White, Male, and Angry:
A Reputation-based Rationale for Backlash

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Abstract

From the bottom to the top of society, many white men are angry. This article provides a reputation-based rationale for this anger. Individuals care about their social status (elite vs non-elite) and their social reputation (how they expect others to perceive them). Everyone is uncertain about how one becomes a member of the elite. When new information reveal that the system is biased in favor of white men, the social reputation of all white men decreases causing a payoff loss. In contrast, policies meant to reduce inequalities in the access to the elite can be supported by some white men and opposed by others. The article highlights how the backlash from white men in recent years needs not be driven by racial animus or sexism and may instead be caused by a loss of status and/or reputation.

"There comes a point in time where you can't take it any more. It's like, enough is enough" (former American Express employee Nick Williams after allegedly being fired for being White, Fox News Digital, 13 June 2022). Angry White Man. "White male authors face another form of racism when it came to trying to break through as writers in TV, film, theater or publishing" (author James Paterson, Sunday Times, 13 June 2022). Angry White Man. "Middle-class white men are the most discriminated against in the television industry" (news presenter Jeremy Paxman, Telegraph, 24 August 2008). Angry White Man. Nick, James, and Jeremy are not alone. Whether rich or poor, highly educated or not, many white men appear to be angry (Gest, 2016; Kimmel, 2017).

Survey results confirm this broad sensation of white male malaise. Data from the British Election Study in the UK and the General Social Survey (GSS) in the USA show that white men report lower level of happiness on average, and find life less worthwhile (Tables D.1 and D.2 in Supplementary Material D). In the US, for which we can track happiness from 1972 to 2022, white men's relative unhappiness contrasts with the 1990s and 2000s and is worse than at any point in time (see Figure D.1).

There is more. Recent polls have documented a divide between young men (albeit of all possible races) and young women on liberal attitudes (Financial Times, 26 January 2024) and tolerance towards feminism (Ipsos, 1 February 2024). White men have been the core constituency of Donald Trump (Pew, 9 August 2018 and 30 June 2021) and they seem much more likely than any other group to have voted Leave in the 2016 Brexit referendum (House of Commons Library, 14 July 2016; Alabrese et al., 2019).

How are we to understand white men's anger? Anger, as social psychologists explain, arises when an individual feels they get less than they deserve (Carver and Harmon-Jones, 2009), when they feel unfairly denied some achievement (Haidt, 2003), when they encounter a challenge against core norms that threatens their situation (Marcus et al., 2019). Anger is not irrational, it is a response to the actions of others (Roseman, 1984), it is a form of backlash against changes which harm an individual or a group.

There are many possible causes of white men's anger. Automation and globalization are two of them, but they should affect low-skill workers rather than white men. Immigration is another one, but all natives could feel economic or cultural losses, not white men specifically. I turn to two alternative sources of white men's anger. The first regards the provision of new information. Recent years have seen the rise of various movements highlighting the discrimination against women (e.g., the #MeToo, Hilstrom, 2018) or the discrimination against African-Americans (e.g., the Black Lives Matter, Taylor, 2016), which reveal, by contrapositive, *how easy* life has been for white men. The second consists in policy changes equalising chances of access to socially valuable position, such as affirmative action or quotas for women in company boards and politics.

I use a stylised formal framework, which relies on three key assumptions. First, individuals are characterized by their group identity, their social status, and their ability. The society is divided between a dominant group D (here, white men) and a disadvantaged group d. Social status corresponds to elite (upper class, college educated, wealthy) versus non-elite. The ability, in turn, affects the chances that one reaches a high status. Second, the system is meritocratic: individuals with higher ability are more likely to succeed socially. However, there is uncertainty about the easiness of joining the elite for members of each group. Lastly, individuals care about their social status and their social reputation, defined as their expectation of others' perceptions of their ability. Social reputation in my model is closely connected to Gidron and Hall's (2017) concept of 'subjective social standing' ("the level of social respect or esteem people believe is accorded to them within the social order" S67).

I first show that the arrival of new information about the relative chances of joining the elite for each group is likely to polarize individuals along identity lines. Learning that individuals from the dominant group can easily join the elite diminishes the accomplishment of group D members who have succeeded socially, reducing their social reputation and payoff. Such information also exacerbates the failures of group D members who do not belong to the elite, also worsening their social reputation. The reverse holds for disadvantaged group members.

Reducing inequalities in the chances of accessing the elite while keeping the size of the elite constant has, in turn, two contrasting effects. It lowers the chances that individuals from group D obtain a high social status. It also increases the reputation of all group-D citizens: embellishing success, which is now harder to obtain, justifying failures, which are now more frequent. I explain how this dual impact can divide group D. Individuals with very high ability and very low ability support policies helping the other group. Even after the reform, a high ability individual has high chances of joining the elite, whereas a low ability individual is always unlikely of becoming an elite member. Both, however, see an improvement in their social reputation. Individuals with intermediary ability are the losers, the reputational gain is insufficient to compensate for their lower chance of social success.

Overall, the model highlights that unfavourable information can generate a backlash by all individuals from the dominant group. Anger is less widespread in group D following policy changes. In both cases, (all or some) individuals from the dominant group react negatively because they lose socially. White men's anger does not need to come from racist or sexist attitudes. It can be rooted in a sense of loss of their social standing.

Before turning to the model, I briefly connect my work to the most related formal literature. A long tradition considers how individuals use identity to form judgments about others (e.g., Phelps, 1972). This has led individuals from disadvantaged groups to seek to erase their identity and assimilate into the dominant group (Fang, 2001; Eguia, 2017). As a reaction, both members of the dominant group and those left behind in the disadvantaged group can "unite" to increase the cost of abandoning one's original identity (Austen-Smith and Fryer Jr., 2005; Carvahlo, 2012; Schnakenberg, 2013). For example, members of the dominant group can form stereotypes to sustain their social dominance (McGee, 2023). My paper complements these important works with one twist. Even when the distribution of ability in all groups is known to be the same, differences in reputations can arise when individuals are uncertain about what it takes to join the elite. As such, my work is also connected to Ashworth et al. (2023) who study the sources of women's underrepresentation in politics. Like in the present work, many of the theoretical results in Ashworth et al. (2023) rely on differences in reputation between men and women. Yet, the causes of white men's anger I highlight (information and policy changes) are completely distinct from the origins of women's underrepresentation they study (voters' discrimination and differential costs).

A Formal Illustration of the Argument

Baseline Set-up

Take a society with a mass of individuals. Individuals are characterized by their group identity, their social status, and their ability. A proportion α of citizens belong to the dominant group D. The rest $(1 - \alpha)$ belongs to the disadvantaged group d.

Regarding social status, a proportion e, commonly known, of the population belongs to the elite ($s = 1$), with the rest being non-elite ($s = 0$). The composition of the elite is unknown, but I suppose that the social status of an individual i would be observed in (unmodeled) social interactions. In contrast, ability, which I denote by θ^i, is an individual's private information (type). It is common knowledge that each citizen's ability is drawn independently and identically (i.i.d.) according to the cumulative distribution function (CDF) $F(\cdot)$, with associated probability density function (pdf) function $f(\cdot)$, over the interval $[\underline{\theta}, \overline{\theta}]$, with $\overline{\theta} > \underline{\theta}$.

Ability matters to reach an elite social status. So does luck, which I capture by an unobserved random shock ϵ^i, distributed i.i.d. for each i according to the CDF $\Lambda(\cdot)$ and pdf $\lambda(\cdot)$, over the interval $[-\overline{\epsilon}, \overline{\epsilon}]$. Individual i from group g belongs to the elite if the sum of their ability and luck is above a threshold E_g for $g \in \{D, d\}$: $\theta^i + \epsilon^i \geq E_g$. Each citizen knows the way the system works. Individuals are, however, uncertain about the value of the relevant threshold for each group. The common knowledge and shared prior is that $\widetilde{E}_D$ is distributed according to the CDF $\Gamma(\cdot)$, and pdf $\gamma(\cdot)$, over the interval $[\underline{E}_D, \overline{E}_D]$ with $0 < \underline{E}_D < \overline{E}_D < \overline{\theta}$. The combination of E_D with the elite size e fully determines the value of E_d.

An individual i cares about their elite status $s^i \in \{0, 1\}$, with $s^i = 1$ denoting a member of the elite, and their social reputation. The latter consists of individual i's expectation about other individuals' perception of their ability given their social status. I denote it by $\theta^*_g(s^i, \theta^i) \equiv \mathbb{E}^i_{-i}(\widetilde{\theta}|s^i, g, \theta^i)$. A citizen i's payoff is thus:

$$U^i(g^i, s^i) = s^i + \theta^*_g(s^i, \theta^i)$$

The game, in turn, proceeds as follows. Nature determines each individual's ability θ^i and each citizen's luck ϵ^i. Individuals in each group $g \in \{D, d\}$ with $\theta^i + \epsilon^i$ above the threshold E_g become elite members. Individuals compute their social reputation ($\theta^*_g(\cdot)$) knowing their social status and ability. Payoffs are realized.

Before proceeding to the analysis, I impose a few restrictions on the model primitives. First, all pdfs (f, λ, γ) are continuous. Second, $\lambda(\cdot)$ is symmetric around 0, $\lambda'(\epsilon)$ is continuous and $\frac{\lambda'(\epsilon)}{\lambda(\epsilon)}$ is decreasing with ϵ (the uniform and the normal distributions satisfy these properties). Third, for each level of ability θ^i, the full range of luck shocks is realized. Fourth, all individuals remain uncertain about the value of the threshold E_D after observing their social status and ability. In term of notation, I distinguish between random variables, denoted by $\tilde{\cdot}$, and realization of a random variable, without tilde.

Preliminary Observations

The only quantity of interest is the social reputation of an individual. Absent additional assumptions, we cannot compare reputations across groups. The following lemma describes some properties of social reputations within each group (Supplementary Material A.2 contains the proofs for the baseline set-up):

Lemma 1. *Elite members have higher expected reputation than non-elite members: for all* $\theta^i \in [\underline{\theta}, \overline{\theta}]$*,* $\theta^*_g(1, \theta^i) > \theta^*_g(0, \theta^i)$ *for all* $g \in \{d, D\}$*.*
An individual's social reputation increases with their own ability: for all $\theta^i_h, \theta^i_l \in [\underline{\theta}, \overline{\theta}]^2$ *satisfying* $\theta^i_h > \theta^i_l$ $\theta^*_g(s^i, \theta^i_h) > \theta^*_g(s^i, \theta^i_l)$ *for all* $g \in \{d, D\}$ *and* $s^i \in \{0, 1\}$*.*

The first point is relatively straightforward. Given the meritocratic nature of the society, abler individuals have greater chances of joining the elite. Hence, individuals from the elite have higher reputation than non-elite members.

The second point is slightly subtler. It comes from individuals learning about the value of their group threshold from their social status and their ability. Take a successful individual ($s^i = 1$). If that individual has a low ability, they understand that the threshold to join the elite is likely to be low (otherwise, it is unlikely they would have made it). Hence, they expect that social success comes with a small boost in reputation, their $\theta^*_g(1, \theta^i)$ is relatively low. In contrast, an individual with a high θ^i does not have the same consideration. They can make it to the elite with high probability whether the threshold is low or high. Hence, they expect others to hold them in high esteem, their $\theta^*_g(1, \theta^i)$ is relatively high.

