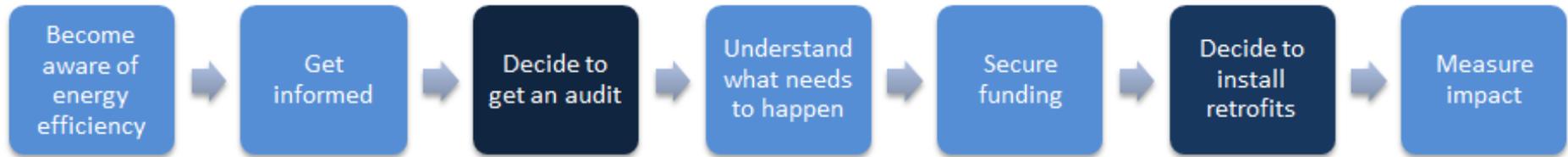


WHY CARE ABOUT HOME ENERGY EFFICIENCY?

- **52 million** – Homes in the United States built more than 25 years ago
- **1976** – Median year an owner-occupied home in the U.S. was built
- **\$2,200/year** – Amount the average household spends on energy bills – 4% of the their average pre-tax income.
- **62 percent** – Amount of average homeowner's net worth tied to the home
- **90 percent** – Percentage of U.S. single family homes that are under-insulated

THE “TOP 3” MARKET BARRIERS



1. Information gap
2. Access to and prioritization of capital
3. Transaction costs and hassles associated with decision-making

THE MORE HOMEOWNERS KNOW...

Home energy audit uptake is linked to knowing others who have had one

... and making EE improvements is linked to having an audit

Figure 3. Number of Friends or Neighbors Who Had Audits, by Respondents Who Had Audits and Those Who Did Not

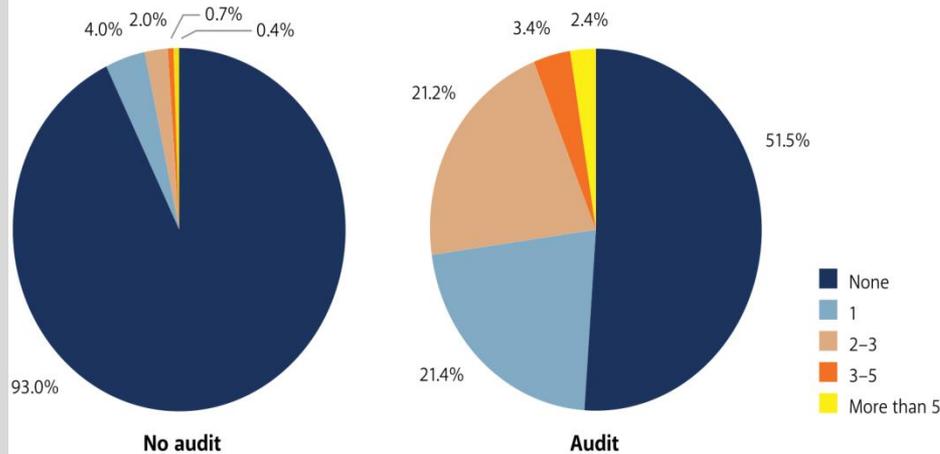
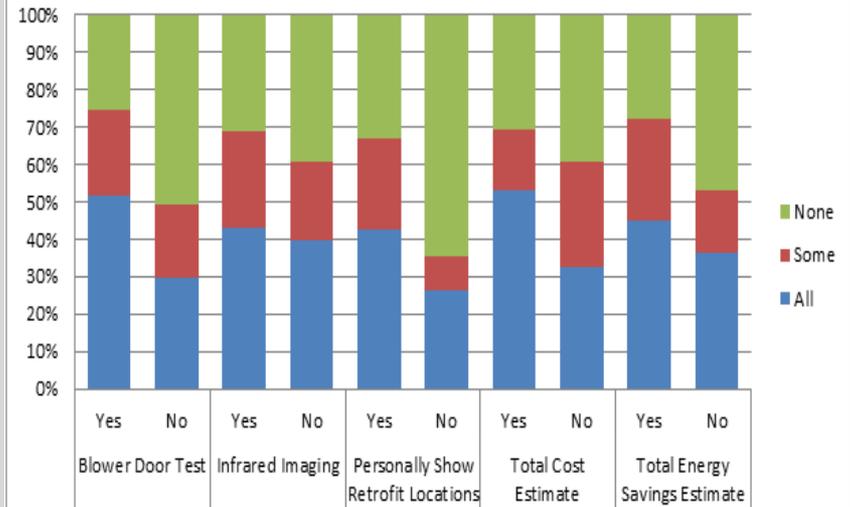


