



# Survey of Insurance Costs for Multifamily Buildings Constructed with Wood-frame and Concrete

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Boston College | February 2024



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## **Acknowledgment**

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The National Ready Mixed Concrete Association is grateful to the Concrete Advancement Foundation for their support of this project.

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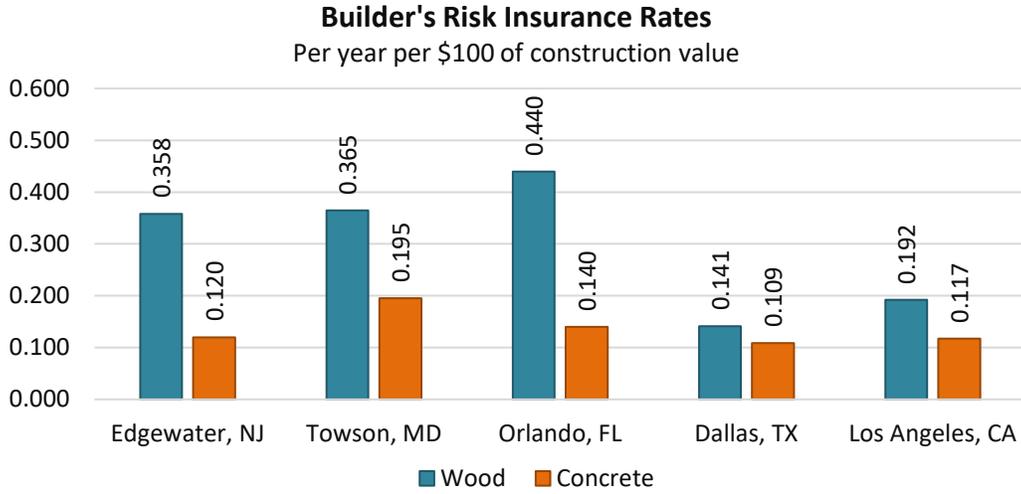
## **Executive Summary**

The objective of this project study was to replicate the 2017 study comparing insurance premium quotes for builder's risk insurance (during construction) and commercial property insurance (during occupancy) for a Reference Building built using combustible construction (wood-frame) and noncombustible construction (concrete) in five Reference Cities. The Reference Building is a 100,000-square-foot, 4-story apartment building with 15 one-bedroom apartments and 8 two-bedroom apartments per floor. The Reference Cities are Edgewater, NJ; Towson, MD; Orlando, FL; Dallas/Fort Worth, TX; and Los Angeles, CA. The 2017 study estimated the difference in insurance premiums for these types of construction. One of the main drivers of the study was the magnitude of loss in buildings each year due to structure fires.

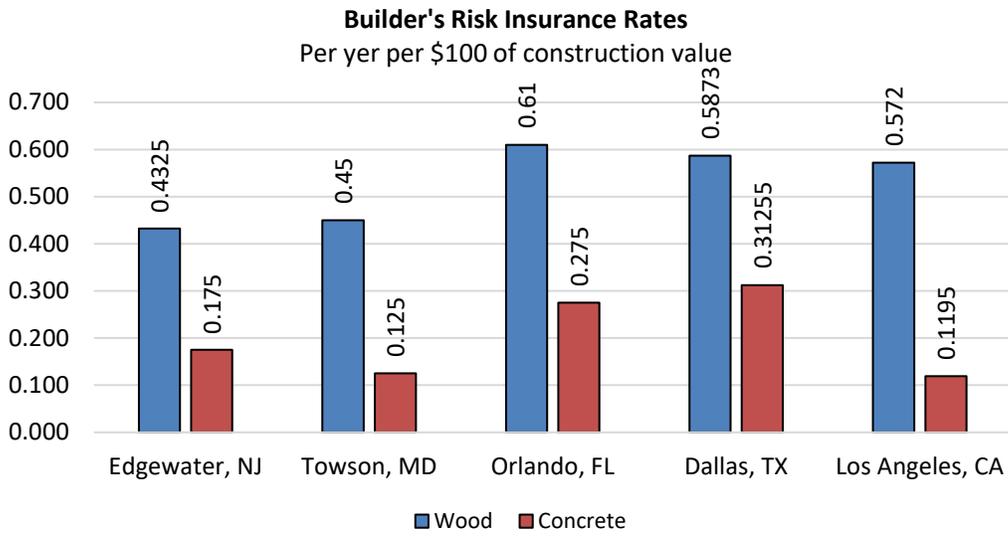
The current study solicited quotes for the same 100,000 square foot, four-story apartment Reference Building in the five Reference Cities.

Insurance rates are quoted as dollars of annual premium per \$100 of estimated building replacement value. Similar to the 2017 study, the rates varied widely, depending mostly on local geographic risk factors. Different regions of the country have various levels of risk from common hazards and some disadvantage one material more than the other.

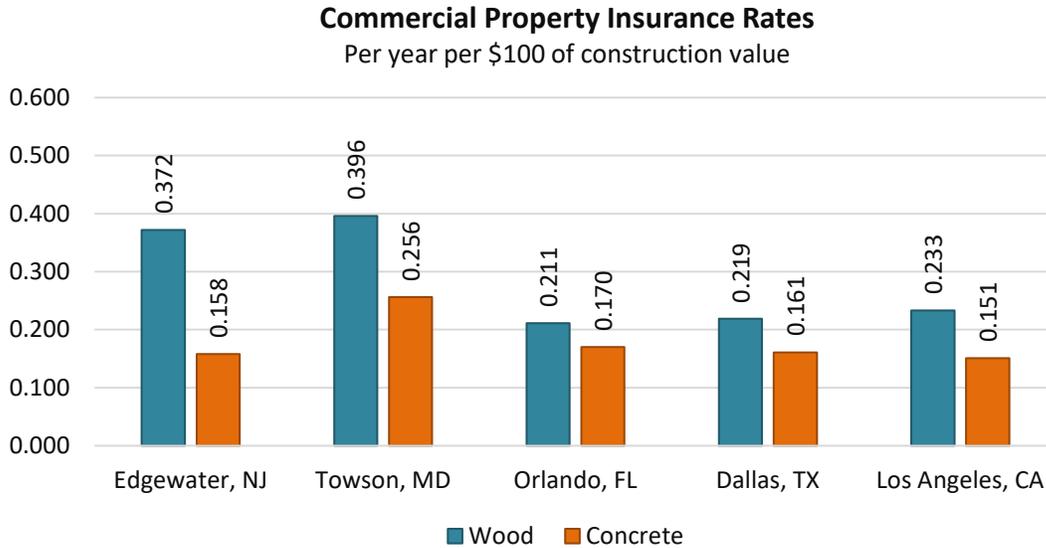
Quotes gathered from the US insurance companies once again consistently confirmed that the cost of insuring the Reference apartment building is lower for a building constructed of concrete instead of wood. This applies to both builder's risk insurance and commercial property insurance. For builder's risk insurance, the most significant difference was 80% less for the concrete building, and the smallest was 36% less. For commercial property insurance, the greatest and smallest differences found were 63% and 4% less, respectively. Figures 1 and 2 show the summary of results of Builder's Risk Insurance rates and Figures 3 and 4 show the summary of results of Commercial Property Insurance rates for the 2017 and 2023 studies, respectively.



