



# Maintenance and deferred maintenance in New Zealand houses

This Research Now describes the findings around maintenance and deferred maintenance in the BRANZ House Condition Survey 2015. The findings are that New Zealand houses are not sufficiently well maintained to keep them in good condition. Delaying maintenance can lift the costs of maintenance considerably.

BRANZ has surveyed the condition of a sample of New Zealand houses approximately every 5 years since 1994. The 2015 sample of 560 houses was designed to be broadly representative of the national housing stock and included both owner-occupied and rental homes. There was an on-site assessment and a telephone interview. Among other questions, occupants were asked if any painting, repairs or replacements had been carried out in the previous year.

All houses require maintenance to continue performing well. The amount required depends on the age of the house and the building materials, in particular, the roof and wall claddings. A villa with a profiled metal roof and timber weatherboards, for example, will require more exterior maintenance than a new home with brick veneer walls and a concrete tile roof.

In general, the cost of annual maintenance required to keep a house in good condition is around 0.5-2.0% of the value of the house (excluding the land). In other words, for a house with a value of \$450,000, the owner should plan to spend around \$2,250-9,000 each year on maintenance and repairs.

## SURVEY FINDINGS

Around half the owner-occupied houses were assessed as well maintained and around one-quarter of rental houses. Just 14% of owner-occupied houses were assessed as poorly maintained, while this applied to almost one-third of rentals (Figure 1).

The difference in houses by tenure also applied to the rating of building components.

Windows in rented houses, for example, were in a poorer condition and showed more defects than those in owner-occupied houses. While well over half (58%) of the windows in owner-occupied houses were assessed as good or excellent, this applied to just over one-third (37%) of rented houses.

In 70% of houses, no painting, repairs or replacements had been carried out over the previous 12 months. This applied to both rental and owner-occupied houses.

Of the 30% of houses where work had been carried out:

- 13% was exterior and interior work
- 9% was interior
- 8% was exterior.

Windows were the external feature that most commonly received work, while decorating and work on bathroom fittings were the most common activities inside.

The need for maintenance was recognised but deferred in 30% of houses, mostly for reasons of cost. In a quarter of cases, the required maintenance was not thought to be serious, and therefore the owner was comfortable with the delay.

A lack of maintenance or delays in maintenance impact the overall property condition. Houses that had deferred maintenance in the previous year were on average in poorer condition and overall less well maintained than houses where maintenance was carried out.

A condition rating of 'serious' or 'poor' in the House Condition Survey means the feature being rated needs attention immediately (serious) or within the next 3 months (poor).

In the 2015 survey, 7% of dwellings had at least one feature in serious condition, and 39% had one or more components in poor condition. Deferring maintenance on these, or any feature that needs repair, has implications for the overall condition of the property and the longer-term costs to repair.

**THE COST OF MAINTENANCE**

Calculations were made of the repair cost to bring each of 26 components to as-new condition. The average cost of the maintenance required in surveyed houses was about \$13,000 - slightly higher for rentals and lower for owner-occupied housing. Around half of this was needed for work on the exterior to maintain weathertightness. Much of the rest was less urgent as the repairs were mainly cosmetic and mainly to fittings. The average being spent on maintenance was well below \$13,000, suggesting that many houses will have maintenance backlogs.

When maintenance is put off, the problem area continues to deteriorate and damage may spread to nearby areas. Defects in wall cladding that allow water to get into wall cavities can lead to rot developing in the timber framing, for example. Things can sometimes get worse quite quickly, depending on where in the building the defects are, the types of material involved, environmental conditions and how the occupants use the building.

**DELAYING MAINTENANCE INCREASES THE COST**

Figure 2 shows how the cost rises when maintenance is delayed for a typical house. The green dots show the estimated cost at 0 years, 2 years, 5 years, 10 years and 15 years of delayed maintenance.

