

Who are the Low Energy Users?

ECEEE

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Why Study the Lowest Decile?

1. A critical look at untested assumptions

Very little information about lowest users. So we assume that:

- **Low use = energy poverty, which is a bad thing!**
- **Very low users are poor, uncomfortable, or just strange – nothing to teach us!**

Are these things true?

2. “A Natural Example of Future Living”

Getting to 2050 seems hard, but the lowest 10% are already there

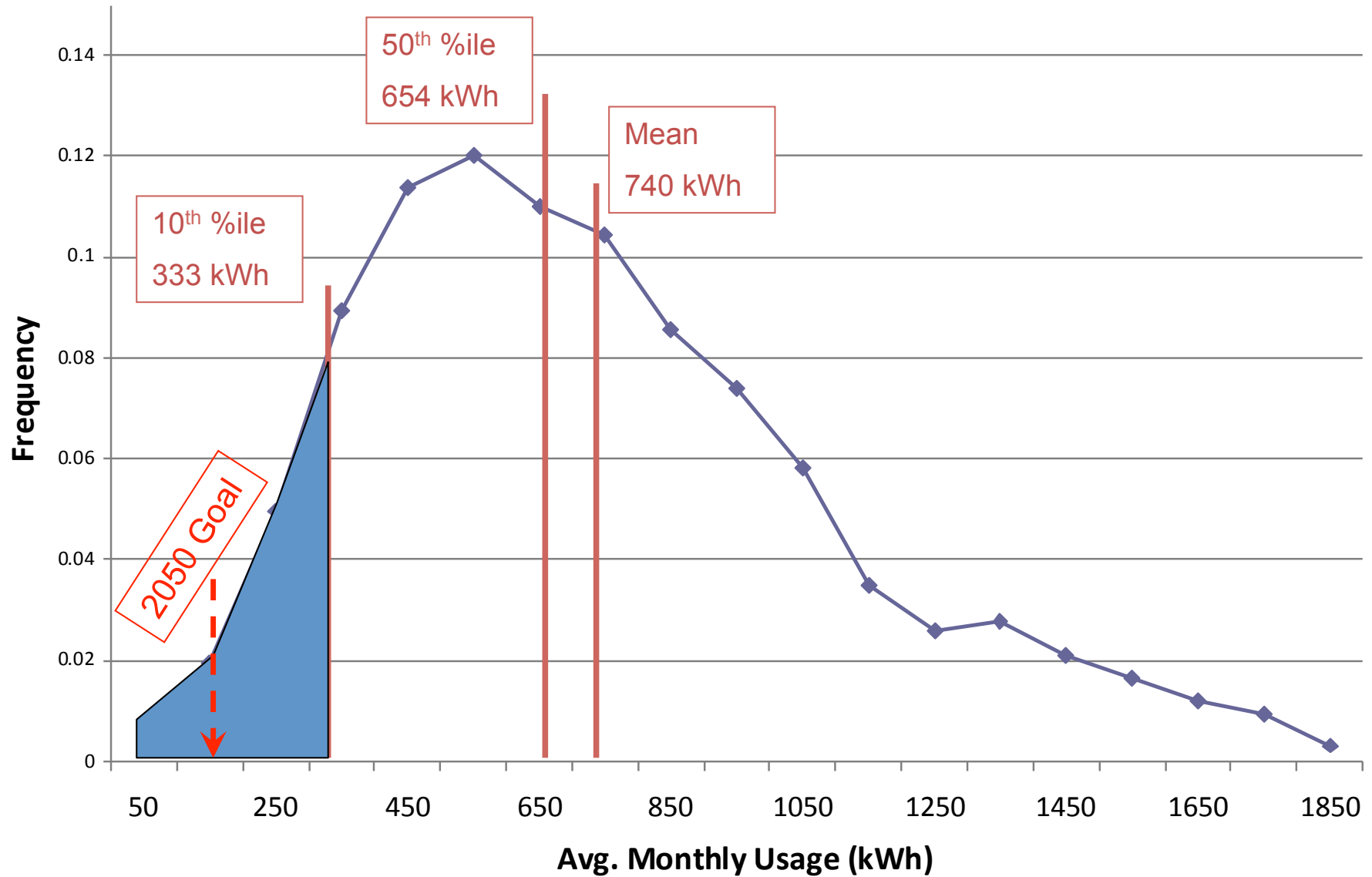
- **Lowest 10% of households consume electricity close to California’s 2050 goal of 150 kWh/month**
- **They do this even with *current* technology & infrastructure**

