



EPRG Survey 2010 on Smart Energy: some preliminary results

Laura Platchkov
Michael Pollitt
David Reiner
Irina Shaorshadze

University of Cambridge

Cambridge, 10.12.2010



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Overview



1. Motivation
2. Survey overview
3. Preliminary results
4. Conclusions



1. MOTIVATION

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1. Motivation



- **Background:**

- Increasing interest in the role of the individual (and the community) in moving towards a low carbon economy (Owens and Driffill, 2008; DEFRA, 2008a; DEFRA, 2008b)
- Potential of different energy saving management options and technological tools (Flexnet consortium; IHS GLOBAL INSIGHT, 2009; Faruqi et al., 2010)
- How might research outputs translate in real life? To what extent can they influence attitudes and behaviour?

- **Objectives:**

- **Public preferences, attitudes and opinions on energy**
- **Level of acceptance/engagement towards different energy saving technologies/tools**



2. SURVEY OVERVIEW

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2. Survey Overview

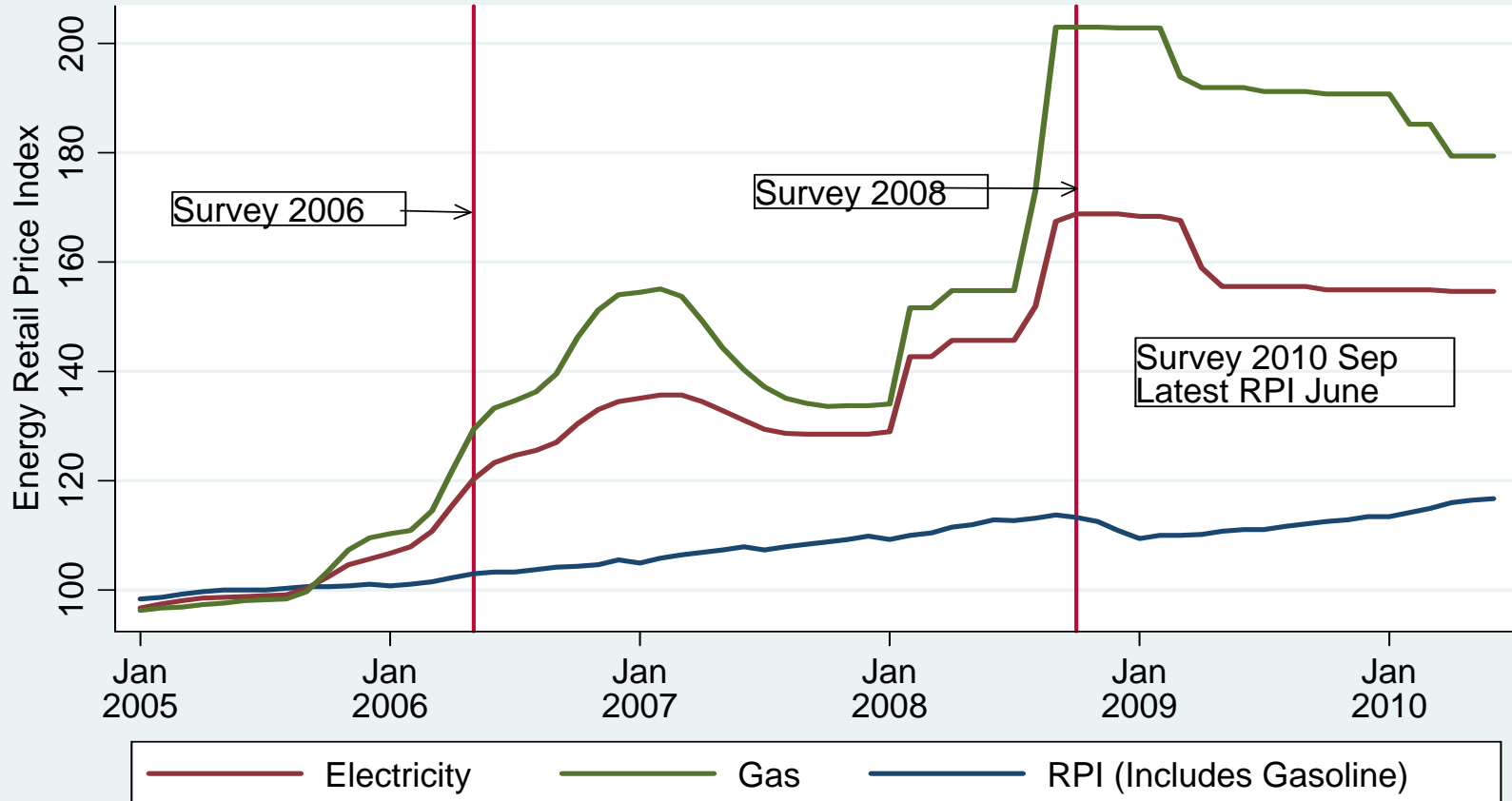


- Online Survey of 2038 Households in England, Scotland and Wales conducted in September 2010
- Quota-Based Survey, conducted by Polling Company Accent, sample of a panel of respondents recruited by ToLuna
- Areas of Focus:
 - I. National Policy Priorities
 - II. Energy Costs
 - III. Energy Efficiency measures
 - IV. Community energy
 - V. Willingness to Accept Appliance Usage Modifications

Context



Retail Energy Price Index 2005 - 2010 (May 2005=100)



Source: Department of Energy and Climate Change

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3. PRELIMINARY RESULTS

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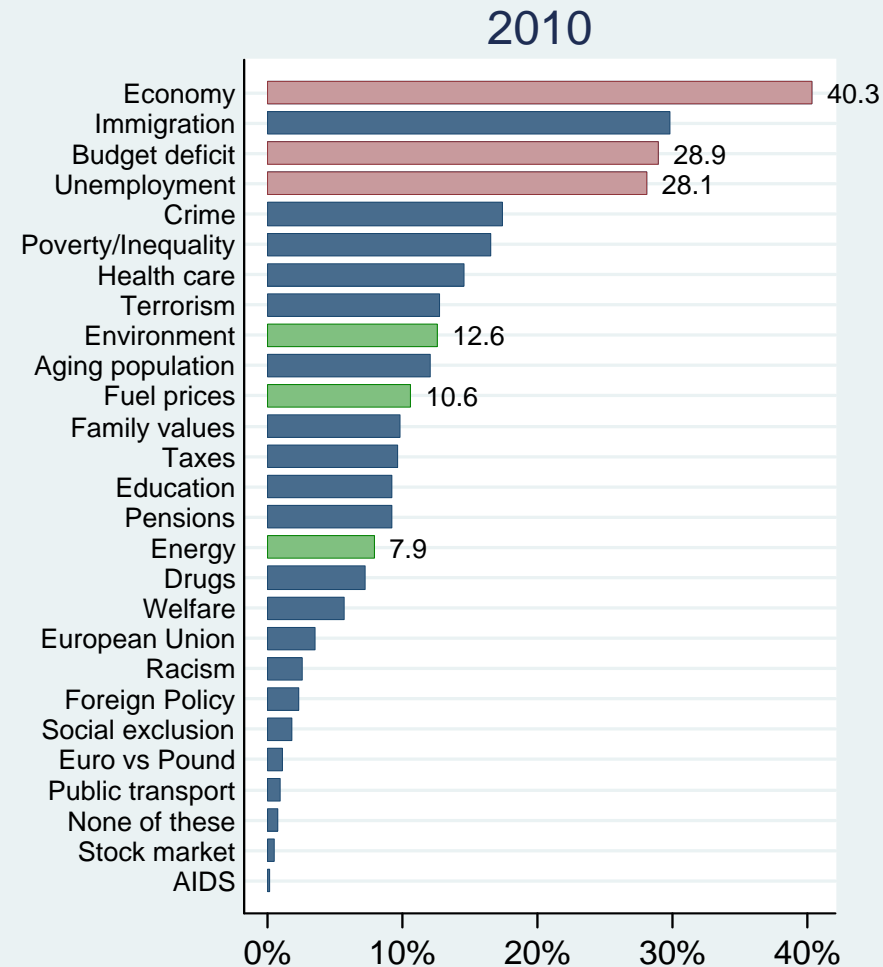
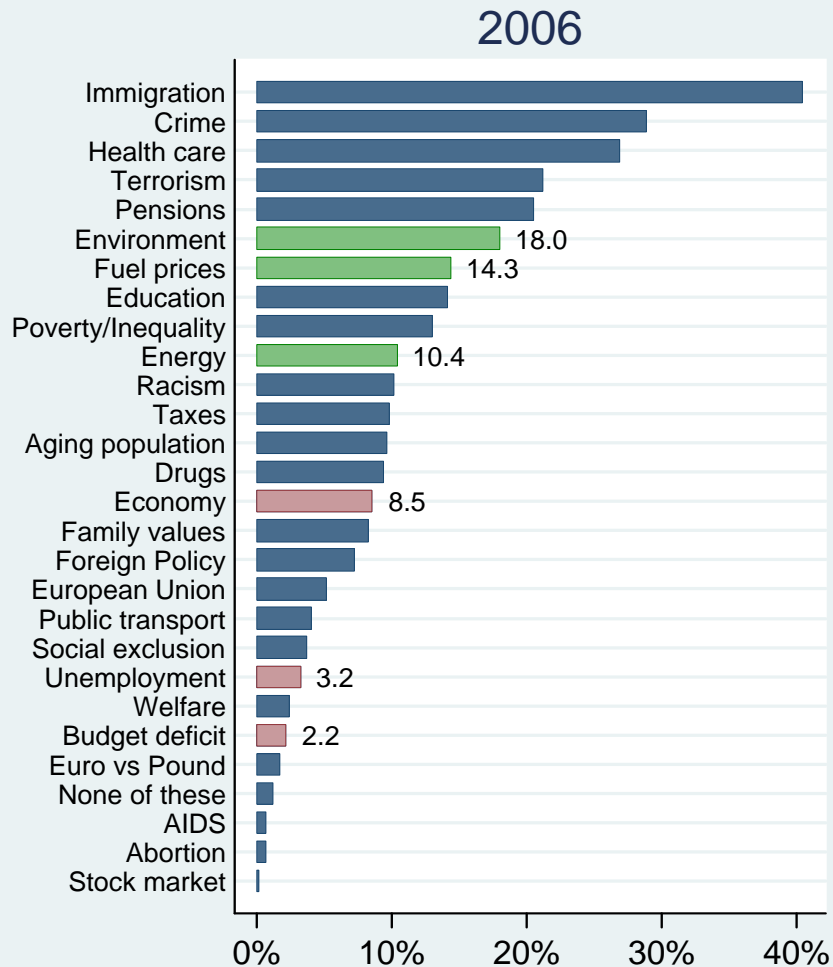
I. NATIONAL POLICY PRIORITIES



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Choice of Respondents on Areas Most in Need of Urgent Attention and Improvement in UK - 2006, 2010

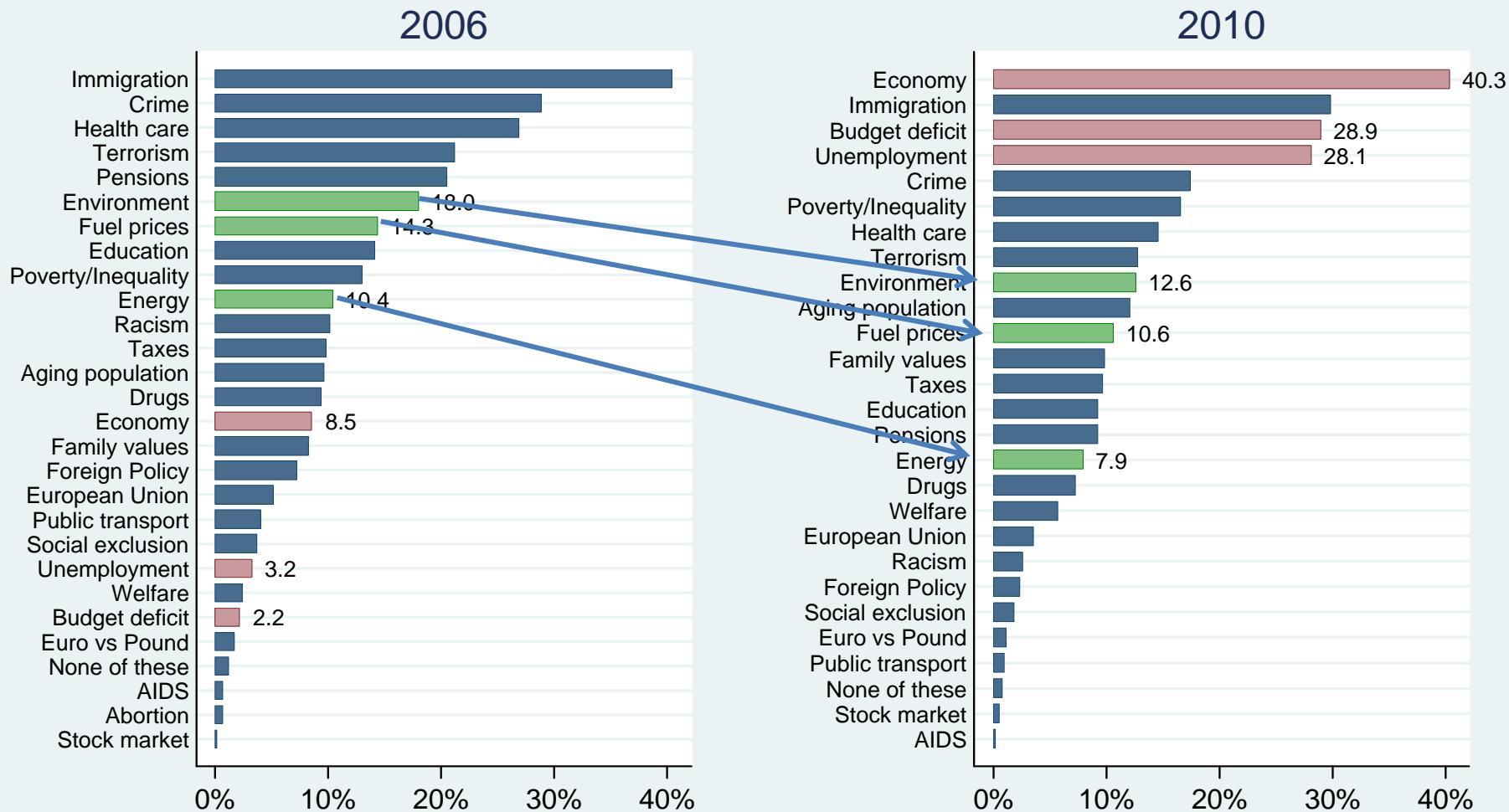


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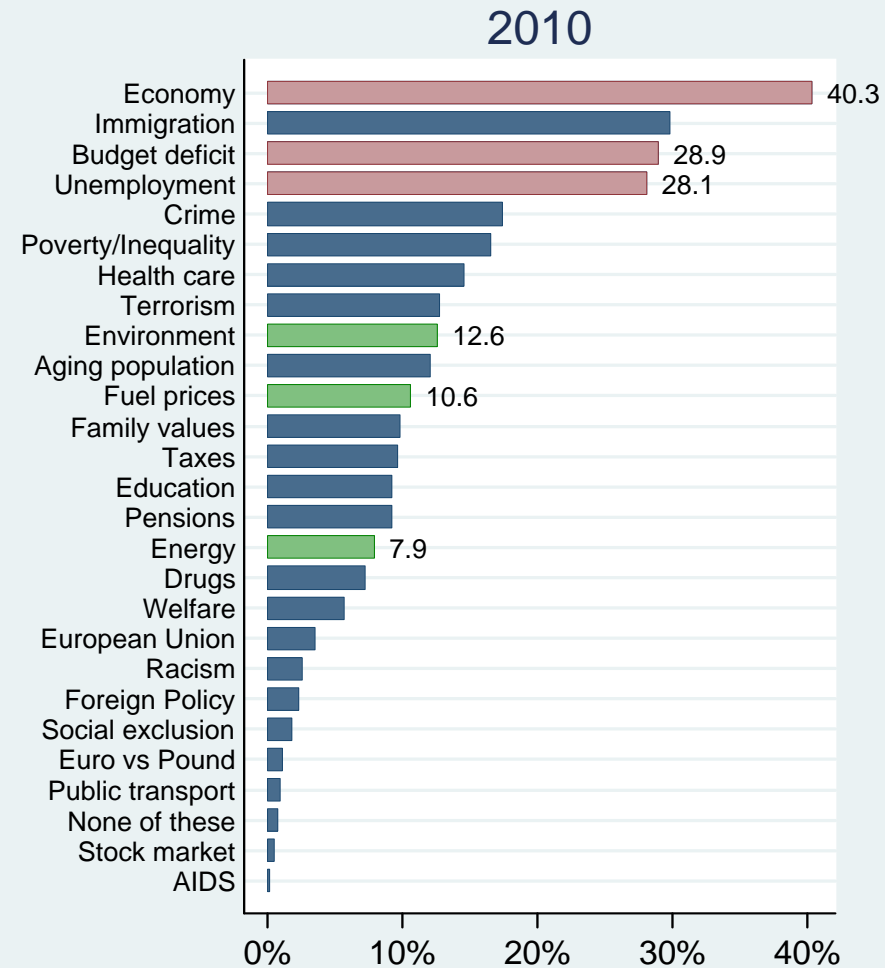
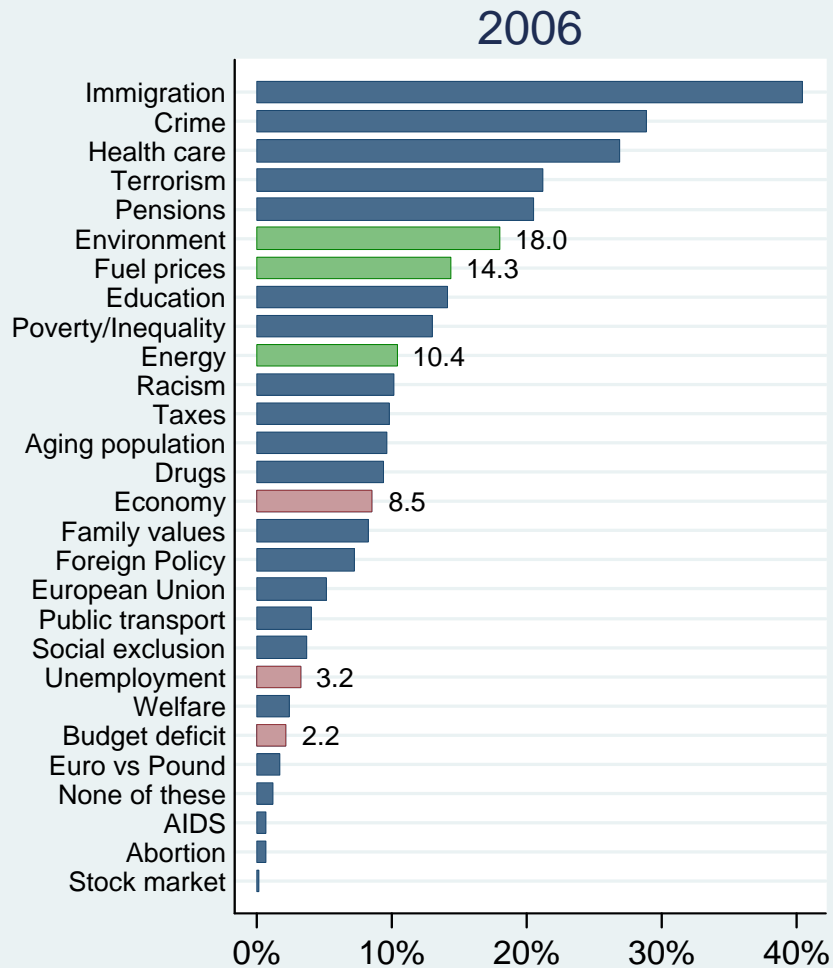