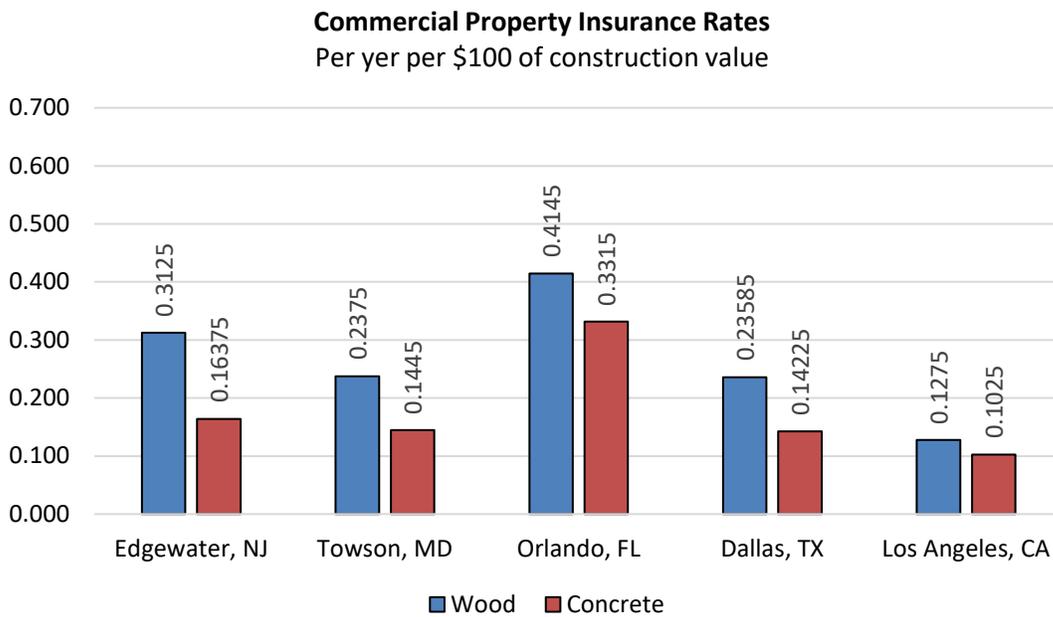
**Figure 1. The average quotes for builder's risk insurance for the Reference Building in five Reference Cities in 2017 Survey**



**Figure 2. The average quotes for builder's risk insurance for the Reference Building in five Reference Cities in 2023 Survey**



**Figure 3. The average quotes for commercial property insurance for the Reference Building in five Reference Cities in 2017 survey**



**Figure 4. The average quotes for commercial property insurance for the Reference Building in five Reference Cities in 2023 survey**

In each area, for each type of insurance and each construction material, researchers secured quotes from two different insurance agents and/or underwriters. The pairs of quotes are intended to serve as

a check on the reliability of the estimated savings found for buildings constructed with concrete.

Different quotes from different companies in the same region for the same type of insurance and building material were almost always fairly close.

The researchers received information from agents or underwriters that provided useful insight. They explained that the industry's quote process differs sharply from that in 2017 and now tends to be more automated using big data techniques. Some quotes suggest that rates, and the differences between wood frame and concrete quotes, are sharply higher in areas with a high risk of natural disaster. Sources also reported that they are refusing to provide insurance altogether in areas of especially high risk of natural disaster and in the case of buildings with perceived extra hazard such as solar panels on the roof.

## Introduction

Multifamily residential buildings are built using a variety of construction types, methods and materials. There are many risks to property and occupants of multifamily residential buildings, including fire, water intrusion, extreme weather and other natural disasters. Developers and building owners of multifamily buildings must insure these buildings during construction (builder's risk insurance) and during occupancy over the building lifetime (commercial property insurance) against these risks.

In 2017, NRMCA commissioned a survey of insurance costs for multifamily buildings to quantify the expected differences in costs to insure a building construction of combustible versus noncombustible construction. One of the main drivers behind the study was the magnitude of loss in buildings each year due to structure fires. Because combustible construction carries higher risk of fire, wind, water damage and other losses than noncombustible construction types, it was expected that buildings constructed using combustible materials would cost more to insure than those built with noncombustible materials. As part of the 2017 study, quotes for insurance rates and premiums for builder's risk insurance and commercial property insurance were gathered for a Reference Building built using combustible construction (wood-frame) and noncombustible construction (concrete) in five Reference Cities.

All of the insurance quotes compiled in 2017 showed the concrete apartment building was less costly to insure than the wood frame apartment building. For builder's risk insurance, the most significant difference was 72% less for the concrete building, and the smallest was 22% less. For commercial property insurance, the greatest and smallest differences found were 65% and 14% less, respectively. The study revealed that insurers are aware of the risks of building with combustible construction and the benefits of building with noncombustible construction. Some insurance agents suggested that the gap between rates for wood frame and concrete would be likely to grow in the future and observed that a growing number of insurers were declining to serve as sole insurer for wood-frame apartment buildings.

Consequently, with the rising cost of construction, the objective of the current study is to confirm that the difference in insurance costs for combustible versus noncombustible construction are growing. As part of the current research, quotes were solicited for the same 100,000 square foot, four-story apartment Reference Building in the five Reference Cities.

## Definitions

### Multifamily Residential

Multifamily residential includes traditional apartment buildings, condominium buildings, hotels, student housing and elderly housing.

### Combustible Construction

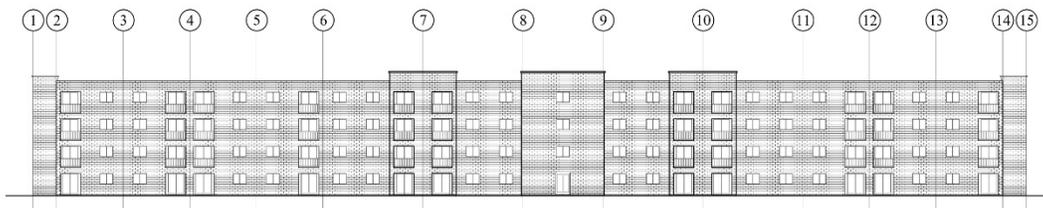
Wood-framed construction including wood stud wall framing with floors built with dimensioned lumber or engineered wood products meeting building code requirements for Type V construction.