3. Current efficiency recommendations from experts won't get us to goal

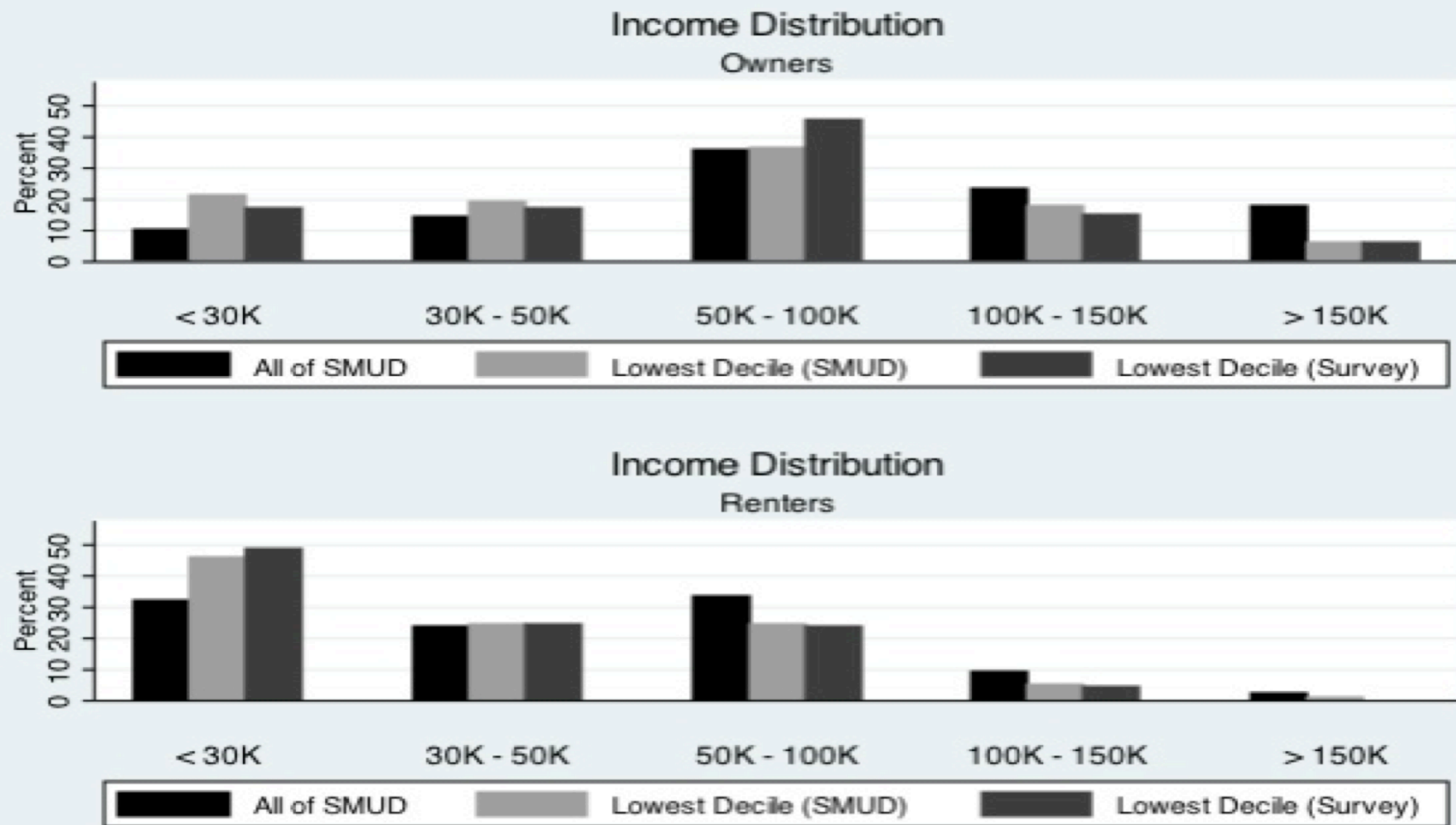
Instead, crowd-source GHG reduction

- **Expert advice can be too cautious, too generalized, or too normative**
- **In contrast, lowest users creatively adapt and often exceed official recommendations**