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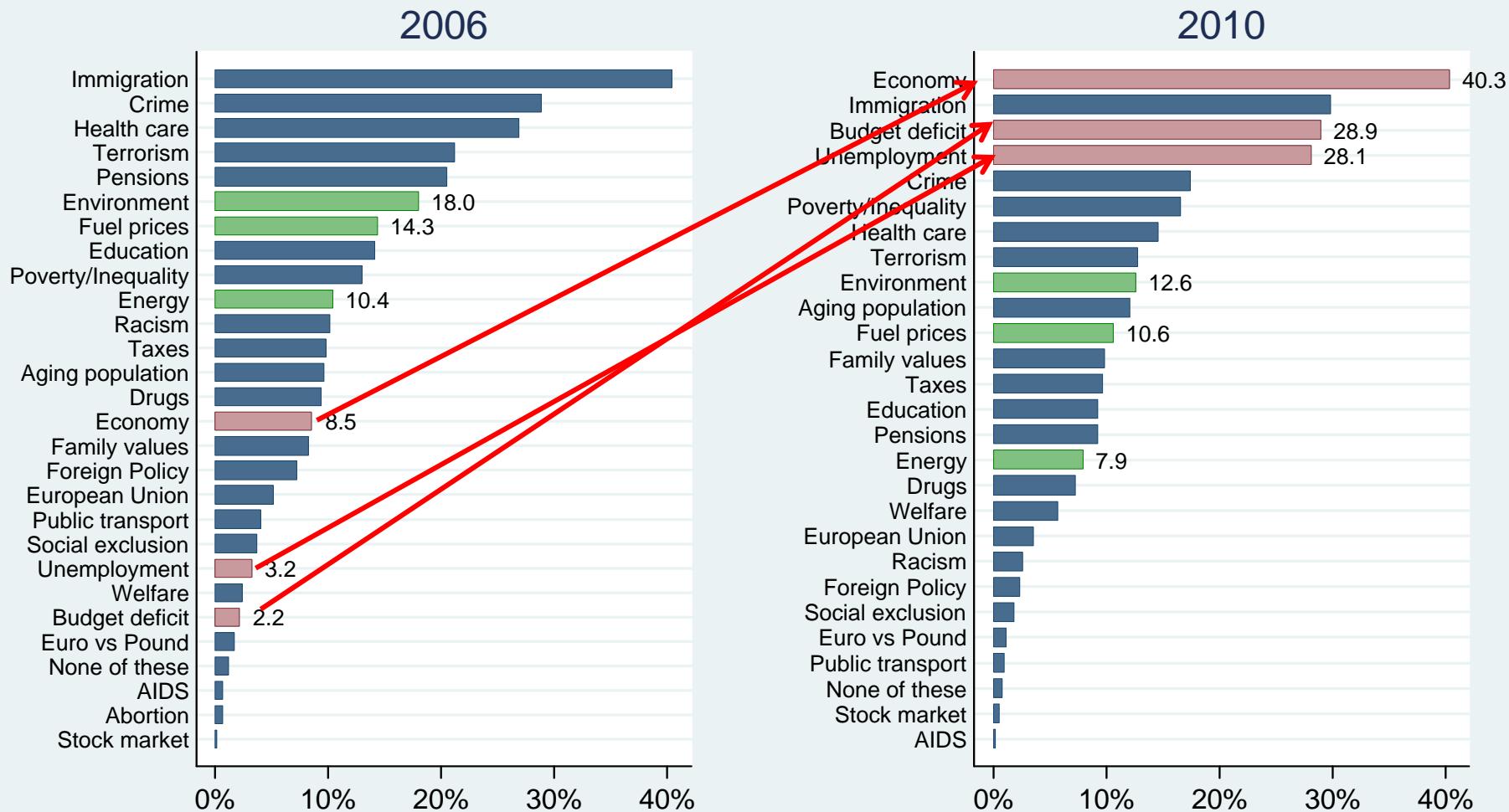


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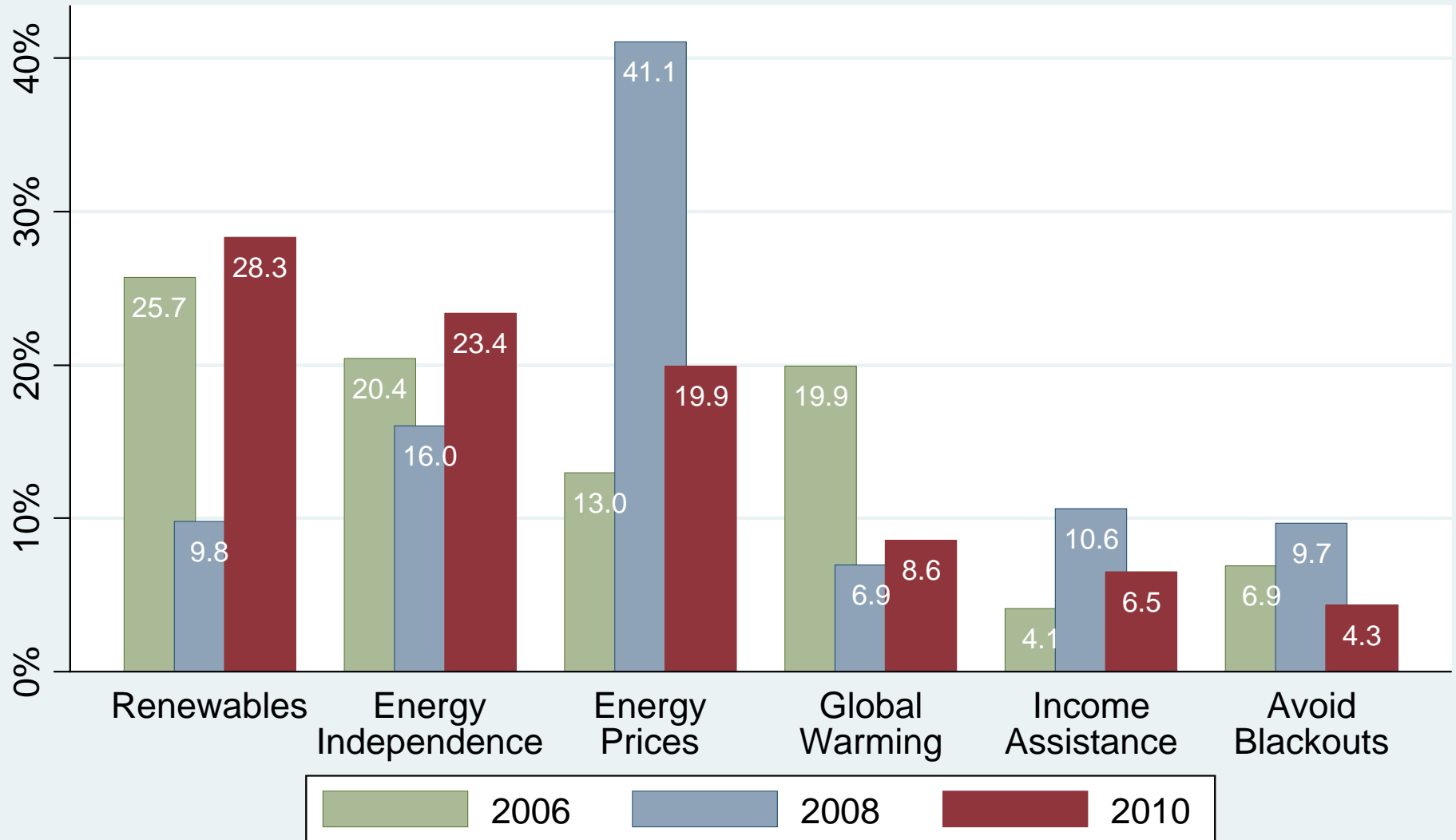


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Top National Energy Policy Priorities - 2006, 2008, 2010

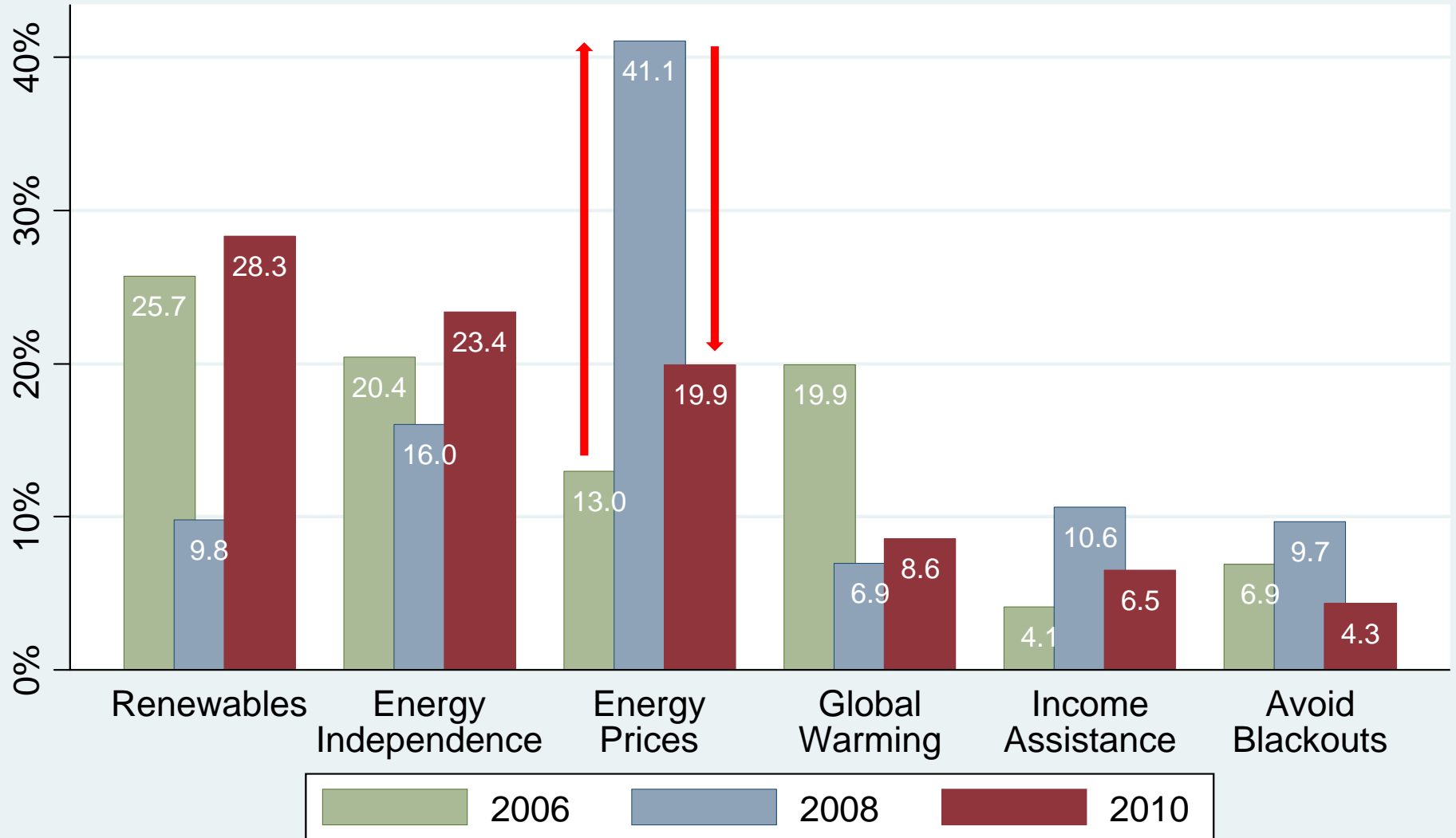


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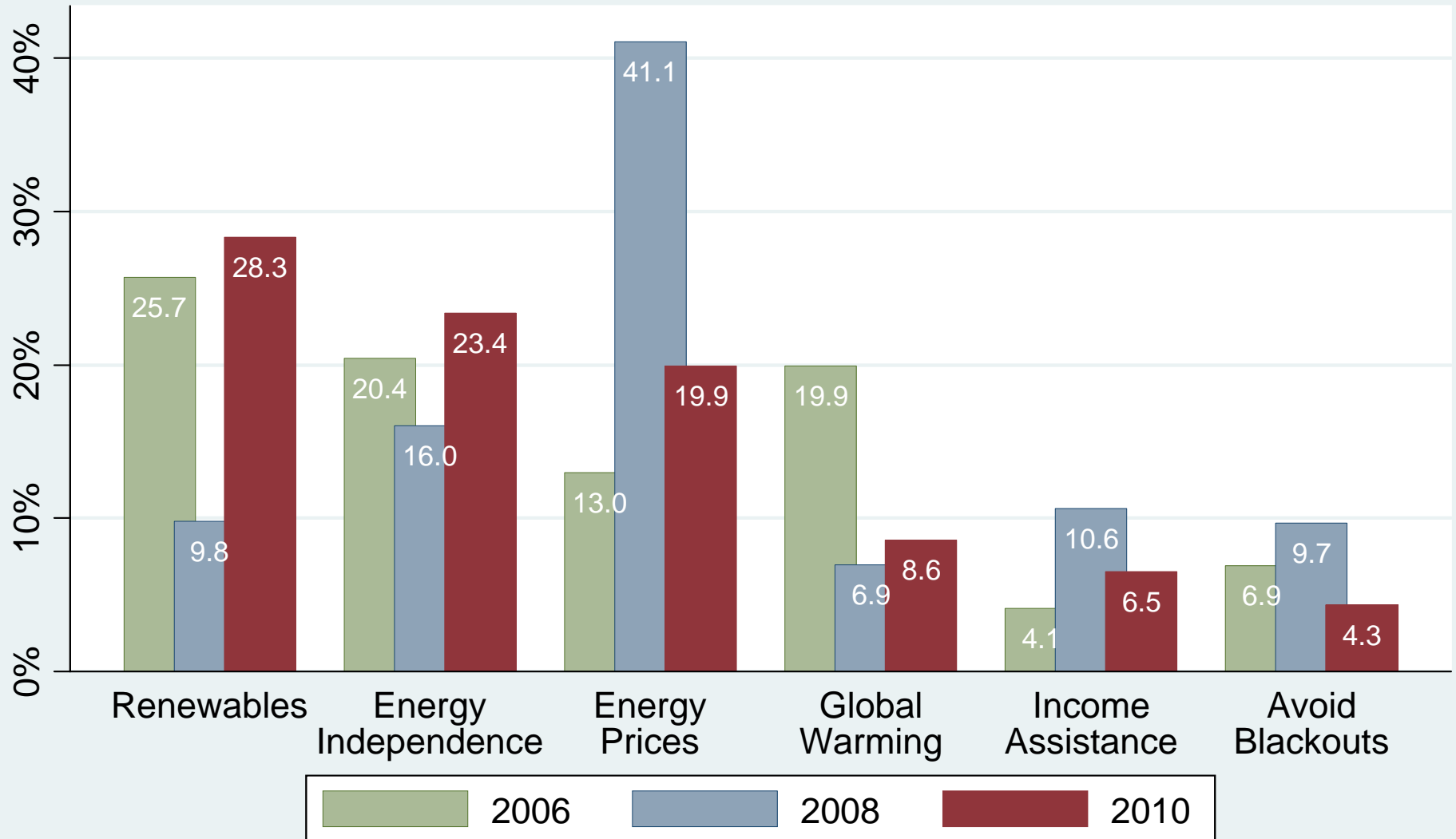


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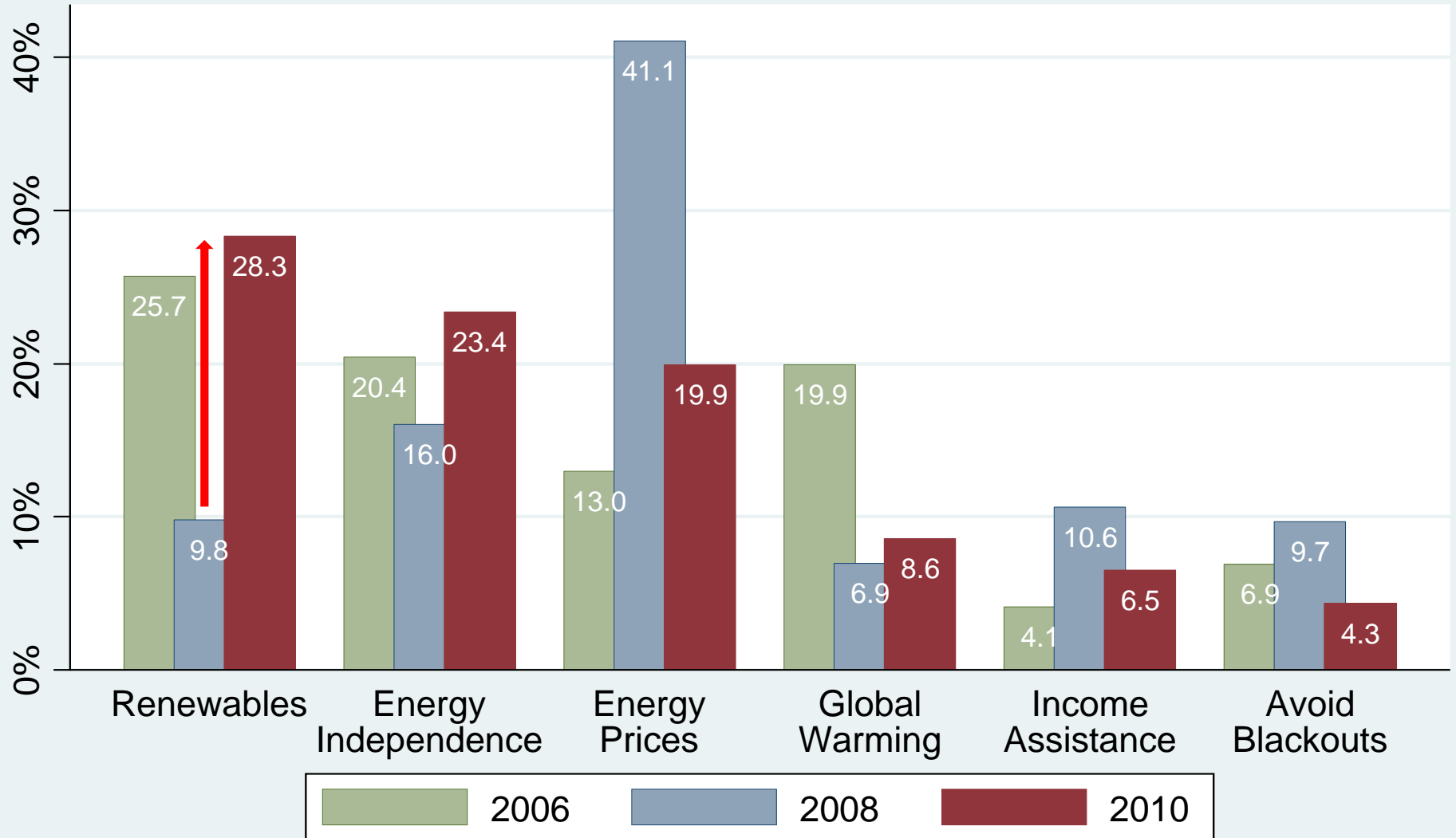


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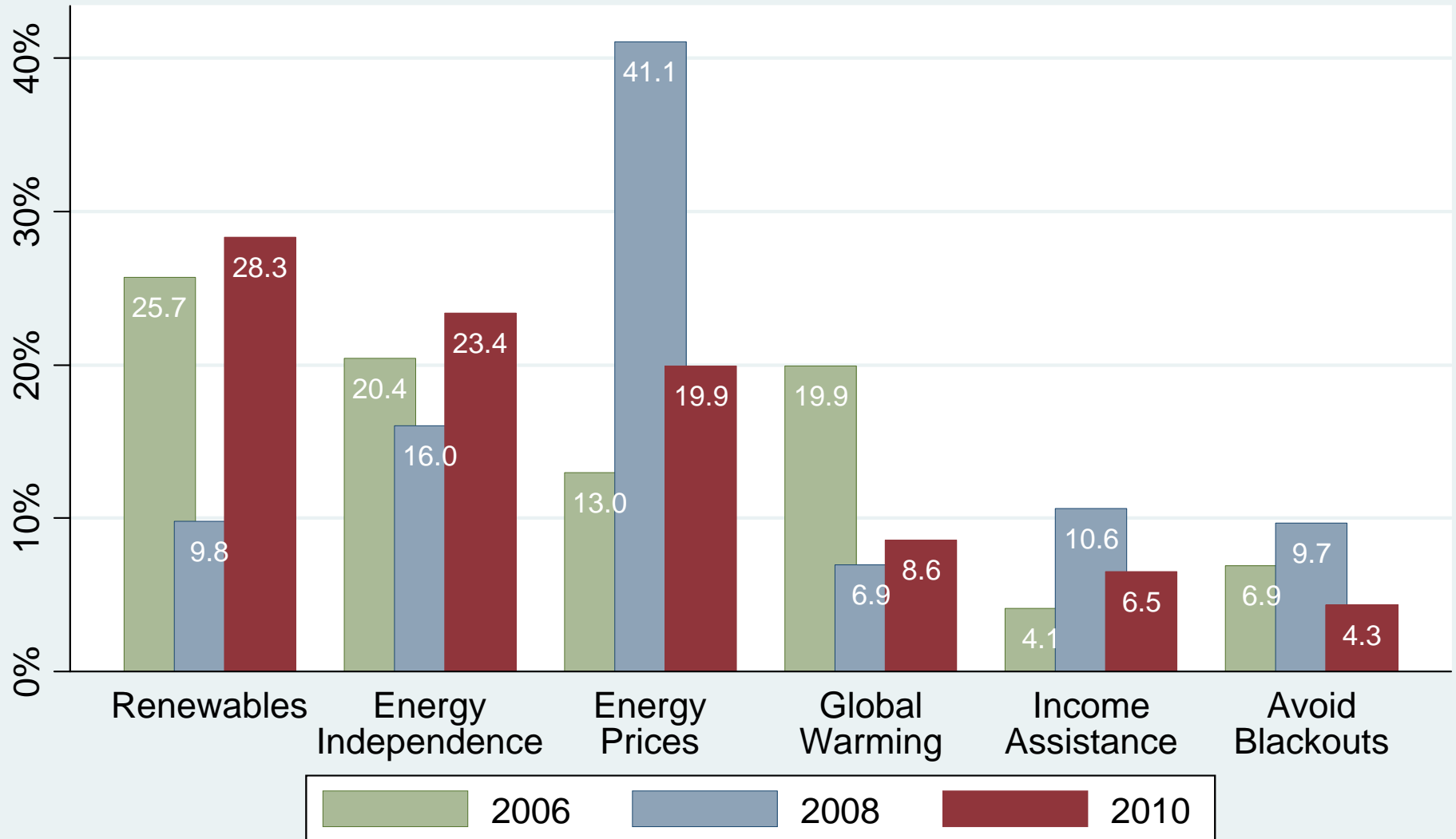


