

# ENERGY INSECURITY COMMUNITY SURVEY

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# PURPOSE

The goal of this project is to understand the experience of energy insecurity among residents and to develop a tool to help address identified concerns and factors that relate to energy insecurity.

# ENERGY INSECURITY COMMUNITY SURVEY

Surveys administered by Unlimited Potential Community Health Workers

- Primarily over the phone, some in-person
- Entered directly into Qualtrics (web-based survey tool)
- Area surveyed: South Phoenix

142 surveys completed (goal was 140)

## Energy Sources and Costs

- Questions 1-13
- Energy Use, Service Provider, Use of Cooling System, Bills

## Energy Burden

- Questions 14-37
- Limitations, Energy Shut-Offs, Utility Assistance Programs, Repair Programs

## Housing, Efficiency and Comfort

- Questions 38- 46
- Home Quality, Comfortable Temperatures

## Energy Literacy

- Question 47
- Understanding of Bills

## Coping with Energy Problems

- Questions 48-57
- Comfort Level, Energy Use, Cooling Centers to Cool Off

## Energy and Health

- Questions 58-61
- Health Risk, Health Issues Due to Heat

## Personal Health

- Questions 62-66
- Health Problems Associated with Heat

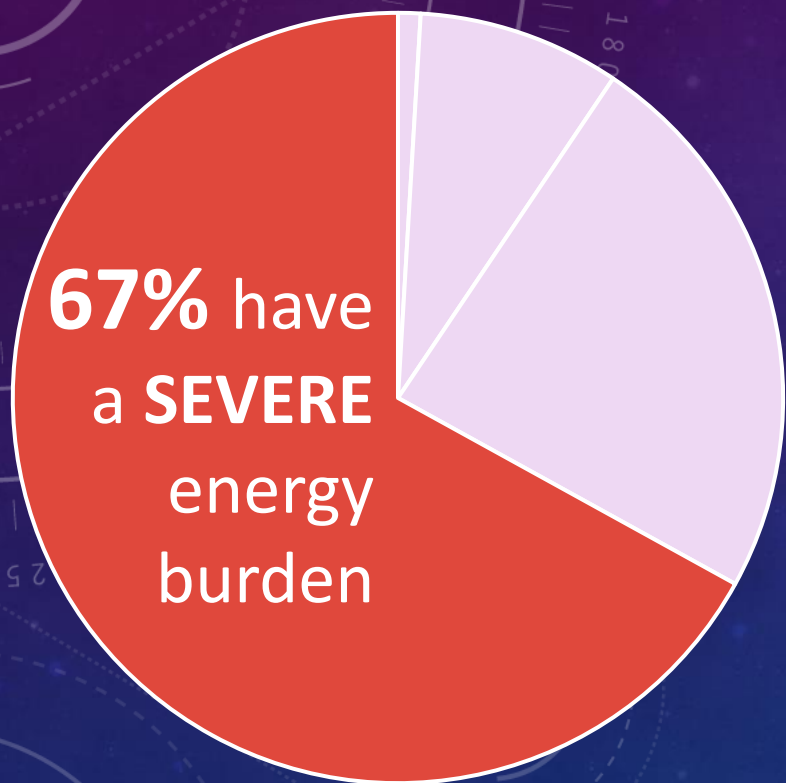
## COVID-19

- Questions 67-68
- Effects of COVID-19 on Household

## Household Composition and Demographics

- Questions 69-80
- Age, Race, Ethnicity, Income, Housing

# ENERGY BURDEN



## ENERGY BURDEN: % of household income spent on energy bills

11+% - SEVERE



6-10% - HIGH



3-5% - MODERATE



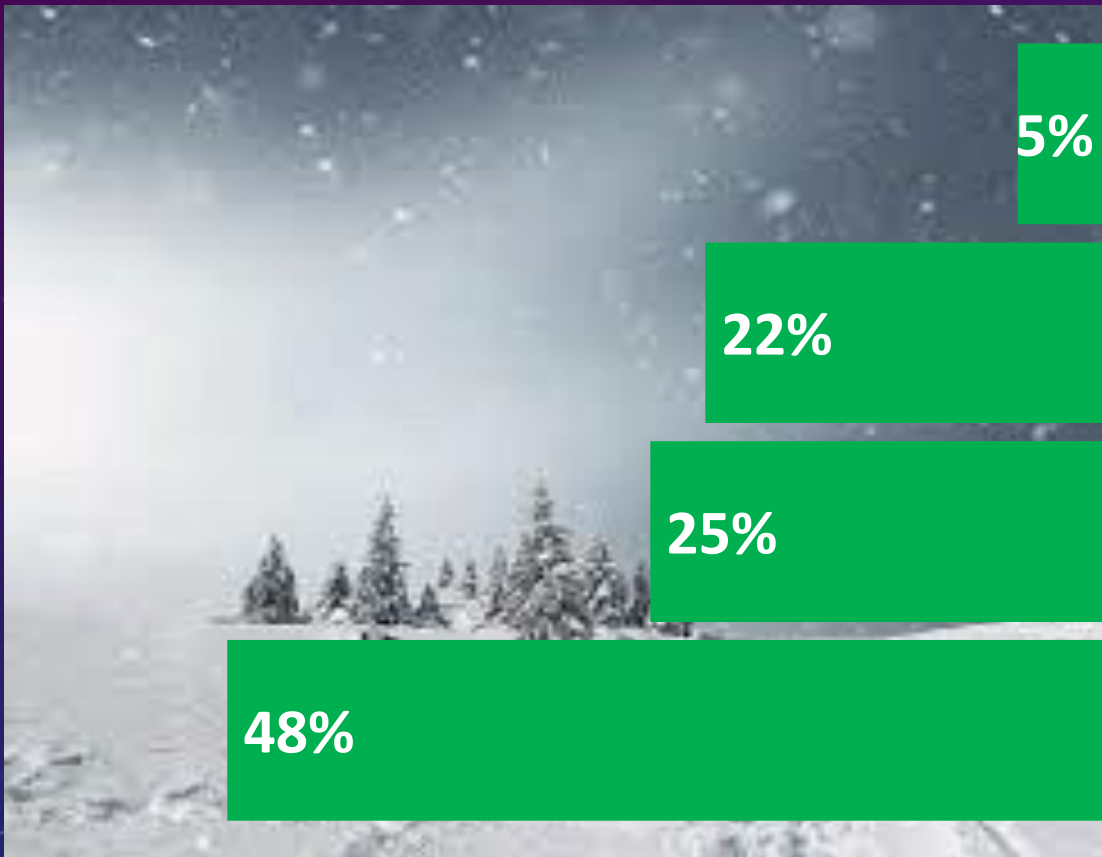
< 3% - LOW

1%

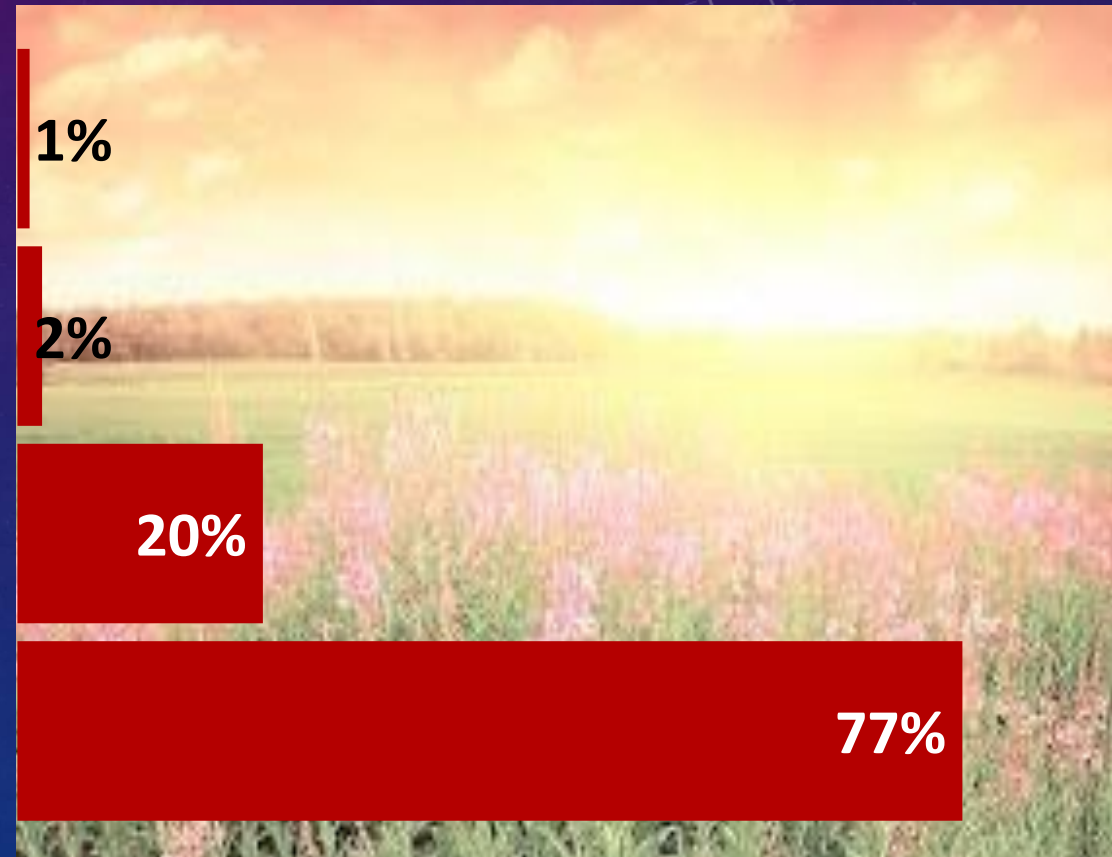
# ENERGY BURDEN:

