Understanding Home Repair Needs and Costs

Eileen Divringi, Community Development Research Specialist
Disclaimer

The views expressed here are those of the presenter and do not necessarily reflect the views of the Federal Reserve Bank of Philadelphia or the Federal Reserve System.
Why Do We Care About Housing Quality?

Affordability vs. quality tradeoff

- Low-cost market-rate rental units may be older and undermaintained (1)
- Low-income homebuyers may only be able to afford homes in relatively poor condition (2)
- Low-income homeowners often struggle to afford major home repairs (3)

Effects on health and well-being

- Potential harm to both physical and mental health of occupants (4)
- Negative effects may be more acute for parents and children, older adults, and people with disabilities (5)

Impact on wealth building

- Deferred maintenance and unaddressed repairs can worsen over time, lowering home values (6)

Calculating a Cost-Based Measure of Repair Needs

**Housing Problem** (American Housing Survey)

- **Broken Window(s)**
- **Cracked Foundation** (Concrete Slab)
- **Leak From Basement**

**National Average Repair Cost** (RSMeans)

- **Fixed Cost**
  - Assumes 1.5 windows to be repaired

- **Per SF Cost**
  - Assumes 25% of footprint to be repaired
  - Footprint calculated as size/stories

- **Redundant repair, no cost assigned**

Unit Total Repair Cost

Limitations

• The AHS lacks contextual information about building materials and the magnitude of reported issues.

• Certain questions are not asked of multifamily units.
  – E.g., structural issues related to roofs, exterior walls, or foundations; issues in common areas; etc.

• Some health and safety issues are not covered in the standard housing problems questionnaire.

• Issues that are not readily observed by AHS respondents are not captured in the survey.
  – E.g., indoor air quality issues, lead exposure, water contaminants, etc.

• Estimates are not available for vacant units.
National Findings

Total estimated cost of repair needs in occupied units, 2022:

$149.3 billion

Estimated cost of repair needs in units occupied by low-income households, 2022:

$57.1 billion

Average repair cost for households with repair needs, 2022:

$3,359

Sources: Author’s analysis of 2021 AHS data and 2022 RSMeans data from Gordian.
## Occupied Units by Estimated Repair Cost, 2022

<table>
<thead>
<tr>
<th></th>
<th>None</th>
<th>Under $1,000</th>
<th>$1,000-$5,000</th>
<th>$5,000-$10,000</th>
<th>$10,000+</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>65.4%</td>
<td>10.8%</td>
<td>16.8%</td>
<td>4.0%</td>
<td>2.9%</td>
<td>100%</td>
</tr>
<tr>
<td>Owners</td>
<td>66.8%</td>
<td>10.0%</td>
<td>15.8%</td>
<td>4.1%</td>
<td>3.2%</td>
<td>100%</td>
</tr>
<tr>
<td>Renters</td>
<td>62.8%</td>
<td>12.3%</td>
<td>18.7%</td>
<td>3.8%</td>
<td>2.4%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Sources: Author’s analysis of 2021 AHS data and 2022 RSMeans data from Gordian. Nominal dollar values.
## Percent with Repair Needs, 2022

### Household Characteristics

<table>
<thead>
<tr>
<th>Poverty Level</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 100%</td>
<td>40.1%*</td>
</tr>
<tr>
<td>100%-199%</td>
<td>38.6%*</td>
</tr>
<tr>
<td>200% or Above</td>
<td>32.6%*</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Race/Ethnicity of Householder</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAPI</td>
<td>27.6%*</td>
</tr>
<tr>
<td>Black</td>
<td>39.8%*</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>37.7%*</td>
</tr>
<tr>
<td>Native American</td>
<td>48.0%*</td>
</tr>
<tr>
<td>White</td>
<td>33.1%*</td>
</tr>
<tr>
<td>Multiracial</td>
<td>46.8%*</td>
</tr>
</tbody>
</table>

### Unit Characteristics

<table>
<thead>
<tr>
<th>Structure Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufactured Home</td>
<td>43.5%*</td>
</tr>
<tr>
<td>Single-Family</td>
<td>34.5%</td>
</tr>
<tr>
<td>Small Multifamily (2-9)</td>
<td>34.2%</td>
</tr>
<tr>
<td>Large Multifamily (10+)</td>
<td>32.3%*</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year Built</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1939 or Earlier</td>
<td>45.2%*</td>
</tr>
<tr>
<td>1940-1969</td>
<td>39.5%*</td>
</tr>
<tr>
<td>1970-1999</td>
<td>33.3%*</td>
</tr>
<tr>
<td>2000 or Later</td>
<td>26.1%*</td>
</tr>
</tbody>
</table>

Sources: Author’s analysis of 2021 AHS data and 2022 RSMeans data from Gordian.

