



Smart Home Data Privacy Survey

from Sensi Smart Thermostats

Conducted October-November 2022


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Objectives & Methodology

Objectives

- Understand the motivations and barriers to purchasing smart home products and smart thermostats, in particular
- Determine how smart thermostat users and non-users feel about the data privacy/security of their smart home products
- Identify the most appealing benefits or features of smart thermostats

Methodology

- TRUE Global Intelligence, the in-house research practice of FleishmanHillard, conducted an online survey of 2,000 U.S. homeowners aged 18-76 from October 26-November 9, 2022.
- Data was weighted at the total level by generation, region and income to be representative of the U.S. homeowner population.
- The margin of error is 2.2% and lower for subgroups.
- Statistically significant differences are reported at the 95% confidence level, noted throughout this report with a green oval ().

Key Findings

Smart device owners use devices to make their lives easier

Consumers purchase *smart devices* to...



49%

Make life more convenient



40%

Increase security



38%

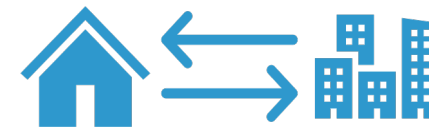
Monitor/control their home while they're away

... and most often use *smart device* features designed for **convenience**



62% Smartphone controls

41% Programmable or learning scheduling



28% Occupancy modes

28% Room sensors



Yet many of those who own smart thermostats have concerns about data protection and privacy



Despite their tech-savviness, a significant proportion of *smart thermostat* owners have **concerns** about **data protection** (32%) and **privacy** (26%).



Most *smart thermostat* owners expect that their thermostat might **track relevant data** like heating/cooling usage (49%) and temperature settings (45%) but don't expect it to track personal data like their online habits (20%).

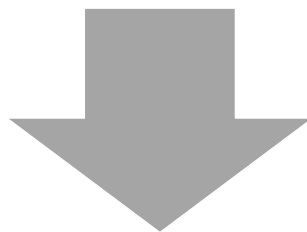


Nearly three in four *smart thermostat* owners (73%) say they're **concerned** about smart thermostat manufacturers having **access to personal data**.

Many don't really understand what kind of data is shared with smart thermostat manufacturers...

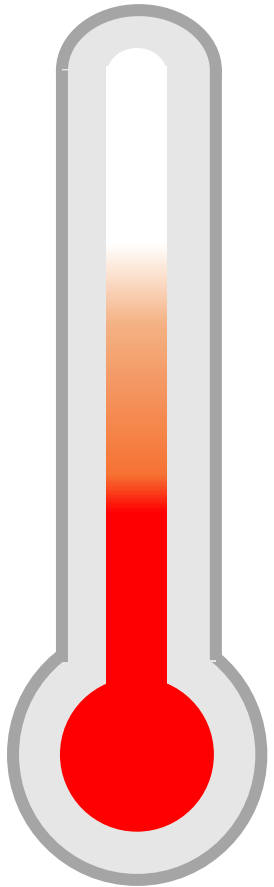


Despite concerns over data protection and privacy, **only 13%** of *smart thermostat* owners **researched their manufacturers' data privacy policy** before purchase.



Smart thermostat owners and non-owners alike aren't sure what kind of data is shared with manufacturers or what those manufacturers would use their data for. Around **1 in 5 respondents (19% smart thermostat owners, 23% non-owners)** admit that they're not sure what kind of information is shared.

...and when they learn what data *is* shared with manufacturers, their concern grows



After learning “the facts” about smart thermostats, **2 in 3 *smart thermostat* owners were at least “somewhat more concerned”** about using their smart thermostats.



1 in 3 *smart thermostat* owners were “much more concerned” about using their smart thermostats after learning more.

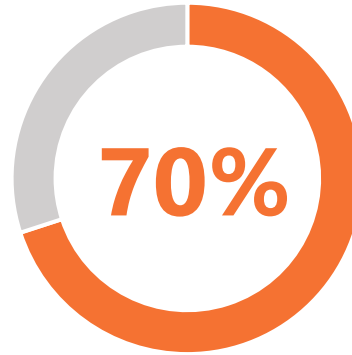
In fact, many would be willing to change thermostats if they found a brand with better data protection



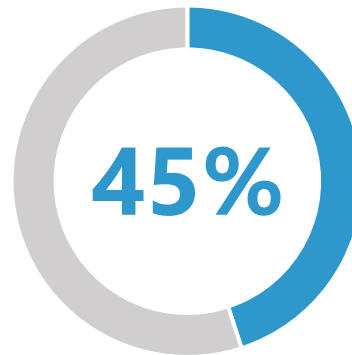
Privacy over 3rd Party Profit

Many respondents, both *smart thermostat* owners and non-owners, are already wary of the idea that manufacturers might be selling their data to third parties to turn a profit.

79% of *smart thermostat* owners agree (and 47% of those *strongly* agree) that they would **switch brands** if they ever found out that **their data was being sold to a third party**.



7 in 10 *smart thermostat* owners would be **likely to replace their current thermostat** with a brand that did not share data with third parties or use it to target advertising.



45% of *smart thermostat* non-owners would be **more likely to buy a smart thermostat** given the choice of a brand that did not share data with third parties or use it to target advertising.

