Residential Energy Consumption Survey (RECS)
Form EIA-457A
2020 Household Questionnaire
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How to Use This Questionnaire

The 2020 Residential Energy Consumption Survey (RECS) will rely on self-administered paper and web instruments. The primary purpose of these specifications is to document the wording of questions and responses seen by respondents, as well as the skip logic that guides respondents through the paper and web instruments. A secondary purpose of these specifications is to document metadata for various RECS project needs – this includes variable names, variable types, response set values, and allowable numeric ranges.

The template for each item in these specifications is as follows:

<table>
<thead>
<tr>
<th>VARIABLE1</th>
<th>ASK</th>
<th>All respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Question Text</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Spanish translation of question text</td>
</tr>
<tr>
<td>NEXT</td>
<td>VARIABLE2</td>
<td></td>
</tr>
<tr>
<td>MODE</td>
<td>Comments about implementation in paper and/or web instrument</td>
<td></td>
</tr>
<tr>
<td>WEB PROMPT</td>
<td>Type of web prompt (HARD/SOFT), condition, and message displayed</td>
<td></td>
</tr>
</tbody>
</table>

In the example above, the responses to VARIABLE1 would be stored as values of 1 and 0. For questions that require a numeric response, the allowable range is specified in this format: (WEB: ALLOW RANGE 0 – 99; PAPER: TWO DIGITS). For most numeric items, the allowable ranges for the web and paper instruments are logically consistent.

The following is a list of response set conventions that will generally be used for the 2020 RECS project:

- Yes/No questions: 1 for Yes, 0 for No
- Select-all-that-apply questions: 1 if selected, 0 if not
- Other response: 99
- Not Applicable response: -3
- Explicit Don’t Know response: -4
- Illegible responses (paper only): -5
- Multiple responses to single response question (paper only): -6
If MODE=Web:

Introduction and Consent

We hope you enjoy completing this questionnaire, and appreciate greatly your help in understanding how energy gets consumed in people’s homes throughout the United States.

Please remember the following important points:

- You must be age 18 or older to participate.
- Completing this survey should take about 30 minutes.
- Your name will never be connected to the answers you provide, and the data we collect will be used only for statistical purposes.
- Taking part in this survey is entirely voluntary. You can skip any questions you do not wish to answer. There is no penalty if you choose to skip any question or any part of the questionnaire.

If you are age 18 or older and wish to participate, please click the Next button below to begin the survey.

If you do not wish to participate in this study, please close your browser window.

OMB No. 1905-0092
Expiration date: 09/30/2023

If MODE=Paper:

We hope you enjoy completing this questionnaire, and appreciate greatly your help in understanding how energy gets consumed in people’s homes throughout the United States.

OMB No. 1905-0092
Expiration date: 09/30/2023
Your Home

*If MODE=Web and mail_type in(1,2,3):* Please answer the following questions about the home at [FILL: street address from sample file: “address1” or “address1, address2” (if address2 is non-missing)].

*If MODE=Web and mail_type in(4,5):* Please answer the following questions about the home associated with the address on the letter you received.

*If MODE=Paper: * Please answer the following questions about the home associated with the address on the enclosed letter.

<table>
<thead>
<tr>
<th>TYPEHUQ</th>
<th>ASK</th>
<th>All respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Which best describes your home?

1. Mobile home
2. Single-family house detached from any other house
3. Single-family house attached to one or more other houses (for example: duplex, row house, or townhome)
4. Apartment in a building with 2 to 4 units
5. Apartment in a building with 5 or more units

<table>
<thead>
<tr>
<th>NEXT</th>
<th>If TYPEHUQ=1: PRIMRES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>If TYPEHUQ in(2,3): CELLAR, CRAWL, CONCRETE, BASEOTH</td>
</tr>
<tr>
<td></td>
<td>If TYPEHUQ in(4,5): BASEAPT</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEB</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PROMPT</th>
<th>HARD PROMPT IF MISSING: Please provide an answer to this question to continue.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BASEAPT</th>
<th>ASK</th>
<th>If TYPEHUQ in(4,5)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Is your apartment located in the basement of your building?

1. Yes
0. No

<table>
<thead>
<tr>
<th>NEXT</th>
<th>PRIMRES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEB</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PROMPT</th>
<th>SOFT PROMPT IF MISSING: Did you mean to leave this question blank?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&lt;BUTTONS: Change Answer / Continue&gt;</td>
</tr>
</tbody>
</table>
**CELLAR, CRAWL, CONCRETE, BASEOTH (Changed since 2015)**

**ASK**
If TYPEHUQ in(2,3)

Is any part of your home built over…

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>A basement? [CELLAR]</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>A crawl space? [CRAWL]</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>A concrete slab? [CONCRETE]</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Some other foundation? [BASEOTH]</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

**NEXT**
If CELLAR=1: BASEFIN
Else: ATTIC

**MODE**

**WEB PROMPT**
SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank?

**BASEFIN**

**ASK**
If CELLAR=1

Is any part of your basement finished? For this survey, a “finished” basement has finishing materials on the floor, ceiling, and walls.

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

**NEXT**
ATTIC

**ATTIC**

**ASK**
If TYPEHUQ in(2,3)

An attic is a space just below the roof of your home where a person can stand up. Does your home have an attic?

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

**NEXT**
If ATTIC=1: ATTICFIN
Else: STORIES

**MODE**

**WEB PROMPT**
SOFT PROMPT IF MISSING: Did you mean to leave this question blank?

<BUTTONS: Change Answer / Continue>
### ATTICFIN

**ASK**

If ATTIC=1

Is any part of your attic finished? For this survey, a “finished” attic has finishing materials on the floor, ceiling, and walls.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>0</td>
<td>No</td>
</tr>
</tbody>
</table>

**NEXT**

STORIES

**MODE**

WEB PROMPT

SOFT PROMPT IF MISSING: Did you mean to leave this question blank?

<BUTTONS: Change Answer / Continue>

### STORIES

**ASK**

If TYPEHUQ in(2,3)

Not including basements or attics, how many stories does your home have?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>One story</td>
</tr>
<tr>
<td>2</td>
<td>Two stories</td>
</tr>
<tr>
<td>3</td>
<td>Three stories</td>
</tr>
<tr>
<td>4</td>
<td>Four or more stories</td>
</tr>
<tr>
<td>5</td>
<td>Split-level</td>
</tr>
</tbody>
</table>

**NEXT**

PRKGPLC1

**MODE**

WEB PROMPT

SOFT PROMPT IF MISSING: Did you mean to leave this question blank?

<BUTTONS: Change Answer / Continue>

### PRKGPLC1

**ASK**

If TYPEHUQ in(2,3)

Does your home have an attached garage?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>0</td>
<td>No</td>
</tr>
</tbody>
</table>

**NEXT**

If PRKGPLC1=1: SIZEOFGARAGE

Else: PRIMRES

**MODE**

WEB PROMPT

SOFT PROMPT IF MISSING: Did you mean to leave this question blank?

<BUTTONS: Change Answer / Continue>
<table>
<thead>
<tr>
<th>SIZEOFGARAGE</th>
</tr>
</thead>
</table>
| **ASK**     | If PRKGPLC1=1  
| What is the size of your attached garage?  
| 1 One-car garage  
| 2 Two-car garage  
| 3 Three-or-more-car garage  
| **NEXT**     | PRIMRES  
| **MODE**     |  
| **WEB PROMPT** | SOFT PROMPT IF MISSING: Did you mean to leave this question blank?  
<BUTTONS: Change Answer / Continue>  

<table>
<thead>
<tr>
<th>PRIMRES</th>
</tr>
</thead>
</table>
| **ASK** | All respondents  
| If MODE=Web and mail_type in(1,2,3): Is the home at [FILL: street address from sample file: “address1” or “address1, address2” (if address2 is non-missing)] your primary residence? Your primary residence is the place where you live most of the year. If MODE=Web and mail_type in(4,5): Is the home associated with the address on the letter you received your primary residence? Your primary residence is the place where you live most of the year. If MODE=Paper: Is the home associated with the address on the enclosed letter your primary residence? Your primary residence is the place where you live most of the year.  
| 1 Yes  
| 0 No  
| **NEXT** | KOWNRENT  
| **MODE** |  
| **WEB PROMPT** | SOFT PROMPT IF MISSING: Did you mean to leave this question blank?  
<BUTTONS: Change Answer / Continue>  
SOFT PROMPT IF PRIMRES=0: Just to confirm, this address is **not** your primary residence. Is that correct?  
<BUTTONS: Change Answer / Continue>
### Is your home…

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Owned by you or someone in your household?</td>
</tr>
<tr>
<td>2</td>
<td>Rented?</td>
</tr>
<tr>
<td>3</td>
<td>Occupied without payment of rent?</td>
</tr>
</tbody>
</table>

**Next**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>YEARMADE, YEARMADE_DK</td>
</tr>
</tbody>
</table>

**Mode**

<table>
<thead>
<tr>
<th>WEB</th>
<th>PROMPT</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOFT PROMPT IF MISSING: Did you mean to leave this question blank?</td>
<td></td>
</tr>
<tr>
<td>&lt;BUTTONS: Change Answer / Continue&gt;</td>
<td></td>
</tr>
</tbody>
</table>

### In what year was your home built?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>_____</td>
</tr>
</tbody>
</table>

{WEB: ALLOW RANGE 1600 – 2021; PAPER: FOUR DIGITS}

Don’t know [YEARMADE_DK: 1 if selected, 0 if not]

**Next**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>If 1600 le YEARMADE le 2021: MOVER, MOVE20MON, MOVE21MON</td>
<td></td>
</tr>
<tr>
<td>Else: YEARMADERANGE</td>
<td></td>
</tr>
</tbody>
</table>

**Mode**

<table>
<thead>
<tr>
<th>WEB</th>
<th>PROMPT</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank? If you don't know the answer you may select &quot;Don't Know.&quot;</td>
<td></td>
</tr>
<tr>
<td>&lt;BUTTONS: Change Answer / Continue&gt;</td>
<td></td>
</tr>
</tbody>
</table>

SOFT PROMPT IF OUT OF RANGE: Your response was outside the expected range of 1600 to 2021.

<BUTTONS: Change Answer / Continue>
### YEARMADERANGE

**ASK**

If NOT 1600 le YEARMADE le 2021

Although you do not know the exact year your home was built, it is helpful to have an estimate. About when was your home built?

- 1. Before 1950
- 2. 1950 to 1959
- 3. 1960 to 1969
- 4. 1970 to 1979
- 5. 1980 to 1989
- 6. 1990 to 1999
- 7. 2000 to 2009
- 8. 2010 to 2015
- 9. 2016 to 2020

**NEXT**

MOVER, MOVE20MON, MOVE21MON

**MODE**

WEB PROMPT

SOFT PROMPT IF MISSING: Did you mean to leave this question blank?

**BUTTONS**: Change Answer / Continue

### MOVER, MOVE20MON, MOVE21MON (New for 2020)

**ASK**

All respondents

When did your household move in to this home?

- 1. 2019 or earlier
- 2. 2020 → In what month? ________________ [MOVE20MON: Character variable]
- 3. 2021 → In what month? ________________ [MOVE21MON: Character variable]

**NEXT**

VACANT

**MODE**

Web: Use dropdown menus to select months (i.e. January, February). Do not allow month to be selected until the corresponding year has been selected.

**WEB PROMPT**

SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank?

**BUTTONS**: Change Answer / Continue
## VACANT (Changed since 2015)

**ASK**  | All respondents

Was your home vacant for one or more months *between January 2020 and now*?

| 1  | Yes |
| 0  | No  |
| -4 | Don’t know |

**NEXT**  | SQFTEST, SQFTEST_DK

**MODE**

**WEB PROMPT**  
SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don’t know the answer you may select “Don’t know.”  
<BUTTONS: Change Answer / Continue>

## SQFTEST, SQFTEST_DK (Changed since 2015)

**ASK**  | All respondents

What is the square footage of your home?

_____ square feet

{WEB: ALLOW RANGE 0 – 99,999; PAPER: FIVE DIGITS, COMMA FORMAT}

Don’t know [SQFTEST_DK: 1 if selected, 0 if not]

**NEXT**  
If 0 le SQFTEST le 99,999: SFSOURCE1, SFSOURCE2, SFSOURCE3, SFSOURCE4, SFSOURCE5, SFSOURCE6, SFSOURCE7, SFSOURCE7_other  
Else: SQFTRANGE

**MODE**

**WEB PROMPT**  
SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank? If you don’t know the answer you may select "Don’t Know."  
<BUTTONS: Change Answer / Continue>
### SQFTRANGE (New for 2020)

**ASK** If NOT 0 ≤ SQFTEST ≤ 99,999

We understand that you might not know how many square feet your home is. A home’s size is closely related to its energy use, so we would like you to provide an estimate. Please tell us which category best describes the square footage of your home.

1. Less than 600 square feet
2. 600 to 799 square feet
3. 800 to 999 square feet
4. 1,000 to 1,499 square feet
5. 1,500 to 1,999 square feet
6. 2,000 to 2,499 square feet
7. 2,500 to 2,999 square feet
8. 3,000 square feet or more

-4 Don’t know (Select this option only if you are unable to provide a guess)

**NEXT** If 1 ≤ SQFTRANGE ≤ 8: SFSOURCE1, SFSOURCE2, SFSOURCE3, SFSOURCE4, SFSOURCE5, SFSOURCE6, SFSOURCE7, SFSOURCE7_other

Else: BEDROOMS, NCOMBATH, NHAFBATH, OTHROOMS

**MODE**

**WEB PROMPT**

SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don’t know the answer you may select “Don’t know.”

<BUTTONS: Change Answer / Continue>

### SFSOURCE1, SFSOURCE2, SFSOURCE3, SFSOURCE4, SFSOURCE5, SFSOURCE6, SFSOURCE7, SFSOURCE7_other (New for 2020)

**ASK** If (0 ≤ SQFTEST ≤ 99,999) or (1 ≤ SQFTRANGE ≤ 8)

What sources of information did you use to determine your home’s square footage? Please select all that apply.

- I remember from when I bought or leased my home [SFSOURCE1: 1 if selected, 0 if not]
- I checked an Internet site (for example: Zillow) [SFSOURCE2: 1 if selected, 0 if not]
- I checked my property tax documents [SFSOURCE3: 1 if selected, 0 if not]
- I checked my lease or mortgage documents [SFSOURCE4: 1 if selected, 0 if not]
- I asked someone else who knows [SFSOURCE5: 1 if selected, 0 if not]
- I made an estimate [SFSOURCE6: 1 if selected, 0 if not]
- Other ([WEB: specify below / PAPER: please specify]) [SFSOURCE7: 1 if selected, 0 if not; SFSOURCE7_other]

**NEXT** SQFTINCB, SQFTINCA, SQFTINCG

**MODE**

**WEB PROMPT**

SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank?

<BUTTONS: Change Answer / Continue>

SOFT PROMPT IF SFSOURCE7=1 AND SFSOURCE7_other IS MISSING: You selected Other (specify below) as your answer. Please provide additional details in the textbox.

<BUTTONS: Change Answer / Continue>
### SQFTINCB, SQFTINCA, SQFTINCG (Changed since 2015)

**ASK**

If \((0 \leq \text{SQFTEST} \leq 99,999)\) OR \((1 \leq \text{SQFTRANGE} \leq 8)\)

Are any of the following areas included in your answer of \([\text{FILL: } <\text{SQFTEST}> \text{ square feet / } \text{SQFTRANGE}]\)?

<table>
<thead>
<tr>
<th>Area</th>
<th>Yes</th>
<th>No</th>
<th>Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basement [SQFTINCB]</td>
<td>1</td>
<td>0</td>
<td>-4</td>
</tr>
<tr>
<td>Attic [SQFTINCA]</td>
<td>1</td>
<td>0</td>
<td>-4</td>
</tr>
<tr>
<td>Attached garage [SQFTINCG]</td>
<td>1</td>
<td>0</td>
<td>-4</td>
</tr>
</tbody>
</table>

**NEXT**

BEDROOMS, NCOMBATH, NHAFBATH, OTHROOMS

**MODE**

Paper: Use alternate question text – Are any of the following areas included in the square footage you provided?

**WEB PROMPT**

SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank? If you don't know the answer you may select "Don't Know."

<BUTTONS: Change Answer / Continue>

### BEDROOMS, NCOMBATH, NHAFBATH, OTHROOMS

**ASK**

How many of the following types of rooms are in your home? [If BASEFIN=1 or ATTICFIN=1: Include rooms in finished basements and finished attics.] *If none, please enter “0.”*

- Number of bedrooms [BEDROOMS]
- Number of full bathrooms (A full bathroom includes a sink with running water, a toilet, and a bath or shower.) [NCOMBATH]
- Number of half bathrooms (A half bathroom includes a sink with running water and either a toilet, a bath, or a shower.) [NHAFBATH]
- Number of other rooms (Include kitchens, laundry rooms, living or family rooms, home offices, etc. Do not include hallways, closets, or rooms you already counted above.) [OTHROOMS]

{BEDROOMS/NCOMBATH/NHAFBATH: WEB: ALLOW RANGE 0 – 9; PAPER: ONE DIGIT. OTHROOMS: WEB: ALLOW RANGE 0 – 99; PAPER: TWO DIGITS}

**NEXT**

WALLTYPE, WALLTYPE_other

**MODE**

Paper: Present "include" statement for all respondents.

**WEB PROMPT**

SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank? If your home has none of these, please enter "0."

<BUTTONS: Change Answer / Continue>
<table>
<thead>
<tr>
<th>WALLTYPE, WALLTYPE_other (Changed since 2015)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ASK</strong></td>
</tr>
<tr>
<td>What type of material is the outside of your home made of? <em>Select only one.</em> If more than one material is used, please select the one used the most.</td>
</tr>
<tr>
<td>1 Brick</td>
</tr>
<tr>
<td>2 Wood</td>
</tr>
<tr>
<td>3 Siding (aluminum, fiber cement, vinyl, or steel)</td>
</tr>
<tr>
<td>4 Stucco</td>
</tr>
<tr>
<td>5 Shingle (composition)</td>
</tr>
<tr>
<td>6 Stone</td>
</tr>
<tr>
<td>7 Concrete block</td>
</tr>
<tr>
<td>99 Other ([WEB: specify below / PAPER: please specify]) [WALLTYPE_other]</td>
</tr>
<tr>
<td>-4 Don’t know</td>
</tr>
<tr>
<td><strong>NEXT</strong></td>
</tr>
<tr>
<td><strong>MODE</strong></td>
</tr>
</tbody>
</table>
| **WEB PROMPT** | SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don’t know the answer you may select “Don’t know.”
<BUTTONS: Change Answer / Continue> |
| | SOFT PROMPT IF WALLTYPE=99 AND WALLTYPE_other IS MISSING: You selected Other (specify below) as your answer. Please provide additional details in the textbox.
<BUTTONS: Change Answer / Continue> |
### ROOFTYPE, ROOFTYPE_other

**ASK** | All respondents
---|---

What type of material is your home’s roof made of? *Select only one.* If more than one material is used, please select the one used the most.

1. Ceramic or clay tiles
2. Wood shingles/shakes
3. Metal
4. Slate or synthetic slate
5. Shingles (composition or asphalt)
6. Concrete tiles
99. Other ([WEB: specify below / PAPER: please specify]) [ROOFTYPE_other]
-4. Don’t know

**NEXT** | HIGHCEIL
---|---

**MODE**

**WEB PROMPT**

SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don’t know the answer you may select “Don’t know.”

<BUTTONS: Change Answer / Continue>

SOFT PROMPT IF ROOFTYPE=99 AND ROOFTYPE_other IS MISSING: You selected Other (specify below) as your answer. Please provide additional details in the textbox.

