

# What do British people want from a welfare system? Conjoint survey evidence on generosity, conditionality, funding, and outcomes

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## Abstract

Current debate about the appropriate level and form of social safety net leads us to ask the question: what do people want from a welfare system? We conducted a conjoint survey experiment with 800 UK-resident adults. We presented them with welfare schemes that varied generosity; in their fiscal implications (rates of personal income tax as well as other funding mechanisms); in their population consequences (effects on the rate of poverty, on inequality, and on physical and mental health); and in their institutional design features (means testing, conditionality, and universality). The strongest driver of preference for a welfare scheme was its effect on poverty: people liked schemes that reduced poverty, and disliked schemes that increased it. Respondents were prepared to trade off their dispreference for higher personal income taxes against poverty: even for Conservative voters, substantial income tax rises were acceptable in exchange for sufficiently large reductions in the poverty rate. Taxes on wealth and carbon emissions were positively valued relative to increasing government borrowing. Respondents paid some attention to the effects of schemes on inequality and physical and mental health as well as poverty. Preferences over institutional design features, such as means testing, conditionality and universality, were weak. We discuss the findings with respect to the envelope of welfare systems that would be politically feasible in the UK context.

## Introduction

Since the late twentieth century, welfare states have faced a number of challenges related to: demographic and economic trends, such as deindustrialisation; ageing populations; immigration; and rising precarious employment. These challenges have driven varied processes of retrenchment, expansion and recalibration in welfare systems (Armingeon and Bonoli 2006; Taylor-Gooby, LeRuth, and Chung 2017). In the the past few decades, most OECD countries have tightened eligibility conditions for receipt of benefits, particularly in relation to job search requirements and conditions about citizenship or residence, ostensibly to deal with concerns about moral hazard (Knotz 2018). In the UK, the level of support provide to working age adults relative to average wages has between on a downwards trajectory over time, particularly for single people.

Recently, there has been a surge of academic and policy interest in novel welfare models such as Universal Basic Income (UBI) (Chrisp and De Wispelaere 2023; De Wispelaere and Morales 2016), minimum income guarantee (Statham, Parkes, and Gunson 2021), and participation income (Atkinson 2015; McGann and Murphy 2023). These proposals are often pitched as a response to a series of crises, from the global financial crisis of 2007-8 to the Covid-19 pandemic and its aftermath, as well as means for addressing persistently high poverty and inequality that existing systems have failed to mitigate (Parra-Mujica et al. 2023; Reed et al. 2023). However, these models would require the reversal of long-term trends in policy, and, in some cases, considerable fiscal reform.

Public support for welfare systems is generally high, especially for encompassing policies such as pensions (Svallfors 2010). However, expressions of support for single policies can be misleading. Both public support for higher government spending and public support for lower taxation can be found in the same populations when each of these is presented in isolation (see Bremer and Bürgisser 2022). Similar observations apply to institutional design features: descriptions of Universal Basic Income schemes often elicit strong approval, but so do descriptions of welfare schemes based on very different principles, such as those involving high levels of conditionality (Laenan 2023; Nettle et al. 2021; Roosma and Oorschot 2020). Thus, the pertinent question is not whether people support a policy in some absolute sense. Every policy is a bundle of features, some of which will be perceived as goods and some as drawbacks. The critical questions are: which features increase net support and which decrease it, and by how much; and how do people trade off the various features against one another.

In recent years, conjoint analysis (Hainmueller, Hopkins, and Yamamoto 2014) has become increasingly popular as a method for eliciting the public's relative valuations of competing policy goods (Bremer and Bürgisser 2022). Respondents are repeatedly invited to choose their preferred option from a pair of policies. The policies vary in terms of a series of attributes whose levels are randomly permuted. This allows researchers to estimate the average impact of any particular feature attribute-value on preference for the policy. Critically, the strength of preference or dispreference for several different policy attributes can be simultaneously estimated and measured on comparable scales.

In the present study, we assess the nature and strength of public support for different features of potential welfare schemes using a conjoint survey experiment with 800 British residents. The attributes that we vary cover the schemes' generosity (e.g. size of payment), conditionality (e.g. residency, work), funding mechanism (e.g. tax, borrowing) and outcomes (e.g. effects on poverty, health). We examine the relationship between design preference and demographic characteristics such as sex, age, self-reported financial position, and political orientation. Our findings suggest that significant reform to the current welfare system would be popular. This is due to the high value placed, population wide, on poverty reduction and its positive sequelae. This was sufficiently high to more than offset aversion to tax increases. The findings suggests a public much more favorable to redistributive government action than might otherwise be assumed. Before turning to our study, we review some relevant previous literature on public preferences concerning welfare systems.

### Public preferences concerning welfare systems

Early models assumed that preferences for welfare transfers were driven by fairly narrow self-interest: voters who could expect to gain directly in income would favour expansion of the welfare system, whereas those who might be net contributors would favour its contraction (Meltzer and Richard 1981). In fact, the predictive power of personal expectations of gain or loss, though real, is limited. Voters also appear to be concerned about outcomes for the population at large, and particularly the effect on poverty (Bechtel and Liesch 2020). These broader concerns are not limited to those who identify as left-wing; indeed the impact of left-right political orientation, though measurable, is not as strong as might be expected (Johnson, Johnson, and Nettle 2022). The widespread concern about poverty is consistent with a tradition of research in behavioral economics showing that, in distributional questions, people tend to have 'quasi-maximin' preferences (Charness and Rabin 2002; Kameda et al. 2016). That is, their preference for a distribution includes consideration of the effect on the welfare of the worst off, as John Rawls proposed it should (Rawls 1971). The preference for positive population-level consequences may not be limited to the well-being of the worst off. People may also want a welfare system to reduce inequality, reduce stress, or improve physical health (Johnson, Johnson, and Webber 2022; Nettle et al. 2021), though the strength of these preferences relative to those for other features has not yet been tested.

One difficulty with eliciting preferences on features of welfare systems is that, all else being equal, the public tend to prefer public spending on most social goods. There are majorities of the public in most countries in favour of public expenditure on key areas of the welfare state (Bremer and Bürgisser 2023; Jensen 2012). However, that support is reduced when people are presented with trade-offs between higher spending and higher income tax burdens. It is this trading-off that enables translation of general positions on distribution into specific preferences on policies. Using a conjoint experiment, Häusermann et al. (Häusermann, Kurer, and Traber 2019) find that in Switzerland, opposition to restrictive pension reform can be overcome if salient compensation is provided to certain groups. Barnes et al. (Barnes, Blumenau, and Lauderdale 2022) use a multivariate choice experiment in the UK to find that, in general, people favour higher taxes to fund key policy areas, but that younger respondents are less likely to support tax increases. Bremer and Bürgisser (Bremer and Bürgisser 2023) also use a conjoint

experiment, in Germany, Italy and the UK, and identify a hierarchy of social policy priorities, with pensions and education at the top, family policies in the middle, and labor market policies lower down. The relative importance of each policy area is heightened by material interests: pensioners see pensions as particularly salient, and adults with children prioritise family policies.