### Noncombustible Construction

Concrete and/or masonry construction including cast-in-place concrete, precast concrete, insulated concrete forms and load-bearing concrete masonry meeting building code requirements for Type I, II or III construction.

### Reference Building

The Reference Building is a 4-story multifamily residential (apartment building) structure encompassing approximately 25,000 gross square feet per floor for total area of 100,000 gross square feet. The Reference Building comprises 15 one-bedroom apartments and 8 two-bedroom apartments per floor. See Figures 5, 6 and 7 for drawings of the Reference Building including building elevation, floor plans and wall sections.



**Figure 5: Reference Building elevation**

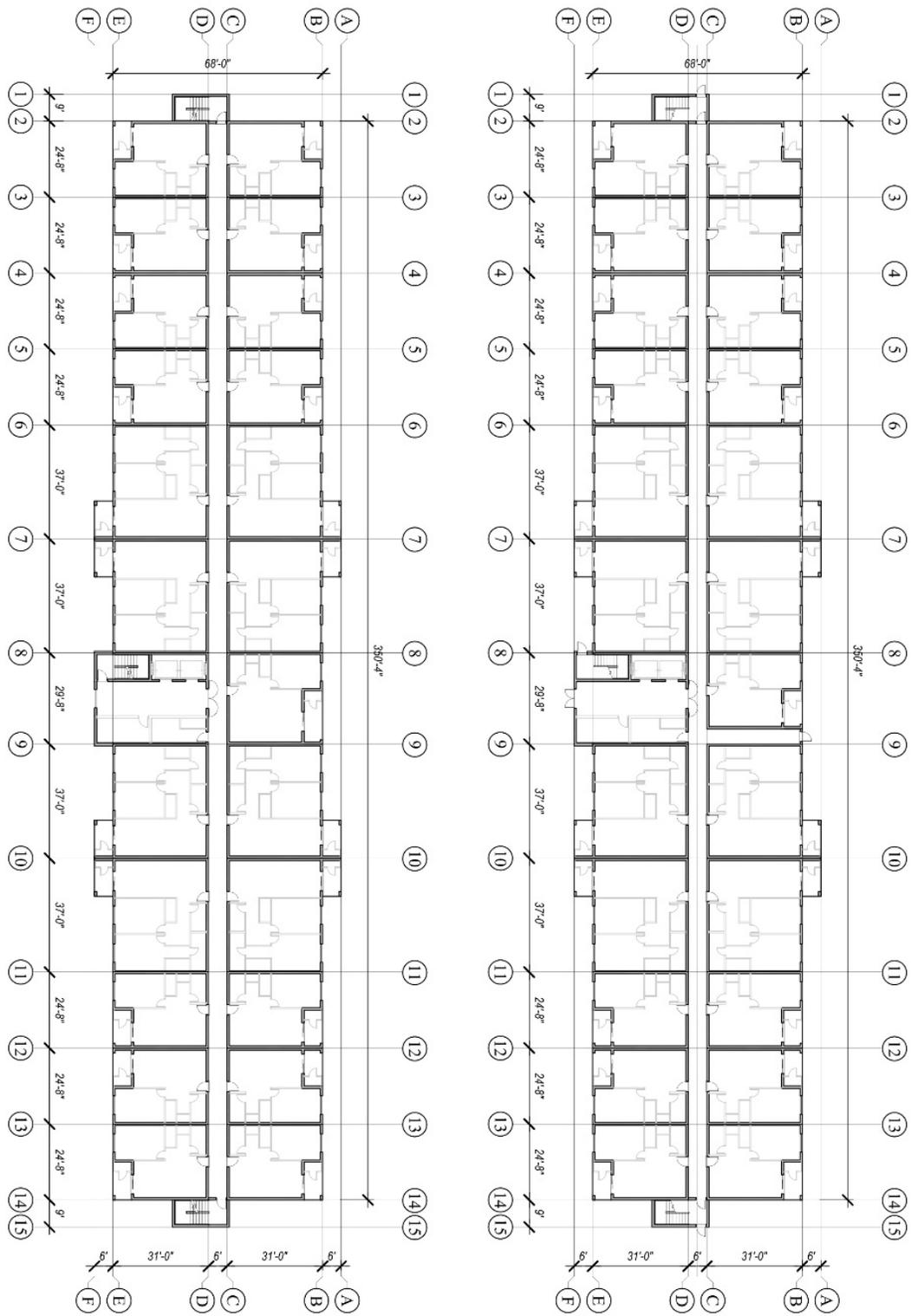
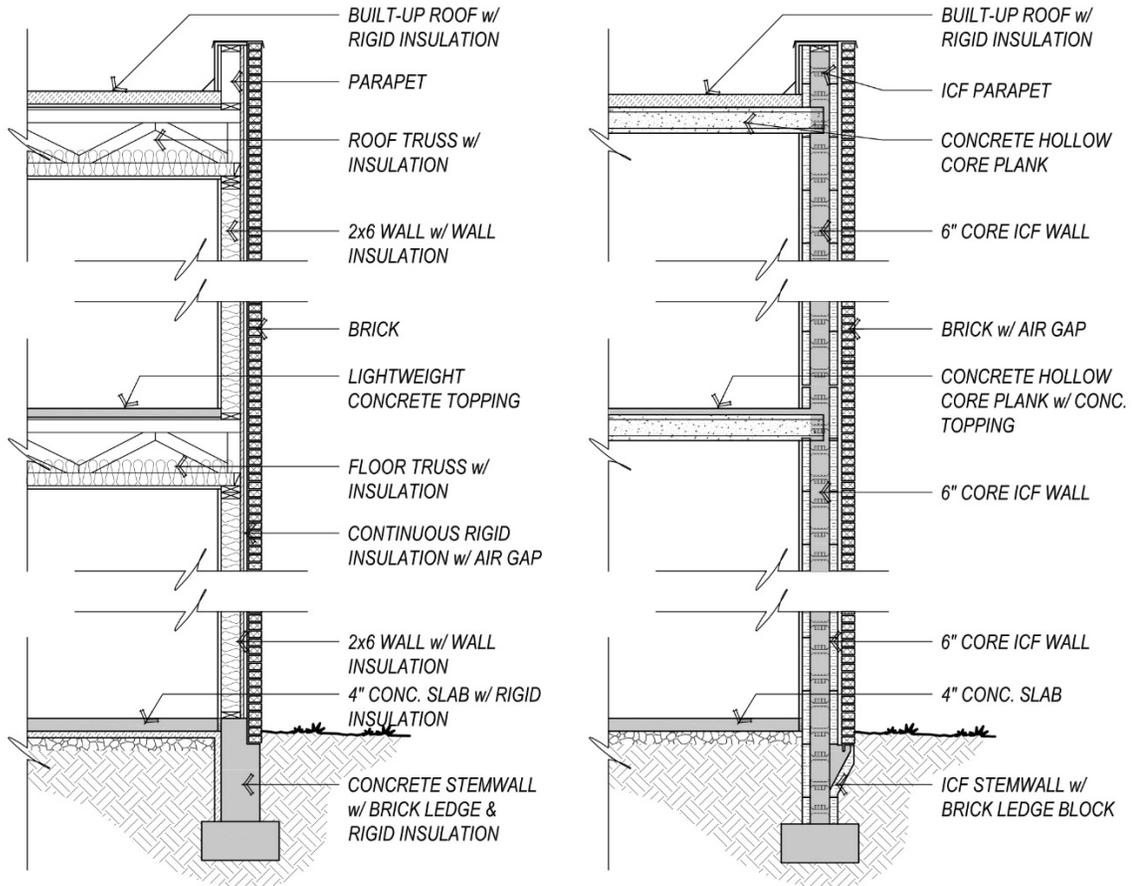