## WINTER

## SUMMER

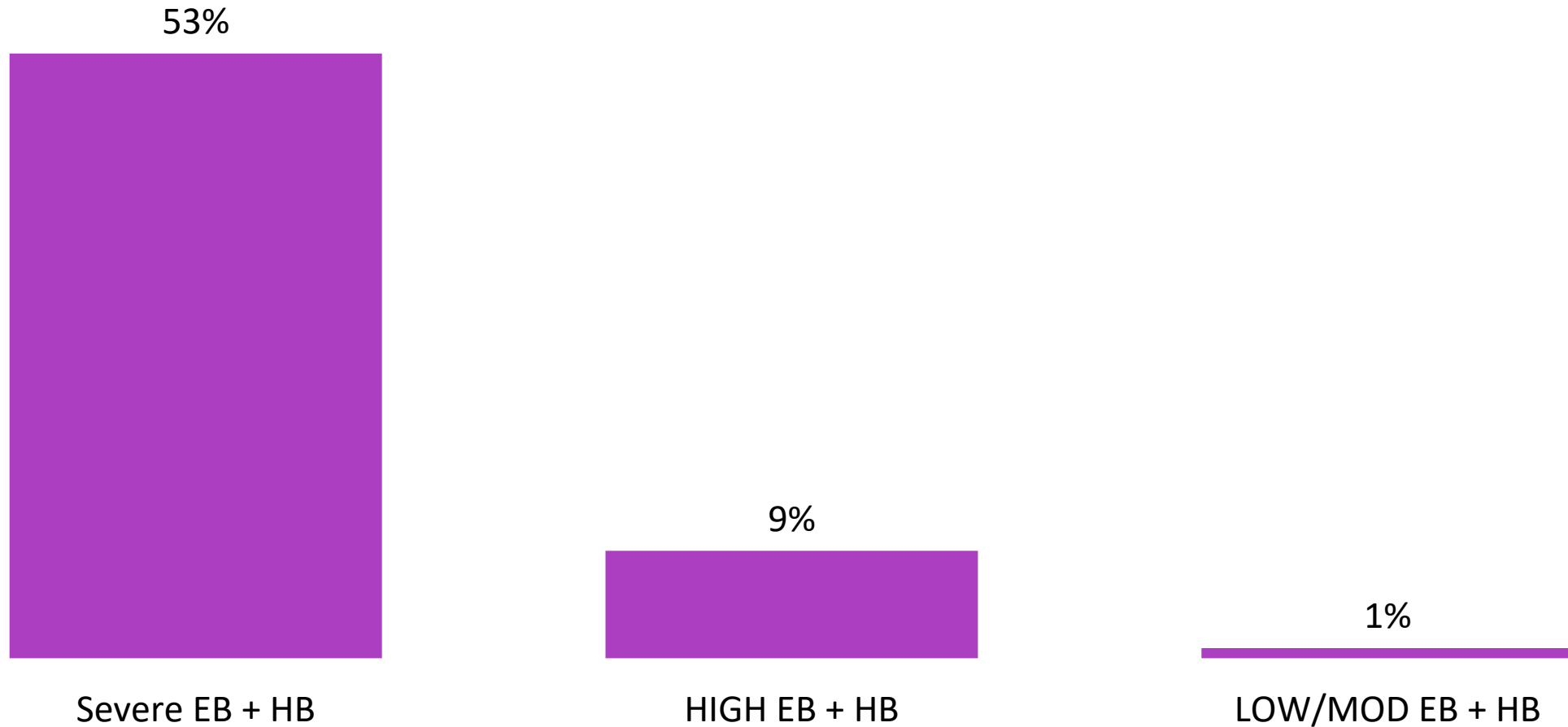


LOW  
MODERATE  
HIGH  
SEVERE



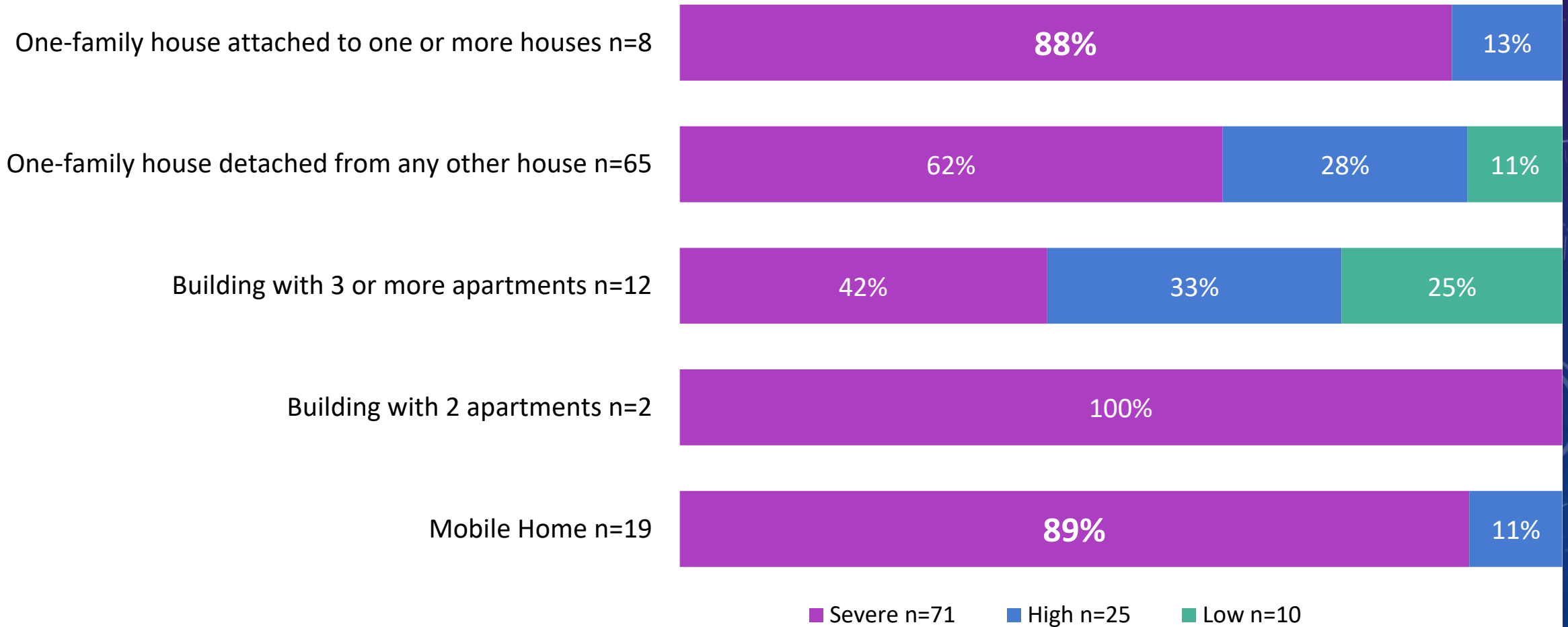
# ENERGY BURDEN AND HOUSING BURDEN

Distribution of households that have both energy and housing burdens n=106



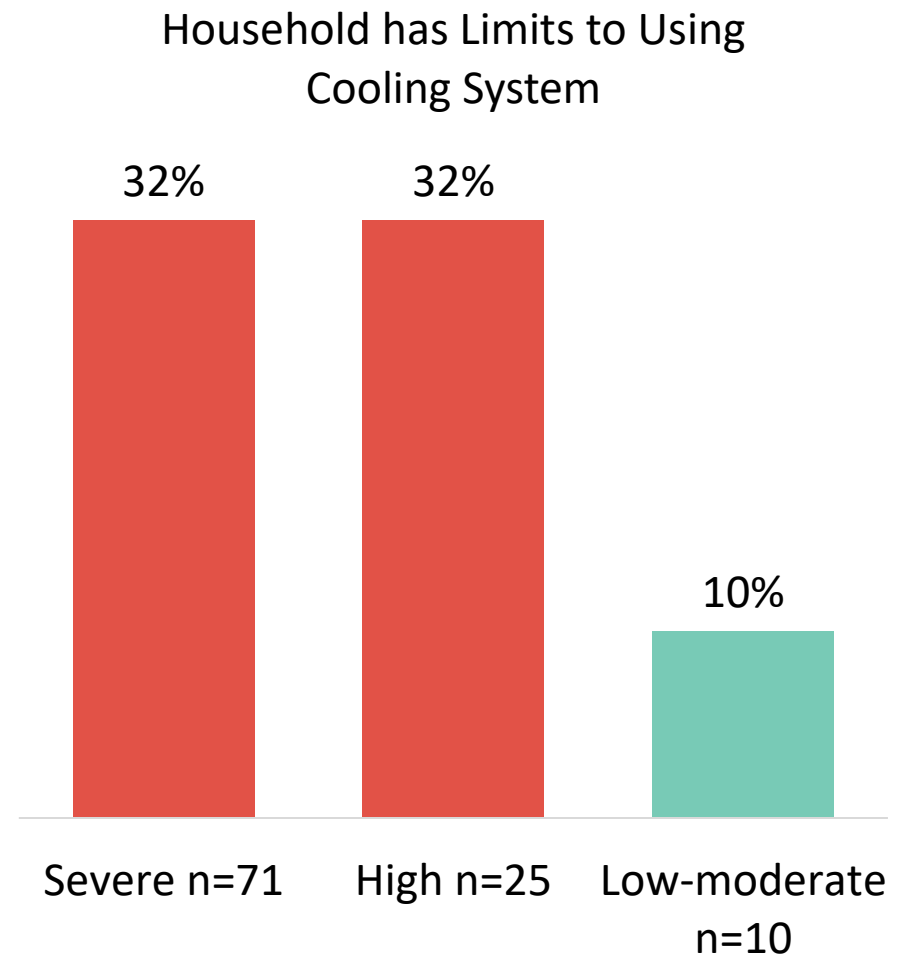
MOBILE HOMES (N=19) AND ONE-FAMILY HOUSE ATTACHED TO ONE OR MORE HOUSES (N=8) HAD THE HIGHEST PERCENTAGES OF SEVERELY ENERGY BURDENED HOUSEHOLDS BASED ON HOUSING TYPE. \*\*BUILDING WITH 2 APARTMENTS WAS 100% SEVERELY ENERGY BURDENED BUT THERE WERE ONLY 2 RESPONDENTS FOR THAT HOUSING TYPE.