Along with the cost and the population consequences, people may be concerned with institutional design features: who is entitled to get what and what those people have to do in return. An influential idea in this area is that people rely on a 'deservingness heuristic': they want to see resources restricted to deserving recipients (Jensen and Petersen 2017; Oorschot 2000). Deservingness and its interpretation has influenced conjoint work on the acceptability of UBI proposals. Rincon (2023) in Spain, and Rincón, Vlandas, and Hiilamo (2022) in Finland, used conjoint designs to explore the relative preference for UBI versus conditional or non-universal alternatives. In the Spanish sample, they found that the universality of UBI had a negative effect on popularity: preference could be increased by restricting entitlement to citizens of the country. In Finland, by contrast, it was the unconditionality that was negatively valued: preference could be increased by including a requirement to demonstrate need. In both studies, taxing capital or the highest incomes to fund the policy - making the rich pay - increased preference. Stadelmann-Steffen and Dermont (2020), in a comparative study in Spain and Finland, restricted the universe of policies under consideration to different forms of UBI. In both countries, they found that more restrictions on the eligible population (making recent immigrants ineligible) increased the preference for the policy, and a very low level of payment was dispreferred to a more generous one. Since the study only considered UBI schemes, which are by definition unconditional, the effect of unconditionality on preference was not tested. Overall, then, there is evidence that deservingness concerns can be influential. However, we do not know how strong these concerns might be as drivers of preference relative to costs in terms of taxation, or preferences for poverty reduction and other positive population consequences, since these different dimensions are rarely put together in the same survey.

### The current study

In the present study, we created a conjoint design in which welfare schemes varied on the dimensions of: their generosity; their fiscal costs, including both personal income tax rates and other methods of funding; their consequences at the population level for poverty, inequality, physical health, and mental health; and institutional design features such as their universality and conditionality. Although not all the schemes in our study were UBIs - means-tested and conditional features were part of the set of options - their design was informed by the UBI literature, in the sense that all schemes were based on a single payment that differentiated eligible individuals only by age group (children, working age adults and pensioners had different rates), and was non-contributory in nature. Where possible, we made the costs and consequences highly concrete, by giving the attribute multiple levels that varied along a quantitative scale. For example, rather than stating either that personal income tax rates would be increased vs. not, we presented a range of seven different personal income tax rates. Rather than specifying that inequality would go up vs. go down, we specified nine different degrees of decrease or increase. In this way, we hoped to be able to accurately map the value function underlying different costs and different goods.

Our broad hypotheses were as follows. First, we expected that, other things being equal, people would prefer more generous schemes to less. Second, again other things being equal, people would prefer lower personal income tax rates to higher. Third, we hypothesized that the effect of the scheme on the rate of poverty would be an influential factor, with greater poverty reduction increasing the valuation of a scheme. Fourth, we hypothesized that other population consequences might have a positive impact above and beyond the rate of poverty itself. Finally, we hypothesized, drawing on the deservingness literature, that people might prefer that recipients be required to demonstrate need, be citizens of the country, or be required to seek work in return for payments. What we left open is the relative strength of these different influences. That is, we had hypotheses concerning the direction of effects of attribute levels on the valuation of a scheme; but we had open priors on which ones would be the strongest determinants.

As well as the overall drivers of preference, we investigated heterogeneity along some salient dimensions: sex, age, self-reported financial position, and political orientation, as index by party voted for at the 2019 UK general election. We hypothesized that younger people, women, those in more difficult financial situations and those voting for left parties would be more likely to support schemes with stronger effects on poverty and health, higher levels of payment, and more universality, while being less opposed to unconditionality and higher taxes.

## Methods

### Participants

Participants were 800 UK resident adults recruited through online survey platform Prolific. They completed the study remotely. Prolific and related services provide convenience samples, in the sense that participation is limited to those who have decided to sign up and respond to the study call, but their demographic diversity is fairly broad. Research using Prolific has been validated by comparison with other sampling methods for a number of known findings in psychological and political science (Coppock 2019; Peer et al. 2022). The Prolific pool over-represents younger and more educated people compared to the UK adult population (for details see Radkani et al. (2023) ). To mitigate the lack of age diversity, we created sample quotas for each of the age categories 18-34, 35-49, 50-65 and 65+ to match the age structure of the UK population. Within each age category, we balanced for sex. Thus, our sample was age-representative (mean age 49.02, s.d. 16.42), and contained equal numbers of men and women.

Relative to the UK population, our sample contained an over-representation of people who voted for the Labour party at the 2019 general election (44.3% of those in our sample who voted, vs. 32.1% election result); and an under-representation of those who voted Conservative (31.8% versus 43.6% election result). We created survey weights based on the population proportions not voting, voting Labour, voting Conservative, and voting for other parties at the election. These weights thus render our sample roughly population-representative by 2019 voting behaviour (to the extent that respondents accurately recalled their vote from four years

earlier). The analyses presented in the main paper do not use these weights, but the main analysis is repeated with the weights applied in figure S1 of the supplementary material.

### Conjoint survey experiment

Participants were told they would be asked, several times, to choose their preferred welfare policy from sets of two. Thus, we used a discrete choice rather than a rating method. Instructions explained that participants might prefer some features in one policy and some in the other, but they needed to consider which policy they preferred overall. The attributes on which the policies varied were explained in greater depth prior to the first choice task, and then described just with brief phrases during the choice tasks themselves.

Each participant completed 15 choice tasks. Each option within each task was defined by 10 attributes. Each attribute had three-nine possible levels (table 1). All options were fully randomly generated from the possible combinations, and varied from participant to participant.

All scenarios envisaged a basic payment, differentiated only according to whether the recipient was a child, working age adult or pensioner. The size of the payment constituted the first attribute. In all our options, the pensioner payment was at least as large as the working age adult, which was at least as large as the child payment. Another attribute specified a range of personal income tax rates that would come into force, preserving the current UK distinctions between a basic rate, a higher rate, and an additional rate in all options. A separate attribute proposed a number of other funding methods, including increasing government borrowing, abolishing the personal income tax allowance, wealth and carbon taxes. Four attributes covered the consequences for, respectively: poverty; inequality; life expectancy (as an index of physical health); and anxiety and depression cases (as an indicator of mental health). For these attributes, the reference category was always the status quo, and the other levels represented increases or decreases of varying magnitudes. The remaining three attributes cover the institutional design features: whether universal to all residents, or more restricted; whether means tested; and whether conditional on having or seeking work.