<BUTTONS: Change Answer / Continue>

### HIGHCEIL (Changed since 2015)

**ASK** | All respondents
---|---

Most ceilings are about 8 feet high, which is about a foot higher than a standard door. Are any of the ceilings in your home higher than 8 feet?

1. Yes
0. No

**NEXT** | DOOR1SUM
---|---

**MODE**

**WEB PROMPT**

SOFT PROMPT IF MISSING: Did you mean to leave this question blank?

<BUTTONS: Change Answer / Continue>
DOOR1SUM (Changed since 2015)

ASK All respondents

Thinking only about doors that open to the outside, how many sliding glass doors and French doors does your home have? Count each set of doors as one door. If none, please enter "0."

_____ Sliding glass and French doors

{WEB: ALLOW RANGE 0 – 9; PAPER: ONE DIGIT}

NEXT WINDOWS MODE WEB PROMPT

SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If your home has none of these, please enter "0."

<BUTTONS: Change Answer / Continue>

WINDOWS

ASK All respondents

About how many windows does your home have?

1 1 or 2 windows
2 3 to 5 windows
3 6 to 9 windows
4 10 to 15 windows
5 16 to 19 windows
6 20 to 29 windows
7 30 or more windows

-4 Don’t know

NEXT TYPEGLASS MODE WEB PROMPT

SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don’t know the answer you may select “Don’t know.”

<BUTTONS: Change Answer / Continue>
<table>
<thead>
<tr>
<th>TYPEGLASS</th>
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<tbody>
<tr>
<td><strong>ASK</strong></td>
<td>All respondents</td>
<td></td>
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<tr>
<td><strong>NEXT</strong></td>
<td>ORIGWIN</td>
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</tbody>
</table>

Not counting storm windows, which best describes the glass in most of the windows in your home?

1. Single-pane glass
2. Double-pane glass
3. Triple-pane glass
-4 Don’t know

<table>
<thead>
<tr>
<th>MODE</th>
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<td>SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don’t know the answer you may select “Don’t know.”&lt;BUTTONS: Change Answer / Continue&gt;</td>
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<td>All respondents</td>
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<tr>
<td><strong>NEXT</strong></td>
<td>WINFRAME</td>
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</tbody>
</table>

Are at least half of your home’s windows the original windows that were installed when the home was built?

1. Yes
0  No
-4 Don’t know

<table>
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<th>MODE</th>
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<td>SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don’t know the answer you may select “Don’t know.”&lt;BUTTONS: Change Answer / Continue&gt;</td>
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</tbody>
</table>
### WINFRAME (Changed since 2015)

**ASK**
All respondents

What frame material is used for most of the windows in your home?

1. Wood
2. Metal (aluminum)
3. Vinyl
4. Composite
5. Fiberglass

-4 Don't know

**NEXT**
TREESHAD

**MODE**

**WEB PROMPT**
SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don't know the answer you may select “Don't know.”
<BUTTONS: Change Answer / Continue>

### TREESHAD (New for web/mail; used to be on CAPI)

**ASK**
All respondents

Do any large trees shade your home from the afternoon sun?

1. Yes
0. No

**NEXT**
ADQINSUL

**MODE**

**WEB PROMPT**
SOFT PROMPT IF MISSING: Did you mean to leave this question blank?
<BUTTONS: Change Answer / Continue>

### ADQINSUL

**ASK**
All respondents

Which of the following best describes the insulation level of your home?

1. Well insulated
2. Adequately insulated
3. Poorly insulated
4. Not insulated

**NEXT**
DRAFTY

**MODE**

**WEB PROMPT**
SOFT PROMPT IF MISSING: Did you mean to leave this question blank?
<BUTTONS: Change Answer / Continue>
### DRAFTY

**ASK** | All respondents

How often do you or other members of your household find your home too drafty?

1. All the time
2. Most of the time
3. Some of the time
4. Never

**NEXT** | UGASHERE

**MODE**

**WEB PROMPT** | SOFT PROMPT IF MISSING: Did you mean to leave this question blank?

<BUTTONS: Change Answer / Continue>

### UGASHERE

**ASK** | All respondents

Is natural gas from underground pipes available in your neighborhood?

1. Yes
2. No
3. Don’t know

**NEXT** | If TYPEHUQ in(1,2,3): SWIMPOOL
If TYPEHUQ in(4,5): RECBATH

**MODE**

**WEB PROMPT** | SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don’t know the answer you may select “Don’t know.”

<BUTTONS: Change Answer / Continue>

### SWIMPOOL

**ASK** | If TYPEHUQ in(1,2,3)

Does your home have its own swimming pool?

1. Yes
2. No

**NEXT** | If SWIMPOOL=1: MONPOOL
Else: RECBATH

**MODE** | Paper: Ask of all respondents.

**WEB PROMPT** | SOFT PROMPT IF MISSING: Did you mean to leave this question blank?

<BUTTONS: Change Answer / Continue>
## MONPOOL

**ASK**
If SWIMPOOL=1

In the past year, how many months was your swimming pool in use?

_____ months

{WEB: ALLOW RANGE 0 – 12, PAPER: TWO DIGITS}

**NEXT**
If MONPOOL ge 1: POOLPUMP
Else: RECBATH

**MODE**

**WEB PROMPT**
SOFT PROMPT IF MISSING: Did you mean to leave this question blank?
<BUTTONS: Change Answer / Continue>

SOFT PROMPT IF OUT OF RANGE: Your response was outside the expected range of 0 to 12.
<BUTTONS: Change Answer / Continue>

## POOLPUMP (New for 2020)

**ASK**
If MONPOOL ge 1

Does your swimming pool have a variable-speed pump, which uses less energy by adjusting the motor speed?

1 Yes
0 No

-4 Don’t know

**NEXT**
FUELPOOL, FUELPOOL_other

**MODE**
Paper: Ask if SWIMPOOL=1.

**WEB PROMPT**
SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don’t know the answer you may select “Don’t know.”
<BUTTONS: Change Answer / Continue>
FUELPOOL, FUELPOOL_other (Changed since 2015)

ASK  If MONPOOL ge 1

What fuel is used to heat the water in your swimming pool?

- 0 None, my swimming pool is not heated
- 5 Electricity
- 1 Natural gas from underground pipes
- 2 Propane (bottled gas)
- 3 Fuel oil
- 99 Other ([WEB: specify below / PAPER: please specify]) [FUELPOOL_other]

-4 Don’t know

NEXT  RECBATH

MODE  Paper: Ask if SWIMPOOL=1.

WEB PROMPT  SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don’t know the answer you may select “Don’t know.”
<Button: Change Answer / Continue>

SOFT PROMPT IF FUELPOOL=99 AND FUELPOOL_other IS MISSING: You selected Other (specify below) as your answer. Please provide additional details in the textbox.
/Button: Change Answer / Continue>

RECBATH

ASK  All respondents

Does your home have its own hot tub, spa, or Jacuzzi, other than a bathtub?

- 1 Yes
- 0 No

NEXT  If RECBATH=1: MONTUB
Else: APPLIANCES SECTION

MODE

WEB PROMPT  SOFT PROMPT IF MISSING: Did you mean to leave this question blank?
/Button: Change Answer / Continue>
### MONTUB

<table>
<thead>
<tr>
<th>ASK</th>
<th>If RECBATH=1</th>
</tr>
</thead>
</table>

In the past year, how many months was your hot tub, spa, or Jacuzzi in use?

_____ months

{WEB: ALLOW RANGE 0 – 12, PAPER: TWO DIGITS}

| NEXT | If MONTUB ge 1: FUELTUB, FUELTUB_other
Else: APPLIANCES SECTION |
|------|-------------------------------|

<table>
<thead>
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<tr>
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SOFT PROMPT IF MISSING: Did you mean to leave this question blank?

<BUTTONS: Change Answer / Continue>

SOFT PROMPT IF OUT OF RANGE: Your response was outside the expected range of 0 to 12.

<BUTTONS: Change Answer / Continue>

### FUELTUB, FUELTUB_other (Changed since 2015)

<table>
<thead>
<tr>
<th>ASK</th>
<th>If MONTUB ge 1</th>
</tr>
</thead>
</table>

What fuel is used to heat the water in your hot tub, spa, or Jacuzzi?

5 Electricity  
1 Natural gas from underground pipes  
2 Propane (bottled gas)  
3 Fuel oil  
99 Other ([WEB: specify below / PAPER: please specify]) [FUELTUB_other]  
-4 Don't know

<table>
<thead>
<tr>
<th>NEXT</th>
<th>APPLIANCES SECTION</th>
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</table>

<table>
<thead>
<tr>
<th>MODE</th>
<th>Paper: Ask if RECBATH=1.</th>
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<tr>
<th>WEB PROMPT</th>
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</table>

SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don’t know the answer you may select “Don’t know.”

<BUTTONS: Change Answer / Continue>

SOFT PROMPT IF FUELTUB=99 AND FUELTUB_other IS MISSING: You selected Other (specify below) as your answer. Please provide additional details in the textbox.

<BUTTONS: Change Answer / Continue>
### Appliances

**WEB MOTIVATIONAL PROMPT #1:** Thank you for your participation so far! The next questions are about appliances in your home and will provide valuable information for this study.

#### NUMFRIG (Changed since 2015)

**ASK**

All respondents

How many refrigerators are plugged-in and turned on in your home? Include compact refrigerators and refrigerators in basements or garages, even if they are only used occasionally. *If none, please enter “0.”*

_____ refrigerators

{WEB: ALLOW RANGE 0 – 9; PAPER: ONE DIGIT}

**NEXT**

If NUMFRIG>0: SIZRFRI1
Else: WINECHILL

**MODE**

**WEB PROMPT**

SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If your home has none of these, please enter "0."

<BUTTONS: Change Answer / Continue>

#### SIZRFRI1

**ASK**

If NUMFRIG>0

What is the size of your [If NUMFRIG>1: most used] refrigerator?

1. Half-size or compact
2. Small (17.5 cubic feet or less)
3. Medium (17.6 to 22.5 cubic feet)
4. Large (22.6 to 29.5 cubic feet)
5. Very large (bigger than 29.5 cubic feet)

**NEXT**

If SIZRFRI1=1: AGEFRI1
Else: TYPERFR1

**MODE**

Paper: Include “most used” in question text.

**WEB PROMPT**

SOFT PROMPT IF MISSING: Did you mean to leave this question blank?

<BUTTONS: Change Answer / Continue>
Which of the following best describes your [If NUMFRIG>1: most used] refrigerator?

1. One door
2. Two doors, freezer *next* to the refrigerator
3. Two doors, freezer *above* the refrigerator
4. Two doors, freezer *below* the refrigerator
5. Three or more doors

About how old is your [If NUMFRIG>1: most used] refrigerator? Your best estimate is fine.

1. Less than 2 years old
2. 2 to 4 years old
3. 5 to 9 years old
4. 10 to 14 years old
5. 15 to 19 years old
6. 20 or more years old

-4. Don’t know
<table>
<thead>
<tr>
<th><strong>ICE</strong></th>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>ASK</strong></td>
<td>If NUMFRIG &gt; 0</td>
</tr>
<tr>
<td><strong>NEXT</strong></td>
<td>If NUMFRIG &gt; 1: SIZRFRI2 Else: WINECHILL</td>
</tr>
<tr>
<td><strong>WEB PROMPT</strong></td>
<td>SOFT PROMPT IF MISSING: Did you mean to leave this question blank? &lt;BUTTONS: Change Answer / Continue&gt;</td>
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</tbody>
</table>

**ICE**

**ASK**

If NUMFRIG > 0

Does your [If NUMFRIG > 1: most used] refrigerator have through-the-door ice service?

1 Yes
0 No

**NEXT**

If NUMFRIG > 1: SIZRFRI2 Else: WINECHILL

**MODE**

Paper: Include “most used” in question text.

**WEB PROMPT**

SOFT PROMPT IF MISSING: Did you mean to leave this question blank? <BUTTONS: Change Answer / Continue>

<table>
<thead>
<tr>
<th><strong>SIZRFRI2</strong></th>
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<tbody>
<tr>
<td><strong>ASK</strong></td>
<td>If NUMFRIG &gt; 1</td>
</tr>
<tr>
<td><strong>NEXT</strong></td>
<td>If SIZRFRI2 = 1: MONRFRI2 Else: TYPERFR2</td>
</tr>
<tr>
<td><strong>MODE</strong></td>
<td>Paper – Include checkpoint before the question: If you have only one refrigerator → Go to #50</td>
</tr>
<tr>
<td><strong>WEB PROMPT</strong></td>
<td>SOFT PROMPT IF MISSING: Did you mean to leave this question blank? &lt;BUTTONS: Change Answer / Continue&gt;</td>
</tr>
</tbody>
</table>

**SIZRFRI2**

**ASK**

If NUMFRIG > 1

What is the size of your second most used refrigerator?

1 Half-size or compact
2 Small (17.5 cubic feet or less)
3 Medium (17.6 to 22.5 cubic feet)
4 Large (22.6 to 29.5 cubic feet)
5 Very large (bigger than 29.5 cubic feet)

**NEXT**

If SIZRFRI2 = 1: MONRFRI2 Else: TYPERFR2

**MODE**

Paper – Include checkpoint before the question: If you have only one refrigerator → Go to #50

**WEB PROMPT**

SOFT PROMPT IF MISSING: Did you mean to leave this question blank? <BUTTONS: Change Answer / Continue>

<table>
<thead>
<tr>
<th><strong>TYPERFR2</strong></th>
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<tbody>
<tr>
<td><strong>ASK</strong></td>
<td>If SIZRFRI2 &gt; 1 or missing</td>
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<tr>
<td><strong>NEXT</strong></td>
<td>MONRFRI2</td>
</tr>
<tr>
<td><strong>MODE</strong></td>
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<tr>
<td><strong>WEB PROMPT</strong></td>
<td>SOFT PROMPT IF MISSING: Did you mean to leave this question blank? &lt;BUTTONS: Change Answer / Continue&gt;</td>
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</table>

**TYPERFR2**

**ASK**

If SIZRFRI2 > 1 or missing

Which of the following best describes your second most used refrigerator?

1 One door
2 Two doors, freezer next to the refrigerator
3 Two doors, freezer above the refrigerator
4 Two doors, freezer below the refrigerator
5 Three or more doors

**NEXT**

MONRFRI2

**MODE**

**WEB PROMPT**

SOFT PROMPT IF MISSING: Did you mean to leave this question blank? <BUTTONS: Change Answer / Continue>
<table>
<thead>
<tr>
<th>MONRFRI2 (New for web/mail; used to be on CAPI)</th>
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<tbody>
<tr>
<td><strong>ASK</strong></td>
</tr>
<tr>
<td><em>In the past year, how many months was your second most used refrigerator plugged in and turned on?</em></td>
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<tr>
<td>_____ months</td>
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<td><strong>NEXT</strong></td>
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<tr>
<td><strong>MODE</strong></td>
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<td><strong>WEB PROMPT</strong></td>
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<tr>
<td>SOFT PROMPT IF MISSING: Did you mean to leave this question blank?</td>
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<th>AGERFRI2</th>
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<tbody>
<tr>
<td><strong>ASK</strong></td>
</tr>
<tr>
<td><em>About how old is your second most used refrigerator? Your best estimate is fine.</em></td>
</tr>
<tr>
<td>1  Less than 2 years old</td>
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<tr>
<td>2  2 to 4 years old</td>
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<tr>
<td>3  5 to 9 years old</td>
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<tr>
<td>4  10 to 14 years old</td>
</tr>
<tr>
<td>5  15 to 19 years old</td>
</tr>
<tr>
<td>6  20 or more years old</td>
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<tr>
<td>-4  Don't know</td>
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<td><strong>NEXT</strong></td>
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<tr>
<td><strong>MODE</strong></td>
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<tr>
<td><strong>WEB PROMPT</strong></td>
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<tr>
<td>SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don’t know the answer you may select “Don’t know.”</td>
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<td>&lt;BUTTONS: Change Answer / Continue&gt;</td>
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</tbody>
</table>
### LOCRFRI2, LOCRFRI2_other (Changed since 2015)

**ASK**  
If NUMFRIG>1

Where is your second most used refrigerator located?

1. Basement  
2. Garage  
3. Outside  
4. Main living area  
99. Other ([WEB: specify below / PAPER: please specify]) [LOCRFRI2_other]

**NEXT**  
WINECHILL

**MODE**  
WEB

**WEB PROMPT**  
SOFT PROMPT IF MISSING: Did you mean to leave this question blank?  
<BUTTONS: Change Answer / Continue>

SOFT PROMPT IF LOCRFRI2=99 AND LOCRFRI2_other IS MISSING: You selected Other (specify below) as your answer. Please provide additional details in the textbox.  
<BUTTONS: Change Answer / Continue>

### WINECHILL (New for 2020)

**ASK**  
All respondents

Does your home have a wine chiller?

1. Yes  
0. No

**NEXT**  
NUMFREEZ

**MODE**  
WEB

**WEB PROMPT**  
SOFT PROMPT IF MISSING: Did you mean to leave this question blank?  
<BUTTONS: Change Answer / Continue>

### NUMFREEZ

**ASK**  
All respondents

How many stand-alone freezers are plugged-in and turned on in your home? *If none, please enter “0.”*

_____ freezers  
{WEB: ALLOW RANGE 0 – 9; PAPER: ONE DIGIT}

**NEXT**  
If NUMFREEZ>0: UPRTFRZR  
Else: RANGE, COOKTOP, OVEN

**MODE**  
WEB

**WEB PROMPT**  
SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If your home has none of these, please enter "0."  
<BUTTONS: Change Answer / Continue>
<table>
<thead>
<tr>
<th>UPRTFRZR</th>
<th>ASK</th>
<th>If NUMFREEZ&gt;0</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Which of the following best describes your [If NUMFREEZ&gt;1: most used] freezer?</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>Upright</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Chest</td>
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<td>SIZFREEZ</td>
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<td>SOFT PROMPT IF MISSING: Did you mean to leave this question blank?</td>
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<tr>
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<th>ASK</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>What is the size of your [If NUMFREEZ&gt;1: most used] freezer?</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>Half-size or compact</td>
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<tr>
<td></td>
<td>2</td>
<td>Small (17.5 cubic feet or less)</td>
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<td>4</td>
<td>Large (22.6 to 29.5 cubic feet)</td>
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<tr>
<td></td>
<td>5</td>
<td>Very large (bigger than 29.5 cubic feet)</td>
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<td>FREEZER</td>
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<td>Paper: Include “most used” in question text.</td>
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<td>WEB PROMPT</td>
<td>SOFT PROMPT IF MISSING: Did you mean to leave this question blank?</td>
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<th>ASK</th>
<th>If NUMFREEZ&gt;0</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>What type of defrosting does your [If NUMFREEZ&gt;1: most used] freezer have?</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>Manual</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Automatic</td>
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<tr>
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<tr>
<td><strong>ASK</strong></td>
<td>If NUMFREEZ&gt;0</td>
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</tr>
</tbody>
</table>

About how old is your [If NUMFREEZ>1: most used] freezer? Your best estimate is fine.

   1  Less than 2 years old
   2  2 to 4 years old
   3  5 to 9 years old
   4  10 to 14 years old
   5  15 to 19 years old
   6  20 or more years old

-4  Don’t know

| **NEXT** | RANGE, COOKTOP, OVEN |
| **MODE** | Paper: Include “most used” in question text. |
| **WEB PROMPT** | SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don’t know the answer you may select “Don’t know.”<br><BUTTONS: Change Answer / Continue> |
### RANGE, COOKTOP, OVEN (Changed since 2015)

<table>
<thead>
<tr>
<th>ASK</th>
<th>All respondents</th>
</tr>
</thead>
</table>

The next questions are about ranges, separate cooktops, and wall ovens. Please refer to the images above when answering these questions.

