

# Field Research Report: Resident Priorities

## Project Summary

Future Housing aims to center resident voices and experiences in the initiative. Future Housing hosted events with residents in five multifamily buildings, primarily low-income renters. The research team asked residents to teach us what matters to them.<sup>1</sup>

The event team used conversation and observation to help fill a gap in the industry's lack of social and equity metrics. Low-income renters' physical, logistical, and financial needs shaped every step of this report. That included data collection, analysis, and recommendations.<sup>2</sup>

## Field Research Plan

Future Housing secured resident event sites through our project partner networks. Bright Power tapped their relationships with affordable housing building owners and energy programs. Bright Power also invited staff to suggest candidate buildings. Two sites were Bright Power clients, and two sites are home to Bright Power staff. A member of the initial field research team identified the final property.

Bright Power shared basic information about Future Housing and the events with potential hosts. Where there was interest, the field research team shared details about expectations and the event plans. The five sites were diverse. Residents' race, income, age, other perspectives varied, as did building characteristics.

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<sup>1</sup> This work is a partnership between Building Energy Exchange and Bright Power, with support from CoEquity Consulting, Kinetic Communities Consulting, and Simpson Strategic. The project team led this Field Research effort under a Bank of America Charitable Foundation grant for the Future Housing Equity & Carbon Database project.

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## Research Analysis

Our goal was to learn from residents who are underrepresented in policy work, energy efficiency work, and program design teams. Resident survey responses show we engaged a racially diverse group of renters. As a group, participants are disproportionately low-income people. All ages participated, including many seniors and no over-representation of middle-aged people. More women engaged than men, likely because senior housing and public housing residents skew female.

**The research aimed to uncover residents' top priorities for their quality of life, as defined by the residents themselves.** All our survey questions and conversations tie back to that theme. Find charts and graphs showing this data at the end of this report.

We heard three primary themes. All three are interrelated and shaped by management.

- **Personal Safety:** Feeling safe in their homes and buildings was a primary concern for residents. This included both building security and personal safety. Security doors, staff interactions, cleanliness, and maintenance impact residents' experience and perception of safety in their building.
- **Building Management:** Residents highly valued respectful and responsive interactions with building management. Residents want to be heard, validated, and treated fairly by the front desk, management, office, and maintenance staff.
- **Community:** The sense of community within their buildings was extremely important to residents. A positive sense of community comes from interactions with staff, socializing with neighbors, community-building activities, and a sense of belonging with the community outside the building.

Secondary themes include:

- **Thermal Comfort:** Residents didn't initially comment on thermal comfort, and when asked it was an issue in many buildings. Residents' comfort varied greatly in different seasons and across floors within the same building.
- **Quality of Life & Healthy Housing:** Residents highlighted concerns such as pests, asbestos, or poor ventilation as quality of life issues. These issues have health impacts. Healthy housing researchers classify these issues as health issues and do not reference quality of life.

## Recommendations for the Future Housing Initiative

### Center Resident Priorities in the Future Housing Database

The Future Housing Database and data presentation should be organized around the quality of life topics most important to residents:

- Resident perception of safety in their home and building
- Resident experience of being validated by and treated with respect by management
- Resident sense of community within the building
- Resident assessment of thermal comfort
- Resident reporting on specific quality of life issues (pests, ventilation, cleanliness, toxic materials, physical safety)

### Develop and Refine Resident-Centered Metrics

One Future Housing field research goal was to identify resident-centered metrics that empower residents to create impactful change. These performance metrics will also help management and policy makers to improve residents' lives and achieve policy goals. The field research team provides set of potential metrics below. These are based on the categories that emerged as most important to residents from the field research. These metrics are intended to track resident-reported perceptions and observations and provide management with indicators to track resident-experienced quality of life. The proposed metrics include a mix of resident ratings and manager-reported events. Future housing should refine and select the most useful of these metrics to include in the database, including at least one from each category.

| Category                                      | Potential Resident Quality of Life Metric  |
|---|--|
| Building security measures                    | <ul style="list-style-type: none"> <li>• Resident rating of safety*</li> <li>• Days/year security doors malfunctioning</li> <li>• Instances/year of trespassing</li> <li>• Reported instances of theft or soliciting in the building</li> </ul>  |
| Safety <sup>3</sup>                           | <ul style="list-style-type: none"> <li>• Resident awareness and understanding of emergency procedures and evacuation plans*</li> <li>• Instances/year of resident conflict requiring management intervention</li> </ul>  |
| Management responsiveness and degree of trust | <ul style="list-style-type: none"> <li>• Resident rating of common space cleanliness and maintenance*</li> <li>• Resident satisfaction rating of maintenance resolutions*</li> <li>• Resident rating of management accessibility and availability*</li> <li>• Resident rating of management communication about</li> </ul> |

<sup>3</sup> Safety is defined as “freedom from the threat of potential harm.”

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|                         |  |
|-------------------------|--|
|                         | <ul style="list-style-type: none"> <li>○ building issues, renewals, and rent /fee structure increases*</li> <li>● Resident rating of management respect for resident needs*</li> <li>● Resident rating of management responsiveness to resident input and feedback*</li> <li>● Resident awareness and understanding of emergency procedures and evacuation plans*</li> <li>● Median days between maintenance request and repair</li> <li>● Number of maintenance requests closed without resident interaction</li> <li>● Ability to interact with management in mutually spoken language</li> </ul>  |
| Sense of Community      | <ul style="list-style-type: none"> <li>● Resident ranking of their sense of community in the building*</li> <li>● Number of other neighbors and staff residents can name*</li> <li>● Frequency a resident greets another resident when leaving or entering their home*</li> <li>● Resident rating of the inclusiveness and diversity of the community*</li> <li>● Resident rating of common space accessibility* <ul style="list-style-type: none"> <li>○ Language access, Physical access, and</li> <li>○ Resident ease of hosting events in common spaces*</li> </ul> </li> <li>● Number of community events on site/month, organized by staff or residents <ul style="list-style-type: none"> <li>○ Resident participation in on-site community events</li> <li>○ Resident satisfaction for each event</li> </ul> </li> </ul> |
| Thermal comfort         | <ul style="list-style-type: none"> <li>● Resident ranking of comfort in summer*</li> <li>● Resident ranking of comfort in winter*</li> <li>● Resident control of unit temperature*</li> </ul>  |
| Quality of life (other) | <ul style="list-style-type: none"> <li>● Resident reporting of issues*</li> <li>● Resident reports of pests (rodents, roaches, bedbugs)/year*</li> <li>● Resident rating of adequate in-unit ventilation*</li> <li>● Resident rating of draftiness or air leaks in their units*</li> <li>● Resident rating of excess humidity or dampness in their units*</li> <li>● Noise complaints/year</li> <li>● Presence of kitchen ventilation &amp; ventilation flow rates</li> <li>● Presence of dangerous substances (asbestos, lead, etc.)</li> <li>● Presence of mold and mildew</li> <li>● Unsafe physical conditions (missing stair treads or railings, insecure safety locks or window screens)</li> </ul>  |

\*Gathered by Future Housing Initiative resident survey

## What will Future Housing do with this information?

The Future Housing team will use this report to create a resource for the housing and decarbonization industries. Future Housing calls it a Data Hub. It will be a user-friendly website that offers the public anonymized building data. The Future Housing Data Hub purpose is to help decarbonize multifamily housing. Future Housing also plans to publish guidebooks, host workshops, and partner with groups with shared goals.

## What might YOU do with it?

Make your voice heard! Residents can use the data collected through the Future Housing Initiative: Equity and Carbon Database. Advocate for your rights, improve your living conditions, and drive positive change in your community:

1. Empowerment & Self-Advocacy
  - a. If you're dealing with maintenance issues like poor ventilation or uncomfortable temperatures, this data shows these issues are common. Use it to highlight what works well and to ask for improvements in your building.
2. Evidence-Based Communication
  - a. Imagine you are dealing with a security issue in your building or noise has been impacting your life. With this data, you can approach your property owners/management with facts and figures. You can say, "Look, I've got the data to prove that these things in our building are falling short. They harm our safety and quality of life. Here are some changes I suggest."
3. Community Engagement
  - a. Share the Future Housing report when gathering with your neighbors for a building meeting or event. You can discuss the common challenges you all face, like pest problems or the need for better common spaces. Together you can make a plan to take action. That might be organizing a petition, hosting community events, or forming a resident committee to tackle these issues alongside management.
4. Collaboration with Building Management
  - a. Use the data to have a productive conversation with your building management. You can collaborate with them to make the building safer and more enjoyable for everyone. Now you can say, "Hey, this data shows what things need improvements, and here are some ideas we have." Don't forget to throw in the positives, highlight what is working well, and what you would like your management to continue doing.
5. Policy and Advocacy Efforts
  - a. Make a difference beyond your own building! You can use this data to join forces with tenant organizations, community groups, or advocacy organizations. Together you can push for policy that benefits renters across your community.
6. Community Planning & Decision Making
  - a. With this data in hand, you can participate in community planning meetings in your area. Share insights from the data and bring up specific concerns or priorities that affect your neighborhood.