The Effect of New Information

To look at the effect of information, I assume that all individuals receive a public signal z distributed over the interval $[\underline{z}, \overline{z}]$ with CDF and associated pdf conditional on E_D $Z(\cdot|E_D)$ and $\zeta(\cdot|E_D)$, respectively. Following Milgrom (1981), I assume that the conditional distributions satisfy the strict monotone likelihood ratio property (MLRP): $\frac{\zeta(z|E^h_D)}{\zeta(z'|E^h_D)} > \frac{\zeta(z|E^l_D)}{\zeta(z'|E^l_D)}$ for all $z > z'$, $E^h_D > E^l_D$. In words, a high threshold yields relatively more high than low signals than a low threshold.

The consequences of new information is summarized in the next proposition. To state it, I denote $\theta_g^*(s^i, \theta^i|z)$ the social reputation of individual i in group g and social status s^i and ability θ^i after public signal $z \in [\underline{z}, \overline{z}]$ (recall $\theta_g^*(s^i, \theta^i)$ is the pre-signal reputation).

Proposition 1. *For all $g \in \{D, d\}$, all $\theta^i \in [\overline{\theta}, \underline{\theta}]$, and all $s^i \in \{0, 1\}$, there exists a unique $z^0(s^i, \theta^i, g) \in (\underline{z}, \overline{z})$ such that*

- $\theta_g^*(s^i, \theta^i|z^0(s^i, \theta^i, g)) = \theta_g^*(s^i, \theta^i)$;
- *For all $z > (<) z^0(s^i, \theta^i, D)$, $\theta_D^*(s^i, \theta^i|z) > (<) \theta_D^*(s^i, \theta^i)$;*
  For all $z > (<) z^0(s^i, \theta^i, d)$, $\theta_d^*(s^i, \theta^i|z) < (>) \theta_d^*(s^i, \theta^i)$.

If there exists an uninformative signal z^u such that $\zeta(z^u|E_D) = \zeta(z^u|E'_D)$ for all $E_D \neq E'_D$, then $z^0(s^i, \theta^i, g) = z^u$.

A low signal reveals that the system is likely to be biased in favour of the dominant group. Individuals then realize that the bar E_D is low for group-D members. Group-D individuals from the elite see their successes diminished; non-elite individuals from group-D see their failures exacerbated, both suffer a loss in social reputation.

For the disadvantaged group, the effect is exactly reversed given the fixed size of the elite. A low threshold for group D indicates a high threshold for their group. The successes of group-d elite members are embellished and the failures of non-elite individuals easily excused. Both elite and non-elite group-d individuals experience an increase in their social reputation.

In Supplementary Material B.1, I show that the insights from Proposition 1 are robust to various changes to the information structure as long as individuals do not perfectly learn how the system works. An especially interesting case consists of uncertainty about the distributions of abilities in the two groups, their deservedness, *instead of* the value of the threshold, as it changes the interpretation of some piece of information. For example, publicizing that the elite has a large proportion of group-D members is bad news if E_D is unknown, as it indicates a low threshold, but good news if the distributions of ability are unknown, as it reveals group-D is more deserving. I briefly return to this below. For now, I note that information provision tends to unify members of the same group and polarize them with individuals from the other group.

Changing the Entry Conditions into the Elite

Instead of information (letting E_D and E_d be known to simplify computations), the dominant group may lose from policies meant to help the disadvantaged group. Fixing the size of the elite, I model such policies as

- Increasing the threshold for the dominant group by $\Delta > 0$.
- Decreasing the threshold for the disadvantaged group by $\delta(\Delta) > 0$.

To study the effect of such policy, it is helpful to denote $W_D(\theta^i, \Delta)$ and $W_d(\theta^i, \delta)$ the expected utility of an individual i with ability θ^i (prior to their social status being determined) when the threshold increases by Δ and decreases by δ for group D and d respectively. Proposition 2 summarizes the effect of small changes to the thresholds.

Proposition 2. *There exist θ_g^l, θ_g^h, $\theta_g^l < \theta_g^h$, unique if $\theta_g^j \in [\underline{\theta}, \overline{\theta}]$ ($j \in \{l, h\}$), such that:*

- *In group D, for all individuals with $\theta^i \in [\theta_D^l, \theta_D^h]$, $\left.\frac{\partial W_D(\theta^i,\Delta)}{\partial \Delta}\right|_{\Delta=0} \leq 0$, for all individuals with $\theta^i \notin [\theta_D^l, \theta_D^h]$, $\left.\frac{\partial W_D(\theta^i,\Delta)}{\partial \Delta}\right|_{\Delta=0} > 0$.*
- *In group d, for all individuals with $\theta^i \in [\theta_d^l, \theta_d^h]$, $\left.\frac{\partial W_d(\theta^i,\delta)}{\partial \delta}\right|_{\delta=0} \geq 0$, for all individuals with $\theta^i \notin [\theta_d^l, \theta_d^h]$, $\left.\frac{\partial W_d(\theta^i,\delta)}{\partial \delta}\right|_{\delta=0} < 0$.*

Consider individuals from group D. Changing the thresholds has a direct and an indirect effect. Such change directly reduces the chances that individuals from group D join the elite. Indirectly, by moving the bar upward, the policy increases the reputation of all individuals from the dominant group.

Individuals with low ability have little chances to join the elite. They may care little about the direct effect of the policy change and mostly benefit from the reputational gain. Individuals with very high ability always have good odds to become elite members pre- or post-reform, so they may also mostly enjoy the boost in their reputation. In contrast, individuals with intermediary ability suffer from a change in the thresholds E_D as they stand to lose the most in term of chances of joining the elite. When $\left.\frac{\partial W_D(\underline{\theta},\Delta)}{\partial \Delta}\right|_{\Delta=0} > 0$, $\left.\frac{\partial W_D(\overline{\theta},\Delta)}{\partial \Delta}\right|_{\Delta=0} > 0$, and $\left.\frac{\partial W_D(\mathbb{E}(\theta^i),\Delta)}{\partial \Delta}\right|_{\delta=0} < 0$, a case consistent with the evidence in Besley et al. (2017), average group-D individuals oppose changing the thresholds, whereas individuals at the top and bottom of the ability distribution support such policies.

For the disadvantaged group, in contrast, the direct effect of the policy is to increase the odds of joining the elite, the indirect effect is a reduction in social reputation. Individuals in the middle of the ability distribution see the greatest gain because their chances of social success increase most; individuals with very low and very high abilities reject the reform due to their loss in reputation.

Proposition 2 relies on the size of the elite being fixed, like for quotas or affirmative action, otherwise group-D members would not care about the reform. It also depends on individuals having some information about their ability (see Remark B.1 in Supplementary Material B.2). Yet, individuals do not need to perfectly know their ability as I assume here. When the random variables are normally distributed, I document the same within group splits as described in Proposition 2 as long as individuals receive a sufficiently precise signal about their ability (see Proposition B.3). Overall, the analysis in this subsection reveals that reducing inequalities in access to the elite can easily generate split within identity groups.

Conclusion

This paper suggests two possible rationales for the rising anger among white men: information provision about systemic biases in their favour and policies helping disadvantaged group members. Both, I show, can cause a backlash from white men. This backlash does not arise because white men are fundamentally racist or sexist. Rather, it comes from the loss white men experience when they care about their social status and their social reputation.

The two rationales of white men's anger that this paper describes are not undistinguishable. Information provision can hurt all white men, regardless of their social status. Policies that decrease the threshold for disadvantaged individuals can split white men between those with high and low ability benefiting from those reforms and those in the middle losing from them. This offers an opportunity to differentiate between these two causes. I do so in Supplementary Material D with data from the British Election Study in the UK as well as the General Social Survey and the Cooperative Congressional Election Survey in the USA.

I use survey items that measure opposition to social changes (whether too much is being done for minorities or women, whether whites/men are discriminated or not advantaged, whether racial problems are rare, whether Blacks are responsible for their own advancement, see the dataverse for the article for more details). I compare attitudes across different educational levels (no high school, high school and some university, Bachelor degree and above) and across different age groups (under 25, 26-64, over 65). If information is the main cause of white men's anger, then the difference between white men and other respondents should remain almost constant across all groups as per Proposition 1. If changes in policies matter more, differences in attitudes between white men and women and minority respondents should be significantly lower for individuals with no high school (a proxy for low ability) and with university degree (a proxy for high ability) than for individuals with a high school degree (a proxy for intermediate ability) as per Proposition 2. We should also expect over-65 white men to have similar attitudes as women and minorities since they are less likely to suffer from the direct effect of policies favouring disadvantaged groups.

A few findings emerge from the analysis (see Supplementary Material D.2). Across all educational levels and all age groups, white men are more opposed to social changes than other survey respondents. In fact, there is little difference by education status or age. University education reduces the likelihood that a respondent expresses unease with social changes, but the gap between white men and women or ethnic minorities generally remains the same as for respondents with a high school diploma. In a few cases, I document patterns consistent with a policy effect, yet even then the coefficients across education levels or age groups are not so different (e.g., Tables D.5, D.8, D.10, D.14). While only a first step, the empirical results so far indicate that the impact of information is at least as large as the effect of policy changes.

The set-up presented here can be extended in multiple directions. The information individuals receive could be strategically communicated, rather than exogenous. In Supplementary Material C.1, building on Alonso and Padró i Miquel (2023), I study a model with strategic senders from the same group as the receivers or from the opposite group. There, individuals react much more negatively to bad news communicated by in-group senders, which may explain why white men sometimes feel betrayed by their peers. The information individuals receive could also be more complex to interpret. In Supplementary Material C.2, I study a simplified model in which both the threshold values and distribution of ability in group-D are unknown. Some signals increase the reputation of individuals from both groups as they indicate a high bar for disadvantaged group members and a high deservedness of dominant group members. Other news polarize the two groups just like in Proposition 1. I only consider the (rational) causes of white men's anger and do not study the (possibly irrational) consequences of this sentiment for domestic electoral politics (e.g., combining the present approach with Schnakenberg and Wayne's (2024) analysis of anger and conflict dynamics). Finally, I distinguish between white men from other individuals. Doing so, I have merged gender and race identities. Decomposing white men's anger across these identity lines is a promising avenue for future research.

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White, Male, and Angry:
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SUPPLEMENTARY MATERIAL

Stephane Wolton

A Proofs of formalised argument

A.1 Preliminary observations

I detail one of the assumptions mentioned in the text regarding the relationship between the thresholds and the elite size. Under the assumption that all luck shocks are realised for a given ability level, the thresholds for the dominant and dominated groups must satisfy (denoting $\mathbb{E}_\epsilon(\cdot)$ the expectation with respect to the luck shock):

$$e = \alpha\mathbb{E}_\epsilon\big(1 - F(E_D - \widetilde{\epsilon})\big) + (1-\alpha)\mathbb{E}_\epsilon\big(1 - F(E_d - \widetilde{\epsilon})\big) \tag{A.1}$$

Equation A.1 defines the relationship between the two thresholds. This will prove helpful for the proof of Proposition 1.

In the main text, I also state that all individuals remain uncertain about the value of the threshold $\widetilde{E}_D$ after observing their ability and their social status. Formally, this is equivalent to stating that for all $\theta^i \in [\underline{\theta}, \overline{\theta}]$ and for all $s^i \in \{0,1\}$, there does not exist $\widetilde{E}_D \in [\underline{E}_D, \overline{E}_D]$ such that $Pr(\widetilde{E}_D = E_D|s^i, \theta^i) = 1$. Notice that the continuity of all distribution functions and Bayes' rule guarantee that the posterior distributions of the threshold $\widetilde{E}_D$ are continuous over $[\underline{E}_D, \overline{E}_D]$.