How many **ranges** are in your home? A range is a cooktop attached to an oven.

_____ ranges [RANGE]

How many **separate cooktops** are in your home? Count the entire cooktop, not the number of burners. Do **not** include cooktops that are part of a range.

_____ separate cooktops [COOKTOP]

How many **wall ovens** are in your home? Do **not** include wall ovens that are part of a range.

_____ wall ovens [OVEN]

{FOR ALL: WEB: ALLOW RANGE 0 – 9; PAPER: ONE DIGIT}

<table>
<thead>
<tr>
<th>NEXT</th>
<th>If RANGE&gt;0: RANGEFUEL Else if COOKTOP&gt;0: COOKTOPFUEL Else if OVEN&gt;0: OVENFUEL Else: MICRO</th>
</tr>
</thead>
</table>

| MODE | SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank? If your home has none of these, please enter "0."
      | <BUTTONS: Change Answer / Continue> |
|------|------------------------------------------------------------------------------------------|
|      | SOFT PROMPT IF COOKTOP>3: You said you have {COOKTOP} separate cooktops. Is that correct? Please be sure you are not counting each burner separately. <BUTTONS: Change Answer / Continue> |
|      | SOFT PROMPT IF RANGE ge 1 AND COOKTOP ge 1: You said you have both a range and a separate cooktop. Is this correct? <BUTTONS: Change Answer / Continue> |
### RANGEFUEL (Changed since 2015)

**ASK**

If RANGE>0

What fuel does your [If RANGE>1: most used] range use?

- 5 Electricity
- 1 Natural gas from underground pipes
- 2 Propane (bottled gas)
- 13 Electricity and gas (dual-fuel range)

**NEXT**

If RANGEFUEL=5: RANGEINDT
Else: RCOOKUSE

**MODE**

Paper: Include “most used” in question text. Include checkpoint before the question: *If your home does not have a range → Go to #63. Include skip information before the question: *(If your home has a range)*

**WEB PROMPT**

SOFT PROMPT IF MISSING: Did you mean to leave this question blank? 

<BUTTONS: Change Answer / Continue>

### RANGEINDT (New for 2020)

**ASK**

If RANGEFUEL=5

An induction cooktop is a rare type of cooktop that requires specialized magnetic cookware. Does your range have an induction cooktop?

- 1 Yes
- 0 No

**NEXT**

RCOOKUSE

**MODE**

**WEB PROMPT**

SOFT PROMPT IF MISSING: Did you mean to leave this question blank? 

<BUTTONS: Change Answer / Continue>

### RCOOKUSE (Changed since 2015)

**ASK**

If RANGE>0

About how many times is the cooktop part of your [If RANGE>1: most used] range used per week? *If not used, please enter “0."

_____ times per week

{WEB: ALLOW RANGE 0 – 99; PAPER: TWO DIGITS}

**NEXT**

ROVENUSE

**MODE**

Paper: Include “most used” in question text.

**WEB PROMPT**

SOFT PROMPT IF MISSING: Did you mean to leave this question blank? 

<BUTTONS: Change Answer / Continue>
<table>
<thead>
<tr>
<th>ROVENUSE (Changed since 2015)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ASK</strong></td>
</tr>
<tr>
<td></td>
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<tr>
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<tr>
<td><strong>NEXT</strong></td>
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<tr>
<td></td>
</tr>
<tr>
<td><strong>MODE</strong></td>
</tr>
<tr>
<td><strong>WEB PROMPT</strong></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COOKTOPFUEL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ASK</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
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<td><strong>NEXT</strong></td>
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<tr>
<td></td>
</tr>
<tr>
<td><strong>MODE</strong></td>
</tr>
<tr>
<td><strong>WEB PROMPT</strong></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COOKTOPINDT (New for 2020)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ASK</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>NEXT</strong></td>
</tr>
<tr>
<td><strong>MODE</strong></td>
</tr>
<tr>
<td><strong>WEB PROMPT</strong></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
**COOKTOPUSE**

<table>
<thead>
<tr>
<th>ASK</th>
<th>If COOKTOP&gt;0</th>
</tr>
</thead>
</table>

About how many times is your [If COOKTOP>1: most used] separate cooktop used per week? *If not used, please enter “0.”*

_____ times per week

{WEB: ALLOW RANGE 0 – 99; PAPER: TWO DIGITS}

<table>
<thead>
<tr>
<th>NEXT</th>
<th>If OVEN&gt;0: OVENFUEL Else: MICRO</th>
</tr>
</thead>
<tbody>
<tr>
<td>MODE</td>
<td>Paper: Include “most used” in question text.</td>
</tr>
<tr>
<td>WEB PROMPT</td>
<td>SOFT PROMPT IF MISSING: Did you mean to leave this question blank? &lt;BUTTONS: Change Answer / Continue&gt;</td>
</tr>
</tbody>
</table>

**OVENFUEL (Changed since 2015)**

<table>
<thead>
<tr>
<th>ASK</th>
<th>If OVEN&gt;0</th>
</tr>
</thead>
</table>

What fuel does your wall oven use?

1. **Electricity**
2. **Natural gas from underground pipes**
3. **Propane (bottled gas)**

<table>
<thead>
<tr>
<th>NEXT</th>
<th>OVENUSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>MODE</td>
<td>Include checkpoint before the question: <em>If your home does not have a wall oven</em> → Go to #68. Include skip information before the question: <em>(If your home has a wall oven)</em></td>
</tr>
<tr>
<td>WEB PROMPT</td>
<td>SOFT PROMPT IF MISSING: Did you mean to leave this question blank? &lt;BUTTONS: Change Answer / Continue&gt;</td>
</tr>
</tbody>
</table>

**OVENUSE (Changed since 2015)**

<table>
<thead>
<tr>
<th>ASK</th>
<th>If OVEN&gt;0</th>
</tr>
</thead>
</table>

About how many times is your wall oven used per week? *If not used, please enter “0.”*

_____ times per week

{WEB: ALLOW RANGE 0 – 99; PAPER: TWO DIGITS}

<table>
<thead>
<tr>
<th>NEXT</th>
<th>MICRO</th>
</tr>
</thead>
<tbody>
<tr>
<td>MODE</td>
<td></td>
</tr>
<tr>
<td>WEB PROMPT</td>
<td>SOFT PROMPT IF MISSING: Did you mean to leave this question blank? &lt;BUTTONS: Change Answer / Continue&gt;</td>
</tr>
</tbody>
</table>
### MICRO

**ASK**
All respondents

How many **microwaves** are in your home?

_____ microwaves

{**WEB**: ALLOW RANGE 0 – 9; **PAPER**: ONE DIGIT}

**NEXT**
If MICRO>0: AMTMICRO
Else: OUTGRILLFUEL

**MODE**

**WEB PROMPT**
SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If your home has none of these, please enter "0."

<BUTTONS: Change Answer / Continue>

### AMTMICRO

**ASK**
If MICRO>0

About how many times is your microwave used per week? **If not used, please enter “0.”**

_____ times per week

{**WEB**: ALLOW RANGE 0 – 99; **PAPER**: TWO DIGITS}

**NEXT**
OUTGRILLFUEL

**MODE**

**WEB PROMPT**
SOFT PROMPT IF MISSING: Did you mean to leave this question blank?

<BUTTONS: Change Answer / Continue>

### OUTGRILLFUEL

**ASK**
All respondents

Does your household use an outdoor grill?

1 Yes, natural gas grill
2 Yes, propane grill
23 Yes, charcoal grill
0 No

**NEXT**
NUMMEAL

**MODE**

**WEB PROMPT**
SOFT PROMPT IF MISSING: Did you mean to leave this question blank?

<BUTTONS: Change Answer / Continue>
### NUMMEAL

**ASK**
All respondents

Which of the categories below best describes how often hot food is cooked in your home?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Three or more times a day</td>
</tr>
<tr>
<td>2</td>
<td>Two times a day</td>
</tr>
<tr>
<td>3</td>
<td>Once a day</td>
</tr>
<tr>
<td>4</td>
<td>A few times each week</td>
</tr>
<tr>
<td>5</td>
<td>About once a week</td>
</tr>
<tr>
<td>6</td>
<td>Less than once a week</td>
</tr>
<tr>
<td>0</td>
<td>Never</td>
</tr>
</tbody>
</table>

### USECOFFEE

**MODE**

**WEB PROMPT**
SOFT PROMPT IF MISSING: Did you mean to leave this question blank?

<BUTTONS: Change Answer / Continue>

### USECOFFEE (New for 2020)

**ASK**
All respondents

How frequently is an electric coffee maker used in your home? Include drip coffee makers, single-serve machines, and espresso machines.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Every day or almost every day</td>
</tr>
<tr>
<td>2</td>
<td>A few times each week</td>
</tr>
<tr>
<td>3</td>
<td>Only occasionally</td>
</tr>
<tr>
<td>0</td>
<td>Never</td>
</tr>
</tbody>
</table>

**NEXT**
TOAST, TOASTOVN, CROCKPOT, PRSSCOOK, RICECOOK, BLENDER, APPOTHER, APPOTHER_other

**MODE**

**WEB PROMPT**
SOFT PROMPT IF MISSING: Did you mean to leave this question blank?

<BUTTONS: Change Answer / Continue>
**TOAST, TOASTOVN, CROCKPOT, PRSSCOOK, RICECOOK, BLENDER, APPOTHER, APPOTHER_other (Changed since 2015)**

**ASK**

All respondents

Are any of the following small kitchen appliances used at least once a week in your home?

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toaster [TOAST]</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Toaster oven [TOASTOVN]</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Crock-Pot or slow cooker [CROCKPOT]</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Instant Pot or electric pressure cooker [PRSSCOOK]</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Rice cooker [RICECOOK]</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Blender or juicer [BLENDER]</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Other ([WEB: specify below / PAPER: please specify]) [APPOTHER, APPOTHER_other]</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

**NEXT**

DISHWASH

**MODE**

**WEB PROMPT**

SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank? <BUTTONS: Change Answer / Continue>

SOFT PROMPT IF APPOTHER=1 AND APPOTHER_other IS MISSING: You selected Other (specify below) as your answer. Please provide additional details in the textbox. <BUTTONS: Change Answer / Continue>

**DISHWASH**

**ASK**

All respondents

Does your home have a dishwasher?

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

**NEXT**

If DISHWASH=1: DWASHUSE
Else: CWASHER

**MODE**

**WEB PROMPT**

SOFT PROMPT IF MISSING: Did you mean to leave this question blank? <BUTTONS: Change Answer / Continue>
### DWASHUSE

**ASK**  
If DISHWASH=1

About how many times is your dishwasher used per week? *If not used, please enter “0.”*

_____ times per week

{WEB: ALLOW RANGE 0 – 99; PAPER: TWO DIGITS}

**NEXT**  
DWCYCLE

**MODE**

**WEB PROMPT**  
SOFT PROMPT IF MISSING: Did you mean to leave this question blank?  
<BUTTONS: Change Answer / Continue>

### DWCYCLE (Changed since 2015)

**ASK**  
If DISHWASH=1

Which cycle is used *most of the time* when running your dishwasher?

1. Normal cycle *without* heated dry
2. Normal cycle *with* heated dry
3. Heavy or “pots and pans” cycle
4. Light or delicate cycle
5. Energy saver cycle
6. Quick cycle

-4 Don’t know

-3 Dishwasher not used

**NEXT**  
AGEDW

**MODE**

**WEB PROMPT**  
SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don’t know the answer you may select “Don’t know.”  
<BUTTONS: Change Answer / Continue>
**AGEDW**

<table>
<thead>
<tr>
<th>ASK</th>
<th>If DISHWASH=1</th>
</tr>
</thead>
</table>

About how old is your dishwasher? Your best estimate is fine.

1  Less than 2 years old
2  2 to 4 years old
3  5 to 9 years old
4  10 to 14 years old
5  15 to 19 years old
6  20 or more years old

-4  Don’t know

**NEXT**  CWASHER

**MODE**

**WEB PROMPT**  SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don’t know the answer you may select “Don’t know.”

<BUTTONS: Change Answer / Continue>

---

**CWASHER**

<table>
<thead>
<tr>
<th>ASK</th>
<th>All respondents</th>
</tr>
</thead>
</table>

Does your home have a clothes washer? [If TYPEHUQ in(4,5): Do not include community clothes washers that are located in the basement or laundry room of your apartment building.]

1  Yes
0  No

**NEXT**  If CWASHER=1: TOPFRONT
Else: DRYER

**MODE**  Paper: Display modified second sentence for all respondents: “Do not include community clothes washers that are located in the basement or laundry room of an apartment building.”

**WEB PROMPT**  SOFT PROMPT IF MISSING: Did you mean to leave this question blank?

<BUTTONS: Change Answer / Continue>

---

**TOPFRONT**

<table>
<thead>
<tr>
<th>ASK</th>
<th>If CWASHER=1</th>
</tr>
</thead>
</table>

Is your clothes washer top loading or front loading?

1  Top loading
2  Front loading

**NEXT**  WASHLOAD

**MODE**

**WEB PROMPT**  SOFT PROMPT IF MISSING: Did you mean to leave this question blank?

<BUTTONS: Change Answer / Continue>
### WASHLOAD

**ASK** If CWASHER=1

About how many times is your clothes washer used per week? *If not used, please enter “0.”

______ times per week

{WEB: ALLOW RANGE 0 – 99; PAPER: TWO DIGITS}

**NEXT** WASHTEMP

**MODE**

**WEB PROMPT** SOFT PROMPT IF MISSING: Did you mean to leave this question blank? <BUTTONS: Change Answer / Continue>

### WASHTEMP

**ASK** If CWASHER=1

What water temperature setting is typically used for the wash cycle of your clothes washer?

1. Hot
2. Warm
3. Cold

**NEXT** AGECWASH

**MODE**

**WEB PROMPT** SOFT PROMPT IF MISSING: Did you mean to leave this question blank? <BUTTONS: Change Answer / Continue>

### AGECWASH

**ASK** If CWASHER=1

About how old is your clothes washer? Your best estimate is fine.

1. Less than 2 years old
2. 2 to 4 years old
3. 5 to 9 years old
4. 10 to 14 years old
5. 15 to 19 years old
6. 20 or more years old

-4. Don’t know

**NEXT** DRYER

**MODE**

**WEB PROMPT** SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don’t know the answer you may select “Don’t know.” <BUTTONS: Change Answer / Continue>
## DRYER

**ASK**  All respondents

Does your home have a clothes dryer? [If TYPEHUQ in(4,5): Do not include community clothes dryers that are located in the basement or laundry room of your apartment building.]

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>0</td>
<td>No</td>
</tr>
</tbody>
</table>

**NEXT**  If DRYER=1: DRYRFUEL  Else: ELECTRONICS SECTION

**MODE**  Paper: Display modified second sentence for all respondents: “Do not include community clothes dryers that are located in the basement or laundry room of an apartment building.”

**WEB PROMPT**  SOFT PROMPT IF MISSING: Did you mean to leave this question blank?  <BUTTONS: Change Answer / Continue>

## DRYRFUEL

**ASK**  If DRYER=1

What fuel does your clothes dryer use?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Electricity</td>
</tr>
<tr>
<td>1</td>
<td>Natural gas from underground pipes</td>
</tr>
<tr>
<td>2</td>
<td>Propane (bottled gas)</td>
</tr>
<tr>
<td>-4</td>
<td>Don’t know</td>
</tr>
</tbody>
</table>

**NEXT**  DRYRUSE

**MODE**

**WEB PROMPT**  SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don’t know the answer you may select “Don’t know.”  <BUTTONS: Change Answer / Continue>

## DRYRUSE

**ASK**  If DRYER=1

About how many times is your clothes dryer used per week?  *If not used, please enter “0.”*

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>times per week</td>
</tr>
</tbody>
</table>

{WEB: ALLOW RANGE 0 – 99; PAPER: TWO DIGITS}

**NEXT**  AGECDRYER

**MODE**

**WEB PROMPT**  SOFT PROMPT IF MISSING: Did you mean to leave this question blank?  <BUTTONS: Change Answer / Continue>
AGECDRYER

ASK | If DRYER=1
---|---

About how old is your clothes dryer? Your best estimate is fine.

1. Less than 2 years old
2. 2 to 4 years old
3. 5 to 9 years old
4. 10 to 14 years old
5. 15 to 19 years old
6. 20 or more years old
-4. Don’t know

NEXT | ELECTRONICS SECTION

MODE

WEB PROMPT | SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don’t know the answer you may select “Don’t know.”
<BUTTONS: Change Answer / Continue>
**Electronics**

<table>
<thead>
<tr>
<th>TVCOLOR</th>
<th>ASK</th>
<th>All respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>How many televisions are used in your home? <em>If none, please enter “0.”</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td>_____ televisions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>{WEB: ALLOW RANGE 0 – 99; PAPER: TWO DIGITS}</td>
</tr>
<tr>
<td>NEXT</td>
<td>If TVCOLOR&gt;0 : TVSIZE1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Else: DESKTOP, NUMLAPTOP, NUMTABLET, ELPERIPH, NUMSMPHONE, CELLPHONE</td>
<td></td>
</tr>
<tr>
<td>MODE</td>
<td>WEB PROMPT</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If your home has none of these, please enter &quot;0.&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&lt;BUTTONS: Change Answer / Continue&gt;</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TVSIZE1</th>
<th>ASK</th>
<th>If TVCOLOR&gt;0</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>What is the size of your [If TVCOLOR&gt;1: most used] television?</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>27 inches or less</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>28 to 39 inches</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>40 to 59 inches</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>60 inches or more</td>
</tr>
<tr>
<td>NEXT</td>
<td>TVTYPE1</td>
<td></td>
</tr>
<tr>
<td>MODE</td>
<td>Paper: Include “most used” in question text.</td>
<td></td>
</tr>
<tr>
<td>WEB PROMPT</td>
<td>SOFT PROMPT IF MISSING: Did you mean to leave this question blank?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&lt;BUTTONS: Change Answer / Continue&gt;</td>
<td></td>
</tr>
</tbody>
</table>
### TVTYPE1 (Changed since 2015)

**ASK**  
If TVCOLOR>0

What type of display does your [If TVCOLOR>1: most used] television have?

1. LED or OLED  
2. LCD  
3. Plasma  
4. Projection  
5. Tube (non-flat screen)  
-4 Don’t know

**NEXT** TVUSE1, TVUSE1_other  
**MODE** Paper: Include “most used” in question text.

**WEB PROMPT** SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don’t know the answer you may select “Don’t know.”  
<BUTTONS: Change Answer / Continue>

### TVUSE1, TVUSE1_other (New for 2020)

**ASK**  
If TVCOLOR>0

What is the main use of your [If TVCOLOR>1: most used] television?

1. Watching live programming  
2. Watching recorded or on-demand programming from a set-top box  
3. Streaming content via built-in smart TV apps  
4. Streaming content via a separate streaming device connected to the television  
5. Playing video games  
99 Other ([WEB: specify below / PAPER: please specify]) [TVUSE1_other]

**NEXT** TVONWD1, TVONWD1LT1  
**MODE** Paper: Include “most used” in question text.

**WEB PROMPT** SOFT PROMPT IF MISSING: Did you mean to leave this question blank?  
<BUTTONS: Change Answer / Continue>  
SOFT PROMPT IF TVUSE1=99 AND TVUSE1_other IS MISSING: You selected Other (specify below) as your answer. Please provide additional details in the textbox.  
<BUTTONS: Change Answer / Continue>
**TVONWD1, TVONWD1LT1 (Changed since 2015)**

**ASK**
If TVCOLOR>0

Thinking about your [If TVCOLOR>1: most used] television’s use on weekdays, how many hours is it turned on each day? Include the time it is on even if no one is actually watching it.