## Appendix: Resident Survey Responses

### Resident Participant Demographics

Our goal was to learn from residents who are underrepresented in policy discussions, the energy efficiency sector, and program design teams. All demographics are self-reported. They show that we engaged a racially diverse group of renters. As a group they are disproportionately low-income people. Participants were of all ages, with strong senior representation and without over-representation of middle-aged people. Participants skew female, likely because the senior housing and public housing residents skew female.

#### Demographics - Race

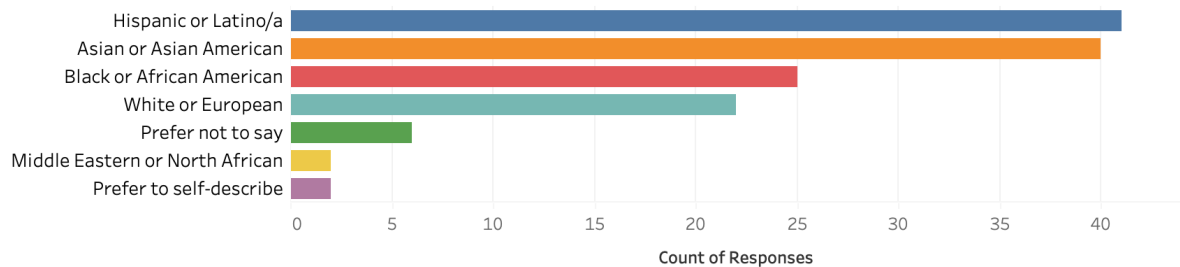


Figure 1: Number of respondents by race across all properties

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### Demographics by Property - Race

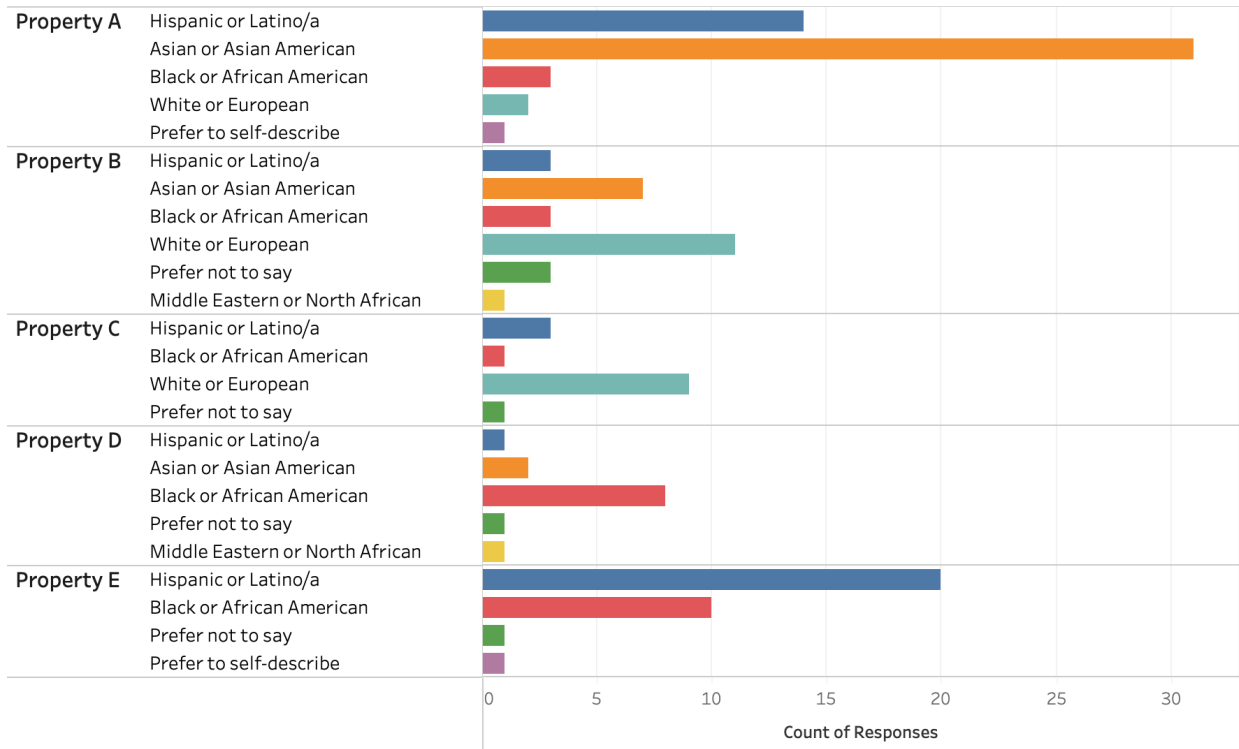


Figure 2: Number of respondents by race by property

### Demographics - Income

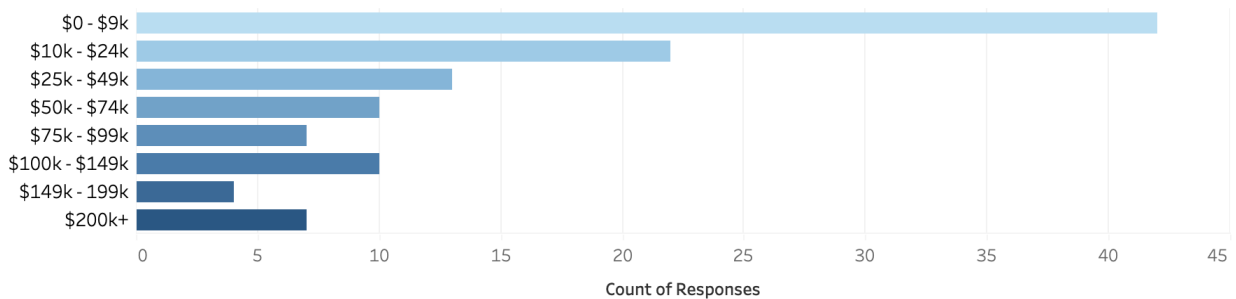


Figure 3: Number of respondents by income across all properties

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## Field Research Report: Resident Priorities

### Demographics by Property - Income

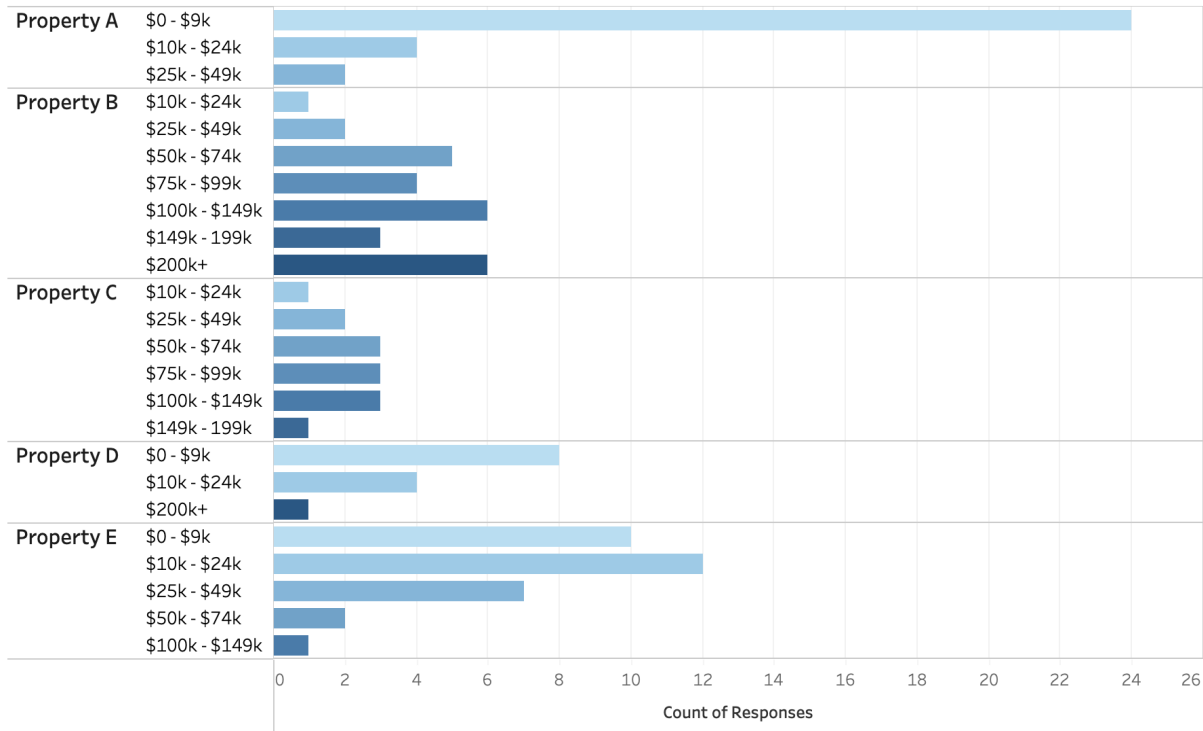


Figure 4: Number of respondents by income by property

### Demographics - Age

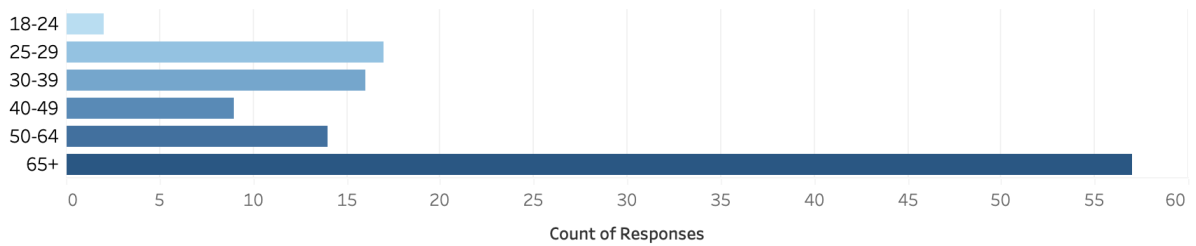


Figure 5: Number of respondents by age across all properties



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### Demographics by Property - Age