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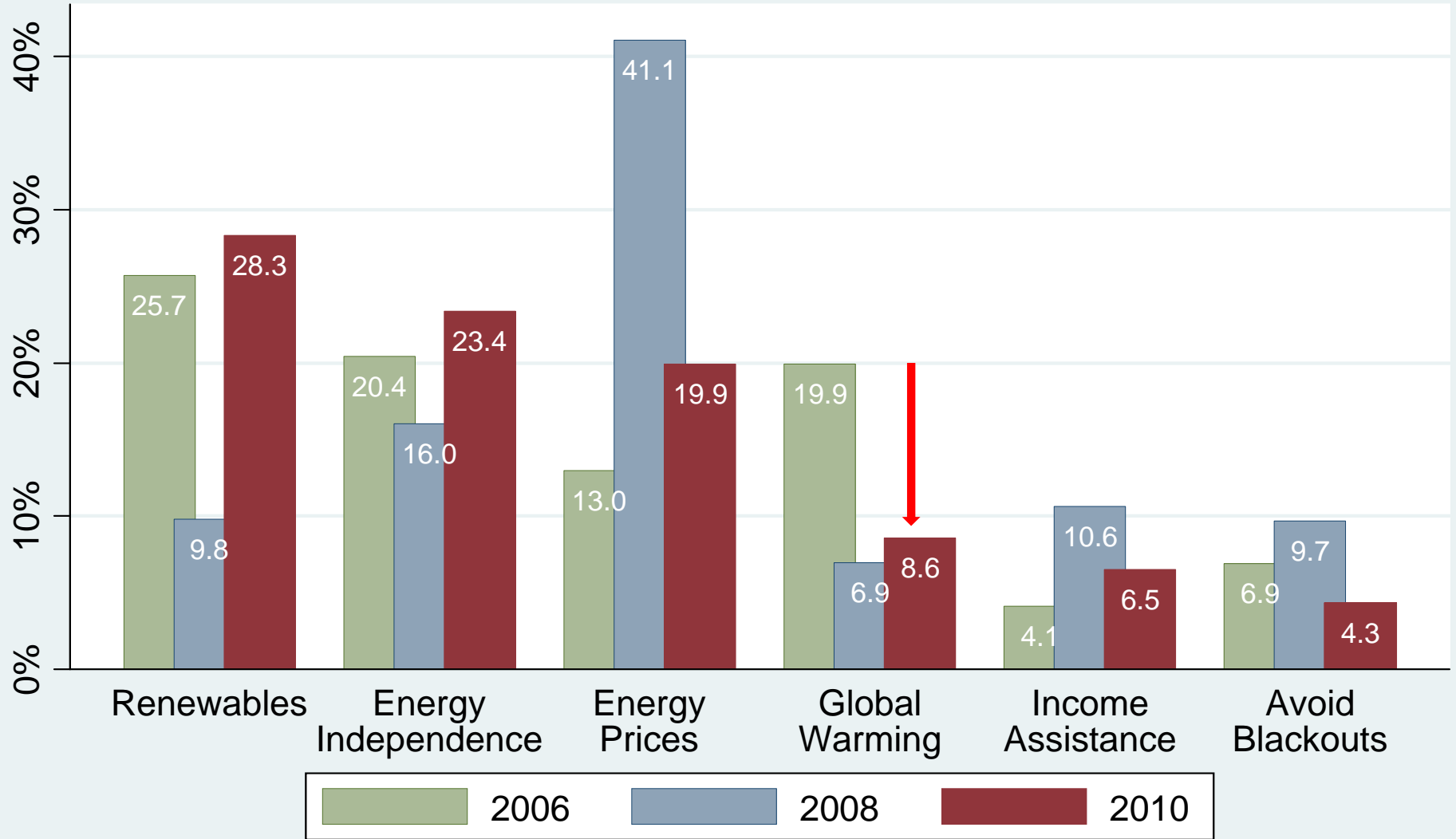


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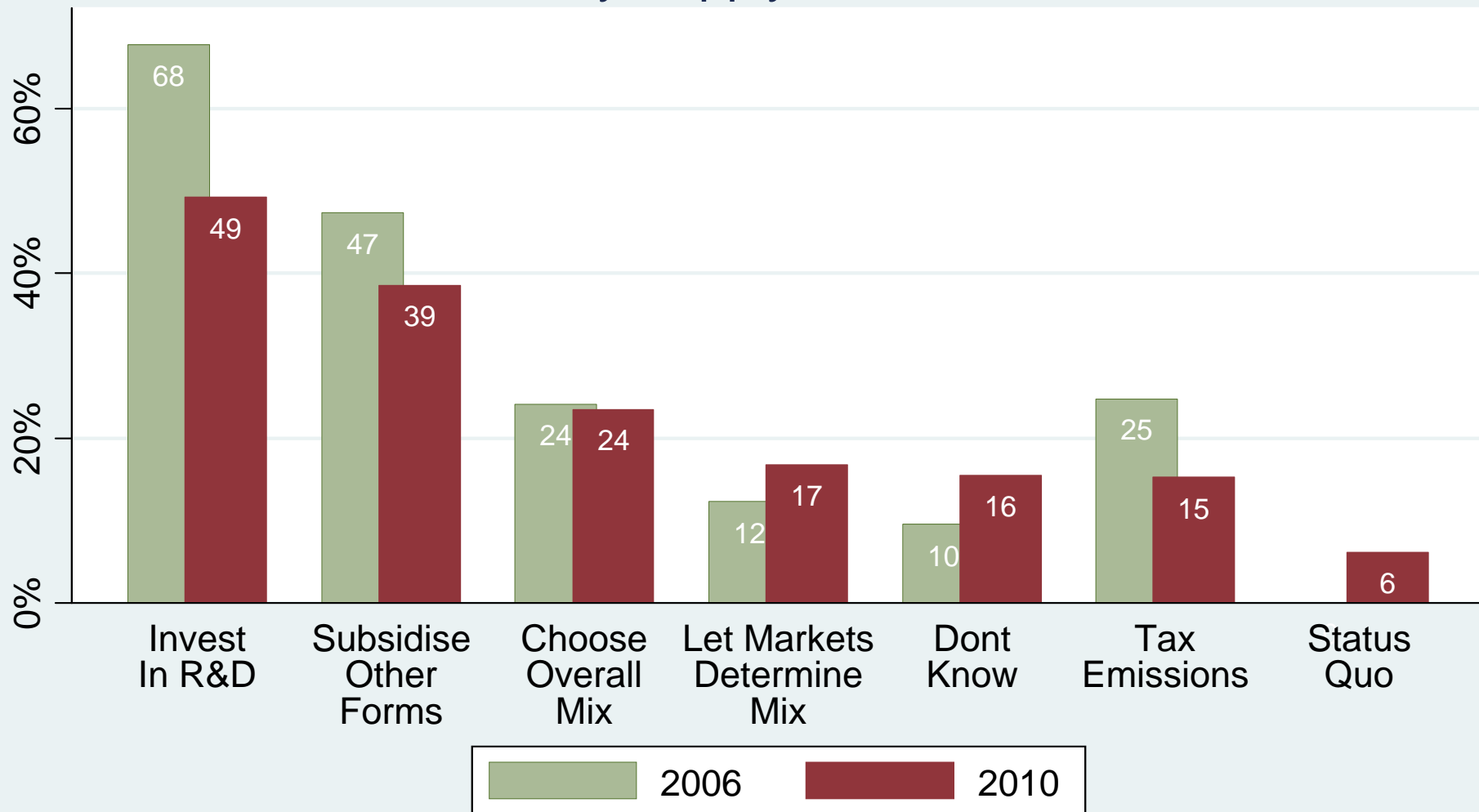


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What Should Government Do About Electricity Supply - 2006,2010

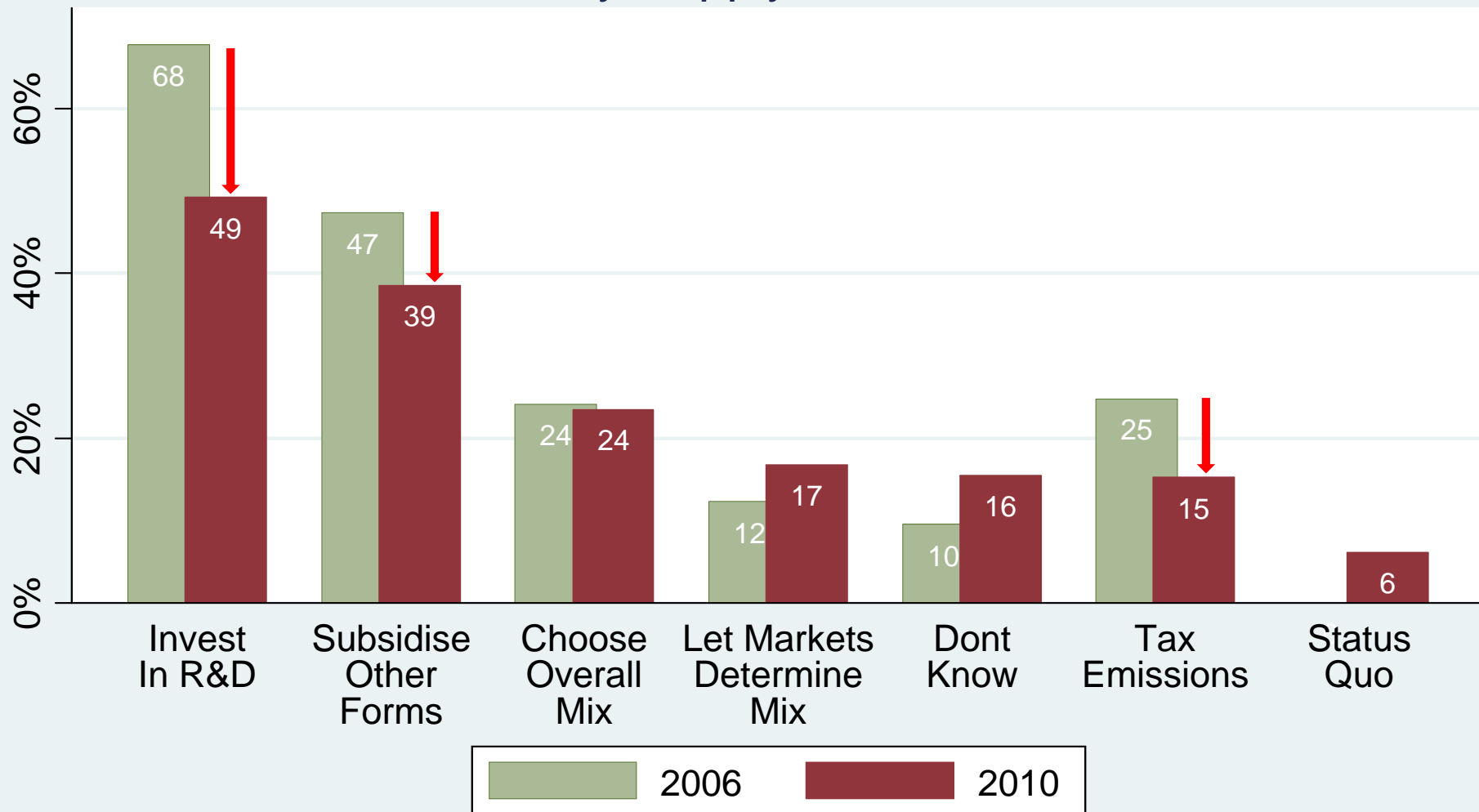


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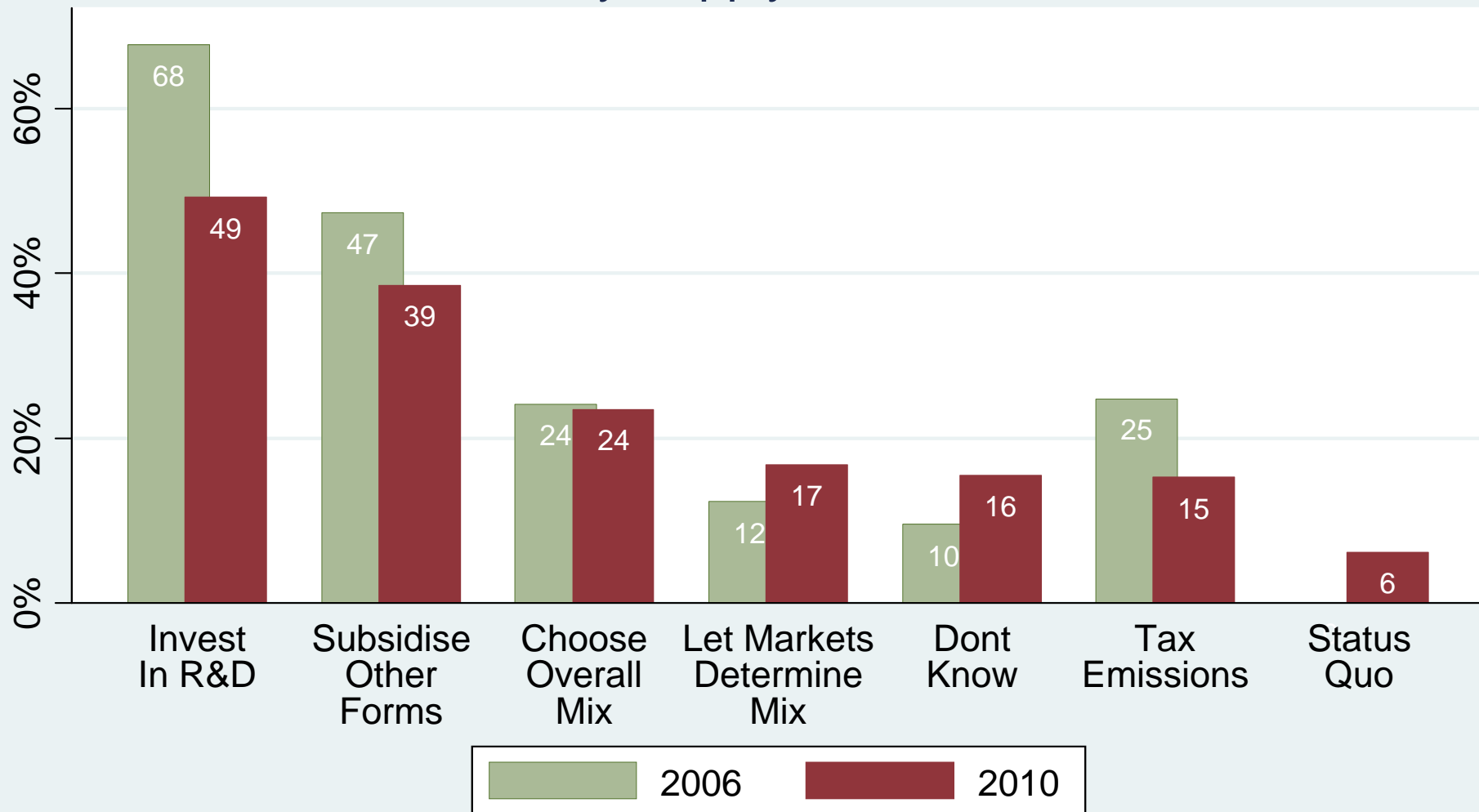


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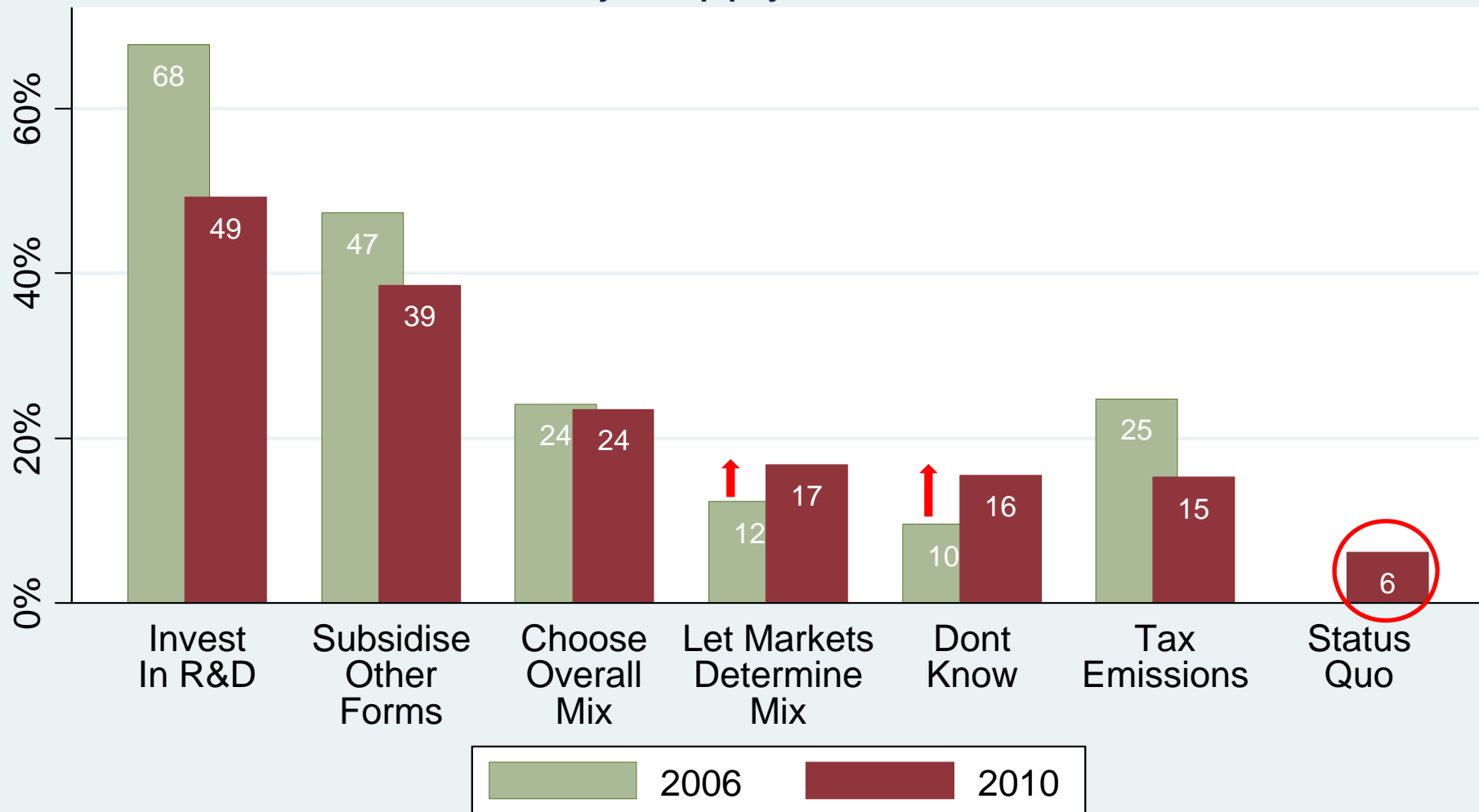


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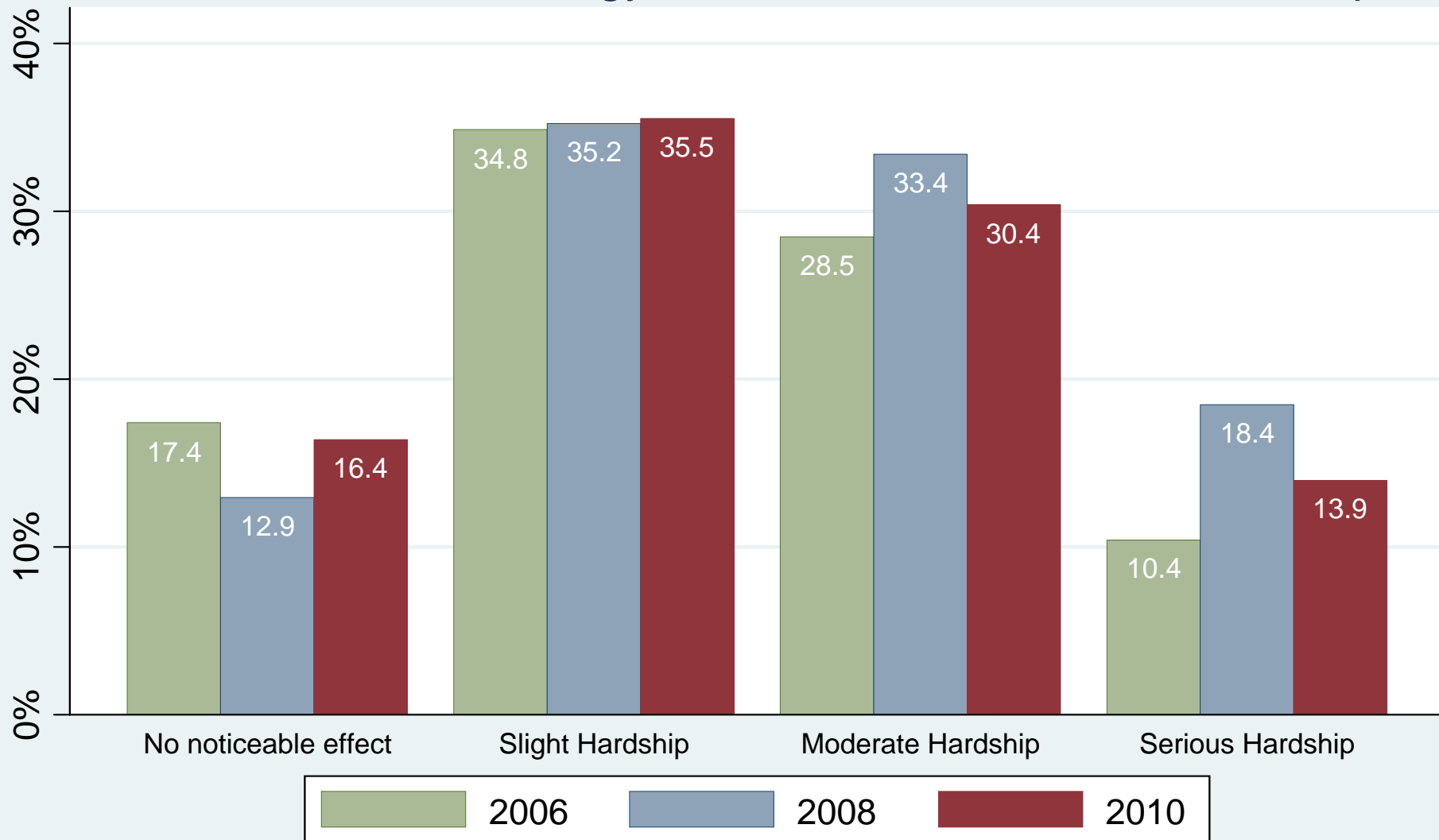