_____ hours per day

{WEB: ALLOW RANGE 0 – 24; PAPER: TWO DIGITS}

Less than one hour [TVONWD1LT1: 1 if selected, 0 if not]

**NEXT**
TVONWE1, TVONWE1LT1

**MODE**
Paper: Include “most used” in question text.

**WEB PROMPT**
SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank?
<BUTTONS: Change Answer / Continue>

SOFT PROMPT IF OUT OF RANGE: Your response was outside the expected range of 0 to 24.
<BUTTONS: Change Answer / Continue>

---

**TVONWE1, TVONWE1LT1 (Changed since 2015)**

**ASK**
If TVCOLOR>0

Thinking about your [If TVCOLOR>1: most used] television’s use on weekends, how many hours is it turned on each day? Include the time it is on even if no one is actually watching it.

_____ hours per day

{WEB: ALLOW RANGE 0 – 24; PAPER: TWO DIGITS}

Less than one hour [TVONWE1LT1: 1 if selected, 0 if not]

**NEXT**
If TVCOLOR>1: TVSIZE2 Else: CABLESAT, COMBODVR, SEPDVR, PLAYSTA, DVD, VCR, INTSTREAM, TVAUDIOSYS

**MODE**
Paper: Include “most used” in question text.

**WEB PROMPT**
SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank?
<BUTTONS: Change Answer / Continue>

SOFT PROMPT IF OUT OF RANGE: Your response was outside the expected range of 0 to 24.
<BUTTONS: Change Answer / Continue>
### TVSIZE2

**ASK**

If TVCOLOR>1

What is the size of your second most used television?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>27 inches or less</td>
</tr>
<tr>
<td>2</td>
<td>28 to 39 inches</td>
</tr>
<tr>
<td>3</td>
<td>40 to 59 inches</td>
</tr>
<tr>
<td>4</td>
<td>60 inches or more</td>
</tr>
</tbody>
</table>

**NEXT**

TVTYPE2

**MODE**

Paper: Include checkpoint before the question: If you have only one television → Go to #103

**WEB PROMPT**

SOFT PROMPT IF MISSING: Did you mean to leave this question blank?

<BUTTONS: Change Answer / Continue>

### TVTYPE2 (Changed since 2015)

**ASK**

If TVCOLOR>1

What type of display does your second most used television have?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>LED or OLED</td>
</tr>
<tr>
<td>2</td>
<td>LCD</td>
</tr>
<tr>
<td>3</td>
<td>Plasma</td>
</tr>
<tr>
<td>4</td>
<td>Projection</td>
</tr>
<tr>
<td>5</td>
<td>Tube (non-flat screen)</td>
</tr>
<tr>
<td>-4</td>
<td>Don’t know</td>
</tr>
</tbody>
</table>

**NEXT**

TVUSE2, TVUSE2_other

**MODE**

**WEB PROMPT**

SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don’t know the answer you may select “Don’t know.”

<BUTTONS: Change Answer / Continue>
## TVUSE2, TVUSE2_other (New for 2020)

**ASK**

If TVCOLOR>1

What is the main use of your **second most used** television?

1. Watching live programming
2. Watching recorded or on-demand programming from a set-top box
3. Streaming content via **built-in smart TV apps**
4. Streaming content via a **separate streaming device connected to the television**
5. Playing video games
99. Other ([WEB: specify below / PAPER: please specify]) [TVUSE2_other]

**NEXT** TVONWD2, TVONWD2LT1

**MODE**

**WEB PROMPT**

SOFT PROMPT IF MISSING: Did you mean to leave this question blank?
<BUTTONS: Change Answer / Continue>

SOFT PROMPT IF TVUSE2=99 AND TVUSE2_other IS MISSING: You selected Other (specify below) as your answer. Please provide additional details in the textbox.
<BUTTONS: Change Answer / Continue>

## TVONWD2, TVONWD2LT1 (Changed since 2015)

**ASK**

If TVCOLOR>1

Thinking about your **second most used** television’s use on **weekdays**, how many hours is it turned on each day? Include the time it is on even if no one is actually watching it.

_____ hours per day

{WEB: ALLOW RANGE 0 – 24; PAPER: TWO DIGITS}

Less than one hour [TVONWD2LT1: 1 if selected, 0 if not]

**NEXT** TVONWE2, TVONWE2LT1

**MODE**

**WEB PROMPT**

SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank?
<BUTTONS: Change Answer / Continue>

SOFT PROMPT IF OUT OF RANGE: Your response was outside the expected range of 0 to 24.
<BUTTONS: Change Answer / Continue>
**TVONWE2, TVONWE2LT1 (Changed since 2015)**

**ASK**

If TVCOLOR>1

Thinking about your second most used television’s use on weekends, how many hours is it turned on each day? Include the time it is on even if no one is actually watching it.

_____ hours per day

{WEB: ALLOW RANGE 0 – 24; PAPER: TWO DIGITS}

Less than one hour [TVONWE2LT1: 1 if selected, 0 if not]

**NEXT**

If TVCOLOR>2: TVSIZE3  
Else: CABLESAT, COMBODVR, SEPDVR, INTSTREAM, PLAYSTA, DVD, VCR, TVAUDIO SYS

**MODE**

**WEB PROMPT**

SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank?  
<BUTTONS: Change Answer / Continue>

SOFT PROMPT IF OUT OF RANGE: Your response was outside the expected range of 0 to 24.  
<BUTTONS: Change Answer / Continue>

**TVSIZE3 (New for web/mail; used to be on CAPI)**

**ASK**

If TVCOLOR>2

What is the size of your third most used television?

1 27 inches or less  
2 28 to 39 inches  
3 40 to 59 inches  
4 60 inches or more

**NEXT**

TVTYPE3

**MODE**

Paper: Include checkpoint before the question: If you have only two televisions → Go to #103.

**WEB PROMPT**

SOFT PROMPT IF MISSING: Did you mean to leave this question blank?  
<BUTTONS: Change Answer / Continue>
**TVTYPE3 (New for web/mail; used to be on CAPI)**

<table>
<thead>
<tr>
<th>ASK</th>
<th>If TVCOLOR&gt;2</th>
</tr>
</thead>
</table>

What type of display does your third most used television have?

- 1 LED or OLED
- 2 LCD
- 3 Plasma
- 4 Projection
- 5 Tube (non-flat screen)
- 4 Don't know

**NEXT** TVUSE3, TVUSE3_other

**MODE**

**WEB PROMPT** SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don’t know the answer you may select “Don’t know.”

**TVUSE3, TVUSE3_other (New for 2020)**

<table>
<thead>
<tr>
<th>ASK</th>
<th>If TVCOLOR&gt;2</th>
</tr>
</thead>
</table>

What is the main use of your third most used television?

- 1 Watching live programming
- 2 Watching recorded or on-demand programming from a set-top box
- 3 Streaming content via built-in smart TV apps
- 4 Streaming content via a separate streaming device connected to the television
- 5 Playing video games
- 99 Other ([WEB: specify below / PAPER: please specify]) [TVUSE3_other]

**NEXT** TVONWD3, TVONWD3LT1

**MODE**

**WEB PROMPT** SOFT PROMPT IF MISSING: Did you mean to leave this question blank?

SOFT PROMPT IF TVUSE3=99 AND TVUSE3_other IS MISSING: You selected Other (specify below) as your answer. Please provide additional details in the textbox.

<BUTTONS: Change Answer / Continue>
### TVONWD3, TVONWD3LT1 (New for web/mail; used to be on CAPI)

**ASK** If TVCOLOR>2

Thinking about your third most used television’s use on weekdays, how many hours is it turned on each day? Include the time it is on even if no one is actually watching it.

_____ hours per day

{WEB: ALLOW RANGE 0 – 24; PAPER: TWO DIGITS}

Less than one hour [TVONWD3LT1: 1 if selected, 0 if not]

**NEXT** TVONWE3, TVONWE3LT1

**MODE**

**WEB PROMPT**

SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank?

<BUTTONS: Change Answer / Continue>

SOFT PROMPT IF OUT OF RANGE: Your response was outside the expected range of 0 to 24.

<BUTTONS: Change Answer / Continue>

### TVONWE3, TVONWE3LT1 (New for web/mail; used to be on CAPI)

**ASK** If TVCOLOR>2

Thinking about your third most used television’s use on weekends, how many hours is it turned on each day? Include the time it is on even if no one is actually watching it.

_____ hours per day

{WEB: ALLOW RANGE 0 – 24; PAPER: TWO DIGITS}

Less than one hour [TVONWE3LT1: 1 if selected, 0 if not]

**NEXT** CABLESAT, COMBODVR, SEPDVR, INTSTREAM, PLAYSTA, DVD, VCR, TVAUDIOSYS

**MODE**

**WEB PROMPT**

SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank?

<BUTTONS: Change Answer / Continue>

SOFT PROMPT IF OUT OF RANGE: Your response was outside the expected range of 0 to 24.

<BUTTONS: Change Answer / Continue>
### CABLESAT, COMBODVR, SEPDVR, INTSTREAM, PLAYSTA, DVD, VCR, TVAUDIOSYS (Changed since 2015)

| ASK | If TVCOLOR>0 |

How many of each of the following are used in your home? *If none, please enter “0.”*

- Number of cable or satellite boxes **without** DVR [CABLESAT]
- Number of cable or satellite boxes **with** DVR [COMBODVR]
- Number of separate DVRs (for example: TIVO) [SEPDVR]
- Number of Internet streaming devices (for example: Apple TV, Google Chromecast, Amazon Fire TV, or Roku) [INTSTREAM]
- Number of video game consoles [PLAYSTA]
- Number of DVD or Blu-ray players [DVD]
- Number of VCRs [VCR]
- Number of home theater or audio systems [TVAUDIOSYS]

{FOR ALL: WEB: ALLOW RANGE 0 – 99; PAPER: TWO DIGITS}

### NEXT

DESKTOP, NUMLAPTOP, NUMTABLET, ELPERIPH, NUMSMPHONE, CELLPHONE

### MODE

WEB

PROMPT

SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank? If your home has none of these, please enter "0."

<BUTTONS: Change Answer / Continue>

### DESKTOP, NUMLAPTOP, NUMTABLET, ELPERIPH, NUMSMPHONE, CELLPHONE

| ASK | All respondents |

How many of each of the following are used in your home? Include equipment provided by an employer or school for use at home. *If none, please enter “0.”*

- Number of desktop computers [DESKTOP]
- Number of laptop computers [NUMLAPTOP]
- Number of tablet computers or e-readers (for example: iPad or Kindle) [NUMTABLET]
- Number of printers, scanners, fax machines, or copiers [ELPERIPH]
- Number of "smart" phones (for example: iPhone or Android) [NUMSMPHONE]
- Number of other cellular phones [CELLPHONE]

{FOR ALL: WEB: ALLOW RANGE 0 – 99; PAPER: TWO DIGITS}

### NEXT

TELLWORK

### MODE

WEB

PROMPT

SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank? If your home has none of these, please enter "0."

<BUTTONS: Change Answer / Continue>
### TELLWORK (New for web/mail; used to be on CAPI)

**ASK**  
All respondents

Does anyone in your household telework or work from home? Include only work being done for pay.

<table>
<thead>
<tr>
<th>1</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>No</td>
</tr>
</tbody>
</table>

**NEXT**  
If TELLWORK=1: TELLDAYS  
Else: ONLNEDUC

**MODE**  
WEB

**PROMPT**  
SOFT PROMPT IF MISSING: Did you mean to leave this question blank?  
<BUTTONS: Change Answer / Continue>

### TELLDAYS (New for 2020)

**ASK**  
If TELLWORK=1

In the past week, on how many days did at least one person in your household telework or work from home?

<p>| |</p>
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>_____ days</td>
</tr>
</tbody>
</table>

{WEB: ALLOW RANGE 0 – 7; PAPER: ONE DIGIT}

**NEXT**  
TLDESKTOP, TLLAPTOP, TLTABLET, TLMONITOR, TLOTHER, TLOTHER_other

**MODE**  
WEB

**PROMPT**  
SOFT PROMPT IF MISSING: Did you mean to leave this question blank?  
<BUTTONS: Change Answer / Continue>  
SOFT PROMPT IF OUT OF RANGE: Your response was outside the expected range of 0 to 7.  
<BUTTONS: Change Answer / Continue>
## TLDESKTOP, TLLAPTOP, TLTABLET, TLMONITOR, TLOTHER, TLOTHER_other (New for 2020)

**ASK**

If TELLWORK=1

In your home, which of the following types of computer equipment are used for teleworking or working from home?

<table>
<thead>
<tr>
<th>Equipment Type</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desktop computer [TLDESKTOP]</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Laptop computer [TLLAPTOP]</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Tablet [TLTABLET]</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>External monitor [TLMONITOR]</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Other ([WEB: specify below / PAPER: please specify]) [TLOTHER, TLOTHER_other]</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

**NEXT**

ONLNEDUC

**MODE**

**WEB PROMPT**

SOFT PROMPT IF MISSING: Did you mean to leave this question blank?

<BUTTONS: Change Answer / Continue>

SOFT PROMPT IF TLOTHER=1 AND TLOTHER_other IS MISSING: You selected Other (specify below) as your answer. Please provide additional details in the textbox.

<BUTTONS: Change Answer / Continue>

## ONLNEDUC (New for 2020)

**ASK**

All respondents

Is anyone in your household receiving online K-12 distance learning or enrolled in online college courses?

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

**NEXT**

INTERNET

**MODE**

**WEB PROMPT**

SOFT PROMPT IF MISSING: Did you mean to leave this question blank?

<BUTTONS: Change Answer / Continue>
<table>
<thead>
<tr>
<th><strong>INTERNET (Changed since 2015)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ASK</strong></td>
</tr>
</tbody>
</table>

In your home, do you or any member of your household have access to the Internet?

1. Yes, by paying a cell phone company or Internet service provider
2. Yes, without paying a cell phone company or Internet service provider
3. No access to the Internet

<table>
<thead>
<tr>
<th><strong>NEXT</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>If INTERNET=1: INTYPECELL, INTYPEBROAD, INTYPEOTH</td>
</tr>
<tr>
<td>If INTERNET=2: SMARTSPK</td>
</tr>
<tr>
<td>Else: SPACE HEATING SECTION</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>MODE</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>WEB</td>
</tr>
<tr>
<td>PROMPT</td>
</tr>
<tr>
<td>SOFT PROMPT IF MISSING: Did you mean to leave this question blank?</td>
</tr>
<tr>
<td>&lt;BUTTONS: Change Answer / Continue&gt;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>INTYPECELL, INTYPEBROAD, INTYPEOTH (New for 2020)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ASK</strong></td>
</tr>
</tbody>
</table>

Do you or any member of your household have access to the Internet using a…

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>0.</td>
</tr>
<tr>
<td>Cellular data plan for a smartphone</td>
<td>1</td>
</tr>
<tr>
<td>or other mobile device? [INTYPECELL]</td>
<td>0</td>
</tr>
<tr>
<td>Broadband (high speed) Internet service such as cable, fiber optic, or DSL service installed in your home? [INTYPEBROAD]</td>
<td>1</td>
</tr>
<tr>
<td>Satellite, dial-up, or some other Internet service installed in your home? [INTYPEOTH]</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>NEXT</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>SMARTSPK</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>MODE</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>WEB</td>
</tr>
<tr>
<td>PROMPT</td>
</tr>
<tr>
<td>SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank?</td>
</tr>
<tr>
<td>&lt;BUTTONS: Change Answer / Continue&gt;</td>
</tr>
</tbody>
</table>
### SMARTSPK (New for 2020)

#### ASK
If INTERNET>0

How many “smart” or Internet-connected speakers (such as an Amazon Echo, Google Home, or Apple HomePod) are used in your home?

___ smart speakers

{WEB: ALLOW RANGE 0 – 9, PAPER: ONE DIGIT}

#### NEXT
If SMARTSPK>0: SSLIGHT, SSTEMP, SSSECURE, SSTV, SSOTHER, SSOTHER_other Else: SPACE HEATING SECTION

#### MODE

#### WEB PROMPT
SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If your home has none of these, please enter "0."

### SSLIGHT, SSTEMP, SSSECURE, SSTV, SSOTHER, SSOTHER_other (New for 2020)

#### ASK
If SMARTSPK>0

Does your household control any of the following using your smart speaker(s)?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lighting [SSLIGHT]</td>
<td>1</td>
</tr>
<tr>
<td>Temperature [SSTEMP]</td>
<td>1</td>
</tr>
<tr>
<td>Security system, cameras, or locks [SSSECURE]</td>
<td>1</td>
</tr>
<tr>
<td>Television, set-top box, or streaming device [SSTV]</td>
<td>1</td>
</tr>
<tr>
<td>Other ([WEB: specify below / PAPER: please specify]) [SSOTHER, SSOTHER_other]</td>
<td>1</td>
</tr>
</tbody>
</table>

#### NEXT
SPACE HEATING SECTION

#### MODE

#### WEB PROMPT
SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank?
<BUTTONS: Change Answer / Continue>

SOFT PROMPT IF SSOTHER=1 AND SSOTHER_other IS MISSING: You selected Other (specify below) as your answer. Please provide additional details in the textbox.
<BUTTONS: Change Answer / Continue>
### Space Heating

**WEB MOTIVATIONAL PROMPT #2:** Thanks for your participation so far! You are about halfway done. Your responses are very important to the study.

The next questions are about heating and cooling equipment in your home.

<table>
<thead>
<tr>
<th>HEATHOME</th>
<th>All respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ASK</strong></td>
<td>Is your home heated during the winter?</td>
</tr>
<tr>
<td>1  Yes</td>
<td></td>
</tr>
<tr>
<td>2  No, I do not have any heating equipment</td>
<td></td>
</tr>
<tr>
<td>3  No, I have heating equipment but do not use it</td>
<td></td>
</tr>
<tr>
<td><strong>NEXT</strong></td>
<td>If HEATHOME=1 and TYPEHUQ in(4,5): HEATAPT</td>
</tr>
<tr>
<td></td>
<td>If HEATHOME=1 and TYPEHUQ in(1,2,3): EQUIPM, EQUIPM_other</td>
</tr>
<tr>
<td></td>
<td>If HEATHOME in(2,3): WHYNOHEAT, WHYNOHEAT_other</td>
</tr>
<tr>
<td></td>
<td>Else: HUMIDTYPE</td>
</tr>
<tr>
<td><strong>MODE</strong></td>
<td></td>
</tr>
<tr>
<td><strong>WEB PROMPT</strong></td>
<td>SOFT PROMPT IF MISSING: Did you mean to leave this question blank?</td>
</tr>
<tr>
<td></td>
<td>&lt;BUTTONS: Change Answer / Continue&gt;</td>
</tr>
</tbody>
</table>

**WHYNOHEAT, WHYNOHEAT_other (New for 2020)**

<table>
<thead>
<tr>
<th><strong>ASK</strong></th>
<th>If HEATHOME in(2,3)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WEB PROMPT</strong></td>
<td>SOFT PROMPT IFMISSING: Did you mean to leave this question blank?</td>
</tr>
<tr>
<td></td>
<td>&lt;BUTTONS: Change Answer / Continue&gt;</td>
</tr>
</tbody>
</table>

**SOFT PROMPT IF WHYNOHEAT=99 AND WHYNOHEAT_other IS MISSING:** You selected Other (specify below) as your answer. Please provide additional details in the textbox.