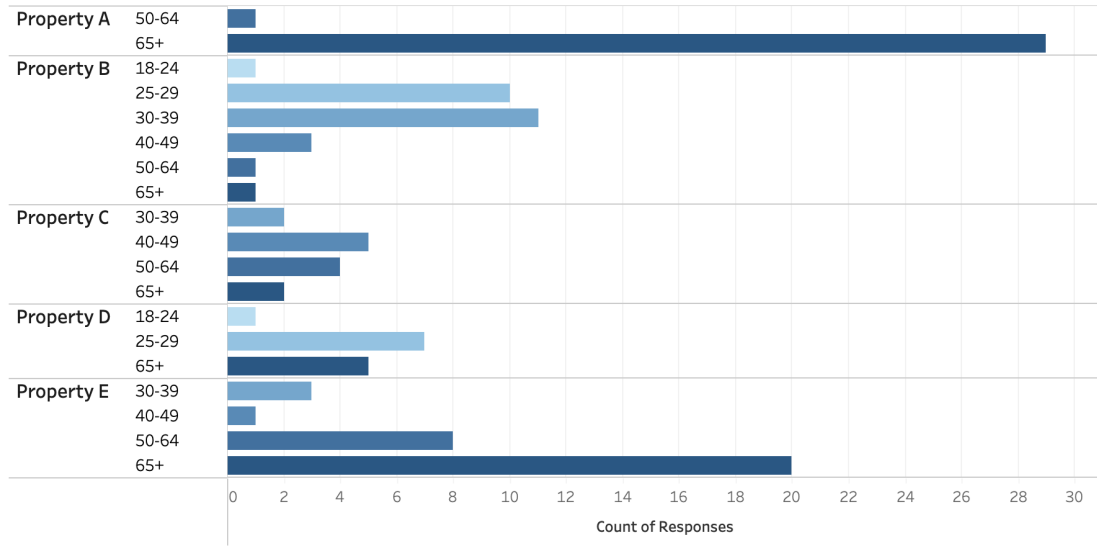


Figure 6: Number of respondents by age by property

### Demographics - Gender

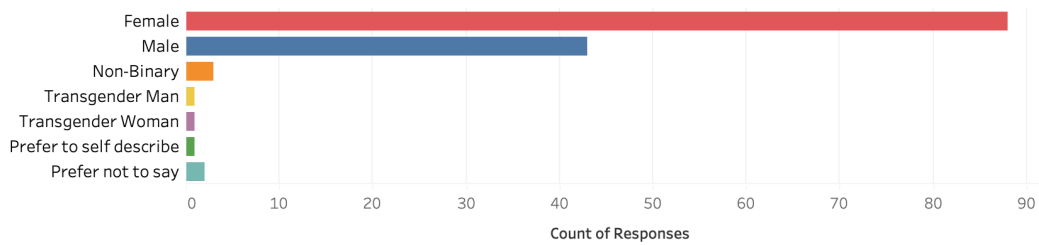


Figure 7: Number of respondents by gender across all properties

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## Demographics by Property - Gender

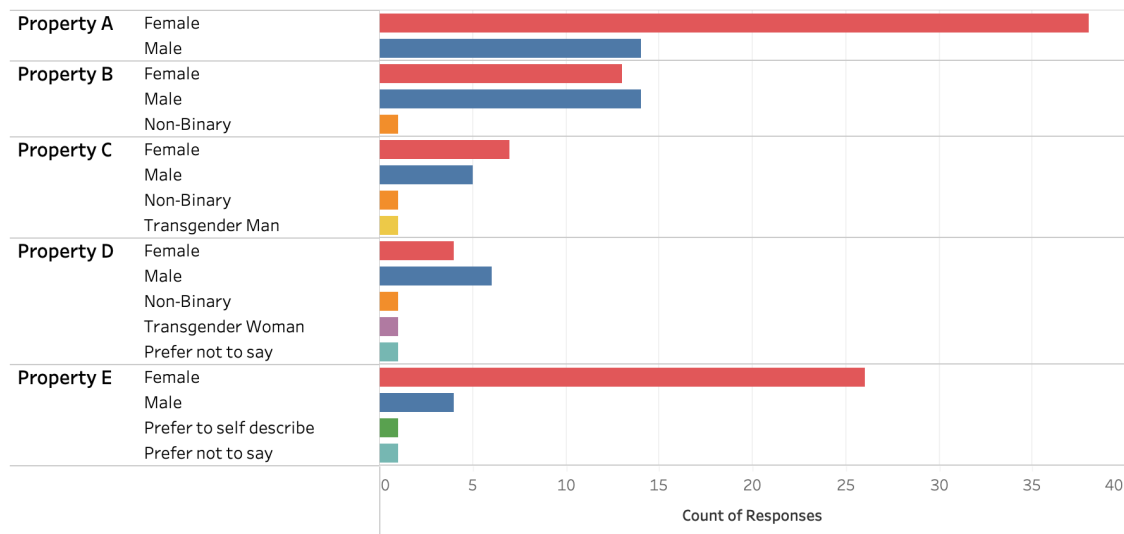


Figure 8: Number of respondents by gender by property

## Quality of Life

The survey asked residents, “How would you rate the quality of life in your building?” and offered a scale of 1-10. There were very clear differences across buildings.

Quality of Life - Responses by Property (1 = extremely unhappy, 10 = extremely happy)

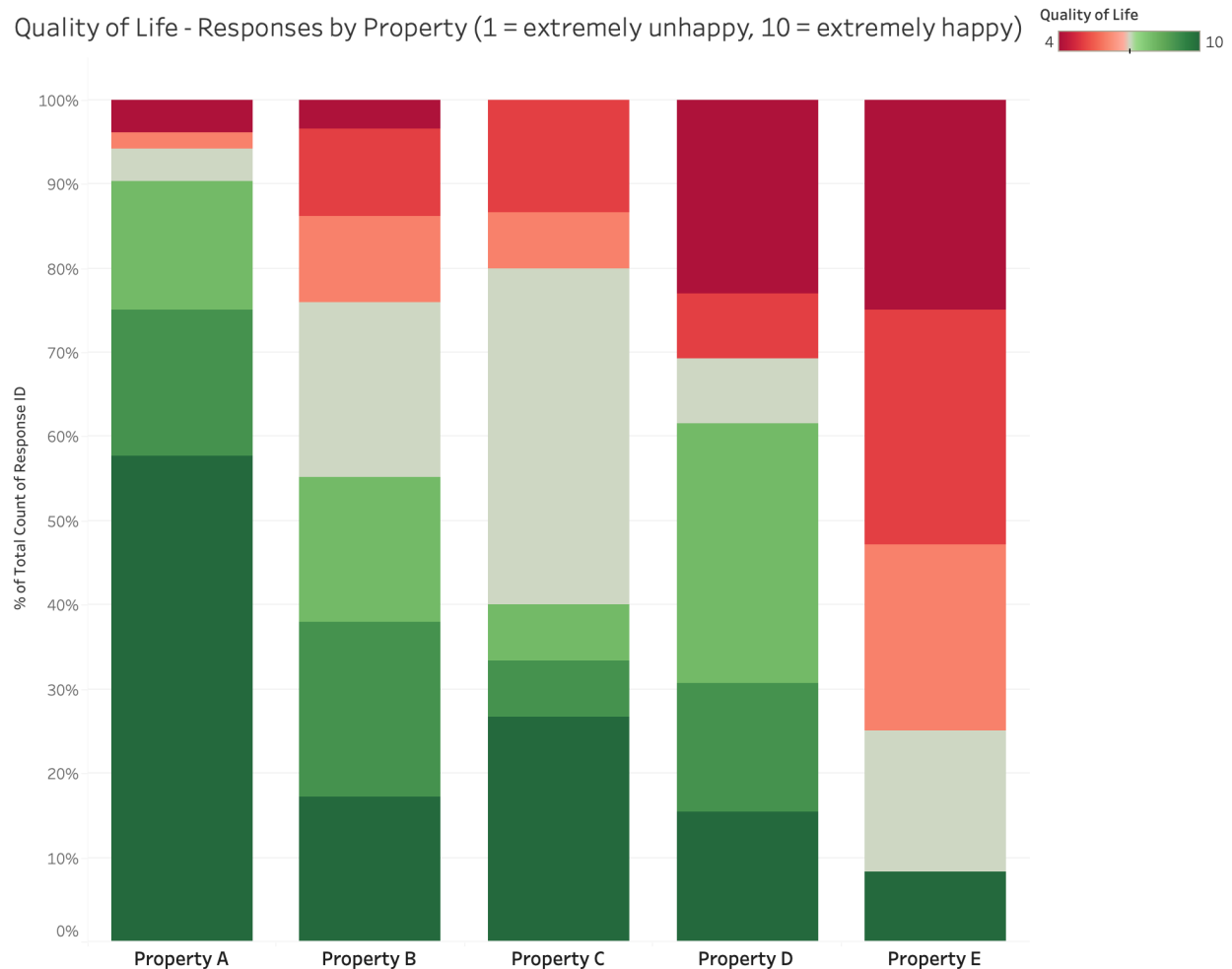


Figure 9: Respondents' scores for "Quality of Life" at each property

The survey used an open text question to ask, “What is the reason you picked that number?” This chart shows the responses from residents of all five sites. The circle size indicates how often residents used a word. The chart includes only words that were used three or more times by residents. The color indicates the quality of life rating given by people who used that word.