To prove some results, I amend the notation in the text and consider E_D as drawn from distribution $\Gamma_D \equiv \Gamma$ and E_d drawn from distribution Γ_d over some $[\underline{E}_d, \overline{E}_d]$ with the two bounds defined by Equation A.1 (for $E_D = \overline{E}_D$ and $E_D = \underline{E}_D$, respectively). Recall that $\widetilde{\cdot}$ denotes random variable and quantity without tilde denotes actual realization. If there is no risk of ambiguity, I also denote $\int_{\widetilde{X}}$ to denote the integral over the whole support of random variable $\widetilde{X}$.

As noted in the text, social reputation is the only interesting quantity here. The average opinion takes value:

$$\begin{aligned}
&\mathbb{E}_{-i}(\widetilde{\theta^i}|g^i, s^i)\\
&= \int_{\widetilde{\theta^j}} \sum_{s\in\{-1,1\},} \sum_{g\in\{D,d\}} \left(\int_{\widetilde{E}} \int_{\widetilde{\epsilon^i}} \mathbb{E}(\widetilde{\theta^i}|g^i, s^i, \widetilde{\epsilon^i}, \widetilde{E}) d\Lambda(\widetilde{\epsilon^i}) d\Gamma_{g^i}(\widetilde{E}|\widetilde{\theta^j}, s^j, g^j = g) \right)\\
&\times P(s^j = s|\widetilde{\theta^j}, g^j = g, E_D) P(g) dF(\widetilde{\theta^j})
\end{aligned}$$

The average opinion consists of the expected ability for a given realization of the luck shock and the threshold given that $s^i = 1 \iff \theta^i + \epsilon^i \geq E_g$. No one observes the luck shock so individuals take into account all possible realizations of the luck shock $\int_{\widetilde{\epsilon^i}} \cdot d\Lambda(\widetilde{\epsilon^i})$. They also take into account the possible realizations of the threshold for individual i from group g^i given what they learned from their own achievements: $\int_{\widetilde{E}} \cdot d\Gamma_{g^i}(\widetilde{E}|\widetilde{\theta^j}, s^j, g^j = g)$. The average opinion is then a function of the proportion of individuals in each social status for each group given the abilities of these individuals: $\int_{\widetilde{\theta^j}} \sum_{s\in\{-1,1\},} \sum_{g\in\{D,d\}} \cdot P(s^j = s|\widetilde{\theta^j}, g^j = g, E_D)P(g)dF(\widetilde{\theta^j})$. Notice that the average opinion depends on the actual proportion of individuals in each group. As such, it depends on the realized threshold for group D and henceforth group d, as noted above (this is a classic case of every individual being wrong, but the average opinion being correct). Using the usual calculations from the law of iterated expectations, I obtain:

$$\mathbb{E}_{-i}(\widetilde{\theta^i}|g^i,s^i)=\int_{\widetilde{E}}\int_{\widetilde{\epsilon^i}}\mathbb{E}(\widetilde{\theta^i}|g^i,s^i,\widetilde{\epsilon^i},\widetilde{E})d\Lambda(\widetilde{\epsilon^i})d\Gamma_{g^i}(\widetilde{E}|E_D)$$

Or, in other words, the average opinion in the population is:

$$\mathbb{E}_{-i}(\widetilde{\theta^i}|g^i,s^i)=\int_{\widetilde{\epsilon^i}}\mathbb{E}(\widetilde{\theta^i}|g^i,s^i,\widetilde{\epsilon^i},E_D)d\Lambda(\widetilde{\epsilon^i})$$

Individual i, however, cannot compute the average opinion in the population since it would require that they know the actual realization of thresholds for the different groups, which I assume they do not. As such, as noted in the text, the relevant quantity is their expectation of how others perceive them, which I have denoted by $\theta^*_g(s^i,\theta^i)\equiv\mathbb{E}^i_{-i}(\widetilde{\theta}|g,s^i,\theta^i)$. To compute this expectation, they form a belief about the realization of the threshold E given their information (status, group, and ability). As such, I obtain:

$$\theta^*_g(s^i,\theta^i)=\int_{\widetilde{E}}\int_{\widetilde{\epsilon}}\mathbb{E}(\widetilde{\theta}|g,s^i,\widetilde{\epsilon},\widetilde{E})d\Lambda(\widetilde{\epsilon})d\Gamma_g(\widetilde{E}|s^i,\theta^i) \tag{A.2}$$

Using this observation and the meritocratic nature of the system, the social reputations take value:

$$\theta^*_g(1,\theta^i)=\int_{\widetilde{E}}\int_{\widetilde{\epsilon}}\mathbb{E}(\widetilde{\theta}|\widetilde{\theta}\geq\widetilde{E}-\widetilde{\epsilon})d\Lambda(\widetilde{\epsilon})d\Gamma_g(\widetilde{E}|1,\theta^i) \tag{A.3}$$

$$\theta^*_g(0,\theta^i)=\int_{\widetilde{E}}\int_{\widetilde{\epsilon}}\mathbb{E}(\widetilde{\theta}|\widetilde{\theta}\leq\widetilde{E}-\widetilde{\epsilon})d\Lambda(\widetilde{\epsilon})d\Gamma_g(\widetilde{E}|0,\theta^i) \tag{A.4}$$

With these expressions, we can prove Lemma 1.

A.2 Proofs of baseline model

Proof of Lemma 1

To prove the first point, fix some $\widetilde{\epsilon}$ and take any θ^i. Using Equation A.3-Equation A.4, we compare:

$$A=\int_{\widetilde{E}}\mathbb{E}(\widetilde{\theta}|\widetilde{\theta}\geq\widetilde{E}-\widetilde{\epsilon})d\Gamma_g(\widetilde{E}|1,\theta^i)\quad\text{and}$$
$$B=\int_{\theta^i+\widetilde{\epsilon^i}}^{\overline{E}_g}\mathbb{E}(\widetilde{\theta}|\widetilde{\theta}\leq\widetilde{E}-\widetilde{\epsilon})d\Gamma_g(\widetilde{E}|0,\theta^i)$$

By properties of conditional expectations, $\mathbb{E}(\widetilde{\theta}|\widetilde{\theta}\geq\widetilde{E}-\widetilde{\epsilon})>\mathbb{E}(\widetilde{\theta}|\widetilde{\theta}\geq\underline{E}_g-\widetilde{\epsilon})$ for all $\widetilde{E}>\underline{E}_g$ and $\mathbb{E}(\widetilde{\theta}|\widetilde{\theta}\leq\widetilde{E}-\widetilde{\epsilon})<\mathbb{E}(\widetilde{\theta}|\widetilde{\theta}\leq\overline{E}_g-\widetilde{\epsilon})$ for all $\widetilde{E}<\overline{E}_g$. Hence,

$$A>\int_{\widetilde{E}}\mathbb{E}(\widetilde{\theta}|\widetilde{\theta}\geq\underline{E}_g-\widetilde{\epsilon})d\Gamma_g(\widetilde{E}|1,\theta^i)=\mathbb{E}(\widetilde{\theta}|\widetilde{\theta}\geq\underline{E}_g-\widetilde{\epsilon})\quad\text{and}$$
$$B<\int_{\widetilde{E}}\mathbb{E}(\widetilde{\theta}|\widetilde{\theta}\leq\overline{E}_g-\widetilde{\epsilon})d\Gamma_g(\widetilde{E}|0,\theta^i)=\mathbb{E}(\widetilde{\theta}|\widetilde{\theta}\leq\overline{E}_g-\widetilde{\epsilon})$$

With the second equality on both lines following from the expectations not depending on $\widetilde{E}$. Further, by properties of conditional expectations, $\mathbb{E}(\widetilde{\theta}|\widetilde{\theta}\leq\overline{E}_g-\widetilde{\epsilon})\leq\mathbb{E}(\widetilde{\theta}|\underline{E}_g-\widetilde{\epsilon}\leq\widetilde{\theta}\leq\overline{E}_g-\widetilde{\epsilon})$ and $\mathbb{E}(\widetilde{\theta}|\widetilde{\theta}\geq\underline{E}_g-\widetilde{\epsilon})\geq\mathbb{E}(\widetilde{\theta}|\underline{E}_g-\widetilde{\epsilon}\leq\widetilde{\theta}\leq\overline{E}_g-\widetilde{\epsilon})$. Hence, we obtain $A>B$. Integrating over all possible $\widetilde{\epsilon}$, we obtain that $\theta^*_g(1,\theta^i)>\theta^*_g(0,\theta^i)$ as claimed.

To prove the second point, consider first the function

$$H(E)=\int_{\widetilde{\epsilon}}\frac{\int_{E-\widetilde{\epsilon}}^{\overline{\theta}}\widetilde{\theta}dF(\widetilde{\theta})}{1-F(E-\widetilde{\epsilon})}d\Lambda(\widetilde{\epsilon})$$

Notice that (after re-arranging):

$$H'(E) = \int_{-\overline{\epsilon}}^{\overline{\epsilon}} \frac{f(E-\widetilde{\epsilon})}{1-F(E-\widetilde{\epsilon})} \left(\frac{\int_{E-\widetilde{\epsilon}}^{\overline{\theta}} \widetilde{\theta} dF(\widetilde{\theta})}{1-F(E-\widetilde{\epsilon})} - (E-\widetilde{\epsilon}) \right) d\Lambda(\widetilde{\epsilon}) > 0$$

Then, notice that $\Gamma_g(\widetilde{E}|1,\theta^i) = \int_{\widetilde{\epsilon^i}} \Gamma_g(\widetilde{E}|\theta^i + \widetilde{\epsilon^i} \geq \widetilde{E})$ and $\Gamma_g(\widetilde{E}|0,\theta^i) = \int_{\widetilde{\epsilon^i}} \Gamma_g(\widetilde{E}|\theta^i + \widetilde{\epsilon^i} \leq \widetilde{E})$.

Suppose that individual i belongs to the elite. Fix $\widetilde{\epsilon^i}$ and denote $T^i(\theta^i) = \min\{\widetilde{\epsilon^i} + \theta^i, \overline{E}_g\}$. For all θ^i, $\Gamma_g(\widetilde{E}|\widetilde{E} \leq \theta^i + \widetilde{\epsilon^i}) = \frac{\Gamma_g(\widetilde{E})}{\Gamma_g(T^i(\theta^i))}$ for all $\widetilde{E} \in [\underline{E}_g, T^i(\theta^i)]$, which is decreasing with θ^i (strictly if $T(\theta^i) = \widetilde{\epsilon^i} + \theta^i$), and 1 for $\widetilde{E} \geq T(\theta^i)$. Hence, for all $\theta^i_h > \theta^i_l$, on the union of their support (i.e., $[\underline{E}_g, T(\theta^i_h)]$, we obtain that $\Gamma_g(\widetilde{E}|\widetilde{E} \leq \theta^i_h + \widetilde{\epsilon^i}) \leq \Gamma_g(\widetilde{E}|\widetilde{E} \leq \theta^i_l + \widetilde{\epsilon^i})$ with strict inequality if the union of the support is not empty and $T(\theta^i_l) = \widetilde{\epsilon^i} + \theta^i_l$. Hence, $\Gamma_g(\widetilde{E}|\widetilde{E} \leq \theta^i_h + \widetilde{\epsilon^i})$ "first order stochastic dominates" $\Gamma_g(\widetilde{E}|\widetilde{E} \leq \theta^i_l + \widetilde{\epsilon^i})$, strictly if the union of the support is not an empty interval and $T(\theta^i_l) = \widetilde{\epsilon^i} + \theta^i_l$.[1]
Using the properties of $H(E)$ above, we then obtain for all $\theta^i_h > \theta^i_l$:

$$\int_{\widetilde{E}} H(\widetilde{E}) d\Gamma_g(\widetilde{E}|\widetilde{E} \leq \theta^i_h + \widetilde{\epsilon^i}) \geq \int_{\widetilde{E}} H(\widetilde{E}) d\Gamma_g(\widetilde{E}|\widetilde{E} \leq \theta^i_l + \widetilde{\epsilon^i}),$$

with strict inequality if the union of the support is not empty and $T(\theta^i_l) = \widetilde{\epsilon^i} + \theta^i_l$.

