



Empowering you to make
smart energy choices

Energy Efficiency Programs in Support of Greater New Haven

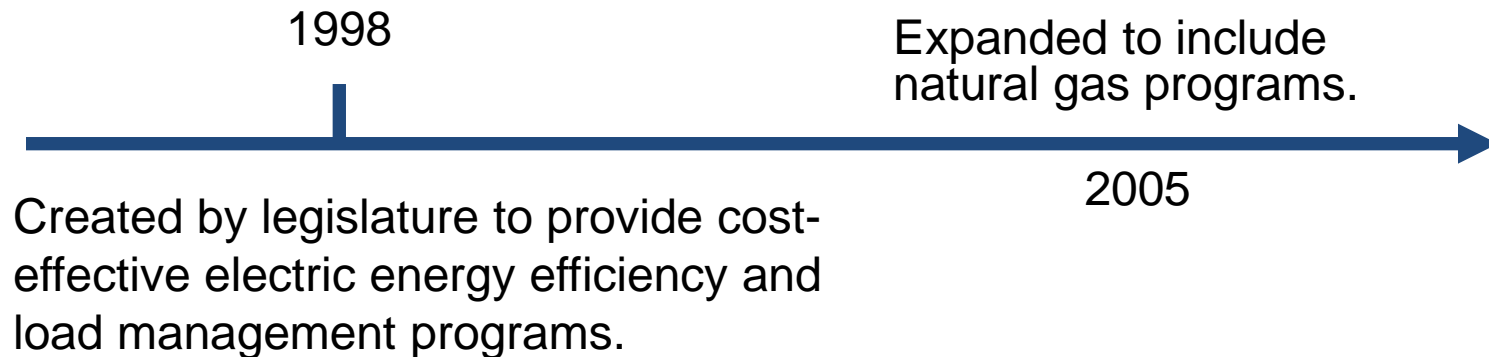


Marissa Westbrook
June 27, 2016

Energize Connecticut

- Energize Connecticut is a statewide branding initiative which helps consumers reduce their energy bills, save money, and reduce their carbon footprint.
- A partnership of the Energy Efficiency Fund, the Connecticut Green Bank, Department of Energy and Environmental Protection (“DEEP”) and local electric and gas utilities.

Energy Efficiency Fund Background



Objectives

- To advance the efficient use of energy
- To reduce air pollution and negative environmental impacts
- To promote economic development and energy security.
 - ***\$2.80 in electric system benefits for every \$1 invested in energy efficiency***

Governance and Funding Sources

- Conservation and Load Management Plan – UI and Eversource
 - 3 year plan cycle
 - Energy Efficiency Board
 - Approved by Department of Energy and Environmental Protection
- Funding Sources
 - Electric
 - Collection (Mill Rate): 42.9%
 - Conservation Adjustment Mechanism (CAM): 39.9%
 - Regional Greenhouse Gas Initiative (RGGI): 10.8%
 - ISO NE Forward capacity Market Revenues: 6.4%
 - Gas
 - CAM (100%)

Residential Energy Efficiency Programs

- Home Energy Solutions
- Home Energy Solutions – Income Eligible
- Heating, Cooling and Water Heating
- Retail Products (Lighting/Appliances)
- New Construction
- **eesmarts**
- Energize Connecticut Center
- Museum Partnerships

Home Energy Solutions (HES)

- In-home, direct installation weatherization program designed to help customers save energy and money and make their homes comfortable
- Assess opportunities to receive rebates or “instant” discounts for deeper measures
- Core services offered to customers for a small co-pay
- Premise may receive service once every 18 months

Home Energy Solutions – Income Eligible (HES-IE)

- In-home, direct installation weatherization program offered to income eligible customers at no cost
 - Customers have income at or below 60% of the state median income (“SMI”)

Yearly Income Limits (All Household Members)	
Family Size	Maximum Annual Income
1	\$33,132
2	\$43,327
3	\$53,521
4	\$63,716
5	\$73,910
6	\$84,105
7	\$86,016
8	\$87,928

Core Services

- Each visit provides a comprehensive energy assessment and direct install measures, including:
 - Blower door guided air sealing
 - HVAC flow tests and duct sealing
 - LED & CFL lighting upgrades
 - Water saving measures - aerators, showerheads and pipe wrap