Figure 2. Extent of Follow-up on Insulation Recommendations by Whether Audit Included Particular Features

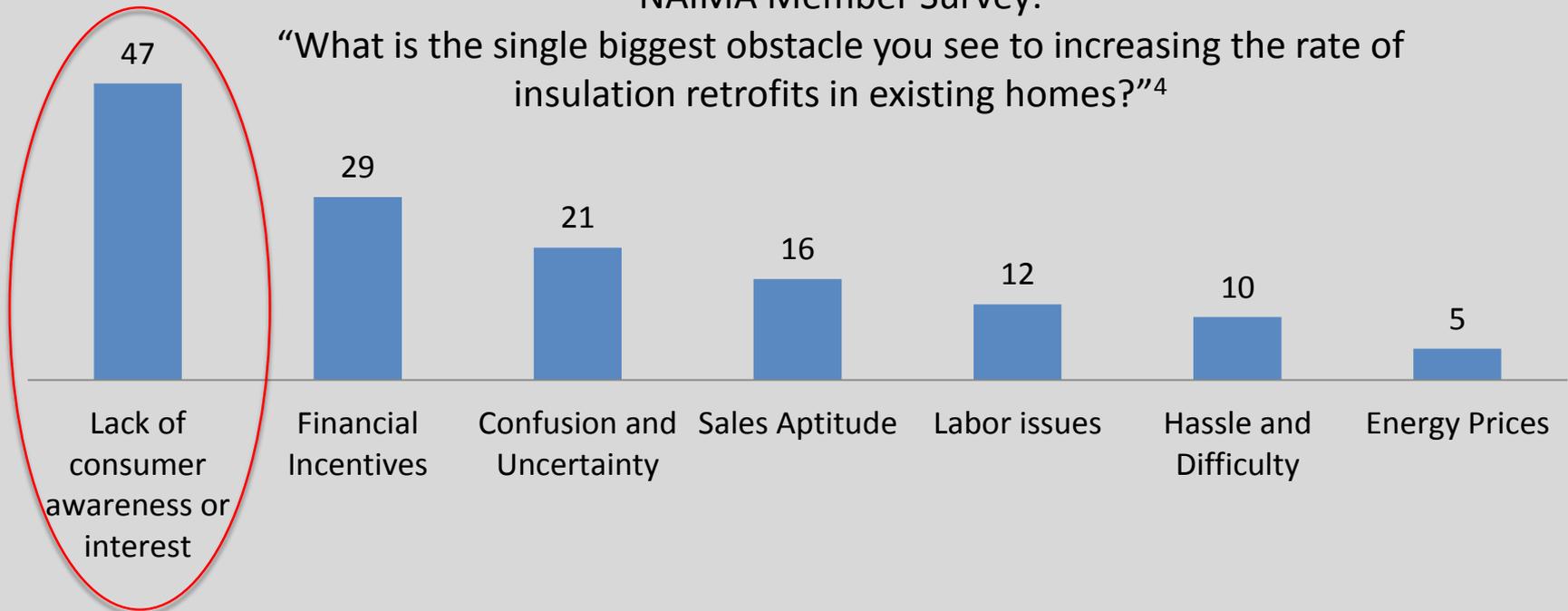


BARRIER 1: INFORMATION GAP

Industry Perspective

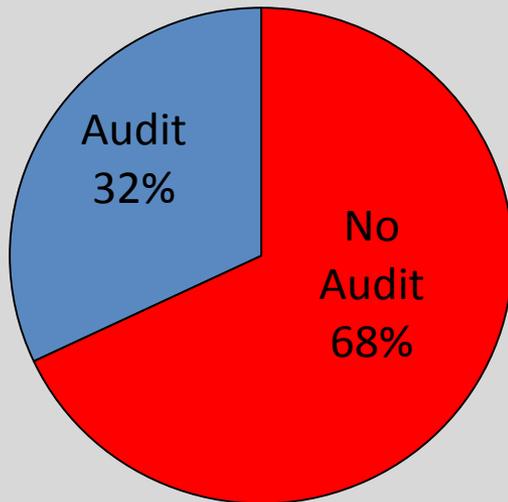
NAIMA Member Survey:

“What is the single biggest obstacle you see to increasing the rate of insulation retrofits in existing homes?”⁴



BARRIER 1: INFORMATION GAP – MOTIVATING ACTION

Homeowner Audits last 4 years



29% of this group
have “never heard
of an energy audit”³

How do we generate awareness
of inefficiency without in-home
analysis?