II. ENERGY COSTS

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To What Extent Do Energy Prices Cause Financial Hardship

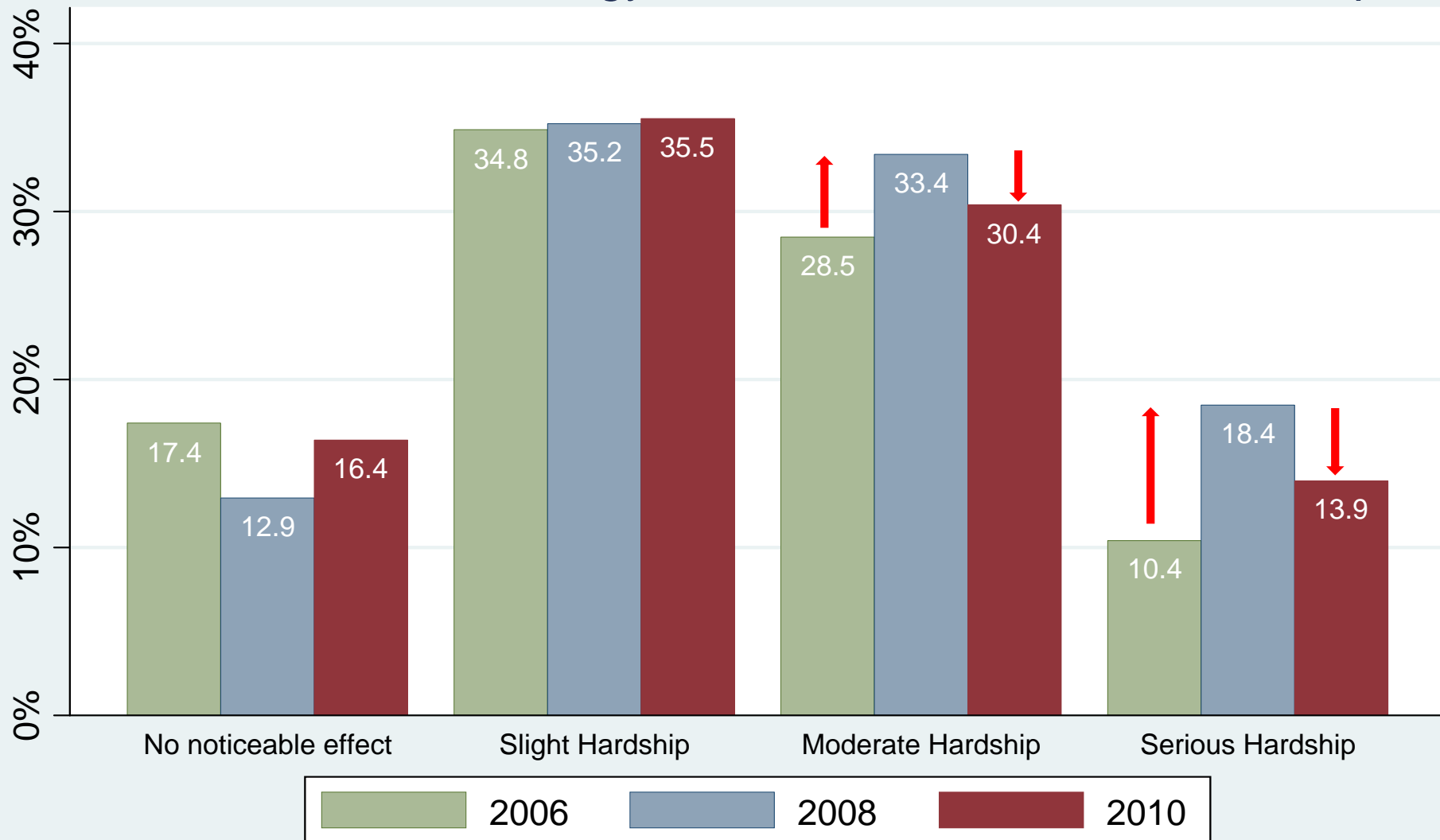


Source: EPRG Survey of UK Households

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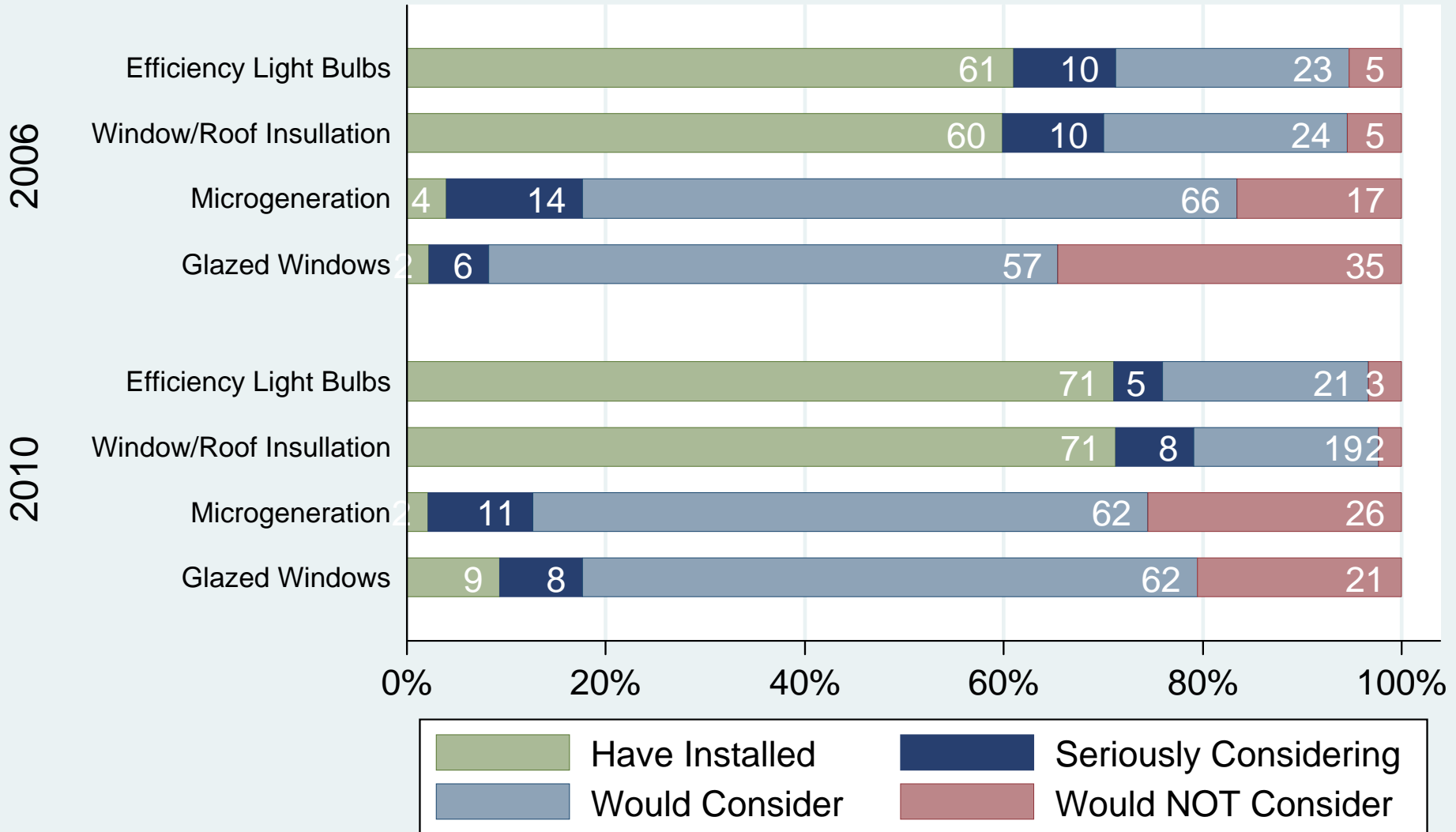


III. ENERGY EFFICIENCY

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Would You Consider Installing Or Have Already Installed...?



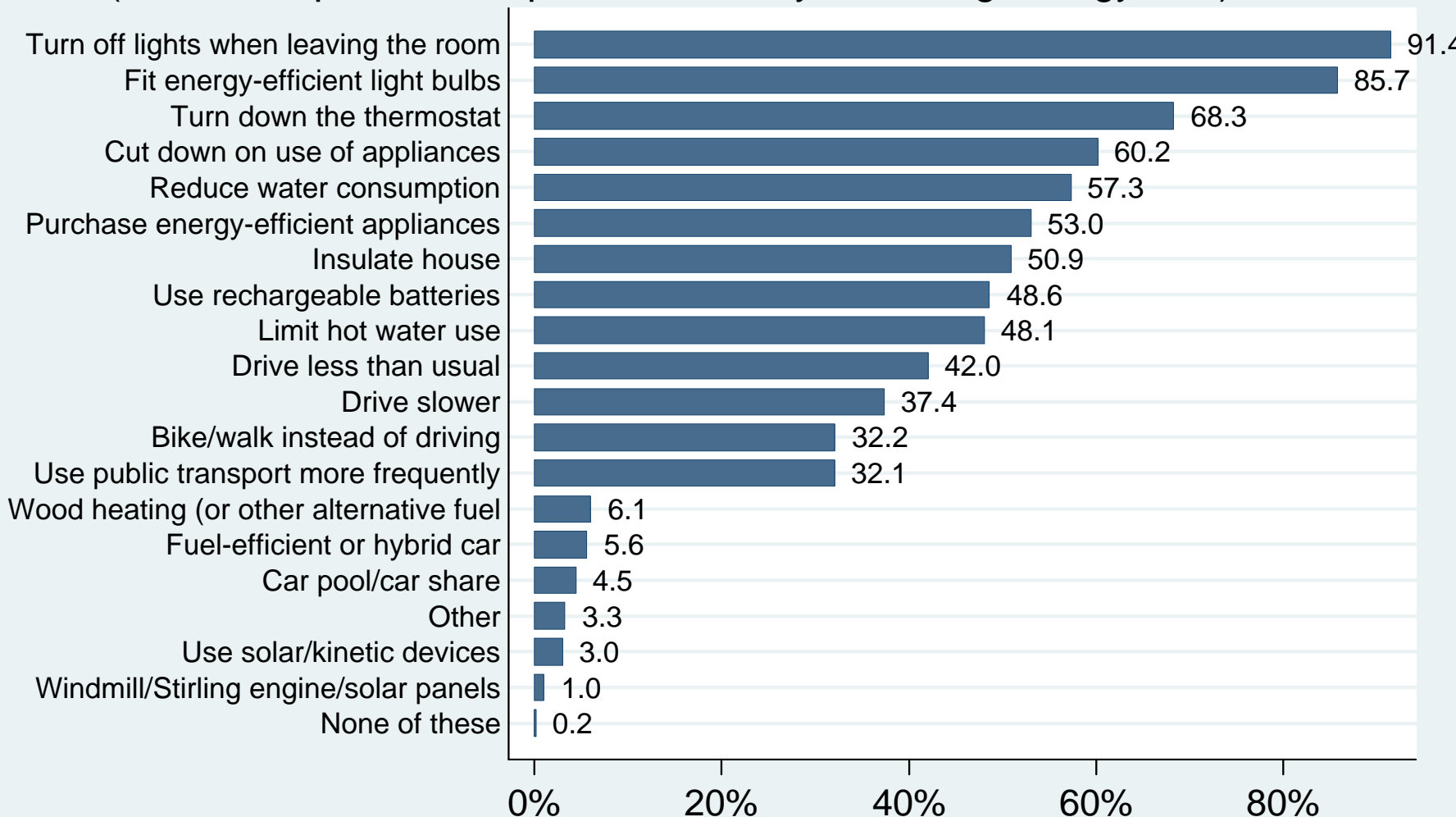
Source: EPRG Survey of UK Households

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Measures Taken To Deliberately Reduce Use of Energy

(89% of respondents report deliberately Reducing Energy Use)



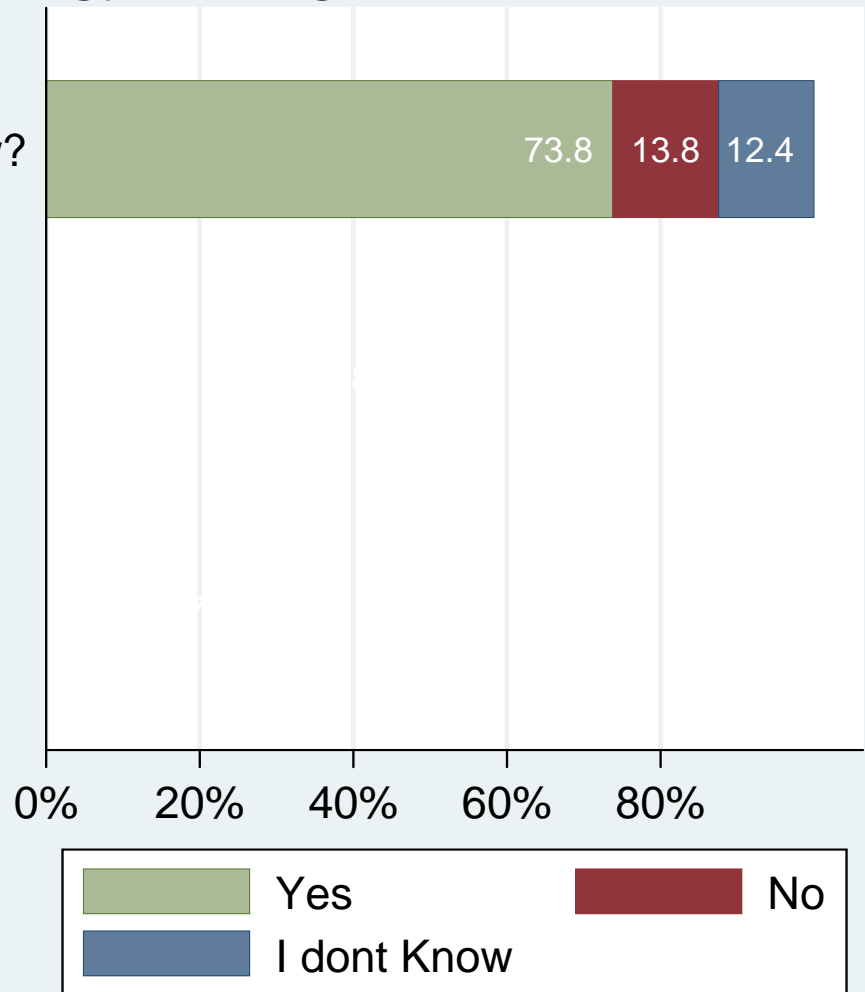
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Would You Support Law that Makes Manufacturers Include Energy Saving Features

Would You Support Such Law?

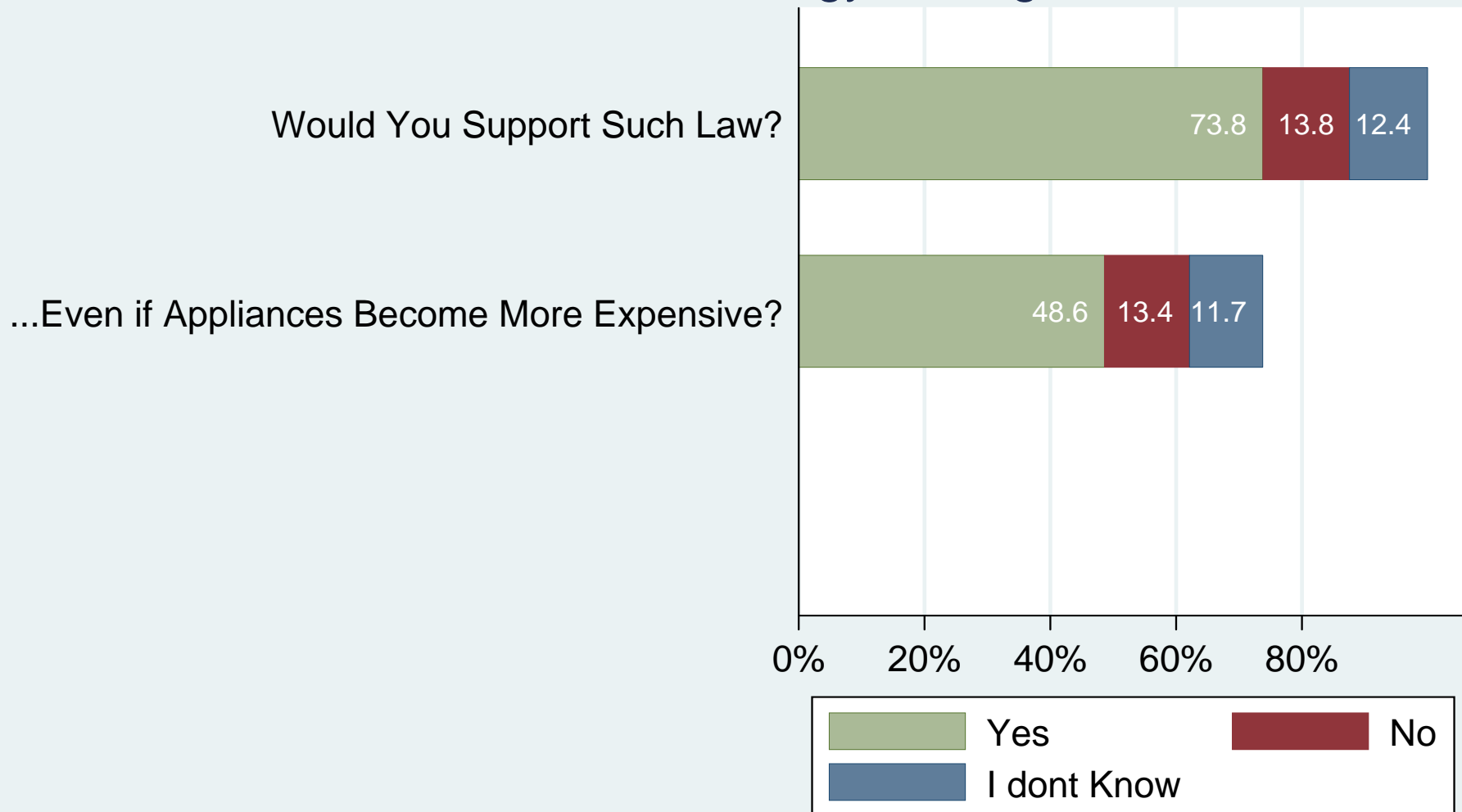


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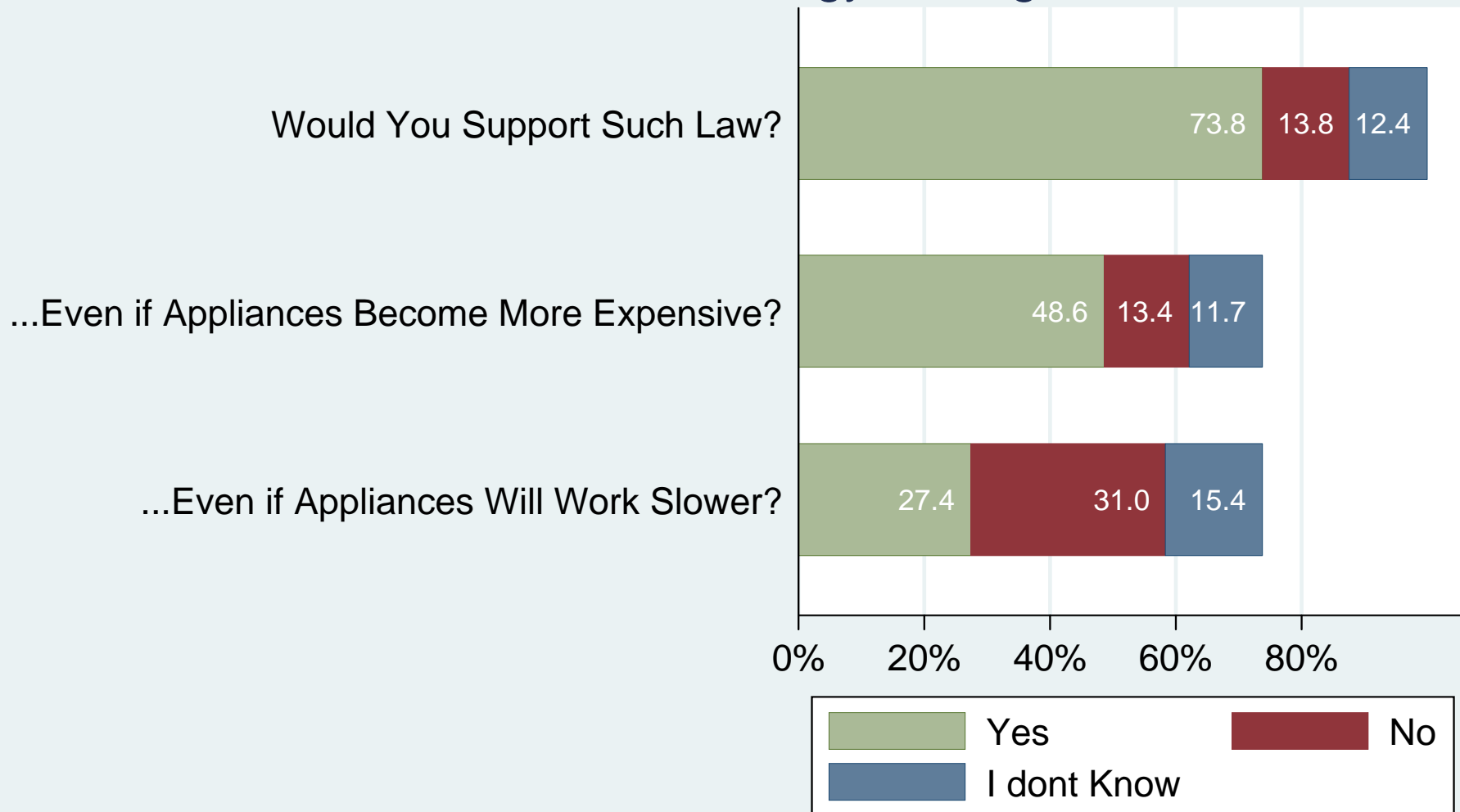