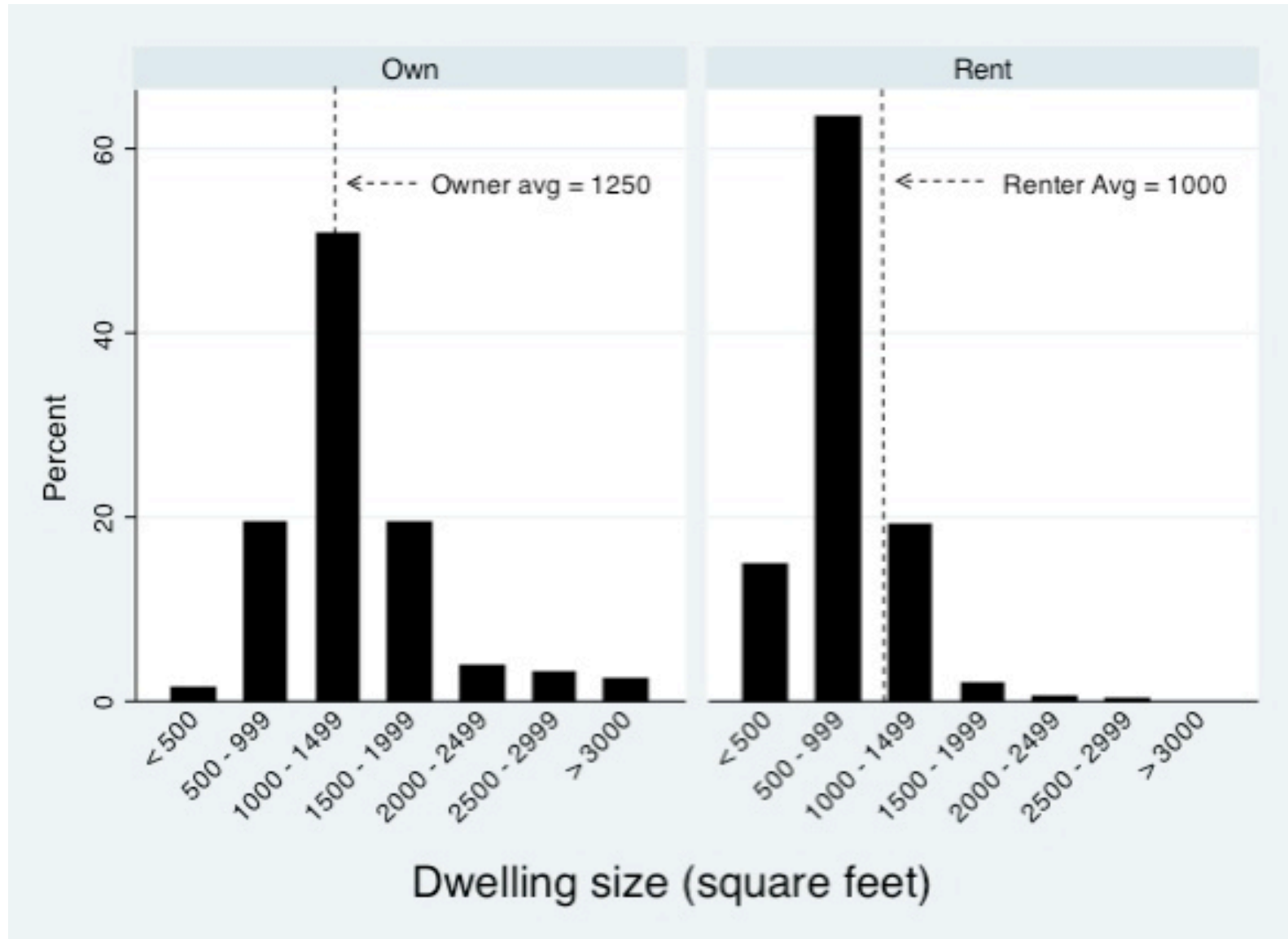
Residential electricity consumption distribution in SMUD territory



Lowest Users are Almost as Diverse as the General Population (Income, Home Size, Age, Race, Education)