*Table 1. Attributes and their levels for the conjoint experiment.*

Attribute	Levels
Payment size	Child - £0; Adult - £63; Pensioner - £190
	Child - £41; Adult - £63; Pensioner - £190
	Child - £0; Adult - £145; Pensioner - £190
	Child - £41; Adult - £145; Pensioner - £190
	Child - £63; Adult - £145; Pensioner - £190
	Child - £63; Adult - £190; Pensioner - £190
	Child - £95; Adult - £190; Pensioner - £230
	Child - £41; Adult - £230; Pensioner - £230
	Child - £95; Adult - £230; Pensioner - £230

Attribute	Levels
Income tax	Basic rate - 20%; Higher rate - 40%; Additional rate - 45%
	Basic rate - 23%; Higher rate - 43%; Additional rate - 48%
	Basic rate - 30%; Higher rate - 50%; Additional rate - 60%
	Basic rate - 40%; Higher rate - 60%; Additional rate - 70%
	Basic rate - 48%; Higher rate - 68%; Additional rate - 78%
	Basic rate - 50%; Higher rate - 70%; Additional rate - 80%
	Basic rate - 65%; Higher rate - 85%; Additional rate - 95%
Other funding	Removal of income tax-free personal allowance
	Increased government borrowing
	Corporation tax increase
	Tax for businesses based on carbon emissions
	Tax for individuals based on carbon emissions
	Tax on wealth
	VAT increase
Poverty	Unchanged
	Decreased by 100%
	Decreased by 75%
	Decreased by 50%
	Decreased by 25%
	Decreased by 10%
	Decreased by 5%
	Increased by 5%
	Increased by 10%
	Increased by 25%
	Increased by 50%
Inequality	Unchanged
	Decreased by 50%
	Decreased by 25%
	Decreased by 10%
	Decreased by 5%
	Increased by 5%
	Increased by 10%

Attribute	Levels
	Increased by 25%
	Increased by 50%
Life expectancy	0 more or less years on average
	5 fewer years on average
	3 fewer years on average
	1 less year on average
	1 more year on average
	3 more years on average
	5 more years on average
Anxiety and depression	Same number of cases
	50% fewer cases
	25% fewer cases
	10% fewer cases
	5% fewer cases
	5% more cases
	10% more cases
	25% more cases
	50% more cases
Conditionality	People in and out of work are entitled
	People who are not disabled are required to look for work
	Only people in work are entitled
	Only people out of work are entitled
Means testing	People with any or no amount of income are entitled to the full benefit
	Only those with incomes less than £20k are entitled to the full benefit
	Only those with incomes less than £50k are entitled to the full benefit
	Only those with incomes less than £125k are entitled to the full benefit
Universality	Anyone residing in the UK for more than six months are entitled
	Only citizens and permanent residents are entitled
	Only citizens are entitled

### Sub-groups

To examine heterogeneity, we created sub-groups of respondents along four dimensions: men versus women; those aged 55 and over versus younger respondents; a grouping based on self-



reported financial position; and a grouping based on political preference. For financial position, we used responses to the question ‘how well would you say you are managing financially these days?’, grouping responses ‘living comfortably’ and ‘doing alright’ as ‘not difficult’ (n = 384), and ‘just about getting by’, ‘finding it difficult’ and ‘finding it very difficult’ as ‘difficult’ (n = 416). For political preference, we used voting in the 2019 UK general election. For statistical power reasons, we restricted this comparison to those who voted for the Conservative party (n = 202) versus those who voted for the Labour party (n = 282), excluding voters for other parties and those who did not vote (n = 316).

## Data analysis

For the main analysis, we computed Average Marginal Component Effects (AMCEs) (Hainmueller, Hopkins, and Yamamoto 2014) from linear probability models. The AMCE for a given level of an attribute can be interpreted as the marginal effect on the probability of choice of the attribute being at that level compared to the reference level, averaging across the possible levels of all other attributes. For sub-group analysis, we formally tested, by ANOVA, whether including interactions between the subgroup identity and the attribute improved model fit. We then followed up with comparison of the marginal mean probabilities of choice for each attribute level between subgroups, using z-tests to establish where the significant differences resided. All analyses were carried out using the *cregg* R package (Leeper 2020).

## Results

### Overall analysis

Figure 1 summarises the AMCEs for each attribute. More generous payments were more preferred than less generous ones, with the most generous five levels significantly more likely to be chosen than the least generous reference level. On the other hand, increasing personal income tax rates had a consistent and graded negative effect on preference. Funding sources other than increasing income tax significantly increased preferences. Notably, a wealth tax, carbon taxes, and increased corporation tax, were all preferred relative to increasing government borrowing.

Societal consequences of the policy had marked effects on preference. Notably, the strongest single determinant of preference was the effect on the prevalence of poverty, with increases in poverty (compared to the status quo) having significant, graded negative effects on preference; and decreases in poverty having significant, graded positive effects. Above and beyond the impact of effects on poverty, there was a significant positive effect of a large reduction in inequality, and a significant negative effect of a large increase in inequality. However, the effect on inequality was a weaker driver of preference than the effect on poverty. Other health and well-being consequences also had some significant marginal effects above and beyond those of poverty and inequality. An increase in life expectancy of five years was significantly preferred to the status quo, and a decrease in life expectancy of five years significantly dispreferred. A policy that greatly increased rates of anxiety and depression was dispreferred relative to the status quo, and there was a slight preference for policies that decreased them sharply.

Compared to the scheme’s generosity, fiscal and societal consequences, the effects of institutional features were notably weak. There was no significant positive preference for means testing set at any level. Restricting eligibility to citizens and permanent residents was slightly but significantly preferred over allowing all current residents access. The effects of restricting benefits to those currently in work or those currently unemployed were small and negative, whilst the difference in preference between a completely unconditional system and a requirement to seek work was not significant.