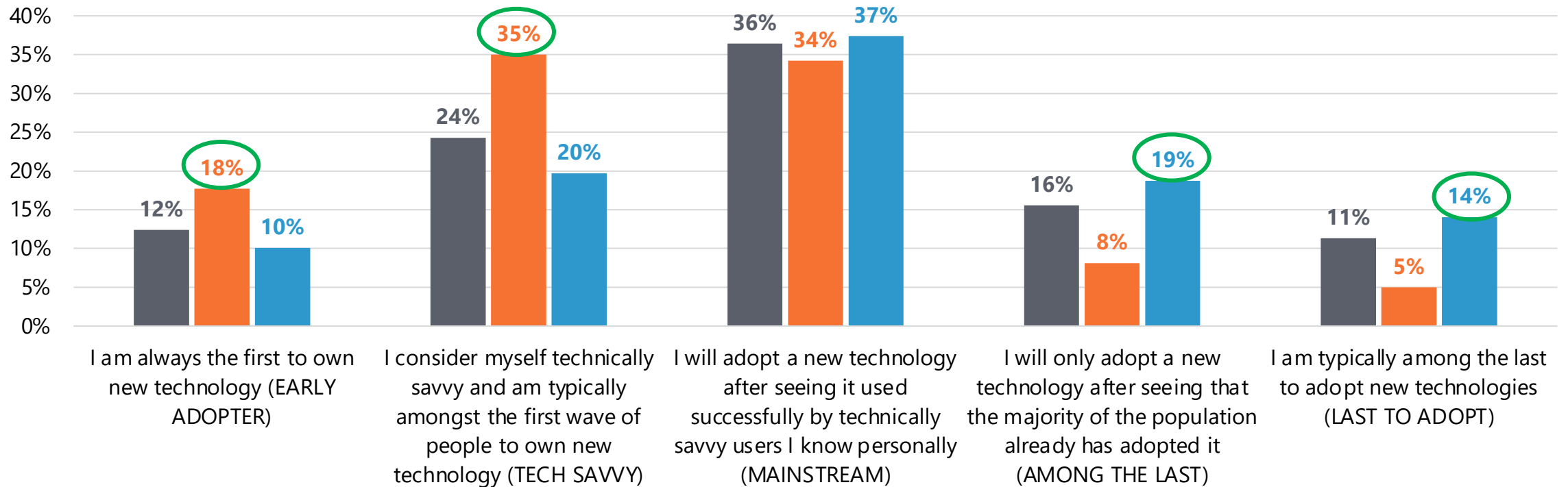
I. Smart Home Devices

Detailed Findings

Smart thermostat owners are significantly more likely than non-owners to be early tech adopters

Technology Adoption

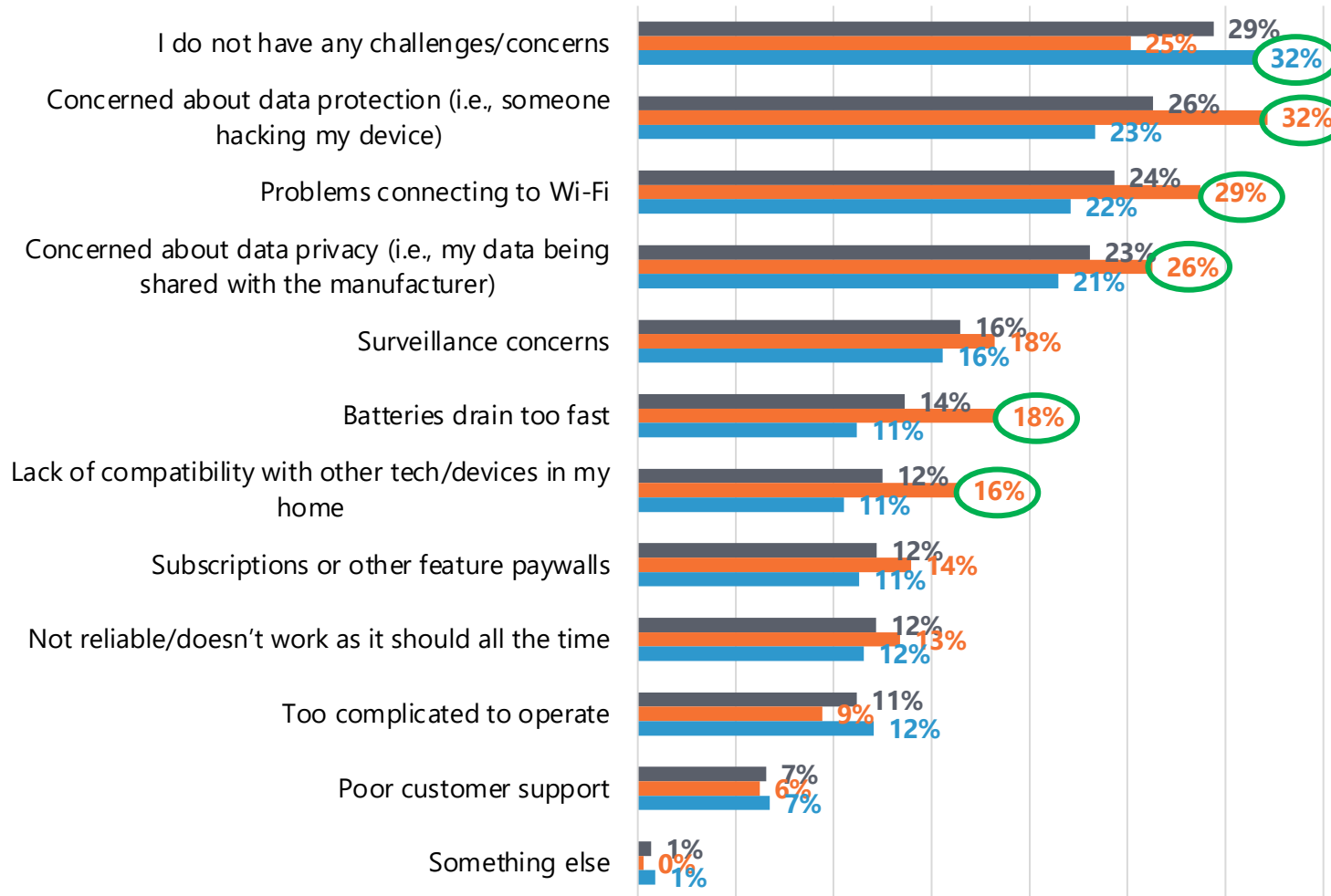
■ Total (n=2000) ■ Smart Therm. Owners (n=581) ■ Smart Therm. Non-Owners (n=1419)