Integrating over all possible $\widetilde{\epsilon^i}$, we obtain:

$$\theta^*_g(1,\theta^i_h) = \int_{\widetilde{\epsilon^i}} \int_{\widetilde{E}} H(\widetilde{E}) d\Gamma_g(\widetilde{E}|\widetilde{E} \leq \theta^i_h + \widetilde{\epsilon^i}) d\Lambda(\widetilde{\epsilon^i}) > \int_{\widetilde{\epsilon^i}} \int_{\widetilde{E}} H(\widetilde{E}) d\Gamma_g(\widetilde{E}|\widetilde{E} \leq \theta^i_l + \widetilde{\epsilon^i}) d\Lambda(\widetilde{\epsilon^i}) = \theta^*_g(1,\theta^i_l)$$

We can apply a similar reasoning for an individual i who belongs to the non-elite group after making two observations. First, $\Gamma_g(\widetilde{E}|\widetilde{E} \geq \theta^i_h + \widetilde{\epsilon^i}) \leq \Gamma_g(\widetilde{E}|\widetilde{E} \geq \theta^i_l + \widetilde{\epsilon^i})$ on the union of their support (with strict inequality when the union is not empty and $\theta^i_h + \widetilde{\epsilon^i} > \underline{E}_g$). Second, the function $J(E) = \int_{\widetilde{\epsilon}} \frac{\int_{E-\widetilde{\epsilon}}^{\underline{\theta}} \widetilde{\theta} dF(\widetilde{\theta})}{1-F(E-\widetilde{\epsilon})} d\Lambda(\widetilde{\epsilon})$ is strictly increasing in E. □

Proof of Proposition 1

I focus first on the dominant group D and discuss the disadvantaged group below. The proof for a member of the dominant group proceeds in five steps.
Step 1: Recall that the conditional pdfs of z satisfy the MLRP, for all $z > z'$. Using Milgrom's (1981) Proposition 1 (p.383), which holds for any non degenerate CDF (our assumption that individuals never perfectly learn the realization of E_D guarantees that the we work with non degenerate distributions), $\Gamma(\cdot|s^i,\theta^i,z)$ first order stochastically dominates $\Gamma(\cdot|s^i,\theta^i,z')$ for all $s^i \in \{0,1\}$ and all $z > z'$, $\theta^i \in [\underline{\theta}, \overline{\theta}]$.
Step 2: We show that Step 1 implies that $\theta^*_D(s^i,\theta^i|z)$ is strictly increasing with z. Denote as above $H(E) = \int_{\widetilde{\epsilon}} \frac{\int_{E-\widetilde{\epsilon}}^{\overline{\theta}} \widetilde{\theta} dF(\widetilde{\theta})}{1-F(E-\widetilde{\epsilon})} d\Lambda(\widetilde{\epsilon})$. Consider an individual from the dominant group with ability θ^i and who belongs to the elite group. By definition of stochastic dominance, given that $H(E)$ is a strictly increasing function, for all $z > z'$:

$$\theta^*_D(s^i,\theta^i|z) = \int_{\widetilde{E}} H(\widetilde{E}) d\Gamma(\widetilde{E}|s^i,\theta^i,z) > \int_{\underline{E}_D}^{\overline{E}_D} H(\widetilde{E}) d\Gamma(\widetilde{E}|s^i,\theta^i,z') = \theta^*_D(s^i,\theta^i|z')$$

Hence, $\theta^*_D(s^i,\theta^i|z)$ is strictly increasing with z.
Step 3: $\Gamma(\widetilde{E}|s^i,\theta^i)$ (the interim distribution, prior to the public signal z) first order stochastically dominates $\Gamma(\cdot|s^i,\theta^i,\underline{z})$. To see this, suppose it does not. First, suppose that there exists $E \in [\underline{E}_D, \overline{E}_D]$ such that $\Gamma(E|s^i,\theta^i,\underline{z}) < \Gamma(E|s^i,\theta^i)$. Now, since $\Gamma(\widetilde{E}|s^i,\theta^i,\underline{z})$ is first order stochastically dominated by $\Gamma(\widetilde{E}|s^i,\theta^i,z)$ for all $z > \underline{z}$, we must have $\Gamma(E|s^i,\theta^i,z) < \Gamma(E|s^i,\theta^i)$. Then, $\int_{\underline{z}}^{\overline{z}} \Gamma(E|s^i,\theta^i,\widetilde{z}) dZ(\widetilde{z}) > \int_{\underline{z}}^{\overline{z}} \Gamma(E|s^i,\theta^i) dZ(\widetilde{z})$. By

[1] I include quotation marks as first order stochastic dominance supposes that the distributions have the same support. However, these specific truncations are clearly related to it.

the law of total probabilities, $\int_{\underline{z}}^{\overline{z}} \Gamma(E|s^i, \theta^i, \widetilde{z}) dZ(\widetilde{z}) = \Gamma(E|s^i, \theta^i)$. Since $\int_{\underline{z}}^{\overline{z}} \Gamma(E|s^i, \theta^i) dZ(\widetilde{z}) = \Gamma(E|s^i, \theta^i)$, we obtain $\Gamma(E|s^i, \theta^i) > \Gamma(E|s^i, \theta^i)$ a contradiction. Now, suppose that for all E, $\Gamma(E|s^i, \theta^i, \underline{z}) = \Gamma(E|s^i, \theta^i)$. Since $\Gamma(\widetilde{E}|s^i, \theta^i, \underline{z})$ is first order stochastically dominated by $\Gamma(\widetilde{E}|s^i, \theta^i, z)$ for all $z > \underline{z}$, there exists E' such as by the same reasoning as above, we obtain $\Gamma(E'|s^i, \theta^i) > \Gamma(E'|s^i, \theta^i)$, a contradiction.
Step 4: by the same reasoning, we can show that $\Gamma(\widetilde{E}|s^i, \theta^i)$ is first order stochastically dominated by $\Gamma(\widetilde{E}|s^i, \theta^i, \overline{z})$. Using this result and $\Gamma(\widetilde{E}|s^i, \theta^i)$ FOSD $\Gamma(\widetilde{E}|s^i, \theta^i, \underline{z})$, we obtain that $\theta_D^*(s^i, \theta^i|\underline{z}) < \theta_D^*(s^i, \theta^i) < \theta_D^*(s^i, \theta^i|\overline{z})$ (again using step 2).
Step 5: Combining the results from Step 2 ($\theta_D^*(s^i, \theta^i|z)$ strictly increasing in z) and from Step 4 ($\theta_D^*(s^i, \theta^i|\underline{z}) < \theta_D^*(s^i, \theta^i) < \theta_D^*(s^i, \theta^i|\overline{z})$) and the theorem of intermediate values, we obtain that there exists a unique $z^0(s^i, \theta^i, D)$ such that $\theta_D^*(s^i, \theta^i) \leq (>) \theta_D^*(s^i, \theta^i|z)$ for all $z \geq (<) z^0(s^i, \theta^i, D)$.
Turning to the disadvantaged group, define the distribution of thresholds for the disadvantaged group as Equation A.1 as:

$$\Gamma_d(E) = 1 - \Gamma\left(v^{-1}\left(\frac{1 - e - (1-\alpha)v(E)}{\alpha}\right)\right), \tag{A.5}$$

with $v(E) = \mathbb{E}_\epsilon(F(E - \widetilde{\epsilon}))$ a strictly increasing function in E.
It follows that if $\Gamma(\widetilde{E}|s^i, \theta^i, z)$ first order stochastically dominates $\Gamma(\widetilde{E}|s^i, \theta^i, z')$, then the associated $\Gamma_d(\widetilde{E}|s^i, \theta^i, z)$ is first order stochastically dominated by $\Gamma_d(\widetilde{E}|s^i, \theta^i, z')$. Hence, all the results for the dominant group above are inverted for the disadvantaged group appropriately adapting the notation.
To prove the last point of the proposition, notice that if there exists an uninformative messagez^u, then necessarily $\theta_g^*(s^i, \theta^i|z^u) = \theta_g^*(s^i, \theta^i)$. Since $z^0(s^i, \theta^i, g)$ is unique, it must be that $z^0(s^i, \theta^i, g) = z^u$ for all s^i, θ^i, and g. □

A.3 Proofs of amended model

Proof of Proposition 2

Consider an individual from the dominant group D with ability θ^i. Slightly amending notation, denote $\theta_D^*(s, \Delta)$ the reputation of group-D members with social status $s \in \{0, 1\}$ after the threshold has been increased by Δ (notice that as per the above, the ability θ^i only matters to update about the threshold for entry into the elite, since the threshold is now assumed to be known, I omit ability from the notation of social reputation). The expected payoff of this individual is:

$$\begin{aligned} W_D(\theta^i, \Delta) =& \big(1 - \Lambda(E_D + \Delta - \theta^i)\big)\big(1 + \theta_D^*(1, \Delta)\big) \\ &+ \Lambda(E_D + \Delta - \theta^i)\big(0 + \theta_D^*(0, \Delta)\big) \end{aligned} \tag{A.6}$$

The first term after the equal sign $(\big(1 - \Lambda(E_D + \Delta - \theta^i)\big))$ corresponds to the probability of joining the elite for an individual with ability θ^i: the luck shock must be high enough for individual i to pass the threshold E_D. The second term $(1 + \theta_D^*(1, \Delta))$ corresponds to the payoff when in the elite. On the second line, the terms consists of the probability of missing the bar and the payoff when not in the elite.
Assume first that $\Lambda(E_D - \overline{\theta}) > 0$ and $\Lambda(E_D - \underline{\theta}) < 1$ (i.e., even the highest ability individual may fail to join the elite due to bad luck and the lowest ability individual may join the elite thanks to good luck). Taking the derivative with respect to Δ, I obtain:

$$\begin{aligned} \frac{\partial W_D(\theta^i, \Delta)}{\partial \Delta} =& -\lambda(E_D + \Delta - \theta^i)\big(1 + \theta_D^*(1, \Delta) - \theta_D^*(0, \Delta)\big) \\ &+ \big(1 - \Lambda(E_D + \Delta - \theta^i)\big)\frac{\partial \theta_D^*(1, \Delta)}{\partial \Delta} \\ &+ \Lambda(E_D + \Delta - \theta^i)\frac{\partial \theta_D^*(0, \Delta)}{\partial \Delta} \end{aligned}$$

Notice that using the proof of Lemma 1,

$$\frac{\partial \theta_D^*(1,\Delta)}{\partial \Delta} = \int_{-\overline{\epsilon}}^{\overline{\epsilon}} \frac{f(E_D+\Delta-\widetilde{\epsilon})}{1-F(E_D+\Delta-\widetilde{\epsilon})}\left(\frac{\int_{E_D+\Delta-\widetilde{\epsilon}}^{\overline{\theta}} \widetilde{\theta} dF(\widetilde{\theta})}{1-F(E_D+\Delta-\widetilde{\epsilon})} - (E_D+\Delta-\widetilde{\epsilon})\right) d\Lambda(\widetilde{\epsilon}) > 0$$

$$\frac{\partial \theta_D^*(0,\Delta)}{\partial \Delta} = \int_{-\overline{\epsilon}}^{\overline{\epsilon}} \frac{f(E_D+\Delta-\widetilde{\epsilon})}{F(E_D+\Delta-\widetilde{\epsilon})}\left((E_D+\Delta-\widetilde{\epsilon}) - \frac{\int_{\underline{\theta}}^{E_D+\Delta-\widetilde{\epsilon}} \widetilde{\theta} dF(\widetilde{\theta})}{F(E_D+\Delta-\widetilde{\epsilon})}\right) d\Lambda(\widetilde{\epsilon}) > 0$$