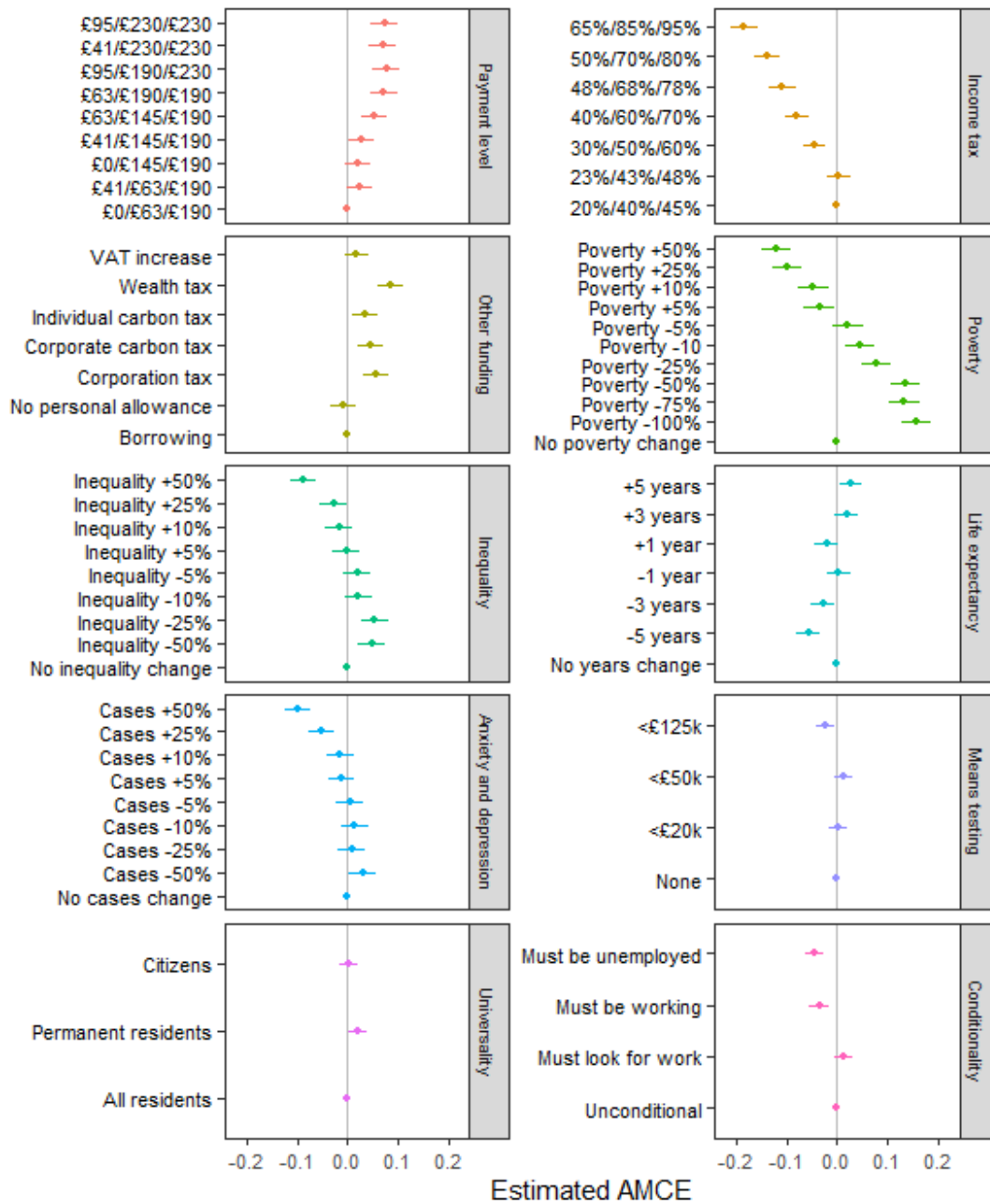


Figure 1. Average Marginal Component Effects (AMCEs) for each level of each attribute, whole dataset. Dots represent central estimates, and horizontal lines 95% confidence intervals.

Figure 1 uses the data unweighted; we also repeated the conjoint estimation applying weighting for 2019 general election vote. The results are extremely similar (figure S1), and we henceforth report unweighted analyses.

Thus, the clearest pattern to arise from the analysis of the AMCEs was that, on the one hand, people were more likely to choose a welfare scheme the greater the reduction in poverty it achieved; and, on the other, they were less likely to choose it the higher the rates of personal income tax it led to. To visualize this trade-off for the typical respondent, for each of the 77 possible combinations of personal income tax rates and consequences for poverty that a scheme could have, we computed whether that combination would increase or decrease the propensity to choose it (i.e. whether the net AMCE was positive or negative). The comparison here is relative to the combination of the two reference categories, namely the current rates of UK income tax and the current level of poverty. The results are visualized in figure 2.

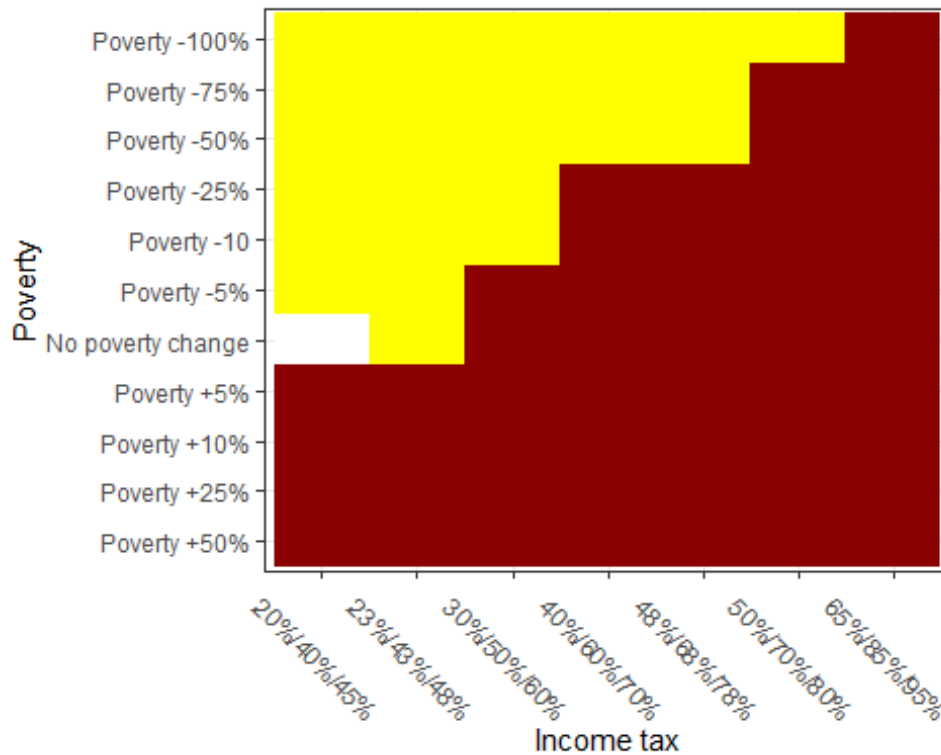


Figure 2. Visualization of trade-off between personal income tax rates and poverty. The dark red colour shows a combination of income tax rates and poverty that would be dispreferred to the status quo, other things being equal, and bright yellow shows combinations that would be preferred to the status quo. The status quo is shown in white

As the figure shows, higher personal income tax rates were dispreferred if they left the current poverty rate unchanged, or increased it. However, income tax increases were favoured if they also decreased poverty. Even for very high marginal rates (50% basic rate, 70% higher rate, 80% additional rate), the net preference shift was positive if the accompanying reduction in poverty was sufficiently dramatic. Note that this figure is a conservative estimate of the support for policies that increase tax rates but have positive societal outcomes, since, as figure 1 shows,

respondents also placed some value on reductions in inequality and improvements in health, additionally to their valuation of reductions in poverty. Given that poverty reduction would be likely to affect inequality and health, the total valuation of policies that reduce poverty might thus be slightly higher than the figure suggests.

### Heterogeneity

Differences in preference by sex ( $F(61, 20788) = 1.16$ ),  $p = 0.18$  and self-reported financial position ( $F(61, 23878) = 1.12$ ,  $p = 0.24$ ) were not significant and are not discussed further. By contrast, there was significant heterogeneity by age group ( $F(61, 20788) = 1.71$ ),  $p = 0$ , and by Conservative versus Labour voting ( $F(61, 14398) = 2.6$ ),  $p = 0$ .