Energy burden levels based on housing type



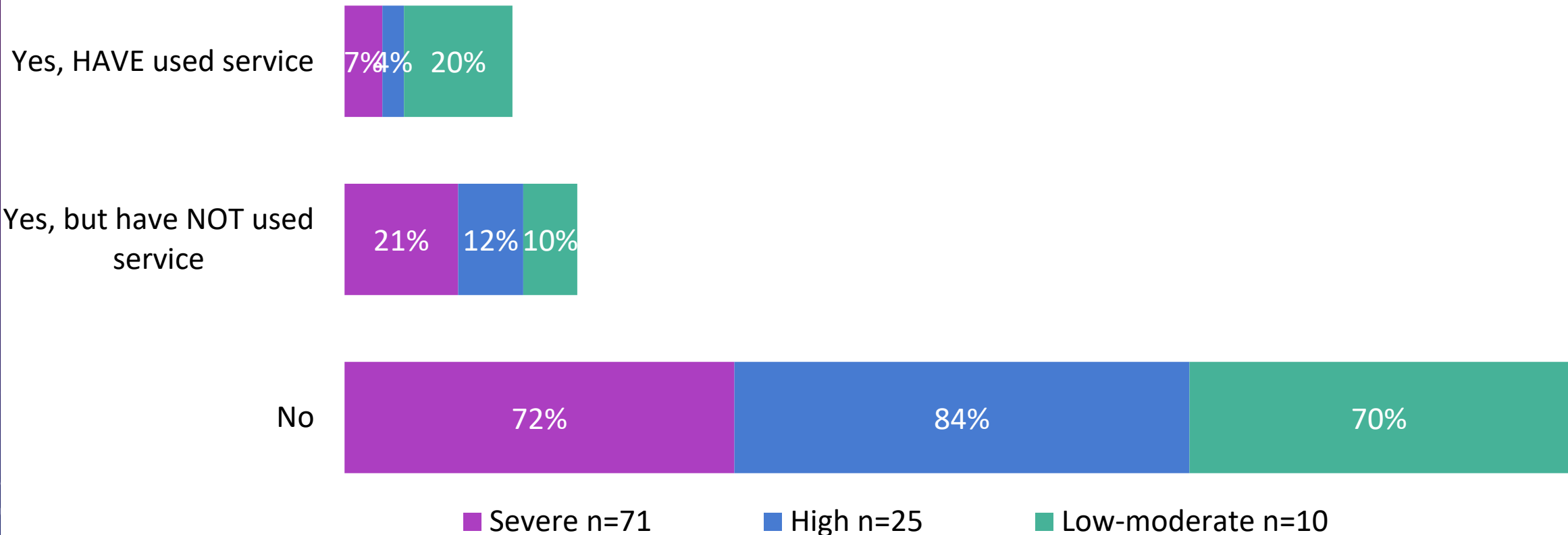


THOSE WITH SEVERE  
AND HIGH ENERGY  
BURDENS  
EXPERIENCED MORE  
LIMITATIONS TO THE  
USE OF THEIR  
COOLING SYSTEMS



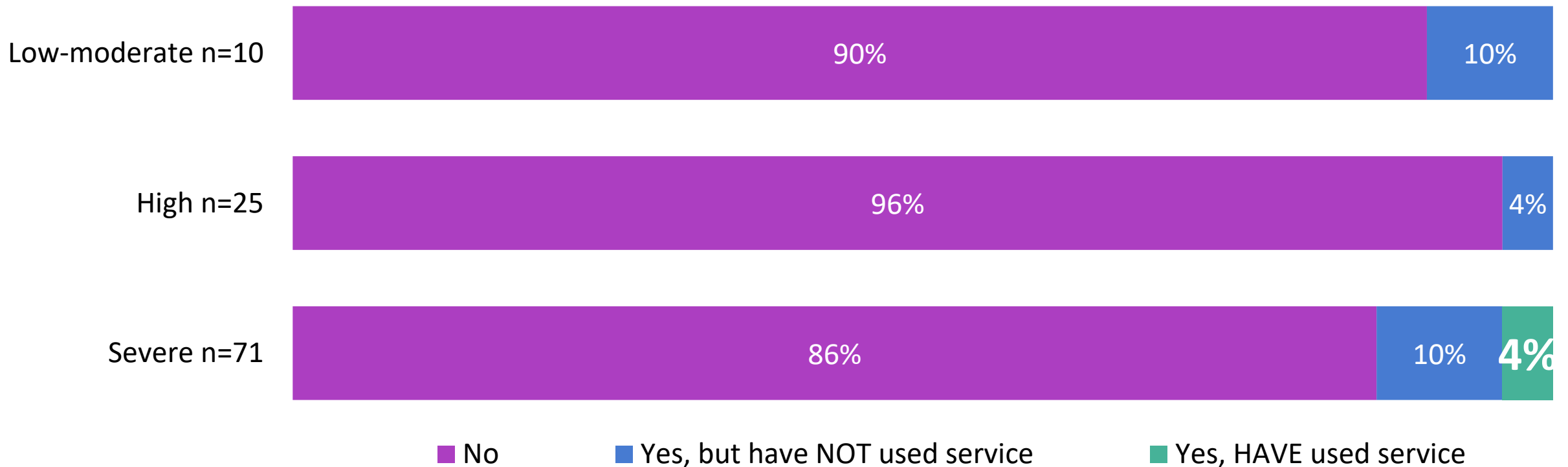
# THOSE WITH SEVERE AND HIGH ENERGY BURDENS WERE LESS LIKELY TO HAVE USED UTILITY ASSISTANCE PROGRAMS

Awareness and use of Utility Assistance Programs

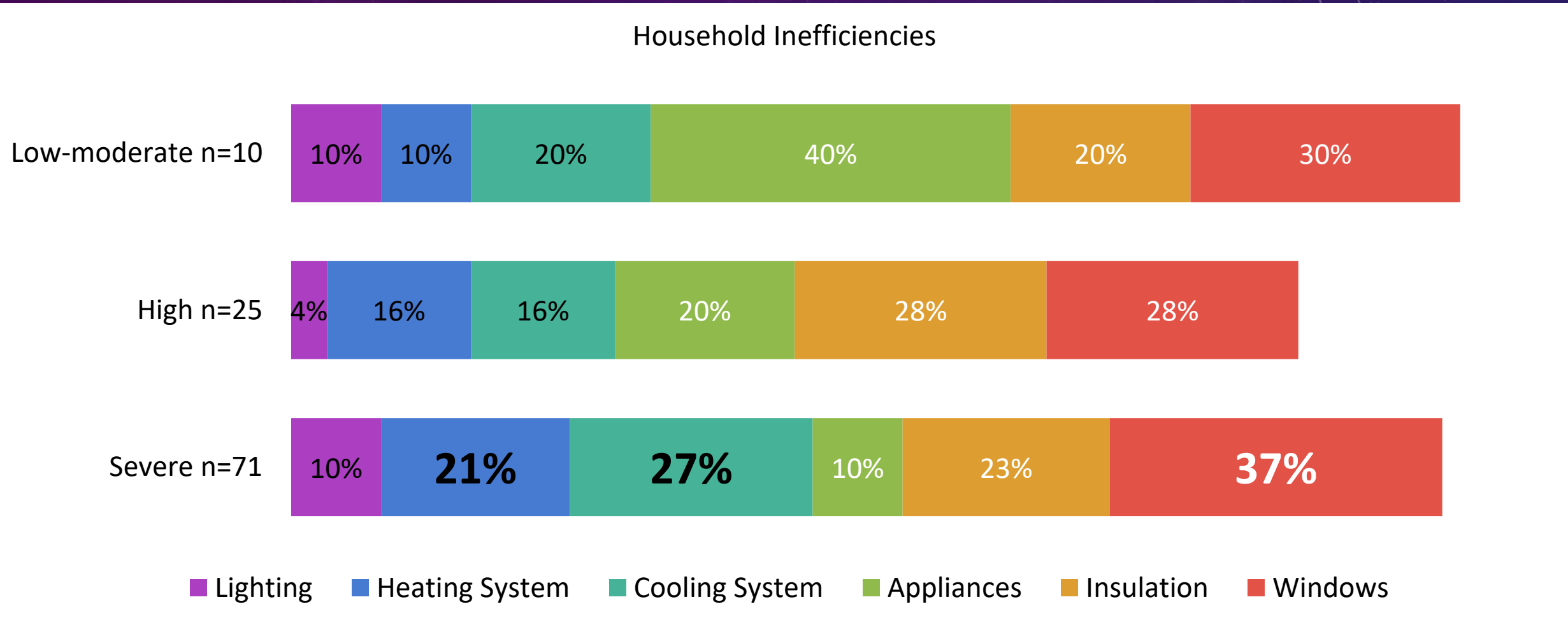


# THOSE WITH SEVERE ENERGY BURDENS WERE THE ONLY ONES THAT REPORTED USING COOLING/HEATING SYSTEM REPAIR PROGRAMS

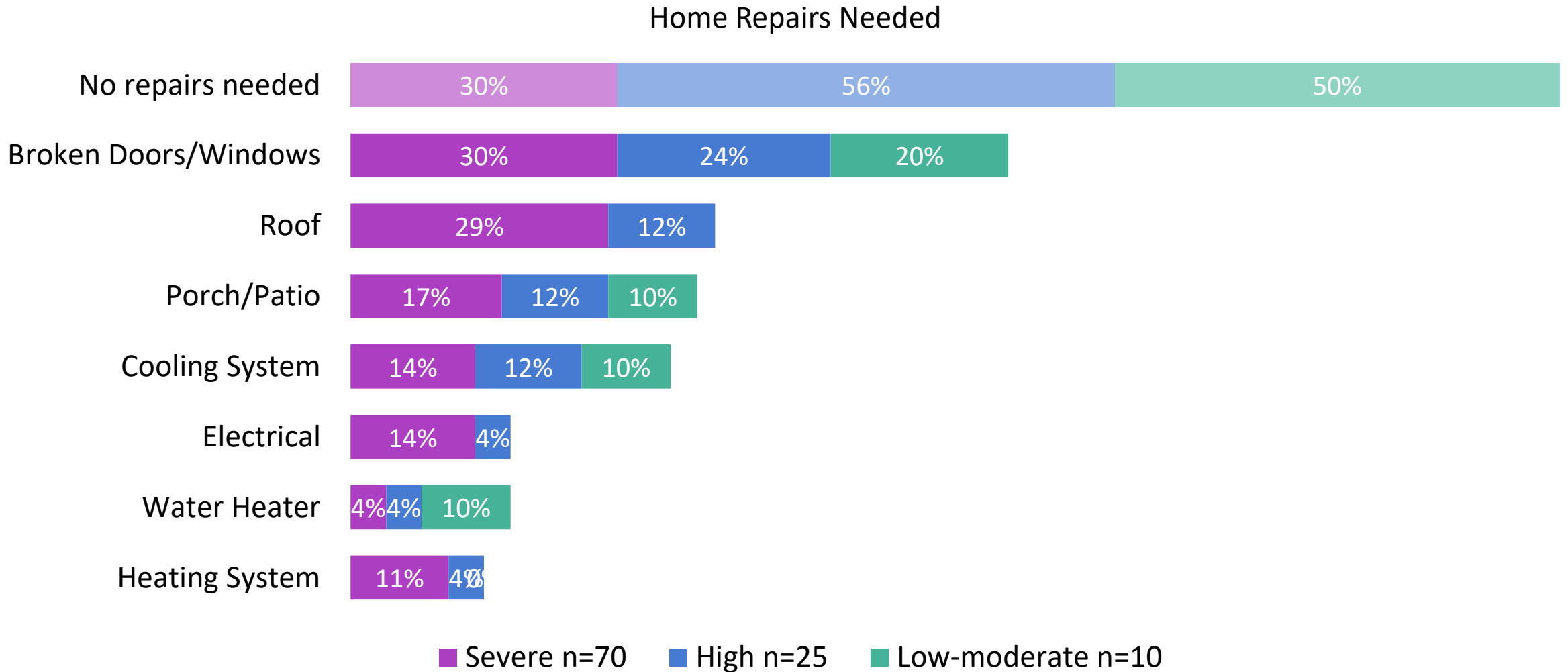
Awareness and use of Home Cooling/Heating System Repair Programs



