to set new benchmarks for resilient building design and functionality.

The current demand for resilience certification systems is perceived as moderate, which reflects nascent awareness and implementation of resilience in the industry. Our survey results suggest that tailoring a certification process to meet the specific needs of practitioners would likely catalyze a significant uptick in the pursuit of resilient buildings. Moreover, some respondents suggested that visible markers of resilience and/or resilience certification, like official building plaques, may further motivate the adoption of resilience-based design practices.

Figure 4. Respondents (%) in favour of resilience certifications

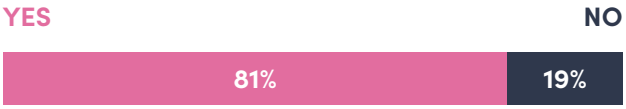


Figure 5. Level of current demand for a resilience certification

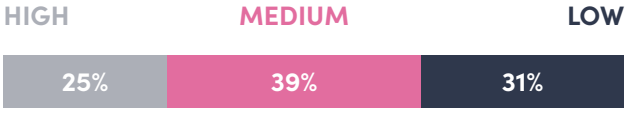
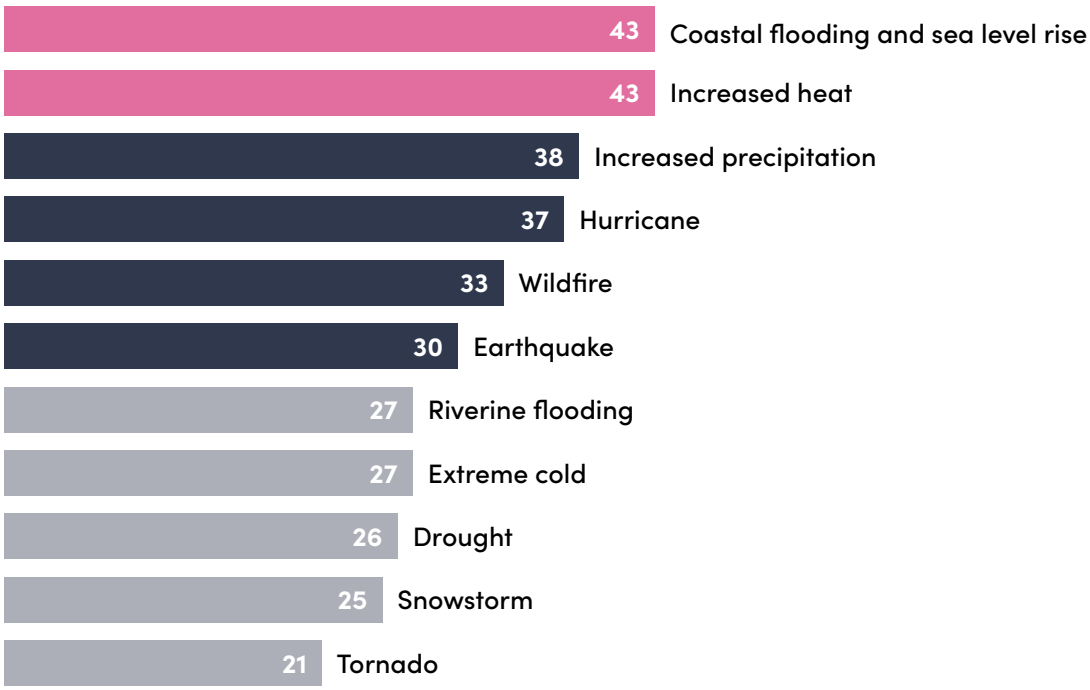


Figure 6. Would establishing a resilience certification system lead to a higher demand for resilient buildings?

CLIMATE HAZARDS AND THE BUILT ENVIRONMENT

Survey respondents identified heat, flooding, increased precipitation, hurricanes, and wildfires as the top natural hazards affecting their assets, with consensus from over half of the participants. Moreover, **all listed hazards garnered concern** from at least 30% of respondents, highlighting the need for comprehensive multi-hazard preparedness and acknowledgment of interrelated hazard impacts. These patterns align with the characteristics of a world with 2°C of warming, including a global rise in temperature extremes, increased heavy precipitation, and amplified coastal, riverine and pluvial flooding, as well as more severe drought conditions. Furthermore, projections of 3°C of warming would suggest a drastic exacerbation of these conditions, with environmental risks expected to increase nonlinearly, intensifying the urgency for resilience planning in urban development.