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## Reasoning for Quality of Life - All Properties

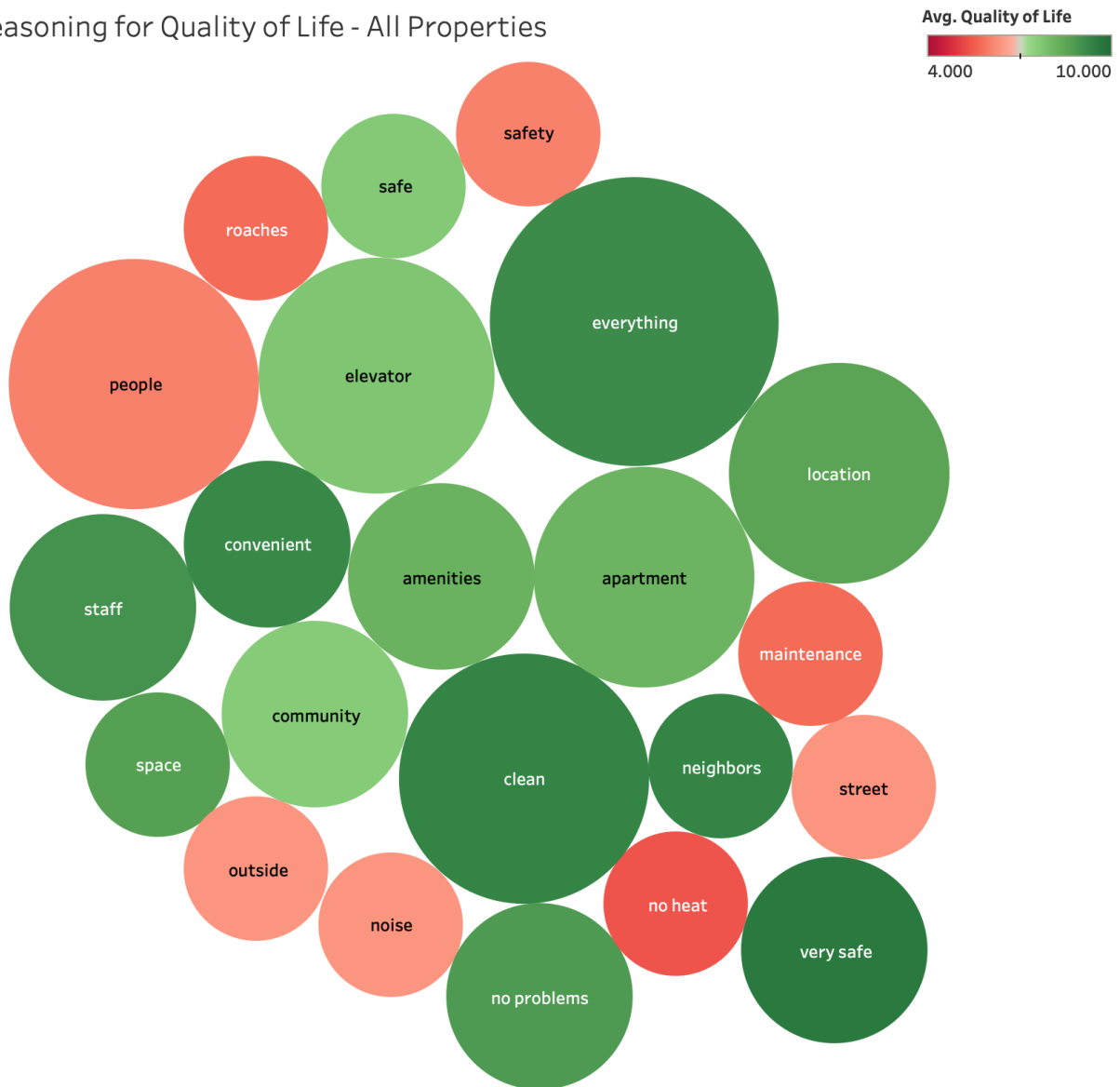


Figure 10: Bubble chart of open resident responses explaining their quality of life rating; note only words or phrases listed three (3) or more times included

The variation across buildings is very evident when the responses are disaggregated. The chart below shows words by property, with color again showing the average quality of life rating given by people who used that word. Generally, residents were happy with quality of life in Properties A and B, with mixed responses in Properties C and D and a strong skew to negative ratings in property E.



Figure 11: Word cloud of open resident responses explaining their quality of life rating by property; note only words or phrases listed two (2) or more times are included

## Management and Maintenance

The survey shows very uneven responses between buildings in terms of how residents engage with building management and maintenance staff. Residents contact management and maintenance the least often in Property A where residents reported the highest quality of life. There, a significant number of residents report they never contact management or maintenance. This is mirrored at Property E with the lowest reported quality of life. There, residents contact management and maintenance significantly more often than any other building. A significant number of residents contact them twice a week. Resident expectations for resolution of issues shows a parallel pattern.

How often do you contact management about maintenance issues or any other concerns?

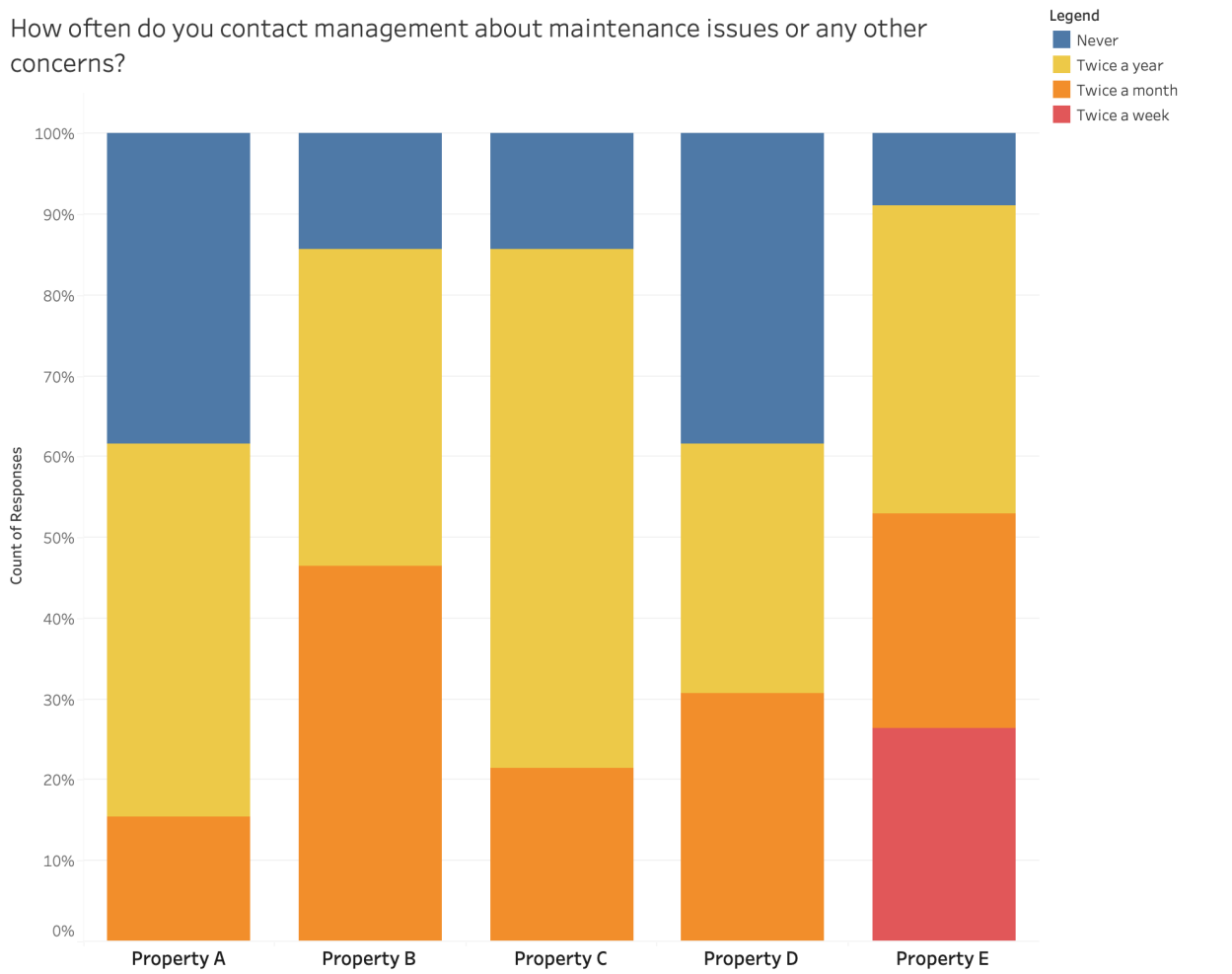


Figure 12: Frequency that respondents contact management by property

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How often do you expect maintenance will resolve your requests?