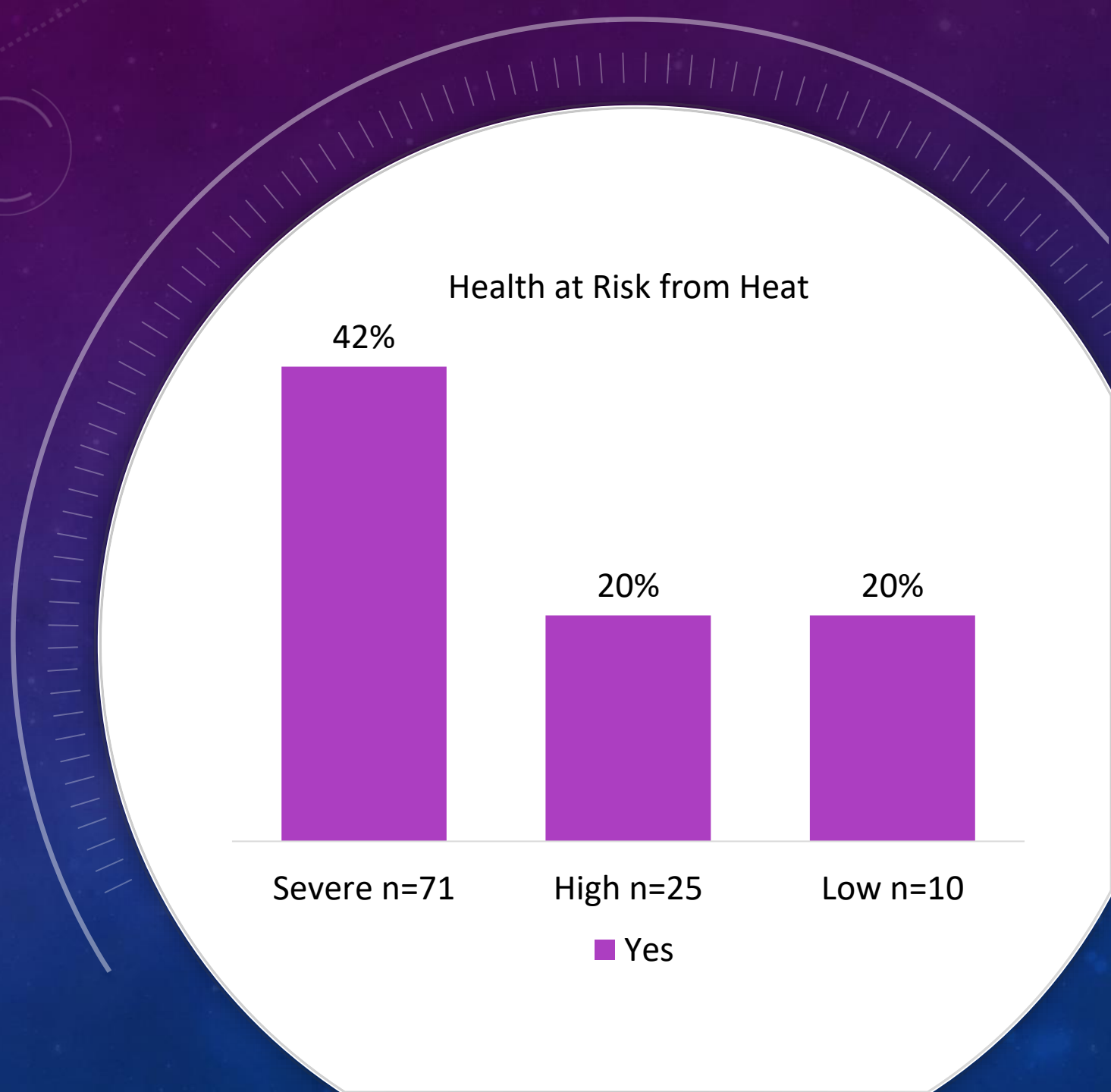
# MORE HOUSEHOLDS WITH SEVERE ENERGY BURDENS REPORTED HOUSEHOLD INEFFICIENCIES SUCH AS WINDOWS, COOLING SYSTEMS, AND HEATING SYSTEMS



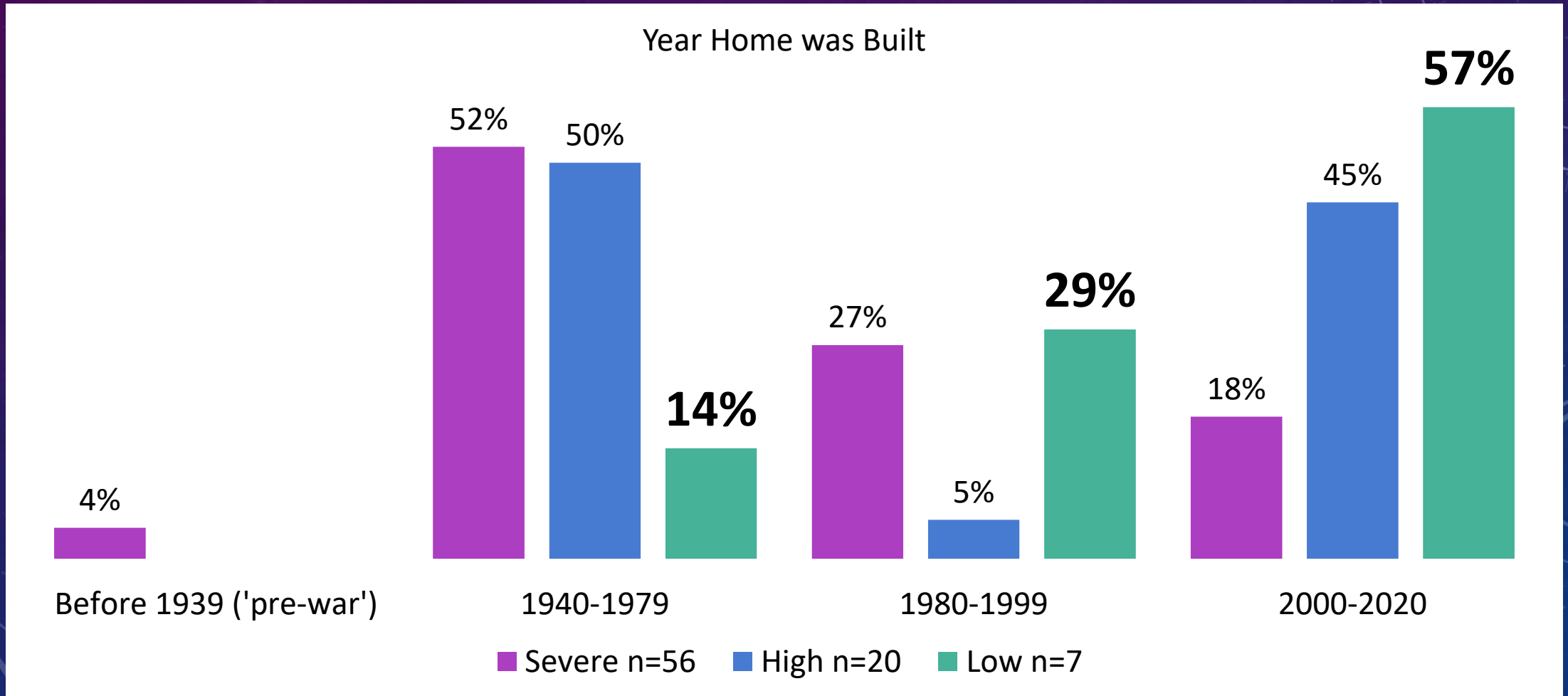
# THOSE WITH SEVERE AND HIGH ENERGY BURDENS WERE MORE LIKELY TO REPORT NEEDING VARIOUS HOME REPAIRS



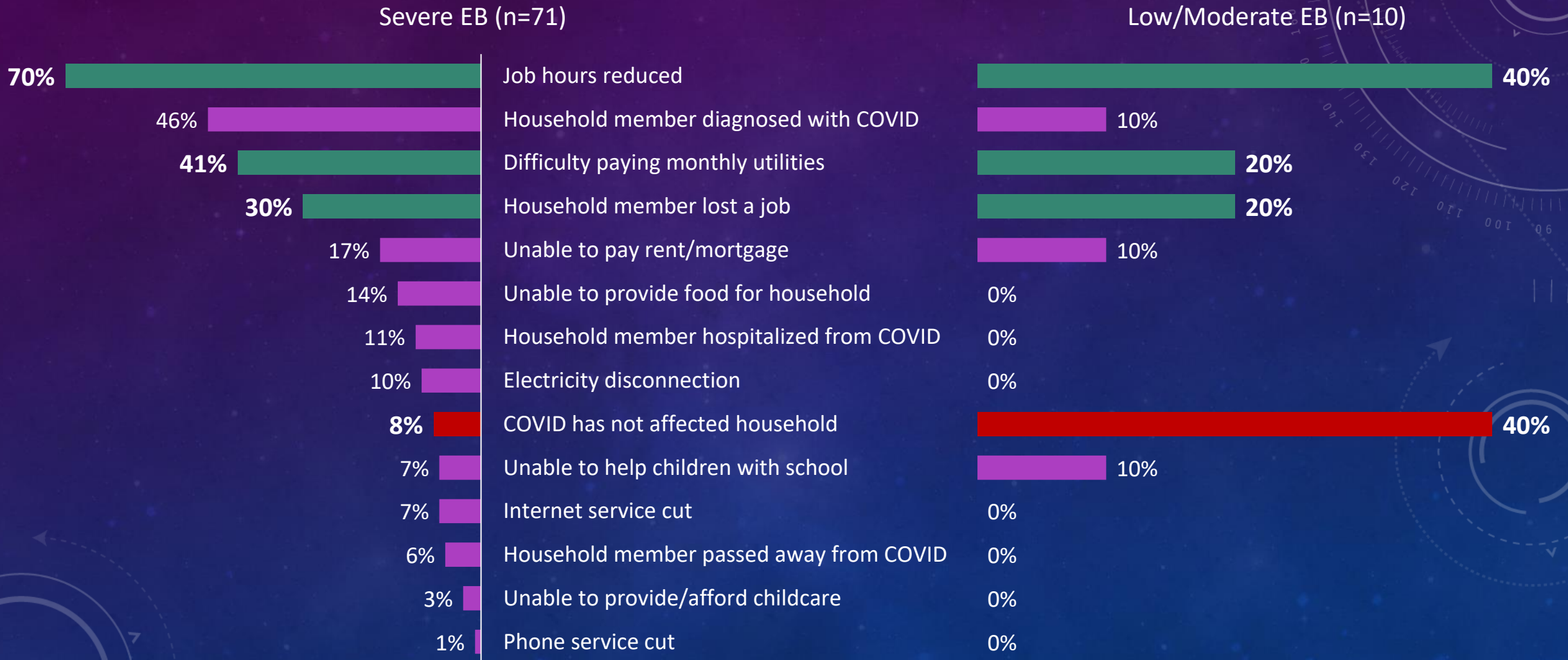
42% OF THOSE WITH SEVERE ENERGY BURDEN REPORTED FEELING THAT THEIR HEALTH IS AT RISK DUE TO HEAT WHEREAS 20% OF THOSE WITH LOW ENERGY BURDEN REPORTED FEELING THAT THEIR HEALTH IS AT RISK DUE TO HEAT



# MORE HOUSEHOLDS WITH SEVERE AND HIGH ENERGY BURDENS HAD OLDER HOMES (BUILT 1940-1979)



# OVERALL, THOSE WITH A HIGH ENERGY BURDEN WERE MORE EFFECTED BY COVID-19, WITH JOB HOURS REDUCED, DIFFICULTY PAYING UTILITIES, LOSS OF JOBS...AND MORE