<BUTTONS: Change Answer / Continue>
**HEATAPT (New for 2020)**

**ASK**
If HEATHOME=1 and TYPEHUQ in(4,5)

Is your apartment primarily heated by equipment that serves multiple units in your building, such as a furnace or boiler located in a basement or mechanical room?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>0</td>
<td>No</td>
</tr>
<tr>
<td>-4</td>
<td>Don’t know</td>
</tr>
</tbody>
</table>

**NEXT**
EQUIPM, EQUIPM_other

**MODE**
Paper: Include checkpoint before the question: *If your home is not heated during the winter → Go to #131.* Include skip information before the question: *(If you live in an apartment)*

**WEB PROMPT**
SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don’t know the answer you may select “Don’t know.”

<BUTTONS: Change Answer / Continue>
What is the main type of heating equipment used to provide heat for your home?

3 Central furnace
2 Steam or hot water system with radiators or pipes
4 Central heat pump
13 Ductless heat pump, also known as a “mini-split”
5 Built-in electric units installed in walls, ceilings, baseboards, or floors
6 Built-in room heater burning gas or oil
8 Wood or pellet stove
10 Portable electric heaters
99 Other ([WEB: specify below / PAPER: please specify]) [EQUIPM_other]

- 4 Don’t know

NOTE: Graphics will accompany these response options. On web, they are formatted like this:
### FUELHEAT, FUELHEAT_other

**ASK**  If HEATHOME=1

What is the fuel used by your home’s main heating equipment?

- 5 Electricity
- 1 Natural gas from underground pipes
- 2 Propane (bottled gas)
- 3 Fuel oil
- 7 Wood or pellets
- 99 Other ([WEB: specify below / PAPER: please specify]) [FUELHEAT_other]  
- 4 Don’t know

**NEXT**  EQUIPAGE

**MODE**

**WEB PROMPT**

SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don’t know the answer you may select “Don’t know.”  
<BUTTONS: Change Answer / Continue>

SOFT PROMPT IF FUELHEAT=99 AND FUELHEAT_other IS MISSING: You selected Other (specify below) as your answer. Please provide additional details in the textbox.  
<BUTTONS: Change Answer / Continue>

### EQUIPAGE

**ASK**  If HEATHOME=1

About how old is your home’s main heating equipment? Your best estimate is fine.

- 1 Less than 2 years old
- 2 2 to 4 years old
- 3 5 to 9 years old
- 4 10 to 14 years old
- 5 15 to 19 years old
- 6 20 or more years old
- 4 Don’t know

**NEXT**  If EQUIPM=4: GEOHP  
Else: EQUIPAUXTYPE, EQUIPAUXTYPE_other

**MODE**

**WEB PROMPT**

SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don’t know the answer you may select “Don’t know.”  
<BUTTONS: Change Answer / Continue>
### GEOHP (New for 2020)

**ASK**

If EQUIPM=4

Does your home have a geothermal/ground source heat pump?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>0</td>
<td>No</td>
</tr>
<tr>
<td>-4</td>
<td>Don’t know</td>
</tr>
</tbody>
</table>

**NEXT**

BACKUPHP

**MODE**

Paper: Include checkpoint before the question: Answer #s 119 and 120 if your home’s main heating equipment is a central heat pump. Otherwise, go to #121. Include skip information before the question: (If your main heating equipment is a central heat pump)  

**WEB PROMPT**

SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don’t know the answer you may select “Don’t know.”  

<BUTTONS: Change Answer / Continue>

### BACKUPHP (New for 2020)

**ASK**

If EQUIPM=4

Many heat pumps have a backup or emergency heating method that can be used when it is very cold. What type of backup or emergency heating does your heat pump use?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Electric backup</td>
</tr>
<tr>
<td>2</td>
<td>Natural gas backup (dual-fuel system)</td>
</tr>
<tr>
<td>0</td>
<td>No backup/none used</td>
</tr>
<tr>
<td>-4</td>
<td>Don’t know</td>
</tr>
</tbody>
</table>

**NEXT**

EQUIPAUXTYPE, EQUIPAUXTYPE_other

**MODE**

Paper: Include skip information before the question: (If your main heating equipment is a central heat pump)  

**WEB PROMPT**

SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don’t know the answer you may select “Don’t know.”  

<BUTTONS: Change Answer / Continue>
### EQUIPAUXTYPE, EQUIPAUXTYPE_other (Changed since 2015)

<table>
<thead>
<tr>
<th>ASK</th>
<th>If HEATHOME=1</th>
</tr>
</thead>
</table>

In addition to your main heating equipment, which of the following is used as a **second source** for heating your home? If more than one, select the type most frequently used.

- 0 No other equipment used
- 10 Portable electric heaters
- 9 Fireplace
- 8 Wood or pellet stove
- 5 Built-in electric units installed in walls, ceilings, baseboards, or floors
- 13 Ductless heat pump, also known as a “mini-split”
- 99 Other ([WEB: specify below / PAPER: please specify]) [EQUIPAUXTYPE_other]

| NEXT | If EQUIPAUXTYPE>0: FUELAUX, FUELAUX_other  
Else if FUELHEAT=7: WOODTYPE  
Else if EQUIPM=10: NUMPORTEL  
Else if EQUIPM=13: NUMDLHP  
Else if TYPEHUQ in(2,3): BASEHEAT, ATTCHEAT, GARGHEAT  
Else: HUMIDTYPE |

| MODE | SOFT PROMPT IF MISSING: Did you mean to leave this question blank?  
<BUTTONS: Change Answer / Continue>  
SOFT PROMPT IF EQUIPAUXTYPE=99 AND EQUIPAUXTYPE_other IS MISSING: You selected Other (specify below) as your answer. Please provide additional details in the textbox.  
<BUTTONS: Change Answer / Continue> |
**FUELAUX, FUELAUX\_other** (New for web/mail; used to be on CAPI)

**ASK**

If EQUIPAUXTYPE>0

What is the fuel used by your home’s secondary heating equipment?

| 5  | Electricity                          |
| 1  | Natural gas from underground pipes   |
| 2  | Propane (bottled gas)               |
| 3  | Fuel oil                             |
| 7  | Wood or pellets                      |
| 99 | Other ([WEB: specify below / PAPER: please specify]) [FUELAUX\_other] |
| -4 | Don’t know                           |

**NEXT**

USEEQUIPAUX

**MODE**

**WEB PROMPT**

SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don’t know the answer you may select “Don’t know.”

**USEEQUIPAUX** (New for 2020)

**ASK**

If EQUIPAUXTYPE>0

Which of the following best describes how your household uses the secondary heating equipment during the heating season?

| 1  | Use all or almost all of the time   |
| 2  | Use at least once per week          |
| 3  | Use a few times per month           |
| 4  | Use only when it is very cold       |
| 5  | Use only in rare situations, such as when a guest is visiting |

**NEXT**

If FUELHEAT=7 or FUELAUX=7: WOODTYPE
Else if EQUIPM=10 OR EQUIPAUXTYPE=10: NUMPORTEL
Else if EQUIPAUXTYPE=9: NUMFIREPLC
Else if EQUIPM=13 OR EQUIPAUXTYPE=13: NUMDLHP
Else if TYPEHUQ in(2,3): BASEHEAT, ATTCHEAT, GARGHEAT
Else: HUMIDTYPE

**MODE**

**WEB PROMPT**

SOFT PROMPT IF MISSING: Did you mean to leave this question blank?

<BUTTONS: Change Answer / Continue>
### WOODTYPE (New for web/mail; used to be on CAPI)

<table>
<thead>
<tr>
<th>ASK</th>
<th>If FUELHEAT=7 or FUELAUX=7</th>
</tr>
</thead>
</table>

You reported that your home is heated with wood or pellets. Which of the following does your household use?

1. Wood logs or split wood
2. Pellets

| NEXT | If WOODTYPE=1: NUMCORDS, NUMCORDS_other  
If WOODTYPE=2: PELLETAMT, PELLETUNITS  
Else if EQUIPM=10 OR EQUIPAUXTYPE=10: NUMPORTEL  
Else if EQUIPAUXTYPE=9: NUMFIREPLC  
Else if EQUIPM=13 OR EQUIPAUXTYPE=13: NUMDLHP  
Else if TYPEHUQ in(2,3): BASEHEAT, ATTCHEAT, GARGHEAT  
Else: HUMIDTYPE |

| MODE | Paper: Include checkpoint before the question: Answer #s 124-126 if your home is heated with wood or pellets. Otherwise, go to #127. Instead of first sentence, include skip information before the question: (If your home is heated with wood or pellets) |

| WEB PROMPT | SOFT PROMPT IF MISSING: Did you mean to leave this question blank?  
<BUTTONS: Change Answer / Continue> |
NUMCORDS, NUMCORDS_other (Changed since 2015)

ASK  If WOODTYPE=1

In the past year, about how many cords of wood did your household use?

1 cord

1  Half a cord or less
2  About one cord
3  About two cords
4  Three to five cords
5  More than five cords (please specify) _____ cords [NUMCORDS_other]

{WEB: ALLOW RANGE 5 – 99, PAPER: TWO DIGITS}

NEXT  If EQUIPM=10 or EQUIPAUXTYPE=10: NUMPORTEL
Else if EQUIPAUXTYPE=9: NUMFIREPLC
Else if EQUIPM=13 OR EQUIPAUXTYPE=13: NUMDLHP
Else if TYPEHUQ in(2,3): BASEHEAT, ATTCHEAT, GARGHEAT
Else: HUMIDTYPE

MODE  Paper: Include skip information before the question: (If you use wood logs or split wood)

WEB PROMPT  SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank?
<BUTTONS: Change Answer / Continue>

WEB PROMPT  SOFT PROMPT IF OUT OF RANGE: Your response was outside the expected range of 5 to 99.
<BUTTONS: Change Answer / Continue>
### PELLETAMT, PELLETUNITS (Changed since 2015)

**ASK**

If WOODTYPE=2

In the past year, about how many pellets did your household use?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

_____ [PELLETAMT] Select unit: [ ] 40-pound bags [PELLETUNITS=1] [ ] tons [PELLETUNITS=2]

{WEB: ALLOW RANGE 0 – 999, PAPER: THREE DIGITS}

**NEXT**

If EQUIPM=10 or EQUIPAUXTYPE=10: NUMPORTEL
Else if EQUIPAUXTYPE=9: NUMFIREPLC
Else if EQUIPM=13 OR EQUIPAUXTYPE=13: NUMDLHP
Else if TYPEHUQ in(2,3): BASEHEAT, ATTCHET, GARGHEAT
Else: HUMIDTYPE

**MODE**

Paper: Include skip information before the question: *(If you use pellets)*

**WEB PROMPT**

SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank?

<BUTTONS: Change Answer / Continue>

### NUMPORTEL (New for 2020)

**ASK**

If EQUIPM=10 or EQUIPAUXTYPE=10

How many portable electric heaters are used in your home?

_____ portable electric heaters

{WEB: ALLOW RANGE 1 – 9; PAPER: ONE DIGIT}

**NEXT**

If EQUIPAUXTYPE=9: NUMFIREPLC
Else if EQUIPM=13 OR EQUIPAUXTYPE=13: NUMDLHP
Else if TYPEHUQ in(2,3): BASEHEAT, ATTCHET, GARGHEAT
Else: HUMIDTYPE

**MODE**

Paper: Ask all respondents.

**WEB PROMPT**

SOFT PROMPT IF MISSING: Did you mean to leave this question blank?

<BUTTONS: Change Answer / Continue>

SOFT PROMPT IF OUT OF RANGE: Your response was outside the expected range of 1 to 9.

<BUTTONS: Change Answer / Continue>
<table>
<thead>
<tr>
<th><strong>NUMFIREPLC (New for 2020)</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ASK</strong></td>
<td>If EQUIPAUXTYPE=9</td>
</tr>
<tr>
<td><strong>WEB PROMPT</strong></td>
<td>SOFT PROMPT IF OUT OF RANGE: Your response was outside the expected range of 1 to 9. &lt;BUTTONS: Change Answer / Continue&gt;</td>
</tr>
<tr>
<td><strong>NUMDLHP (New for 2020)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>ASK</strong></td>
<td>If EQUIPM=13 OR EQUIPAUXTYPE=13</td>
</tr>
<tr>
<td><strong>WEB PROMPT</strong></td>
<td>SOFT PROMPT IF OUT OF RANGE: Your response was outside the expected range of 1 to 9. &lt;BUTTONS: Change Answer / Continue&gt;</td>
</tr>
</tbody>
</table>
### BASEHEAT, ATTCHEAT, GARGHEAT (Changed since 2015)

**ASK**
If `HEATHOME=1` and `TYPEHUQ in(2,3)`

Are the following spaces in your home heated?

**Basement [BASEHEAT]**
- 1 Yes
- 0 No
- -3 Not applicable (my home does not have this space)

**Attic [ATTCHEAT]**
- 1 Yes
- 0 No
- -3 Not applicable (my home does not have this space)

**Attached garage [GARGHEAT]**
- 1 Yes
- 0 No
- -3 Not applicable (my home does not have this space)

**NEXT**
HUMIDTYPE

**MODE**
Paper: Ask all respondents.

**WEB PROMPT**
SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank?
<BUTTONS: Change Answer / Continue>

### HUMIDTYPE (New for 2020)

**ASK**
All respondents

Humidifiers add moisture to the air and are often used in the winter. Is a humidifier used in your home?

1  Yes, a portable humidifier
2  Yes, a whole-home humidifier
0  No

**NEXT**
If `HUMIDTYPE=1`: `NUMPORTHUM`
If `HUMIDTYPE=2`: `USEHUMID`, `USEHUMID_other`
Else: AIR CONDITIONING SECTION

**MODE**

**WEB PROMPT**
SOFT PROMPT IF MISSING: Did you mean to leave this question blank?
<BUTTONS: Change Answer / Continue>
<table>
<thead>
<tr>
<th>NUMPORTHUM (New for 2020)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ASK</strong></td>
</tr>
<tr>
<td>How many portable humidifiers are used in your home?</td>
</tr>
<tr>
<td>_____ portable humidifiers</td>
</tr>
<tr>
<td><strong>NEXT</strong></td>
</tr>
<tr>
<td><strong>MODE</strong></td>
</tr>
<tr>
<td><strong>WEB PROMPT</strong></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>USEHUMID, USEHUMID_other (New for 2020)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ASK</strong></td>
</tr>
<tr>
<td>Which of the following best describes how your household uses the humidifier?</td>
</tr>
<tr>
<td>1 Use only occasionally, such as when someone in the household is sick</td>
</tr>
<tr>
<td>2 Use only during winter months</td>
</tr>
<tr>
<td>3 Use about half of the year</td>
</tr>
<tr>
<td>4 Use all or almost all of the year</td>
</tr>
<tr>
<td>99 Other ([WEB: specify below / PAPER: please specify]) [USEHUMID_other]</td>
</tr>
<tr>
<td><strong>NEXT</strong></td>
</tr>
<tr>
<td><strong>MODE</strong></td>
</tr>
<tr>
<td><strong>WEB PROMPT</strong></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
# Air Conditioning

<table>
<thead>
<tr>
<th>AIRCOND</th>
<th>ASK</th>
<th>All respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Is any air conditioning equipment used in your home?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1  Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0   No</td>
</tr>
<tr>
<td>NEXT</td>
<td></td>
<td>If AIRCOND=1 and TYPEHUQ in(4,5): COOLAPT</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If AIRCOND=1 and TYPEHUQ in(1,2,3): ACEQUIPM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Else: NUMCFAN, NUMFLOORFAN</td>
</tr>
<tr>
<td>MODE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WEB PROMPT</td>
<td></td>
<td>SOFT PROMPT IF MISSING: Did you mean to leave this question blank?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&lt;BUTTONS: Change Answer / Continue&gt;</td>
</tr>
</tbody>
</table>

## COOLAPT (New for 2020)

<table>
<thead>
<tr>
<th>ASK</th>
<th>If AIRCOND=1 and TYPEHUQ in(4,5)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Is your apartment primarily cooled by equipment that serves multiple units in your building?</td>
</tr>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>0</td>
<td>No</td>
</tr>
<tr>
<td>-4</td>
<td>Don't know</td>
</tr>
<tr>
<td>NEXT</td>
<td>ACEQUIPM</td>
</tr>
<tr>
<td>MODE</td>
<td>Paper: Include skip information before the question: <em>(If you live in an apartment)</em></td>
</tr>
<tr>
<td>WEB PROMPT</td>
<td>SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don't know the answer you may select “Don't know.”</td>
</tr>
<tr>
<td></td>
<td>&lt;BUTTONS: Change Answer / Continue&gt;</td>
</tr>
</tbody>
</table>
ACEQUIPM (New for 2020)

ASK If AIRCOND=1

What is the main type of air conditioning equipment used to cool your home?

1. Central air conditioner
2. Central heat pump
3. Ductless heat pump, also known as a "mini-split"
4. Window or wall air conditioner
5. Portable air conditioner
6. Evaporative or swamp cooler

-4 Don’t know

NEXT ACEQUIPAGE

MODE

WEB PROMPT SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don’t know the answer you may select “Don’t know.”

<BUTTONS: Change Answer / Continue>

ACEQUIPAGE (New for 2020)

ASK If AIRCOND=1

About how old is your home’s main air conditioning equipment? Your best estimate is fine.

1. Less than 2 years old
2. 2 to 4 years old
3. 5 to 9 years old
4. 10 to 14 years old
5. 15 to 19 years old
6. 20 or more years old

-4 Don’t know

NEXT ACEQUIPAUXTYPE

MODE

WEB PROMPT SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don’t know the answer you may select “Don’t know.”

<BUTTONS: Change Answer / Continue>
**ACEQUIPAUTYPE (New for 2020)**

**ASK**  If AIRCOND=1

In addition to your main air conditioning equipment, which of the following is used as a second source for cooling your home? If more than one, select the type most frequently used.

- 0 No other equipment used
- 1 Central air conditioner
- 2 Central heat pump
- 3 Ductless heat pump, also known as a “mini-split”
- 4 Window or wall air conditioner
- 5 Portable air conditioner
- 6 Evaporative or swamp cooler

**NEXT**  If ACEQUIPM=3 or ACEQUIPAUTYPE=3: NUMDLHPAC
Else if ACEQUIPM=4 or ACEQUIPAUTYPE=4: NUMWWAC
Else if ACEQUIPM=5 or ACEQUIPAUTYPE=5: NUMPORTAC
Else if TYPEHUQ in (2,3): BASECOOL, ATTCCOOL, GARGCOOL
Else: NUMCFAN, NUMFLOORFAN

**MODE**  Paper: Include checkpoint before the question: Answer #139 if your home is cooled with a ductless heat pump or “mini split.” Otherwise, go to #140. Include skip information before the question: (If your home is cooled with a ductless heat pump or “mini split”)

**WEB PROMPT**  SOFT PROMPT IF MISSING: Did you mean to leave this question blank?
<BUTTONS: Change Answer / Continue>

**SOFT PROMPT IF OUT OF RANGE:** Your response was outside the expected range of 1 to 9.
<BUTTONS: Change Answer / Continue>

---

**NUMDLHPAC (New for 2020)**

**ASK**  If ACEQUIPM=3 or ACEQUIPAUTYPE=3

How many ductless heat pump indoor units or “heads” are used to cool your home?