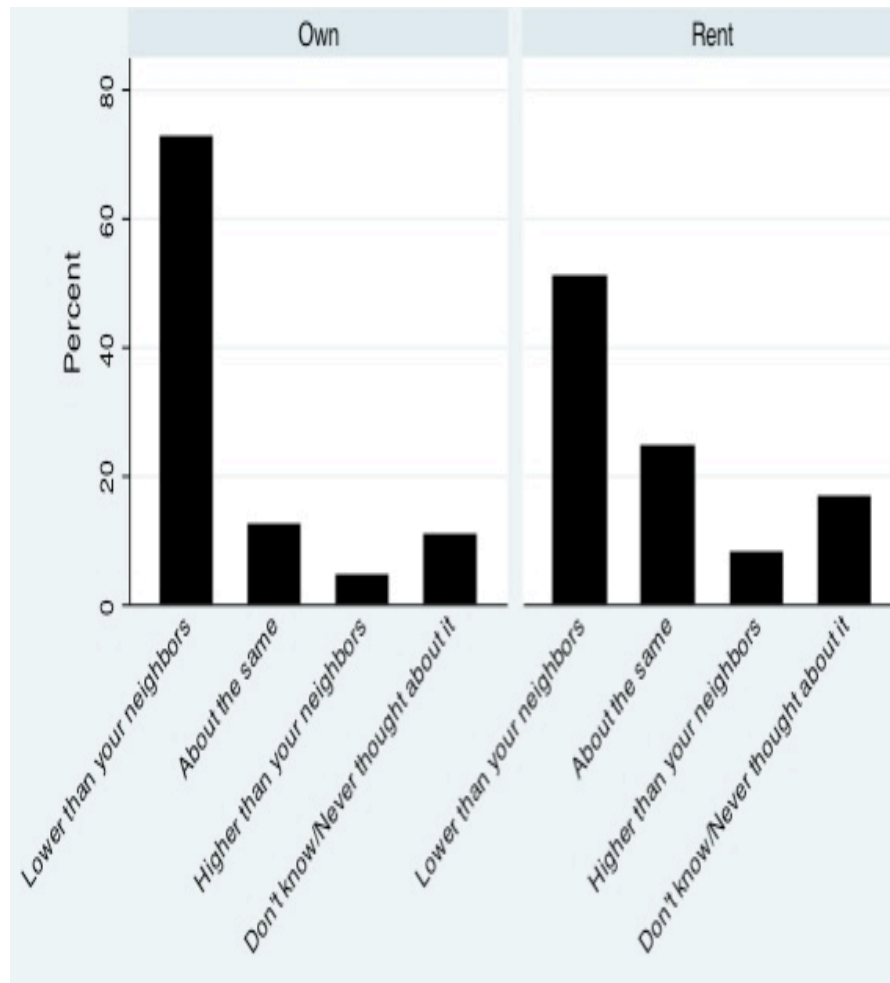


Home Size: Low Users Don't (necessarily) Live Small

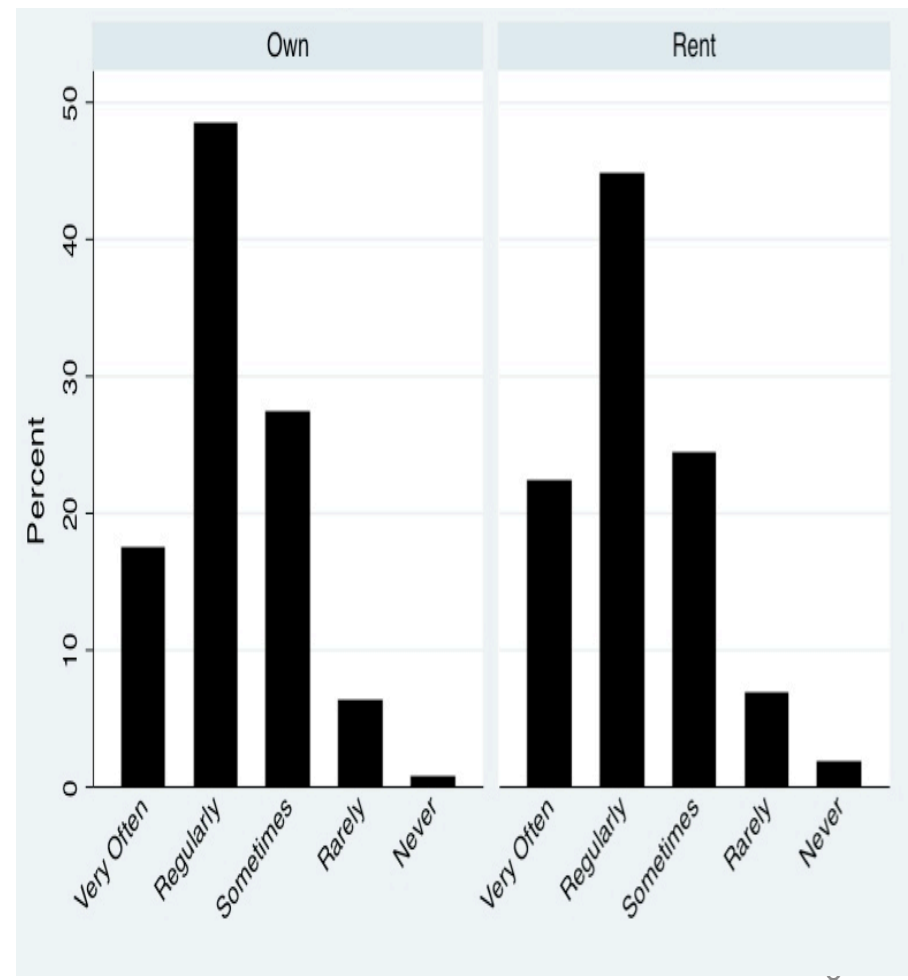


Low Users are Self Aware