* Denotes statistically significant difference from overall value at the p<0.10 level.
## Home Repair Needs by Category, 2022

<table>
<thead>
<tr>
<th></th>
<th>Share of Units Reporting Issue*</th>
<th>Share of Aggregate Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structural</td>
<td>45.8%</td>
<td>58.0%</td>
</tr>
<tr>
<td>Leaks and Mold</td>
<td>45.1%</td>
<td>23.8%</td>
</tr>
<tr>
<td>Electrical</td>
<td>16.2%</td>
<td>6.5%</td>
</tr>
<tr>
<td>Heating</td>
<td>14.3%</td>
<td>4.4%</td>
</tr>
<tr>
<td>Plumbing</td>
<td>12.8%</td>
<td>5.3%</td>
</tr>
<tr>
<td>Pests</td>
<td>11.9%</td>
<td>1.9%</td>
</tr>
</tbody>
</table>

* For units with repair costs >$0. Column does not sum to 100% because units may report housing problems in more than one category.

Most common housing problems:
- Inside walls or ceiling have open holes or cracks (16.1%)
- Outside water leak from roof (12.9%)
- Foundation has holes, cracks, or crumbling (11.4%)
- Inside water leak from pipes (10.0%)
- Windows boarded up or broken (9.8%)

Source: Presenter’s calculations based on 2021 American Housing Survey Microdata PUF and 2022 RSMeans data from Gordian.
Typology of Households with Repair Needs

Low-Income, New Homeowners in Moderate-Age Units
Example Household:
Multigenerational family in a manufactured home in a rural area of the South.

Low-Income, Long-Term Homeowners in Moderate-age Units
Example Household:
Single older woman living alone in a row house in large metropolitan area of the Middle Atlantic.

Low-Income Renters in Moderate-age Multifamily Units
Example Household:
Grandparent caring for grandchild living in a medium-sized apartment building in a large metropolitan area in the Northeast.

Source: Divringi et al., 2019, Measuring and Understanding Home Repair Costs: A National Typology of Households
Households with incomes <100% of federal poverty guidelines (FPG) were nearly twice as likely as households with incomes ≥200% of FPG to experience persistent repair needs across survey years (14.9% versus 7.7%).
Takeaways for Practitioners: Homeowners

- Grants are likely to be a better/preferable option for the lowest income homeowners who may not be able to support additional debt and may be reluctant to re-encumber homes that are fully paid off. (1)

- Local programs may be able to blend different state and federal funding sources (weatherization, lead remediation, emergency repairs, etc.) if they can align eligibility requirements. (1)

- Health care institutions are increasingly interested in addressing housing quality as a social determinant of health. (2)

- Low-income homebuyers may be interested in training on home maintenance and minor repairs. (3)

(1) Van Zandt and Rohe 201; (2) Bryant-Stephens 2018, Skinner, Franz and Kelleher 2019; (3) Acquaye 2011
Takeaways for Practitioners: Renters

• Rental units with repair needs are disproportionately likely to be occupied by people of color, households with children, and individuals with incomes below the federal poverty level.

• Low-income renters living in units with repair needs are likely to experience multiple forms of housing insecurity simultaneously, including severe housing cost burdens. (1)

• Policies to improve the rental housing stock may need to be attentive to tenant circumstances to avoid or mitigate the risk of destabilizing vulnerable households.

• Small-scale landlords may lack the operating margins, access to capital, and/or property management expertise needed to adequately maintain or repair units. (2)

(1) Routhier 2019; (2) Newman and Garboden 2012
Thank you

Eileen Divringi
Community Development Research Specialist,
Community Development and Regional Outreach
Eileen.Divringi@Phil.Frb.org
References


Preserving Privately Owned Affordable Housing Through Home Repair

www.projecthomes.org
JUSTIN RANDOLPH

Director of Home Repair

justin.randolph@projecthomes.org
OUR MISSION

Improving Lives by Improving Homes.

OUR VISION

To be the leader in housing solutions that enable individuals and families to live full independent lives in safe and healthy homes, neighborhoods and communities.
AFFORDABLE HOUSING

project:HOMES addresses the housing needs of the Richmond region through the preservation and production of affordable housing.