The marginal mean probabilities of choice for the 18-54 and 55+ age group are shown in figure S2. Briefly, the older age group, compared to the younger, were: somewhat less likely to choose schemes with the very highest personal income tax rates; more likely to choose schemes with a corporate carbon tax; less likely to choose schemes with the largest possible decrease in inequality; more likely to choose schemes with gains in life expectancy; and less averse to schemes involving large increases in anxiety and depression. As for the institutional features of the policy, the older age group were: less likely to choose schemes that were completely universal (i.e. all residents); but more likely to choose schemes that were unconditional. Overall, though, the age group differences were very modest set against the inter-age consensus on which attributes were desirable and undesirable.

Figure S3 shows a similar sub-group breakdown for respondents who voted Conservative versus Labour at the 2019 general election. Differences, although present, were relatively subtle compared to the agreement on desirable scheme properties. Compared to Labour voters, Conservative voters were more likely to choose schemes with the lowest personal income tax rates, and less likely to choose schemes with the very highest. Like the older age groups, they were more likely to choose schemes with a corporate carbon tax. They were less favourable than the Labour voters to large decreases in poverty, and less averse to poverty increases (though they still dispreferred poverty increases to decreases). Conservative voters had: a lower marginal propensity to choose big decreases in inequality; a lower propensity to choose schemes with no means testing; and a higher propensity to choose schemes that restricted eligibility to UK citizens.

The fundamental trade-off between personal income tax rates and the rate of poverty was present for both Conservative and Labour voters alike. However, the set of acceptable resolutions of the trade-off was somewhat different (figure 3). Labour voters would not accept poverty increases even to keep personal income tax low, and would accept the highest income tax rates in order to achieve a large reduction in poverty. Conservative voters would accept modest increases in poverty to keep income tax rates low, and would not accept the highest rates even if poverty could be completely eliminated. Nonetheless, even Conservative voters would accept income tax rates considerably higher than the status quo (40%/60%/70%) as long as these were accompanied by large reductions in poverty.

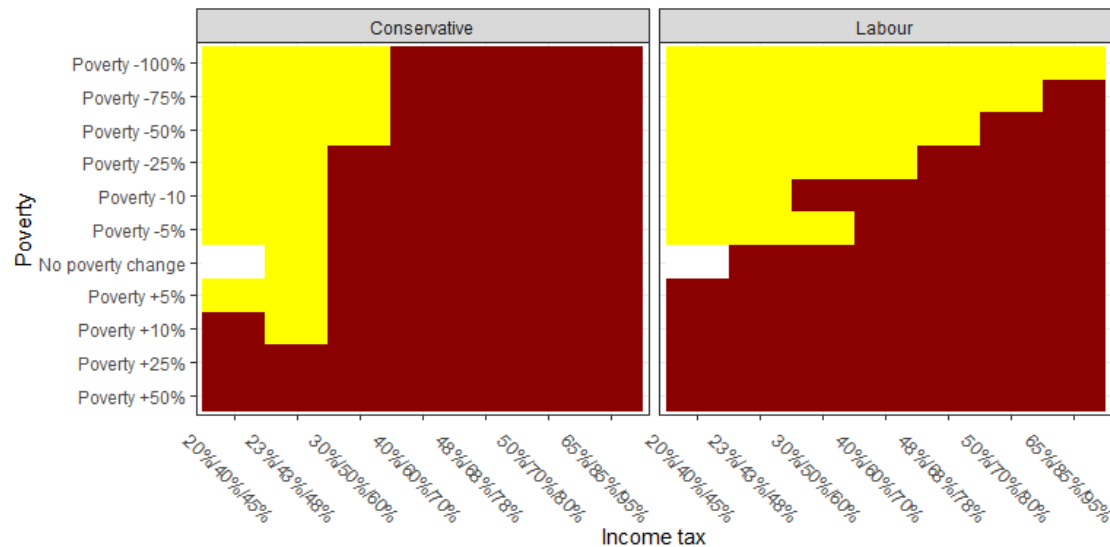


Figure 3. Visualization of trade-off between personal income tax rates and poverty, separated by Conservative and Labour voters in 2019. The dark red colour shows a combination of income tax rates and poverty that would be dispreferred to the status quo, other things being equal, and bright yellow shows combinations that would be preferred to the status quo. The status quo is shown in white.

## Discussion

In a conjoint survey experiment with a sample of UK adults, we created welfare schemes that varied in terms of the generosity of their payments; their costs (rates of personal income tax as well as other ways of funding them); their social consequences (for poverty, inequality, physical health and mental health); and their institutional design features (means testing, unconditionality, universality). The central finding was that the strongest determinant of choice was the trade-off between personal income tax rates on the one hand and the poverty rate on the other. That is, other things being equal, respondents preferred lower income tax rates; but, other things being equal, they preferred reductions in poverty and dispreferred increases in poverty. The poverty preference was, on average, the stronger. The average participant would choose even quite large increases in personal income tax rates in return for a sufficiently large reduction in poverty. There was heterogeneity in the trade-off. Conservative (centre-right to right) voters, compared to Labour (centre-left to left), valued lower taxes somewhat more highly and reductions in poverty somewhat less highly. Nonetheless, even for the Conservative voters, there was a zone of income tax increases that they would choose if accompanied by sufficiently large reductions in poverty. The dispreference for higher income taxes was not as strong as might have been expected. This is evidenced by its outweighed by the preference for moderate or large poverty reductions across much of its range; but also by the fact that, for example, there was no significant difference in preference, even other things being equal, between the current UK income tax rates and a three percentage-point increase. Three percentage points is

often assumed to be politically unfeasible and has not recently been proposed by any major party.

Income tax rates and poverty rates were not the only determinants of choice. Sources of funding such as wealth taxes and carbon taxes on corporations or individuals were positively valued compared to increasing government borrowing. This may well be because they were perceived as allowing the social goods of a generous system without individuals having to reduce their disposable earned incomes. This is understandable in the context of an escalating cost of living that has left even many people in well-paid work in fuel poverty (Keung and Bradshaw, J. 2023); and the trend over recent decades for relative increases in wealth and decreases in wages (Bourquin, Brewer, and Wernham 2022). As with the net acceptability of higher income taxes, there seems to be a disconnect between what public acceptability research shows and current opinion in policy circles. For example, other recent UK research shows high levels of public support for a wealth tax (Rowlingson, Sood, and Tu 2020), but the Labour Party recently ruled out proposing one on the ostensible grounds of political unfeasibility (Crerar 2023).

There was some evidence that, above and beyond the effect of the scheme on poverty, a positive value was attached to: decreases in inequality (especially for young people and Labour voters); improvements in life expectancy (especially for older people); and avoidance of increases in anxiety and depression (especially for younger people). These effects were substantially weaker than the preference effects of the poverty rate. In one sense, our findings accords with behavioral economic evidence that people tend to be 'intuitive Rawlsians' (Charness and Rabin 2002; Kameda et al. 2016): when considering our schemes, the population consequence that most influenced our respondents was indeed the rate of poverty, which roughly equates to the well-being of the worst off. However, our findings show that people are not *strictly* intuitive Rawlsians. Above and beyond the absolute gains for the worst off, respondents cared about effects on inequality, as well as health and well-being, to that could be politically significant. This was particularly true when the impacts on inequality and health - in either direction - were large.