Figure 6: Reference Building floor plans



**WOOD-FRAME**

**CONCRETE**

**Figure 7: Reference Building wall sections**

## **Reference Cities**

The Reference Cities were selected to encompass locations that are subject to different hazards to capture differences in insurance rates in different regions of the country. Reference Cities are:

- Edgewater, NJ
- Towson, MD
- Orlando, FL
- Dallas/Fort Worth, TX
- Los Angeles, CA

## **Methodology for Gathering Insurance Rate Information**

The investigators sought estimates of the insurance rate for a standardized building for each of the builder's risk and the commercial property insurance. Quotes were requested for a structure constructed of wood frame and a structure constructed of concrete in each of the five Reference Cities. In each Reference City, researchers also sought an estimate of each rate (builder's risk insurance and commercial property insurance) from two separate companies as a check on accuracy and consistency. This resulted in 40 separate quotations (two sources x two types of insurance x two materials x five Reference Cities).

In the 2017 study, most of the researchers' contacts were with insurance agents. The agents had enough experience to make accurate quotes themselves or contacted underwriters who provided them with the information on a quick turnaround. However, this approach was not productive in the current study. The quote process was observed to be much more time intensive. Most agents were unable or unwilling to provide quotes for a hypothetical building. In many cases, researchers were more successful when contacting underwriters directly, whether independent or part of a carrier. Although underwriters do not generally deal with the public, they were observed to be in the best position and more willing to provide quotes for the current study. In some cases, other parties than underwriters did provide quotes. Therefore, sources for insurance rate information in this study will be referred to as "interviewees."

## **Reference Building**

The investigators requested interviewees to provide rate quotes for a four-story apartment building with 15 one-bedroom apartments and 8 two-bedroom apartments occupying 25,000 square feet of floor space on each floor, for a total of 92 apartments and 100,000 square feet of floor space.

Whenever questions of building details other than materials arose, they instructed the interviewees

to assume whatever is most common local practice. However, even with this approach, the interviewees felt they needed guidance in some specifics. Many required an exact address. In this case, the researchers simply picked a plausible address in the target area. In other cases, the interviewees did not want to make a guess as to what was most “common” in their area for such attributes as whether the building had fire sprinklers or whether they would be under guard 24 hours a day during construction. In this case, the researchers asked someone local what is typical and supplied this to the interviewee.

Most interviewees created a new set of quotes specifically for this exercise. This differed from observations in the 2017 study, where about half of the agents interviewed created a new set of quotes specifically for this exercise, assuming the building as described. Creating a new set of quotes for the purposes of the 2023 study, however, required supplying or assuming a large arrange of numbers that could be fed into a complex computer calculation. A few experienced industry personnel felt confident with a manual calculation based on the building parameters and location alone.

### **Metropolitan Area**

The difficulty in obtaining quotes motivated the researchers to expand the areas from which they were willing to take quotes. Thus, the metropolitan area of a city in this study is understood to mean within the city limits or within 50 miles of them.

### **Second Quotes**

The research team followed a strict policy of accepting only one set of quotes in a region from one source. For example, if one agency in New Jersey provided builder’s risk insurance quotes (one for wood frame and one for concrete) for Towson, then the team would not seek or accept a second set of quotes for builder’s risk insurance in the Towson area from the same organization. This allowed for comparing different quotes from the same region to help determine the extent to which quotes for a single insurance scenario are consistent and reliable independent of the source.

Most companies offered only builder’s risk insurance or commercial property insurance. However, in cases where one organization provided both, the researchers would accept quotes for both types of insurance from the same organization. They then sought the alternative quotes for the region from other organizations. A few large insurance companies offered insurance in more than one of the study regions. In this case, the researcher sometimes got a set of quotes in more than one region from the company, but then found a second set in each region from another organization.

A few organizations provided a quote in a region and a type of insurance for one material but not the other. The team saved these in case they provided interesting additional information, but they are never included in the primary reported data set. If a quote for a concrete structure in a given scenario came from one company and a quote for a wood frame structure came from another, there would be no practical way to isolate how much of the difference of rates was due to the material.

## The Process of Developing Building Insurance Quotes

Traditionally, multiple parties are involved in the determination of both builder's risk insurance and commercial property insurance premiums. Industry data warehouse companies supply extensive statistics on historical damage and insurance payouts for all types of buildings. Analysts insert these data into mathematical models to produce recommended insurance rates for specific properties. They provide these rates to underwriters who may adjust them and have final say in the rate to quote for a building. The underwriters may add strategic business factors and personal judgment from experience into their determination of the final rate.

Over the course of the 2017 study, quotes were routinely made with a relatively simple equation. The typical quotation included a more-or-less fixed charge for policy loan and origination, plus a set of added amounts for each potential source of damage (called a peril) to be covered by the policy. All of these amounts could vary somewhat by insurance company, and particularly the peril charges could vary widely by geography. For example, the charge for wind damage was sharply higher in coastal areas. Similarly, the charge in builder's risk insurance for theft was much lower for projects with extensive security measures. In general, the charge for any given peril might be higher or lower depending on the specifics of the project and how those specifics influenced the level of risk of the particular peril.

The calculation for a project also varied according to what perils the policy was written to include. For each peril included, the appropriate charge for that peril was added. The charge for any excluded perils was not added in.