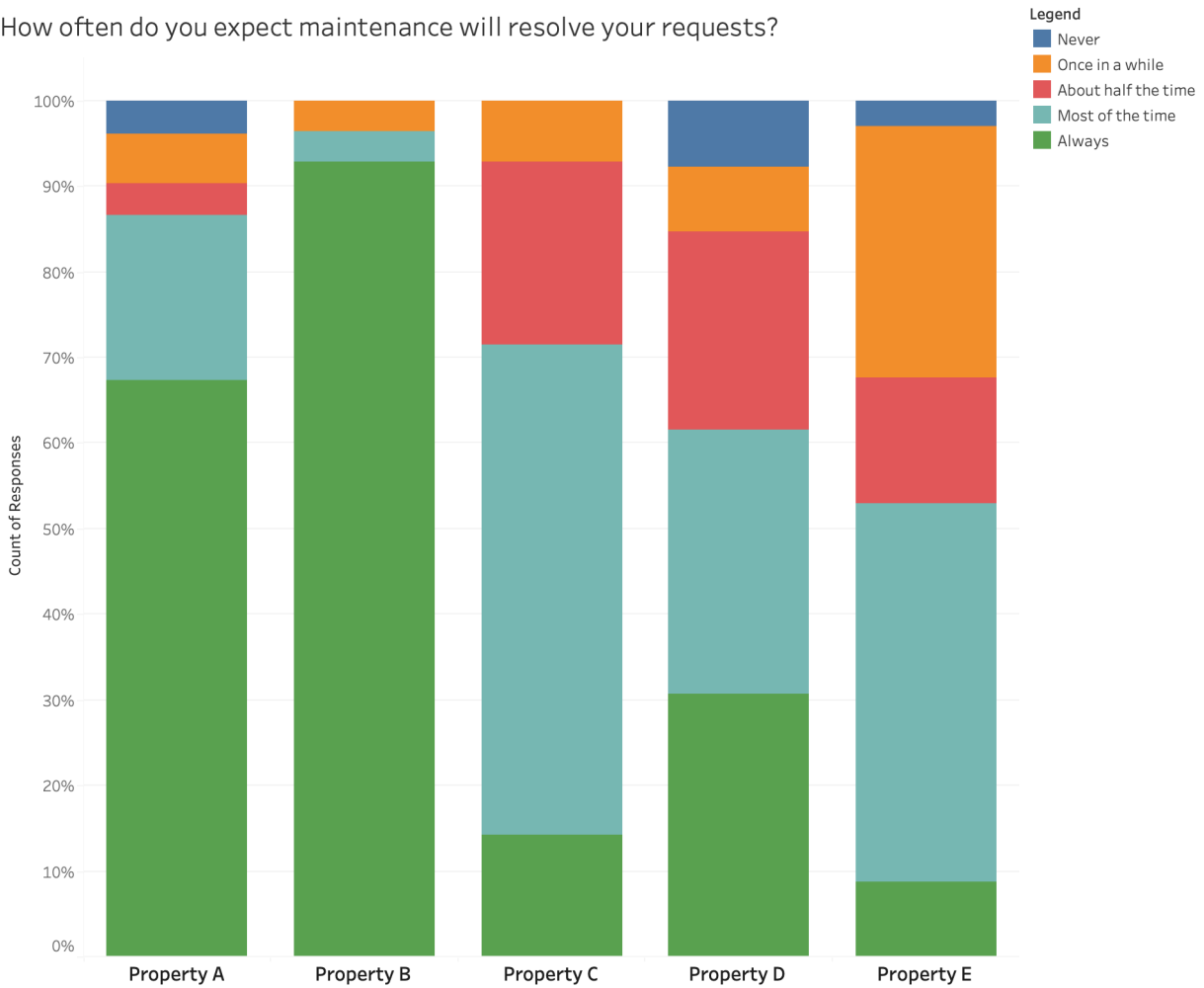


Figure 13: Respondents' expectations for maintenance by property

The chart below colors bars by average quality of life rating for that answer in each building. For example, people who selected “Unit repairs” in Property A give very high average quality of life ratings, while people who selected “Unit repairs” in Property E give low quality of life ratings.

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What are the two most common reasons you have contacted management?

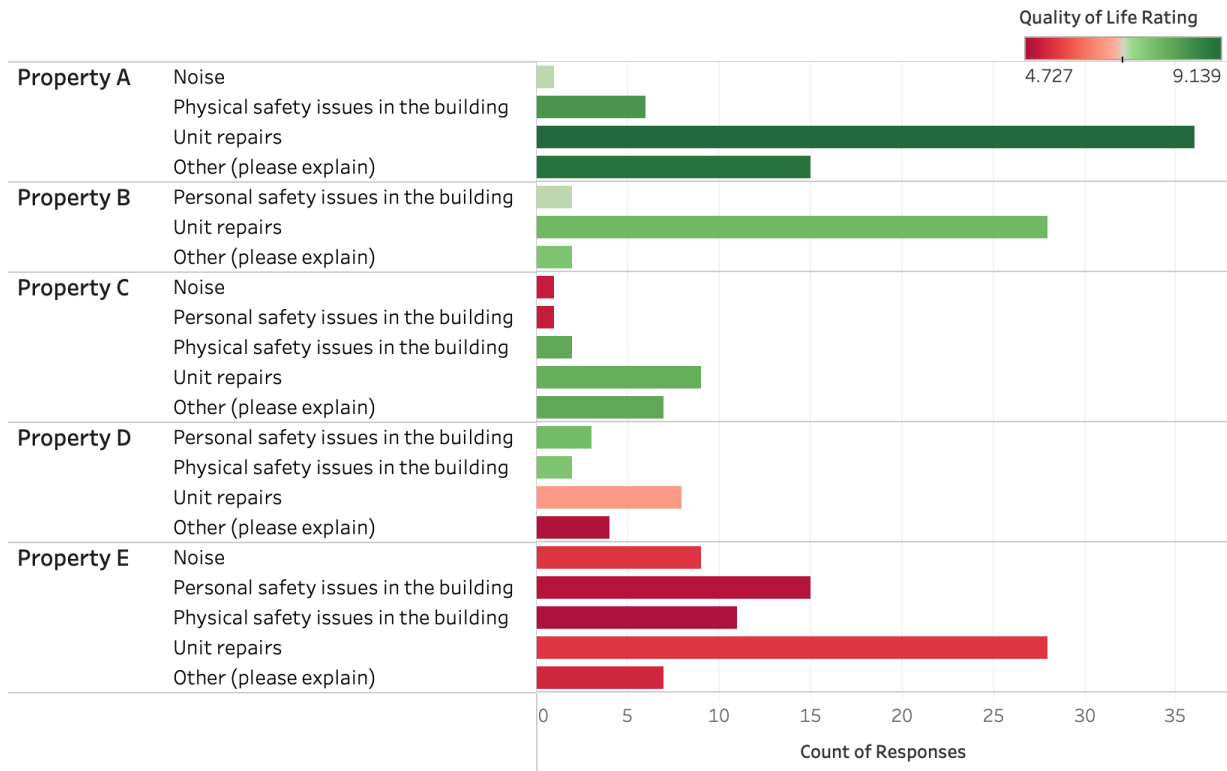


Figure 14: Most common reasons for contacting management by property

Many people selected “Other” as a reason for contacting management. Reviewing the explanations, two of three are left blank or noted, “none” or are building or unit issues (for example, “no heat”). The remaining reasons included translation assistance, for visitors, problems with keys, or to borrow tools.



## Physical Safety Concerns

There is a strong correlation with quality of life ratings and physical safety concerns. Dark green bars indicate the highest average quality of life rating for people who selected that answer, and dark red bars indicate the lowest average quality of life rating for people who selected that option.

Please identify any physical safety concerns in your building.