Concerns/Challenges With Smart Home Device(s)

Of those who own at least one smart home device

■ Total (n=1776) ■ Smart Therm. Owners (n=581) ■ Smart Therm. Non-Owners (n=1195)



Despite their tech savviness, smart thermostat owners have more concerns about their smart devices vs. non-owners

This includes data protection and privacy



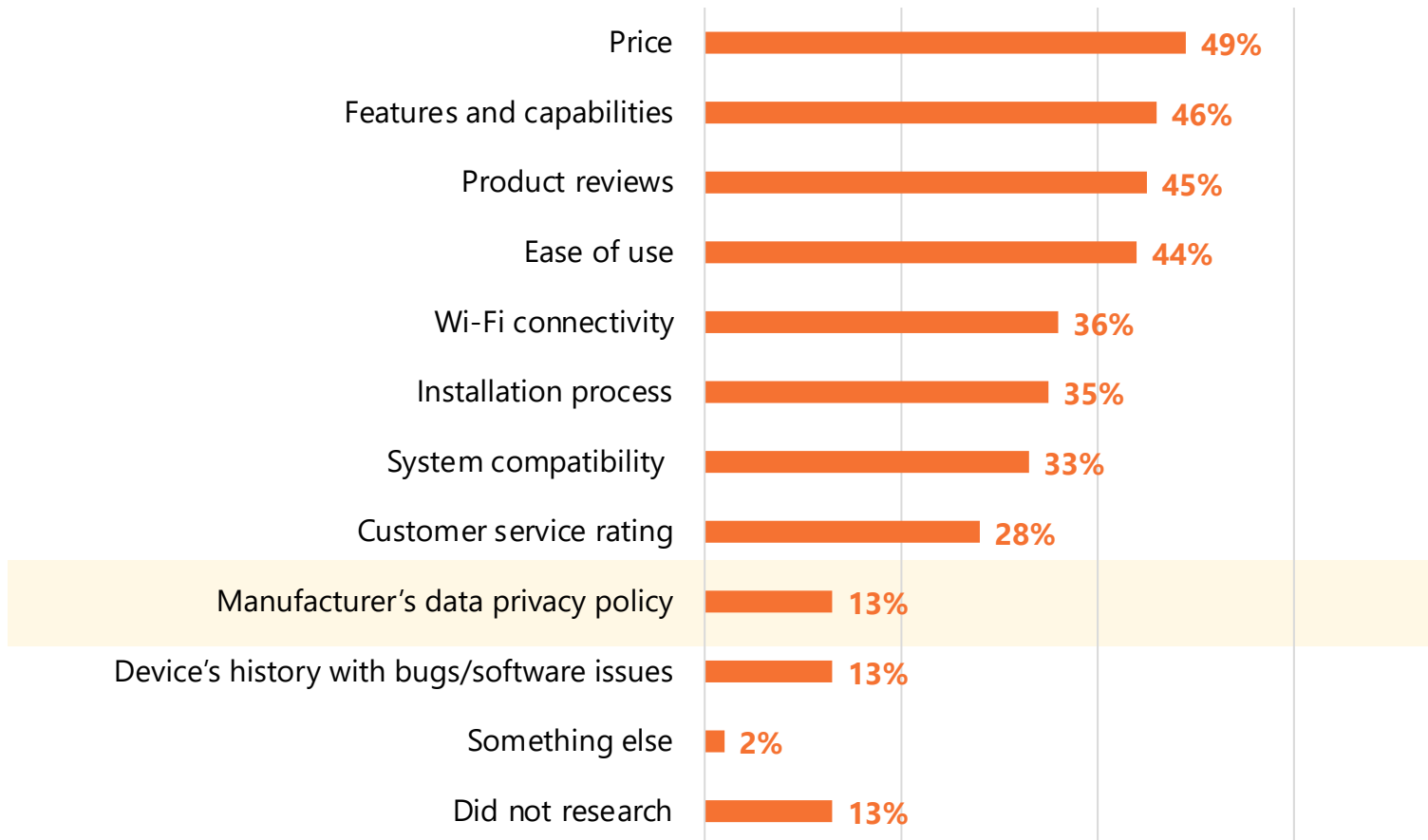
Millennials (23%) are significantly more likely than any other generation to cite "surveillance concerns" with their smart home devices

II. Smart Thermostats

Detailed Findings

Smart Thermostat: Detail(s) Researched Before Purchase

Smart Therm. Owners (n=581)