# KEY FINDINGS

- ✓ 67% of households have a severe energy burden (71 households)
- ✓ Households have a severe/high energy burden in BOTH THE SUMMER AND WINTER —indicating no relief all year
  - ✓ 61% of those severely burdened in the summer were also severely burdened in the winter (50/82)
  - ✓ 29% of those highly burdened in the summer were also highly burdened in the winter (6/21)
- ✓ 32% of those with severe or high energy burden experience limitations to using their cooling system
- ✓ Most common reasons for not using assistance programs are: 1) not being aware of services, 2) not having contact information, and 3) assuming don't qualify/being told don't qualify for services
- ✓ Windows and insulation were reported to be most inefficient across all groups
- ✓ Most common home repairs needed: 1) broken doors/windows, 2) roof, and 3) porch/patio
- ✓ 42% of those with a severe energy burden feel that their health is at risk due to heat
  - ✓ Most common health issues were headaches, fatigue, and leg cramps (for high and severe)
- ✓ Most common PROBLEMS OVERALL: 1) sleep, 2) mental health, 3) ability afford food - SEVERE
- ✓ More people with severe and high energy burdens had older homes (built 1940-1979)

# QUESTIONS?

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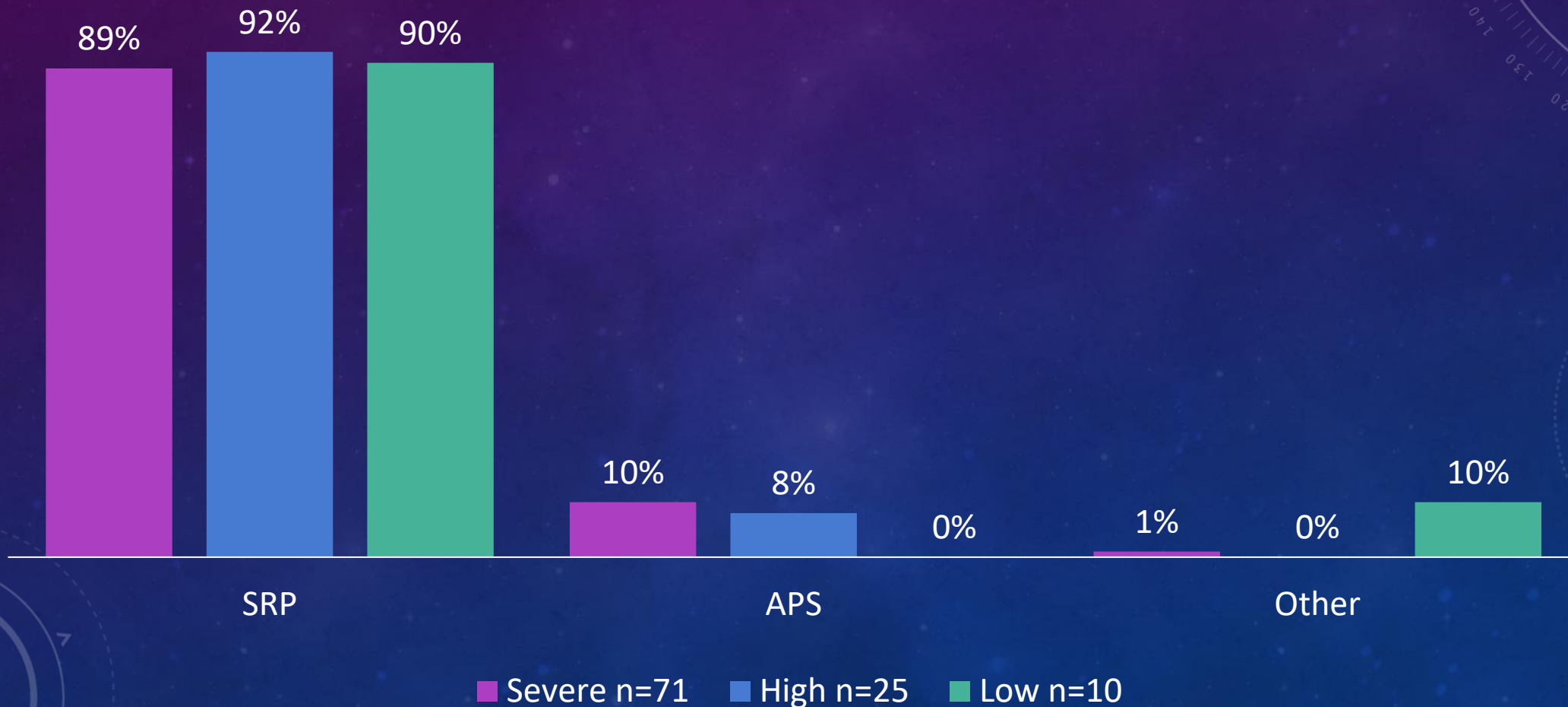
Vjollca Berisha, MCDPH: [Vjollca.Berisha@maricopa.gov](mailto:Vjollca.Berisha@maricopa.gov)

# RANGE, MEDIAN, AND AVG, OF ENERGY BURDEN LEVELS

ENERGY BURDEN N=106	avg.	median	min	max
SEVERE N=71	35%	22%	11%	216%
HIGH N=25	8%	8%	6%	10%
LOW/MOD N=10	4%	5%	2%	5%

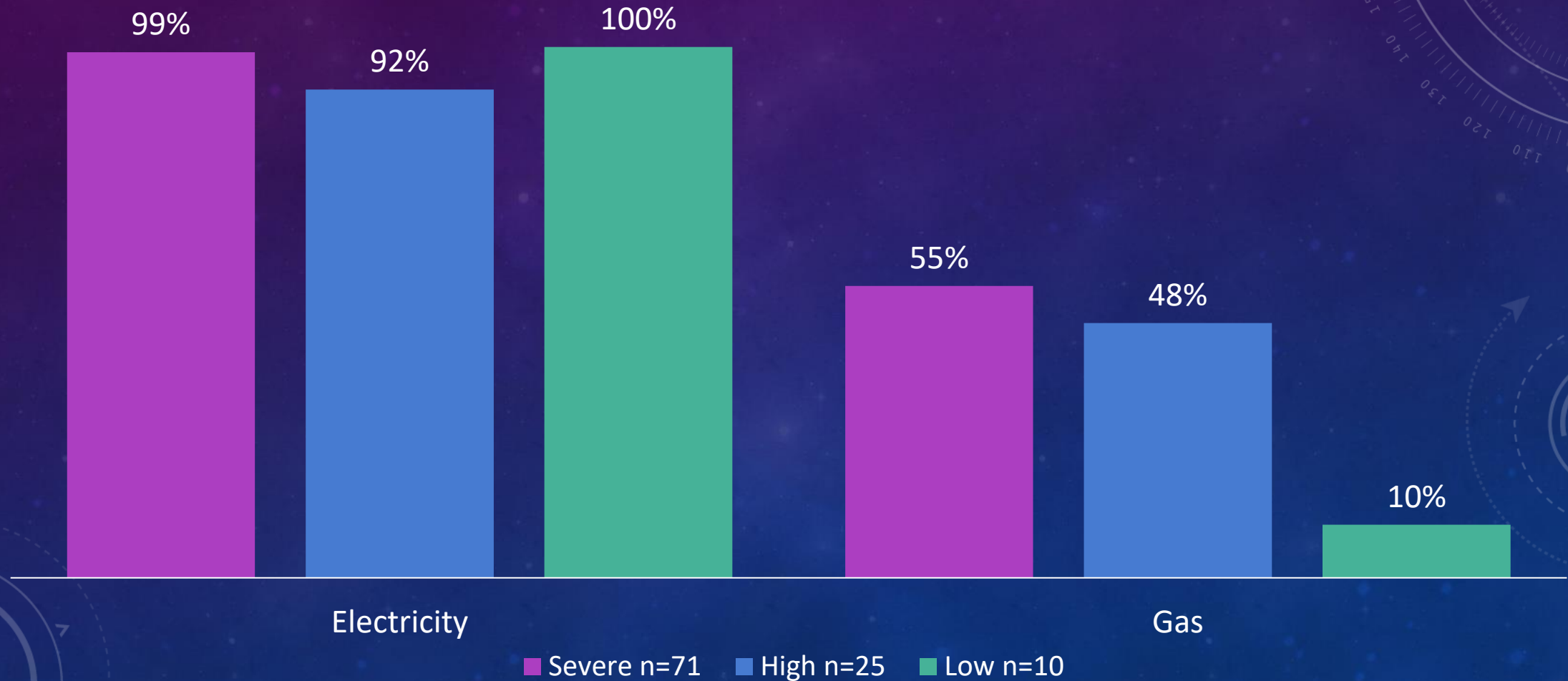
# ACROSS ALL ENERGY BURDENS, SRP WAS MOST COMMON ELECTRICITY PROVIDER

Q2: Household Electricity Service Provider



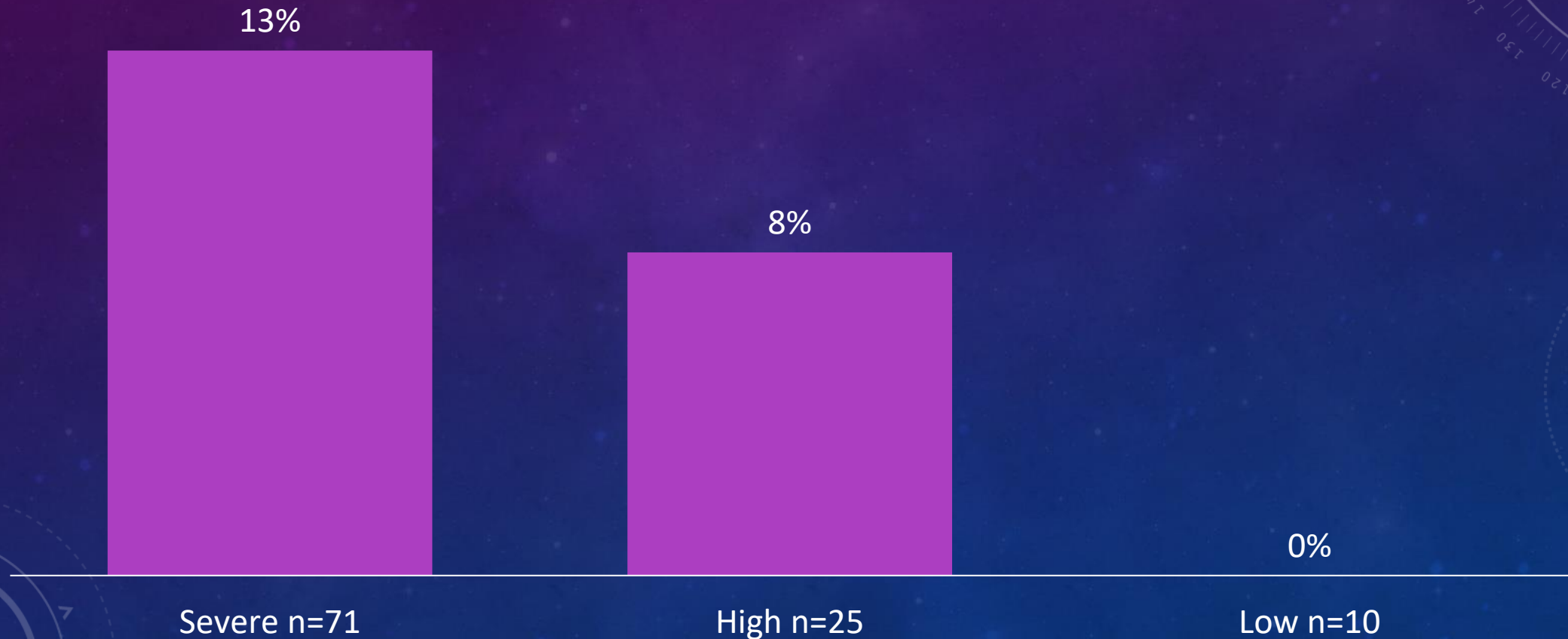
# ACROSS ALL ENERGY BURDENS, MOST HOUSEHOLDS PAY FOR THEIR OWN ELECTRICITY

Q8: Which of the following household expenses do you pay for in full or in part directly?



