

**APRIL 2021**

# **HABITAT HOMEOWNER MINI-SPLIT SURVEY**

**Pioneer Valley  
Habitat for Humanity**

Summary and Data Report for  
homeowner mini-split  
satisfaction survey  
April 2021



## SURVEY GOALS

### Improving building and education with homeowner input

Pioneer Valley Habitat for Humanity has been installing ductless mini-split systems to heat and cool homes for several years. These systems use two main components - an outdoor compressor/condenser and an indoor air handling unit(s) - to control the temperature in individual rooms or spaces in homes. The upfront costs of a mini-split are slightly higher than central units, but mini-splits are significantly more efficient than central air systems, which means a long-term savings for homeowners.

While mini-splits have many benefits, they are also unfamiliar systems to most Habitat homeowners, and previous feedback has indicated challenges with understanding and using their systems. The goal of this survey was to assess current Habitat homeowner satisfaction with their mini-split systems' ability to heat and cool their homes. Homeowners were asked questions about their typical mini-split use to contextualize their responses, and invited to give feedback on Habitat's education process around mini-splits so that the process can be improved for future homeowners.

This survey was sent via email and postal mail to homeowners in whose homes Pioneer Valley Habitat for Humanity installed mini-splits. Survey questions gathered both numerical and long-answer responses. Identifying information has been removed from this report in the interest of homeowner confidentiality.

Results of this report indicate overall satisfaction with the mini-splits, and greater satisfaction with cooling than heating. Common difficulties also emerged which may be used to improve future education.

#### Overall homeowner satisfaction

**55%** were very satisfied

**22%** were somewhat satisfied

**11%** were somewhat unsatisfied

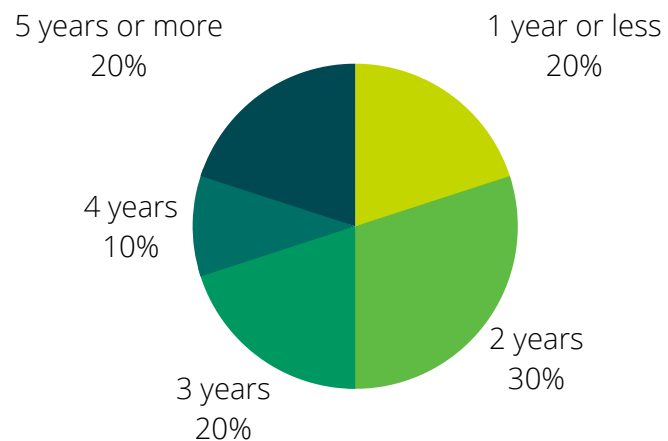
**11%** were very unsatisfied

## HOMES

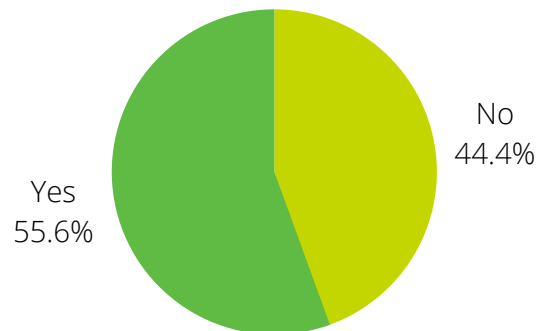
### Information about individuals' homes

Habitat has been installing mini-splits for several years, so the amount of experience homeowners have varies. Most homes (and future homes) will have solar panels. There is no clear correlation between solar panels or homeownership time to overall satisfaction.