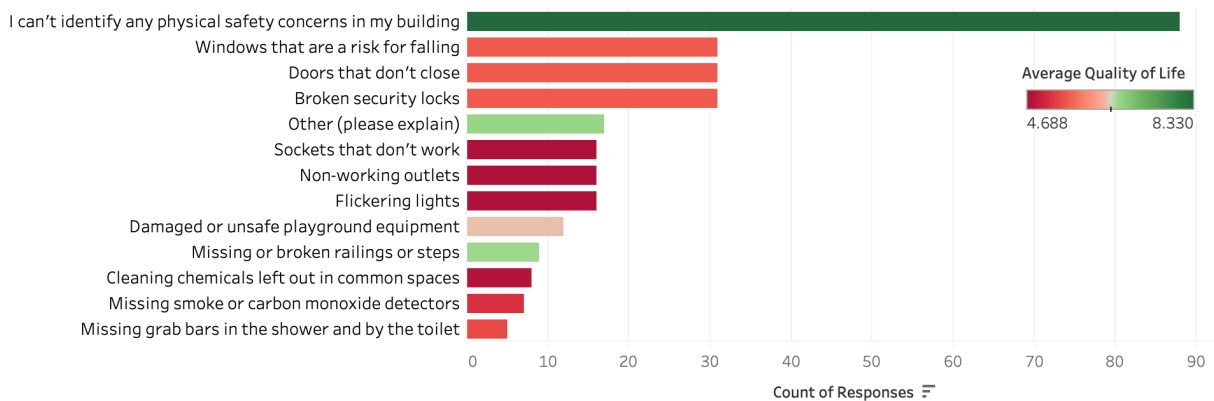


Figure 15: Respondents' physical safety concerns across all buildings

Respondents who selected "other" most commonly mentioned elevators. Broken elevators were limited to one property (Property A). Other physical safety concerns were listed only once. These concerns included wet ceilings, tubs that do not drain, lack of fire escapes, AC not working, and health concerns such as mold and exterminator spraying.

## Feeling of Personal Safety

Residents were asked, “In one word, how would you describe your feeling of personal safety when you are inside your building?” Peace, safety, and comfort correlate with high average quality of life ratings. Insecurity and unsafe or okay correlate with the lowest quality of life ratings.

How would you describe your feeling of personal safety when you are inside your building?

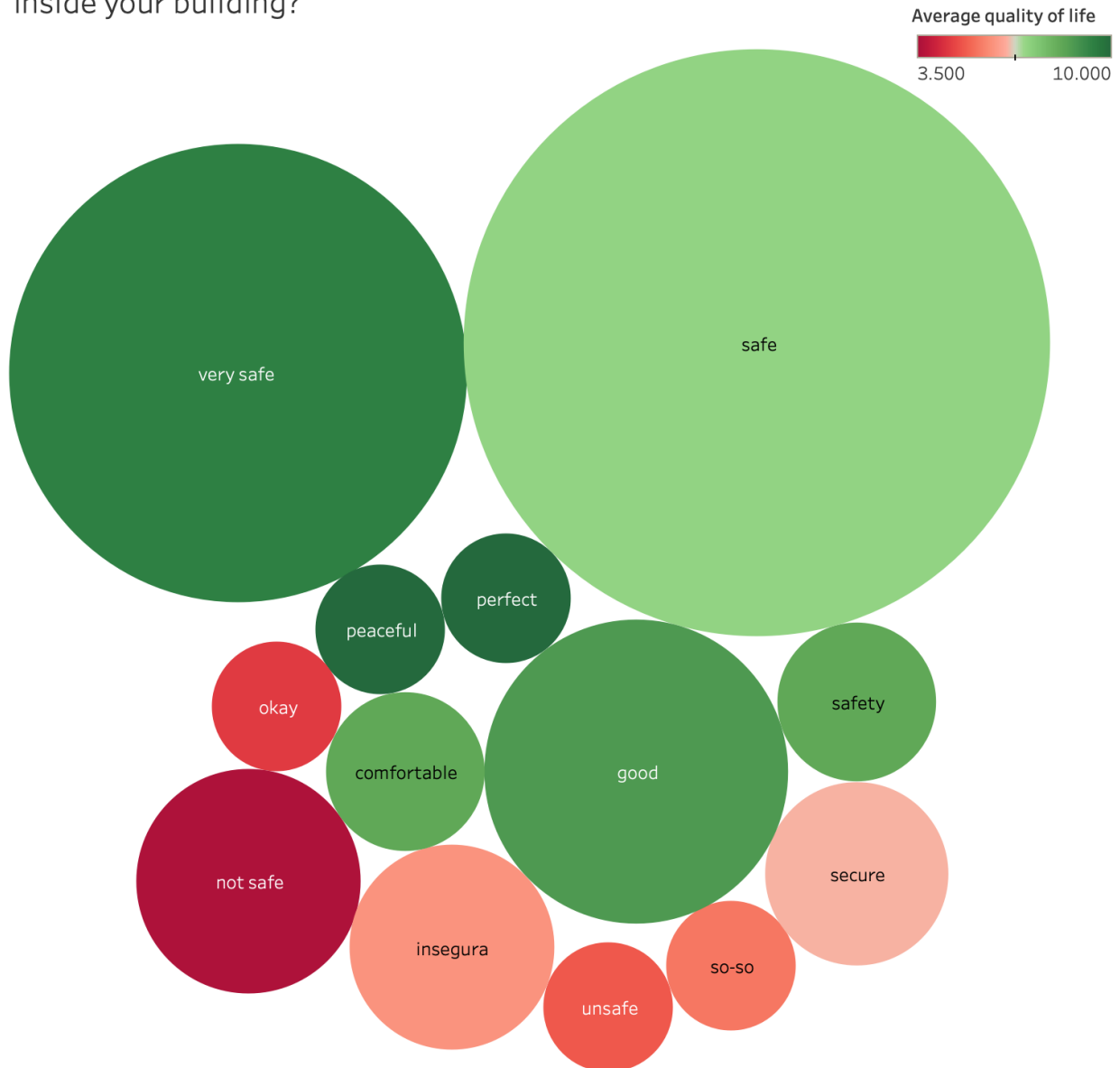


Figure 16: Bubble chart of open resident responses to describe their feeling of personal safety; note only words or phrases listed two (2) or more times are included

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## Health Concerns

High quality of life ratings also correlate with identifying no health concerns. The exception here was toxic pest management chemicals and “other” which was cited at the property with the highest quality of life ratings. Most people who shared other concerns listed issues typically managed by ventilation. The symptom most named was "smell," adding details around smoke, garbage, cooking, air flow, and discolored or peeling finishes.

Please identify any health concerns in your building

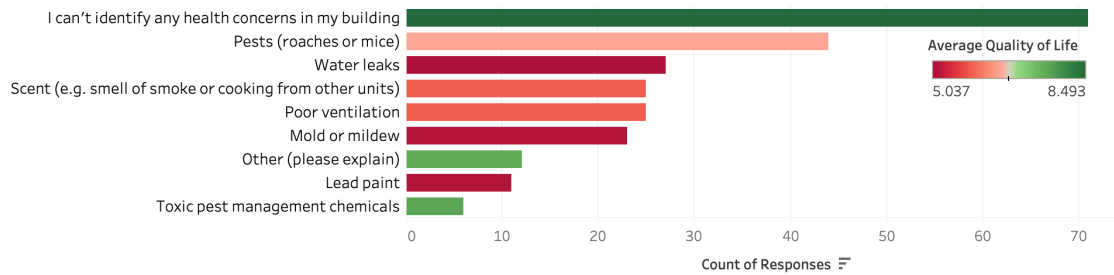


Figure 17: Respondents' health concerns across all buildings

## Thermal Comfort

Many residents reported being too warm in the summer or too cold in the winter. Three sites showed more than two of every five of residents reporting temperatures that were “too warm”. Two properties showed more than half of residents reporting temperatures were “too cold”. However, one site had exceptionally high comfort ratings year-round. Comfort does not correlate with building age.

How comfortable is the temperature in your home in the summer?

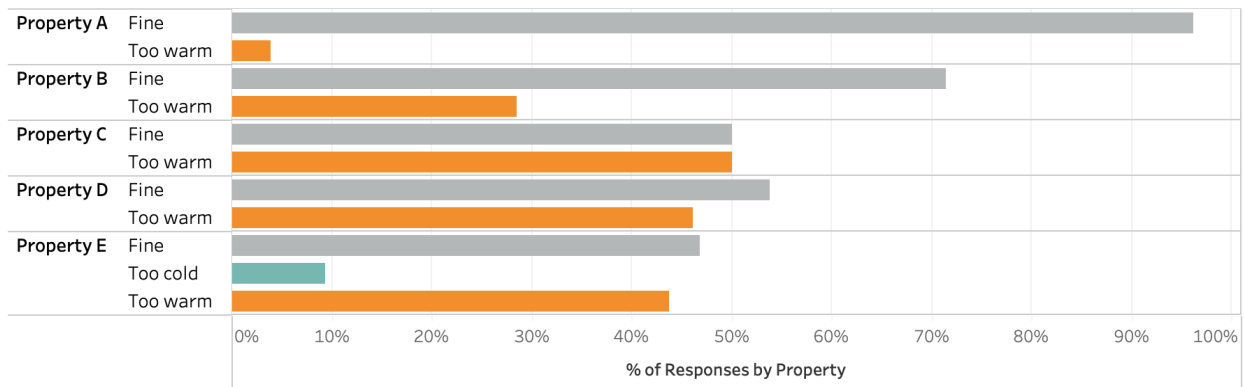


Figure 18: Home temperature comfort in the summer by property

How comfortable is the temperature in your home in the winter?