** Services valued at \$1,000



High Quality Services

- All vendors are expected to demonstrate a high level of professionalism and deliver **consistent, effective and high quality services** to customers:
 - Safety first
 - Hazardous materials inspection
 - Combustible gas safety
 - Combustion appliance safety testing/inspection
 - Customer service
 - Perform core services (**savings shouldn't be left on the table!**)
 - Kitchen table wrap-up effort (customer education)
 - Drive customers towards achieving deeper savings by proposing additional energy saving measures
 - Robust quality assurance process - 3rd party inspections

Go Deeper with Additional Improvements

- Rebates/Incentives
 - Insulation
 - Central AC
 - Air source heat pumps
 - Ductless heat pumps
 - Wi-Fi Thermostats
 - Windows
 - Appliances
- Instant discounts*
 - Furnaces
 - Natural gas boilers
 - ECM boiler circulator pumps
 - Natural gas tankless water heaters
 - Heat pump water heaters

* Offered and applied upstream through the distributor or retailer

HES-IE Incentives for Add-on Measures

- Vendors are required to evaluate homes for all upgrade opportunities including:
 - Insulation
 - Wall, attic, and basement
 - Windows
 - Heating and cooling systems
 - Water heaters
 - Appliances
- HES-IE customers may be eligible for low to no-cost upgrades

HES-IE Case Study

AGNES C, NEW HAVEN (HES-IE)
Age of Home: 66 years
Heat Source: Fuel oil
MEASURES COMPLETED
<i>Joint project with Community Action Agency using Fund and RGGI incentives – home was without a working heating system</i>
<i>High efficiency CFL lighting</i>
<i>Blower door/air sealing</i>
<i>Hot water saving devices</i>
<i>Heating system repairs, including clean, tune and test, relay and thermostat replacement</i>
ESTIMATED ANNUAL SAVINGS
815 kWh saved annually
\$162 saved annually



“From the time the Community Action Agency was called to the time our heat was restored was very quick. We are very pleased, since we have a young child. Our home is much warmer and in the summer, it’ll be cooler.”

Agnes C.

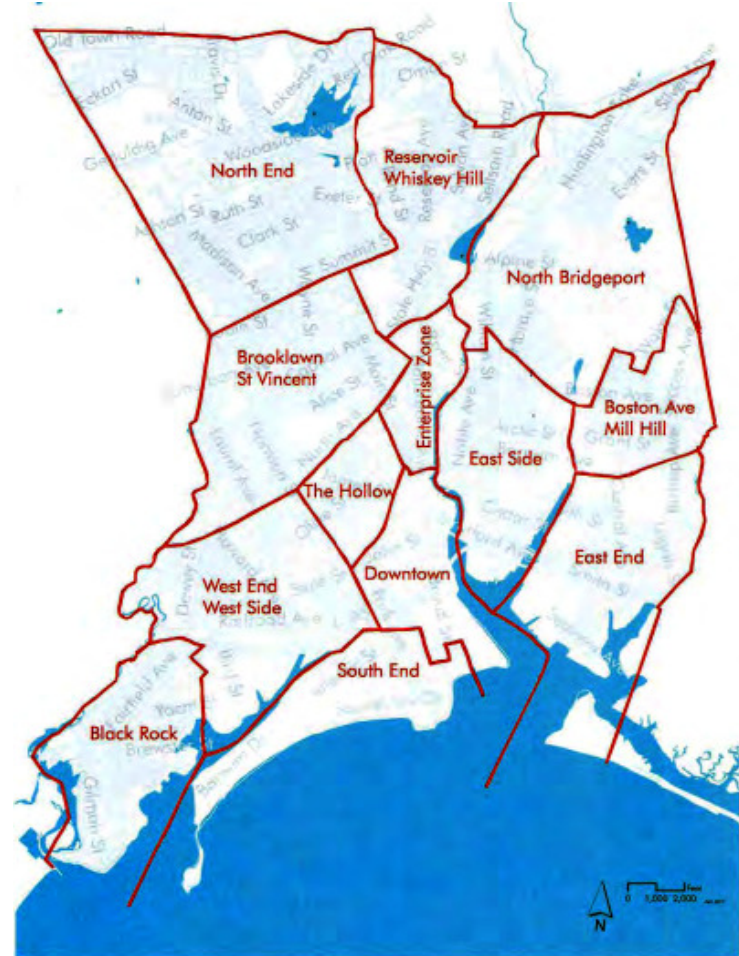
Town Statistics

	New Haven
Residences	54,967
Population	114,282
Persons per household	2.41
Per capita income	\$23,796
Median owner-occupied housing value	\$199,200
High school graduates	82.3%
Disabled persons under 65	7.4%
Person w/o insurance	13.6%