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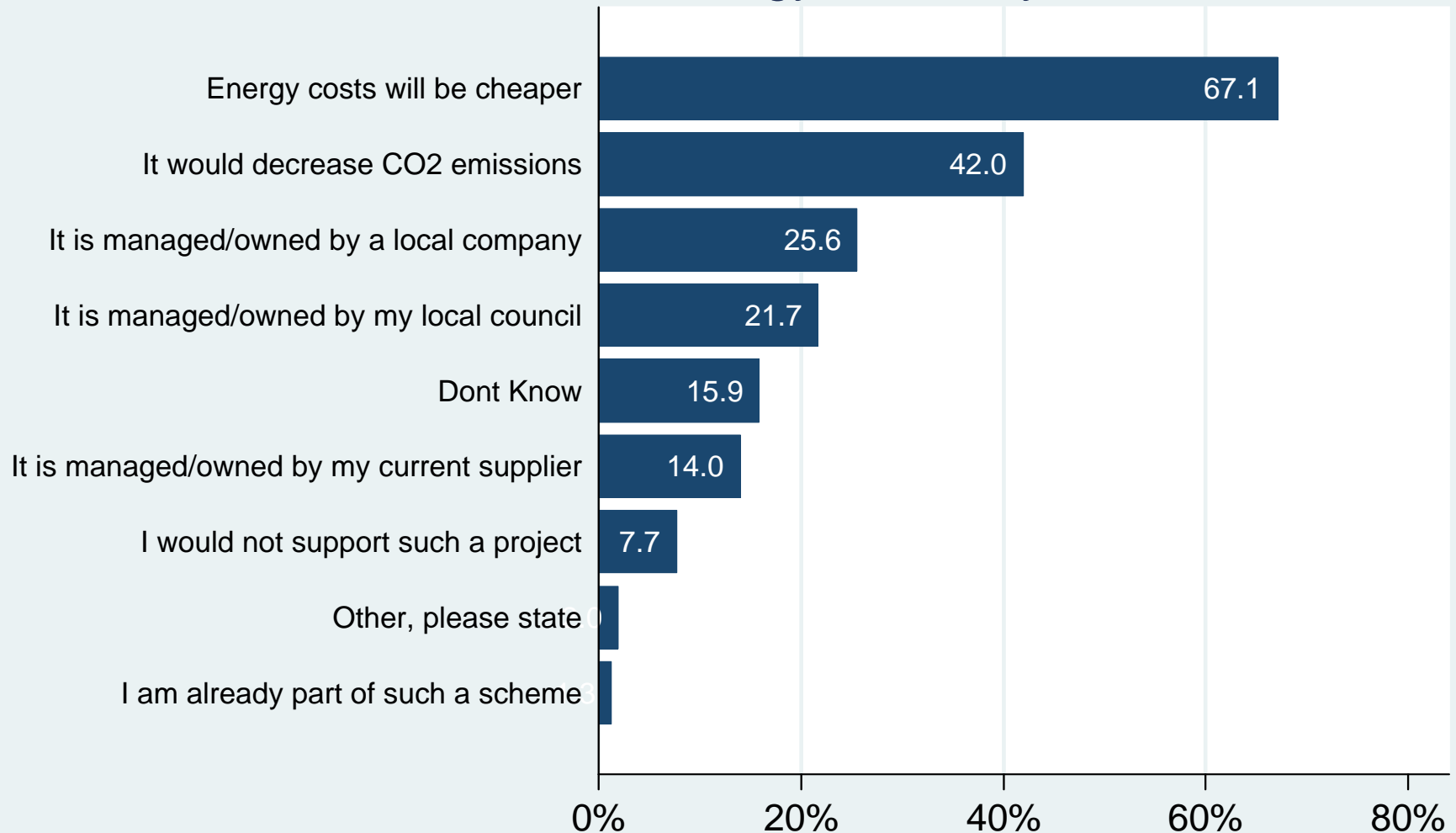


IV. COMMUNITY ENERGY

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Which Factors Would Encourage You To Accept Small Scale Low Carbon Energy Plant in your District

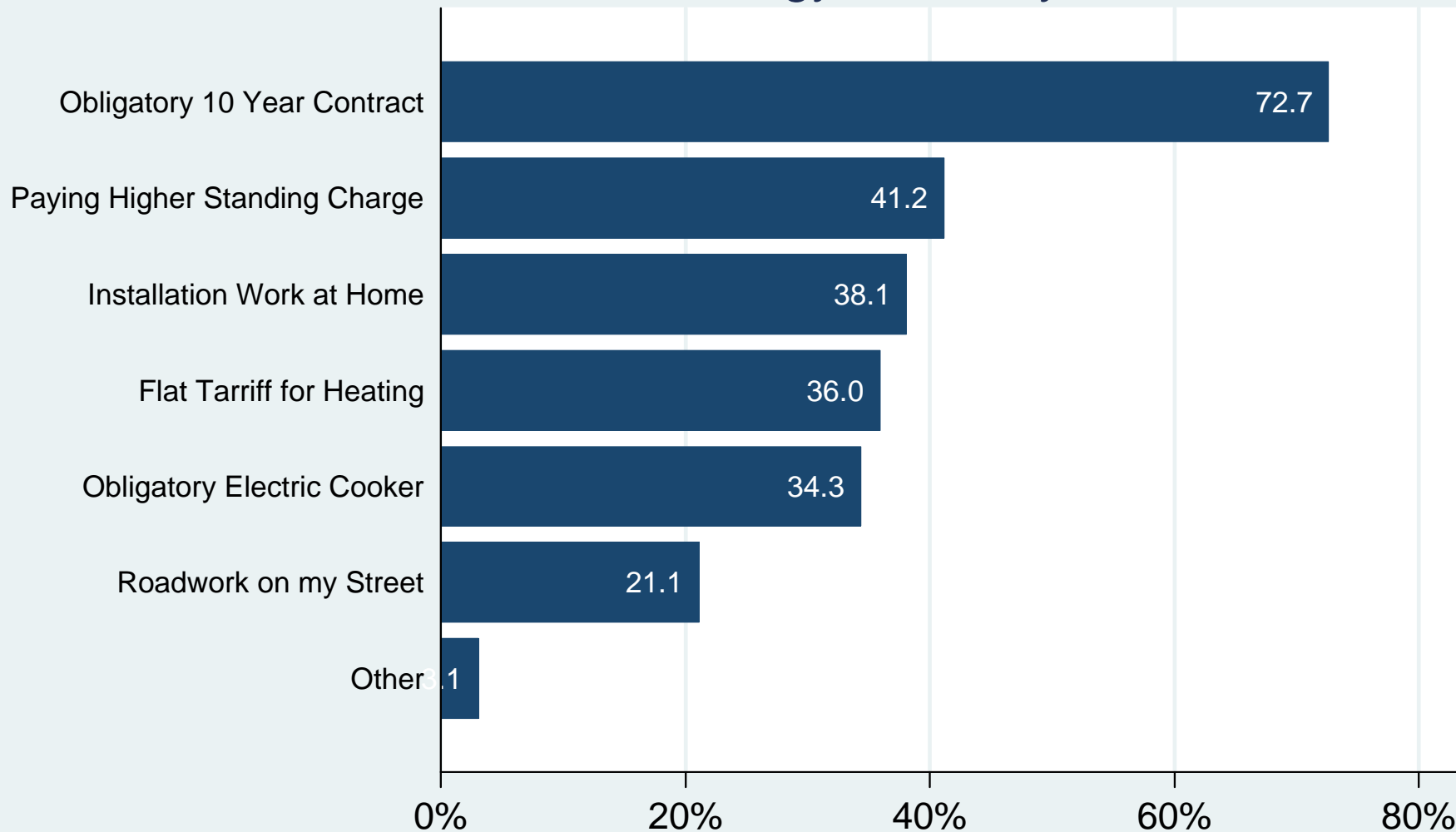


Source: EPRG Survey of UK Households

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Which Factors Would DISCOURAGE You To Accept Small Scale Low Carbon Energy Plant in your District

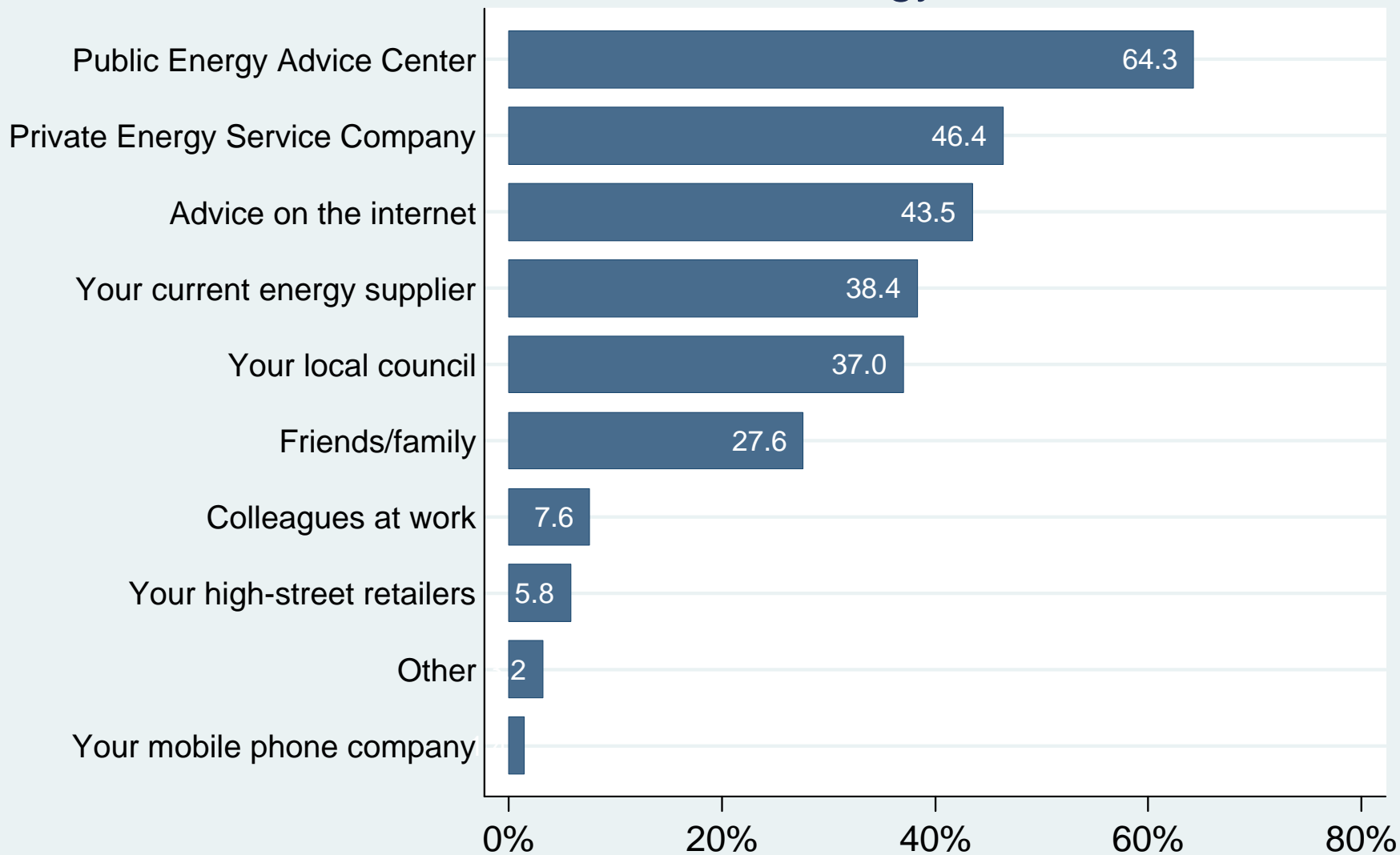


Source: EPRG Survey of UK Households

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Who Would You Trust for Energy Advice



Source: EPRG Survey of UK Households

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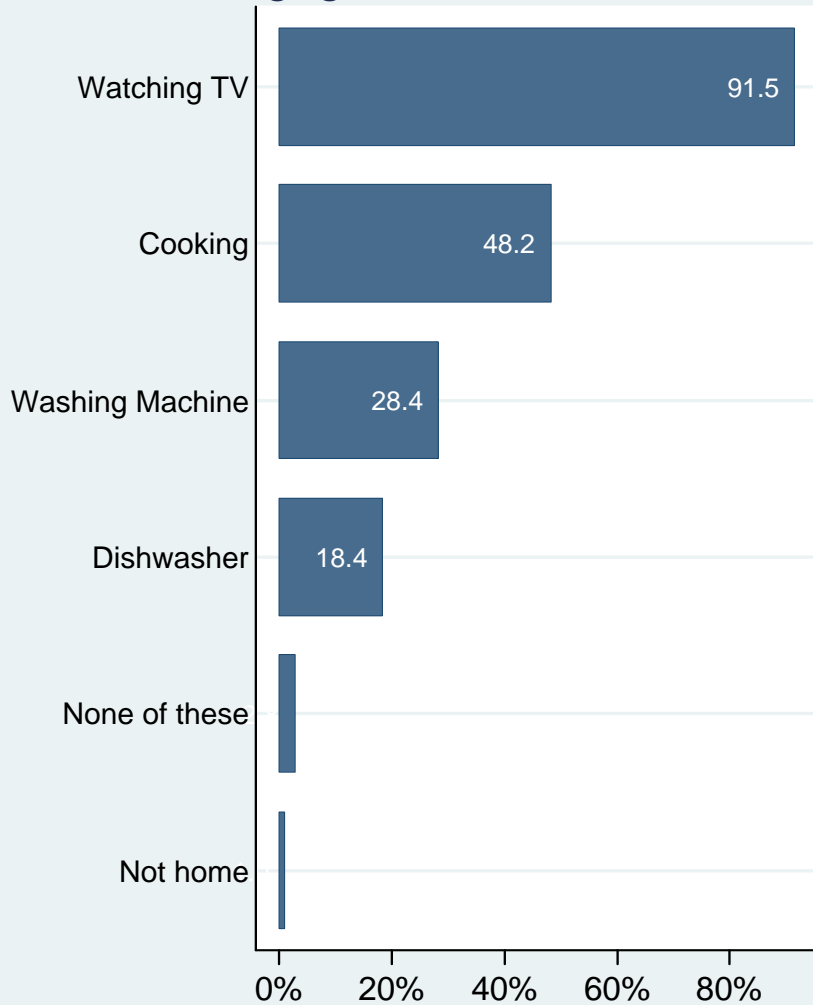


V. WILLINGNESS TO ACCEPT APPLIANCE USAGE MODIFICATIONS

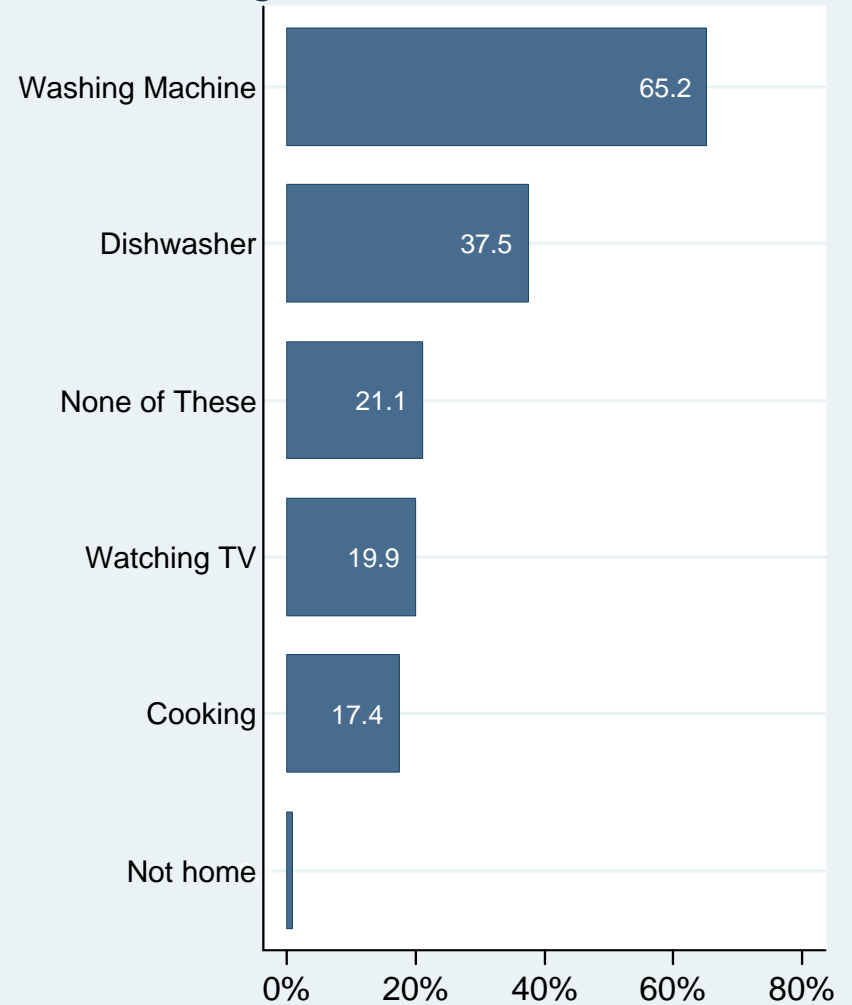
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Which Activity Do You Engage in 7-9PM