ENERGY CONSERVATION

project:HOMES also addresses affordable housing through energy conservation. A home that conserves more energy is also more affordable.
Presentation Outline

1. Community Need
2. Home Repair Program
3. Challenges We Face
4. Looking Forward
Client/Community Challenges

The following challenges are commonly faced by the communities we serve:

- Lack of preserved affordability
- Home preservation
- Social isolation
- Home & neighborhood safety
- Growing older in community
- Accessibility to home & accessibility to resources
- Physical & mental disabilities
- Ability to pass down generational wealth
- Abuse by caretaker or contractor
- Displacement

Clients/community members face a number of individual challenges that lead them to our services. A Person-Centered Approach helps us understand that many of the home repair needs we address are a result of, or interconnected with a lack of social services support and/or marginalization of the community served.
Program Outcomes

- Provides health & safety improvements
- Stabilizes structure to prevent further deterioration
- Eliminates code violations & blight

- Independence & housing stability
- Increases neighborhood vibrancy
- Preserves units of affordable housing
- Increases generational wealth
MEASURES

- Electrical repairs
- Heating repairs
- Plumbing repairs
- Window repairs
- Roof repairs
- Bathroom repairs
- Kitchen repairs
- Porch & step repairs
- Flooring repairs
- Safety related repairs

www.projecthomes.org
# Program Parameters

<table>
<thead>
<tr>
<th>Number of Persons</th>
<th>Max Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$59,750</td>
</tr>
<tr>
<td>2</td>
<td>$68,250</td>
</tr>
<tr>
<td>3</td>
<td>$76,800</td>
</tr>
<tr>
<td>4</td>
<td>$85,300</td>
</tr>
<tr>
<td>5</td>
<td>$92,150</td>
</tr>
<tr>
<td>6</td>
<td>$98,950</td>
</tr>
<tr>
<td>7</td>
<td>$105,800</td>
</tr>
<tr>
<td>8</td>
<td>$112,600</td>
</tr>
</tbody>
</table>

www.projecthomes.org
Who We Serve

73% of home repair clients identify as BIPOC (Black, Indigenous, & People of Color)

69% of home repair clients are 60+

100% of home repair clients are low-income
Our Process:

Outreach → Intake & Income Qualification → Inspection → Contractor Bidding → Job Completion

www.projecthomes.org
VOLUNTEER SERVICES

WEATHERIZATION
VOLUNTEER SERVICES

AREAS OF WORK

- Wheelchair Ramp construction and installation
- Accessibility-related home repairs
- Yard clean ups
- Emergency heating and cooling
- Immediate Response

Addresses code violations and deferred maintenance
Funded by private donations
Work completed with volunteer labor
Provides independence & mobility for disabled & elderly residents
WEATHERIZATION ASSISTANCE PROGRAM

**BENEFITS**
- Reduces energy burden on the most vulnerable
- Improves health & safety of residents' homes
- Increases home value and efficiency

**TYPICAL MEASURES**
- LED light bulbs
- Water efficiency
- Air sealing
- Insulation
- HVAC (replacements, tune-ups, etc.)
- Smoke & CO detectors
- Lead
- Ventilation
- Egress
Home Repair Impacts Individuals & the Greater Housing Landscape

**HOUSEHOLD BENEFITS**

- Increases healthy & safety of home
- Stabilizes structure to prevent further deterioration
- Eliminates code violations & blight
- Improves financial & housing stability
- Prevents risk of losing insurance

**COMMUNITY BENEFITS**

- Reduces need for additional units of affordable housing
- Improves housing stock quality
- Improves neighborhood appearance & vibrancy
- Prevents displacement of communities
- Addresses housing equity
project: HOMES faces a series of obstacles and challenges when working to address our clients’ unique needs. We strive to blend funding sources, skill sets and services to best serve the members of our community. Our organizational challenges include:

- Limited funding
- Energy & Home Repair funding not overlapping
- Getting homes Weatherization-ready
- Compliance requirements
- Government restrictions
- Funding timing & overlapping contracts
- Financial risk
- Working capital
- Relationship building with funding partners
- Labor force (growth, retention, etc.)
- Coordinating other social services
- Rental needs that can’t be addressed through our programs
- Client qualifications (over-qualification, deferral, etc.)
- Accessibility to application process
- Contractor demand
- Bringing trust & solutions
project:HOMES believes that the best possible solution for addressing the owner-occupied home repair needs that exist in our region is to sustain and develop our existing home repair programs with a greater emphasize on racial equity, the addition of coordinated resources and the braiding of private and public funding.
Rebuilding Together, Inc. is a national nonprofit organization with over 30 years of experience in home and community rehabilitation, preservation, and revitalization. Since 1988, Rebuilding Together has leveraged 4.2 million volunteers and $2.32 billion in cash and in-kind resources to repair and rehabilitate over 234,000 homes, nonprofit facilities, and community spaces, improving the lives of an estimated 6.86 million low- and moderate-income neighbors in need. Rebuilding Together is changing lives: one home, one community at a time.
Our Reach is National