_____ indoor units

{WEB: ALLOW RANGE 1 – 9; PAPER: ONE DIGIT}

**NEXT**  If ACEQUIPM=4 or ACEQUIPAUTYPE=4: NUMWWAC
Else if ACEQUIPM=5 or ACEQUIPAUTYPE=5: NUMPORTAC
Else if TYPEHUQ in (2,3): BASECOOL, ATTCCOOL, GARGCOOL
Else: NUMCFAN, NUMFLOORFAN

**MODE**  Paper: Include checkpoint before the question: Answer #139 if your home is cooled with a ductless heat pump or “mini split.” Otherwise, go to #140. Include skip information before the question: (If your home is cooled with a ductless heat pump or “mini split”)

**WEB PROMPT**  SOFT PROMPT IF MISSING: Did you mean to leave this question blank?
<BUTTONS: Change Answer / Continue>

**SOFT PROMPT IF OUT OF RANGE:** Your response was outside the expected range of 1 to 9.
<BUTTONS: Change Answer / Continue>
### NUMWWAC (Changed since 2015)

**ASK**

If ACEQUIPM=4 or ACEQUIPAUXTYPE=4

How many window or wall air conditioners are used in your home?

_____ window or wall air conditioners

{WEB: ALLOW RANGE 1 – 9; PAPER: ONE DIGIT}

**NEXT**

Else if ACEQUIPAUXTYPE=5 OR ACEQUIPM=5: NUMPORTAC
Else if TYPEHUQ in(2,3): BASECOOL, ATTCCOOL, GARGCOOL
Else: NUMCFAN, NUMFLOORFAN

**MODE**

Paper: Include checkpoint before the question: Answer #140 if a window or wall air conditioner is used in your home. Otherwise, go to #141. Include skip information before the question: (If a window or wall air conditioner is used in your home)

**WEB PROMPT**

SOFT PROMPT IF MISSING: Did you mean to leave this question blank?

<BUTTONS: Change Answer / Continue>

SOFT PROMPT IF OUT OF RANGE: Your response was outside the expected range of 1 to 9.

<BUTTONS: Change Answer / Continue>

### NUMPORTAC (New for 2020)

**ASK**

If ACEQUIPM=5 or ACEQUIPAUXTYPE=5

How many portable air conditioners are used in your home?

_____ portable air conditioners

{WEB: ALLOW RANGE 1 – 9; PAPER: ONE DIGIT}

**NEXT**

If TYPEHUQ in (2,3): BASECOOL, ATTCCOOL, GARGCOOL
Else: NUMCFAN, NUMFLOORFAN

**MODE**

Paper: Include checkpoint before the question: Answer #141 if a portable air conditioner is used in your home. Otherwise, go to #142. Include skip information before the question: (If a portable air conditioner is used in your home)

**WEB PROMPT**

SOFT PROMPT IF MISSING: Did you mean to leave this question blank?

<BUTTONS: Change Answer / Continue>

SOFT PROMPT IF OUT OF RANGE: Your response was outside the expected range of 1 to 9.

<BUTTONS: Change Answer / Continue>
### BASECOOL, ATTCCOOL, GARGCOOL (Changed since 2015)

**ASK**  
If AIRCOND=1 and TYPEHUQ in(2,3)

Are the following spaces in your home air-conditioned?

**Basement [BASECOOL]**
- 1 Yes
- 0 No
- -3 Not applicable (my home does not have this space)

**Attic [ATTCCOOL]**
- 1 Yes
- 0 No
- -3 Not applicable (my home does not have this space)

**Attached garage [GARGCOOL]**
- 1 Yes
- 0 No
- -3 Not applicable (my home does not have this space)

### NEXT

**NUMCFAN, NUMFLOORFAN**

**MODE**  
Paper: Ask all respondents.

**WEB PROMPT**  
SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank?  
<BUTTONS: Change Answer / Continue>

### NUMCFAN, NUMFLOORFAN

**ASK**  
All respondents

How many of the following types of fans does your household use? *If none, please enter “0.”*

- _____ Number of ceiling fans [NUMCFAN]
- _____ Number of floor or window fans [NUMFLOORFAN]

{FOR ALL: WEB: ALLOW RANGE 0 – 99; PAPER: TWO DIGITS}

### NEXT

If NUMCFAN>0: USECFAN, USECFAN_other
Else if TYPEHUQ in(2,3): HOUSEFAN, ATTICFAN
Else: DEHUMTYPE

**MODE**

**WEB PROMPT**  
SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank? If your home has none of these, please enter "0."
<BUTTONS: Change Answer / Continue>
### USECFAN, USECFAN_other (New for web/mail; used to be on CAPI)

<table>
<thead>
<tr>
<th>ASK</th>
<th>If NUMCFAN&gt;0</th>
</tr>
</thead>
</table>

Thinking about the [If NUMCFAN>1: most used] ceiling fan, which of the following best describes how your household uses this fan?

1. Use only occasionally, such as when it is very hot or when guests are over
2. Use only during summer months to stay cool
3. Use about half of the year
4. Use all or almost all of the year, such as for white noise or air circulation
99 Other ([WEB: specify below / PAPER: please specify]) [USECFAN_other]

<table>
<thead>
<tr>
<th>NEXT</th>
<th>If TYPEHUQ in(2,3): HOUSEFAN, ATTICFAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>MODE</td>
<td>Paper: Include “most used” in question text. Include checkpoint before the question: If no ceiling fans are used → Go to #145. Include skip information before the question: (If ceiling fans are used)</td>
</tr>
<tr>
<td>WEB PROMPT</td>
<td>SOFT PROMPT IF MISSING: Did you mean to leave this question blank? &lt;BUTTONS: Change Answer / Continue&gt;</td>
</tr>
</tbody>
</table>

SOFT PROMPT IF USECFAN=99 AND USECFAN_other IS MISSING: You selected Other (specify below) as your answer. Please provide additional details in the textbox. <BUTTONS: Change Answer / Continue>

### HOUSEFAN, ATTICFAN (Changed since 2015)

<table>
<thead>
<tr>
<th>ASK</th>
<th>If TYPEHUQ in(2,3)</th>
</tr>
</thead>
</table>

Are the following used in your home?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whole house cooling fan [HOUSEFAN]</td>
<td>1</td>
</tr>
<tr>
<td>Attic exhaust fan [ATTICFAN]</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NEXT</th>
<th>DEHUMTYPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>MODE</td>
<td>Paper: Ask of all respondents.</td>
</tr>
<tr>
<td>WEB PROMPT</td>
<td>SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank? &lt;BUTTONS: Change Answer / Continue&gt;</td>
</tr>
</tbody>
</table>
### DEHUMTYPE (New for 2020)

<table>
<thead>
<tr>
<th>ASK</th>
<th>All respondents</th>
</tr>
</thead>
</table>

Dehumidifiers remove moisture from the air and are often used in the summer. Is a dehumidifier used in your home?

1. Yes, a **portable** dehumidifier
2. Yes, a **whole-home** dehumidifier
3. No

**NEXT**
- If DEHUMTYPE=1: NUMPORTDEHUM
- If DEHUMTYPE=2: USEDEHUM, USEDEHUM_other
- Else: THERMOSTATS AND TEMPERATURES SECTION

**MODE**

**WEB PROMPT**
- SOFT PROMPT IF MISSING: Did you mean to leave this question blank?
- <BUTTONS: Change Answer / Continue>

### NUMPORTDEHUM (New for 2020)

<table>
<thead>
<tr>
<th>ASK</th>
<th>If DEHUMTYPE=1</th>
</tr>
</thead>
</table>

How many portable dehumidifiers are used in your home?

____ portable dehumidifiers

{WEB: ALLOW RANGE 1 – 9; PAPER: ONE DIGIT}

**NEXT**
- USEDEHUM, USEDEHUM_other

**MODE**

**WEB PROMPT**
- SOFT PROMPT IF MISSING: Did you mean to leave this question blank?
- <BUTTONS: Change Answer / Continue>
- SOFT PROMPT IF OUT OF RANGE: Your response was outside the expected range of 1 to 9.
- <BUTTONS: Change Answer / Continue>
### USEDEHUM, USEDEHUM_other (New for 2020)

<table>
<thead>
<tr>
<th>ASK</th>
<th>If DEHUMTYPE&gt;0</th>
</tr>
</thead>
</table>

Which of the following best describes how your household uses the dehumidifier?

1. Use only occasionally, such as when someone in the household is suffering from allergies
2. Use only during summer months
3. Use about half of the year
4. Use all or almost all of the year
99. Other ([WEB: specify below / PAPER: please specify]) [USEDEHUM_other]

### NEXT

**THERMOSTATS AND TEMPERATURES SECTION**

### WEB PROMPT

- **SOFT PROMPT IF MISSING:** Did you mean to leave this question blank?
  <BUTTONS: Change Answer / Continue>
- **SOFT PROMPT IF USEDEHUM=99 AND USEDEHUM_other IS MISSING:** You selected Other (specify below) as your answer. Please provide additional details in the textbox.
  <BUTTONS: Change Answer / Continue>
# Thermostats and Temperatures

## TYPETHERM (New for 2020)

**ASK**  
If HEATHOME=1 or AIRCOND=1

- **Does your household use a thermostat to control the temperature inside your home?**
  - 1 Yes, a manual or non-programmable thermostat
  - 2 Yes, a programmable thermostat
  - 3 Yes, a "smart" or Internet-connected thermostat
  - 0 No
  - 4 Don't know

**NEXT**  
If HEATHOME=1: HEATCNTL, HEATCNTL_other  
If AIRCOND=1: COOLCNTL, COOLCNTL_other  
Else: WATER HEATING SECTION

**MODE**  
Paper: Ask of all respondents.

**WEB PROMPT**  
SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don’t know the answer you may select “Don’t know.”

**HEATCNTL, HEATCNTL_other (New for 2020)**

**ASK**  
If HEATHOME=1

- **Which of the following best describes how your household controls the indoor temperature during the winter?**
  - 1 Set one temperature and leave it there most of the time
  - 2 Manually adjust the temperature
  - 3 Programmable or smart thermostat automatically adjusts the temperature
  - 4 Turn equipment on or off as needed
  - 5 Our household does not have control over the temperature
  - 99 Other ([WEB: specify below / PAPER: please specify]) [HEATCNTL_other]

**NEXT**  
TEMPHOME, TEMPGONE, TEMPNITE

**MODE**  
Paper: Ask of all respondents. Include additional response option – “Do not heat my home”. Use response code of “-3” for this response option.

**WEB PROMPT**  
SOFT PROMPT IF MISSING: Did you mean to leave this question blank?  
<BUTTONS: Change Answer / Continue>

SOFT PROMPT IF HEATCNTL=99 AND HEATCNTL_other IS MISSING: You selected Other (specify below) as your answer. Please provide additional details in the textbox.  
<BUTTONS: Change Answer / Continue>
## TEMPHOME, TEMPGONE, TEMPNITE (Changed since 2015)

### ASK
If HEATHOME=1

The next questions are about the temperature inside your home during the winter. If you have a thermostat, think about where your household sets the temperature for your main heating equipment. If you do not have a thermostat, your best estimate about the temperature is fine.

During the winter, what is your home’s typical indoor temperature…

- When someone is home during the day? _____ degrees [TEMPHOME]
- When no one is inside your home during the day? _____ degrees [TEMPGONE]
- Inside your home at night? _____ degrees [TEMPNITE]

{FOR ALL: WEB: ALLOW RANGE 50 – 90; PAPER: TWO DIGITS}

### NEXT
If AIRCOND=1: COOLCNTL, COOLCNTL_other
Else: WATER HEATING SECTION

### MODE
Paper: Ask of all respondents.

### WEB PROMPT
SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank?
<BUTTONS: Change Answer / Continue>

SOFT PROMPT IF ANY OUT OF RANGE: Your response was outside the expected range of 50 to 90.
<BUTTONS: Change Answer / Continue>

## COOLCNTL, COOLCNTL_other (New for 2020)

### ASK
If AIRCOND=1

Which of the following best describes how your household controls the indoor temperature during the summer?

1. Set one temperature and leave it there most of the time
2. Manually adjust the temperature
3. Programmable or smart thermostat automatically adjusts the temperature
4. Turn equipment on or off as needed
5. Our household does not have control over the temperature
99. Other ([WEB: specify below / PAPER: please specify]) [COOLCNTL_other]

### NEXT
TEPHOMEAC, TEMPGONEAC, TEMPNITEAC

### MODE
Paper: Ask of all respondents. Include additional response option – “Do not air-condition my home”. Use response code of “-3” for this response option.

### WEB PROMPT
SOFT PROMPT IF MISSING: Did you mean to leave this question blank?
<BUTTONS: Change Answer / Continue>

SOFT PROMPT IF COOLCNTL=99 AND COOLCNTL_other IS MISSING: You selected Other (specify below) as your answer. Please provide additional details in the textbox.
<BUTTONS: Change Answer / Continue>
### TEMPHOMEAC, TEMPGONEAC, TEMPNITEAC (Changed since 2015)

<table>
<thead>
<tr>
<th>ASK</th>
<th>If AIRCOND=1</th>
</tr>
</thead>
</table>

The next questions are about the temperature inside your home during the summer. If you have a thermostat, think about where your household sets the temperature for your main air-conditioning equipment. If you do not have a thermostat, your best estimate about the temperature is fine.

During the summer, what is your home’s typical indoor temperature...

- When someone is home during the day? _____ degrees [TEMPHOMEAC]
- When no one is inside your home during the day? _____ degrees [TEMPGONEAC]
- Inside your home at night? _____ degrees [TEMPNITEAC]

{FOR ALL: WEB: ALLOW RANGE 50 – 90; PAPER: TWO DIGITS}

### NEXT

WATER HEATING SECTION

### MODE

Paper: Ask of all respondents.

### WEB PROMPT

- SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank?
  <BUTTONS: Change Answer / Continue>
- SOFT PROMPT IF ANY OUT OF RANGE: Your response was outside the expected range of 50 to 90.
  <BUTTONS: Change Answer / Continue>
## Water Heating

### H2OAPT (New for 2020)

**ASK**
If TYPEHUQ in(4,5)

Does your hot water come from a water heater that serves multiple units in your building?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>0</td>
<td>No</td>
</tr>
<tr>
<td>-4</td>
<td>Don’t know</td>
</tr>
</tbody>
</table>

**NEXT**
WHEATSIZ

**MODE**
Paper: Include checkpoint before the question: *If you live in a single-family house or a mobile home* → Go to #155. Include skip information before the question: *(If you live in an apartment)*

**WEB PROMPT**
SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don’t know the answer you may select “Don’t know.”

*<BUTTONS: Change Answer / Continue>*

### H2OMAIN, H2OMAIN_other (Changed since 2015)

**ASK**
If TYPEHUQ in(1,2,3)

Where is the main water heating equipment for your home located?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Main living space</td>
</tr>
<tr>
<td>2</td>
<td>Basement</td>
</tr>
<tr>
<td>3</td>
<td>Garage</td>
</tr>
<tr>
<td>4</td>
<td>Outside</td>
</tr>
<tr>
<td>99</td>
<td>Other ([WEB: specify below / PAPER: please specify]) [H2OMAIN_other]</td>
</tr>
</tbody>
</table>

**NEXT**
WHEATSIZ

**MODE**

**WEB PROMPT**
SOFT PROMPT IF MISSING: Did you mean to leave this question blank?

*<BUTTONS: Change Answer / Continue>*

SOFT PROMPT IF H2OMAIN=99 AND H2OMAIN_other IS MISSING: You selected Other (specify below) as your answer. Please provide additional details in the textbox.

*<BUTTONS: Change Answer / Continue>*
### WHEATSIZ

**ASK**
All respondents

What is the approximate size of your main water heater?

- 1 Small (30 gallons or less)
- 2 Medium (31 to 49 gallons)
- 3 Large (50 gallons or more)
- 4 Tankless or on-demand
- -4 Don’t know

**NEXT**
If WHEATSIZ in(1,2,3): WHEATBKT
Else: WHEATAGE

**MODE**

**WEB PROMPT**
SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don’t know the answer you may select “Don’t know.”

<BUTTONS: Change Answer / Continue>

### WHEATBKT (New for web/mail; used to be on CAPI)

**ASK**
If WHEATSIZ in(1,2,3)

Is your main water heater insulated using a water heater blanket?

- 1 Yes
- 0 No

**NEXT**
WHEATAGE

**MODE**

**WEB PROMPT**
SOFT PROMPT IF MISSING: Did you mean to leave this question blank?

<BUTTONS: Change Answer / Continue>
### WHEATAGE

**ASK**

All respondents

About how old is your main water heater? Your best estimate is fine.

1. Less than 2 years old
2. 2 to 4 years old
3. 5 to 9 years old
4. 10 to 14 years old
5. 15 to 19 years old
6. 20 or more years old

-4 Don’t know

**NEXT**

FUELH2O, FUELH2O_other

**MODE**

**WEB PROMPT**

SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don’t know the answer you may select “Don’t know.”

<BUTTONS: Change Answer / Continue>

### FUELH2O, FUELH2O_other (Changed since 2015)

**ASK**

All respondents

What fuel does your main water heater use?

5. Electricity
1. Natural gas from underground pipes
2. Propane (bottled gas)
3. Fuel oil
7. Wood
8. Solar thermal
99. Other ([WEB: specify below / PAPER: please specify]) [FUELH2O_other]

-4 Don’t know

**NEXT**

MORETHAN1H2O

**MODE**

**WEB PROMPT**

SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don’t know the answer you may select “Don’t know.”

<BUTTONS: Change Answer / Continue>

SOFT PROMPT IF FUELH2O=99 AND FUELH2O_other IS MISSING: You selected Other (specify below) as your answer. Please provide additional details in the textbox.

<BUTTONS: Change Answer / Continue>
| MORETHAN1H2O |  
|---|---|
| **ASK** | All respondents  

Do you have more than one water heater?  

1. Yes  
0. No  

-4. Don't know  

| NEXT | If MORETHAN1H2O=1: FUELH2O2, FUELH2O2_other  
Else: LIGHTING SECTION  

| MODE | WEB PROMPT  

| SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don’t know the answer you may select “Don’t know.”  

<BUTTONS: Change Answer / Continue>  

---

| FUELH2O2, FUELH2O2_other (Changed since 2015) |  
|---|---|
| **ASK** | If MORETHAN1H2O=1  

What fuel does your second water heater use?  

5. Electricity  
1. Natural gas from underground pipes  
2. Propane (bottled gas)  
3. Fuel oil  
7. Wood  
8. Solar thermal  
99. Other ([WEB: specify below / PAPER: please specify]) [FUELH2O2_other]  

-4. Don’t know  

| NEXT | LIGHTING SECTION  

| MODE | WEB PROMPT  

| SOFT PROMPT IF MISSIING: Did you mean to leave this question blank? If you don’t know the answer you may select “Don’t know.”  

<BUTTONS: Change Answer / Continue>  

SOFT PROMPT IF FUELH2O2=99 AND FUELH2O2_other IS MISSING: You selected Other (specify below) as your answer. Please provide additional details in the textbox.  

<BUTTONS: Change Answer / Continue>
Lighting

**LGTIN1TO4, LGTIN4TO8, LGTINMORE8 (New for 2020)**

**ASK** All respondents

The next questions are about light bulbs inside your home. For fixtures with multiple bulbs, count each bulb separately.

Thinking about the light bulbs inside your home, how many are turned on...

- Between 1 and 4 hours per day? _____ light bulbs [LGTIN1TO4]
- Between 4 and 8 hours per day? _____ light bulbs [LGTIN4TO8]
- More than 8 hours per day? _____ light bulbs [LGTINMORE8]

{FOR ALL: WEB: ALLOW RANGE 0 – 99; PAPER: TWO DIGITS}

**NEXT** LGTINLED

**MODE**

**WEB PROMPT** SOFT PROMPT IF MISSING: Did you mean to leave this question blank?

<BUTTONS: Change Answer / Continue>

**LGTINLED (Changed since 2015)**

**ASK** All respondents

What portion of the light bulbs used inside your home are LED bulbs?