Figure 7. Critical climate and natural hazards that impact your company's assets (Number of respondents)



DRIVERS FOR RESILIENCE

Respondents pointed to a range of reasons why they consider resilience in their work, including economic benefits, risk mitigation, and leadership.

The predominant factors driving respondents to integrate resilience into their professional practice include:

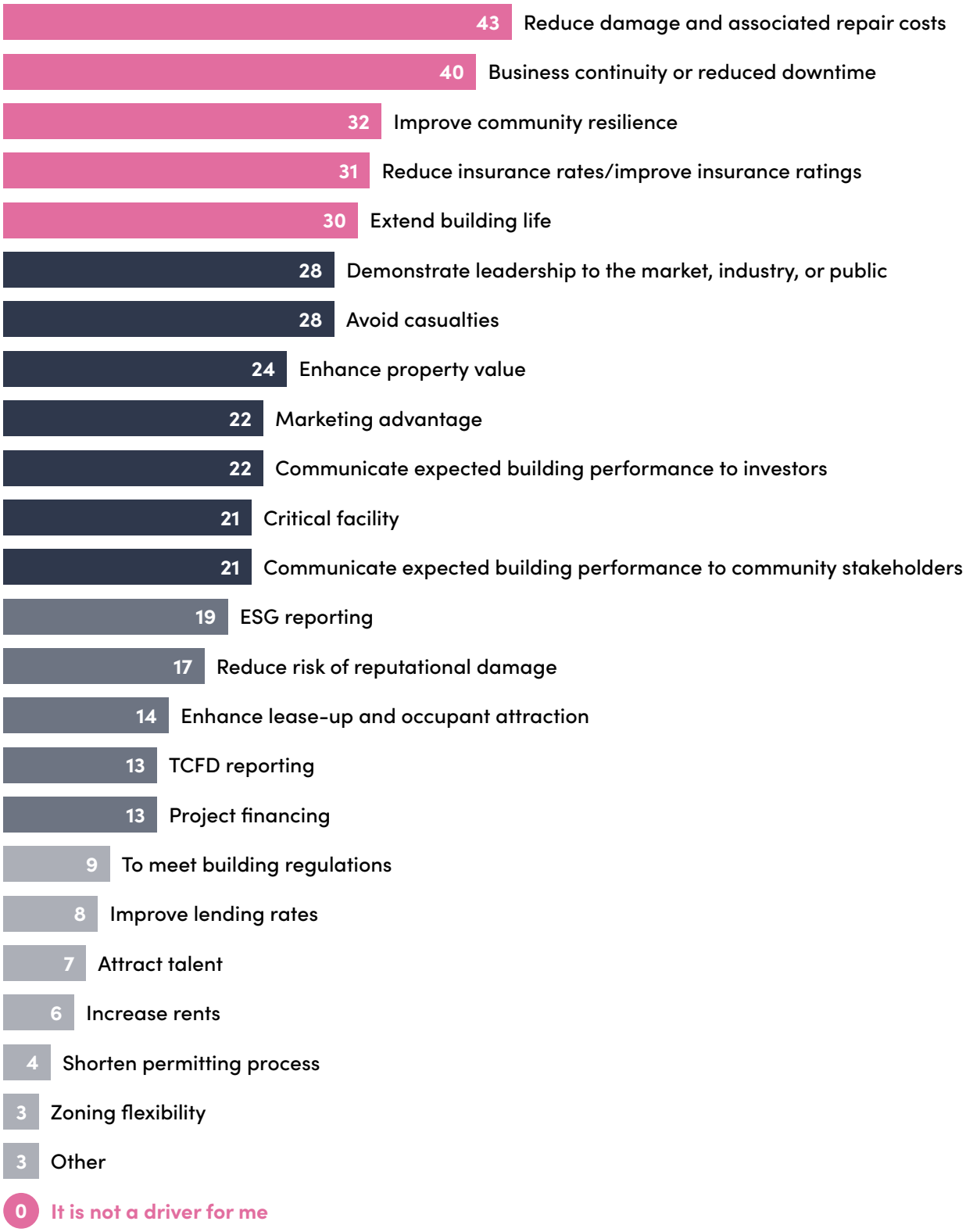
- decreasing damage and the costs of subsequent repairs
- guaranteeing sustained business operations with minimal interruptions
- bolstering the resilience of communities
- lowering insurance premiums
- enhancing the longevity of structures.