Data privacy policies are among the *least* researched details before purchasing a smart thermostat

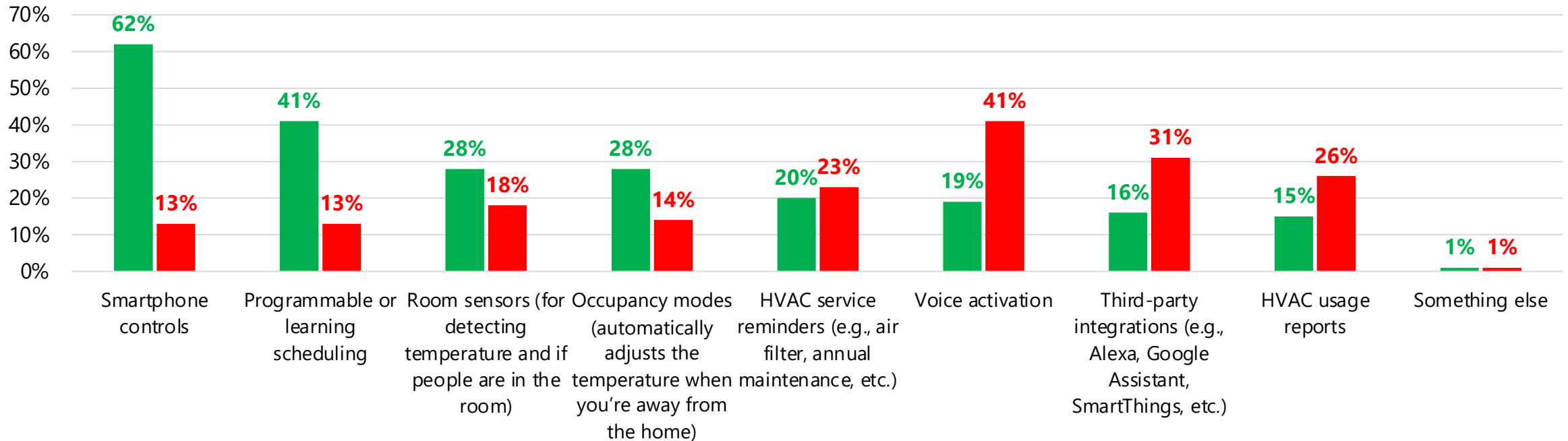


Respondents in the Northeast (23%) are significantly more likely than all other regions to say that they had researched the manufacturer's data privacy policy before purchase

Many smart thermostat owners are using features that could put their data privacy at risk

Smart Thermostat: Most & Least Used Feature(s)
Of smart thermostat owners (n=581)

■ Most Used Features ■ Least Used Features



Which features of your smart thermostat do you use the most? Select all that apply. And which features of your smart thermostat do you use the least? Select all that apply.

Owners and non-owners alike aren't sure what manufacturers use smart thermostat data for

- Most smart thermostat owners as well as non-owners don't really know how manufacturers use the data collected from a smart thermostat.
- Some users and non-users guess that the manufacturer likely uses the data to make advancements to their products and compare average usage.
- Both groups mention that they are wary of the idea of manufacturers selling their data to other parties to turn a profit.

"I don't know if the manufacturer has the capability to collect any data from my smart thermostat." (Smart Therm. Owner)

"They mostly use the information to make advancements to the product to work better for the customer." (Smart Therm. Owner)

"To compare with other users in similar area for averages and for peak trends." (Smart Therm. Owner)

"For product ideas, feedback from actual customers and quality control." (Smart Therm. Non-Owner)

"I believe they use the data collected from my smart thermostat in order to monitor for any problems such as unusually high run time, etc." (Smart Therm. Non-Owner)

"I don't know if the data they receive is used but maybe they sell their client list to other companies." (Smart Therm. Non-Owner)

To the best of your knowledge, how do manufacturers use the data collected from a person's smart thermostat (if at all)? Type your answer in the space below.

Most smart thermostat owners believe manufacturers are using their data responsibly; non-owners are far less likely to agree



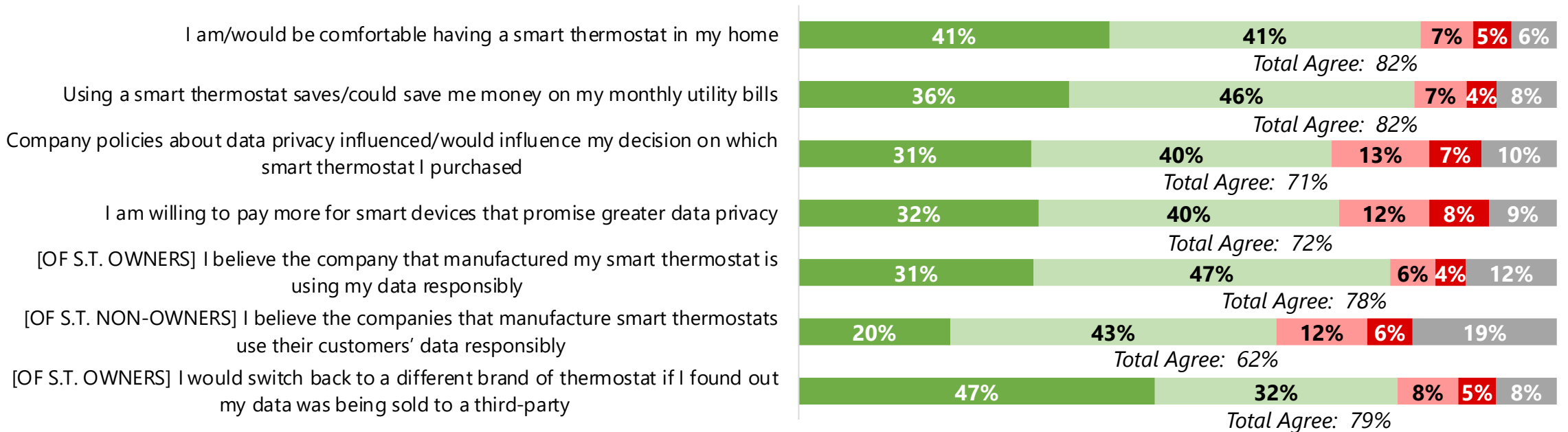
Millennials and Gen X are most likely to be comfortable having a smart thermostat in their home and believe it could save them money