1. All
2. Most
3. About half
4. Some
5. None

**NEXT** LGTINCFL

**MODE**

**WEB PROMPT** SOFT PROMPT IF MISSING: Did you mean to leave this question blank?

<BUTTONS: Change Answer / Continue>
**LGTINCFL (Changed since 2015)**

<table>
<thead>
<tr>
<th>ASK</th>
<th>All respondents</th>
</tr>
</thead>
</table>

What portion of the light bulbs used inside your home are CFL bulbs?

1. All
2. Most
3. About half
4. Some
5. None

**NEXT** | LGTINCAN
**MODE** | 
**WEB PROMPT** | SOFT PROMPT IF MISSING: Did you mean to leave this question blank?<br><BUTTONS: Change Answer / Continue>
**LGTINCAN (Changed since 2015)**

<table>
<thead>
<tr>
<th>ASK</th>
<th>All respondents</th>
</tr>
</thead>
</table>

What portion of the light bulbs used inside your home are incandescent or halogen bulbs?

1. All
2. Most
3. About half
4. Some
0. None

**NEXT** LGTOUTANY

**MODE**

**WEB**

PROMPT

SOFT PROMPT IF MISSING: Did you mean to leave this question blank?

<BUTTONS: Change Answer / Continue>

**LGTOUTANY (New for 2020)**

<table>
<thead>
<tr>
<th>ASK</th>
<th>All respondents</th>
</tr>
</thead>
</table>

The next questions are about outside light bulbs. [If TYPEHUQ in (4,5): For apartments, only include light bulbs connected to your unit.]

Does your home have any outside light bulbs that are typically left on all night? Do not include light bulbs controlled by motion detectors or solar lights that do not use electricity.

1. Yes
0. No

**NEXT** If LGTOUTANY=1: LGTOUTNITE
Else: ENERGY BILLS SECTION

**MODE**

Paper: Display second sentence for all respondents.

**WEB**

PROMPT

SOFT PROMPT IF MISSING: Did you mean to leave this question blank?

<BUTTONS: Change Answer / Continue>
**LGTOUTNITE (New for web/mail; used to be on CAPI)**

<table>
<thead>
<tr>
<th>ASK</th>
<th>If LGTOUTANY=1</th>
</tr>
</thead>
</table>

How many outside light bulbs are typically left on all night?

_____ light bulbs

{WEB: ALLOW RANGE 1 – 99; PAPER: TWO DIGITS}

**NEXT**  LGTOUTLED, LGTOUTCFL, LGTOUTCAN

**MODE**  

**WEB**  

**PROMPT**  

**SOFT PROMPT IF MISSING:** Did you mean to leave this question blank?  
<BUTTONS: Change Answer / Continue>

**SOFT PROMPT IF OUT OF RANGE:** Your response was outside the expected range of 1 to 99.  
<BUTTONS: Change Answer / Continue>

**LGTOUTLED, LGTOUTCFL, LGTOUTCAN (Changed since 2015)**

<table>
<thead>
<tr>
<th>ASK</th>
<th>If LGTOUTANY=1</th>
</tr>
</thead>
</table>

Which of the following types of light bulbs are typically left on all night outside your home?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>LED bulbs [LGTOUTLED]</td>
<td>1</td>
</tr>
<tr>
<td>CFL bulbs [LGTOUTCFL]</td>
<td>1</td>
</tr>
<tr>
<td>Incandescent or halogen bulbs [LGTOUTCAN]</td>
<td>1</td>
</tr>
</tbody>
</table>

**NEXT**  ENERGY BILLS SECTION

**MODE**  

**WEB**  

**PROMPT**  

**SOFT PROMPT IF ALL MISSING:** Did you mean to leave this question blank?  
<BUTTONS: Change Answer / Continue>
### Energy Bills

<table>
<thead>
<tr>
<th>ELPAY, ELPAY_other</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ASK</strong></td>
<td>All respondents</td>
</tr>
<tr>
<td><strong>Who is responsible for paying for the electricity used in this home?</strong></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Household is responsible for paying for all electricity used in this home</td>
</tr>
<tr>
<td>2</td>
<td>All electricity used in this home is included in the rent or condo fee</td>
</tr>
<tr>
<td>3</td>
<td>Some is paid by the household, some is included in the rent or condo fee</td>
</tr>
<tr>
<td>99</td>
<td>Other ([WEB: specify below / PAPER: please specify]) [ELPAY_other]</td>
</tr>
<tr>
<td>-4</td>
<td>Don’t know</td>
</tr>
<tr>
<td><strong>NEXT</strong></td>
<td>NGPAY, NGPAY_other</td>
</tr>
<tr>
<td><strong>MODE</strong></td>
<td></td>
</tr>
<tr>
<td><strong>WEB PROMPT</strong></td>
<td>SOFT PROMPT IF MISSNG: Did you mean to leave this question blank? If you don’t know the answer you may select “Don’t know.”&lt;BR&gt;&lt;BUTTONS: Change Answer / Continue&gt;</td>
</tr>
<tr>
<td></td>
<td>SOFT PROMPT IF ELPAY=99 AND ELPAY_other IS MISSING: You selected Other (specify below) as your answer. Please provide additional details in the textbox.&lt;BR&gt;&lt;BUTTONS: Change Answer / Continue&gt;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NGPAY, NGPAY_other (Changed since 2015)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ASK</strong></td>
<td>All respondents</td>
</tr>
<tr>
<td><strong>Who is responsible for paying for the natural gas used in this home?</strong></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Household is responsible for paying for all natural gas used in this home</td>
</tr>
<tr>
<td>2</td>
<td>All natural gas used in this home is included in the rent or condo fee</td>
</tr>
<tr>
<td>3</td>
<td>Some is paid by the household, some is included in the rent or condo fee</td>
</tr>
<tr>
<td>99</td>
<td>Other ([WEB: specify below / PAPER: please specify]) [NGPAY_other]</td>
</tr>
<tr>
<td>-4</td>
<td>Don’t know</td>
</tr>
<tr>
<td>-3</td>
<td>Do not use natural gas</td>
</tr>
<tr>
<td><strong>NEXT</strong></td>
<td>LPGPAY, LPGPAY_other</td>
</tr>
<tr>
<td><strong>MODE</strong></td>
<td></td>
</tr>
<tr>
<td><strong>WEB PROMPT</strong></td>
<td>SOFT PROMPT IF MISSNG: Did you mean to leave this question blank? If you don’t know the answer you may select “Don’t know.”&lt;BR&gt;&lt;BUTTONS: Change Answer / Continue&gt;</td>
</tr>
<tr>
<td></td>
<td>SOFT PROMPT IF NGPAY=99 AND NGPAY_other IS MISSING: You selected Other (specify below) as your answer. Please provide additional details in the textbox.&lt;BR&gt;&lt;BUTTONS: Change Answer / Continue&gt;</td>
</tr>
</tbody>
</table>
### LPGPAY, LPGPAY_other (Changed since 2015)

**ASK**

All respondents

Who is responsible for paying for the *propane* used in this home?

1. Household is responsible for paying for all propane used in this home
2. All propane used in this home is included in the rent or condo fee
3. Some is paid by the household, some is included in the rent or condo fee
99. Other ([WEB: specify below / PAPER: please specify]) [LPGPAY_other]

-4. Don’t know

-3. Do not use propane

**NEXT** FOPAY, FOPAY_other

**MODE**

**WEB PROMPT**

SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don’t know the answer you may select “Don’t know.”

<BUTTONS: Change Answer / Continue>

SOFT PROMPT IF LPGPAY=99 AND LPGPAY_other IS MISSING: You selected Other (specify below) as your answer. Please provide additional details in the textbox.

<BUTTONS: Change Answer / Continue>

### FOPAY, FOPAY_other (Changed since 2015)

**ASK**

All respondents

Who is responsible for paying for the *fuel oil* used in this home?

1. Household is responsible for paying for all fuel oil used in this home
2. All fuel oil used in this home is included in the rent or condo fee
3. Some is paid by the household, some is included in the rent or condo fee
99. Other ([WEB: specify below / PAPER: please specify]) [FOPAY_other]

-4. Don’t know

-3. Do not use fuel oil

**NEXT** KFUELOT

**MODE**

**WEB PROMPT**

SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don’t know the answer you may select “Don’t know.”

<BUTTONS: Change Answer / Continue>

SOFT PROMPT IF FOPAY=99 AND FOPAY_other IS MISSING: You selected Other (specify below) as your answer. Please provide additional details in the textbox.

<BUTTONS: Change Answer / Continue>
**KFUELLOT (Changed since 2015)**

ASK | All respondents

Do any of your household energy bills include costs for energy used for non-household purposes, such as farm buildings or machinery, a small business, or another house or apartment?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>0</td>
<td>No</td>
</tr>
</tbody>
</table>

NEXT | If KFUELLOT=1: BILLEL, BILLUG, BILLLPG, BILLFK
Else: SMARTMETER

MODE

WEB PROMPT | SOFT PROMPT IF MISSING: Did you mean to leave this question blank?
<BUTTONS: Change Answer / Continue>

**BILLEL, BILLUG, BILLLPG, BILLFK**

ASK | If KFUELLOT=1

Which of your household’s energy bills include costs for energy used for non-household purposes? Please select all that apply.

- Electricity [BILLEL: 1 if selected, 0 if not]
- Natural gas from underground pipes [BILLUG: 1 if selected, 0 if not]
- Propane (bottled gas) [BILLLPG: 1 if selected, 0 if not]
- Fuel oil [BILLFK: 1 if selected, 0 if not]

NEXT | SMARTMETER

MODE

WEB PROMPT | SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank?
<BUTTONS: Change Answer / Continue>

**SMARTMETER**

ASK | All respondents

Does your home have a “smart meter,” which records electricity usage in short time intervals and automatically transmits it to your utility company?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>0</td>
<td>No</td>
</tr>
<tr>
<td>-4</td>
<td>Don’t know</td>
</tr>
</tbody>
</table>

NEXT | If SMARTMETER=1: INTDATAACC
Else: MEDICALDEV

MODE

WEB PROMPT | SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don’t know the answer you may select “Don’t know.”
<BUTTONS: Change Answer / Continue>
### INTDATAACC (Changed since 2015)

**ASK**  
If SMARTMETER=1

Have you or any member of your household ever accessed or viewed electricity usage data from your home’s smart meter?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>0</td>
<td>No</td>
</tr>
</tbody>
</table>

**NEXT**  
MEDICALDEV

**WEB PROMPT**  
SOFT PROMPT IF MISSING: Did you mean to leave this question blank?  
<BUTTONS: Change Answer / Continue>

### MEDICALDEV (New for web/mail; used to be on CAPI)

**ASK**  
All respondents

Are any medical devices used in your home, such as ventilators, nebulizers, or CPAP machines?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>0</td>
<td>No</td>
</tr>
</tbody>
</table>

**NEXT**  
POWEROUT

**WEB PROMPT**  
SOFT PROMPT IF MISSING: Did you mean to leave this question blank?  
<BUTTONS: Change Answer / Continue>

### POWEROUT (New for 2020)

**ASK**  
All respondents

During the past year, has your entire home had a power outage lasting at least 24 hours?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>0</td>
<td>No</td>
</tr>
<tr>
<td>-4</td>
<td>Don’t know</td>
</tr>
</tbody>
</table>

**NEXT**  
If POWEROUT=1: WHYPOWEROUT, WHYPOWEROUT_other  
Else: BACKUP

**WEB PROMPT**  
SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don’t know the answer you may select “Don’t know.”  
<BUTTONS: Change Answer / Continue>
## WHYPOWEROUT, WHYPOWEROUT_other (New for 2020)

<table>
<thead>
<tr>
<th>ASK</th>
<th>If POWEROUT=1</th>
</tr>
</thead>
</table>

Which of the following best describes why this power outage occurred? If you experienced multiple power outages during the past year, please select the reason for the longest outage.

1. Natural disaster or weather event
2. Unable to pay electric bills
3. Electric utility had a planned or unplanned blackout
99. Other ([WEB: specify below / PAPER: please specify]) [WHYPOWEROUT_other]

**MODE**

**WEB PROMPT**
SOFT PROMPT IF MISSING: Did you mean to leave this question blank?
<BUTTONS: Change Answer / Continue>

SOFT PROMPT IF WHYPOWEROUT=99 AND WHYPOWEROUT_other IS MISSING:
You selected Other (specify below) as your answer. Please provide additional details in the textbox.
<BUTTONS: Change Answer / Continue>

## BACKUP

<table>
<thead>
<tr>
<th>ASK</th>
<th>All respondents</th>
</tr>
</thead>
</table>

Does your household have a back-up generator that can be used for generating electricity in case of a power outage or emergency?

1. Yes
0. No

**MODE**

**WEB PROMPT**
SOFT PROMPT IF MISSING: Did you mean to leave this question blank?
<BUTTONS: Change Answer / Continue>
**NOGEN, SOLAR, WIND, COMBINED (Changed since 2015)**

**ASK**
All respondents

Not including back-up generators, does your home have any of these on-site systems that generate electricity? *Please select all that apply.*

- No on-site generation system [NOGEN: 1 if selected, 0 if not]
- Solar or photovoltaic system [SOLAR: 1 if selected, 0 if not]
- Small wind turbine [WIND: 1 if selected, 0 if not]
- Combined heat and power system [COMBINED: 1 if selected, 0 if not]

**NEXT**
If SOLAR=1: PVINSTALL, PVINSTALL_DK
Else if TYPEHUQ in(1,2,3,4): OUTLET
Else if TYPEHUQ=5: APTEVCHG

**MODE**

**WEB PROMPT**
SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank? <BUTTONS: Change Answer / Continue>

---

**PVINSTALL, PVINSTALL_DK (New for 2020)**

**ASK**
If SOLAR=1

In what year was your solar or photovoltaic system installed?

_____

{WEB: ALLOW RANGE 1950 – 2021, PAPER: FOUR DIGITS}

Don’t know [PVINSTALL_DK: 1 if selected, 0 if not]

**NEXT**
PVCAPACITY, PVCAPACITY_DK

**MODE**
Paper: Include checkpoint before the question: If your home does not have a solar or photovoltaic system → Go to #184. Include skip information before the question: (If your home has a solar or photovoltaic system)

**WEB PROMPT**
SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank? If you don’t know the answer you may select "Don’t Know."

<BUTTONS: Change Answer / Continue>

SOFT PROMPT IF OUT OF RANGE: Your response was outside the expected range of 1950 to 2021.

<BUTTONS: Change Answer / Continue>
### PVCAPACITY, PVCAPACITY_DK (New for 2020)

**ASK**

If SOLAR=1

What is the capacity of your solar or photovoltaic system in kW (kilowatts)?

_____ kW

{WEB: ALLOW RANGE 0 – 99; PAPER: TWO DIGITS}

Don’t know [PVCAPACITY_DK: 1 if selected, 0 if not]

**NEXT**

If TYPEHUQ in(1,2,3,4): OUTLET
If TYPEHUQ=5: APTEVCHG

**MODE**

Paper: Include skip information before the question: *(If your home has a solar or photovoltaic system)*

**WEB PROMPT**

SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank? If you don't know the answer you may select "Don't Know."  
<BUTTONS: Change Answer / Continue>
<table>
<thead>
<tr>
<th>ELECVEH (Changed since 2015)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ASK</strong></td>
</tr>
</tbody>
</table>

Do you or any member of your household own or lease an electric vehicle? Please include both all-electric and plug-in hybrid electric vehicles.

1 Yes
0 No

| NEXT | If ELECVEH=1: EVMAKE, EVMODEL, EVYEAR  
Else: OTHFUELUSE, OTHFUELUSE_NA |

| MODE |
| Web Prompt | SOFT PROMPT IF MISSING: Did you mean to leave this question blank?  
<BUTTONS: Change Answer / Continue> |

<table>
<thead>
<tr>
<th>EVMAKE, EVMODEL, EVYEAR (New for 2020)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ASK</strong> If ELECVEH=1</td>
</tr>
</tbody>
</table>

What is the make, model, and year of your electric vehicle?

Make: [EVMAKE: Open-ended response]  
Model: [EVMODEL: Open-ended response]  
Year: [EVYEAR] {WEB: ALLOW RANGE 1950 – 2021; PAPER: FOUR DIGITS}

| NEXT | EVCHRGHOME, EVCHRGAPT, EVCHRGWKS, EVCHRGBUS, EVCHRGMUNI,  
EVCHRGDLR, EVCHRGHWY, EVCHRGOTH |

| MODE |
| Web Prompt | SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank?  
<BUTTONS: Change Answer / Continue>  
SOFT PROMPT IF OUT OF RANGE: Your response was outside the expected range of 1950 to 2021.  
<BUTTONS: Change Answer / Continue> |
### EVCHRGHOME, EVCHRGAPT, EVCHRGWKS, EVCHRGBUS, EVCHRGMUNI, EVCHRGDLR, EVCHRGHWY, EVCHRGOTH (New for 2020)

<table>
<thead>
<tr>
<th>ASK</th>
<th>If ELECVEH=1</th>
</tr>
</thead>
</table>

At which of the following places do you typically charge your electric vehicle?

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your home [EVCHRGHOME]</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Your apartment building or complex [EVCHRGAPT]</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Your workplace or school [EVCHRGWKS]</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Shopping center or business you frequent [EVCHRGBUS]</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Municipal parking lot or building, including libraries and post offices [EVCHRGMUNI]</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Car dealership [EVCHRGDLR]</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Highway rest stop [EVCHRGHWY]</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Some other type of public charging station [EVCHRGOTH]</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

### NEXT
- If EVCHRGHOME=1: EVHOMEAMT
- Else: EVWKMILES

### MODE

### WEB PROMPT
SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank?

### EVHOMEAMT (New for 2020)

<table>
<thead>
<tr>
<th>ASK</th>
<th>If EVCHRGHOME=1</th>
</tr>
</thead>
</table>

About how much of the charging for your electric vehicle is typically done at your home?

1. All at home (100%)
2. Almost all at home (80% - 99%)
3. Most at home (60% - 79%)
4. About half at home (40% - 59%)
5. Some at home (20% - 39%)
6. Very little or none at home (0% - 19%)

### NEXT
- EVCHRGTYPE

### MODE
Paper: Ask if ELECVEH=1

### WEB PROMPT
SOFT PROMPT IF MISSING: Did you mean to leave this question blank?

<BUTTONS: Change Answer / Continue>
### EVCHRGTYPE (New for 2020)

**ASK**
If EVCHRGHOME=1

Which best describes the electric vehicle charger used at your home?

1. Level 1 charger (typical household 120 volt outlet)
2. Level 2 charger (higher-powered 240 volt outlet)

**NEXT**
EVWKMILES

**MODE**
Paper: Ask if ELECVEH = 1. Include additional response option – “Do not have or use charger at home”. Use response code of “-3” for this response option.

**WEB PROMPT**
SOFT PROMPT IF MISSING: Did you mean to leave this question blank?

<BUTTONS: Change Answer / Continue>

### EVWKMILES (New for 2020)

**ASK**
If ELECVEH=1

About how many total miles are driven in your electric vehicle **per week**?

Open-ended response

_____ miles per week

**NEXT**
OTHFUELUSE, OTHFUELUSE_NA

**MODE**

**WEB PROMPT**
SOFT PROMPT IF MISSING: Did you mean to leave this question blank?

<BUTTONS: Change Answer / Continue>

### OTHFUELUSE, OTHFUELUSE_NA

**ASK**
All respondents

Are there any other fuels used in your home that you have not already answered about? If so, please list the fuel(s) and how they are used.