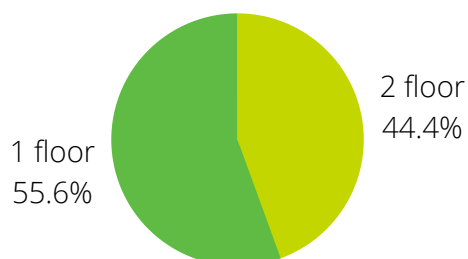
**How long have you been using mini-splits to heat and cool your home?**



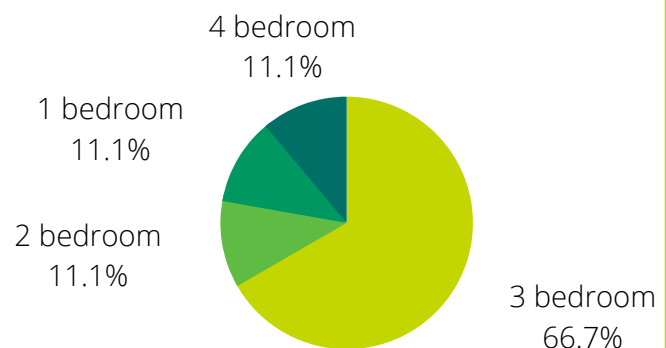
**Does your home have solar panels to generate electricity?**



**Number of floors**



**Number of bedrooms**

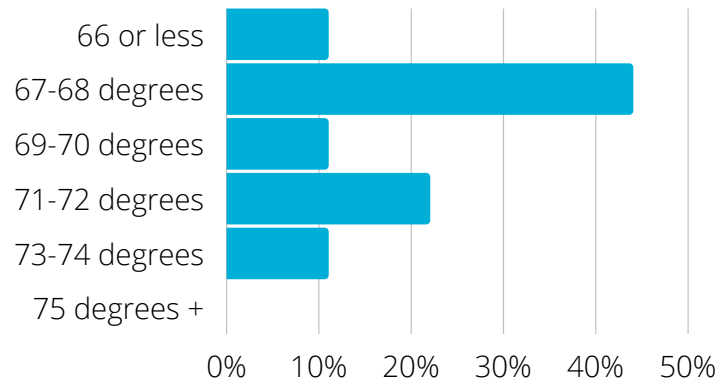


## HEATING

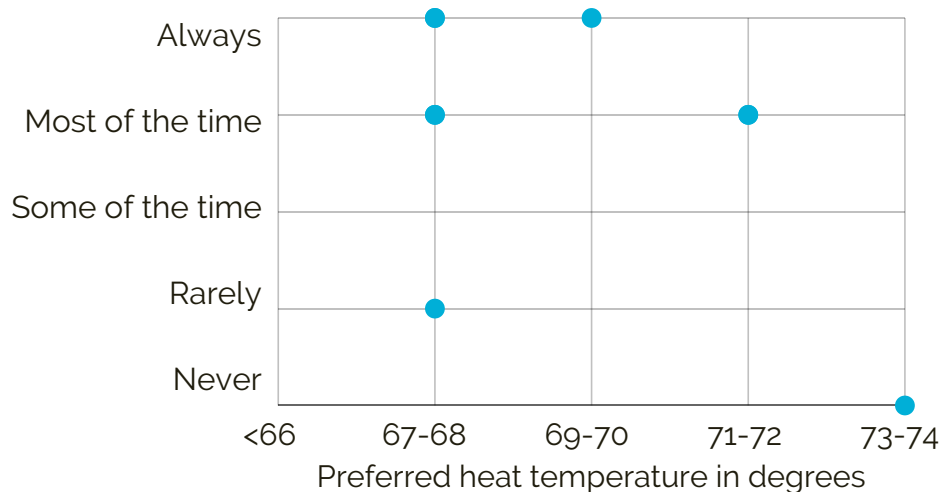
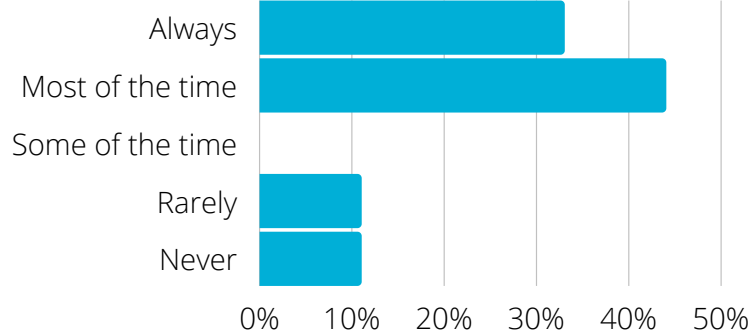
### Homeowner use and satisfaction with heating