Now consider how the derivative of $W_D(\theta^i,\Delta)$ wrt to Δ varies with ability θ^i:

$$\frac{\partial^2 W_D(\theta^i,\Delta)}{\partial\Delta\partial\theta^i} = \lambda'(E_D+\Delta-\theta^i)\big(1+\theta_D^*(1,\Delta)-\theta_D^*(0,\Delta)\big) + \lambda(E_D+\Delta-\theta^i)\left(\frac{\partial\theta_D^*(1,\Delta)}{\partial\Delta} - \frac{\partial\theta_D^*(0,\Delta)}{\partial\Delta}\right)$$

Rearranging, the sign of $\frac{\partial^2 W_D(\theta^i,\Delta)}{\partial\Delta\partial\theta^i}$ is the same as the sign of

$$\frac{\lambda'(E_D+\Delta-\theta^i)}{\lambda(E_D+\Delta-\theta^i)} + \frac{\frac{\partial\theta_D^*(1,\Delta)}{\partial\Delta} - \frac{\partial\theta_D^*(0,\Delta)}{\partial\Delta}}{1+\theta_D^*(1,\Delta)-\theta_D^*(0,\Delta)}$$

Since $\frac{\lambda'(\epsilon)}{\lambda(\epsilon)}$ is decreasing with ϵ by assumption, $\frac{\lambda'(\widetilde{E}+\Delta-\theta^i)}{\lambda(\widetilde{E}+\Delta-\theta^i)}$ evaluated at $\Delta=0$ is increasing with θ^i. As a result, there are three cases to consider:

(1) $\frac{\partial^2 W_D(\theta^i,0)}{\partial\Delta\partial\theta^i}$ is negative for all θ^i;

(2) $\frac{\partial^2 W_D(\theta^i,0)}{\partial\Delta\partial\theta^i}$ is positive for all θ^i;

(3) There exists θ^+ such that $\frac{\partial^2 W_D(\theta^i,0)}{\partial\Delta\partial\theta^i}$ is strictly negative for all $\theta^i<\theta^+$ and positive for all $\theta^i>\theta^+$ (zero at $\theta^i=\theta^+$).

In all cases, we can have $\frac{\partial W_D(\theta^i,0)}{\partial\Delta}<0$ for all θ^i, in which cases pick $\theta_D^l<\underline{\theta}$ and $\overline{\theta}<\theta_D^h$, or $\frac{\partial W_D(\theta^i,0)}{\partial\Delta}>0$ for all θ^i, in which case pick $\overline{\theta}<\theta_D^l<\theta_D^h$. On top of this,

- In cases (1) and (3), if there exists a unique solution in $\theta^s\in[\underline{\theta},\overline{\theta}]$ to $\frac{\partial W_D(\theta^i,\Delta)}{\partial\Delta}=0$ such that $\frac{\partial W_D(\theta^i,\Delta)}{\partial\Delta}<0$ for all $\theta^i>\theta^s$, denote $\theta^s=\theta_D^l$ and pick $\theta_D^h>\overline{\theta}$.
- In cases (2) and (3), if there exists a unique solution in $\theta^s\in[\underline{\theta},\overline{\theta}]$ to $\frac{\partial W_D(\theta^i,0)}{\partial\Delta}=0$ such that $\frac{\partial W_D(\theta^i,0)}{\partial\Delta}>0$ for all $\theta^i>\theta^s$, denote $\theta^s=\theta_D^h$ and pick $\theta_D^l<\underline{\theta}$.
- In case (3), if there exists two solution in $\theta_1^s,\theta_2^s\in[\underline{\theta},\overline{\theta}]^2$ to $\frac{\partial W_D(\theta^i,0)}{\partial\Delta}=0$ denote $\theta_1^s=\theta_D^l$ and $\theta_2^s=\theta_D^h$.

This represents all possible cases. In all these cases, we have been able to define θ_D^l and θ_D^h satisfying the conditions of the proposition for the dominant group.
Now, relax the assumption that $\Lambda(E_D-\overline{\theta})>0$ and $\Lambda(E_D-\underline{\theta})<1$. Suppose for example that there exists a unique $\theta^T\in(\underline{\theta},\overline{\theta})$ such that $\Lambda(E_D-\theta^i)=0$ for all $\theta^i\geq\theta^T$ (whereas $\Lambda(E_D-\underline{\theta})<1$). Then, for all $\theta^i>\theta^T$, I obtain:

$$\frac{\partial W_D(\theta^i,0)}{\partial\Delta} = \frac{\partial\theta_D^*(1,0)}{\partial\Delta} > 0$$

For all other $\theta^i\leq\theta^T$, a similar reasoning as above applies. Hence, we know have the following possible cases:

- $\frac{\partial W_D(\theta^i,0)}{\partial\Delta}>0$ for all θ^i, in which case pick $\overline{\theta}<\theta_D^l<\theta_D^h$
- There exists a unique solution in $\theta^s\in[\underline{\theta},\overline{\theta}]$ to $\frac{\partial W_D(\theta^i,0)}{\partial\Delta}=0$ such that $\frac{\partial W_D(\theta^i,0)}{\partial\Delta}>0$ for all $\theta^i>\theta^s$, denote $\theta^s=\theta_D^h$ and pick $\theta_D^l<\underline{\theta}$.
- There exists two solution in $\theta_1^s,\theta_2^s\in[\underline{\theta},\overline{\theta}]^2$ to $\frac{\partial W_D(\theta^i,0)}{\partial\Delta}=0$ denote $\theta_1^s=\theta_D^l$ and $\theta_2^s=\theta_D^h$.

We again have been able to define θ_D^l and θ_D^h satisfying the conditions of the proposition for the dominant group.
A similar reasoning applies to the case when $\Lambda(E_D - \underline{\theta}) = 1$.

We then can apply a similar reasoning for the dominated group noting that δ has the opposite effect than Δ for individuals from group d. □

B Robustness of formal results

B.1 Robustness of baseline model results

In the baseline model, I make several assumptions: (1) Individuals do not know the thresholds to join the elite E_d and E_D, (2) Individuals know their ability, (3) Individuals know the distributions of ability, (4) Individuals know the size of the elite, (5) Individuals do not know the composition of the elite. In this appendix, I show that the insights from Proposition 1 are robust to relaxing or changing some of these assumptions. I proceed in several steps. I first show that Proposition 1 holds when assumptions 2 and 4 are relaxed (keeping the other assumption). I then explain how we can still obtain a similar result as in Proposition 1 when individuals know the value of the thresholds, but do not know the distributions of ability. I also highlight how information can negatively affect the dominant group when the composition of the elite is known, but the thresholds and the distributions of ability are not.

These various extensions are meant to illustrate that the key assumption for Proposition 1 to hold is that individuals face some uncertainty about what success/failure means for the way the system works or the composition of society. With a mass of individuals, this requires at least two sources of uncertainty. Indeed, suppose that Assumptions 1-4 hold, but I relax assumption 5. Then, given a fixed elite size, individuals can recover the value of the thresholds. There would not be any uncertainty left and, therefore, no role for information.

Uncertainty about the threshold values

In this subsection, I show that Proposition 1 does not depend on assumptions 2 and 4 above.

Suppose that individuals do not perfectly observe their ability (i.e., relaxing assumption 2). This would only affect how individuals compute their expected reputation. To see that, suppose that citizens receive a signal η^i distributed according to CDF $P(\eta^i|\theta^i)$ and pdf $p(\eta^i|\theta^i)$. The signal could be fully informative (in which case, $P(\eta^i|\theta^i)$ is a degenerate distribution), completely uninformative (in which case, $p(\eta^i|\theta^i) = p(\eta^i|\theta^{i\prime})$ for all $\eta^i, \theta^i, \theta^{i\prime}$ in their relevant supports), or anything in between. The expected reputation then becomes using Equation A.2:

$$\mathbb{E}^i_{-i}(\widetilde{\theta}|g^i, s^i, \eta^i) = \int_{\widetilde{E}} \int_{\widetilde{\epsilon}} \mathbb{E}(\widetilde{\theta}|g^i, s^i, \widetilde{\epsilon}, \widetilde{E}) d\Lambda(\widetilde{\epsilon}) d\Gamma_g(\widetilde{E}|s^i, g^i, \eta^i)$$

The proof of Proposition 1 then would go through unchanged after appropriately replacing θ^i by η^i. The proof of the first point of Lemma 1 would remain the same as above again. The proof of the second point of Lemma 1 with respect to η^i would hold if we impose the MLRP on the signals.

Suppose instead that the size of the elite e is unknown (relaxing assumption 4). Then, the common prior is that $\widetilde{e}$ is distributed according to CDF $\mathcal{E}$ and strictly positive pdf ε over $[\underline{e}, \overline{e}]$. Since any individual is atomistic, their own success or failure cannot influence their belief about the size of the elite. Hence, using Equation A.2, the social reputation becomes:

$$\mathbb{E}^i_{-i}(\widetilde{\theta}|g^i, s^i, \theta^i) = \int_{\underline{e}}^{\overline{e}} \int_{\underline{E}(\widetilde{e})}^{\overline{E}(\widetilde{e})} \int_{\widetilde{\epsilon}} \mathbb{E}(\widetilde{\theta}|g^i, s^i, \widetilde{\epsilon}, \widetilde{E}) d\Lambda(\widetilde{\epsilon}) d\Gamma_g(\widetilde{E}|s^i, g^i, \eta^i, \widetilde{e}) d\mathcal{E}(\widetilde{e})$$

Notice that if the size of the elite does not affect the possible bound of the thresholds for entering the elite or the distribution of the thresholds, then uncertainty about the elite size does not matter. I suppose that either the bounds or the distribution is affected by the size of the elite. The next step is to note that Proposition 1 is obtained for one particular realisation of e for the case of uncertain elite size. Slightly abusing notation, we can rewrite the expected reputation in the case of a fixed e (Equation A.3 and Equation A.4) as conditional on a particular realization of the elite size:

$$\theta_g^*(1,\theta^i|e) = \int_{\widetilde{\epsilon}} \frac{\int_{\widetilde{E}(e)-\widetilde{\epsilon}}^{\overline{\theta}} \widetilde{\theta} dF(\widetilde{\theta})}{1-F(\widetilde{E}-\widetilde{\epsilon})} d\Lambda(\widetilde{\epsilon}) d\Gamma_g(\widetilde{E}|1,\theta^i,e)$$

$$\theta_g^*(0,\theta^i|e) = \frac{\int_{\underline{\theta}}^{\widetilde{E}(e)-\widetilde{\epsilon}} \widetilde{\theta} dF(\widetilde{\theta})}{F(\widetilde{E}-\widetilde{\epsilon})} d\Lambda(\widetilde{\epsilon}) d\Gamma_g(\widetilde{E}|0,\theta^i,e)$$

The expected reputation with uncertain elite size is then:

$$\theta_g^*(s^i,\theta^i) = \int_{\widetilde{e}} \theta_g^*(s^i,\theta^i|\widetilde{e}) d\mathcal{E}(\widetilde{e}), \text{for all } s^i \in \{0,1\}$$

Since $\varepsilon(\widetilde{e}) > 0$, the integration over $\widetilde{e}$ preserves inequalities and Lemma 1 and Proposition 1 hold when the size of the elite is uncertain.