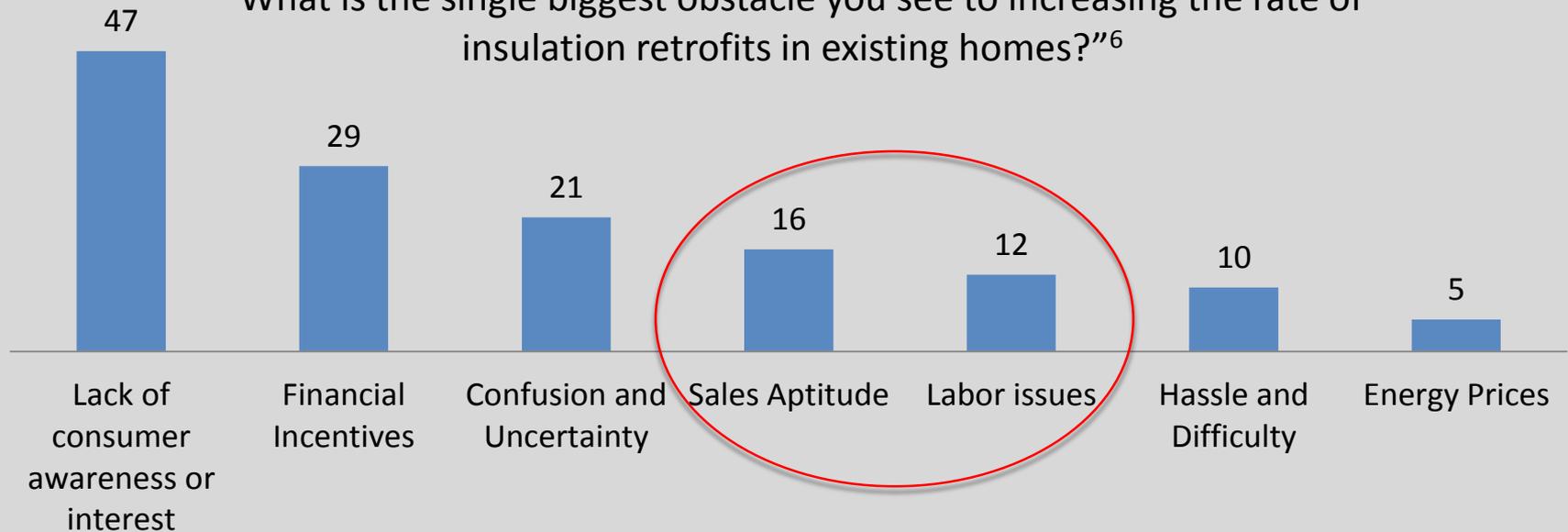


A thermal imaging pilot in MA saw 10% of
all homes contacted make improvements;
2% is BAU, so this was 5x more effective

BARRIER 1: INFORMATION GAP – WHO CAN DO IT?

NAIMA Member Survey:

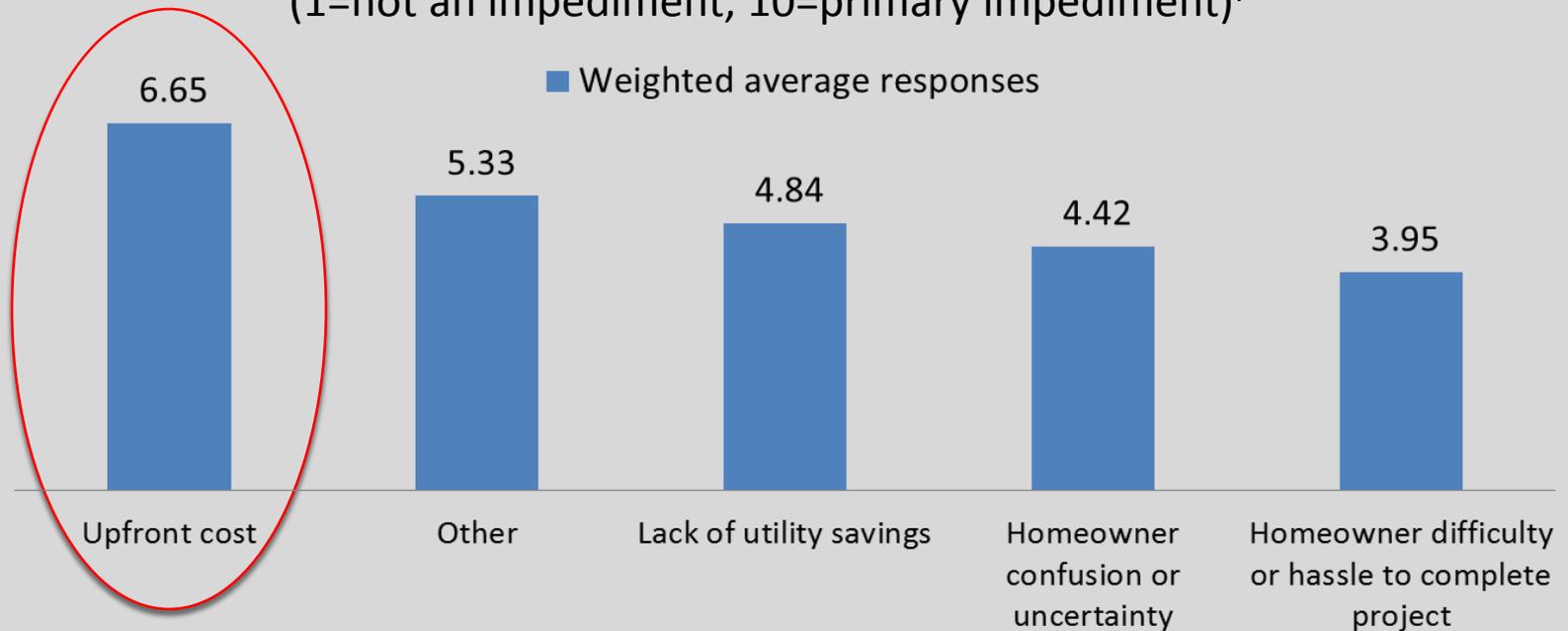
“What is the single biggest obstacle you see to increasing the rate of insulation retrofits in existing homes?”⁶