Preferences for institutional design features - means testing, unconditionality and universality - were absent or extremely weak compared to those of means of funding and impact on poverty. On the one hand, this accords with other conjoint experiments, which found preferences over institutional design features for non-contributory welfare schemes to be weak and inconsistent across populations (Rincon 2023 ; Rincón, Vlandas, and Hiilamo 2022; Stadelmann-Steffen and Dermont 2020). On the other hand, it seems to conflict with the claims of an established tradition of research on perceived deservingness - who is entitled to get the benefit and what must they do in return - as a driver of welfare system opinion (Jensen and Petersen 2017; Oorschot 2000). However, preferences over institutional design features are usually presented in isolation, without also varying the tax costs or the social consequences in terms of poverty. We suspect that deservingness concerns are real in this population, and could be mobilized for political purposes (cf. Bay and Pedersen (2006)). Respondents slightly preferred schemes that restricted eligibility to citizens and permanent residents, and this preference was stronger in Conservative voters. However, these concerns are much weaker than concern for the rate of

poverty or the effect on personal income tax, and thus tend to be drowned out when these other factors are salient features of the choice. We note that although preferences over institutional design features were not strong, there was no design of scheme that was consistently preferred here to one that is universal, unconditional and non-means tested: that is, a UBI.

Our study suffers from the inherent limitation of stated preference research: respondent decisions are ‘cheap talk’, from which they know they will face no consequence. However, the little research that has compared conjoint survey experiments to actual votes in the same populations has shown that the conjoint results predict voting outcomes - which must be taken in a sense as an expression of the public’s real preferences - remarkably well (Hainmueller, Hangartner, and Yamamoto 2015). Even assuming that our method measures preferences realistically, there is a further issue of whether people would believe that welfare schemes as proposed by political parties would actually deliver the consequences that we specified. For example, people might in some sense prefer a world where there were higher personal income tax rates and much lower poverty and better health; but they might be skeptical than accepting the higher income tax rates would lead to those desirable consequences, either because they had little faith in administrations to deliver the schemes efficiently, or because they feel there would be perverse behavioral responses that would leave people in poverty anyway. This points to the need to study cognitive variables other than just preferences in order to understand which policies people will choose. First, there is people’s faith in government to deliver: social deprivation undermines this, thereby partly offsetting the increased preference for redistribution that deprivation leads to (Johnson et al. 2023). Second is the network of beliefs people hold about social causes and effects: for example, whether respondents believe that increasing people’s incomes will improve their physical and mental health (Bridger and Nettle 2022). People of different political orientations may differ in their network of beliefs about the effects of policies on outcomes, as much or more than they differ in their preferences for those outcomes per se.

It appears to be widely believed in UK politics that higher taxes are politically unacceptable. However, our results show clearly that this is not necessarily the case. For personal income taxes, people do indeed prefer lower ones *other things being equal*, but this preference is not strong enough to always dominate. A three-percentage point increase in each of the rates of income tax - larger than anything proposed by a major political party in modern times - was not dispreferred to the status quo, even other things being equal. When the compensatory good consequences of higher income taxes were made salient, much larger increases than that became acceptable (see Bremer and Bürgisser (2022) for related international evidence). People have strong population-level social preferences: they want fewer people to experience poverty, and to a lesser extent they want less inequality and better health and well-being. It is unlikely that the desire to reduce poverty can be reduced to narrow self-interest, since it was no different amongst those respondents who described themselves as managing well financially. Thus, offering material improvement in living circumstances, and hence greater well-being, for a substantial part of the population could, our results suggest, constitute a broadly appealing political offer. Perhaps most surprisingly, our figure 3 shows that even for Conservative party voters, there is a zone of possible appeal that contains higher personal income tax rates than

the status quo, as long as it features sufficiently large improvements in living standards for people currently in poverty. Our results suggest that arguments about poverty reduction are the strongest communications suit for redistribution-minded political actors.

## Conclusion

This article presents a series of findings that appear to be at odds with current political assumptions. Reducing poverty is a valuable social good that voters endorse, even at the cost of increases in income tax rates, or taxing wealth or carbon emissions. Importantly, there appears to be a zone of preference that transcends party political boundaries, for a more generous and less conditional welfare system that will improve population well-being, funded by increases in taxation where necessary. This suggests that prevalent assumptions among politicians that commitments to the *status quo* increase perceived electability may misjudge public opinion.

## Data availability statement

Raw data and analysis code are available at: <https://osf.io/htsqc/>.

## Supplementary material

Supplementary figures S1 – S3

## Competing interests statement

The authors declare none.

## Funding

This work was supported by the NIHR (22/38 Application Development Award (ADA): Universal Basic Income. Grant number: NIHR154451).

## References

**Armingeon K** and **Bonoli G** (2006) *The Politics of Post-Industrial Welfare States: Adapting Post-War Social Policies to New Social Risks*. London: Routledge.

**Atkinson A** (2015) *Inequality: What Can Be Done?* Cambridge, MA: Harvard University Press.

**Barnes L**, **Blumenau J** and **Lauderdale BE** (2022) [Measuring Attitudes Toward Public Spending Using a Multivariate Tax Summary Experiment](#). *American Journal of Political Science* **66**, 205–221.



- Bay A-H and Pedersen AW** (2006) [The Limits of Social Solidarity: Basic Income, Immigration and the Legitimacy of the Universal Welfare State](#). *Acta Sociologica* **49**, 419–436.
- Bechtel MM and Liesch R** (2020) [Reforms and Redistribution: Disentangling the Egoistic and Sociotropic Origins of Voter Preferences](#). *Public Opinion Quarterly* **84**, 1–23.
- Bourquin P, Brewer M and Wernham T** (2022) *Trends in Income and Wealth Inequalities*. London.
- Bremer B and Bürgisser R** (2022) [Lower Taxes at All Costs? Evidence from a Survey Experiment in Four European Countries](#). *SocArXiv*.
- Bremer B and Bürgisser R** (2023) [Public Opinion on Welfare State Recalibration in Times of Austerity: Evidence from Survey Experiments](#). *Political Science Research and Methods* **11**, 34–52.
- Bridger E and Nettle D** (2022) [Public Perceptions of the Effectiveness of Income Provision on Reducing Psychological Distress](#). *Journal of Public Mental Health* **21**, 208–217.
- Charness G and Rabin M** (2002) [Understanding Social Preferences with Simple Tests](#). *The Quarterly Journal of Economics* **117**, 817–869.
- Chrisp J and De Wispelaere J** (2023) [A Basic Income for Every Crisis? Building Blocks of a Political Economy Framework](#). *Journal of Sociology* 14407833231181273.
- Coppock A** (2019) [Generalizing from Survey Experiments Conducted on Mechanical Turk: A Replication Approach](#). *Political Science Research and Methods* **7**, 613–628.
- Crerar P** (2023) [Rachel Reeves Rules Out Wealth Tax If Labour Wins Next Election](#). *The Guardian*.
- De Wispelaere J and Morales L** (2016) [The Stability of Basic Income: A Constitutional Solution for a Political Problem?](#) *Journal of Public Policy* **36**, 521–545.
- Hainmueller J, Hangartner D and Yamamoto T** (2015) [Validating Vignette and Conjoint Survey Experiments Against Real-World Behavior](#). *Proceedings of the National Academy of Sciences* **112**, 2395–2400.
- Hainmueller J, Hopkins DJ and Yamamoto T** (2014) [Causal Inference in Conjoint Analysis: Understanding Multidimensional Choices via Stated Preference Experiments](#). *Political Analysis* **22**, 1–30.
- Häusermann S, Kurer T and Traber D** (2019) [The Politics of Trade-Offs: Studying the Dynamics of Welfare State Reform With Conjoint Experiments](#). *Comparative Political Studies* **52**, 1059–1095.
- Jensen C** (2012) [Labour Market- Versus Life Course-Related Social Policies: Understanding Cross-Programme Differences](#). *Journal of European Public Policy* **19**, 275–291.
- Jensen C and Petersen MB** (2017) [The Deservingness Heuristic and the Politics of Health Care](#). *American Journal of Political Science* **61**, 68–83.