Uncertainty about the distributions of ability

In this subsection, I take an alternative approach to the baseline model. I assume that individuals know E_D and E_d (modifying assumption 1 above). I suppose that they are uncertain about the distribution of abilities in both groups (modifying assumption 3 above). I keep all the other assumptions as in the baseline model (i.e., individuals know their ability, the size of the elite, but do not know the composition of the elite).
Denote $\mathcal{F}_g$ the set of possible pdf f_g of ability over $[\underline{\theta}, \overline{\theta}]$ for group g and $\widetilde{f}_g$ the random variable over the possible realization of f_g. Due to the difficulties of working with second-order uncertainty (uncertainty about the distributions of random variable), I make a few assumptions for tractability. First, I assume that the set $\mathcal{F}_g$ contains countably many elements: $\mathcal{F}_g = \{f_g^1, f_g^2, f_g^3, ...\}$. I denote the cardinality of $\mathcal{F}_g$ by n (note that we can approximate the continuous case by taking n to infinity) and assume that the last element in $\mathcal{F}_g$ is f_g^n. Second, I assume that distributions are ranked in the sense of strict monotone likelihood ratio property. That is, I order the distribution so that $f_g^k > f_g^j \iff$ for all $\theta_h^i, \theta_l^i \in [\underline{\theta}, \overline{\theta}]^2$ with $\theta_h^i > \theta_l^i$, $\frac{f_g^k(\theta_h^i)}{f_g^k(\theta_l^i)} > \frac{f_g^j(\theta_h^i)}{f_g^j(\theta_l^i)}$ (I also sometimes state results only focusing on the superscripts of the pdfs since it is equivalent).[2] The prior distribution satisfies: $Pr(\widetilde{f}_g = f_g^j) = \pi_g^j$ for $g \in \{d, D\}$, with $\pi_g^j > 0$ for all $j \in \{1, ..., n\}$. Finally, all distributions in $\mathcal{F}_g$ satisfy the conditions in the main text (i.e., all pdfs are continuous).
I assume that for each realized distribution in $\mathcal{F}_D$ there is an appropriate realized distribution in $\mathcal{F}_d$ so that the following equation holds:

$$e = \alpha \mathbb{E}_\epsilon\big(1 - F_D^h(E_D - \widetilde{\epsilon})\big) + (1-\alpha)\mathbb{E}_\epsilon\big(1 - F_d^k(E_d - \widetilde{\epsilon})\big) \tag{B.1}$$

As the MLRP implies first order stochastic dominance, Equation B.1 directly implies that a higher realized distribution for the dominant group (i.e., a higher superscript) means a lower realized distribution for the disadvantaged group (i.e., a lower superscript).
The social reputation is again the only quantity of interest and I denote it by: $\theta_g^\dagger(s^i, \theta^i)$ for an individual from group g with status s^i and ability θ^i. Denote $\mu_g^k(\theta^i) = Pr(\widetilde{f}_g = f^k|\theta^i)$ the posterior that the probability density distribution of ability is f^k after individual i observes their ability θ^i. In this case, using the same steps as in Online Appendix A.1, the social reputation is:

$$\theta_g^\dagger(s^i,\theta^i) = \sum_{k=1}^{n} \int_{\widetilde{\epsilon}} \mathbb{E}(\widetilde{\theta}|E_D, s^i, \widetilde{\epsilon}, f_g^k) d\Lambda(\widetilde{\epsilon}) \mu_g^k(\theta^i) \tag{B.2}$$

Rather than integrating over possible realization of the thresholds given θ^i as in Equation A.2, I now sum over possible realization of the distributions of ability given θ^i. With this, we can state the equivalent to Lemma 1.

[2] Ranking in term of first order stochastic dominance would be enough to prove an equivalent result to Proposition 1. The stronger assumption I state is sufficient to recover a similar result as Lemma 1.

Lemma B.1. *Elite members have higher expected reputation than non-elite members: for all* $\theta^i \in [\underline{\theta}, \overline{\theta}]$, $\theta_g^\dagger(1, \theta^i) > \theta_g^\dagger(0, \theta^i)$ *for all* $g \in \{d, D\}$.
An individual's social reputation increases with their own ability: for all $\theta_h^i, \theta_l^i \in [\underline{\theta}, \overline{\theta}]^2$ *satisfying* $\theta_h^i > \theta_l^i$ $\theta_g^\dagger(s^i, \theta_h^i) > \theta_g^\dagger(s^i, \theta_l^i)$ *for all* $g \in \{d, D\}$ *and* $s^i \in \{0, 1\}$.

Proof. Notice that Equation B.2 yields $\theta_g^*(1, \theta^i) > \theta_g^*(0, \theta^i)$ since the social status only enters the conditional expectation (the entry of one individual into the elite is independent of the distribution of abilities).
The second point of the lemma requires more work. First, notice that $f(\theta^i|\widetilde{f}_g = f_g^h) = f_g^h(\theta^i)$. Hence, we have $\frac{f(\theta_h^i|\widetilde{f}_g = f_g^h)}{f(\theta_l^i|\widetilde{f}_g = f_g^h)} > \frac{f(\theta_h^i|\widetilde{f}_g = f_g^l)}{f(\theta_l^i|\widetilde{f}_g = f_g^l)}$ for all $\theta_h^i > \theta_l^i$ and all $f_g^h > f_g^l$ (in the order I have defined above).
Second, for all $\theta_h^i > \theta_l^i$, there exists $1 \leq k^0(\theta_h^i, \theta_l^i) < n$ such that $\mu_g^j(\theta_h^i) < (\leq)\mu_g^j(\theta_l^i)$ if $j < (\leq)k^0(\theta_h^i, \theta_l^i)$ and $\mu_g^j(\theta_h^i) > \mu_g^j(\theta_l^i)$ if $j > k^0(\theta_h^i, \theta_l^i)$. To see this, note that $\mu_g^j(\theta^i) = \frac{\pi_g^j f_g^j(\theta^i)}{\sum_{k=1}^n \pi_g^k f_g^k(\theta^i)}$, or equivalently: $\mu_g^j(\theta^i) = \frac{\pi_g^j}{\sum_{k=1}^n \pi_g^k \frac{f_g^k(\theta^i)}{f_g^j(\theta^i)}}$. Hence, $\mu_g^j(\theta_h^i) > \mu_g^j(\theta_l^i)$ if and only if $\sum_{k=1}^n \pi_g^k \frac{f_g^k(\theta_h^i)}{f_g^j(\theta_h^i)} < \sum_{k=1}^n \pi_g^k \frac{f_g^k(\theta_l^i)}{f_g^j(\theta_l^i)}$. Given the MLRP of the pdfs, we necessarily have $\mu_g^1(\theta_h^i) < \mu_g^1(\theta_l^i)$ and $\mu_g^n(\theta_h^i) > \mu_g^n(\theta_l^i)$. Further, if for $h \in \{2, ..., n-1\}$, $\mu_g^h(\theta_h^i) \leq \mu_g^h(\theta_l^i)$ then $\mu_g^j(\theta_h^i) < \mu_g^j(\theta_l^i)$ for all $j < h$. To see that, recall that $\mu_g^h(\theta_h^i) \leq \mu_g^h(\theta_l^i)$ is equivalent to $\sum_{k=1}^n \pi_g^k \frac{f_g^k(\theta_h^i)}{f_g^h(\theta_h^i)} - \sum_{k=1}^n \pi_g^k \frac{f_g^k(\theta_l^i)}{f_g^h(\theta_l^i)} \geq 0$. Now take

$$\begin{aligned}
\sum_{k=1}^n \pi_g^k \frac{f_g^k(\theta_h^i)}{f_g^j(\theta_h^i)} - \sum_{k=1}^n \pi_g^k \frac{f_g^k(\theta_l^i)}{f_g^j(\theta_l^i)} &= \sum_{k=1}^n \pi_g^k \frac{f_g^k(\theta_h^i)}{f_g^h(\theta_h^i)} \frac{f_g^h(\theta_h^i)}{f_g^j(\theta_h^i)} - \sum_{k=1}^n \pi_g^k \frac{f_g^k(\theta_l^i)}{f_g^h(\theta_l^i)} \frac{f_g^h(\theta_l^i)}{f_g^j(\theta_l^i)} \\
&= \frac{f_g^h(\theta_h^i)}{f_g^j(\theta_h^i)} \sum_{k=1}^n \pi_g^k \frac{f_g^k(\theta_h^i)}{f_g^h(\theta_h^i)} - \frac{f_g^h(\theta_l^i)}{f_g^j(\theta_l^i)} \sum_{k=1}^n \pi_g^k \frac{f_g^k(\theta_l^i)}{f_g^h(\theta_l^i)}
\end{aligned}$$

Since $j < h$ and $\theta_h^i > \theta_l^i$, $\frac{f_g^h(\theta_h^i)}{f_g^j(\theta_h^i)} > \frac{f_g^h(\theta_l^i)}{f_g^j(\theta_l^i)}$ given the ordering of distributions. Hence, I obtain:

$$\sum_{k=1}^n \pi_g^k \frac{f_g^k(\theta_h^i)}{f_g^j(\theta_h^i)} - \sum_{k=1}^n \pi_g^k \frac{f_g^k(\theta_l^i)}{f_g^j(\theta_l^i)} > \frac{f_g^h(\theta_h^i)}{f_g^j(\theta_h^i)} \left(\underbrace{\sum_{k=1}^n \pi_g^k \frac{f_g^k(\theta_h^i)}{f_g^h(\theta_h^i)} - \sum_{k=1}^n \pi_g^k \frac{f_g^k(\theta_l^i)}{f_g^h(\theta_l^i)}}_{\geq 0} \right) > 0$$

A similar reasoning yields that if for $h \in \{2, ..., n-1\}$, $\mu_g^h(\theta_h^i) > \mu_g^h(\theta_l^i)$ then $\mu_g^j(\theta_h^i) > \mu_g^j(\theta_l^i)$ for all $j > h$. Taking all findings together, this implies that there exists a unique $k^0(\theta_h^i, \theta_l^i)$ satisfying $1 \leq k^0(\theta_h^i, \theta_l^i) < n$ such that $\mu_g^j(\theta_h^i) < (\leq)\mu_g^j(\theta_l^i)$ if $j < (\leq)k^0(\theta_h^i, \theta_l^i)$ and $\mu_g^j(\theta_h^i) > \mu_g^j(\theta_l^i)$ if $j > k^0(\theta_h^i, \theta_l^i)$.
With this, we can show that $\theta_g^\dagger(s^i, \theta_h^i) > \theta_g^\dagger(s^i, \theta_l^i)$. Write

$$\begin{aligned}
\theta_g^\dagger(s^i, \theta_h^i) - \theta_g^\dagger(s^i, \theta_l^i) =& \sum_{k=1}^n \int_{\widetilde{\epsilon}} \mathbb{E}(\widetilde{\theta}|E_D, s^i, \widetilde{\epsilon}, f_g^k) d\Lambda(\widetilde{\epsilon}) (\mu_g^k(\theta_h^i) - \mu_g^k(\theta_l^i)) \\
=& \sum_{k=1}^{k^0(\theta_h^i, \theta_l^i)} \int_{\widetilde{\epsilon}} \mathbb{E}(\widetilde{\theta}|E_D, s^i, \widetilde{\epsilon}, f_g^k) d\Lambda(\widetilde{\epsilon}) (\overbrace{\mu_g^k(\theta_h^i) - \mu_g^k(\theta_l^i)}^{\leq 0}) \\
&+ \sum_{k=k^0(\theta_h^i, \theta_l^i)+1}^{n} \int_{\widetilde{\epsilon}} \mathbb{E}(\widetilde{\theta}|E_D, s^i, \widetilde{\epsilon}, f_g^k) d\Lambda(\widetilde{\epsilon}) (\underbrace{\mu_g^k(\theta_h^i) - \mu_g^k(\theta_l^i)}_{>0})
\end{aligned}$$