Agree/Disagree: Smart Thermostats

Of total (n=2000)

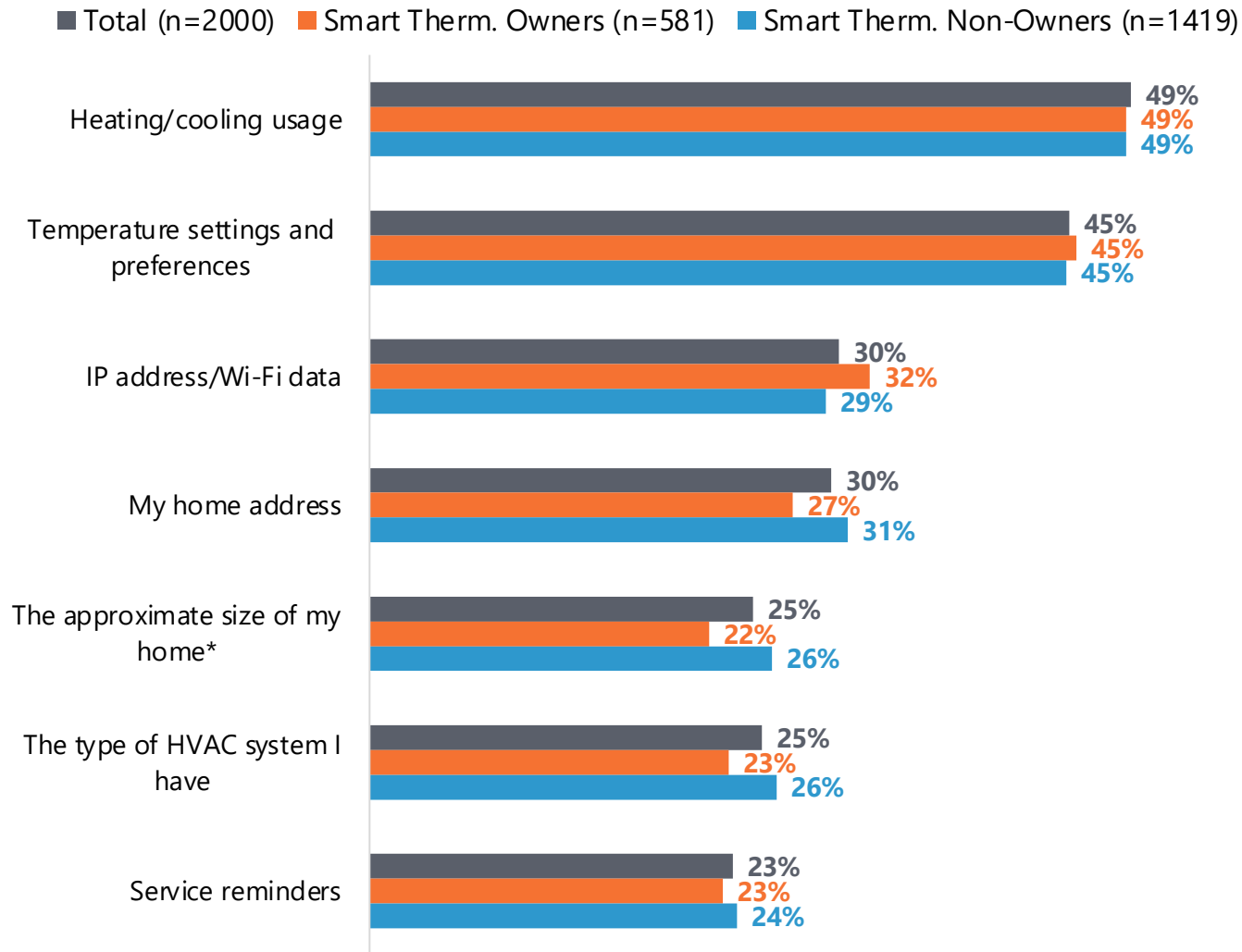
Statement wording customized based on smart thermostat ownership