It was observed in the current study that the quote process of insurance companies today is sharply different than the process was in 2017. Instead of a simple equation, quotes are usually made by supplying a much larger number of project details into a computer program. The program executes a more complex calculation to get the quote. It appears that the program of different companies may be quite different from its competitors.' However, the results appear to be very similar. The interviewees more familiar with the methods explained that the same sorts of factors were included and influenced the final rates in similar ways. All of this held true for the insurance agents and the underwriters contacted by the researchers.

The researchers often did not have all the details for their hypothetical project that the programs required. In these cases, they provided the building specifications, a suitable address gleaned from the internet, and asked that every other specification be what was typical for the area. They also specified that all factors other than the material be the same for both the concrete and wood frame versions of the building.

Similar to the 2017 study, researchers found insurance rates generally to be expressed as a number of dollars per year per \$100 of building replacement cost, permitting rapid recalculation of the total premium as the estimated cost of the building changes.

Although the replacement cost of a building may vary from the original construction cost, the two

figures are typically close. It is common to estimate the total annual insurance premium by multiplying the underwriter's insurance rate by the construction cost.

### **Builder's Risk Insurance**

Builder's risk insurance protects the insurable interest in materials, fixtures and/or equipment being used in the construction or renovation of a building or structure should those items sustain physical loss or damage from a covered peril. The policy can be taken out by either the contractor or the owner of the property.

The general factors that determine insurance rates are the same currently as they were in 2017. Now they are simply weighted and combined with relatively complex computer programs instead of simple formulas.

Builder's risk policies usually include similar coverage across carriers. This appears to be relatively the same as was observed in 2017. The industry norm is that a builder's risk insurance policy covers the perils fire, wind, lightning, explosion, vandalism, and theft. Some other perils are covered in the standard policy in some areas of the country. However, the increment to the premium varies widely, reflecting the variation in risk from these perils from location to location. The most common of these additional perils is hail. In places where coverage for these perils is not standard, it may be added to the standard policy as a so-called extension at an appropriate extra charge for each peril. However, they may not be available even as extensions in some areas.

A few other perils are almost never standard, but are frequently available as extensions. The most common of these are earthquake, flood, back-ups from sewers and drains, and damage to equipment and materials in transit to the job site. Some perils are routinely expressly excluded from coverage with no option for an extension. Chief among these are employee theft, weather damage to property left in the open, war and government action.

A policy is usually written to cover 100% of replacement cost. In the event of a claim on insurance, the insured is to record all damages and how they occurred, the cost of replacement and submit a written note to the insurer. The insurer will make a "hard and soft" cost valuation. "Hard costs" are the costs to replace a material loss, while "soft costs" are the costs accrued due to relocation, loss of time, legal counsel, architectural and engineering services, and other new or extended costs due to the incident.

Underwriters and insurance agents are highly interested in the on-site safety practices and the loss history of the contractor while determining the rate for a builder's risk policy. On-site smoking, carelessness with fire torches and other flame equipment are large contributors to fire damage. Policy rates may be adjusted should precautions be found lax.

Construction materials impact rates through their influence on the likelihood and magnitude of claims from the covered perils. Concrete structures are generally considered to be less susceptible to damage from fire, wind, and water damage. In areas of the country where such perils are common, the difference between wood frame and concrete building rates are accordingly higher.

## Commercial Property Insurance

Commercial property insurance provides financial reimbursement to the owner of a building that is in operation or occupied for the structure and its contents. The determination of commercial property insurance rates is mostly the same as it is for builder's risk insurance rates, with some differences in details.

The coverage of commercial property policies varies more across carriers than the coverage of builder's risk insurance policies and rates tend to vary more as a result. A typical commercial property insurance policy covers the perils of fire, wind, hail, lightning, theft, vandalism and some types of water damage. Water damage caused by floods, tsunamis, drain backups, sewer backups, groundwater seepage, standing water and many other water sources do not typically come standard, but are frequently purchased as extensions. Mold, earthquakes, and nuclear events and acts of war are normally expressly excluded with little or no opportunity for extension.

Filing a claim is similar to the process for a builder's risk policy, but coverages will be organized around the real property loss, personal property loss, business interruption (the costs to cover lost rent or other income that was lost as a direct result of the damage), extra expense (costs to continue business on a temporary basis elsewhere) and increased cost of construction (due to changes such as new building codes or inflation).

The protection class (a measure of how prepared a structure is to fight a fire, the proximity to a fire department, the percent of the building that is sprinklered and the like) and the proximity to known catastrophic weather such as forest fires and hail are considered the most influential factors for determining the premium for a property policy. Fire is the largest cause of damage to multifamily structures and, as such, rates will correspond largely to the amount of fire risk on the property.

## Insurance Rate Quotes for the Reference Building

Below are the insurance rate quotes obtained from insurance agents interviewed for the Reference Building in the five Reference Cities. All quotes are in dollars per year per \$100 of building replacement cost.

### In or near Edgewater, NJ

<b>Builder's Risk</b>	<b>Quote 1</b>	<b>Quote 2</b>	<b>Average</b>
<b>Wood</b>	0.45	0.415	<b>0.4325</b>
<b>Concrete</b>	0.175	0.175	<b>0.1750</b>
<b>Percentage savings</b>	<b>61.1%</b>	<b>57.8%</b>	<b>59.5%</b>

<b>Commercial Property</b>	<b>Quote 1</b>	<b>Quote 2</b>	<b>Average</b>
Wood	0.35	0.275	<b>0.3125</b>
Concrete	0.2125	0.115	<b>0.16375</b>
Percentage savings	<b>39.3%</b>	<b>58.2%</b>	<b>47.6%</b>

**Towson, MD**

<b>Builder's Risk</b>	<b>Quote 1</b>	<b>Quote 2</b>	<b>Average</b>
Wood	0.45	0.45	<b>0.45</b>
Concrete	0.1	0.15	<b>0.125</b>
Percentage savings	<b>77.8%</b>	<b>66.7%</b>	<b>72.2%</b>

<b>Commercial Property</b>	<b>Quote 1</b>	<b>Quote 2</b>	<b>Average</b>
Wood	0.135	0.34	<b>0.2375</b>
Concrete	0.129	0.16	<b>0.1445</b>
Percentage savings	<b>4.4%</b>	<b>52.9%</b>	<b>39.2%</b>

**Orlando, FL**

<b>Builder's Risk</b>	<b>Quote 1</b>	<b>Quote 2</b>	<b>Average</b>
Wood	0.55	0.67	<b>0.61</b>
Concrete	0.35	0.2	<b>0.275</b>
Percentage savings	<b>36.4%</b>	<b>70.1%</b>	<b>54.9%</b>