Most respondents want to heat their homes between 67 and 72 degrees F, and have indicated that they are generally or always able to heat their homes to the level desired. Those who want to heat above 72 degrees report having greater difficulty achieving that temperature.

**To what temperature do you generally wish to heat your home?**



**Are you able to heat your home to the level desired?**

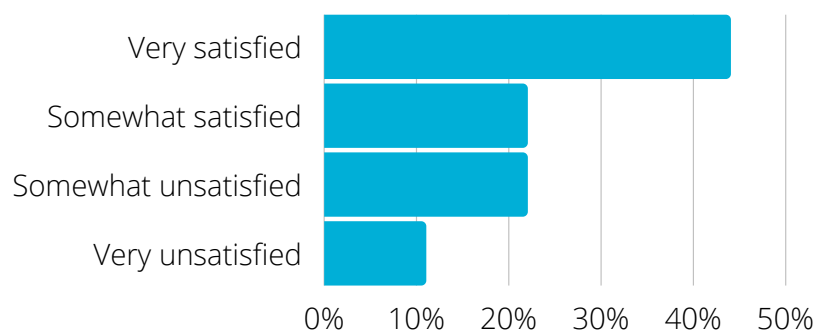


## HEATING

### Homeowner use and satisfaction with heating

Most respondents, regardless of satisfaction, say they don't use an additional source of heat, but about half said they would like one. Some respondents indicate they'd prefer a heating source or mini split in every room so doors can remain closed.

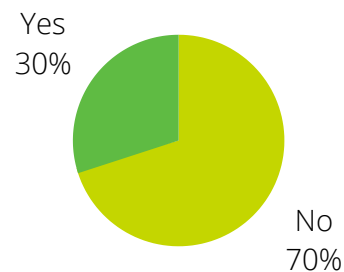
#### How satisfied are you with the heat distribution to different rooms?



#### Homeowner commentary:

- "Sometimes [the] temperature rises too high and too low even when I do not touch the controller"
- "The room in the first floor seems to have difficulties staying warm or cool"
- "The 3 rooms without a head don't cool/heat adequately."
- "[Bedrooms] should have heat distribution vents. Our heating units heat up living room and hallway. Two back rooms are mostly cold."
- "Doors need to stay open. No cool or hot spots."

#### Do you use a secondary source to heat your home?



#### Do you desire an additional heat source for your home? Where?

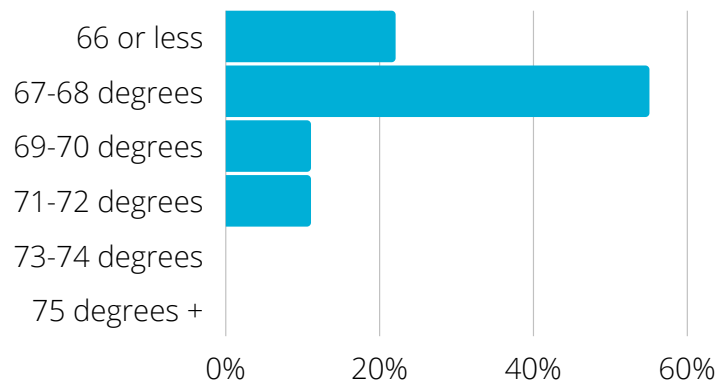
- "Bathroom, some bedrooms"
- "Anything - but I am [concerned about] raising the electricity bill."
- "Either more smaller mini-splits or heat ducts installed in each room."
- "A mini-split in every room instead of the baseboard heaters"