Strongly agree Somewhat agree Somewhat disagree Strongly disagree Not sure



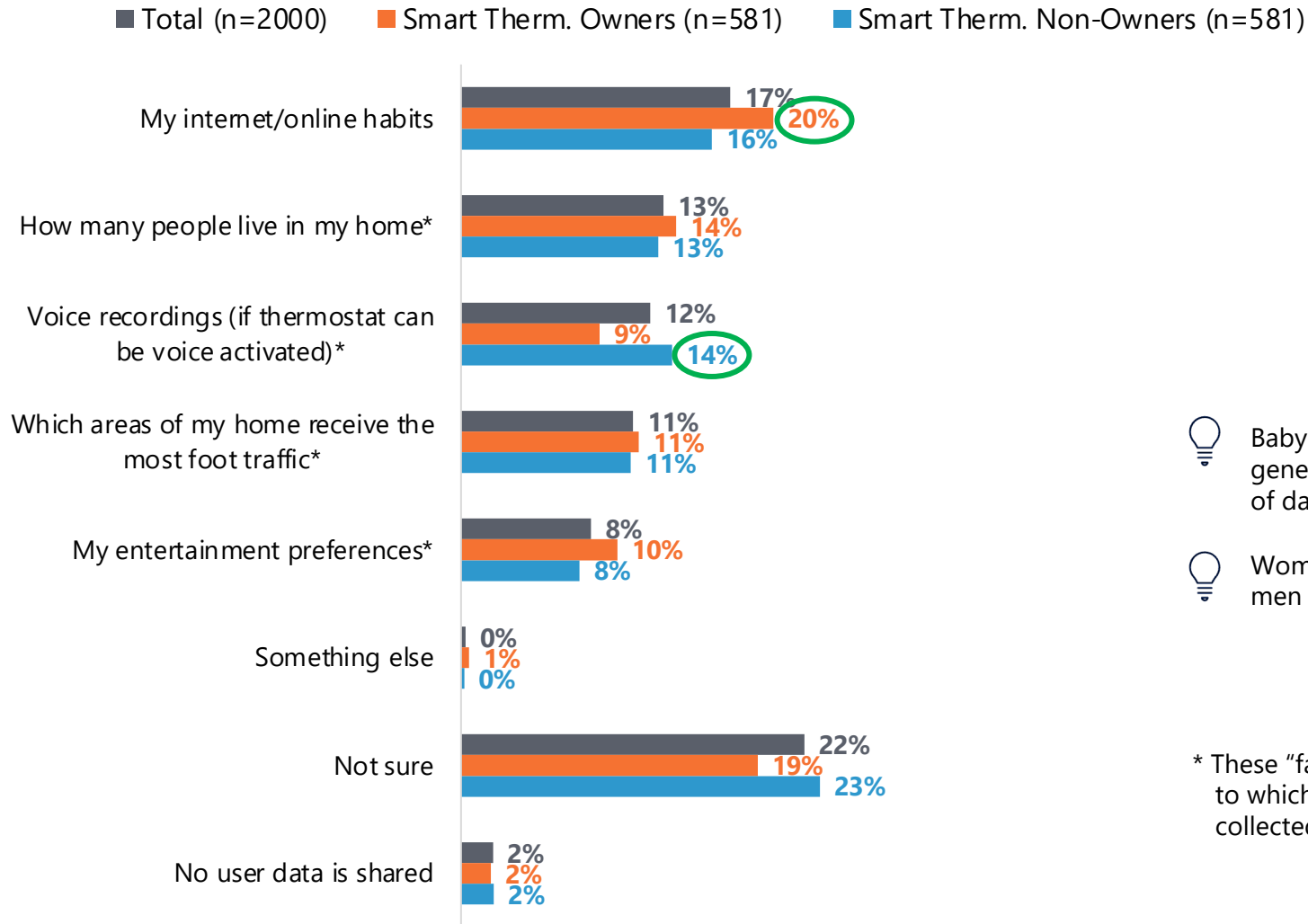
To what extent do you agree or disagree with following statements about smart thermostats?

Type(s) of User Data Shared with Smart Thermostat Manufacturers – Top 8 of 16



Many believe heating/cooling usage and temperature settings are shared with manufacturers...

Type(s) of User Data Shared with Smart Thermostat Manufacturers – Bottom 8 of 16



...while around 1 in 5 admit that they're not sure what kind of data is shared

- 💡 Baby Boomers (33%) are more likely than any other generation to admit that they are not sure what kind of data is shared
- 💡 Women (25%) are also significantly more likely than men (18%) to be unsure what data is shared

* These "fake" responses were included to determine the extent to which consumers truly understand what data is being collected

4 in 5 homeowners (80%) are concerned about smart thermostat manufacturers having access to personal data

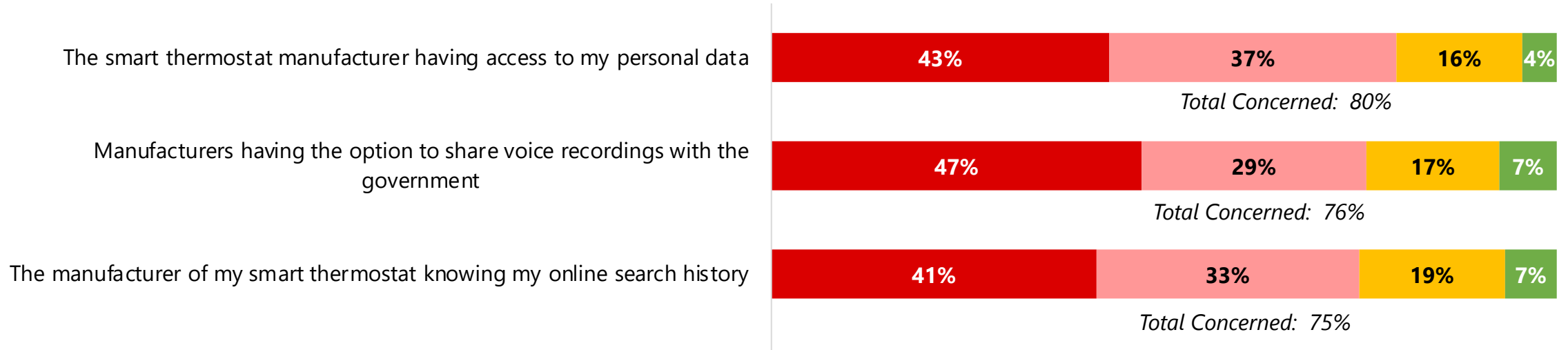
💡 Baby Boomers (83%) are more likely than Gen Z (76%) and Millennials (75%) to have some level of concern over manufacturers having access to their personal data