- It can be difficult to find contractors who are knowledgeable and have the skills to successfully complete a high quality retrofit project.
- Access to a list of vetted firms can reduce the transaction cost for homeowners by allowing them to easily identify well trained contractors.

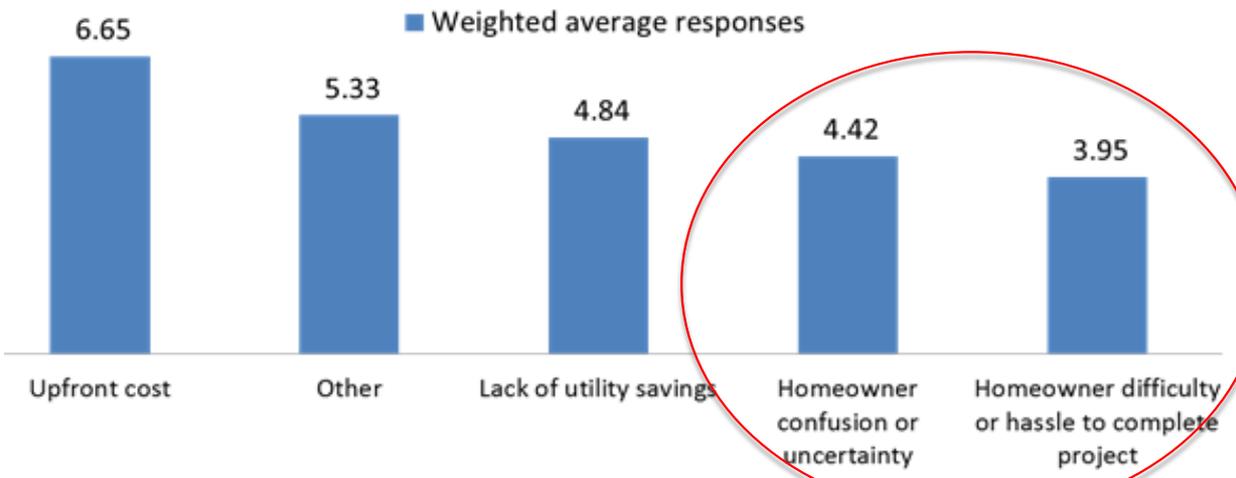
BARRIER 2: ACCESS TO AND PRIORITIZATION OF CAPITAL

Insulation Contractor Survey: Impediments to closing a sale
(1=not an impediment, 10=primary impediment)⁷



Contractors cite cost as the top barrier, as many surveys do, but is it really?