## COOLING

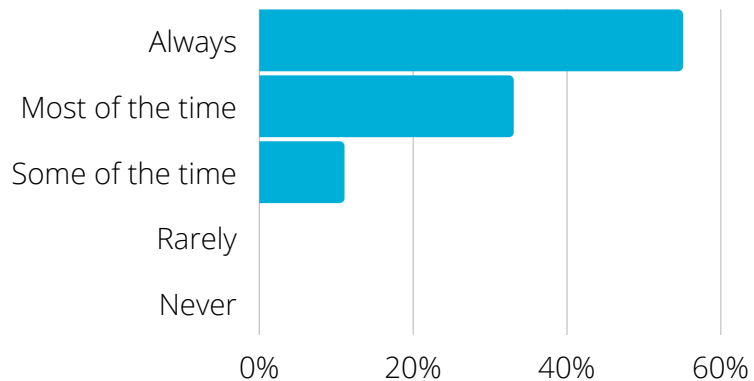
### Homeowner use and satisfaction with cooling

Responses were more favorable towards the mini-splits for cooling than heating, with homeowners reporting higher rates of satisfaction and ability to achieve the desired home temperature. Secondary cooling systems were largely fans, with only one respondent indicating they needed an additional A/C.

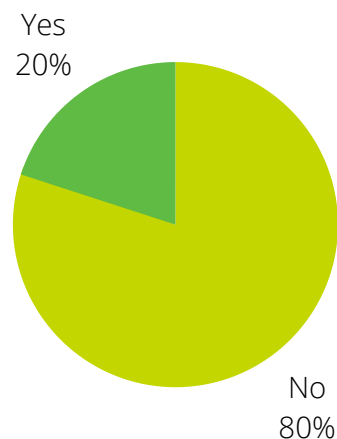
**To what temperature do you generally wish to cool your home?**



**Are you able to cool your home to the level desired?**



**Do you use a secondary source to cool your home?**

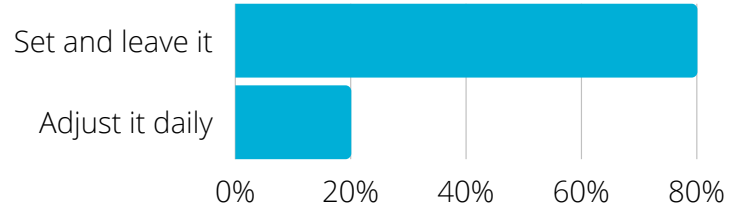


## USE & MAINTENANCE

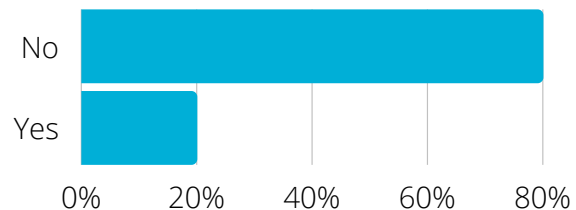
### Homeowner use and maintenance of their mini split systems

Most homeowners do not pay for a maintenance contract for their mini-split systems, instead cleaning and replacing filters themselves as necessary. Most also report following Habitat guidance on setting their climate control.

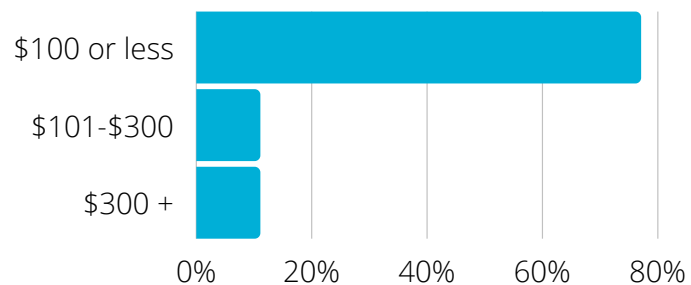
**Do you generally set the mini-split thermostat and leave it or adjust it daily?**