Level of Concern re: Smart Thermostats – Top 4 of 7 Statements

Of total (n=2000)

Question wording customized based on smart thermostat ownership

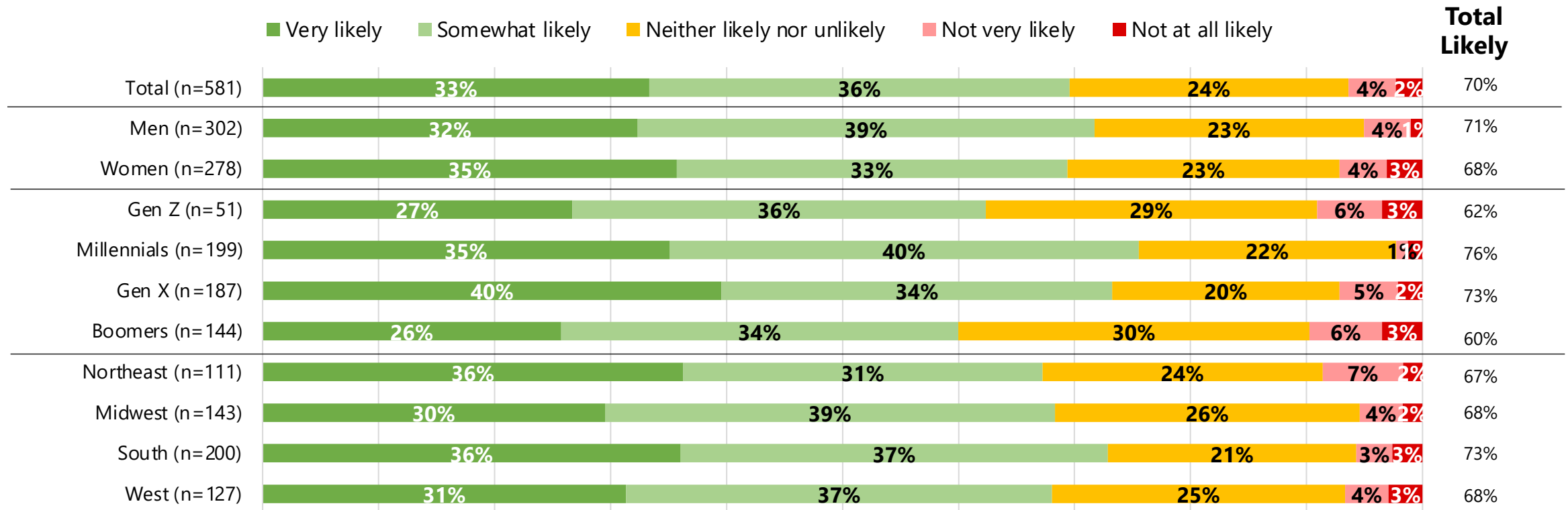
■ Very concerned ■ Somewhat concerned ■ Not very concerned ■ Not at all concerned



As it relates to your smart thermostat, how concerned or unconcerned are you with the following? / If your home did have a smart thermostat, how concerned or unconcerned would you be with the following?

7 in 10 (70%) smart thermostat owners say they're likely to replace their device for one with more privacy

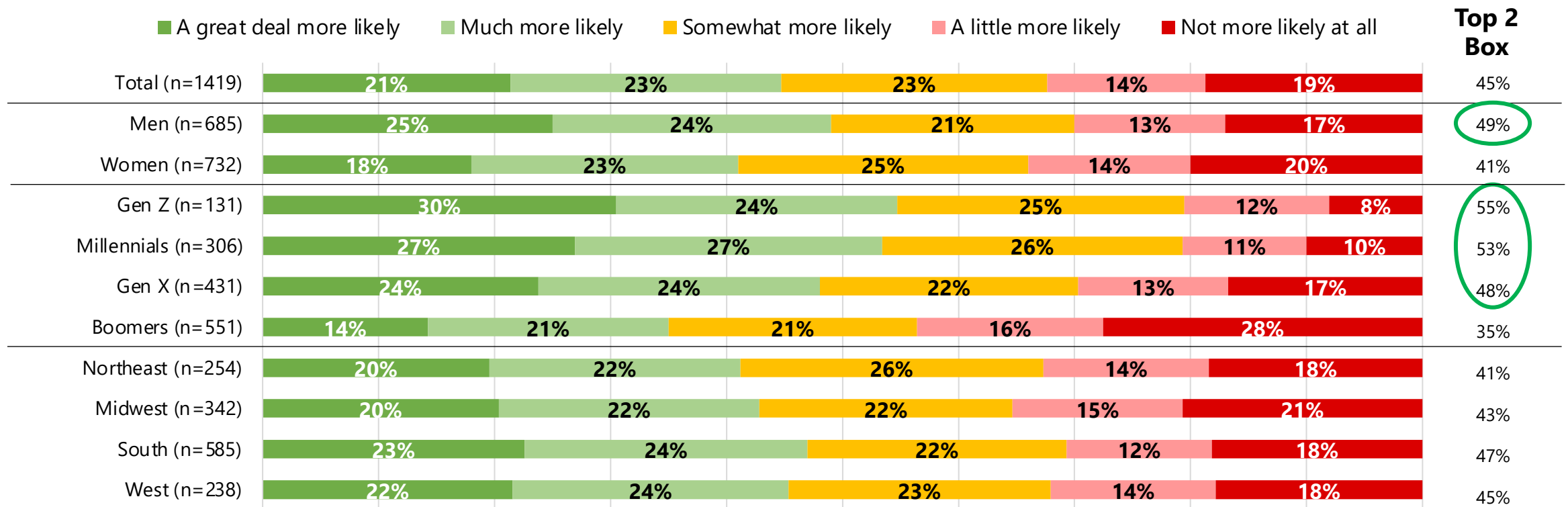
Likelihood of Replacing Smart Thermostat With "Private/Secure" Brand
Of Smart Thermostat Owners (n=581)