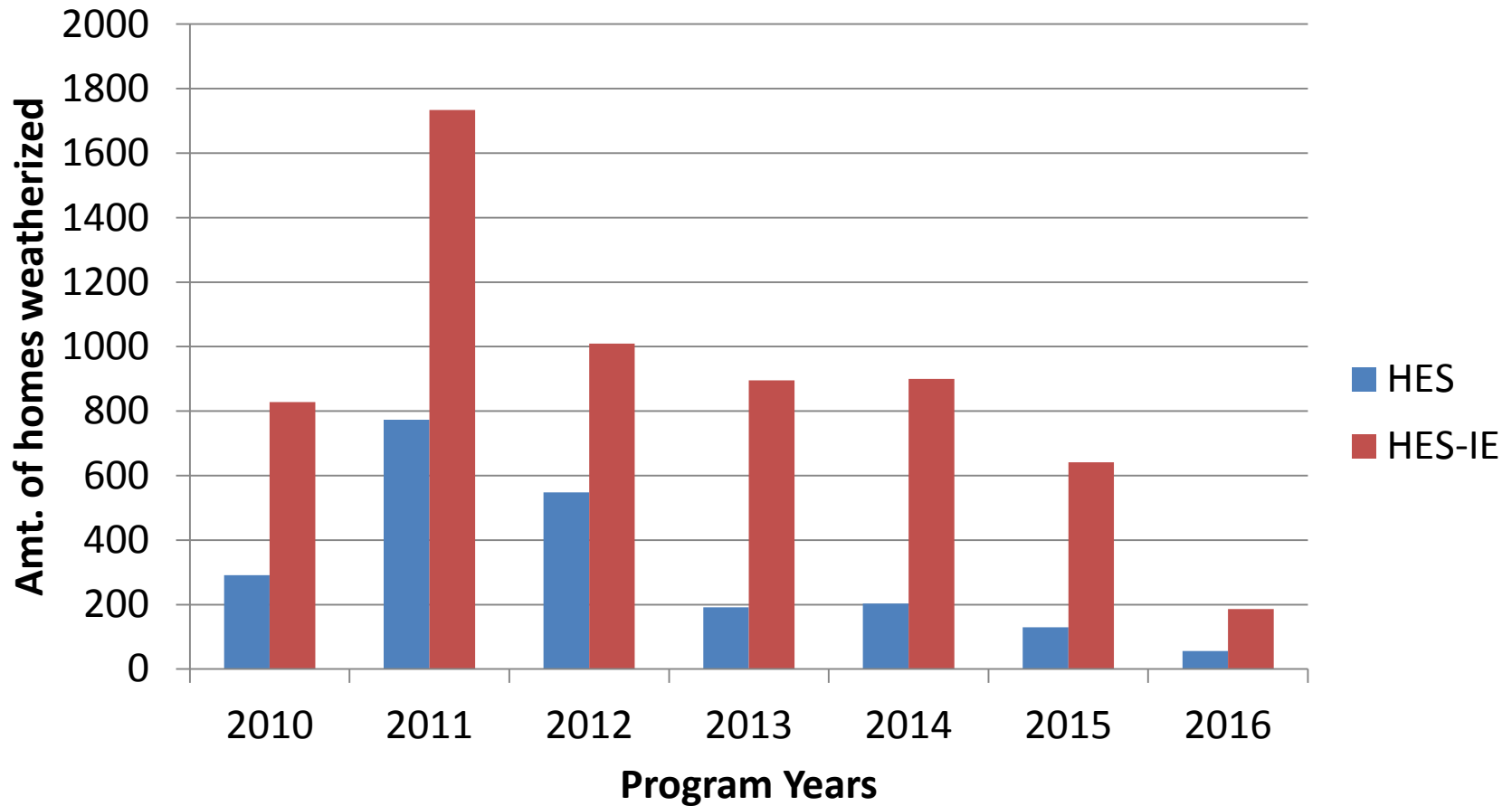
Reference: <http://www.census.gov/>

Bridgeport Efforts

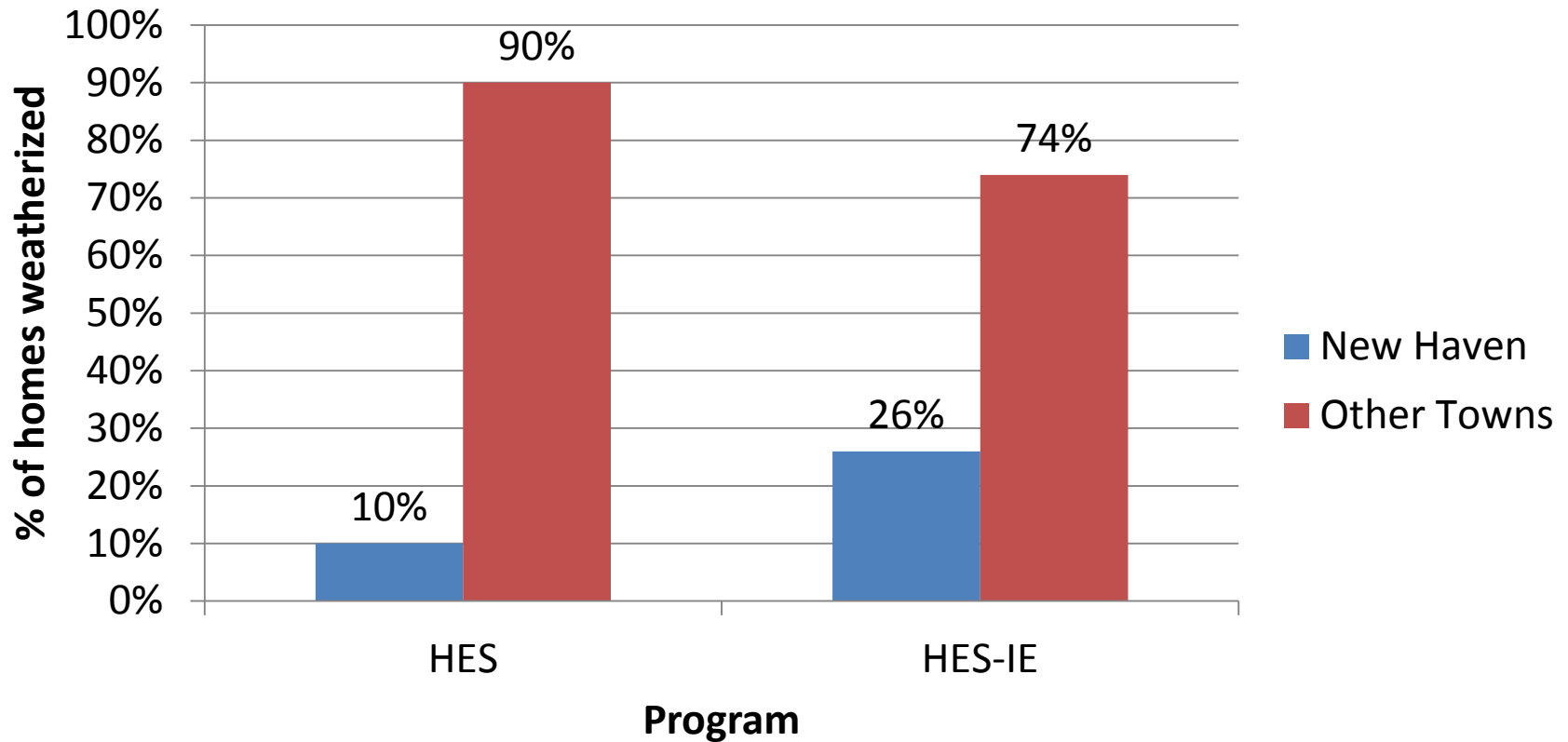
- Bridgeport successes:
 - God is Green
 - Neighborhood canvassing (9 years)
 - Mayor's Conversation Corps
 - Soak up the Rain