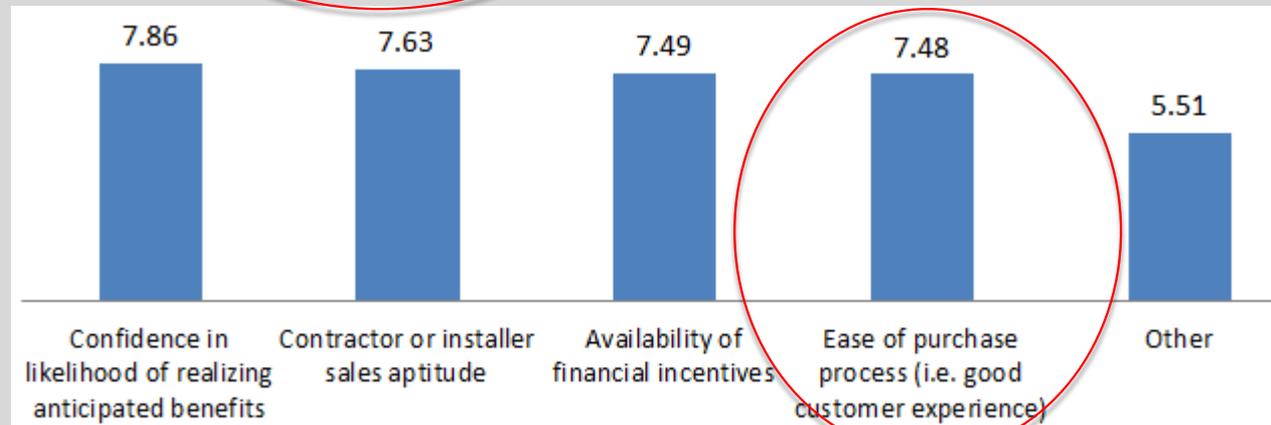
BARRIER 3: TRANSACTION COSTS



Insulation Contractor Survey: Impediments to closing a sale⁸

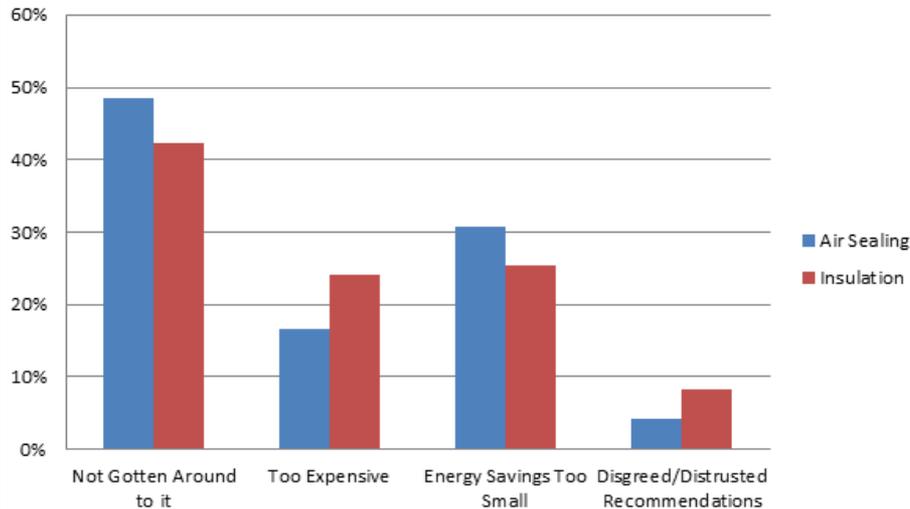
NAIMA Member Survey:

What factors get customers across the finish line to make a purchase⁹



BARRIER 3: TRANSACTION COSTS

Figure 3. Reasons for Not Following Up



- 50% of homeowners said the main reason for their failure to follow up on audit recommendations was that they “had not gotten around to it.”
- Cost and savings lagged far behind

The screenshot shows the Energy Trust of Oregon website. The top navigation bar includes links for Home, About, News, Blog, Events, Library, Find a Contractor, Contact, and Help. Below the navigation bar, there are tabs for RESIDENTIAL, COMMERCIAL, INDUSTRY + AG, PUBLIC + NONPROFIT, and RENEWABLE ENERGY. The main content area features a 'Your Energy Profile' section with a gauge showing a 37% potential savings. Below this is a 'Your Customized Action Plan' section with a list of recommended upgrades and a bar chart showing typical savings from these upgrades over 3 years: Heating (\$1,650), Water Heating, and Electronics & Lights.

Best-in-class programs develop approaches to make the process easier for homeowners

CLOSING THOUGHTS

1. Information gap: utility bill analytics and neighborhood or city-wide infrared imaging (seen earlier) show great promise in generating demand for energy efficiency, which is a first-order problem to solve
1. Financing: new, private capital-based funding mechanisms like WHEEL require very limited government support and result in easy to use, market-friendly programs.
1. Transaction costs: Governments can support “one stop shop” clearinghouses which serve to demystify the complexities of improving home efficiency

Energy efficiency policy isn't just about “more mandates” or “more spending”. There are middle of the road approaches that can address major market barriers.