<b>Commercial Property</b>	<b>Quote 1</b>	<b>Quote 2</b>	<b>Average</b>
Wood	0.43	0.399	<b>0.4145</b>
Concrete	0.29	0.373	<b>0.3315</b>
Percentage savings	<b>32.6%</b>	<b>6.5%</b>	<b>20.0%</b>

## Dallas/Fort Worth, TX

<b>Builder's Risk</b>	<b>Quote 1</b>	<b>Quote 2</b>	<b>Average</b>
Wood	0.6106	0.564	<b>0.5873</b>
Concrete	0.2756	0.3495	<b>0.31255</b>
Percentage savings	<b>54.9%</b>	<b>38.0%</b>	<b>46.8%</b>

<b>Commercial Property</b>	<b>Quote 1</b>	<b>Quote 2</b>	<b>Average</b>
Wood	0.2	0.2717	<b>0.23585</b>
Concrete	0.184	0.1005	<b>0.14225</b>
Percentage savings	<b>28.0%</b>	<b>63.0%</b>	<b>39.7%</b>

## Los Angeles, CA

<b>Builder's Risk</b>	<b>Quote 1</b>	<b>Quote 2</b>	<b>Average</b>
Wood	0.425	0.719	<b>0.572</b>
Concrete	0.1	0.139	<b>0.1195</b>
Percentage savings	<b>76.5%</b>	<b>80.7%</b>	<b>79.1%</b>

<b>Commercial Property</b>	<b>Quote 1</b>	<b>Quote 2</b>	<b>Average</b>
Wood	0.135	0.12	<b>0.1275</b>
Concrete	0.105	0.1	<b>0.1025</b>
Percentage savings	<b>22.2%</b>	<b>16.7%</b>	<b>19.6%</b>

## Patterns in the Data

Every pair of quotes in the same region-insurance type scenario from the same organization showed a lower rate for the concrete structure versus the wood frame. However, the magnitude of the quotes across types of insurance and across regions varied widely, and the magnitude of the difference between concrete and wood quotes tended to vary with them.

Estimated builder's risk insurance premiums were always higher than commercial property insurance for wood structures. In many cases, the difference was large, double or more. According to our interviewees, this is because occupied buildings tend to be more protected than buildings under construction. For example, occupied buildings are protected by automatic fire sprinklers and fire alarm and detections systems, and some have on-site caretakers.

For concrete buildings, the difference between builder's risk insurance and commercial property insurance quotes is consistently much closer and is sometimes reversed. This is apparently because some of these risks were already low during construction. For example, a concrete structure under construction does not need active sprinklers to be fire-resistant. After the building is occupied, it may actually be more at risk of serious fire damage because of flammable finishings and contents. The result is the advantage of concrete versus wood appears to be sharply greater for builder's risk insurance and commercial property insurance. At the extreme, the estimated average reduction in insurance premium from building with concrete in Los Angeles was approximately 19 times as great for builder's risk insurance than commercial property insurance. Mathematically, this was in part because Los Angeles had some of the highest estimated average builder's risk insurance rates (and therefore a large difference in builder's risk insurance across materials), but some of the lowest commercial property insurance rates (and therefore a small difference in CPI rates across materials).

As suspected, insurance rates varied substantially across regions. Builder's risk rates were lower in the Northeast and higher in the Southern states. This reflects greater risk from fire in the Southwest and wind in the Southeast. However, for commercial property insurance, Florida stands out with the highest rates and those for Texas and California fall sharply to be in line with, or lower than, those of New Jersey and Maryland.

The rates across different insurance organizations within the same region-material scenario are consistently close, compared with the differences across regions and across materials. As one might expect, some of the greatest differences across insurance companies occur in scenarios where the absolute numbers are high. For example, the greatest difference in the quotes from two different companies occurs in builder's risk insurance for a wood frame building in the Los Angeles region, with a gap of 0.294 dollars per hundred. But this is the insurance type-material scenario with nearly the highest estimated average rate overall. This sort of consistency provides some confidence that the quotes received are reliable.

## **Other Findings**

Additional interesting information arose over the course of the study from some sources. The research team received a few extra quotes that were out of the Reference City regions in the study but helped gauge the impact of coastal locations and their high wind risk on insurance rates. One interviewee provided quotes for CPR for buildings in Ocean City, MD, when solicited for quotes for the Towson area. Ocean City is on Fenwick Island, a narrow barrier island between the Atlantic Ocean and the isle of Wight Bay. Exposure to the wind and storms of the Atlantic on Ocean City is extreme. The underwriter interviewed quoted CPT rates of 0.4426 \$/hundred for a wood frame building and 0.2645 \$/hundred for concrete. This is nearly double the average rates quoted for the Towson region.

A source in Florida asked to quote for a policy in Orlando advised that their company provides builder's risk insurance only in and around Lakeland. Lakeland is much farther from the Atlantic than Orlando. Lakeland is closer to the Gulf of Mexico, but not as close as Orlando is to the Atlantic, and the eastern Gulf is considered the less risky coast. The source provided a quote for builder's risk insurance for a

concrete building in Lakeland of 0.165 \$/hundred, which is somewhat lower than either of the other two quotes for builder's risk insurance for concrete in Orlando. The source also stated that their company does not insure wood frame structures at all, and indicated that this was a common practice for companies insuring buildings along the coast. This is a significant difference in outcome from the 2017 study, where no interviewee stated that any insurance companies refused to cover any wood-frame apartment buildings as a matter of blanket policy.

Similarly, an interviewee in Southern California shared that their company had a policy against insuring wood frame buildings with solar panels on the roof. They considered the risk of electrical fires from the electrical power equipment to be too high.

## Estimating Insurance Premiums for the Reference Building

Given the insurance rates quoted in this report, it is possible to estimate insurance premiums for the Reference Building used for this study. A 100,000-square-foot apartment building would cost approximately \$14,000,000 to build. This would vary by city, but for the purposes of this example we will assume the cost of construction is constant. The building would take 15 months to complete.