If there was a brand of smart thermostat that did not use your smart thermostat activity data for targeting/advertising purposes and did not sell your personal data to anyone, how likely (if at all) would you be to replace your current thermostat with this brand of thermostat?

45% of non-owners say they'd be more likely to buy in the next 12 months if they knew of a brand with greater privacy

Impact of "Private/Secure" Brand on Likelihood to Purchase in Next 12 Months
Of Smart Thermostat Non-Owners (n=1419)



If there was a brand of smart thermostat that did not use your smart thermostat activity data for targeting/advertising purposes and did not sell your personal data to anyone, how much more likely (if at all) would you be to purchase a smart thermostat in the next 12 months?

Appendix

Respondent Profile

	Total (n=2000)	Smart Therm. Owners (n=581)	Smart Therm. Non-Owners (n=1419)
Average age	49.13	46.29	50.34
Gen Z (18-25)	10%	10%	10%
Millennials (26-41)	24%	33%	20%
Gen X (42-57)	31%	32%	30%
Baby Boomers (58-76)	35%	26%	39%
Man	49%	51%	48%
Woman	51%	49%	52%
Other gender identity	<1%	<1%	<1%
Northeast	17%	17%	17%
Midwest	23%	23%	23%
South	38%	33%	40%
West	22%	26%	20%

Respondent Profile (Continued)

	Total (n=2000)	Smart Therm. Owners (n=581)	Smart Therm. Non-Owners (n=1419)
Single	16%	13%	17%
Dating/in a relationship	9%	10%	9%
Married	65%	71%	63%
Separated, divorced or widowed	10%	6%	11%
Prefer not to say	<1%	--	<1%
<\$50,000 HHI	20%	8%	25%
\$50,000 to \$74,999 HHI	16%	16%	16%
\$75,000 to \$99,999 HHI	15%	16%	15%
\$100,000 to \$149,999 HHI	22%	24%	21%
\$150,000 to \$199,999 HHI	12%	14%	11%
\$200,000 or more HHI	15%	22%	12%

Respondent Profile (Continued)

	Total (n=2000)	Smart Therm. Owners (n=581)	Smart Therm. Non-Owners (n=1419)
Caucasian/White	80%	77%	81%
Black/African/Caribbean	10%	10%	10%
Hispanic/Latino/Latina	7%	9%	6%
Native Am./Indigenous or Pac. Islander	2%	3%	2%
Arab or Middle Eastern	<1%	1%	<1%
East Asian, South Asian or SE Asian	5%	6%	5%
Something else	1%	<1%	1%
Prefer not to say	<1%	--	<1%
Urban	22%	22%	23%
Suburban	55%	64%	51%
Rural	23%	13%	27%
Prefer not to say	<1%	<1%	<1%

Respondent Profile (Continued)

	Total (n=2000)	Smart Therm. Owners (n=581)	Smart Therm. Non-Owners (n=1419)
Household size: 1 (self only)	11%	8%	12%
Household size: 2	38%	34%	39%
Household size: 3	21%	21%	21%
Household size: 4	20%	24%	17%
Household size: 5 or more	11%	12%	10%
*Live with spouse/my partner	83%	89%	80%
*Live with child(ren) 17 or younger	39%	47%	36%
*Live with child(ren) 18 or older	16%	13%	18%
*My parent(s)	9%	7%	10%
*Other family member(s)	9%	5%	10%
*Roommate(s) or friend(s)	3%	3%	4%
*Others	1%	<1%	1%
*Prefer not to say	<1%	-	<1%

*Of those with more than 1 person in the household

Respondent Profile (Continued)

	Total (n=2000)	Smart Therm. Owners (n=581)	Smart Therm. Non-Owners (n=1419)
Age of home: Less than 10 years old	15%	19%	13%
Age of home: 10 to 19 years old	16%	18%	14%
Age of home: 20 to 29 years old	18%	16%	19%
Age of home: 30 to 39 years old	13%	13%	12%
Age of home: 40 to 49 years old	11%	11%	12%
Age of home: 50 to 59 years old	10%	9%	11%
Age of home: 60 years or older	15%	12%	17%
Not sure	2%	1%	2%

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