Given the way I order the pdf (according to the MLRP), F^h first order stochastically dominate F^l for all $h > l$ and therefore $\int_{\widetilde{\epsilon}} \mathbb{E}(\widetilde{\theta}|E_D, s^i, \widetilde{\epsilon}, f_g^h)d\Lambda(\widetilde{\epsilon}) > \int_{\widetilde{\epsilon}} \mathbb{E}(\widetilde{\theta}|E_D, s^i, \widetilde{\epsilon}, f_g^l)d\Lambda(\widetilde{\epsilon})$. Hence,

$$\begin{aligned}\theta_g^\dagger(s^i, \theta_h^i) - \theta_g^\dagger(s^i, \theta_l^i) > &\sum_{k=1}^{k^0(\theta_h^i,\theta_l^i)} \int_{\widetilde{\epsilon}} \mathbb{E}(\widetilde{\theta}|E_D, s^i, \widetilde{\epsilon}, f_g^{k^0(\theta_h^i,\theta_l^i)+1})d\Lambda(\widetilde{\epsilon})(\mu_g^k(\theta_h^i) - \mu_g^k(\theta_l^i)) \\ &+ \sum_{k=k^0(\theta_h^i,\theta_l^i)+1}^{n} \int_{\widetilde{\epsilon}} \mathbb{E}(\widetilde{\theta}|E_D, s^i, \widetilde{\epsilon}, f_g^{k^0(\theta_h^i,\theta_l^i)+1})d\Lambda(\widetilde{\epsilon})(\mu_g^k(\theta_h^i) - \mu_g^k(\theta_l^i)) \\ &= \int_{\widetilde{\epsilon}} \mathbb{E}(\widetilde{\theta}|E_D, s^i, \widetilde{\epsilon}, f_g^{k^0(\theta_h^i,\theta_l^i)+1})d\Lambda(\widetilde{\epsilon}) \times \sum_{k=1}^{n}(\mu_g^k(\theta_h^i) - \mu_g^k(\theta_l^i)) = 0\end{aligned}$$

□

To think about the effect of public information in this context, I consider a public signal $y \in [\underline{y}, \overline{y}]$ distributed conditional on a distribution of ability in the dominant group f_D according to the pdf and CDF $\psi(y|f_D)$ and $\Psi(y|f_D)$. I suppose that the conditional distributions satisfy the following property for all $y^t, y^b \in [\underline{y}, \overline{y}]^2$ with $y^t > y^b$ and for all $h > l$ $\frac{\psi(y^t|f_D^h)}{\psi(y^b|f_D^h)} > \frac{\psi(y^t|f_D^l)}{\psi(y^b|f_D^l)}$ (this is the MLRP adapted to the case at hands). In this case, I recover the insights from Proposition 1 after denoting $\theta_g^\dagger(s^i, \theta^i|y)$ the social reputation of an individual i with status s^i and ability θ^i after receiving signal y.

Proposition B.1. *For all $g \in \{D, d\}$, all $\theta^i \in [\overline{\theta}, \underline{\theta}]$, and all $s^i \in \{0, 1\}$, there exists a unique $y^0(s^i, \theta^i, g) \in (\underline{y}, \overline{y})$ such that*

- $\theta_g^\dagger(s^i, \theta^i|y^0(s^i, \theta^i, g)) = \theta_g^\dagger(s^i, \theta^i)$;
- *For all $y > (<) y^0(s^i, \theta^i, D)$, $\theta_D^\dagger(s^i, \theta^i|y) > (<) \theta_D^\dagger(s^i, \theta^i)$;*
  For all $y > (<) y^0(s^i, \theta^i, d)$, $\theta_d^\dagger(s^i, \theta^i|y) < (>) \theta_d^*(s^i, \theta^i)$.

If there exists an uninformative signal y^u such that $\psi(y^u|f^h) = \psi(y^u|f^l)$ for all $h \neq l$, then $y^0(s^i, \theta^i, g) = y^u$.

Proof. The proof proceeds very much along the lines of the proof of Proposition 1. I first focus on the dominant group. Denote $\mu_g^j(\theta^i, y) = Pr(\widetilde{f}_g = f_g^j|\theta^i, y)$. Repeating the steps to prove the second point of Lemma B.1, it can be shown that for all $y^t > y^b$ there exists a unique $m^0(y^t, y^b)$ satisfying $1 \leq m^0(y^t, y^b) < n$ such that $\mu_D^j(\theta^i, y^t) < (\leq) \mu_D^j(\theta^i, y^b)$ if $j < (\leq) m^0(y^t, y^b)$ and $\mu_D^j(\theta^i, y^t) > \mu_D^j(\theta^i, y^b)$ if $j > m^0(y^t, y^b)$. Again repeating the same steps as in the proof of Lemma B.1, this implies: $\theta_D^\dagger(s^i, \theta^i|y^t) > \theta_D^\dagger(s^i, \theta^i|y^b)$ for all $y^t > y^b$.
The next step is to show that $\theta_D^\dagger(s^i, \theta^i|\underline{y}) < \theta_D^\dagger(s^i, \theta^i)$. To do so, I first prove that $\frac{\psi(\underline{y}|f_D^h)}{\psi(\underline{y}|f_D^l)} < 1$ for all $h > l$. By way of contradiction, suppose $\frac{\psi(\underline{y}|f_D^h)}{\psi(\underline{y}|f_D^l)} \geq 1$. Given the "MLRP", we have $\frac{\psi(y|f_D^h)}{\psi(y|f_D^l)} > \frac{\psi(\underline{y}|f_D^h)}{\psi(\underline{y}|f_D^l)}$ for all $y > \underline{y}$. This means that $\psi(y|f_D^h) > \psi(y|f_D^l)$ and $\psi(y|f_D^h) \geq \psi(y|f_D^l)$. Integrating over all y, we obtain: $1 > 1$, a contradiction.
With this, we can show that there exists a unique α^0 satisfying $1 \leq \alpha^0 < n$ such that $\mu_D^j(\theta^i, \underline{y}) > (\geq) \mu_D^j(\theta^i)$ if $j < (\leq) \alpha^0$ and $\mu_D^j(\theta^i, \underline{y}) < \mu_D^j(\theta^i)$ if $j > \alpha^0$. Notice that $\mu_D^j(\theta^i, \underline{y}) > \mu_D^j(\theta^i) \iff \sum_k^n \pi_g^k \frac{\psi(\underline{y}|f_g^k)}{\psi(\underline{y}|f_g^j)} < 1$. We necessarily have $\mu_D^1(\theta^i, \underline{y}) > \mu_D^1(\theta^i)$ and $\mu_D^n(\theta^i, \underline{y}) < \mu_D^n(\theta^i)$. Now suppose that for some $h \in \{2, ..., n\}$, we have $\mu_D^h(\theta^i, \underline{y}) \geq \mu_D^h(\theta^i)$. Take $j < h$ and notice that

$$\begin{aligned}\sum_k^n \pi_g^k \frac{\psi(\underline{y}|f_g^k)}{\psi(\underline{y}|f_g^j)} &= \sum_k^n \pi_g^k \frac{\psi(\underline{y}|f_g^k)}{\psi(\underline{y}|f_g^h)} \frac{\psi(\underline{y}|f_g^h)}{\psi(\underline{y}|f_g^j)} \\ &= \underbrace{\frac{\psi(\underline{y}|f_g^h)}{\psi(\underline{y}|f_g^j)}}_{<1} \underbrace{\sum_k^n \pi_g^k \frac{\psi(\underline{y}|f_g^k)}{\psi(\underline{y}|f_g^h)}}_{\leq 1} < 1\end{aligned}$$

So if for some $h \in \{2, ..., n\}$, we have $\mu_D^h(\theta^i, \underline{y}) \geq \mu_D^h(\theta^i)$, then $\mu_D^j(\theta^i, \underline{y}) > \mu_D^j(\theta^i)$ for $j < h$. Similarly, if for some $h \in \{2, ..., n-1\}$, we have $\mu_D^h(\theta^i, \underline{y}) < \mu_D^h(\theta^i)$, then $\mu_D^j(\theta^i, \underline{y}) < \mu_D^j(\theta^i)$ for all $j > h$. All these elements together prove the existence and uniqueness of α^0.

We can then apply the same steps as in the proof of Lemma B.1 to establish that $\theta^{\dagger}_D(s^i, \theta^i|\underline{y}) < \theta^{\dagger}_D(s^i, \theta^i)$. Repeating the reasoning (and appropriately changing inequalities), we also obtain that $\theta^{\dagger}_D(s^i, \theta^i|\overline{y}) > \theta^{\dagger}_D(s^i, \theta^i)$. We can then apply the theorem of intermediate values to prove existence and uniqueness of $y^0(s^i, \theta^i, g) \in (\underline{y}, \overline{y})$. For the disadvantaged group, we know that a high superscript for the dominant group means a low superscript for the disadvantaged group and, hence, all results are reverse.
Finally, the last point of Proposition B.1 follows from the same reasoning as for the proof of the last point of Proposition 1. □