BUILDER'S RISK PREMIUM = RATE x CONSTRUCTION COST/100 x CONSTRUCTION MONTHS/12 total

COMMERCIAL PROPERTY INSURANCE PREMIUM = RATE x CONSTRUCTION COST/100 annually

To calculate insurance premium for Edgewater, NJ:

BUILDER'S RISK PREMIUM (Wood) =  $0.4325 \times \$14,000,000/100 \times 15/12 = \$75,688$  total

BUILDER'S RISK PREMIUM (Concrete) =  $0.175 \times \$14,000,000/100 \times 15/12 = \$30,625$  total

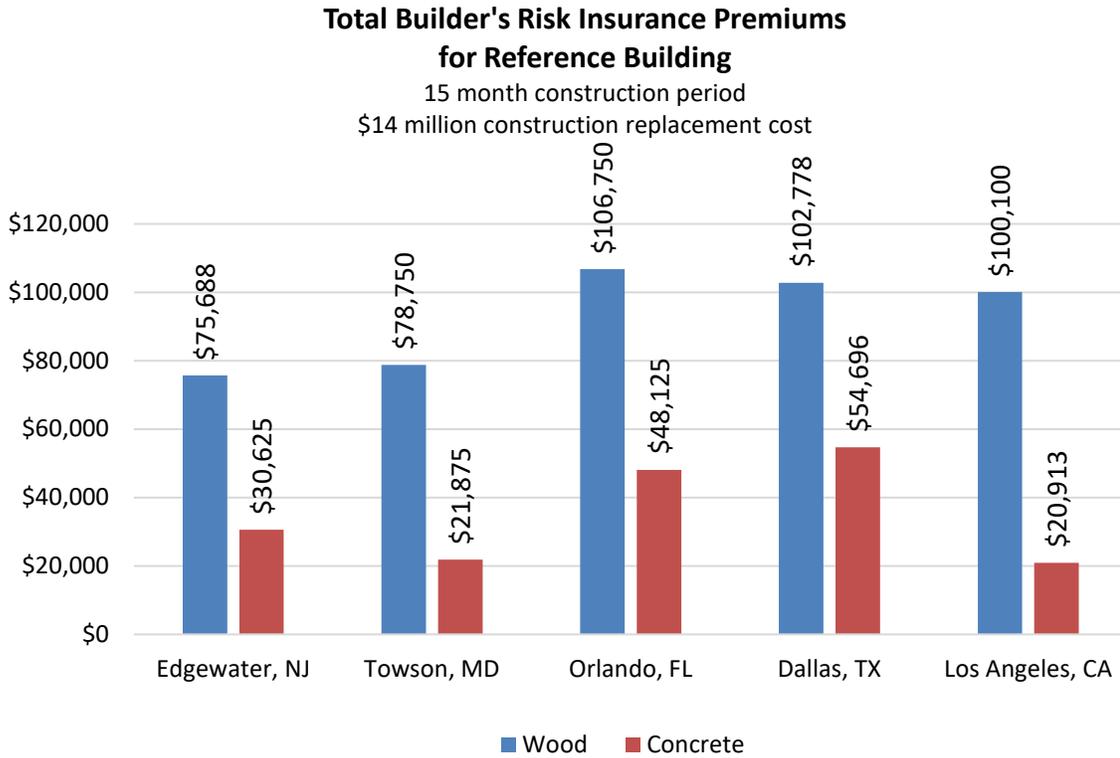
COMMERCIAL PROPERTY INSURANCE PREMIUM (Wood) =  $0.3125 \times \$14,000,000/100 = \$43,750$  annually

COMMERCIAL PROPERTY INSURANCE PREMIUM (Concrete) =  $0.16375 \times \$14,000,000/100 = \$22,925$  annually

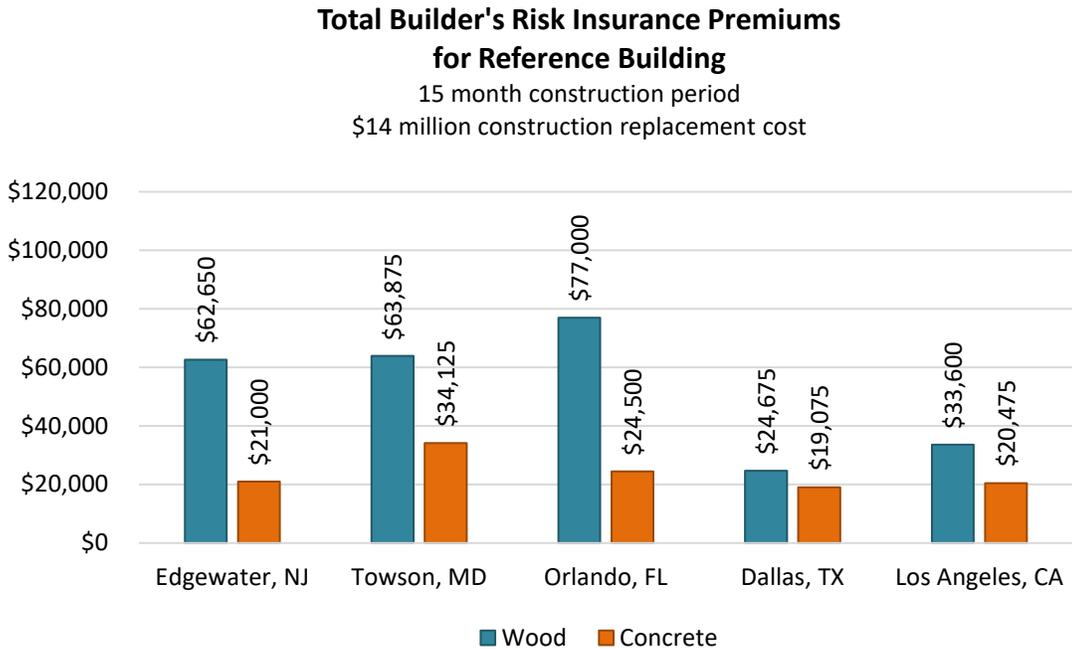
A summary of builder's risk insurance premiums and property insurance premiums for the Reference Building in all five Reference Cities are shown in Figure 8 and 10, respectively. Figures 9 and 11 show the previous premiums published for builder's risk insurance and commercial property insurance in the 2017 study.

In comparing the estimations in 2023 and 2017, it can be observed that the cost of insurance premiums for builder's risk insurance has increased over time as expected. For commercial property insurance, a sharp increase between 2017 and 2023 is observed for Orlando, Florida, likely due to extreme weather experienced due to its coastal location.

The gap between rates for wood frame and concrete for both builder's risk insurance and commercial property insurance has also grown in most cities as anticipated by agents interviewed during the 2017 study.