**Johnson EA, Johnson MT and Webber L** (2022) Measuring the Health Impact of Universal Basic Income as an Upstream Intervention: Holistic Trial Design That Captures Stress Reduction Is Essential. *Evidence & Policy* **18**, 583–594.

**Johnson M, Johnson E and Nettle D** (2022) Are ‘Red Wall’ Constituencies Really Opposed to Progressive Policy? Examining the Impact of Materialist Narratives for Universal Basic Income. *British Politics*.

**Johnson MT et al.** (2023) Can the ‘Downward Spiral’ of Material Conditions, Mental Health and Faith in Government Be Stopped? Evidence from Surveys in ‘Red Wall’ Constituencies. *The British Journal of Politics and International Relations* 13691481221146886.

**Kameda T et al.** (2016) Rawlsian Maximin Rule Operates as a Common Cognitive Anchor in Distributive Justice and Risky Decisions. *Proceedings of the National Academy of Sciences* **113**, 11817–11822.

**Keung A and Bradshaw, J.** (2023) *Who Are the Fuel Poor? Post-Budget Update*. York.

**Knotz CM** (2018) A Rising Workfare State? Unemployment Benefit Conditionality in 21 OECD Countries, 1980-2012. *Journal of International and Comparative Social Policy* **34**, 91–108.

**Laenan T** (2023) *The Popularity of Basic Income: Evidence from the Polls*. Cham, CH: Palgrave Macmillan.

**Leeper T** (2020) *Cregg: Simple Conjoint Analyses and Visualization*.

**McGann M and Murphy MP** (2023) Income Support in an Eco-Social State: The Case for Participation Income. *Social Policy and Society* **22**, 16–30.

**Meltzer AH and Richard SF** (1981) A Rational Theory of the Size of Government. *Journal of Political Economy* **89**, 914–927.

**Nettle D et al.** (2021) Why Has the COVID-19 Pandemic Increased Support for Universal Basic Income? *Humanities and Social Sciences Communications* **8**, 1–12.

**Oorschot W van** (2000) Who Should Get What, and Why? On Deservingness Criteria and the Conditionality of Solidarity Among the Public. *Policy & Politics* **28**, 33–48.

**Parra-Mujica F et al.** (2023) Understanding the Relationship Between Income and Mental Health Among 16- to 24-Year-Olds: Analysis of 10 Waves (2009-2020) of Understanding Society to Enable Modelling of Income Interventions. *PLOS ONE* **18**, e0279845.

**Peer E et al.** (2022) Data Quality of Platforms and Panels for Online Behavioral Research. *Behavior Research Methods* **54**, 1643–1662.

**Radkani S et al.** (2023) Desperation and Inequality Increase Stealing: Evidence from Experimental Microsocieties. *Royal Society Open Science* **10**, 221385.

**Rawls J** (1971) *A Theory of Justice*. Cambridge, MA: Harvard University Press.

**Reed HR et al.** (2023) [Universal Basic Income Is Affordable and Feasible: Evidence from UK Economic Microsimulation Modelling 1](#). *Journal of Poverty and Social Justice* **31**, 146–162.

**Rincon L** (2023) [A Robin Hood for All: A Conjoint Experiment on Support for Basic Income](#). *Journal of European Public Policy* **30**, 375–399.

**Rincón L, Vlandas T and Hiilamo H** (2022) [What’s Not to Like? Benefit Design, Funding Structure and Support for Universal Basic Income](#). *Journal of European Social Policy* **32**, 467–483.

**Roosma F and Oorschot W van** (2020) [Public Opinion on Basic Income: Mapping European Support for a Radical Alternative for Welfare Provision](#). *Journal of European Social Policy* **30**, 190–205.

**Rowlingson K, Sood A and Tu T** (2020) *Public Attitudes to a Wealth Tax*. London.

**Stadelmann-Steffen I and Dermont C** (2020) [Citizens’ Opinions About Basic Income Proposals Compared A Conjoint Analysis of Finland and Switzerland](#). *Journal of Social Policy* **49**, 383–403.

**Statham R, Parkes H and Gunson R** (2021) *Securing a Living Income in Scotland. Towards a Minimum Income Guarantee*. Edinburgh.

**Svallfors S** (2010) Public Attitudes. In Castles FG, Leibfried S and Lewis J (eds). Oxford: Oxford University Press.

**Taylor-Gooby P, LeRuth B and Chung H** (2017) *After Austerity: Welfare State Transformation in Europe After the Great Recession*. Oxford: Oxford University Press.

Supplementary figures for ‘What do British people want from a welfare system? A conjoint survey experiment’

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2023-08-08

Figure S1. Average Marginal Component Effects (AMCEs) for each level of each attribute, whole dataset, weighted by 2019 general election vote. Dots represent central estimates, and horizontal lines 95% confidence intervals. To be compared with figure 1 in main paper.