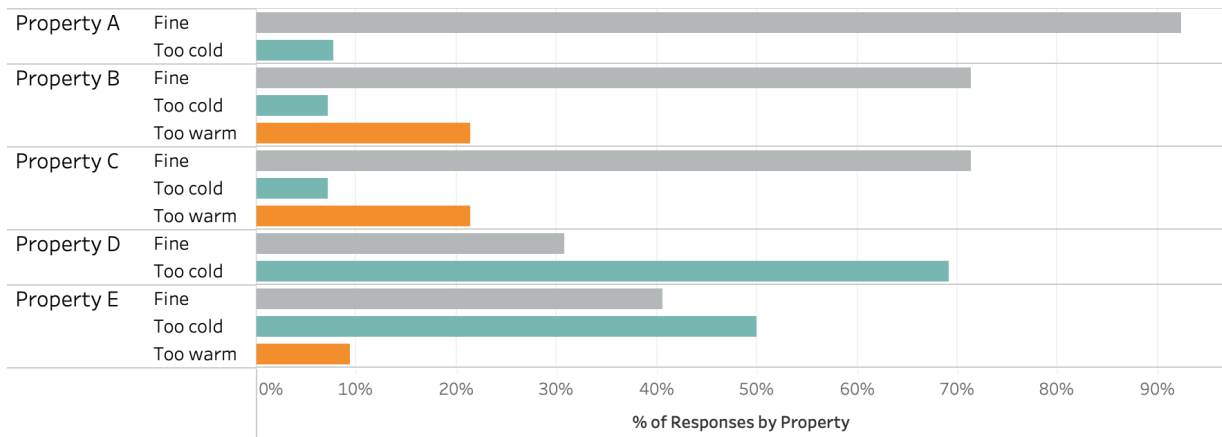


Figure 19: Home temperature comfort in the winter by property

The survey asked, “Can you control the temperature in your home without using space heaters, your own air conditioner, or appliances not intended for heating or cooling a home?” In most cases, the results show that people who report the ability to control the temperature in their homes report higher thermal comfort than those who do not (larger gray portion of bar). Interestingly, there is significant variation in resident perceptions of control within each property.

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This suggests that resident understanding of how to use equipment or the operating condition of equipment may be behind this variation, since the type of equipment is likely similar in most apartments in the same building.

How comfortable is the temperature in your home in the summer?

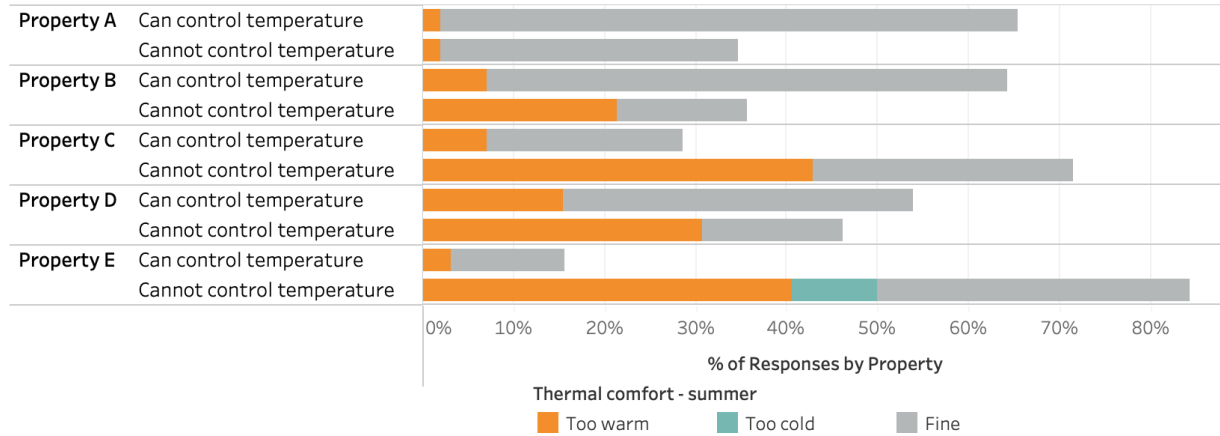


Figure 20: Summertime thermal comfort and resident temperature control by property

How comfortable is the temperature in your home in the winter?

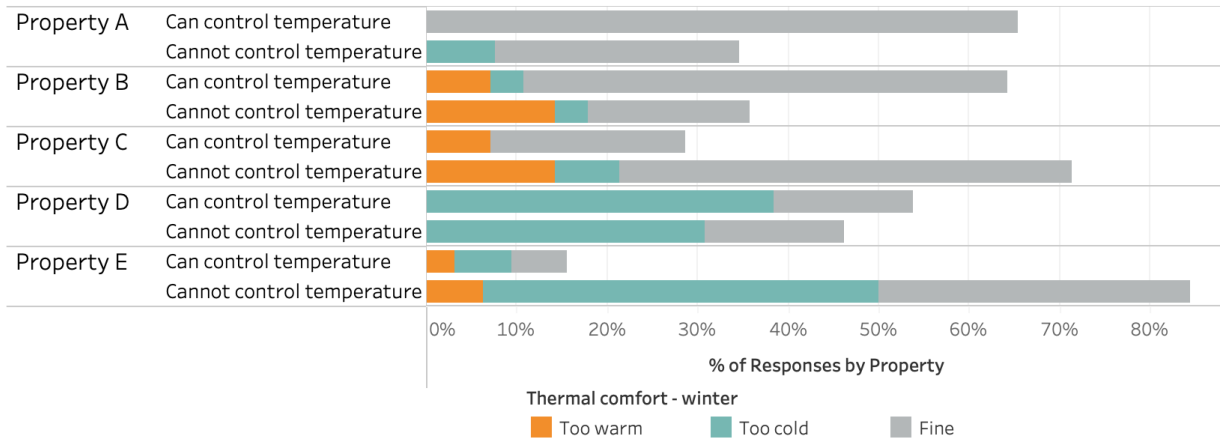


Figure 21: Wintertime thermal comfort and resident temperatures control by property

## Like or Dislike

The survey included two open text questions, “What do you like most about your home?” and “What do you dislike most about your home?”

What do you like most about your home?

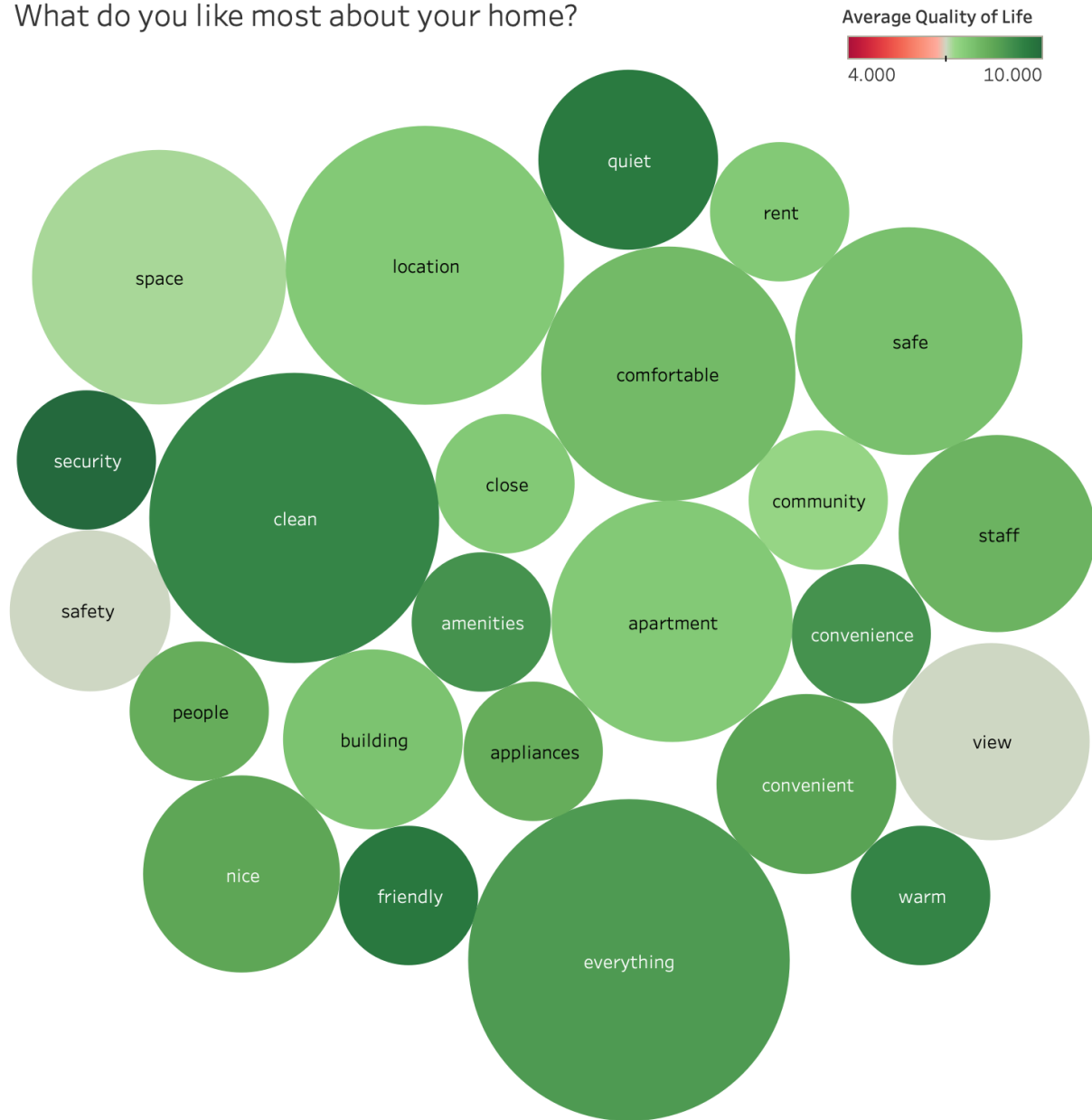


Figure 22: Bubble chart of open resident responses naming what they like most about their homes; note only words or phrases listed three (3) or more times are included

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By far the most common response to the question, “What do you dislike most about your home?” was, “Nothing,” with “N/A” also a prevalent response. For those who listed dislikes, responses included insecurity, neighbors, broken elevators, laundry, or neighbors.