Which Activity Are You Willing to Shift After 9PM

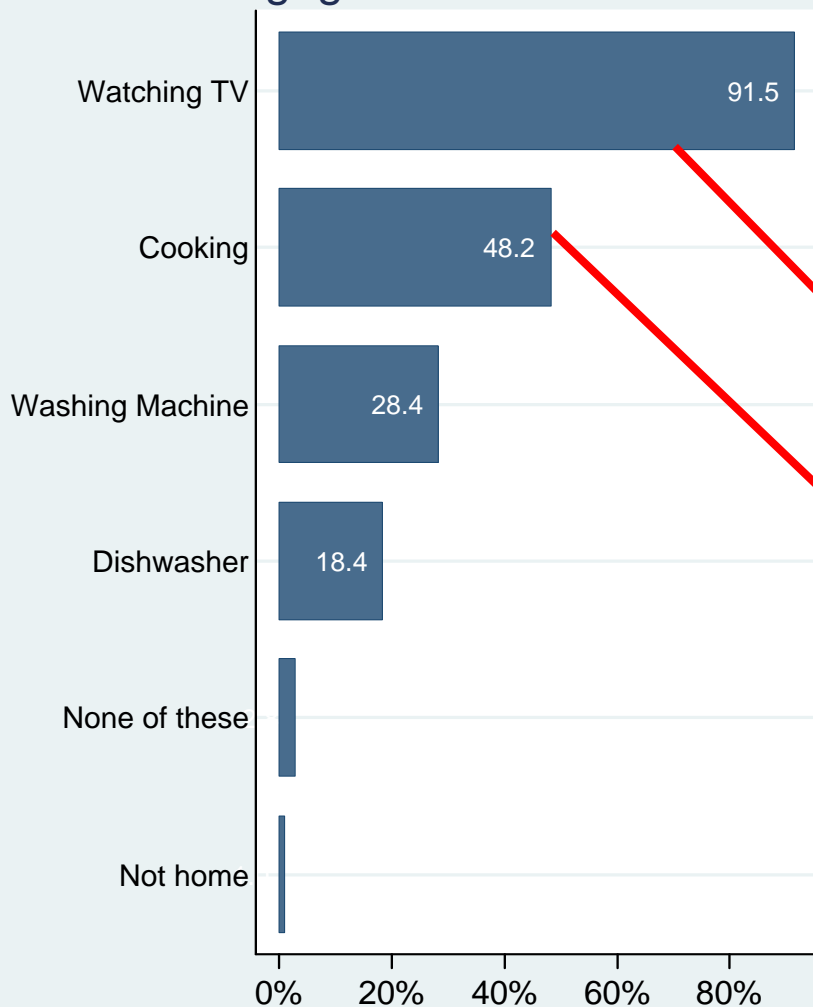


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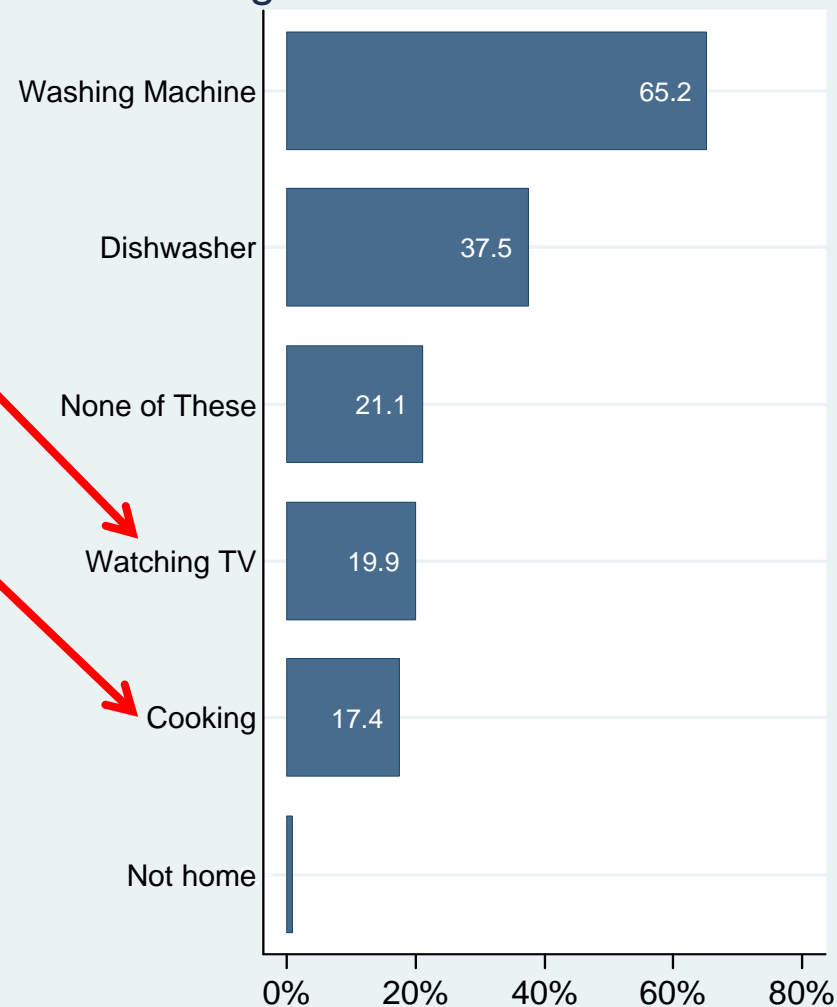
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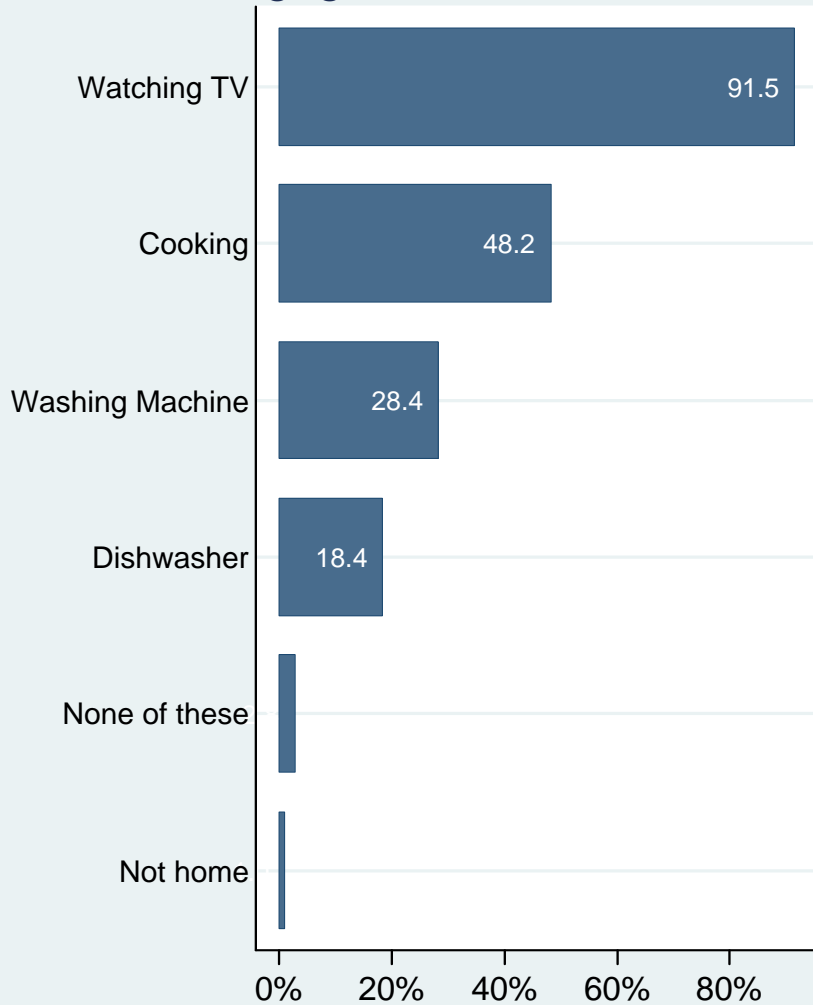


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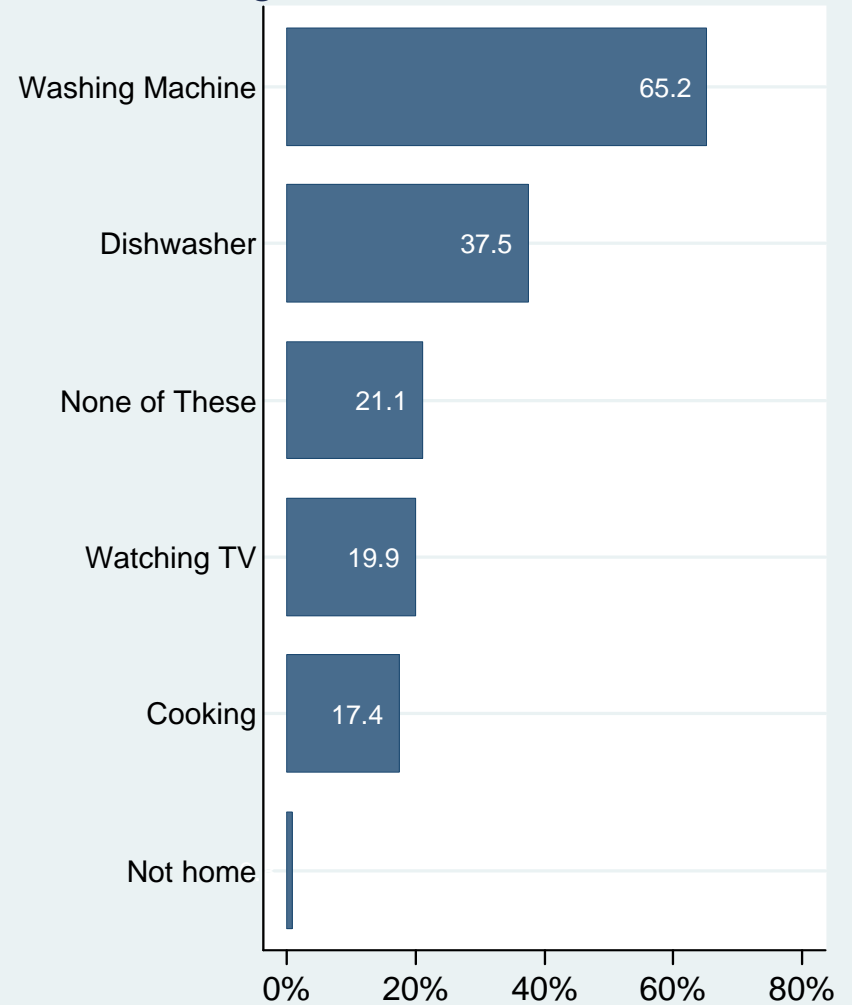
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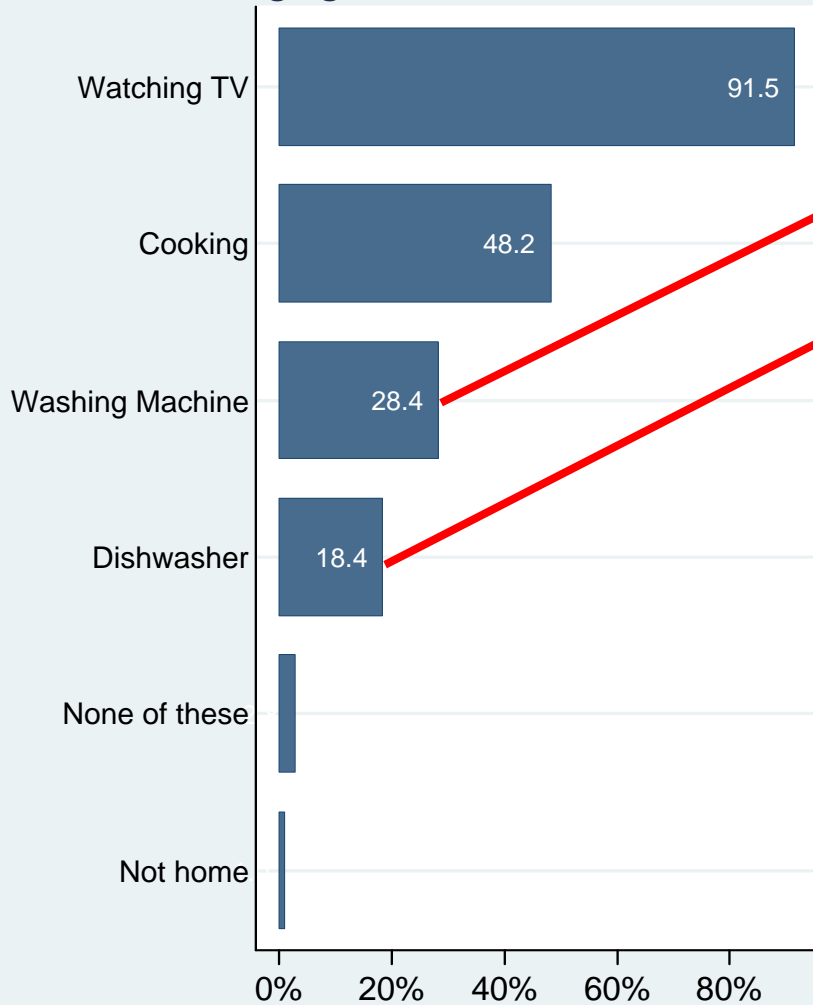


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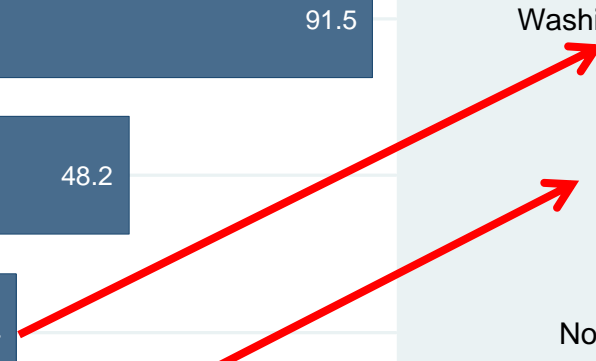
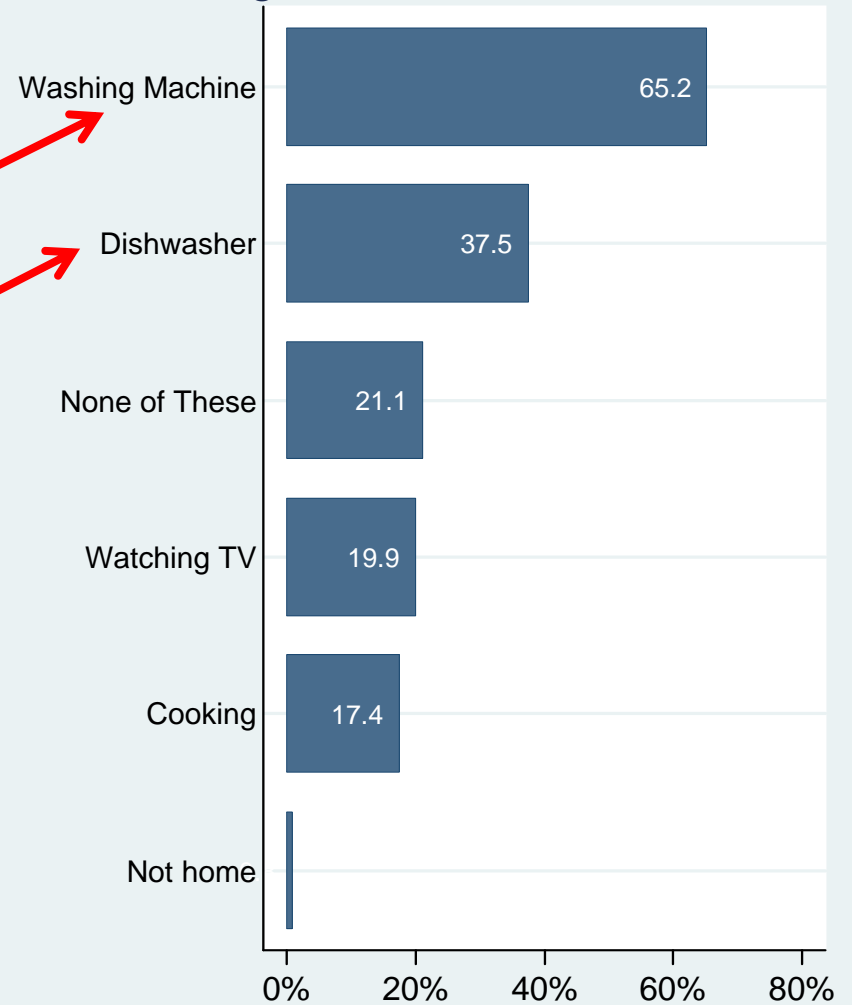
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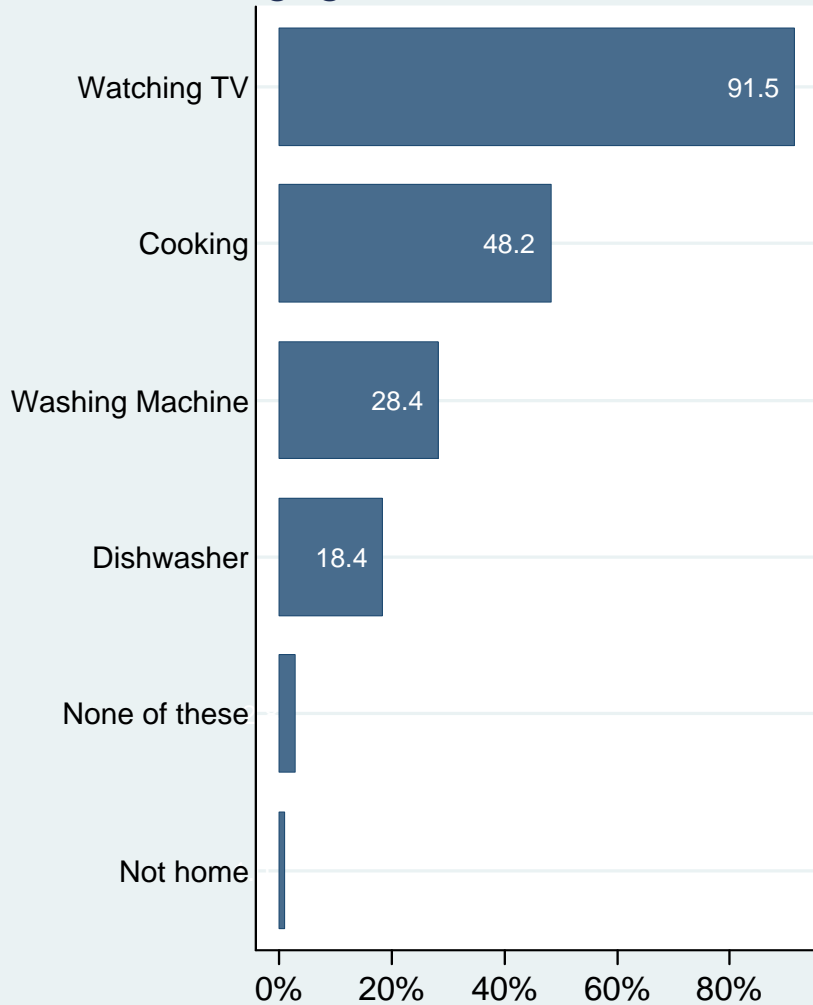


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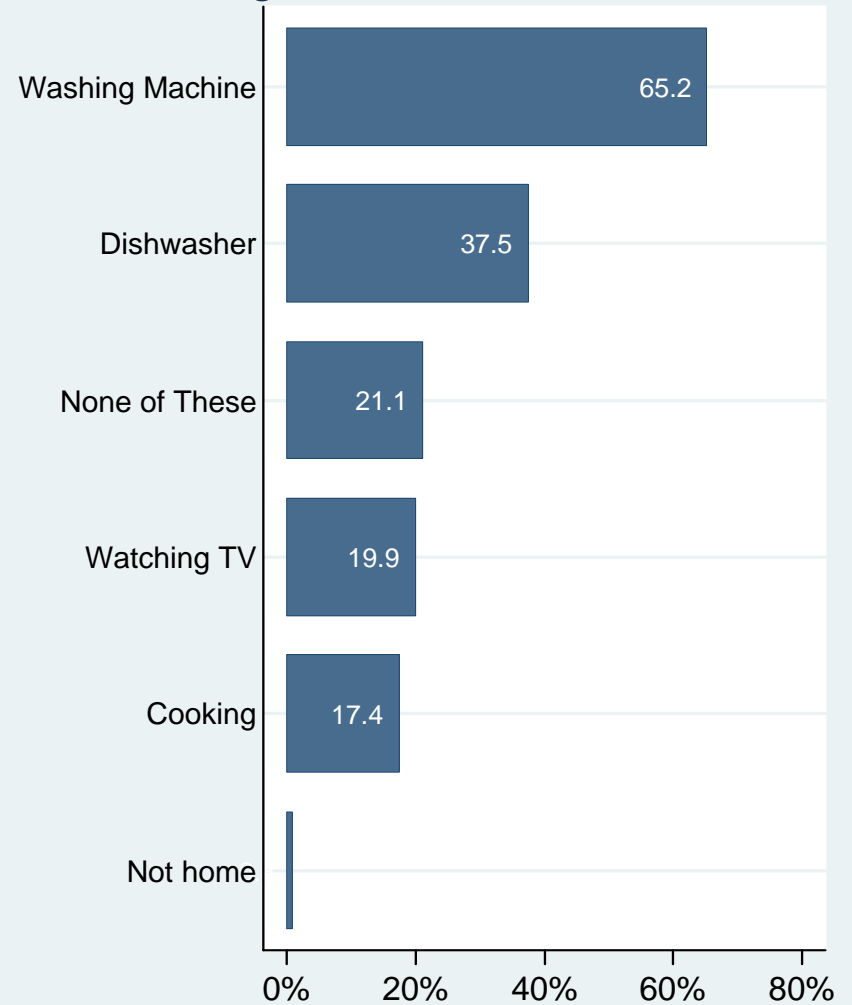
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In Exchange for Discount, Would You accept:



- 1) Having your Wet Appliances (**Dishwasher, Washing Machine, Dryer**) run over longer time
- 2) Having White Appliances (**Fridges and Freezers**) Interrupted for periods of 1-3 minutes
- 3) Having Wet Appliances preset to operate 9PM – 7AM
- 4) Not being able to use cooker for 30 min intervals over 15 times a year (Capped usage)
 - Discounts asked for consideration: 1%, 2%, 5%, 10%, 20%

Cumulative Share of Respondents that Accept Modifications to Appliance Use in Exchange for Discount

