

Shedding Light on Energy Inequities

What Might Race and
Demographic Differences in
Energy Attitudes and
Identifying Bulb Types Tell Us?

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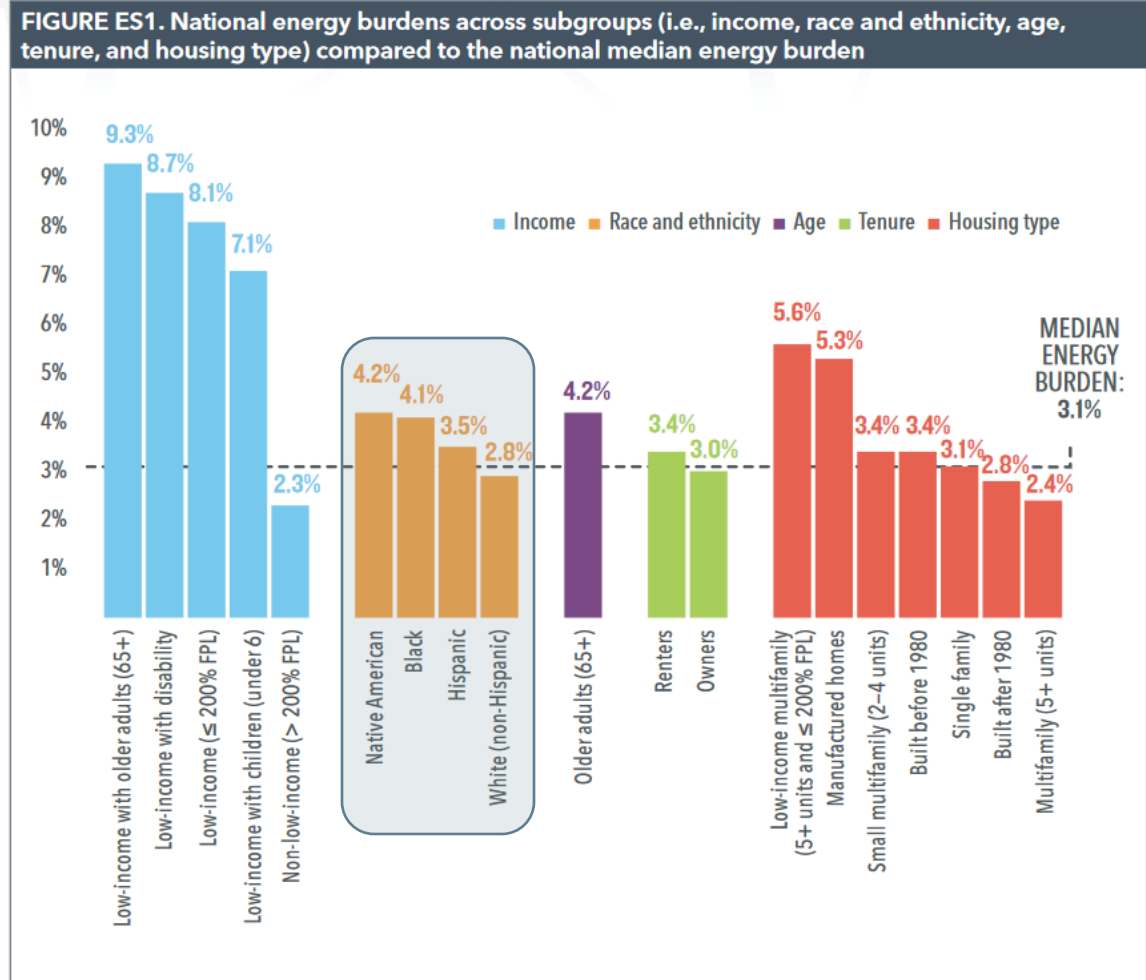


BECC 2021



Energy burden, race & class

- Low income and non-white American households spend a larger portion of their income on energy bills than white, non-Hispanic households.



Residential energy efficiency survey

- Email invitation sent to random sample of 10,000 residential utility customers from November – December 2020.
- Instore flier with QR code and survey link from October – December 2020.
- To qualify for survey, customers had to indicate purchasing an energy efficient product at a participating retailer in 2020.
- 455 responses (450 email invite, 5 instore flier).

From the list below, could you please identify all the energy efficient products you bought in 2020? The ENERGY STAR® label is usually a blue and white sticker on an appliance that says “ENERGY STAR” on it. We have included visuals of the ENERGY STAR logo, LED light bulbs, and energy saving power strips below to help you remember what each item would look like.

- ENERGY STAR bathroom ventilation fans
- Energy saving advanced power strips
- ENERGY STAR room air purifiers
- ENERGY STAR water dispensers
- LED light bulbs
- ENERGY STAR room air conditioners
- I did not purchase any of the listed energy efficient products in 2020
- I don't recall



LED Light Bulb



Advanced Power Strip

Energy efficiency knowledge

- Asked respondents to match various lighting technologies to their definitions.
- Correct identification was related to gender, race, and employment status.

Group	<i>n</i>	Percent Correct
White***	333	76%
Nonwhite	77	56%
Male***	219	85%
Female	212	59%
Employed*	294	76%
Not employed	140	69%

Significance levels: *0.05 > p-value > 0.01; ** 0.01 > p-value > 0.001;
*** 0.001 > p-value.

Attitudes & behaviors

- Asked respondents' level of agreement with ten statements about energy efficiency.
- Found statistically significant differences between subgroups of respondents for six of the statements.

Please rate your level of agreement or disagreement with these statements. There are no "right" or "wrong" answers, we just want your opinion.

	Strongly Disagree	0	1	2	3	4	5	6	7	8	9	Strongly Agree	10	Don't Know
I am not very concerned about the amount of energy used in my home	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is possible to save energy without sacrificing comfort by being energy efficient	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Energy efficiency saves money	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am too busy to worry about making energy-related improvements in my home	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I intend to reduce my household energy use in the next 12 months	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People's efforts produce better results when they work together than when they go it alone.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There is very little I can do to reduce the amount of energy I am now using	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I know of steps I could take to reduce my household energy use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Scarce energy supplies will be a major problem in the future	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Attitudes & behaviors

Statement	Subgroup	n	Percent Agree
I am too busy to worry about making energy-related improvements in my home	White*	332	9%
	Nonwhite	76	17%
	Employed***	293	15%
	Not employed	138	4%
	54 or younger**	259	15%
	55+	193	7%
Scarce energy supplies will be a major problem in the future	Employed*	269	54%
	Not employed	122	44%
	Female	186	54%
	Male	202	47%
There is very little I can do to reduce the amount of energy I am now using	White**	325	18%
	Nonwhite	170	8%
It is possible to save energy without sacrificing comfort by being energy efficient	No College***	123	63%
	College	116	80%
I know of steps I could take to reduce my household energy use	Employed***	286	56%
	Not employed	114	37%
	No College	123	49%
	College	114	58%
I intend to reduce my household energy use in the next 12 months	White*	312	48%
	Nonwhite	73	60%

Significance levels: *0.05 > p-value > 0.01; ** 0.01 > p-value > 0.001; *** 0.001 > p-value.

No asterisk indicates the difference was significant at 0.1 > p-value.

Conclusions

- These findings identify factors that may contribute to the continuing inequities in energy burden between demographic groups.
- They also point to potentially valuable indices that may be used to assess and track utility effectiveness at engaging with and educating underserved customers.
- By examining changes in such indices over time, utility companies may have a better understanding of gains made in addressing inequities.

Sources

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