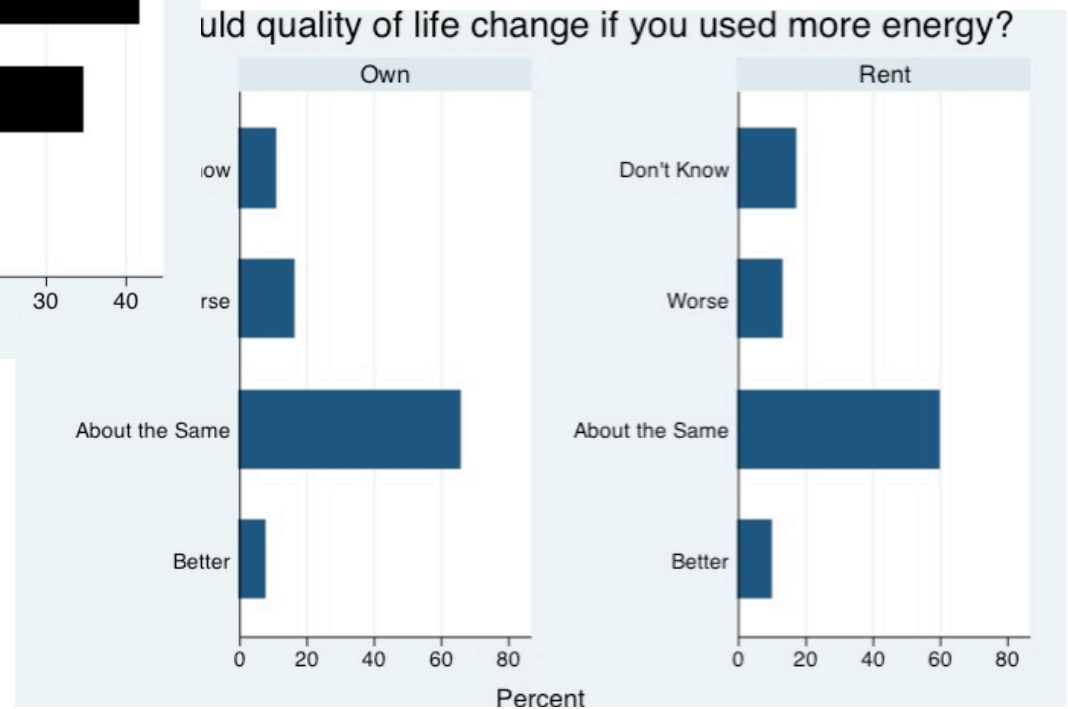
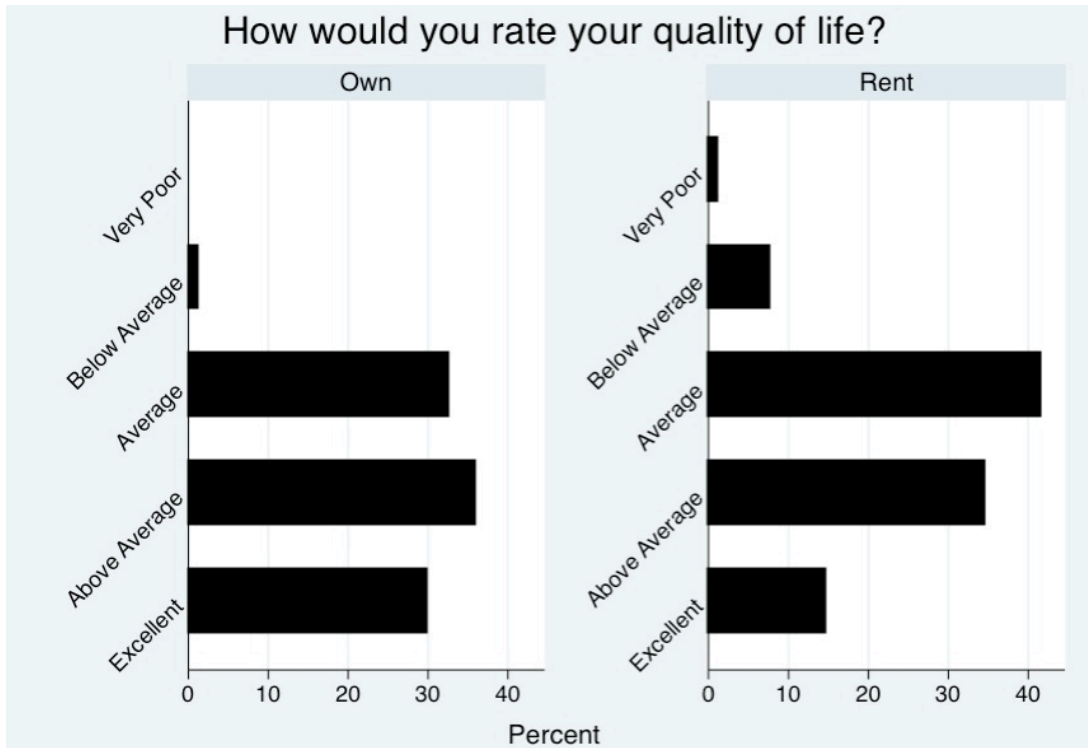
How do you think your energy use compares to your neighbors'?