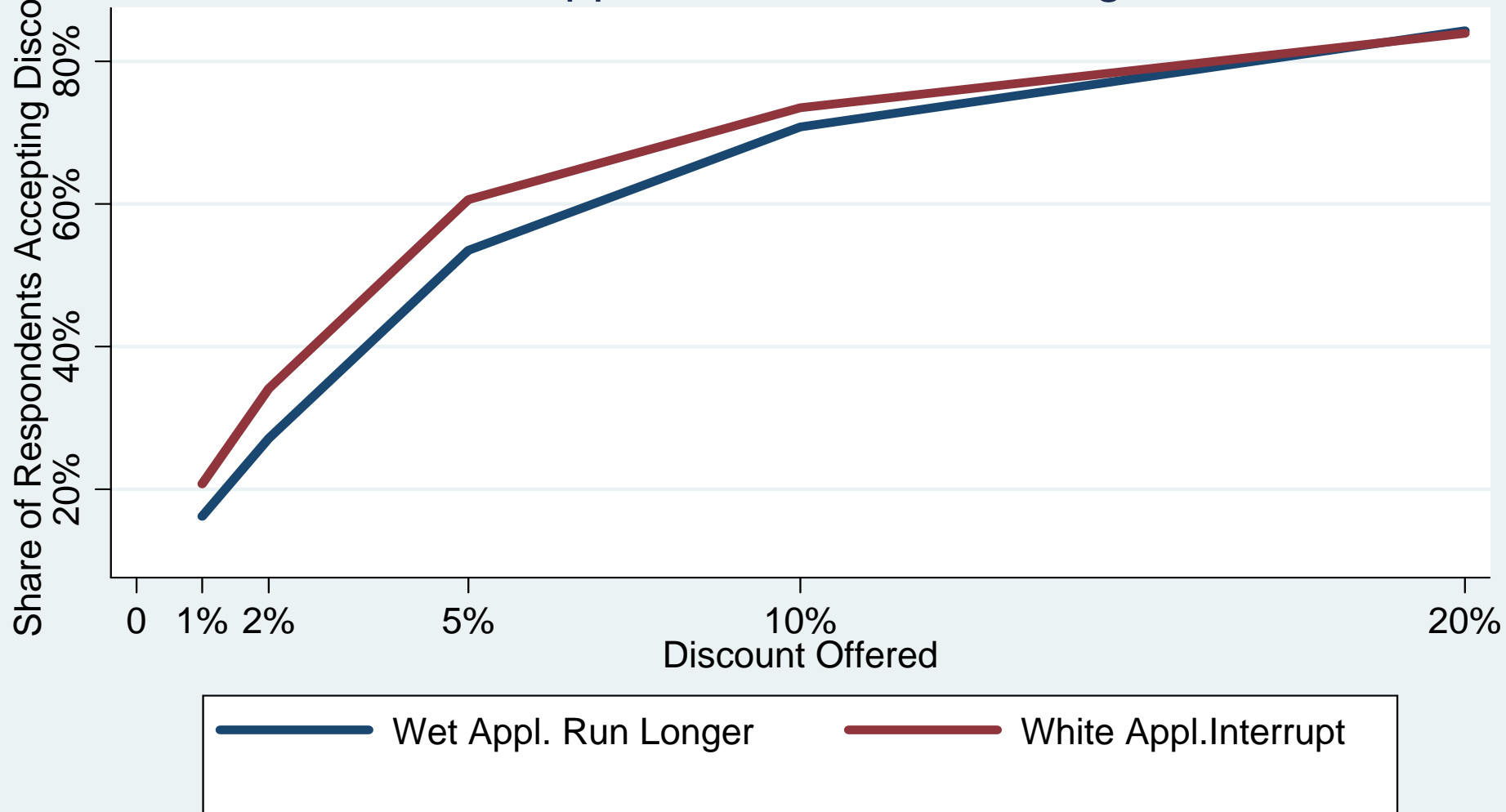


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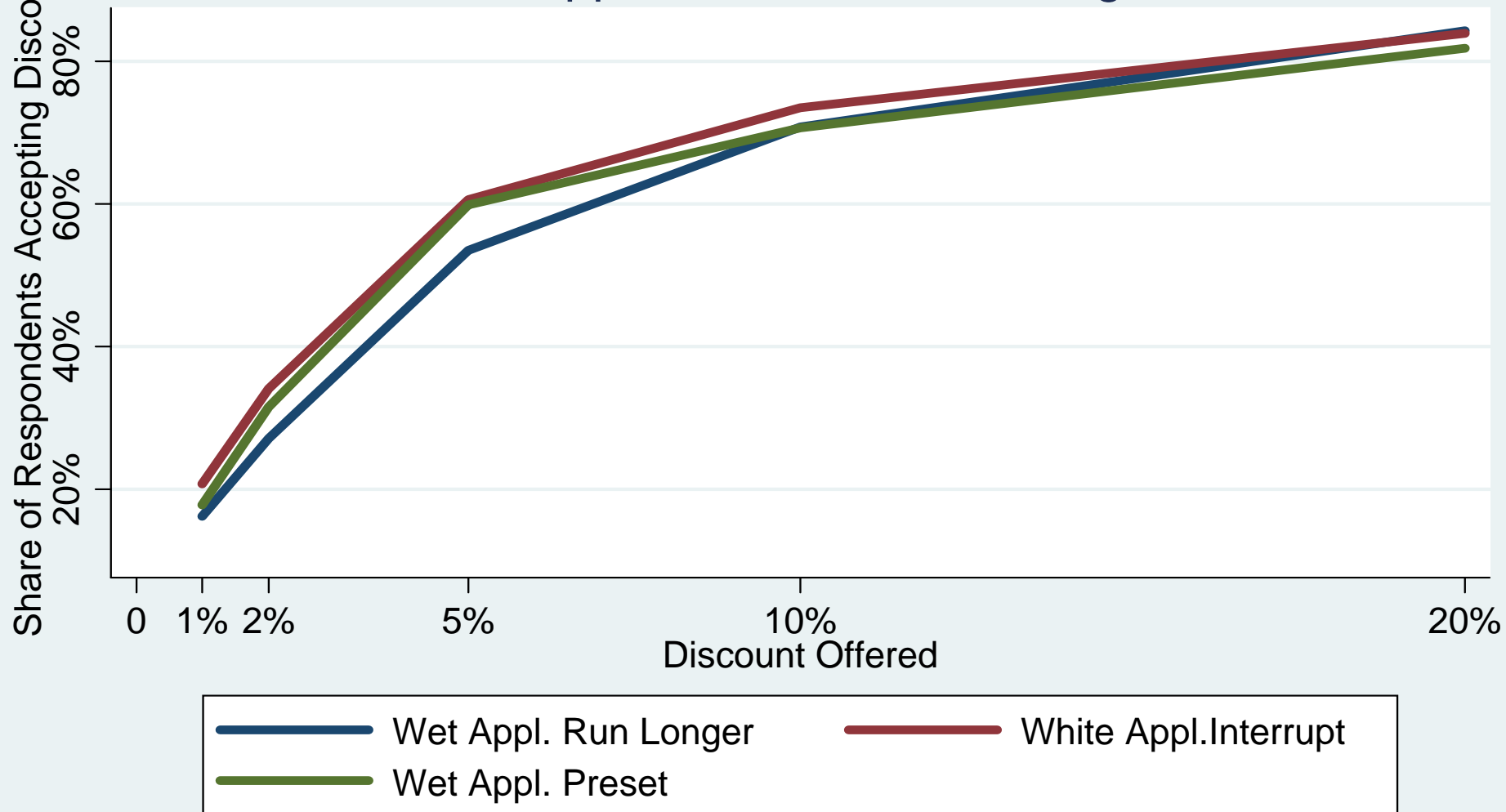


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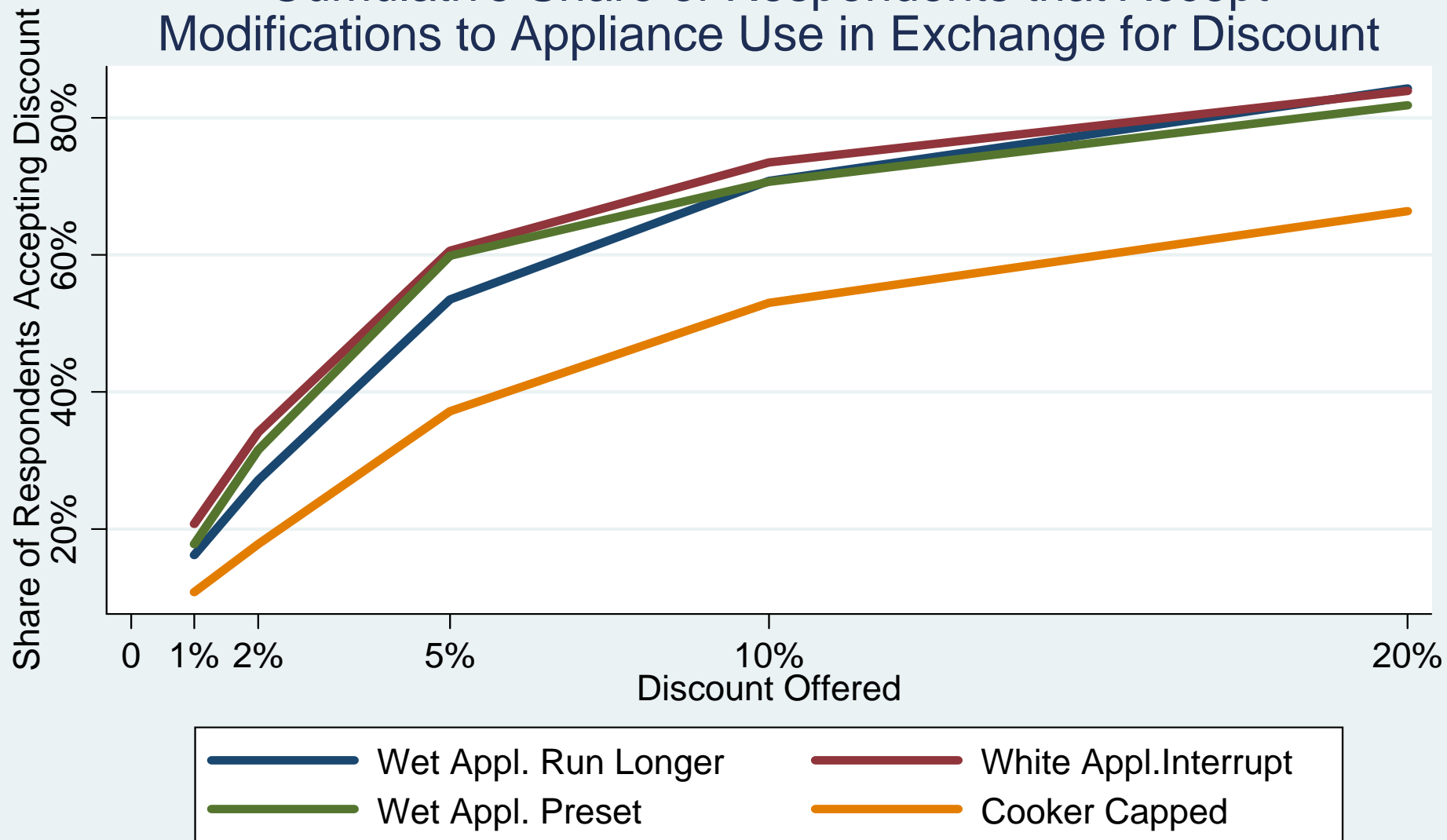


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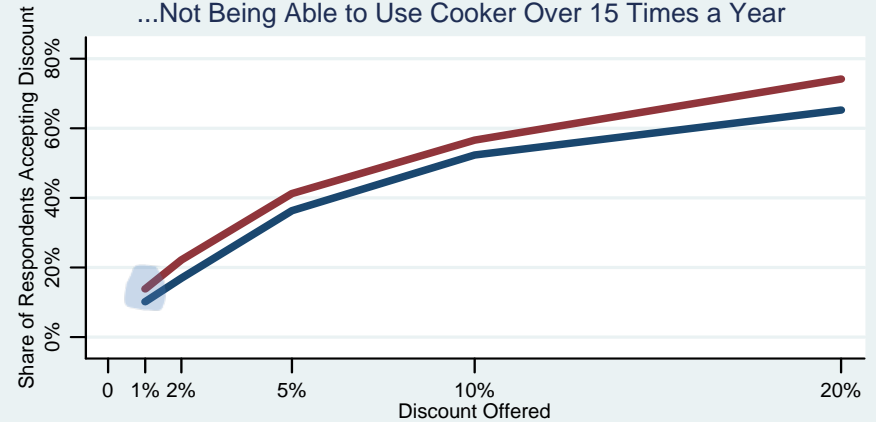
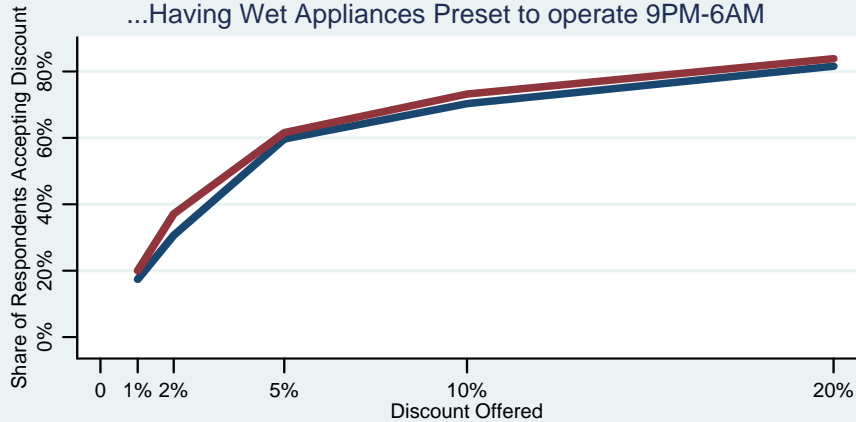
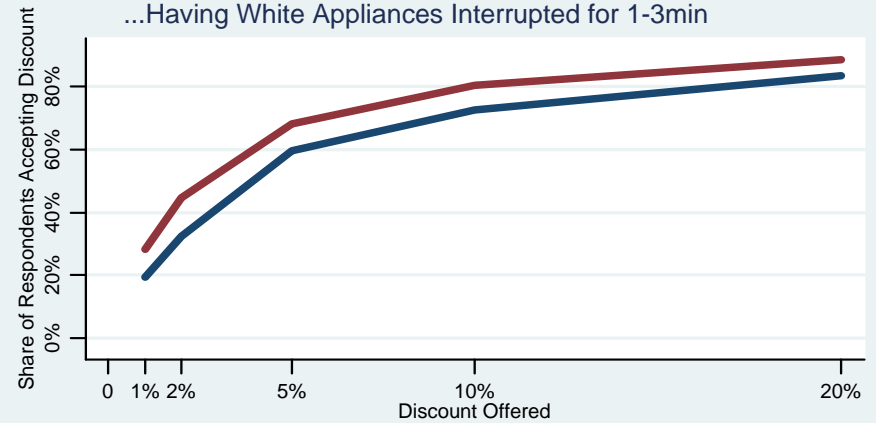
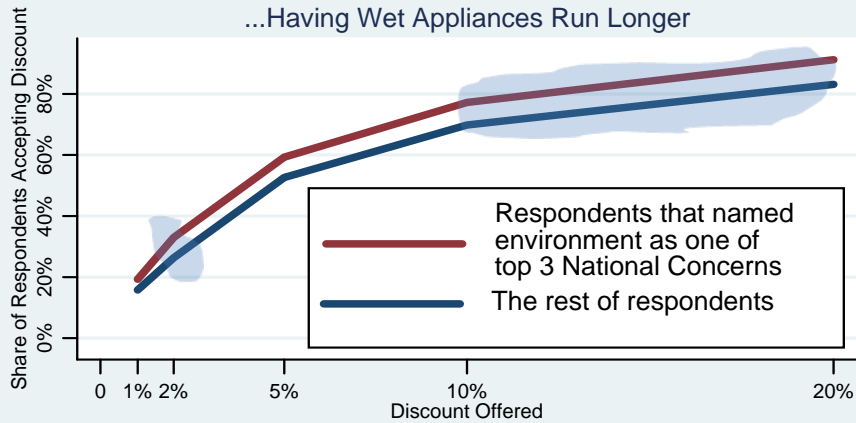


Source: EPRG Survey of UK Households

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Cumulative Share of Respondents that Accept: (According to Concern for ENVIRONMENT Expressed as Priority)*



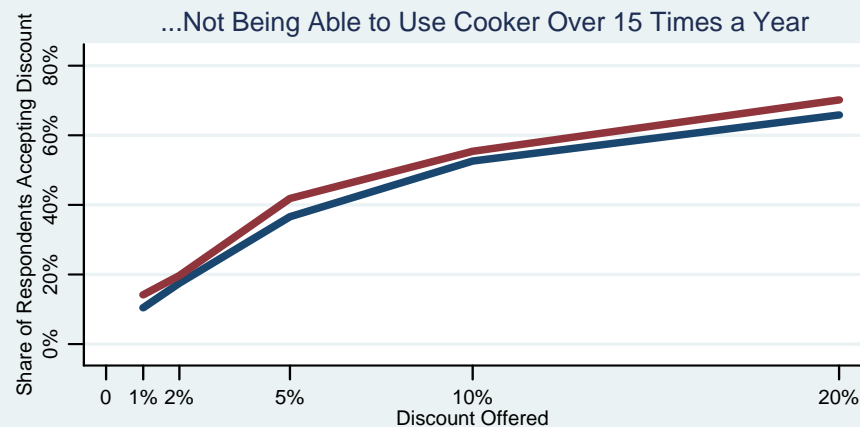
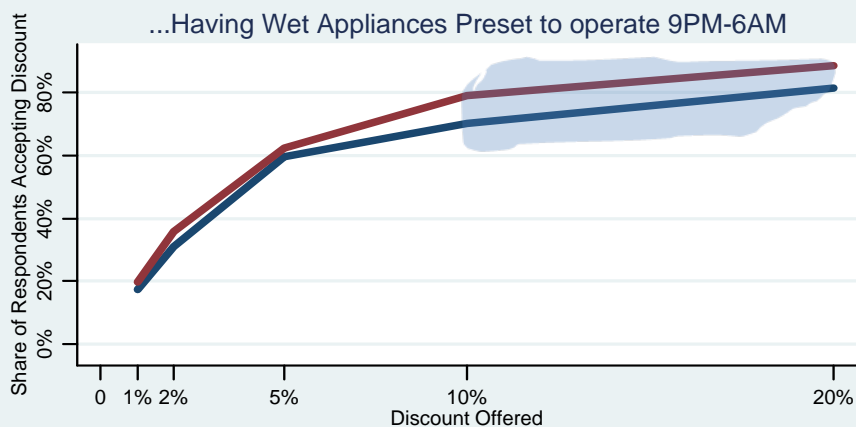
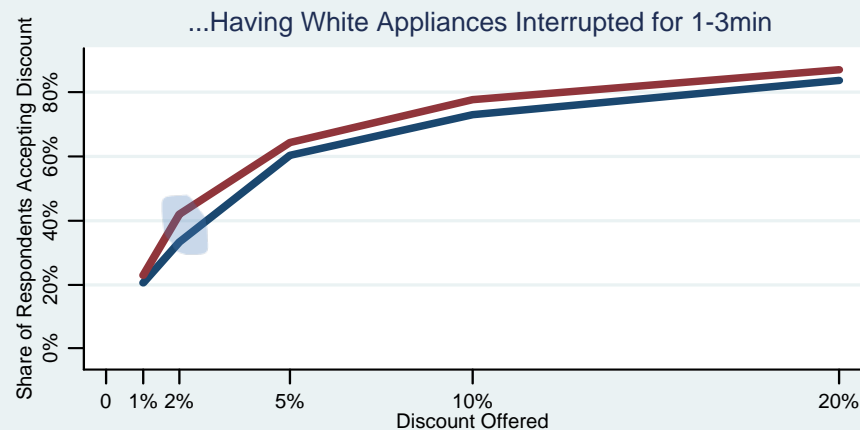
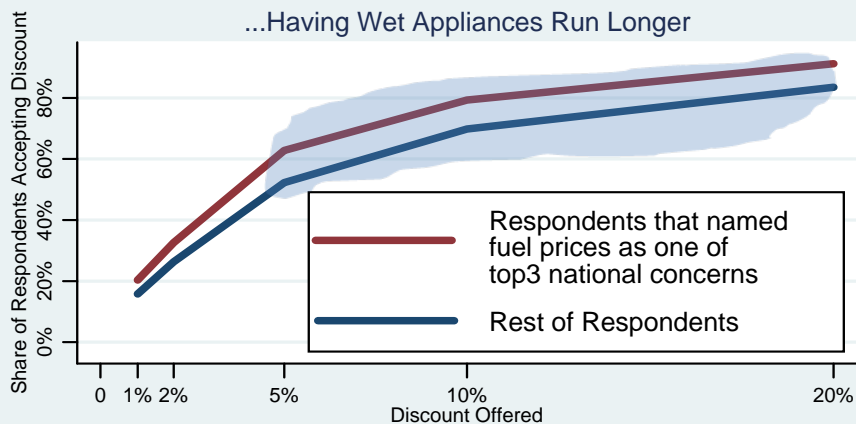
* Shaded area indicates regions where responses were significantly different by at least 90% confidence level

Source: EPRG Survey of UK Households

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Cumulative Share of Respondents that Accept (According to Concern for FUEL PRICES Expressed as Priority)*



