

Methods note · Everyday practice

Who keeps the benefit of a warmer rented home?

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Fictional author and institute · Editorial demonstration, not peer reviewed

ABSTRACT

A retrofit can improve a building without distributing its benefits fairly among current tenants, owners, future occupants, and public funders. This methods note develops a distributional account using Davis's original appliance-adoption analysis, Fowlie and colleagues' weatherisation evaluation, and the Magenta Book. A fictional rent-and-bill example distinguishes lower energy expenditure from lower total occupancy costs, while an underheated household illustrates the difference between reduced consumption and improved comfort. The analysis maps authority, payments, disruption, maintenance, and benefit timing, and separates participant transfers from societal resource costs. No housing performance or savings are estimated. Its practical implication is that credible retrofit offers need transparent charging, protection, operational responsibility, and evaluation of who actually receives the intended housing outcomes.

Keywords: rental housing · retrofit · benefit distribution · split incentives

A source-based editorial text, not a report of original Still North research. Examples and imagery are illustrative.

A building benefit is not a tenant benefit

A retrofit can improve a building while distributing its costs and benefits unevenly. An owner may pay for insulation, a tenant may pay the heating bill, a public programme may fund installation, and a future occupant may receive much of the useful service. Describing the project as cost-effective does not say who can afford it, who gains, or whether the current household is better off after all associated charges.

This methods note examines that distributional question in rented housing. It brings together Lucas Davis's original analysis of appliance adoption, Fowlie, Greenstone, and Wolfram's experimental weatherisation evaluation, and HM Treasury's evaluation guidance. These sources inform a practical account of mechanisms and evidence, not a forecast for any housing stock. The worked rental agreement below is fictional. No local retrofit performance, rent change, or quantified saving is claimed.

The decision should begin with several separate objectives: safe and adequate housing, reliable comfort, lower resource use, affordable occupancy, and durable asset maintenance. They can reinforce one another, but they are not interchangeable. A tenant's reduced bill may reflect a warmer winter or continued underheating; a building's improved performance may allow a previously cold household to obtain more warmth at a similar bill.

Map authority, payments, and benefit recipients

Identify who can authorise work, choose contractors, access the home, approve changes to communal systems, and maintain the installation. These powers may be split among landlord, managing agent, freeholder, housing association, and public authority. A tenant cannot resolve an owner's maintenance obligation by making a

more careful personal energy choice. Urgent safety and repair routes should remain separate from a research or improvement programme.

Then map payments over time: survey, installation, financing, maintenance, disruption, rent, service charges, and energy. Record who pays each item and under which contractual or statutory arrangement. A grant is an inflow to one participant and an expenditure by another. It can make a project affordable without making its resource cost disappear from a societal assessment.

Benefits also need recipients and dates. Current occupants may gain comfort and reduced exposure to cold. Owners may gain a maintained asset or reduced vacancy risk. Future tenants may inherit lower heating requirements, while public services may experience wider effects that require separate evidence. Do not put every plausible benefit into a total as though it had already occurred or belonged to the current tenant.

A fictional rent-and-bill calculation

Imagine a fictional proposal in which a household's heating expenditure is assumed to fall by £20 per month after an upgrade, while a permitted and agreed rent adjustment would add £25 per month. These amounts are invented to illustrate incidence, not estimates of real bills or lawful rent-setting in any jurisdiction. Under those assumptions alone, the household has £5 less disposable income each month, before considering other charges or benefits.

Calling the project a bill-saving measure would obscure the household's position. Calling it worthless would also go beyond the calculation, because warmth, reliability, disruption, and tenure security remain unmeasured. The point is to show the whole occupancy-cost pathway. If the proposed rent adjustment is not legally available or

not actually agreed, it must not appear as an inevitable consequence in the appraisal.

Now consider a different fictional household that previously heated only one room. Improved insulation could allow more rooms to be used at an adequate temperature without producing the assumed bill reduction. That outcome may advance the housing objective even if it disappoints a narrow savings forecast. Measure indoor conditions and household experience alongside energy use, with consent, rather than treating every difference from an engineering projection as wasteful behaviour.