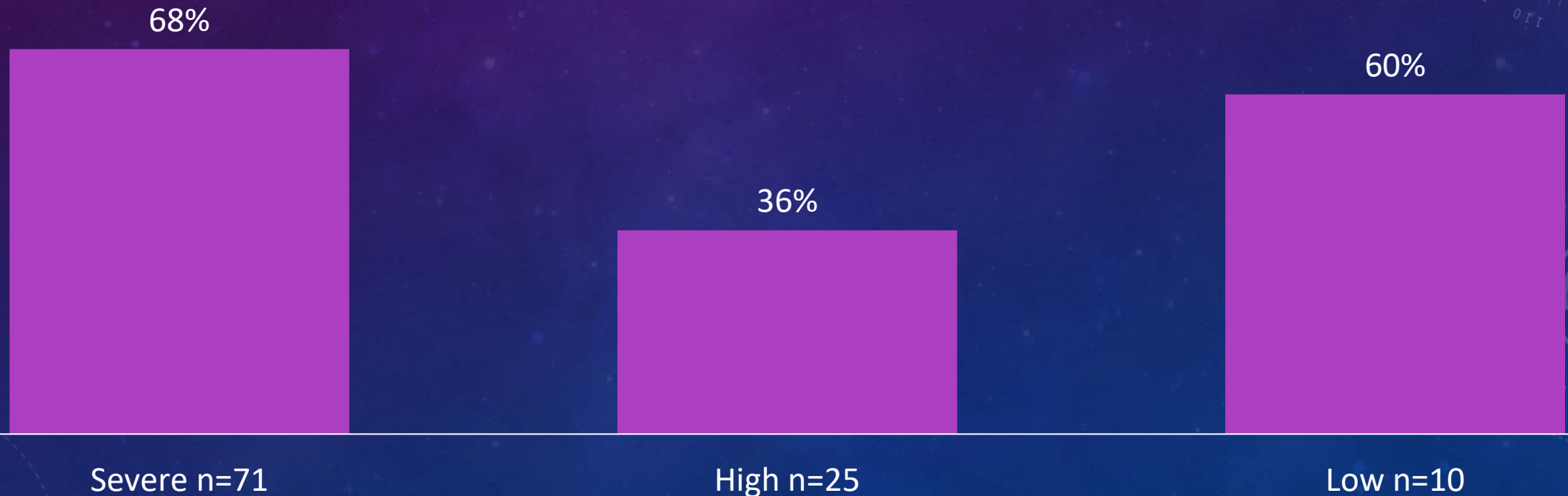
# A HIGHER PERCENTAGE OF THOSE WITH A SEVERE ENERGY BURDEN SUFFERED ELECTRICITY SHUT-OFFS

Q19: In past 12 months, have electricity services been shut-off due to non-payment?



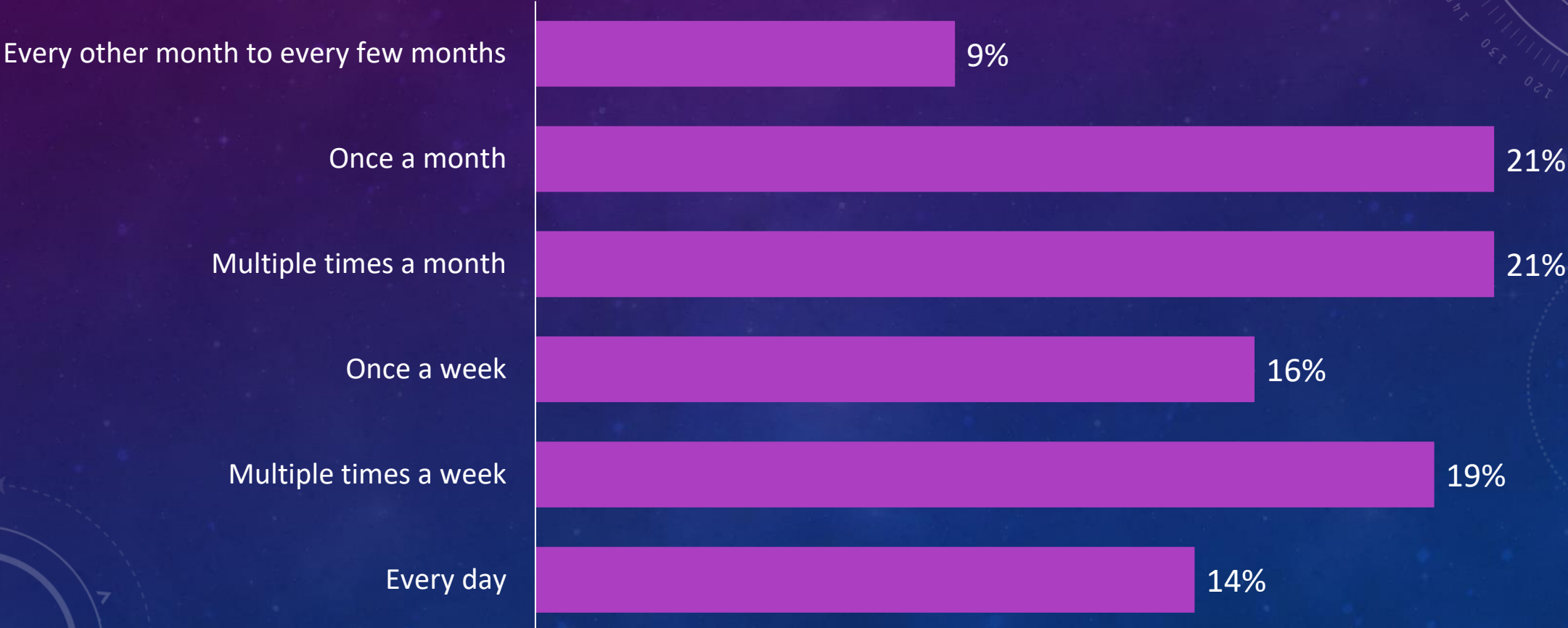
# MORE HOUSEHOLDS WITH SEVERE AND LOW ENERGY BURDENS REDUCED EXPENSES TO PAY THEIR ENERGY BILLS

Q32: In past 12 months, have you reduced expenses for basic household necessities to pay energy bill?



# OUT OF ALL SURVEY RESPONDENTS (139), N=77 REDUCED EXPENSES TO PAY ENERGY BILL

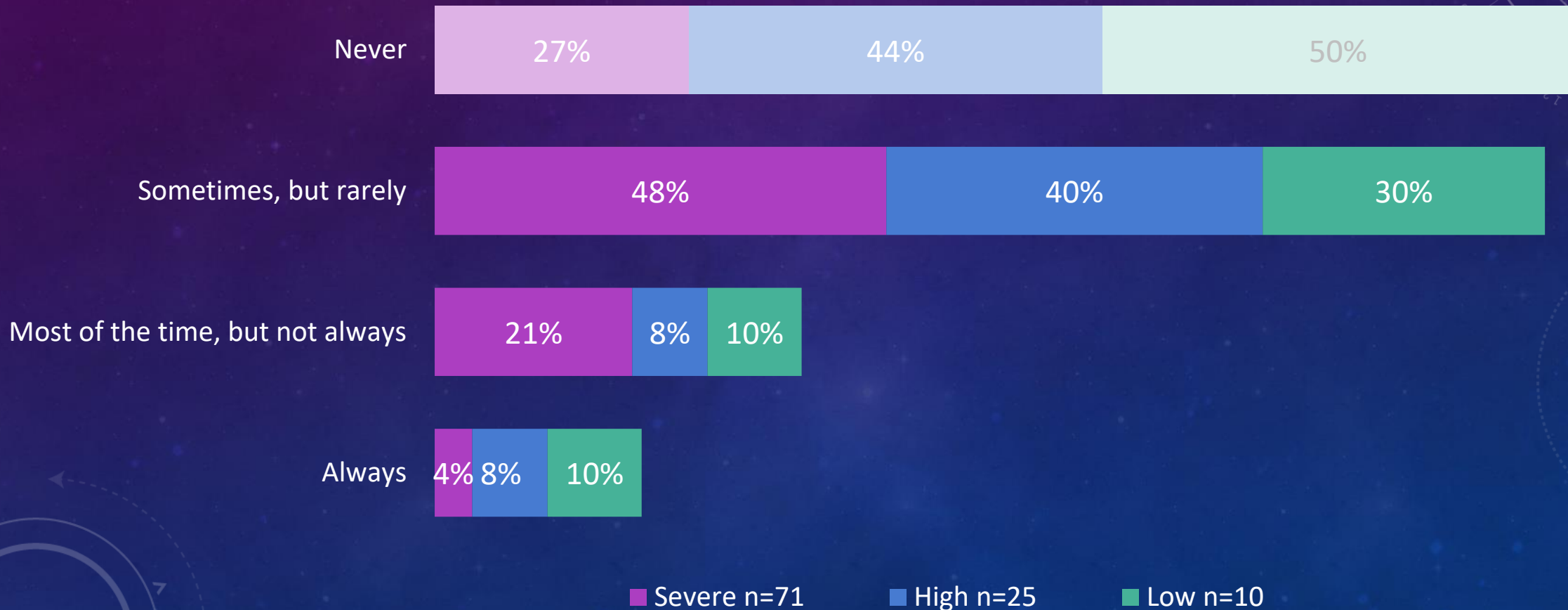
Q33: How often have you reduced expenses for basic household necessities to pay your energy bill?