What do you dislike most about your home?

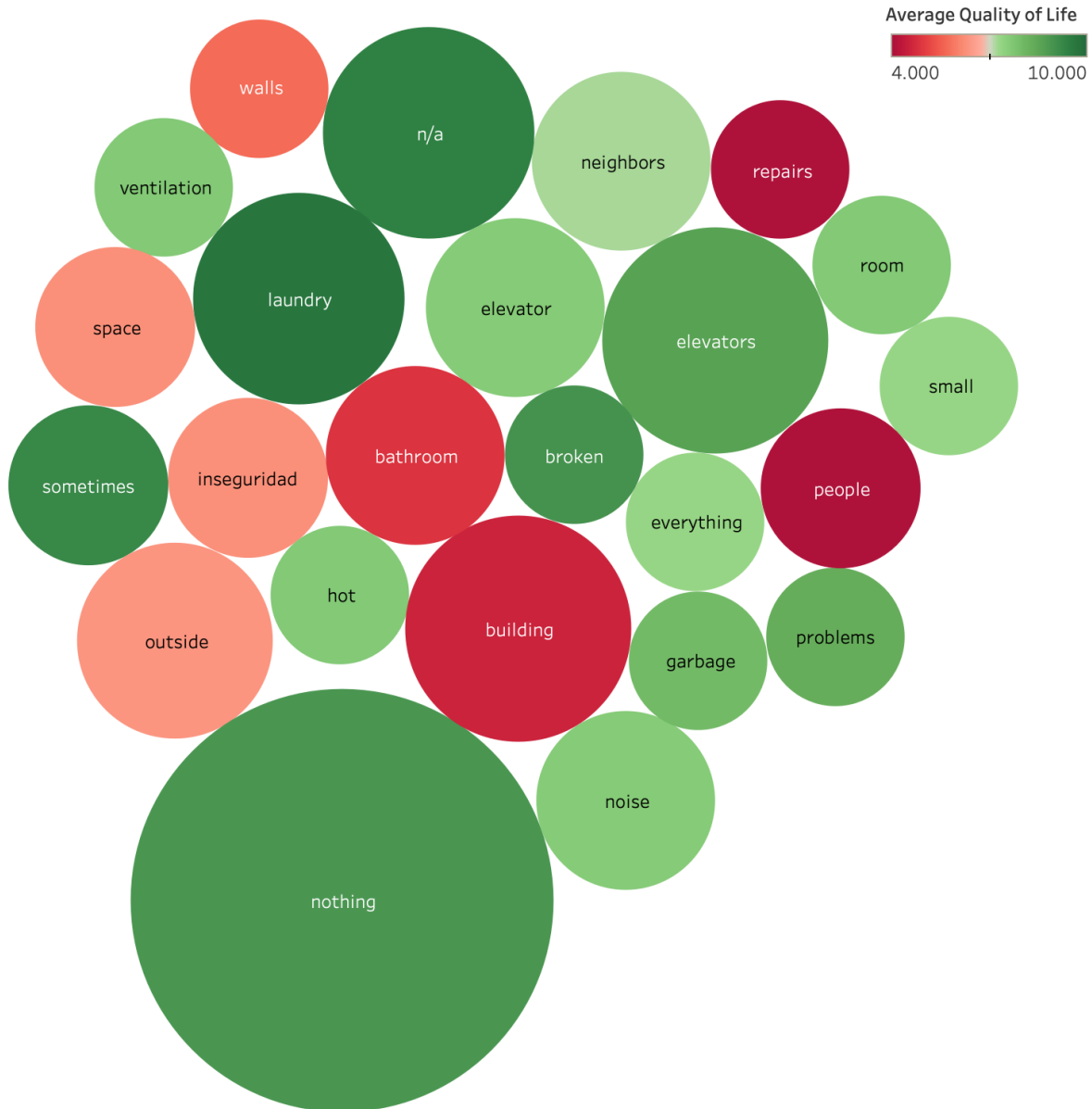


Figure 23: Bubble chart of open resident responses naming what they dislike most about their homes; note only words or phrases listed three (3) or more times are included.



## In-Unit Home Tour Observations

The in-unit home tours were a way for residents to show what matters to them, both their likes and concerns. It was also a chance for the field team to see the unit conditions residents reported in surveys or focus groups. The team also evaluated healthy housing issues.

We observed common indoor air quality issues. For example, three fourths of the units we toured have gas stoves, while only half had any sort of mechanical kitchen ventilation. The field research team used a simple ventilation test using 2-ply toilet paper. A fan drawing roughly 25 cubic feet of air per minute (cfm) holds one piece of toilet paper. Healthy housing experts recommend a kitchen fan to draw at least 100 cfm (which can hold up a pile of four squares of paper).<sup>4</sup> Even where ventilation existed, not one system met air flow rates recommended for healthy housing.

Show me how you ventilate your kitchen while you cook

20 responses

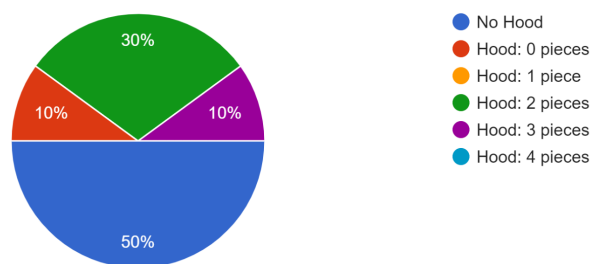


Figure 24: Types of kitchen ventilation for toured units

GFCI (Ground Fault Circuit Interrupter) outlets help to protect people from electrical shocks and are required in moisture-prone areas. They can be recognized by the reset button. Field researchers visually assessed whether outlets within six feet of sinks had GFCI outlets installed. While most bathrooms had GFCI outlets, less than half of the kitchens did.

Approximately one in four units had a current water leak. In more than half of the units the research team observed signs of mold, musty odors, or staining on walls or ceiling that came from leaky pipes or outside through the roof or windows.

<sup>4</sup> “Choosing a Healthy Home & Community” guide, page 5. Minnesota Green Communities, 2012.

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(Visual Survey) Are there any signs of mold or musty odors in the apartment? Is there any staining on walls or ceiling that came from leaky pipes or outside through the roof or windows?

21 responses

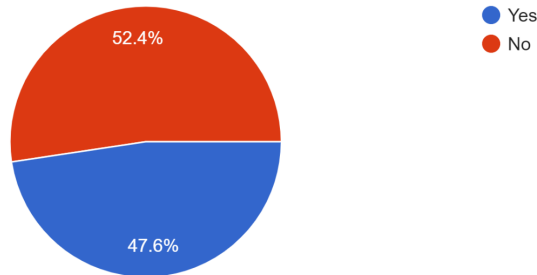


Figure 25: Proportion of toured units with mold or water damage

Similarly, approximately one in four units had issues with rodents or other pests. More than one in four had issues with the condition of flooring, walls or ceilings like open cracks. These are places where pests might access units.

Are there any issues with the condition of your flooring, walls, or ceilings? That's things like holes or open cracks in the floors, interior walls or ceilings (not caused by nails or similar).

21 responses

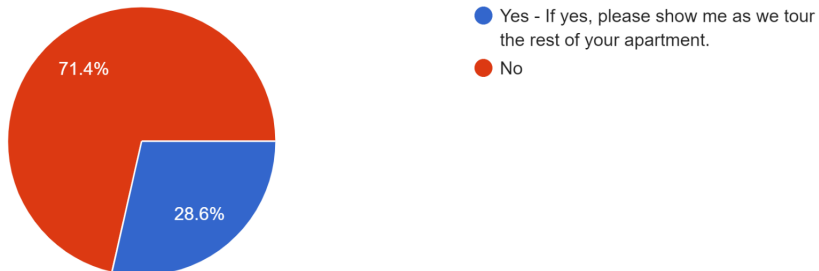


Figure 26: Types of kitchen ventilation for toured units