The example also changes if the tenant expects to move soon. Installation disruption may arrive immediately while benefits accrue to later occupants. Conversely, an owner may hesitate to invest where they cannot recover costs through permissible routes. These are reasons to examine programme design and protection, not reasons to assign either party a single presumed motive.

What split-incentive evidence does and does not show

Davis's 2012 analysis uses the US Residential Energy Consumption Survey to compare reported appliance efficiency between owner-occupied and rented homes, including controls for household characteristics. Its discussion examines the landlord-tenant problem: the person choosing an appliance may not be the person paying for its use. That mechanism is relevant to retrofit planning, even though appliances and building fabric are not identical interventions.

The chapter explicitly considers reporting errors and alternative explanations. It is observational evidence, not a random allocation of tenancy or insulation. It cannot establish the effect of a particular rent-protection arrangement, and its historical US sample is not a description of all rental markets. This note uses it to motivate questions about decision rights and information, not to import its estimates into a different jurisdiction.

A practical implication is to ask how performance becomes legible to tenants. A promised efficient home is difficult to evaluate when past bills reflect someone else's occupancy, tariffs, and comfort. Clear specifications, competent installation, commissioning, and accessible operating information can reduce that information problem. None removes the need for appropriate housing standards, enforcement, or independent advice about tenants' rights.

Do not confuse a model with delivered performance

Fowlie, Greenstone, and Wolfram's weatherisation study compares programme outcomes with model projections through an experimental evaluation in a specific US programme. Its relevance here is methodological: an engineering estimate and an observed programme effect are different evidence objects. It is not used to claim that all retrofits underperform, or to estimate a saving for the fictional households.

A building calculation can hold temperature, occupancy, and weather constant to isolate a technical change. A programme evaluation asks what happens when real households are offered and receive work under

actual delivery conditions. Uptake, incomplete measures, installer quality, changing prices, and household circumstances can all matter. A difference between modelled and observed use does not identify which explanation is responsible.

For a real programme, agree in advance which questions need measurement. Metered energy, weather, occupancy changes, installation records, indoor conditions, and total housing costs address different parts of the story. A simple before-and-after bill comparison cannot isolate a retrofit effect when tariffs or household composition change. Protect privacy and collect only what a proportionate evaluation needs.

Appraise distribution as well as totals

HM Treasury's Magenta Book asks what works, for whom, why, and at what cost. Applied here, that means reporting household experience and financial incidence alongside aggregate programme outcomes. An average can conceal a minority facing substantial disruption or higher total charges. Distribution is not an optional paragraph added after a favourable headline.

Keep participant and societal accounts separate. A rent payment is a cost to the tenant and income to the owner; adding both as independent resource costs double-counts a transfer. Installation materials and labour use real resources. Public administration and financing arrangements also matter. Distributional weights or other judgements about fairness should be stated openly rather than hidden in arithmetic.

Programme design can respond to the map. Potential tools include transparent charging terms, support during disruption, accessible controls, maintenance responsibility, and protection against displacement. Their appropriateness depends on local law and housing conditions. They are proposals to assess, not guarantees of fairness. Involve affected occupants before commitments become difficult to change, including people who cannot attend a standard consultation meeting.

Limits and an accountable retrofit offer

This account does not provide legal advice, building specifications, or a transferable estimate of health or climate benefits. Local climate, energy supply, housing quality, tenure arrangements, and installer capacity can change outcomes. Measuring comfort itself requires care: a single temperature reading cannot summarise a home's conditions, and household reports should not be reduced to a compliance score.

A credible offer tells occupants what work is proposed, who is responsible, which charges may change, what disruption to expect, and how problems will be corrected. Evaluation then asks whether those commitments and the intended housing outcomes were delivered. A warmer building becomes a fairer intervention only when its benefits, costs, and risks are traced to the people who actually live with them.

References

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