Open-ended response

Do not use any other fuel [OTHFUELUSE_NA:1 if selected, 0 if not]

**NEXT**
OTHACT, OTHACT_NA

**MODE**
<table>
<thead>
<tr>
<th>OTHACT, OTHACT_NA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ASK</strong></td>
</tr>
<tr>
<td><strong>NEXT</strong></td>
</tr>
<tr>
<td><strong>MODE</strong></td>
</tr>
</tbody>
</table>

Are there any other devices used in your home that use a lot of energy that you have not already answered about? Examples include air purifiers, water softeners, sump pumps, well pumps, engine block heaters, power tools, woodworking or hobby equipment, aquariums, etc.

   Open-ended response

   No other high energy use devices [OTHACT_NA:1 if selected, 0 if not]
# Household Characteristics

**WEB MOTIVATIONAL PROMPT #3:** You're almost there! Next, we have a few questions about you and your household.

## HHSEX

**ASK**

All respondents

What is your sex?

1. Female
2. Male

**NEXT**

HHAGE

## HHAGE

**ASK**

All respondents

What is your age?

____ years old

{WEB: ALLOW RANGE 18 – 110; PAPER: THREE DIGITS}

**NEXT**

EMPLOYHH

## EMPLOYHH

**ASK**

All respondents

Which best describes your current employment status?

1. Employed full-time
2. Employed part-time
3. Retired
4. Not employed

**NEXT**

EDUCATION

## EDUCATION
## EDUCATION

**ASK**
All respondents

What is the highest degree or level of school you have completed?

1. Less than high school diploma or GED
2. High school diploma or GED
3. Some college or Associate’s degree
4. Bachelor’s degree (for example: BA, BS)
5. Master’s, Professional, or Doctoral degree (for example: MA, MS, MBA, MD, JD, PhD)

**NEXT**
SDESCENT

**MODE**

## SDESCENT

**ASK**
All respondents

Are you Hispanic or Latino?

1. Yes
2. No

**NEXT**
RACE_WHITE, RACE_BLACK, RACE_AIAN, RACE_ASIAN, RACE_NHPI, RACE_OTH, RACE_OTH_other

**MODE**

## RACE_WHITE, RACE_BLACK, RACE_AIAN, RACE_ASIAN, RACE_NHPI, RACE_OTH, RACE_OTH_other

**ASK**
All respondents

What is your race? Please select all that apply.

- White [RACE_WHITE: 1 if selected, 0 if not]
- Black or African-American [RACE_BLACK: 1 if selected, 0 if not]
- American Indian or Alaska Native [RACE_AIAN: 1 if selected, 0 if not]
- Asian [RACE_ASIAN: 1 if selected, 0 if not]
- Native Hawaiian or Other Pacific Islander [RACE_NHPI: 1 if selected, 0 if not]
- Other ([WEB: specify below / PAPER: please specify]) [RACE_OTH: 1 if selected, 0 if not; RACE_OTH_other]

**NEXT**
NHSLDMEM

**MODE**
**NHSLDMEM**

**ASK**  
All respondents

Including yourself, how many people live in this home? Do not include anyone who is just visiting, those away in the military, or children who are away at college.

_____ household members

{WEB: ALLOW RANGE 1 – 20; PAPER: TWO DIGITS}

**NEXT** NUMCHILD, NUMADULT1, NUMADULT2

**MODE**

**WEB PROMPT**

SOFT PROMPT IF MISSING: Did you mean to leave this question blank?

<BUTTONS: Change Answer / Continue>

SOFT PROMPT IF OUT OF RANGE: Your response was outside the expected range of 1 to 20.

<BUTTONS: Change Answer / Continue>

---

**NUMCHILD, NUMADULT1, NUMADULT2 (Changed since 2015)**

**ASK**  
All respondents

How many members of your household are in the following age categories?

- 0 to 17 years old [NUMCHILD] _____ household members
- 18 to 64 years old [NUMADULT1] _____ household members
- 65 years or older [NUMADULT2] _____ household members

{FOR ALL: WEB: ALLOW RANGE 0 – 20; PAPER: TWO DIGITS}

**NEXT** ATHOME

**MODE**

**WEB PROMPT**

SOFT PROMPT IF ANY OUT OF RANGE: Your response was outside the expected range of 0 to 20.

<BUTTONS: Change Answer / Continue>
### ATHOME

**ASK** All respondents

How many *weekdays* is someone at home most or all of the day?

<p>| | |</p>
<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>None</td>
</tr>
<tr>
<td>1</td>
<td>1 day</td>
</tr>
<tr>
<td>2</td>
<td>2 days</td>
</tr>
<tr>
<td>3</td>
<td>3 days</td>
</tr>
<tr>
<td>4</td>
<td>4 days</td>
</tr>
<tr>
<td>5</td>
<td>5 days</td>
</tr>
</tbody>
</table>

### NEXT

**MONEYPY**

**MODE**

**WEB PROMPT** SOFT PROMPT IF MISSING: Did you mean to leave this question blank? <BUTTONS: Change Answer / Continue>

### MONEYPY (Changed since 2015)

**ASK** All respondents

Including all income sources, which category best describes the total combined income of all household members for the past year, before taxes and deductions?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Less than $5,000</td>
</tr>
<tr>
<td>2</td>
<td>$5,000 - $7,499</td>
</tr>
<tr>
<td>3</td>
<td>$7,500 - $9,999</td>
</tr>
<tr>
<td>4</td>
<td>$10,000 - $12,499</td>
</tr>
<tr>
<td>5</td>
<td>$12,500 - $14,999</td>
</tr>
<tr>
<td>6</td>
<td>$15,000 - $19,999</td>
</tr>
<tr>
<td>7</td>
<td>$20,000 - $24,999</td>
</tr>
<tr>
<td>8</td>
<td>$25,000 - $29,999</td>
</tr>
<tr>
<td>9</td>
<td>$30,000 - $34,999</td>
</tr>
<tr>
<td>10</td>
<td>$35,000 - $39,999</td>
</tr>
<tr>
<td>11</td>
<td>$40,000 - $49,999</td>
</tr>
<tr>
<td>12</td>
<td>$50,000 - $59,999</td>
</tr>
<tr>
<td>13</td>
<td>$60,000 - $74,999</td>
</tr>
<tr>
<td>14</td>
<td>$75,000 - $99,999</td>
</tr>
<tr>
<td>15</td>
<td>$100,000 - $149,999</td>
</tr>
<tr>
<td>16</td>
<td>$150,000 or more</td>
</tr>
</tbody>
</table>

### NEXT

**ENERGY ASSISTANCE SECTION**

**MODE**
Energy Assistance

<table>
<thead>
<tr>
<th>SCALEB</th>
<th>ASK</th>
<th>All respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>The following questions are about challenges your household may have had paying energy bills or maintaining heating and cooling in your home.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>In the past year, how many months did your household reduce or forego expenses for basic household necessities, such as medicine or food, in order to pay an energy bill?</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>Almost every month</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Some months</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>1 or 2 months</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>Never</td>
</tr>
<tr>
<td>NEXT</td>
<td>SCALEG</td>
<td></td>
</tr>
<tr>
<td>MODE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WEB</td>
<td>PROMPT</td>
<td>SOFT PROMPT IF MISSING: Did you mean to leave this question blank?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&lt;BUTTONS: Change Answer / Continue&gt;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SCALEG</th>
<th>ASK</th>
<th>All respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>In the past year, how many months did your household keep your home at a temperature that you felt was unsafe or unhealthy?</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>Almost every month</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Some months</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>1 or 2 months</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>Never</td>
</tr>
<tr>
<td>NEXT</td>
<td>SCALEE</td>
<td></td>
</tr>
<tr>
<td>MODE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WEB</td>
<td>PROMPT</td>
<td>SOFT PROMPT IF MISSING: Did you mean to leave this question blank?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&lt;BUTTONS: Change Answer / Continue&gt;</td>
</tr>
<tr>
<td>SCALEE</td>
<td>ASK</td>
<td>All respondents</td>
</tr>
<tr>
<td>-------------</td>
<td>-----------------</td>
<td>-----------------</td>
</tr>
<tr>
<td><strong>ASK</strong></td>
<td>In the past year, how many months did your household receive a disconnection notice, shut off notice, or nondelivery notice for an energy bill?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 Almost every month</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 Some months</td>
<td>3 1 or 2 months</td>
</tr>
<tr>
<td><strong>NEXT</strong></td>
<td>If SCALEE in(1,2,3): PAYHELP Else: NOHEATBROKE, NOHEATEL, NOHEATNG, NOHEATBULK, NOHEATNONE</td>
<td></td>
</tr>
<tr>
<td><strong>MODE</strong></td>
<td>WEB PROMPT IF MISSING: Did you mean to leave this question blank?</td>
<td></td>
</tr>
<tr>
<td><strong>WEB</strong></td>
<td>&lt;BUTTONS: Change Answer / Continue&gt;</td>
<td></td>
</tr>
<tr>
<td><strong>PROMPT</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PAYHELP</th>
<th>ASK</th>
<th>If SCALEE in(1,2,3)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ASK</strong></td>
<td>When you received that notice, did your household apply for and receive home energy assistance to help pay your energy bill?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 Yes</td>
<td>0 No</td>
</tr>
<tr>
<td><strong>NEXT</strong></td>
<td>NOHEATBROKE, NOHEATEL, NOHEATNG, NOHEATBULK, NOHEATNONE</td>
<td></td>
</tr>
<tr>
<td><strong>MODE</strong></td>
<td>WEB PROMPT IF MISSING: Did you mean to leave this question blank?</td>
<td></td>
</tr>
<tr>
<td><strong>WEB</strong></td>
<td>&lt;BUTTONS: Change Answer / Continue&gt;</td>
<td></td>
</tr>
<tr>
<td><strong>PROMPT</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**NOHEATBROKE, NOHEATEL, NOHEATNG, NOHEATBULK, NOHEATNONE**

<table>
<thead>
<tr>
<th>ASK</th>
<th>All respondents</th>
</tr>
</thead>
</table>

In the past year, was there ever a time your household was unable to use your main source of heat because any of the following events happened? Please select all that apply.

- Your heating equipment was broken and you couldn’t afford to pay for the repair or replacement [NOHEATBROKE: 1 if selected, 0 if not]
- You couldn’t pay for electricity and it was disconnected [NOHEATEL: 1 if selected, 0 if not]
- You couldn’t pay for natural gas and it was disconnected [NOHEATNG: 1 if selected, 0 if not]
- You ran out of fuel oil, propane, wood, or pellets because you couldn’t afford a delivery [NOHEATBULK: 1 if selected, 0 if not]

None of these happened [NOHEATNONE: 1 if selected, 0 if not]

<table>
<thead>
<tr>
<th>NEXT</th>
<th>If NOHEATBROKE=1 or NOHEATEL=1 or NOHEATNG=1 or NOHEATBULK=1: NOHEATDAYS Else: COLDMA</th>
</tr>
</thead>
</table>

| MODE | |

| WEB PROMPT | SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank? <BUTTONS: Change Answer / Continue> |

**NOHEATDAYS**

<table>
<thead>
<tr>
<th>ASK</th>
<th>If NOHEATBROKE=1 or NOHEATEL=1 or NOHEATNG=1 or NOHEATBULK=1</th>
</tr>
</thead>
</table>

About how many days was your household without heat?

_____ days

{WEB: ALLOW RANGE 1 – 366, PAPER: THREE DIGITS}

<table>
<thead>
<tr>
<th>NEXT</th>
<th>NOHEATHELP</th>
</tr>
</thead>
</table>

| MODE | |

| WEB PROMPT | SOFT PROMPT IF MISSING: Did you mean to leave this question blank? <BUTTONS: Change Answer / Continue> |

SOFT PROMPT IF OUT OF RANGE: Your response was outside the expected range of 1 to 366. <BUTTONS: Change Answer / Continue>
### NOHEATHELP

**ASK**

If NOHEATBROKE=1 or NOHEATEL=1 or NOHEATNG=1 or NOHEATBULK=1

When that happened, did your household apply for and receive home energy assistance to help restore your heating?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>0</td>
<td>No</td>
</tr>
</tbody>
</table>

**NEXT**

COLDMA

**MODE**

WEB PROMPT

SOFT PROMPT IF MISSING: Did you mean to leave this question blank?

<BUTTONS: Change Answer / Continue>

---

### COLDMA

**ASK**

All respondents

In the past year, did anyone in your household need medical attention because your home was too cold?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>0</td>
<td>No</td>
</tr>
</tbody>
</table>

**NEXT**

NOACBROKE, NOACEL, NOACNONE

**MODE**

WEB PROMPT

SOFT PROMPT IF MISSING: Did you mean to leave this question blank?

<BUTTONS: Change Answer / Continue>

---

### NOACBROKE, NOACEL, NOACNONE

**ASK**

All respondents

In the past year, was there ever a time your household was unable to use your air conditioner or other cooling equipment because any of the following events happened? Please select all that apply.

- Your air conditioning equipment or other cooling equipment was broken and you couldn’t afford to pay for the repair or replacement [NOACBROKE: 1 if selected, 0 if not]
- You couldn’t pay for electricity and it was disconnected [NOACEL: 1 if selected, 0 if not]

None of these happened [NOACNONE: 1 if selected, 0 if not]

**NEXT**

If NOACBROKE=1 or NOACEL=1: NOACDAYS

Else: HOTMA

**MODE**

WEB PROMPT

SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank?

<BUTTONS: Change Answer / Continue>
### NOACDAYS

**ASK**

If NOACBROKE=1 or NOACEL=1

**WEB PROMPT**

About how many days was your household without air conditioning?

_____ days

{WEB: ALLOW RANGE 1 – 366, PAPER: THREE DIGITS}

**NEXT** NOACHELP

**MODE**

SOFT PROMPT IF OUT OF RANGE: Your response was outside the expected range of 1 to 366.

<BUTTONS: Change Answer / Continue>

### NOACHELP

**ASK**

If NOACBROKE=1 or NOACEL=1

When that happened, did your household apply for and receive home energy assistance to help restore your cooling?

1  Yes
0  No

**NEXT** HOTMA

**MODE**

SOFT PROMPT IF MISSING: Did you mean to leave this question blank?

<BUTTONS: Change Answer / Continue>

### HOTMA

**ASK**

All respondents

In the past year, did anyone in your household need medical attention because your home was too hot?

1  Yes
0  No

**NEXT** ENERGYASST

**MODE**

SOFT PROMPT IF MISSING: Did you mean to leave this question blank?

<BUTTONS: Change Answer / Continue>
<table>
<thead>
<tr>
<th><strong>ENERGYASST (Changed since 2015)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ASK</strong></td>
</tr>
</tbody>
</table>

Including times when you received assistance for heating and cooling bills, has your household participated in a home energy assistance program that helps to pay energy bills or fix broken equipment?

<table>
<thead>
<tr>
<th>1</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>No</td>
</tr>
</tbody>
</table>

**NEXT**

If ENERGYASST=1:

- ENERGYASST20, ENERGYASST19, ENERGYASST18, ENERGYASST17, ENERGYASST16, ENERGYASSTOTH

Else: FINAL QUESTIONS SECTION

**MODE**

**WEB PROMPT**

SOFT PROMPT IF MISSING: Did you mean to leave this question blank?

<BUTTONS: Change Answer / Continue>

<table>
<thead>
<tr>
<th><strong>ENERGYASST20, ENERGYASST19, ENERGYASST18, ENERGYASST17, ENERGYASST16, ENERGYASSTOTH</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ASK</strong></td>
</tr>
</tbody>
</table>

In which of the following years did your household participate in a home energy assistance program? Please select all that apply.

- 2020 [ENERGYASST20: 1 if selected, 0 if not]
- 2019 [ENERGYASST19: 1 if selected, 0 if not]
- 2018 [ENERGYASST18: 1 if selected, 0 if not]
- 2017 [ENERGYASST17: 1 if selected, 0 if not]
- 2016 [ENERGYASST16: 1 if selected, 0 if not]

Some other year(s) [ENERGYASSTOTH: 1 if selected, 0 if not]

**NEXT**

FINAL QUESTIONS SECTION

**MODE**

**WEB PROMPT**

SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank?

<BUTTONS: Change Answer / Continue>
Final Questions

WEB MOTIVATIONAL PROMPT #4: Thank you for participating! Only a few final questions remain. Please click "Next" to continue.

<table>
<thead>
<tr>
<th>ELSUPPNAME, ELACCT, NGSUPPNAME, NGACCT, LPSUPPNAME, LPACCT, FKSUPPNAME, FKACCT (Changed since 2015)</th>
<th>ASK</th>
<th>All respondents</th>
</tr>
</thead>
</table>

An important part of this study is to link the information you’ve provided in this survey to your actual energy use. The study’s findings are less valuable without this information, as it helps us learn exactly how much energy your household used in the past year.

To keep the survey as short as possible, we would like to access this information on your behalf. Please provide the names of your energy supplier(s) and the account number for each fuel used by your household. Providing your account number ensures we get the correct energy use data. All data collected as part of the Residential Energy Consumption Survey, including energy use data, is used only for statistical purposes and will remain strictly confidential.

**Electricity**
Supplier: [ELSUPPNAME]
Account Number: [ELACCT]

**Natural Gas**
Supplier: [NGSUPPNAME]
Account Number: [NGACCT]

**Propane**
Supplier: [LPSUPPNAME]
Account Number: [LPACCT]

**Fuel Oil**
Supplier: [FKSUPPNAME]
Account Number: [FKACCT]

**MODE**

**WEB PROMPT**
SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank?  
<BUTTONS: Change Answer / Continue>
It is helpful to know the physical address of each home in this study to understand the impact of local weather conditions on home energy use.

Please provide your home’s physical address below.

| Street Address: ________________________ [OWGMSTADD1] |
| City: _______________________ [OWGMCITY] |
| State: _______________ [OWGMSTATE] |
| ZIP Code: _____-____ [OWGMZIP, OWGMZIP4] |

{OWGMZIP: WEB: ALLOW RANGE 0 – 99999, PAPER: FIVE DIGITS. OWGMZIP4: WEB: ALLOW RANGE 0 – 9999, PAPER: FOUR DIGITS}

We would like to contact someone knowledgeable about your entire building or complex to ask some questions about energy use in common areas.

Please provide the following information. Your survey responses are confidential, and we will NOT share any of your responses.

| Building, Community, or Development Name: ____________________ [MFNAME] |
| Building Contact Person: _______________________ [MFCONTACT] |
| Building Contact Title (for example: landlord, building owner, HOA president, office manager): _______________ [MFROLE] |
| Contact Phone Number: ____________ [MFPHONE] |
| Contact Email: ________________ [MFEMAIL] |
Thank you for helping us learn how Americans use energy in their homes. We greatly appreciate your help!

If you have any additional thoughts about any of the survey topics or the survey itself, please share them here:

Open-ended response

<table>
<thead>
<tr>
<th>MODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Web: Display following text after the open-ended response, followed by a Finish button:</td>
</tr>
<tr>
<td><strong>To complete the survey, please click “Finish” below.</strong> Once you click “Finish” you will receive your cash thank you in about 3 weeks. If you have questions about this survey, please email us at <a href="mailto:recs@rti.org">recs@rti.org</a> or call toll-free at 1-833-947-2573.</td>
</tr>
<tr>
<td>Paper: Display following text after the open-ended response:</td>
</tr>
<tr>
<td>Please return this questionnaire in the enclosed postage-paid return envelope. If you have questions about this survey, please email or call us. Email: <a href="mailto:recs@rti.org">recs@rti.org</a> / Phone: 1-833-947-2573 (toll-free)</td>
</tr>
</tbody>
</table>