Notably, not a single participant dismissed resilience as inconsequential in their work.

This unanimity suggests a collective recognition of the value of resilience-based planning and design. While the primary motivations predominantly concern the robustness of buildings and the continuity of commerce, the prominence of community resilience as a key driver underscores a shift towards a more socially responsible perspective in resilience planning.

These results emphasize the unanimous consensus amongst respondents on the importance of resilience and draws attention to the broader implications of resilience measures—not just on individual businesses and buildings, but on the wider community. It suggests value in taking a holistic approach to resilience that encompasses both economic and social dimensions.

Figure 8. Drivers for resilience (number of respondents)



APPROPRIATE COSTS FOR RESILIENCE

Provided that the costs align with those of other existing certifications, there appears to be an openness among respondents to invest in a resilience-focused certification. However, the data indicates a degree of uncertainty regarding this commitment.

Respondents expressed concerns about the potential high costs and specialized expertise required for resilience certifications, which might not be feasible or relevant for all projects. Specifically, some respondents indicated that due to these constraints such certifications might only be sought for projects that are highly visible or deemed critical.

This cautious stance suggests that while there is interest in resilience certification, its adoption may be selective, prioritizing projects where the visibility and necessity justify the investment. This also suggests that willingness to invest in resilience certifications will hinge on a value proposition that balances cost with tangible benefits, highlighting a need for a certification process that is both accessible and adaptable to a range of project types and scales.

Figure 9. Willingness to pay for resilience certification

Figure 10. Interest in pursuing a resilience-focused professional accreditation

A Path Forward

The feedback from the survey unequivocally indicates a market appetite for a resilience-focused certification framework within the building industry. It reveals a notable deficiency in resources that could underpin decision-making, shape project designs, and steer investment strategies to bolster asset resilience. Respondents advocate for the creation of a predominant resilience standard, foreseeing it as a catalyst for change much like the LEED certification system, which gradually informed and transformed local codes and regulations. This is a trajectory Resilience Rising envisions—where a community of practice not only endorses but actively shapes industry standards, fostering a collective movement towards greater resilience.

Resilience Rising recommends convening key stakeholders to define the next steps based on these survey findings and to guide the development of a robust resilience certification framework. By uniting industry leaders, Resilience Rising aims to craft a future where resilient design is a fundamental criterion for all built environment projects.

Appendix

SURVEY METHODS

To gauge interest in a certification system for resilient design in new and existing buildings, Resilience Rising conducted a comprehensive survey. The survey was hosted online and open to the public for a duration of one month, attracting 59 participants. The responses were anonymized to ensure confidentiality and protect participant privacy. Each submission was evaluated for thoroughness and the data was analyzed to extract insightful findings and draw substantive conclusions.

SURVEY QUESTIONS

- First name; Last name; Organization; Professional/title; Location
- What is your typical role within the built environment?
- Are you primarily focused on new construction, existing buildings, or both?
- What is your main project typology?
- In your opinion, are there existing resilient design guidance resources that satisfy your needs?
- How would you describe the current demand for a resilience certification system in your industry/sector?
- What are the critical climate and natural hazards that impact your company's assets?
- Do you think there should be a rating system focused on resilience?
- If yes, is there an existing resilience certification system out there that satisfies your needs?
- If there was a resilience certification system already in place, do you think there would be a higher demand for resilient buildings?
- What are your primary drivers for considering resilience?
- Would you be willing to pay for a resilience-focused certification for a building, assuming the costs are relatively similar to other certifications?
- Would you be interested in pursuing a resilience-focused professional accreditation (e.g. LEED AP, WELL AP) if it was available?
- Is there anything else you would like to add about resilience-focused certifications?
- Are you willing to participate in a quick follow-up interview to further discuss your responses?