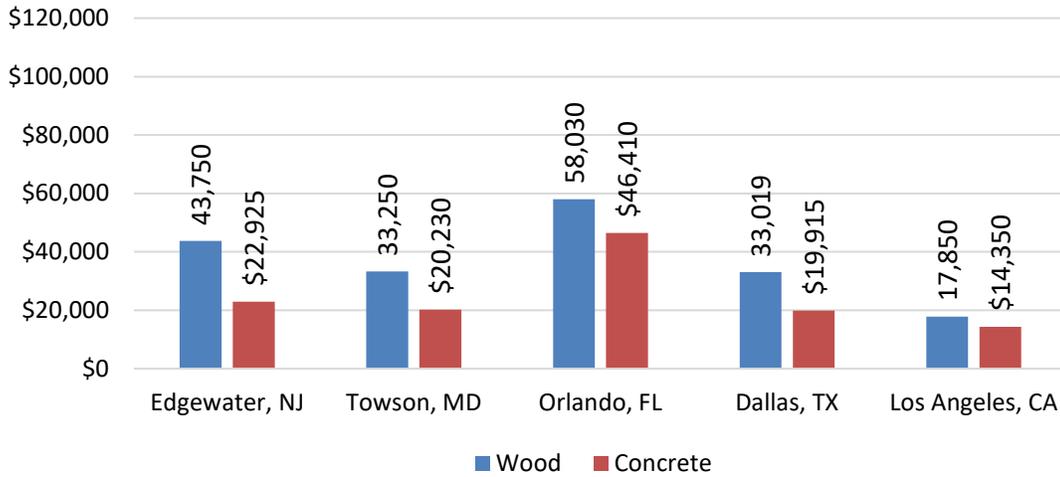
**Figure 8: Estimated builder's risk insurance premiums for the Reference Building in five Reference Cities in 2023 Survey**



**Figure 9: Estimated builder's risk insurance premiums for the Reference Building in five Reference Cities in 2017 Survey**

**Estimated Annual Commercial Property Insurance  
Premiums for Reference Building**

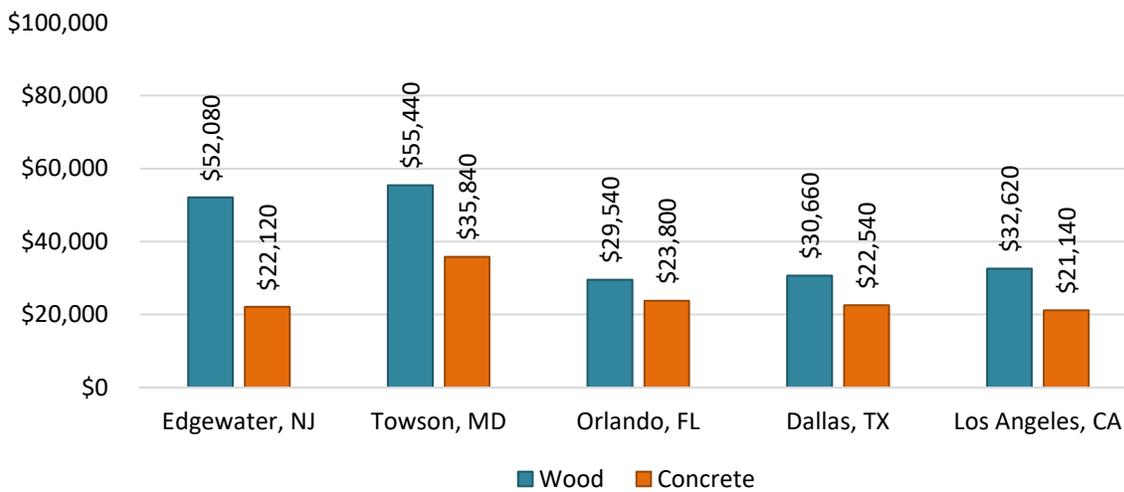
\$14 million construction replacement cost



**Figure 10: Estimated commercial property insurance premiums for the Reference Building in five Reference Cities in 2023 Survey**

**Estimated Annual Commercial Property Insurance  
Premiums for Reference Building**

\$14 million construction replacement cost



**Figure 11: Estimated commercial property insurance premiums for the Reference Building in five Reference Cities in 2017 Survey**

## **Estimating Insurance Premiums for Other Buildings in Other Cities**

For the purposes of roughly estimating insurance rates for other buildings in other cities across the United States, one could select rates from this report for cities that have similar hazards. For example, insurance rates for a 150,000-square-foot condominium building in New Orleans could be assumed to be similar to rates for a 100,000-square-foot condominium building in Orlando, FL, since both cities are subject to hurricane risks and both buildings are similar in function. One would simply have to adjust the estimated construction cost and time of construction to obtain an estimate of insurance premiums for the New Orleans building.

Similarly, a long-term care facility in Tulsa, OK, could be assumed to have similar risks and insurance rates to Dallas/Fort Worth since both are at risk for wind and hail damage. A building in Seattle could be considered to have similar risks as a building in Los Angeles since both are in earthquake prone areas. That said, it is always advisable to contact insurance agents in a specific city to obtain accurate rate quotes for a specific building.

## **Conclusions**

The empirical data presented in this report suggests that building insurance rates continue to be lower for mid-rise apartment buildings constructed with concrete instead of wood-frame. This applies to both builder's risk and commercial property insurance and across a wide range of regions of the United States.

As suspected, insurance rates varied substantially across regions. However, different quotes from different companies in the same region for the same type of insurance and building material were almost always fairly close. Estimated builder's risk insurance premiums were always higher than commercial property insurance for wood structures. In many cases the difference was large, double or more. While the extent of the insurance savings for a concrete building varied widely for builder's risk insurance quotes, it was within the range of 36%-80% for all regions. This compared to a range of 22%-72% savings for all regions in the 2017 study. The greatest savings in builder's risk insurance quotes for the current study came from the Los Angeles area, with an average savings of nearly 80% for the concrete building over the wood frame building.

Commercial property insurance quotes were lower across the board. Final rates vary as much as they do with builder's risk insurance, for the same reasons. This includes lower rates for concrete structures because of lower fire, wind, and water risk. For commercial property insurance, the quoted savings for the 2023 study were within the range of 4%-63%, compared to quoted savings in the 2017 study in the range of 14%-65%. The largest average savings in commercial property insurance between the concrete

and wood frame buildings came from the Edgewater, NJ, area, with a savings of nearly 48%, compared with a nearly 20% difference in savings in the Los Angeles area.

As expected, the cost of insurance premiums for builder's risk insurance has increased over time and the gap between rates for wood frame and concrete for both builder's risk insurance and commercial property insurance has also grown in most cities as anticipated by agents during the previous 2017 study.

Researchers of the current study received extra quotes or information from some of the interviewees that provided potentially useful insights. They explained that the industry's quote process is generally more highly automated using big data techniques and is therefore much less transparent than in the past. Some extra quotes suggest that rates, and the difference between wood frame and concrete quotes, are sharply higher in areas with a high risk of natural disaster. Sources also reported that they are refusing to provide insurance altogether in areas of especially high risk of natural disaster and in the case of buildings with solar panels on the roof.

## **National Ready Mixed Concrete Association**

Founded in 1930, the National Ready Mixed Concrete Association is the leading industry advocate. Our mission is to provide exceptional value for our members by responsibly representing and serving the entire ready mixed concrete industry through leadership, promotion, education and partnering to ensure ready mixed concrete is the building material of choice.



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