A straight line can be drawn through the points and indicates an increase in cost of about \$2,300 for each year that maintenance

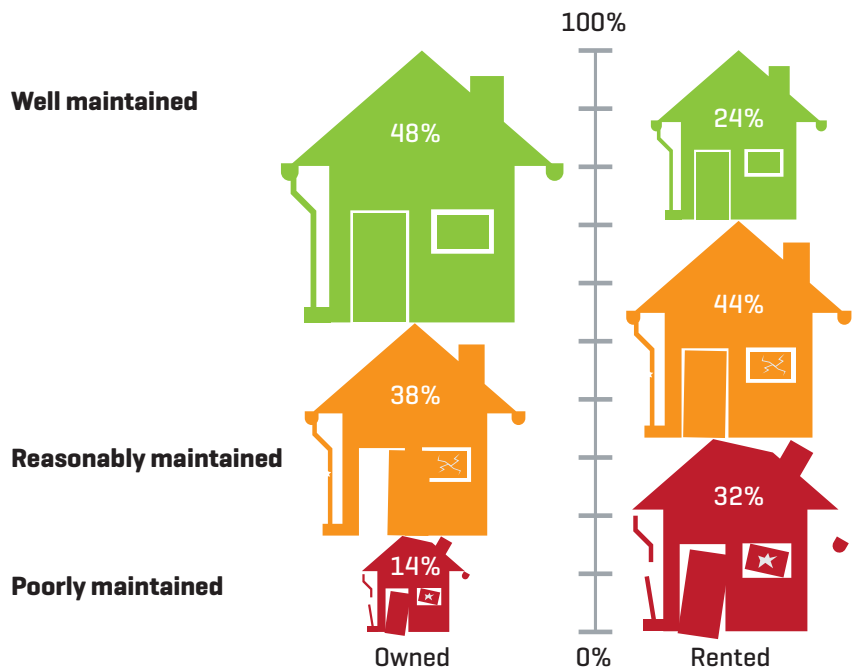


Figure 1. Assessed level of maintenance of owner-occupied and rented houses.

is delayed. This is an increase of about 18% on the original cost of maintenance of \$13,000 - a sizeable amount.

The calculations show that the cost doubles in roughly 6 years.

It reinforces the message to owners that repairs should be done promptly whenever deterioration becomes apparent and that a good return is available when money is spent on avoiding increased maintenance.

**AN OLD PROBLEM**

The gap between the spending level required to keep a house in good condition and what is actually spent has been around ever since BRANZ started surveying houses.

The 1994 survey, conducted only on owner-occupied housing in the Auckland, Wellington and Christchurch regions, found that just addressing the most urgent maintenance needs was costed at approximately \$3,200 per house on average.

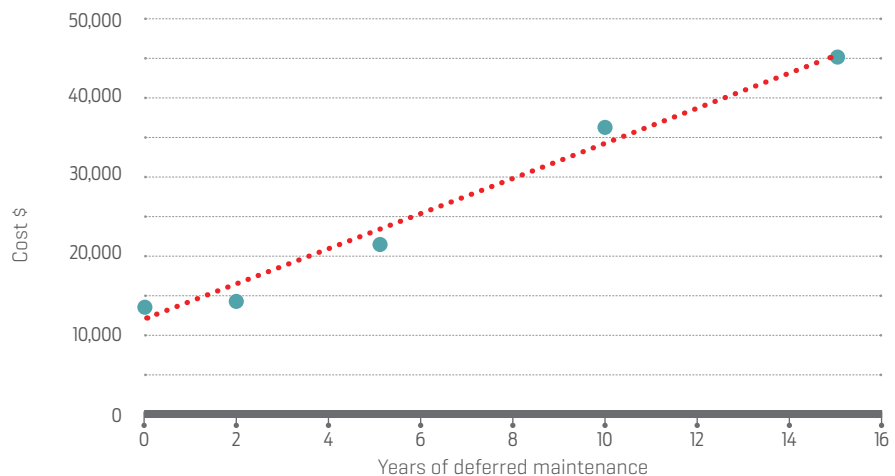


Figure 2. The rising cost of delayed maintenance.

The actual amount spent on house maintenance and repairs, however, averaged approximately \$900 each year - a big shortfall.

The survey conducted in 1998/99 estimated the cost required to repair the more serious defects at an average of \$4,000 per house. Actual maintenance expenditure by owners averaged \$1,500 per house per year.

In 2010, the survey was expanded to cover sample houses from across the whole country, and it included rental housing too. The average cost of repairs and maintenance required to address aspects of the houses in poor or serious condition was estimated at \$8,000 for owner-occupied houses and \$9,700 for rentals.

Actual spend was again significantly below this. Owners typically spent much more on maintenance in their first year of ownership than subsequent years.

