

Rental and Lead Inspection Data Analysis

April 2020

Executive Summary

Our analysis uncovered several notable trends in the types of hazardous conditions facing Detroit renters. This analysis is based on a random sample of 300 rental property inspection reports and 300 lead inspection reports.

- *Rental Violations:* Poorly maintained bathroom fixtures, peeling paint and electrical issues were the most prevalent rental property violations. In addition, 30 percent of properties did not have working or properly installed smoke alarms; this is both an emergency violation and relatively inexpensive to repair. Sample properties had an average of 5.5 rental property violations per unit.
- *Lead Violations:* The sample lead inspection failure rate was 39 percent. The vast majority of properties had potential lead hazards (81 percent), and without lead abatement will continue to require annual lead inspections. Lead-based paint and dust hazards were present in 35 and 34 percent of sample properties. Inspectors noted an average of 2.6 paint hazards and 1.5 dust hazards per hazardous property. Soil-based lead hazards were very uncommon.
- *Geographic Spread:* Lead and rental property violations are most prevalent in the following zip codes: 48219, 48223, and 48224 and 48235.

3rd Party Rental Inspection Report Trends¹

Most Common Violations

Overall, 3rd party inspectors most commonly noted two types of violations: bathroom fixtures in poor condition and lack of properly installed electrical outlets.² Of the top ten violations, many could pose a risk to tenant health and safety, such as non-working smoke detectors (30 percent), peeling indoor paint (35 percent), and broken indoor light fixtures (28 percent) (Table 1).

Table 1: Most Common Rental Inspection Violations

Type of Violation	Properties with Violation, %
Sink/toilet/tub/shower not in good condition	40%
Electrical outlets in need of installation	39%
Internal chipped/peeling paint need repair	35%
External accessory structures (fences, garages, etc.) not in good repair	35%

¹ This analysis is based on a random sample of 300 rental property inspection reports with violations.

² A property would receive this violation if some outlets were inoperable, for example, or if outlets did not properly protect from overheating or fire.

External loose and chipped paint or graffiti	30%
Smoke alarms in sleeping areas not installed/working properly	30%
Indoor handrails need repair or replacement	28%
Indoor doors need repair	28%
Inoperable interior light switch or fixture	28%
Gutters need repair or replacement	25%

n=300 properties

Most Common Violations, By Category

We examined 3rd party rental inspection violations in three categories: emergency, exterior, and interior (See Appendix 1 for full list).

- **Critically, the most common emergency violation was the lack of working or properly installed smoke alarms in sleeping areas.** This violation poses an immediate danger to renters, and is not costly to fix. Of properties with emergency violations, 30 percent were cited for non-working or properly installed smoke alarms in sleeping areas.
- **Accessory structures not in good repair was the most common exterior violation.** Inspectors found this type of violation in 35 percent of properties with exterior violations.
- **Sinks, toilets and tubs in poor condition was the most common interior violation.** Inspectors found this type of violation in 40 percent of properties with interior violations.

In aggregate, inspectors most frequently noted interior violations, followed by exterior violations and emergency violations (Table 2).

Table 2. Overall Number of Violations, By Category

Category of Violation	Aggregate Number of Violations
Interior Violation	803
External Violation	678
Emergency Violation	174
Any Violation	1655

Average Violations Per Category

Per property, inspectors found on average 2.7 interior violations, 2.3 exterior violations, and .58 emergency violations. **Overall, there were an average of 5.5 violations per property (Table 3).**

Table 3. Average Number of Violations Per Property, By Category

Category of Violation	Average # of Violations
Exterior Violation	2.27
Emergency Violation	.58
Interior Violation	2.69
Any Violation	5.5

n=300 properties

Zip Code Trends

In our sample, which consisted only of rental properties with failed 3rd party inspections, properties were located in 23 zip codes. Yet **half of the properties with failed inspections were clustered in 48224, 48219, and 48223.** By contrast, very few properties with failed inspections were located in 48208, 48212 and 48216. The average age of housing stock does not differ greatly between high violation and low violation zip codes. The average house in high violation zip codes was built in 1942, while the average house in low violation zip codes was built earlier, in 1924.