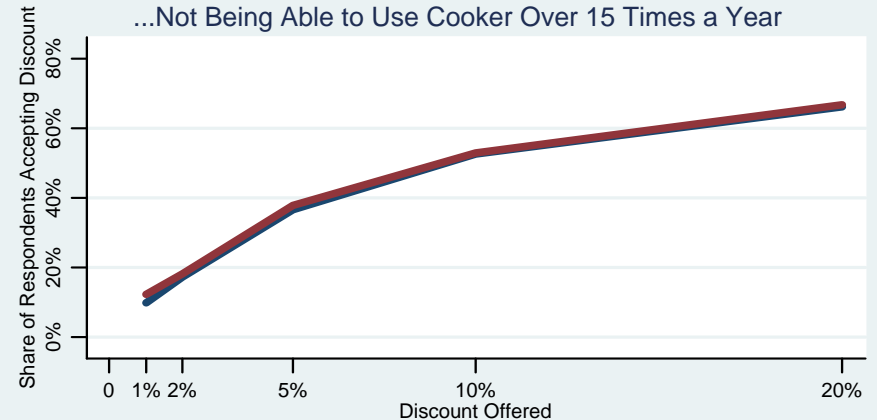
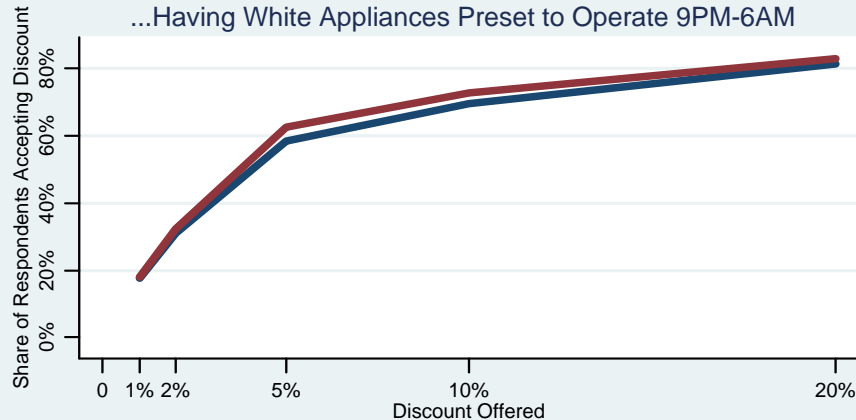
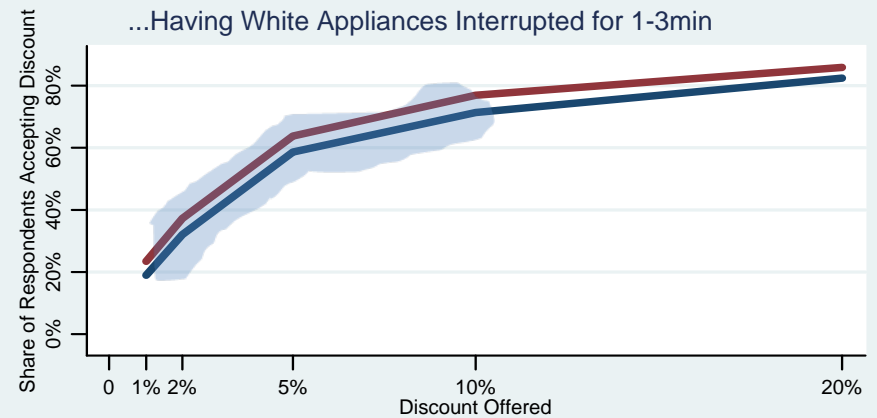
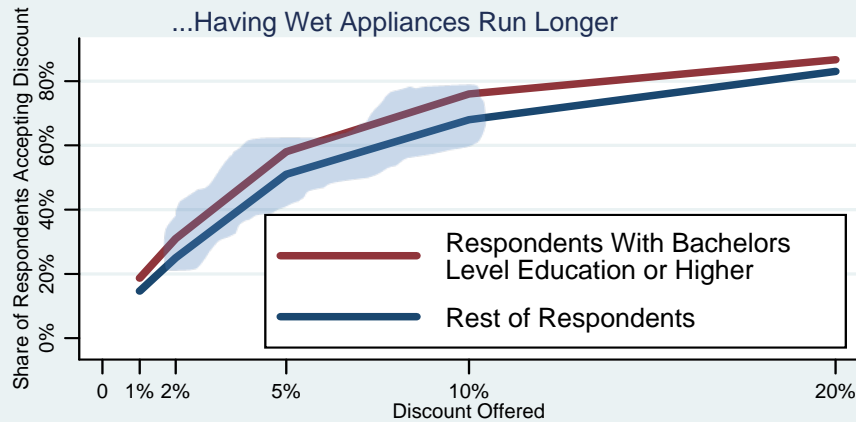
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Source: EPRG Survey of UK Households

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Cumulative Share of Respondents that Accept (According to EDUCATION)*



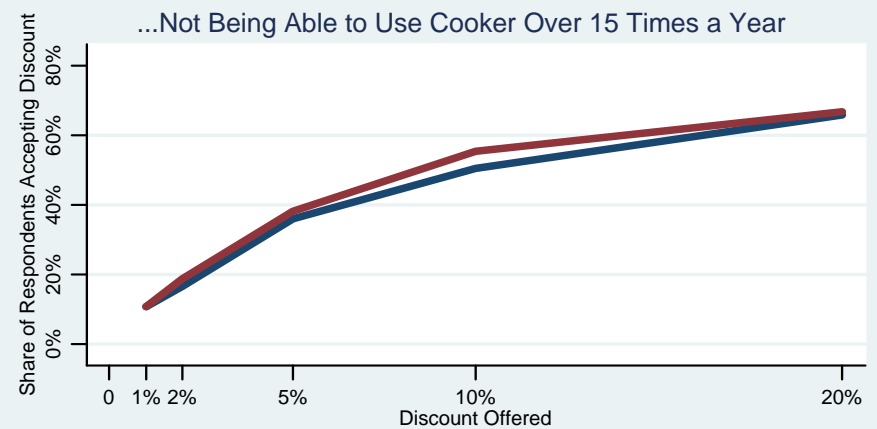
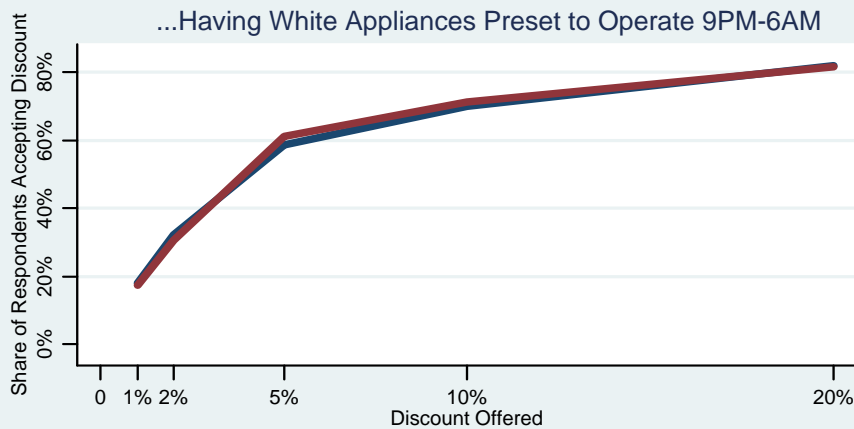
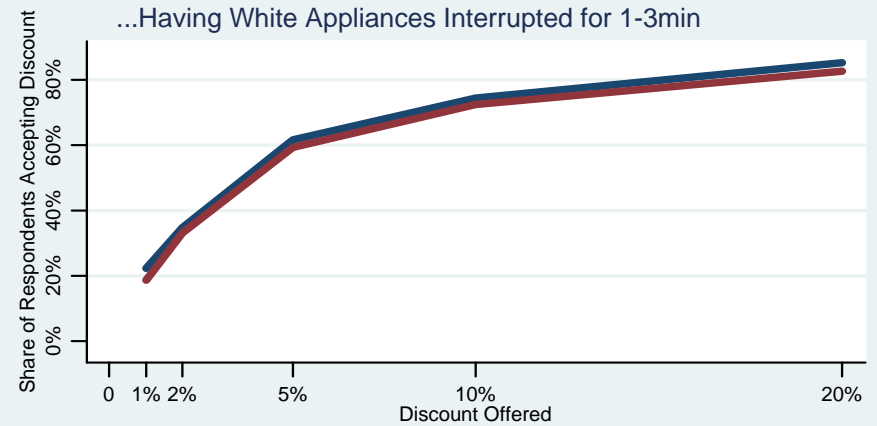
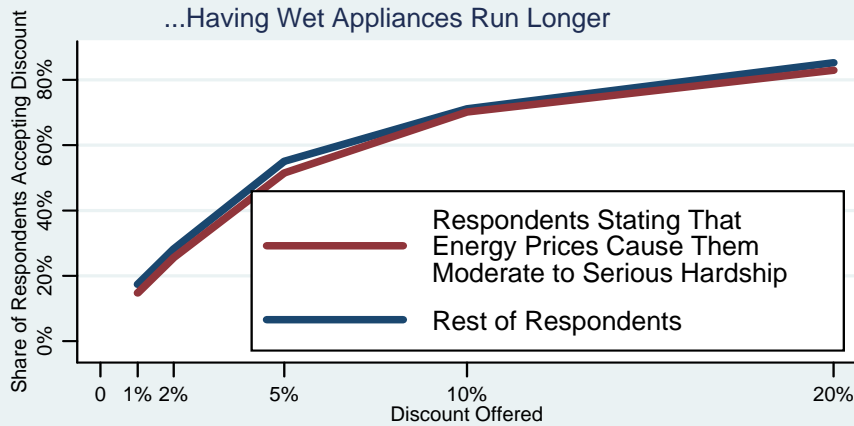
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Cumulative Share of Respondents that Accept (According to HARDSHIP Experiences Due to Energy Prices)*



* Shaded area indicates regions where responses were significantly different by at least 90% confidence level

Source: EPRG Survey of UK Households

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Preliminary conclusions



I. NATIONAL POLICY PRIORITIES

- Variability & importance of the external context

II. ENERGY COSTS

- Share of households reporting hardship from energy prices has declined since 2008

III. ENERGY EFFICIENCY

- Popularity of low-cost measures & that do not involve major lifestyle changes (e.g. transport)

IV. COMMUNITY ENERGY

- Local ownership might stimulate acceptance
- Trust depends on the source of information

V. WILLINGNESS TO ACCEPT APPLIANCE USAGE MODIFICATIONS

- Different demand response activities perceived similarly
- Subjective financial hardship is not a significant determinant
- Depending on TOU price differential, there might be scope for load shifting

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THANK YOU



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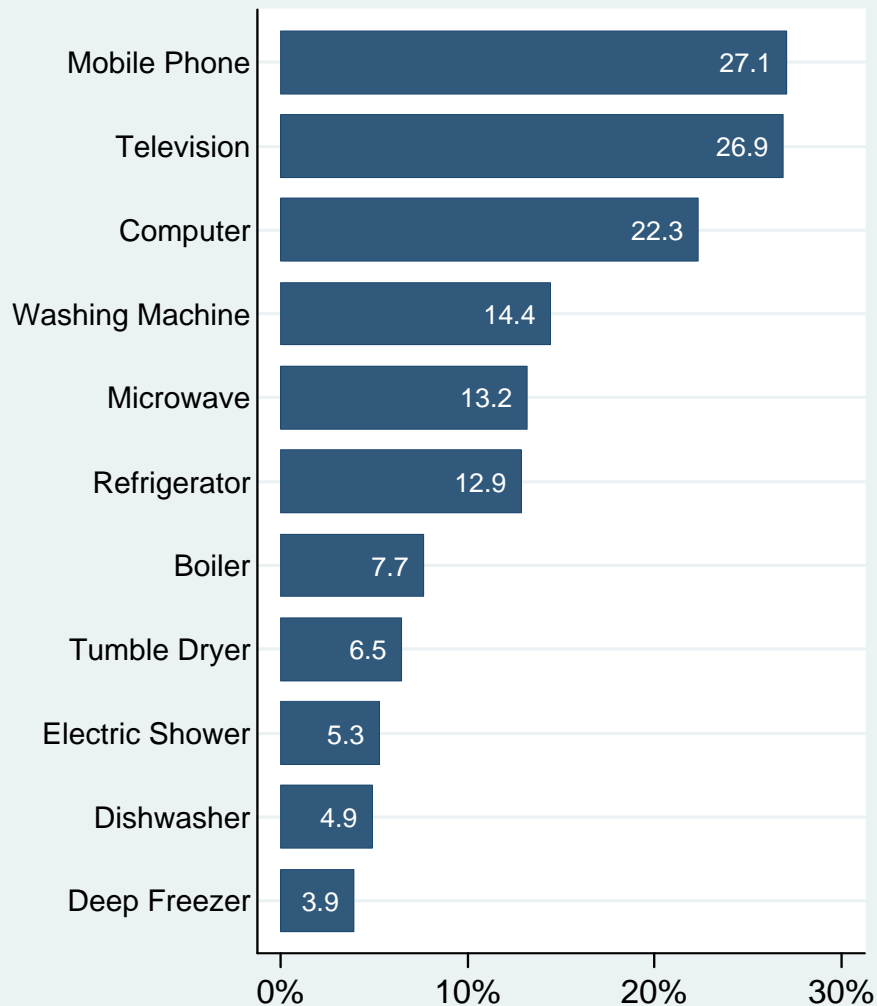
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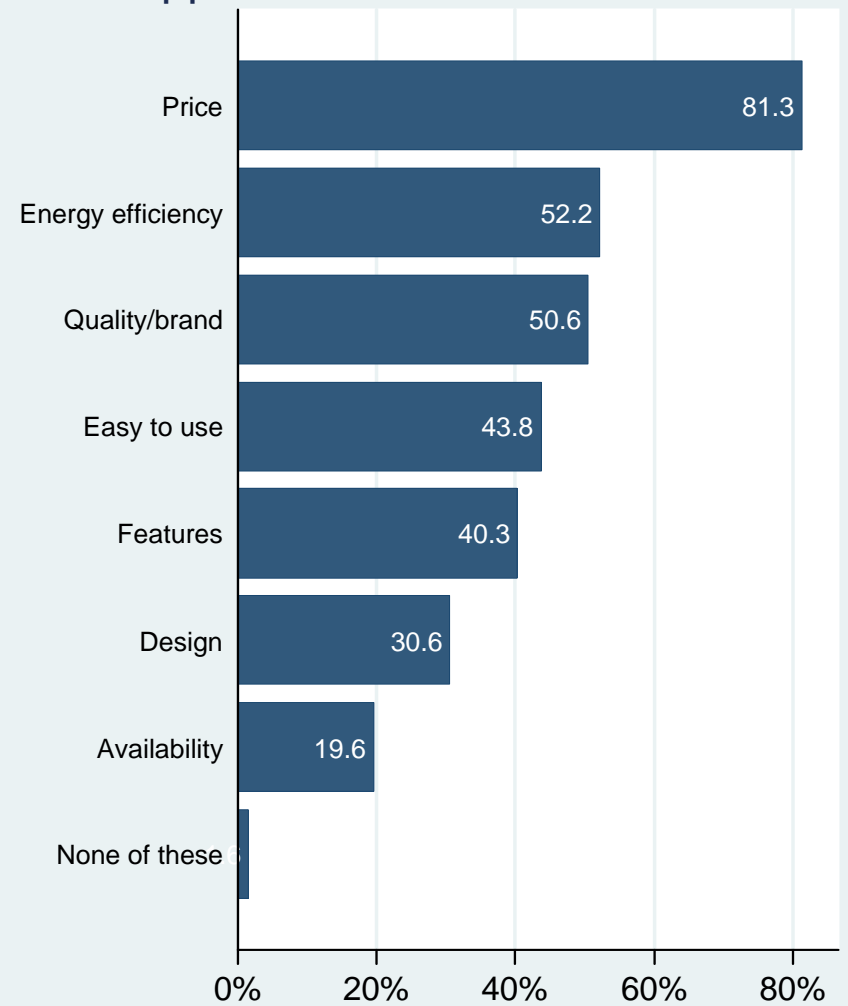


Annexes

What Appliances Have you Purchased Within Last Year



What Was the Most Important Factor In Appliance Purchase Decision



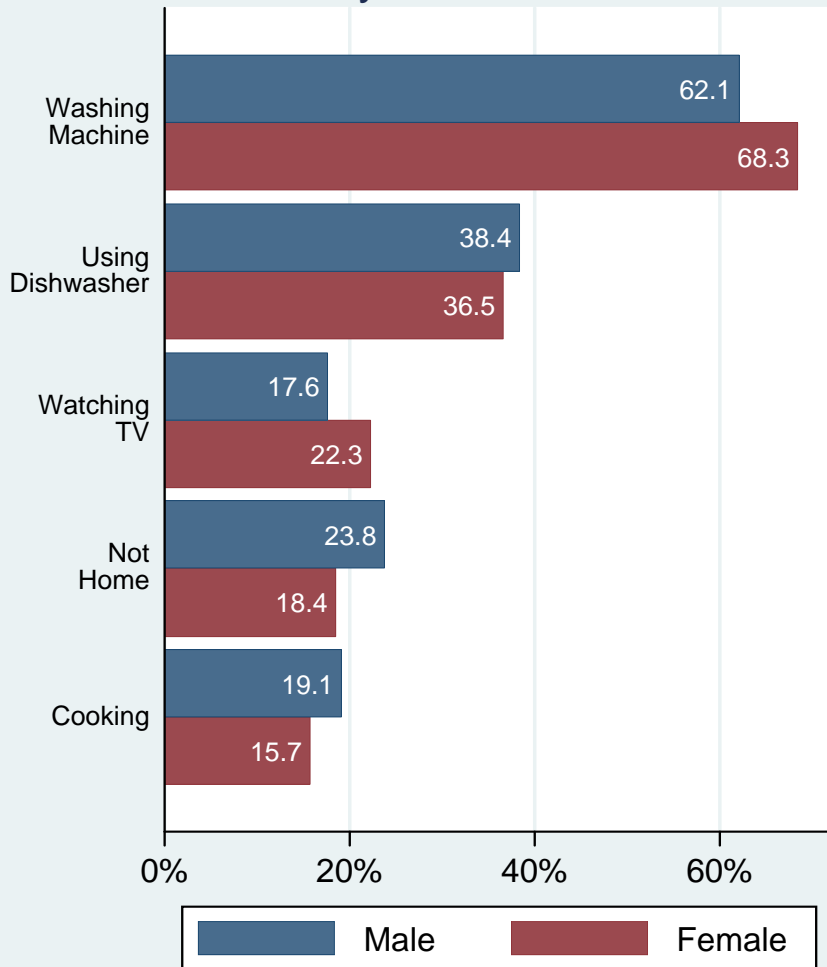
Source: EPRG Survey of UK Households

Making networks fit for renewables ...

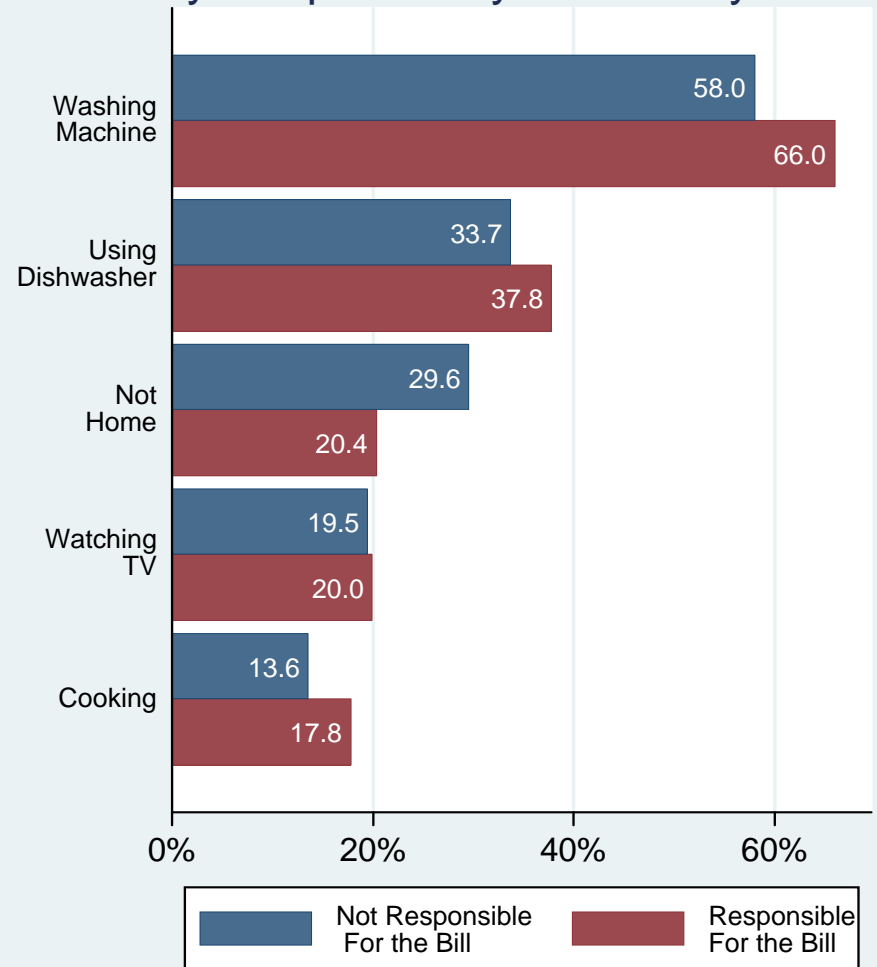
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Which Activity Are You Willing to Shift After 9PM

By Gender



By Responsibility for Bill Payment



Source: EPRG Survey of UK Households

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