120 in 38

Rebuilding Together affiliates in 38 states plus the District of Columbia
Our Communities

- 52% homes with persons with disabilities
- 20% homes with veterans
- 47% extremely low income households
- 58% female-headed households
- 15% homes for families with children
- 67% homes with older adults
- 57% people of color

$25,012 annual median income
Our Homes Are Our Lives
Our safe and healthy housing approach is strongly informed by the Eight Principles of Healthy Homes developed by the National Center for Healthy Housing and endorsed by HUD.

Our homes and our health are closely connected. Everyone deserves a safe and healthy home. A healthy home is:

**CLEAN**
Clean homes reduce pest infestation and exposure to contaminants.

**DRY**
Damp homes provide an environment for molds, dust mites, roaches and rodents. All of these can cause or worsen asthma.

**PEST-FREE**
Exposure to pests such as rodents or roaches can trigger asthma attacks.

**SAFE**
Injuries such as falls, burns and poisonings occur most often in the home, especially for children and older adults.
Safe and Healthy Housing

**THERMALLY CONTROLLED**

Prolonged exposure to excessive heat, cold or humidity may place your family at risk for various health problems.

**MAINTAINED**

Poorly maintained homes are at risk for moisture, pest problems and injury hazards. Deteriorated lead-based paint in older housing is the primary cause of lead poisoning, which affects over a half-million children.

**VENTILATED**

Access to a good, fresh air supply in your home is important for improving respiratory health and reducing exposure to indoor air pollutants.

**CONTAMINANT-FREE**

Exposure to harmful chemicals such as lead, radon gas, asbestos particles, carbon monoxide and secondhand smoke are far higher indoors than outside.

Sources: U.S. Department of Housing & Urban Development National Center for Healthy Housing
# Safe and Healthy Housing

<table>
<thead>
<tr>
<th>Rebuilding Together 25 Safe and Healthy Priorities</th>
<th>BEFORE</th>
<th>AFTER</th>
<th>CHANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residents can safely enter and leave the home</td>
<td>Y / N</td>
<td>Y / N</td>
<td>★</td>
</tr>
<tr>
<td>The roof is watertight</td>
<td>Y / N</td>
<td>Y / N</td>
<td>★</td>
</tr>
<tr>
<td>Rainwater is effectively shed and directed away from the structure</td>
<td>Y / N</td>
<td>Y / N</td>
<td>★</td>
</tr>
<tr>
<td>Exterior walls have no gaps/cracks/holes that allow intrusion of bulk moisture/pests</td>
<td>Y / N</td>
<td>Y / N</td>
<td>★</td>
</tr>
<tr>
<td>Windows and exterior doors open and close, lock securely and seal well</td>
<td>Y / N</td>
<td>Y / N</td>
<td>★</td>
</tr>
<tr>
<td>Home is free of live infestation of pests, and sources of attraction are removed</td>
<td>Y / N</td>
<td>Y / N</td>
<td>★</td>
</tr>
<tr>
<td>The numerals in the property’s street address are clearly visible from the street</td>
<td>Y / N</td>
<td>Y / N</td>
<td>★</td>
</tr>
<tr>
<td>A working smoke detector is on each floor and in or near bedrooms</td>
<td>Y / N</td>
<td>Y / N</td>
<td>★</td>
</tr>
<tr>
<td>A working CO detector protects home with gas appliances or attached garage</td>
<td>Y / N</td>
<td>Y / N</td>
<td>★</td>
</tr>
<tr>
<td>A currently dated Class ABC fire extinguisher is available in or near the kitchen</td>
<td>Y / N</td>
<td>Y / N</td>
<td>★</td>
</tr>
</tbody>
</table>
Our Approach

PERSON-CENTERED
Our safe and healthy housing repairs are individualized to the persons’ interests and needs and target significant safety, health and environmental hazards

CONCIOUS INCLUSION
We participate in active listening and prioritize a coordinated approach with organizations and service providers to support the community’s aspirations and be a trusted community partner in equity building
Our Approach

The Seven Community Revitalization Partnership Principles

Purpose: Rebuilding Together is rooted in the community. We work closely with community members to revitalize our communities using the following principles.