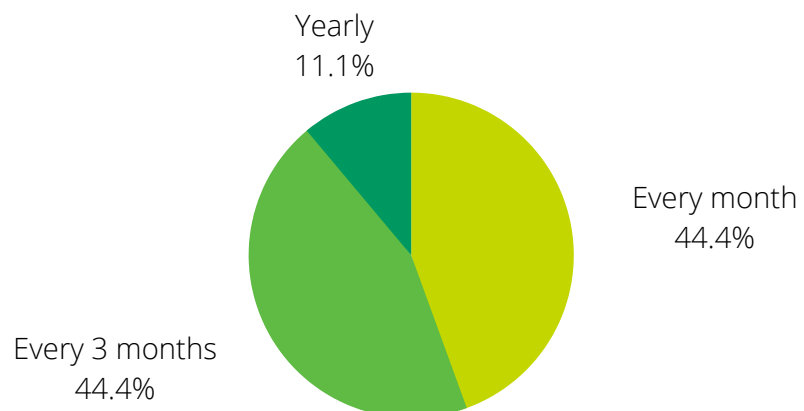
**Do you pay for a maintenance contract for your mini-split system?**



**How much do you spend on average per year on maintenance for your mini-split system?**



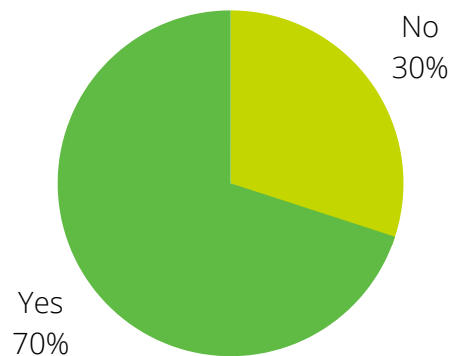
**How often do you clean or replace the mini-splits' air handler filters?**



## EDUCATION

### Evaluating Habitat's homeowner education process

**Did you receive enough education from Habitat on how to operate your mini-split system?**



**What additional education or information from Habitat would have improved your homeownership experience?**

- "I did receive enough education but I still found it confusing after I moved in. More information about house maintenance."
- "Maintenance instructions and manuals to clean"
- "I'm not sure... I do need to have the mini-split system serviced. Overall, the education I received regarding homeownership was pretty thorough."
- "I wasn't told that they were supposed to put one in every room. Also there are some things that were learned over the years like to sit at 10° above what you actually wanted it."
- "Too long to list."



## OVERALL

### Evaluating Habitat's homeowner education process and overall homeowner satisfaction

**Provide anything you would like to share about your experience with mini-splits that has not been covered in this survey.**

- "Can I do that (get a maintenance contract)? What company can provide maintenance? What is normal - what the warranty covers and not"
- "I would strongly encourage discussion about a backup system as it is entirely dependent on electricity!"
- "They're perfect for our needs here. I love them."
- "Having a remote to control the air conditioning [when I was sick] made all the difference in the world. I do notice it's cold out when temps get down into the low teens and single digits, but it stays cozy inside. I'm completely satisfied with our mini-splits. I know originally there'd been only one split planned for the house. Three was definitely the right idea. We would've had to keep our doors open and, when my daughter's home, she likes her room super warm."
- "The placement of the one in my bedroom on the bottom floor blows directly on me... it's really tough to have the mini split blowing on me and hear it running all the time. It does make loud noises. In general may split are not great because people in my house may want the heat or air conditioning on why the other people want exact opposite."
- "The unit outside on mine was placed very high up to allow for a sidewalk. Instead of training properly, the water runs indoors to my head & pours down the walls. The laminate in that Area is ruined & so is my whole unit/head.."
- "Amazing. Great resource."
- "I love my mini split. Economical, comfortable. Easy to use once I figured out how to use it."