Customers weatherized since 2010

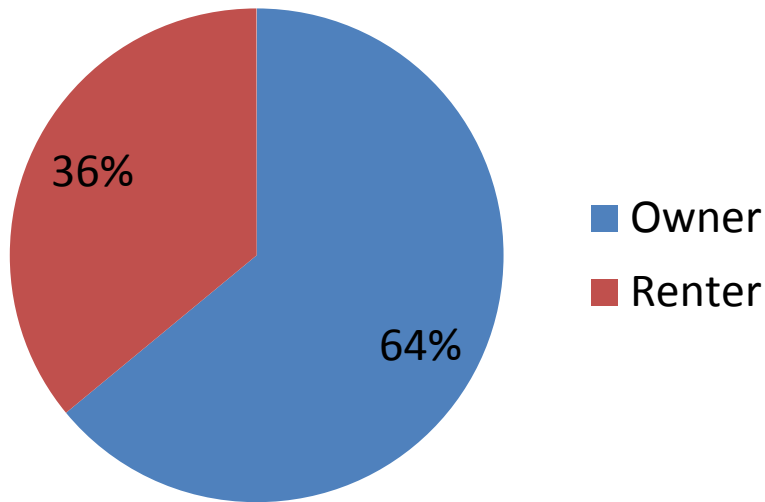


Customers weatherized since 2010

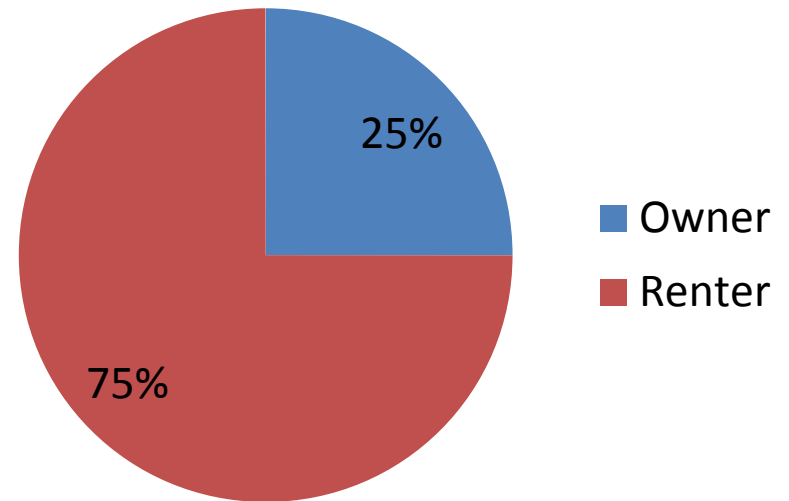


Homes Weatherized by Ownership Type

HES

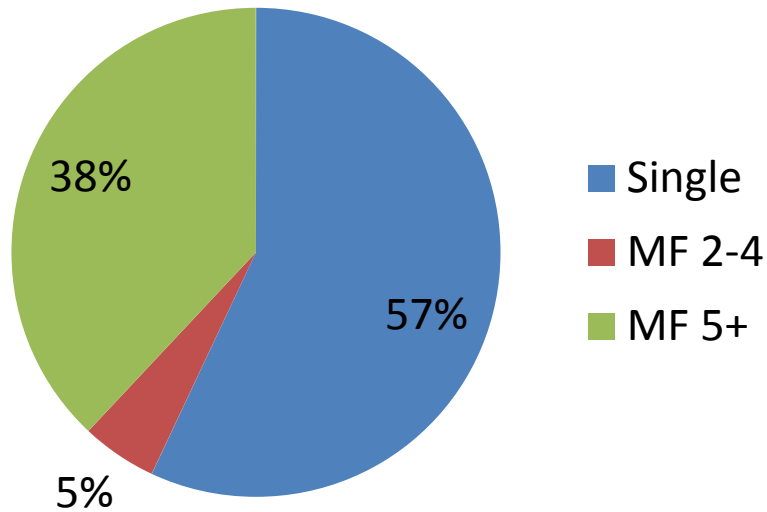