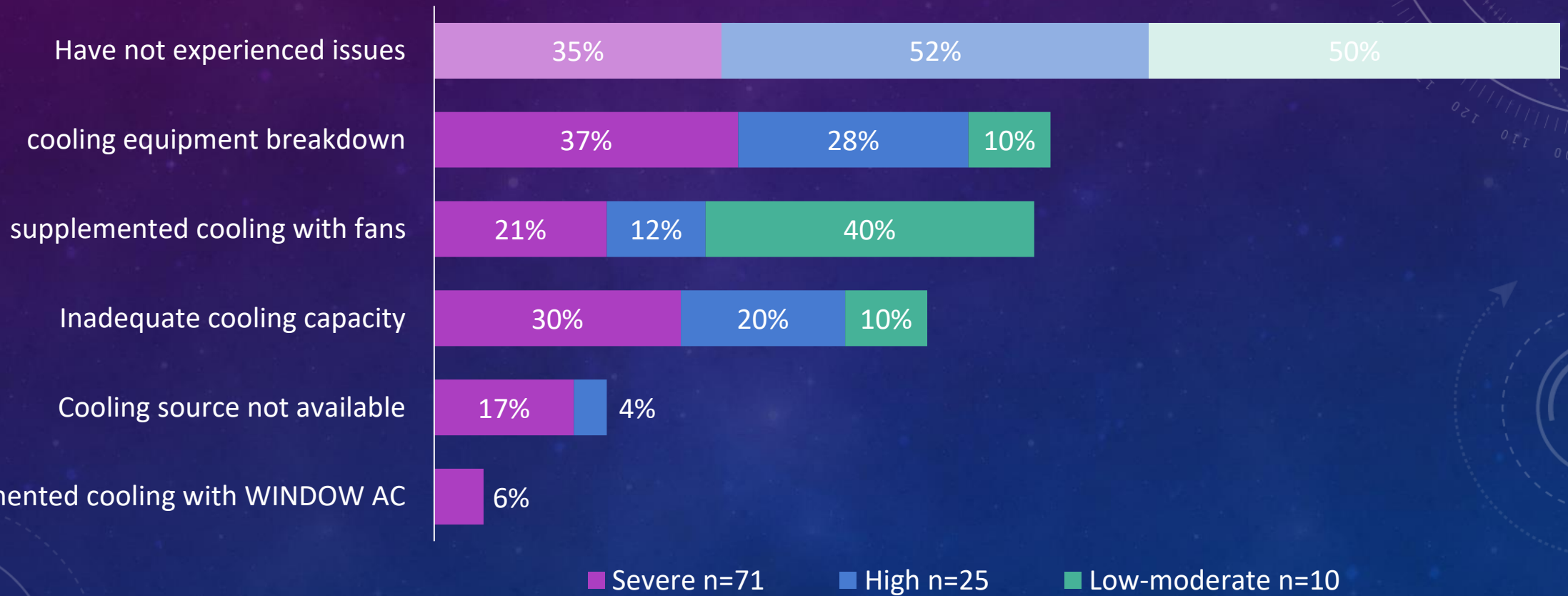
# ACROSS ALL BURDENS MANY FELT HOT INSIDE HOMES SOMETIMES

Q45: Did you or members of your household ever feel too hot inside your home during this summer?



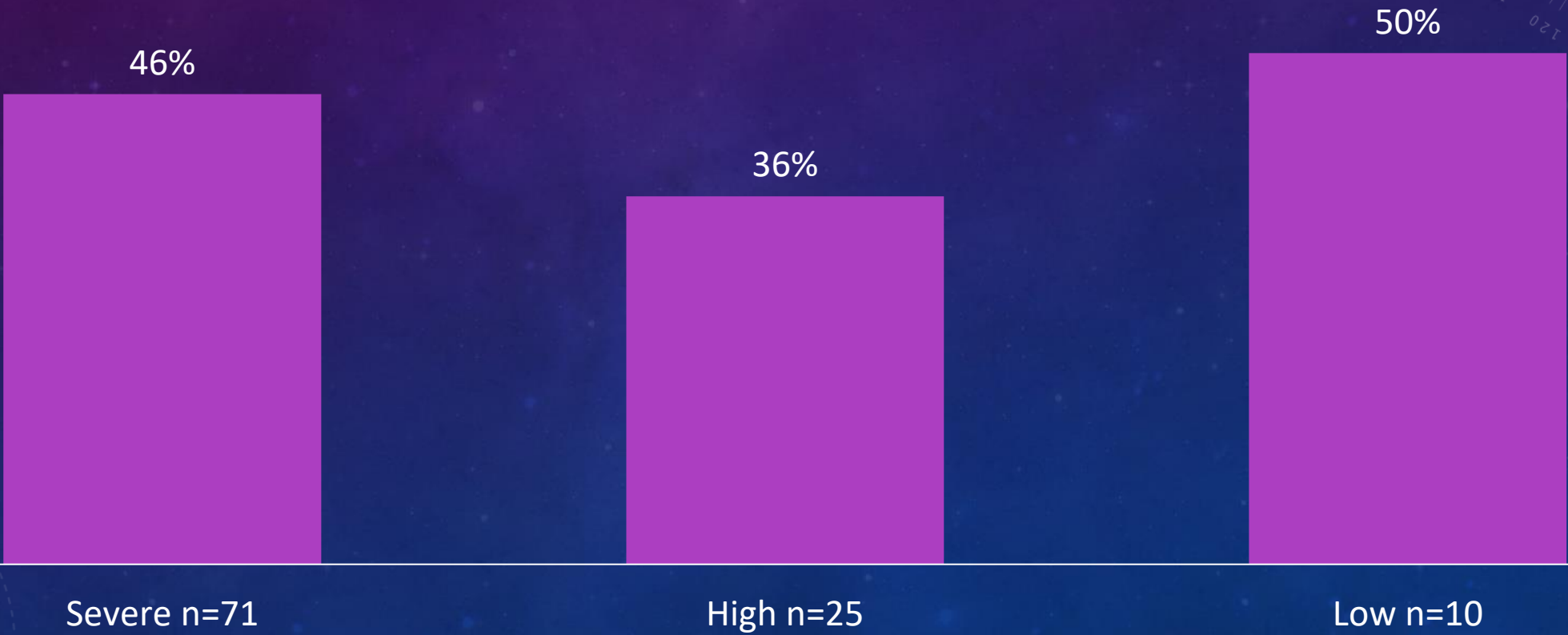
# COOLING EQUIPMENT BREAKDOWN WAS THE MOST COMMON ISSUE AMONG SEVERE AND HIGH ENERGY BURDENED

Q:46 In the last 12 months, have you experienced any of the following issues related to cooling your home?



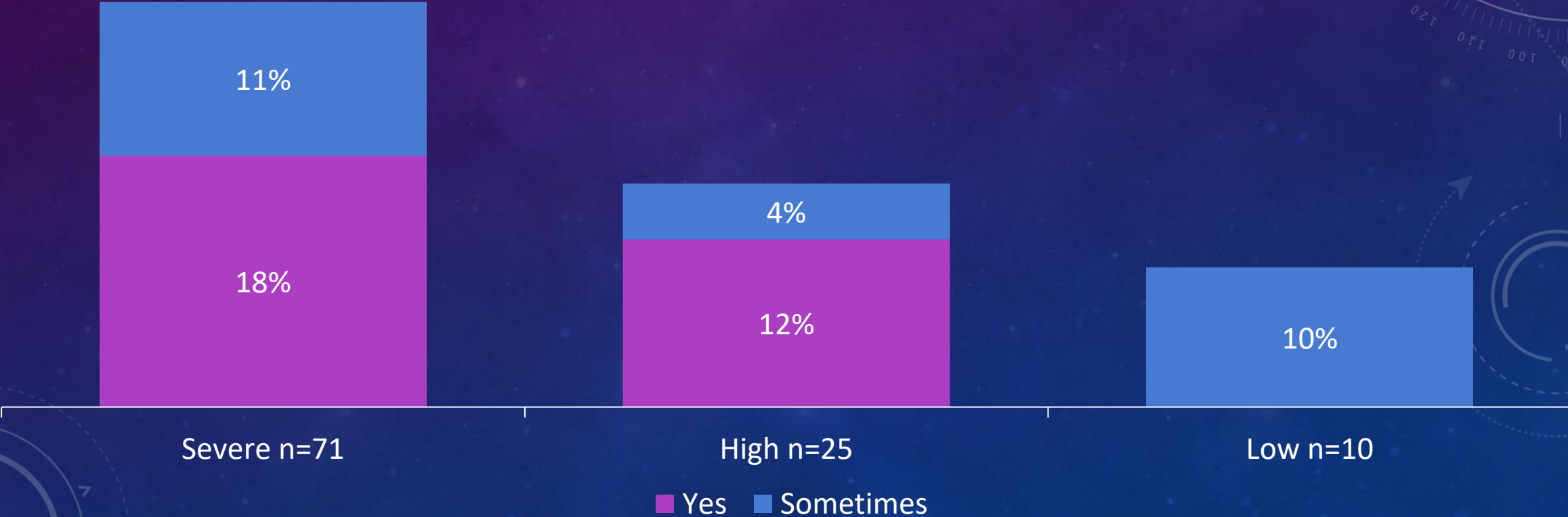
# SEVERE AND LOW ENERGY BURDENED WERE MORE LIKELY TO REDUCE ENERGY CONSUMPTION TO UNCOMFORTABLE LEVELS TO SAVE

Q48: In the past 12 months, have you reduced your energy consumption to uncomfortable or inconvenient levels to save energy?



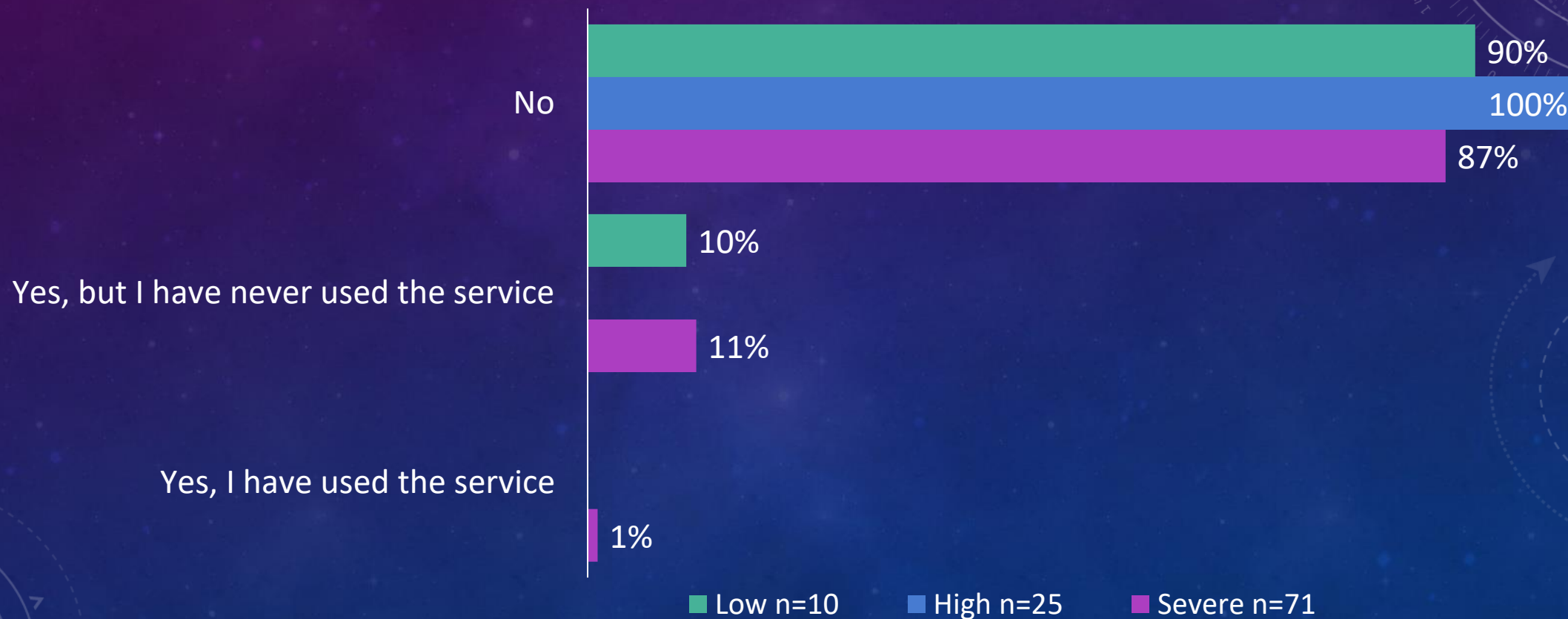
# SEVERELY ENERGY BURDENED WERE MOST LIKELY TO LEAVE HOME FOR A/C PLACE TO COOL OFF

Q54: When weather is very hot, do you or members of household ever leave home to go to an A/C place to cool off?