Rebuilding Together is a **Community Revitalization Partner** When...

1. We demonstrate a **commitment to safe and healthy housing** in our work. Our process integrates the 25 Safe and Healthy Home Priorities in homes served for a holistic approach. Our high-quality repairs remedy critical issues related to home systems. Our services lead to measurable outcomes that positively impact homes, communities and the overall well-being of every person served.

2. We prioritize a **coordinated approach** with other organizations and service providers. We acknowledge that we are one piece of the broader housing and community development ecosystem. We connect our clients to other programs and services that can assist them.
Our Approach

3. We seek opportunities to further serve our community through innovation and expansion. We offer services that complement our core home repair program either through our affiliate or collaborative partnerships. Examples include affordable housing programs, workforce development, energy efficiency or health care-funded modifications.

4. We regularly engage with local, political, community and business leaders. We use our services as a platform to advocate for those that we serve. We participate in roundtables, housing alliances, community-based cohorts and other opportunities for organized advocacy for healthy housing and historically disinvested communities in general. As a result, various stakeholders seek our expertise to address issues related to housing and community engagement.

5. We demonstrate a strong understanding of the current and historical policies, practices and behaviors that create housing inequality in our community. We regularly educate ourselves, our volunteers and our funders on these issues.
Our Approach

We build **cultural competency** with our stakeholders by respecting and affirming the values of the community served. We utilize a person-first approach to programming to prioritize community members’ interests, strengths, needs and active participation throughout the process with minimal disruption to the community.

We practice **active listening** in the community. We participate in neighborhood meetings, planning processes and events. Our services adapt to the needs and interests identified by the community we serve. Community members and others with lived experiences actively participate at all levels of our organization. We seek to remove barriers to their involvement and include them in decision-making.
Impact Domains

**Community**
- Improved relationships with neighbors
- Stable neighborhoods
- Retention of housing stock

**Safety**
- Safer structures
- Safety from outside dangers
- Reduced hazards and Reduced falls

**Physical Health**
- Improved functionality of homes
- Better personal hygiene

**Mental Health**
- Improved well-being
- Pride in homes
- Ability to cope with life stressors

**Economic Security**
- Decreased home maintenance costs
- Improved property values

**Independence**
- Physical mobility
- Ability to take care of the home
- Ability to age in place
The Human Impact

INDEPENDENCE

Almost 90% of neighbors who weren't planning on aging in place now consider it very likely.

MENTAL HEALTH

Among neighbors who felt highly nervous or stressed about their home, 67% said the repairs reduced stress.
Human Impact

**ECONOMIC SECURITY**

Nearly 70% of neighbors plan to pass on their property to a family member or friend.

**PHYSICAL HEALTH**

Among those who reported “fair” or “poor” physical health before the repairs, 33% said their health improved after the repairs.
THE SOCIAL VALUE GENERATED BY REBUILDING TOGETHER

Projected Social Return On Investment

$1 → $2.84

For every $1 invested by Rebuilding Together and its affiliates in each home, there is a projected $2.84 in social value generated through improved health, safety, independence and cost savings.
**Value Generated**

- **Increased Independence**: $8,770
- **Increased Safety**: $5,870
- **Increased Economic Security**: $3,500
- **Improved Mental Health**: $2,140
- **Improved Physical Health**: $1,972
- **Increased Community Connection**: $200

**Impacts**

- Avoided cost of assisted living facility
- Reduced health care expenditures
- Increased aging in place, ability to conduct activities of daily life
- Reduced health care costs from falls and fires
- Avoided deaths from falls and fires
- Improved quality of life
- Reduced greenhouse gas emissions
- Reduced time spent caregiving
- Reduced costs, increased home value
- Reduced health care expenditures
- Improved quality of life, reduced stress
- Reduced health care expenditures and improved quality of life
- Avoided depression
- Increase earnings and taxes paid
- Increased earnings and taxes paid
- Increased earnings and taxes paid
I have access to getting around the house better... that’s what it is all about... that is the key to the whole thing. Rebuilding Together fixes your house so that you can stay in your house.

James, St. Louis Neighbor
Thank you!

Melissa Stutzbach, Vice President of National Programs and Impact Measurement
mstutzbach@rebuildingtogether.org

999 North Capitol Street NE Suite 330 Washington, DC 20002

Call: (202) 518-3100