HES-IE

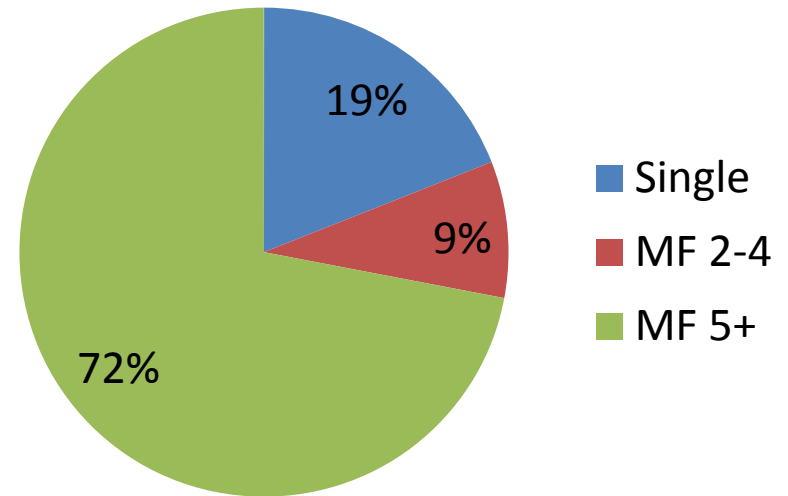


Homes Weatherized by Property Type

HES

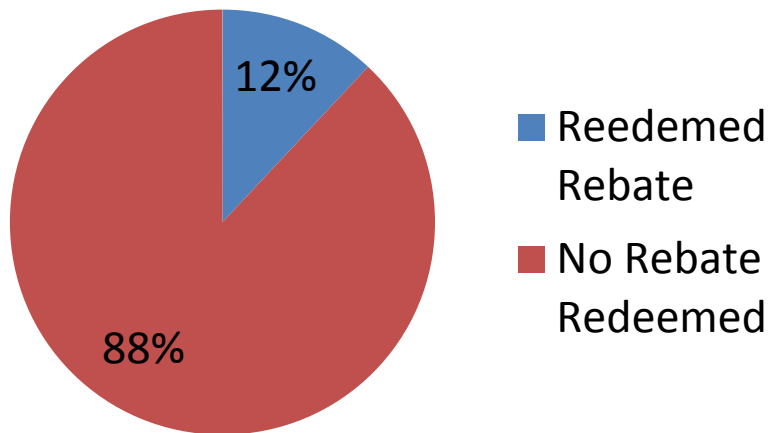


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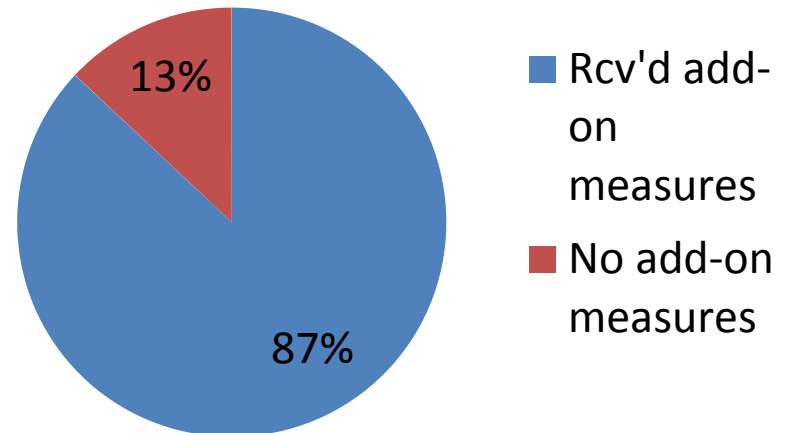