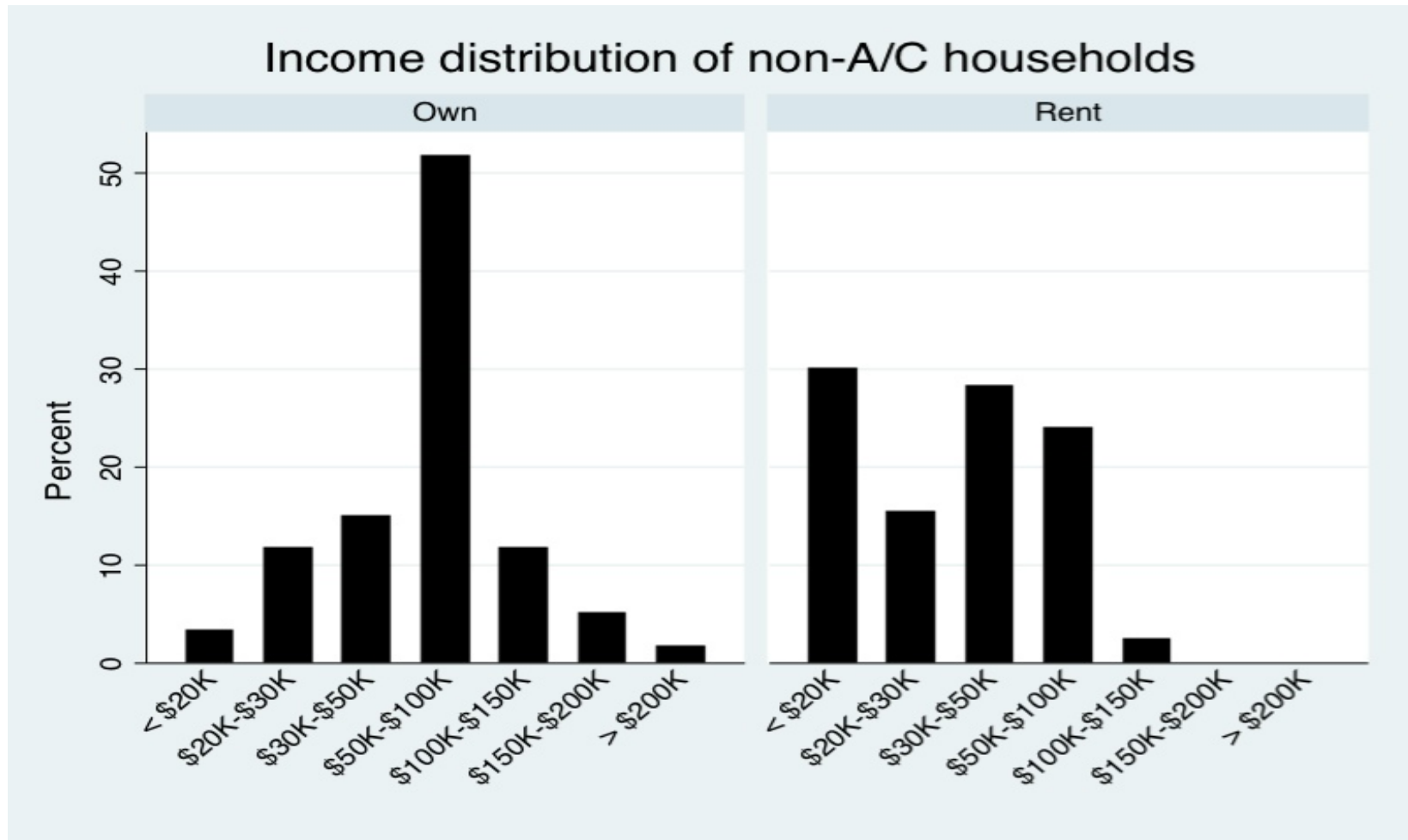
How often do you think about your energy consumption?