Lead Inspection Report Trends

In our sample of 300 properties, the lead inspection failure rate was 39 percent (119 properties). Inspectors found potential lead hazards in the majority of properties sampled: 81 percent, or 244 properties. This means that landlords of these properties who opt for interim lead controls will have to secure costly annual inspections.³ 38 percent of properties had both potential and current lead hazards.

Lead Hazard Category Trends

- **Paint Hazards: Inspectors found paint hazards in 35 percent of properties,** and an average of 2.6 positive and degraded paint samples per hazardous property (Table 4). Inspectors most often found hazardous lead-based paint on the doors and windows of rental properties; one in four properties were found to have degraded lead-based on doors.
- **Dust Hazards:** On January 6, 2020, the threshold for dust lead hazards was reduced; for example, the floor threshold declined from <40 µg/ft² to <10 µg/ft². To better understand the nature of dust hazards in properties using today's standards, we counted historical dust hazards as if they were inspected after January 6.

³ Inspectors note that a property has a potential lead hazard when they find intact lead-based paint on a surface over a certain threshold; only deteriorated paint samples are considered current hazards.

34 percent of sampled properties had dust-based lead hazards. Window troughs were the most common area of a property to have hazardous dust, and the average number of dust-based lead hazards per hazardous property was 2.

The previous figures are not reflected in the overall lead inspection failure rate, which is based just on what inspectors reported at the time of inspection. As expected, if we limit our analysis to the pre-2020 hazards threshold, the proportion of properties with dust-based lead hazards is smaller, at 17 percent.

- **Soil Hazards: Outdoor soil hazards were very uncommon;** in a sample of 300 properties, only 9 had soil with high enough lead levels to be considered hazardous. However, for 16 percent of sample properties, inspectors did not have bare soil to test, due to snow, grass coverage or other reasons.

Table 4. Lead Hazard Violations, By Category

Category of Lead Hazard	# of Properties with Hazard Type	% of Properties with Hazard Type	Aggregate Number of Hazards	Average # of Hazards Per Property w/ Hazard
Paint Hazard	104	35%	273 ⁴	2.6
Dust Hazard ⁵	104	34%	156	2
Soil Hazard	9	2%	9	1

n= 300 properties

Zip Code Trends

In our sample, inspected properties were located in 24 zip codes across Detroit. More than half of the properties with both lead hazards and potential lead hazards were clustered in 48219, 48223, and 48224 and 48235.

Importantly, these zip codes with the highest number of properties with lead violations were the same as the zip codes with the highest number of rental inspection violations. Similar to what we found when analyzing 3rd party violation trends, high lead violation zip codes are not older, on average, than low lead violation zip codes.

⁴ This is an undercount of the individual number of paint hazards a property may have. We counted each type of paint hazard only once. For example, if a property had 5 different windows with lead-based paint hazards, the window hazard was only counted once.

⁵ All dust hazard figures are based on the 2020 hazard threshold.

Appendix 1

Emergency Violations

- Obstruction in drain or sewer
- Heat is lower than 68 degrees
- Unapproved heating device
- Hot and cold water not available
- Electrical service needs to be repaired
- Rats/Vermin are on the premises
- Smoke alarms within sleeping area are not installed or working properly
- Exit/entry doors are not readily operable

Exterior Violations

- Presence of solid waste around the building
- Overgrowth of weeds and grass, or eight inches of snow
- Accessory structures (fences, garages, walls) are not in good repair
- Chimney/roof needs repair
- Gutter needs repair
- Broken window
- Loose paint/graffiti
- Broken or loose handrails/guardrails
- Balcony/deck/porch/stairs needs repair
- Driveway/parking space/sidewalk needs repair
- Exterior light fixture needs repair

Interior Violations

- Damaged or deteriorated plaster
- Chipped/peeling paint
- Walking surfaces (landings/stairs) need to be repaired
- Interior doors need repair
- Proper electrical outlets need to be installed (ex. GFCI outlets)
- Inoperable light switch/fixture/receptacle
- Missing junction box cover
- Obstruction from drain of kitchen sink/toilet/tub/shower
- Sink/toilet/tub/shower needs repair
- Insufficient supply of hot and cold water to sink/toilet/tub/shower
- Interior handrails/guardrails need repair
- Surfaces not in clean or sanitary condition or fungus-like materials present