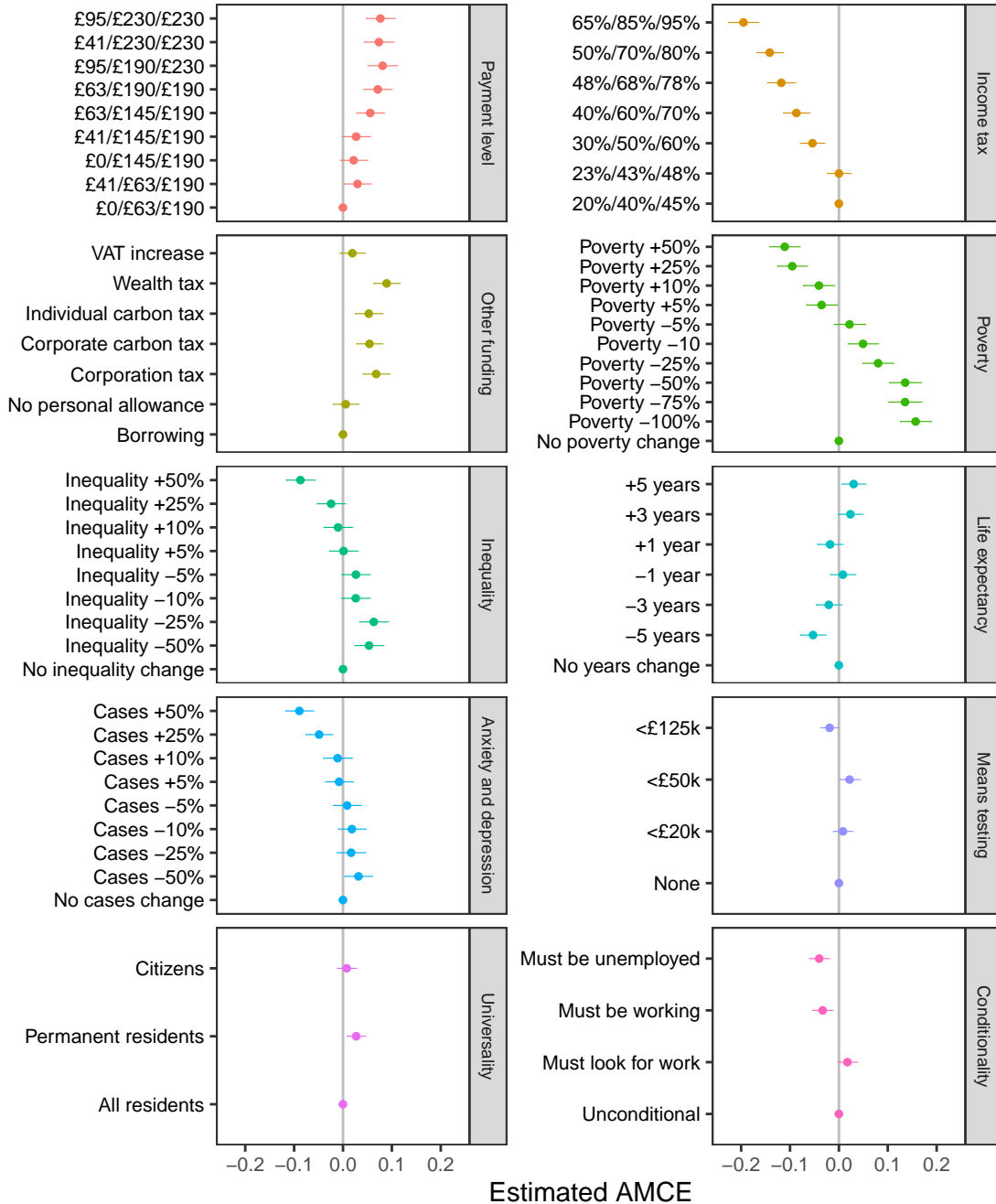


Figure S2. Marginal mean probabilities of choice by attribute levels for respondents of 55 and over, versus under 55.

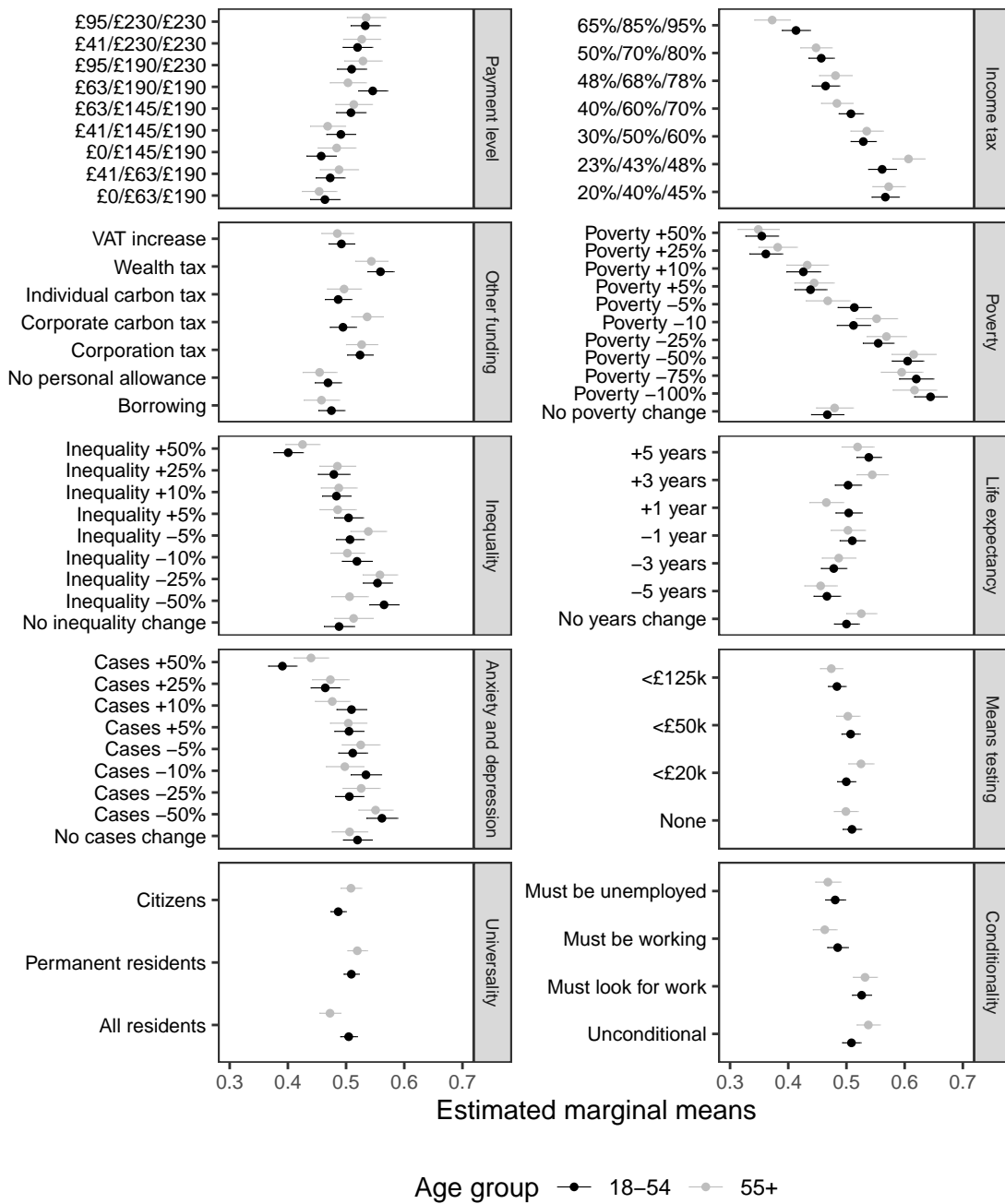


Figure S3. Marginal mean probabilities of choice by attribute levels for respondents who voted Conservative versus Labour at the 2019 UK General Election.