Looking at the 2010 and 2015 data, there are some indications that house maintenance may be improving, with an increase in the number of both owner-occupied houses and rentals assessed as reasonably or well maintained (Figure 3).

### WHERE SHOULD MONEY BE SPENT?

BRANZ research suggests that, when funds are limited, work on claddings and windows in poor condition should generally be the first priority to avoid further damage to the house structure.

There is evidence that owners often prefer to spend money on repairs and maintenance to the most visible areas of the house, including redecorating inside. This is logical from a short-term perspective because it increases the attractiveness and resale value of the property.

Less-visible work such as strengthening pile foundation fixings and bracing for earthquake resilience is cost-effective in the long term on some houses in locations at greater risk of earthquakes where the owner intends to hold the building for the long term. BRANZ research indicates that the expected benefit of this type of work is marginal or negative if the owner is in the house for only a short period.

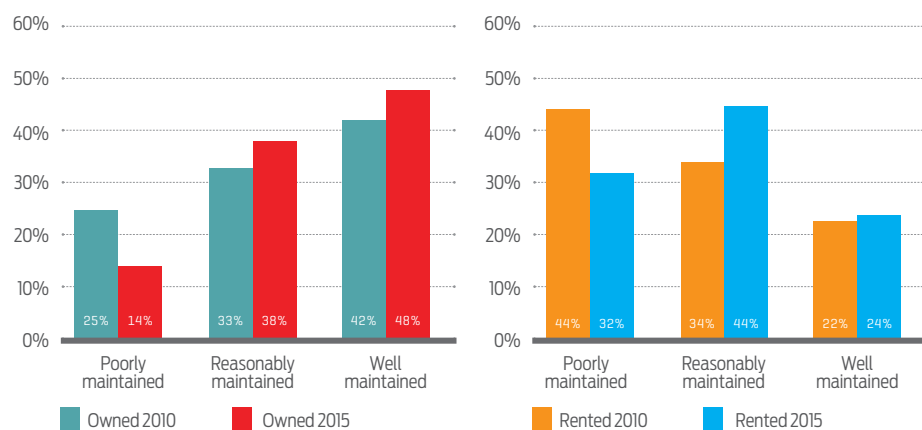


Figure 3. Changes in overall assessed level of maintenance between 2010 and 2015.

## BRANZ resources for maintenance

BRANZ has a considerable body of resources to help with maintenance.

### Publications

The BRANZ Good Repair Guide series, available in print and ePub format, gives repair guidance for a wide range of building elements from the roof cladding down to the subfloor area.

Bulletin 632 *Planning for maintenance* explains the need for a maintenance plan, how it should be developed and how to prioritise the work.

### Websites

[www.maintenanceschedules.co.nz](http://www.maintenanceschedules.co.nz) - a free online tool that allows you to build maintenance schedules for new builds and renovation projects.

[www.maintainingmyhome.org.nz](http://www.maintainingmyhome.org.nz) - a resource for homeowners with advice about repairs and maintenance. There is a series of guides on specific topics, a maintenance schedule chart and pages covering each specific area of the house and section.

[www.renovate.org.nz](http://www.renovate.org.nz) - gives information about houses from different periods from the pre-1920s villa onwards.

## More information

BRANZ Research Now: House Condition Survey 2015 #1 *Energy efficiency in the New Zealand housing stock*

BRANZ Research Now: House Condition Survey 2015 #3 *The state of our subfloors*

Costly to delay repairs, *Build 160*, 1 June 2017

### BRANZ study reports

These can be downloaded from [www.branz.co.nz/study\\_reports](http://www.branz.co.nz/study_reports)

SR372 *Warm, dry, healthy? Insights from the 2015 House Condition Survey on insulation, ventilation, heating and mould in New Zealand houses* (2017)

SR370 *BRANZ 2015 House Condition Survey: Comparison of house condition by tenure* (2017)

SR285 *House repair priorities* (2013)

### BRANZ websites

[www.branz.co.nz/hcs](http://www.branz.co.nz/hcs)  
[www.level.org.nz](http://www.level.org.nz)  
[www.renovate.org.nz](http://www.renovate.org.nz)  
[www.maintainingmyhome.org.nz](http://www.maintainingmyhome.org.nz)