Deeper Measures

HES

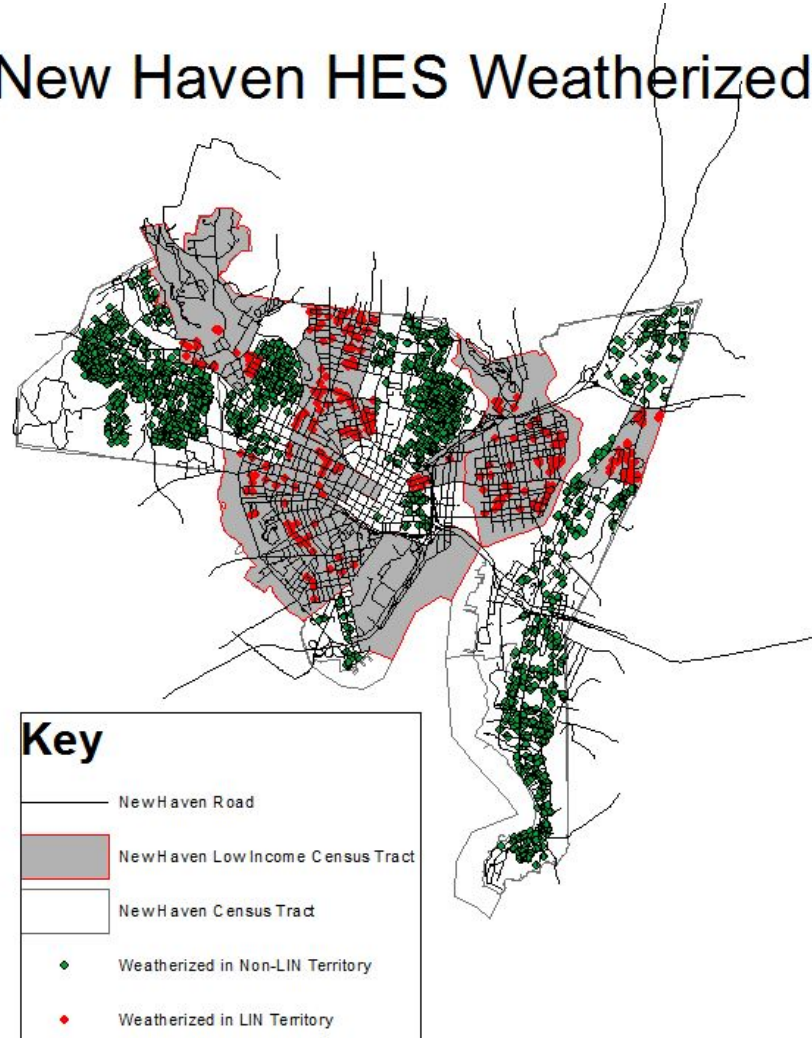


HES-IE



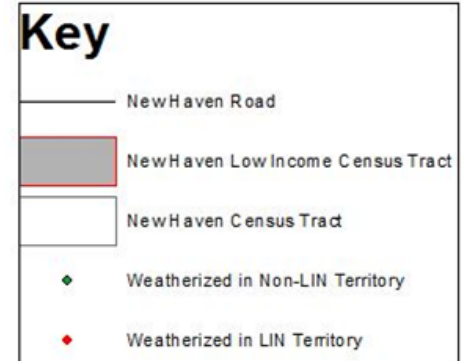
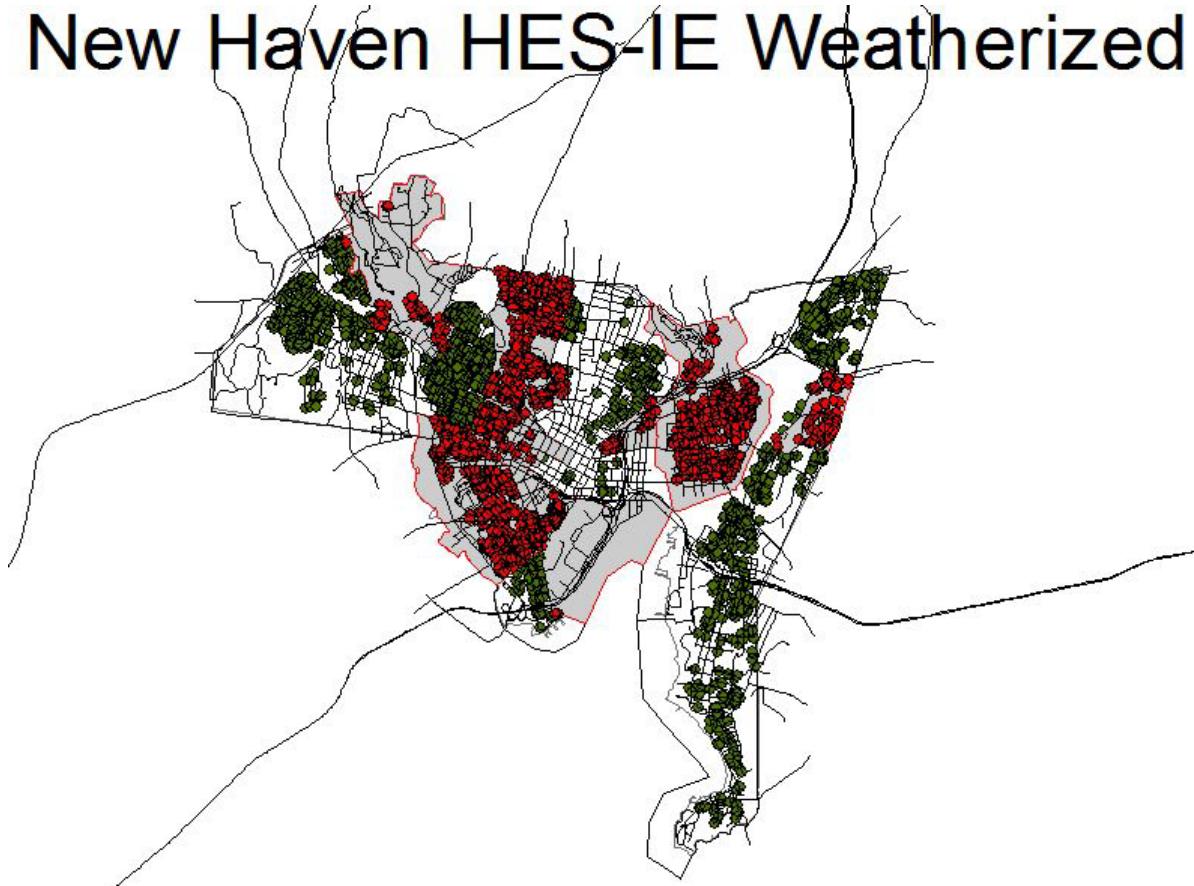
HES New Haven Map