# ACROSS ALL BURDENS, ALMOST ALL HOUSEHOLDS ARE NOT AWARE OF COOLING CENTERS IN MARICOPA COUNTY

Q56: Are you aware of cooling centers in Maricopa County?



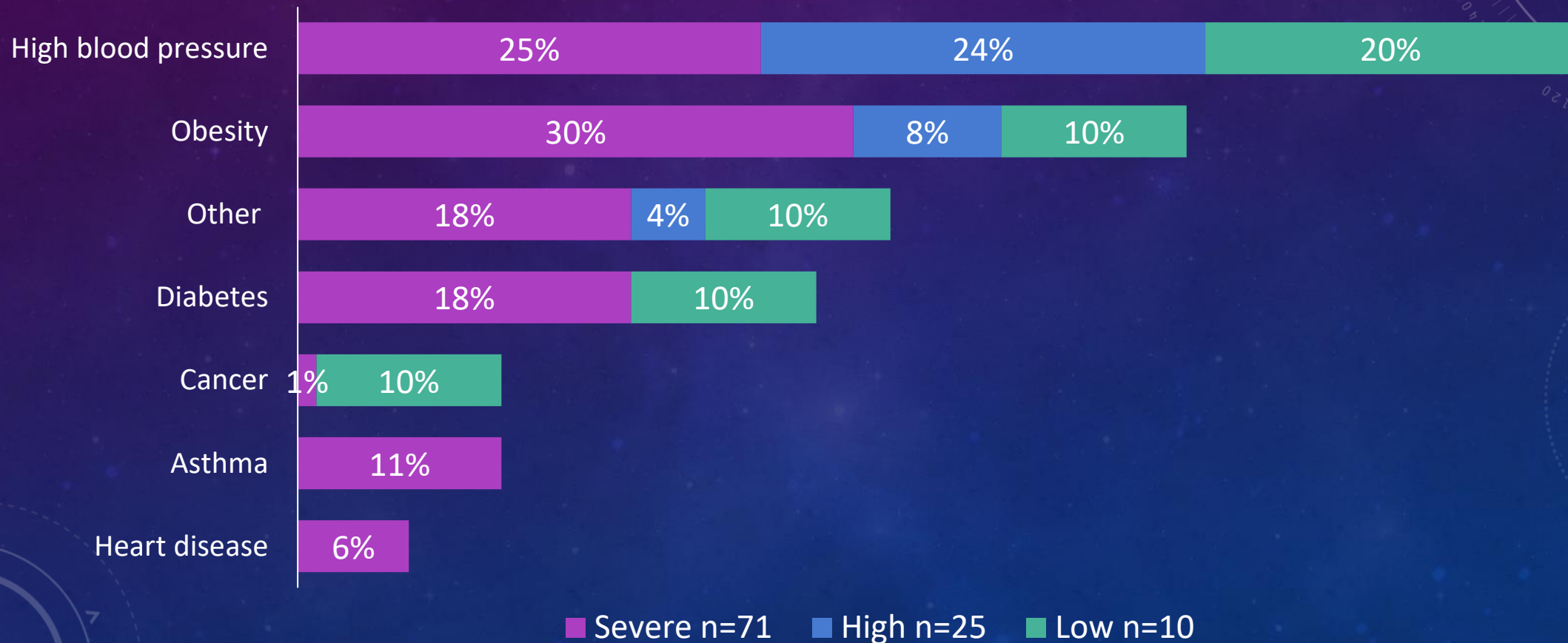
# ALMOST ALL PARTICIPANTS HAVE NOT DISCUSSED HOUSEHOLD ENERGY ISSUES WITH HEALTHCARE PROVIDER

Q59: In the past 12 months, have you discussed household energy issues with your healthcare provider? \*\*Q60 follow-up question in the notes



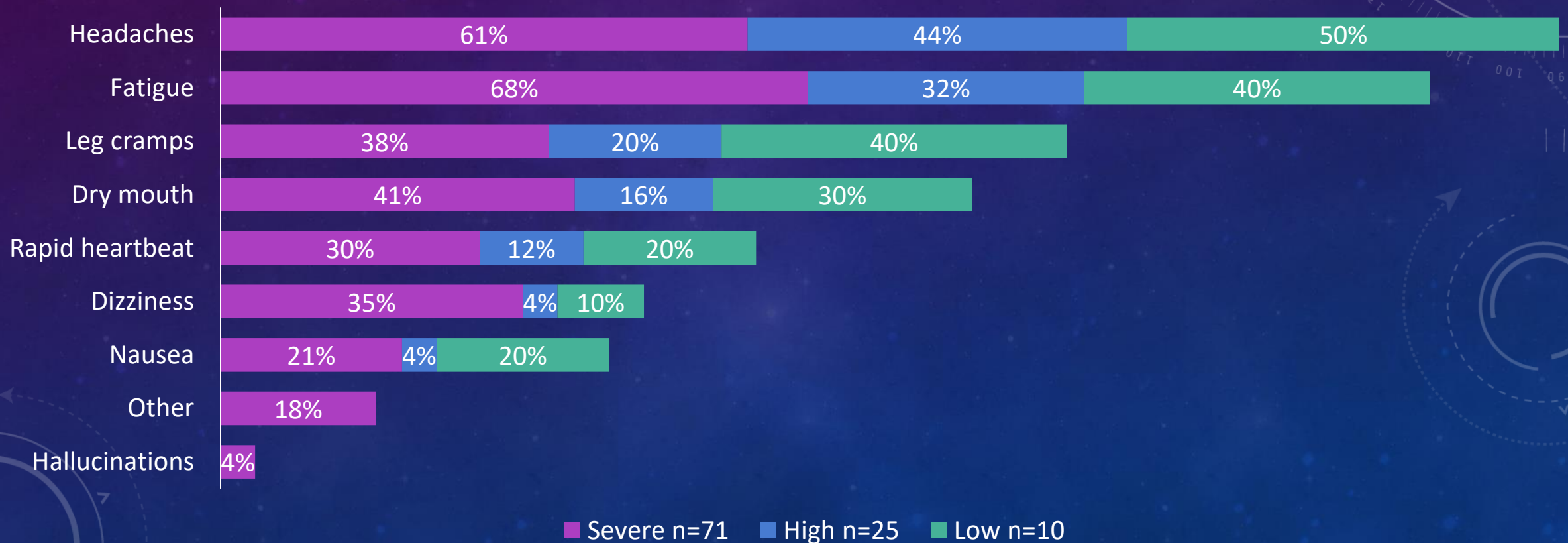
# SEVERE ENERGY BURDEN HAD HIGHEST PERCENTAGES OF HIGH BLOOD PRESSURE, OBESITY, AND DIABETES. THEY WERE THE ONLY GROUP TO HAVE ASTHMA AND HEART DISEASE.

Q62: Has any healthcare provider told you that you had any of the following chronic conditions?



# HEADACHES, FATIGUE, LEG CRAMPS, & DRY MOUTH WERE MOST COMMON SYMPTOMS AMONG SEVERE AND HIGH BURDENED IN LAST MONTH

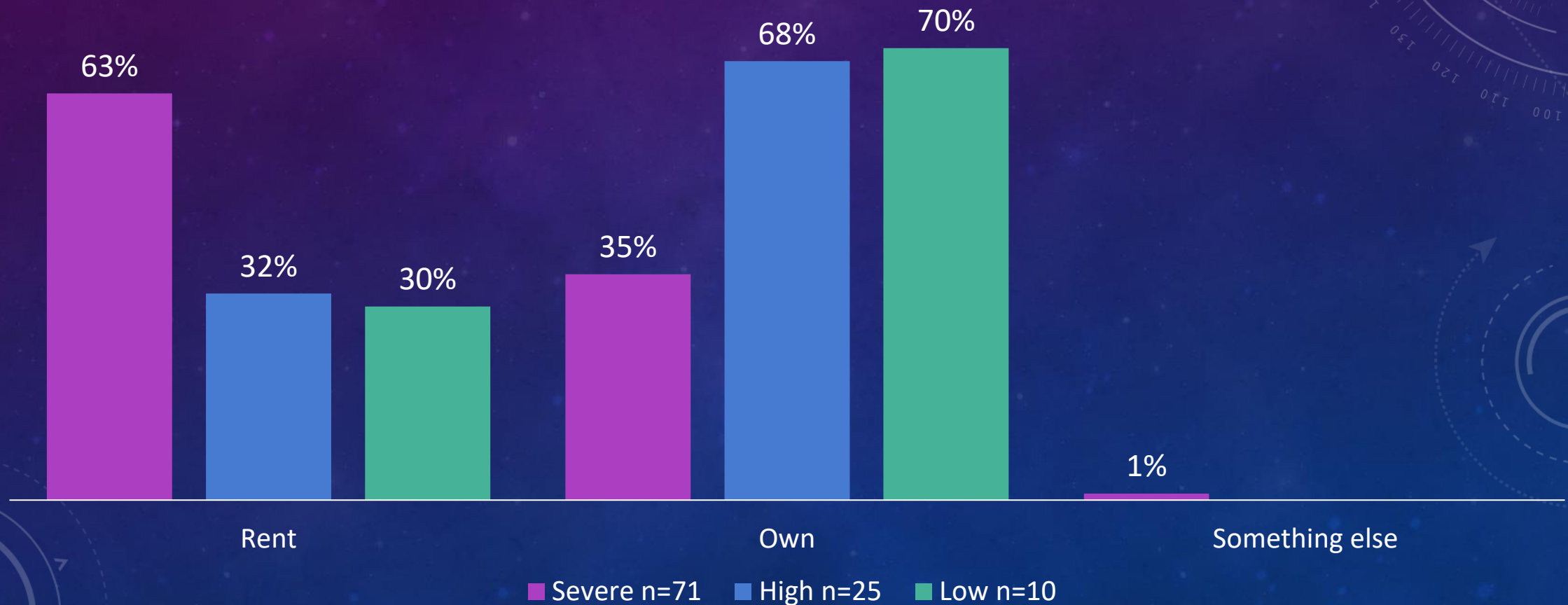
Q63: Have you experienced any of the following symptoms while in your residence during the past month?





# SEVERE ENERGY BURDENED ARE MORE LIKELY TO RENT THAN HIGH AND LOW ENERGY BURDENED

Q75: Do you, or anyone else in this household, own this home, or are you renting?



# DEMOGRAPHICS OF TOTAL SURVEY PARTICIPANTS

- Q73: 136/139 (97.8%) total survey participants are of Hispanic, Latino, or Spanish origin
- Q74: What is your race?
  - White 37/139 (26.6%)
  - Hispanic 73/139 (52.5%)
  - Multiracial 27/139 (19.4%)