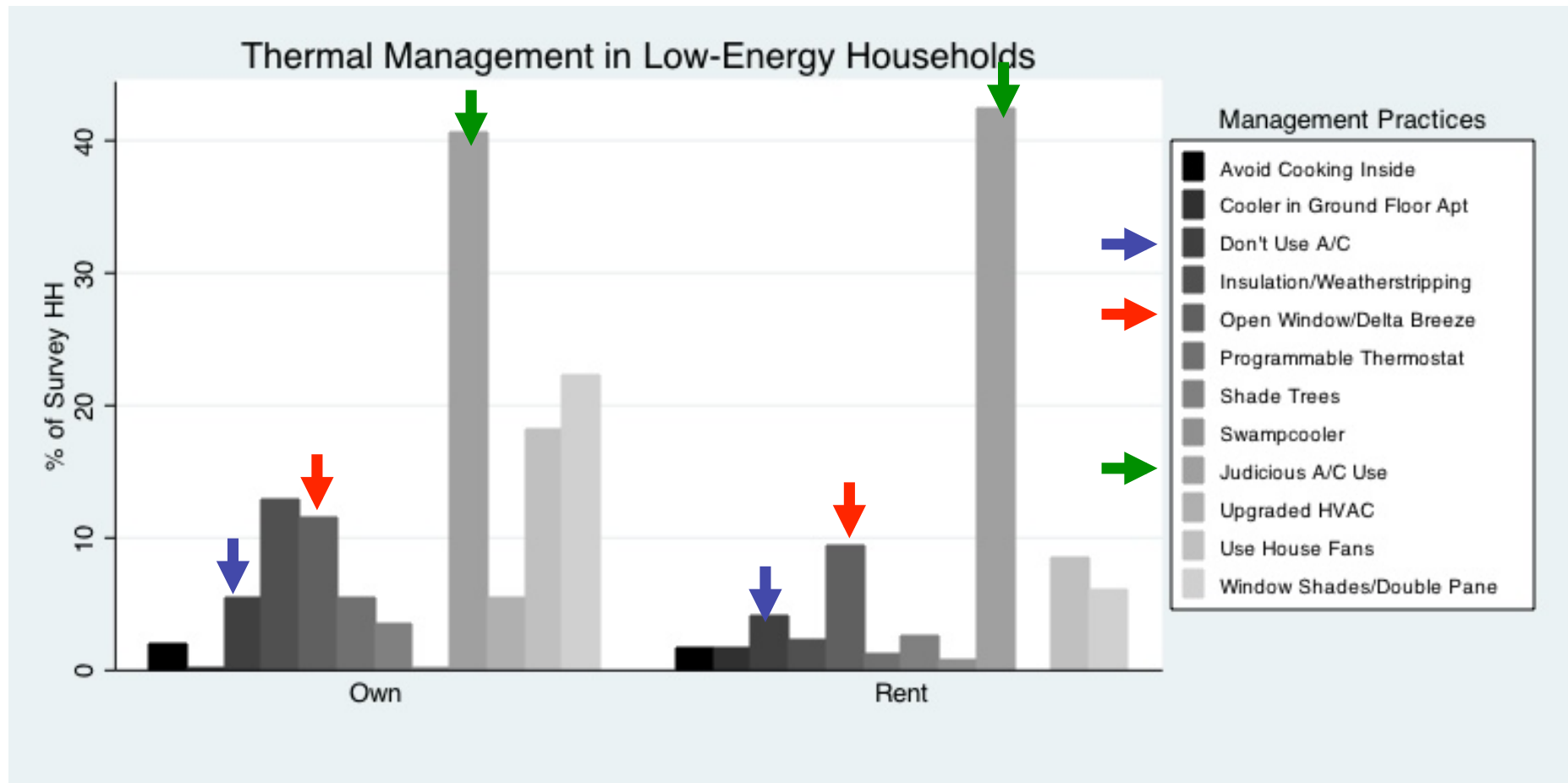
Low Energy Use \neq Low Quality of Life



Use of Air Conditioning does not correspond to income – it's a choice!



Creative Cooling Strategies: Low Users Exceed or Adapt Official Advice



Implications: Can we use findings of low user diversity for better outreach?