New Haven HES Weatherized



HES-IE New Haven Map

New Haven HES-IE Weatherized



New Haven challenges

- Health and safety barriers are prevalent in New Haven, the most common barriers encountered are:
 - High CO
 - Mold
 - Asbestos
- Partners in the area don't have resources to remediate health and safety issues encountered
- No New Haven based vendors - vendors usually saturate the area in which their business is located
- Customers lack of understanding that the programs are paid by a charge on utility bills
- Neighborhoods are very segmented

New Haven Partners

- Center for Children's Advocacy at Yale-New Haven Hospital
- City of New Haven Youth Department
- Clifford Beers
- Connecticut Children's Medical Center
- Livable City Initiative
- New Haven Health Department
- Tremaine Foundation
- Yale Community Carbon Fund
- NeighborWorks New Horizons
- Neighborhood Housing Services
- Various neighborhood management teams

New Haven Outreach Events

- Yale University Community Breakfast
- Beulah Heights First Pentecostal Church Presentation
- CAANH Networking Reception
- Mayor Toni Harp Senior Fair
- NeighborWorks New Horizon's Annual Meeting
- New Haven Health Fair
- New Haven Housing Services Annual Meeting
- New Haven Health Department Lighthouse Event
- Nourish New Haven Conference
- YALE Housing Fair
- Neighborhood Housing Services Annual Meeting
- Christian Community Action Festival
- West River Water Festival

New Haven Outreach Events

- Provided letter of support to New Haven Health Department for lead abatement grant
- Over 50 churches reached in New Haven (featured in multiple church bulletins)
- Communicated with many non-profits including all YMCAs in the area
- Supported Fantasy of Lights in New Haven
- UI Community Impact Event hosted at Neighborhood Housing Services Energy Conservation Lab
- Community summer canvassing targeted 10,000 homes, 174 homes weatherized

2016 New Haven Light Bulb Exchange

- 374 bulbs exchanged
- Customers save \$226.46 over the lifetime of each LED
- Total savings for City of New Haven generated by event is \$84,695 (or \$3,715 each year)
- Customers save 1,161 kWh over the lifetime of each LED
- Total savings generated by New Haven event is 434,184 kWh (or 19,043 kWh each year)
- Smart AC program
 - Turn your AC on/off remotely
 - Manage your AC energy use more efficiently
 - Set schedules to control the temperature of your home anywhere, anytime
 - Over 30 New Haven sign-ups



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