1. Low energy use \neq energy poverty \rightarrow There are **various paths** to low use.
2. Everyone has a peer in the low user tier \rightarrow Diversity of low users means every *high* -use household has a socio-economically similar *low*- use household. Outreach can use real life stories of satisfied **intentional** low users.
3. DIY experiments & local knowledge often more ambitious (& effective) than expert advice \rightarrow Promote low consumption thru **crowdsourcing** and social dissemination, not expert recommendations.

Issues for Future Research

- Methodological issues:
 - Larger sample/ less self-selection
 - Control group?
 - How representative is Sacramento?
- Conceptual muddiness:
 - ‘deliberate action’, ‘conscious effort’, ‘constraint’
 - ‘motivation & belief’, ‘quality of life’ ‘just how it is’

Your Behaviors

13. How much do you think about your electricity use?

- ☐ Very Often
- ☐ Regularly
- ☐ Sometimes
- ☐ Rarely
- ☐ Never

14. Do you think your energy use is –

- ☐ Higher than your neighbors
- ☐ About the same
- ☐ Lower than your neighbors
- ☐ Don't know/Never thought about it

15. What are the reasons your energy use might be higher, lower, or about the same as your neighbors?

16. Have you or other household members done anything to lower your energy consumption at home?

- ☐ Yes
- ☐ No

17. If you have done anything to lower your energy consumption at home (Yes to Question 16), please explain the actions or changes.

18. If you have air conditioning, how often do you use it?

- ☐ Very Often
- ☐ Regularly
- ☐ Sometimes
- ☐ Once or twice a year
- ☐ Never
- ☐ Other (Please specify):

19. In the summertime, compared to other people you know, do you think you generally keep your home...

- ☐ About the same temperature as others' homes

- ☐ Cooler than others' homes
- ☐ Don't Know

20. Do you pay for your electricity usage separately, or is it included in the rent?

- ☐ Pay own
- ☐ Included in rent
- ☐ Other (Please specify): _____
- ☐ Don't Know

21. Do you receive a monthly natural gas bill?

- ☐ Yes
- ☐ No
- ☐ Don't Know

22. How much is your monthly natural gas bill typically? (your best estimate is fine)

\$_____ in the summer

\$_____ in the winter

- ☐ Don't Know
- ☐ Refuse

23. Have you ever had an energy audit of your home?

- ☐ Yes
- ☐ No
- ☐ Don't Know

24. Do you talk about energy usage with anyone?

- ☐ Yes
- ☐ No

IF YOU ANSWERED NO PLEASE SKIP TO QUESTION 28

25. If you talk to others about your energy usage, with whom do you speak? You can include more than one answer.

- ☐ Family member
- ☐ Neighbor
- ☐ Energy utility representative
- ☐ Other (Please specify):

26. How frequently do you speak with others about your energy usage?

- ☐ Very Often

- ☐ Regularly
- ☐ Sometimes
- ☐ Once or twice
- ☐ Never

27. Please provide any details about those conversations or advice you may have received and how you felt about it.

28. Have you received any incentives to improve the energy efficiency of your home?

- ☐ Yes
- ☐ No
- ☐ Don't Know

IF YOU ANSWERED NO/DON'T KNOW, PLEASE SKIP TO QUESTION 31

29. If you received incentives, please identify and describe the program/incentive.

30. If you received incentives, did the program or incentive reduce your electricity bill?

- ☐ Yes
- ☐ No
- ☐ Don't Know

31. How would you rate your quality of life?

- ☐ Excellent
- ☐ Above Average
- ☐ Average
- ☐ Below Average
- ☐ Very Poor

32. If you consumed more energy in your home, do you think your quality of life would be—

- ☐ Better
- ☐ Worse
- ☐ About the Same
- ☐ Don't Know

Please Explain:

33. How closely do you review your electricity bill?

- ☐ Not at all
- ☐ Some
- ☐ Closely

34. If you learned that your home electricity usage was much lower than the average, can you think of reasons that might help explain your low usage? Please list as many reasons as possible.

Your Household

35. What is your age? Years

36. What is the highest level of education you have completed?

- ☐ No formal education
- ☐ Grade school
- ☐ Some high school
- ☐ Completed high school/GED
- ☐ Some college or technical training
- ☐ Completed 2-year college degree
- ☐ Completed 4-year college degree
- ☐ Some graduate work
- ☐ A graduate degree
- ☐ Don't Know
- ☐ No formal education
- ☐ Refuse

37. What race or ethnicity do you consider yourself? You can include more than one category.

- ☐ Latino or Hispanic
- ☐ Black or African American
- ☐ American Indian or Alaskan Native
- ☐ Asian
- ☐ Native Hawaiian or Pacific Islander
- ☐ White
- ☐ Or some other race (please specify)
- ☐ Don't Know
- ☐ Refuse