Learning the composition of the elite

In this subsection, I assume that individuals are uncertain about both the values of the threshold and the distributions of ability. They, however, learn the composition of the elite. Hence, compared to the baseline model, I have substituted knowledge of the distributions of ability (assumptions 3 above) with knowledge about the composition of the elite (assumptions 5 above).
When it comes to uncertainty about the distributions of ability, I again denote $\mathcal{F}_g$ the prior set of possible distributions pdf f_g of ability over $[\underline{\theta}, \overline{\theta}]$ for group g and $\widetilde{f}_g$ the random variable over the possible realization of f_g. As before, I assume that the set $\mathcal{F}_g$ contains countably many elements: $\mathcal{F}_g = \{f^1_g, f^2_g, f^3_g, ...\}$. I denote the cardinality of $\mathcal{F}_g$ by n (note that we can approach the continuous case by taking n to infinity) and assume that the last element in $\mathcal{F}_g$ is f^n_g. I assume that distributions are ranked in the sense of strict first order stochastic dominance. That is, I order the distribution so that $f^k_g > f^j_g$ if and only if F^k_g strictly first order stochastically dominates F^j_g (I also sometimes focus on the superscripts of the pdfs/CDFs since it is equivalent). The prior distribution satisfies: $Pr(\widetilde{f}_g = f^j_g) = \pi^j_g$ for $g \in \{d, D\}$, with $\pi^j_g > 0$ for all $j \in \{1, ..., n\}$. All distributions in $\mathcal{F}_g$ satisfy the conditions in the main text (i.e., all pdfs are continuous).
When it comes to uncertainty about the threshold values, I denote $\mathcal{E}_g$ the set of values $\widetilde{E}_g$ can take. I assume $\mathcal{E}_g$ is countable and of cardinality m so that $\widetilde{E}_g \in \{E^1_g = \underline{E}_g, E^2_g, ..., E^m_g = \overline{E}_g\}$. The values are ranked so that $E^h_g > E^l_g$ for all $h > l$. The prior distribution is $Pr(\widetilde{E}_g = E^j_g) = \gamma^j_g$.
Denote $\mathcal{R}$ the set of possible realizations of the share of individuals from the dominant group in the elite with $\mathcal{R} = \{\rho^1, \rho^2, ...\}$. Further, for all $\rho^h \in \mathcal{R}$, denote $\mathcal{K}_D(\rho^h) = \{f^j_D \in \mathcal{F}_D, E^k_D \in \mathcal{E}_D : \mathbb{E}_\epsilon(1 - F^j_D(E^k_D - \widetilde{\epsilon})) = \frac{e \times \rho^h}{\alpha}\}$. I assume that the cardinality of $\mathcal{D}(\rho^h)$ is strictly higher than one for all ρ^h (note that this implies that $\mathcal{R}$ has cardinality less than $\frac{nm}{2}$). I further assume that the distributions in the disadvantaged group are such that the set $\mathcal{K}_d(\rho^h) = \{f^j_d \in \mathcal{F}, E^k_d \in \mathcal{E}_d : \mathbb{E}_\epsilon(1 - F^j_d(E^k_d - \widetilde{\epsilon})) = \frac{e \times (1-\rho^h)}{1-\alpha}\}$ has also cardinality more than one for all values of ρ^h.
Notice importantly that each element in $\mathcal{K}_g(\rho^h)$ can easily be ranked: if the threshold E^k_g is high, then f^j_g is also high (in the sense of the order I have defined above). This means that one group can always justify its high representation in the elite by a high threshold **and** a high deservedness (a distribution of ability with a high mean).
We can use this observation to redefine the sets as $\mathcal{K}_g(\rho^h) = \{k^1_g(\rho^h), k^2_g(\rho^h), ...\}$ (i.e., each $k^l_g(\rho^h)$ is a particular realization of f^j_g and E^k_g) with cardinality and higher index $c(\rho^h)$ such that the elements of the sets are ordered in the following way: $t > b$ implies $\int_{\widetilde{\epsilon}} \mathbb{E}(\widetilde{\theta}|, s^i, \widetilde{\epsilon}, k^t_g(\rho^h)) > \int_{\widetilde{\epsilon}} \mathbb{E}(\widetilde{\theta}|, s^i, \widetilde{\epsilon}, k^b_g(\rho^h))$ for all elements in $\mathcal{K}_g(\rho^h)$. We can then define $\widetilde{k}_g(\rho^h)$ as the random variable over the possible values in the set $\mathcal{K}_g(\rho^h)$. Denote $\mu^l_g(\rho^h; s^i, \theta^i) = Pr(\widetilde{k}_g(\rho^h) = k^l_g(\rho^h)|s^i, \theta^i)$, the belief that $k^l_g(\rho^h)$ is realized given an individual i's ability and social status.
Building on the previous subsection, the social reputation is:

$$\theta^{\ddagger}_g(\rho^h; s^i, \theta^i) = \sum_{l=1}^{c(\rho^h)} \int_{\widetilde{\epsilon}} \mathbb{E}(\widetilde{\theta}|s^i, \widetilde{\epsilon}, k^l_g(\rho^h)) d\Lambda(\widetilde{\epsilon}) \mu^l_g(\rho^h; s^i, \theta^i) \tag{B.3}$$

I am now ready to define a public signal $x \in [\underline{x}, \overline{x}]$ with conditional CDF and pdf $X(\cdot|k^l_D(\rho^h))$ and $\chi(\cdot|k^l_D(\rho^h))$ (for all possible $k^l_D(\rho^h)$ for all possible ρ^h). For each $\rho^h \in \mathcal{R}$, I assume that a form of MLRP property holds: for each $x' > x$ and each $t > b$, $\frac{\chi(x|k^t_D(\rho^h))}{\chi(x'|k^t_D(\rho^h))} > \frac{\chi(x|k^b_D(\rho^h))}{\chi(x'|k^b_D(\rho^h))}$. Notice that I define the property within each realization of the share of group-D individuals in the elite (i.e., for each ρ^h).

Under these conditions, we can rank information into good news and bad news for the dominant group just as in the main text. Notice the importance of two conditions: the uncertainty is such that it matters for social reputation (this is given by the ordering I have assumed: $t > b$ implies $\int_{\widetilde{\epsilon}} \mathbb{E}(\widetilde{\theta}|s^i, \widetilde{\epsilon}, k_g^t(\rho^h)) > \int_{\widetilde{\epsilon}} \mathbb{E}(\widetilde{\theta}|s^i, \widetilde{\epsilon}, k_g^b(\rho^h)))$ and the signals are easily separated into good news and bad news (this is given by the amended MLRP). Notice, however, that the information for group D does not contain any information for group d. Indeed, the two groups are now separate. What matters is how each group can justify its own proportion within the elite. As such, I obtain a watered down version of Proposition 1.

Proposition B.2. *For all $\theta^i \in [\overline{\theta}, \underline{\theta}]$, all $s^i \in \{0,1\}$, and all $\rho^h \in \mathcal{R}$, there exists a unique $x^0(\rho^h; s^i, \theta^i) \in (\underline{x}, \overline{x})$ such that*

- $\theta_D^\ddagger(s^i, \theta^i | x^0(\rho^h; s^i, \theta^i)) = \theta_g^\ddagger(s^i, \theta^i; \rho^h)$;
- *For all $x > (<) x^0(s^i, \theta^i, D)$, $\theta_D^\ddagger(\rho^h; s^i, \theta^i | x) > (<) \theta_D^\ddagger(\rho^h; s^i, \theta^i)$.*

If there exists an uninformative signal $x^u(\rho^h)$ such that $\xi(x^u(\rho^h)|k_D^b(\rho^h)) = \psi(x^u(\rho^h)|k_D^t(\rho^h))$ for all $b \neq t$, then $x^0(\rho^h; s^i, \theta^i) = x^u(\rho^h)$.

Proof. The proof follows the same steps as the proof of Proposition B.1, after appropriately changing the notation. It is, thus, omitted. □

B.2 Robustness of amended model results

In the amended model, I make three assumptions: (1) Individuals know the thresholds to join the elite E_d and E_D, (2) Individuals know their ability, (3) Individuals know the size of the elite. The key force behind the results in the main text is that changing the threshold to enter the elite affects differently the chances of belonging to the elite and the social reputation. This differential effect is unaffected by relaxing the first and third assumptions, though this introduces noise and makes computations more difficult. Here, I discuss how the results change when individuals do not have perfect information about their ability.

As in Appendix B.1, suppose that each citizen i does not observe her ability θ^i, but receives instead a signal η^i distributed according to CDF $P(\eta^i|\theta^i)$ and pdf $p(\eta^i|\theta^i)$. The signal could be fully informative (in which case, $P(\eta^i|\theta^i)$ is a degenerate distribution), completely uninformative (in which case, $p(\eta^i|\theta^i) = p(\eta^i|\theta^{i\prime})$ for all $\eta^i, \theta^i, \theta^{i\prime}$ in their relevant supports), or anything in between. Given her signal η^i, an individual forms a posterior $F(\cdot|\eta^i)$ about the distribution of their ability. If from the dominant group D, her expected payoff is then:

$$\mathbb{E}_\epsilon(1 - F(E_D + \Delta - \epsilon|\eta^i))(1 + \theta_D^*(1, \Delta)) + \mathbb{E}_\epsilon(F(E_D + \Delta - \epsilon|\eta^i))(0 + \theta_D^*(0, \Delta))$$

For a citizen i from the disadvantaged group, the expected payoff is:

$$\mathbb{E}_\epsilon(1 - F(E_d - \delta(\Delta) - \epsilon|\eta^i))(1 + \theta_d^*(1, \delta(\Delta))) + \mathbb{E}_\epsilon(F(E_d - \delta(\Delta) - \epsilon|\eta^i))(0 + \theta_d^*(0, \delta(\Delta)))$$

The effect of changing the thresholds for a citizen i from the dominant and disadvantaged group is, respectively:

$$\begin{aligned} &\mathbb{E}_\epsilon(F(E_D - \epsilon|\eta^i) - F(E_D + \Delta - \epsilon|\eta^i))(1 + \theta_D^*(1, \Delta) - \theta_D^*(0, \Delta)) \\ &+ \mathbb{E}_\epsilon(1 - F(E_D - \epsilon|\eta^i))(\theta_D^*(1, \Delta) - \theta_D^*(1, 0)) + \mathbb{E}_\epsilon(F(E_D - \epsilon|\eta^i))(\theta_D^*(0, \Delta) - \theta_D^*(0, 0)) \end{aligned} \tag{B.4}$$

$$\begin{aligned} &\mathbb{E}_\epsilon(F(E_d - \epsilon|\eta^i) - F(E_d - \delta(\Delta) - \epsilon|\eta^i))(1 + \theta_d^*(1, \delta(\Delta)) - \theta_d^*(0, \delta(\Delta))) \\ &+ \mathbb{E}_\epsilon(1 - F(E_d - \epsilon|\eta^i))(\theta_d^*(1, \delta(\Delta)) - \theta_d^*(1, 0)) + \mathbb{E}_\epsilon(F(E_d - \epsilon|\eta^i))(\theta_d^*(0, \delta(\Delta)) - \theta_d^*(0, 0)) \end{aligned} \tag{B.5}$$

Suppose that η^i is completely uninformative (i.e., each citizen has no private knowledge of their ability), then it is direct that Equation B.4 and Equation B.5 do not depend on the individual's ability. In other words, all individuals have the same payoff pre and post-reform. As such, I obtain:

Remark B.1. *Suppose that $p(\eta^i|\theta^i) = p(\eta^i|\theta^{i\prime})$ for all $\eta^i, \theta^i, \theta^{i\prime}$ in their relevant supports, then all citizens from group $g \in \{D, d\}$ either jointly support or jointly oppose changes to the conditions of entries into the elite.*

To describe in greater details the effect of uncertainty about ability on citizens' evaluation of the policies analyzed in this paper, I turn to a special case of the model where I assume that θ^i is normally distributed with mean 0 (without loss of generality) and variance σ_θ^2 and the random luck shock ϵ^i is normally distributed with mean zero and variance σ_ϵ^2. I further assume that the signal η^i that each citizen i receives takes the form of $\eta^i = \theta^i + \nu^i$ with $\nu^i \sim \mathcal{N}(0, \sigma_\nu^2)$. This approach is helpful to easily characterize the informativeness of an individual's signal. Indeed, by the conjugate prior property of the Normal distribution, an individual i's posterior distribution after signal η^i is $\mathcal{N}(\frac{\sigma_\theta^2}{\sigma_\theta^2+\sigma_\nu^2}\eta^i, \frac{\sigma_\theta^2\sigma_\nu^2}{\sigma_\theta^2+\sigma_\nu^2})$. As such, σ_ν^2 captures how informative i's signal is. The model studied in the main text corresponds to $\sigma_\mu^2 \to 0$ (slightly abusing notation). The case described in Remark B.1 corresponds to $\sigma_\nu^2 \to \infty$. In what follows, I suppose that $0 < \sigma_\nu^2 < \infty$.

Under the assumptions of this special case, notice first that individuals with a very high signal ($\eta^i \to \infty$) and a very low signal ($\eta^i \to -\infty$) see no change in their probability of joining the elite when changes to the entry condition into the elite are introduced. They are, respectively, certain to become elite member and sure to remain out of the elite. Those individuals always support policy reforms when they are from the dominant group (they benefit from the boost in social reputation) and always oppose quotas when they are from the disadvantaged group (they are hurt by the reputational loss). Individuals with signals close to the extremes see little changes in their chances of joining the elite due to the introduction of quotas and have the same perspective as those with infinitely high signals. So, as in the main text, only those who receive intermediary signals may have a different opinion about modifying the thresholds to ender the elite than individuals from their group with very large signals in absolute values. The question is can this division within group occurs when there is uncertainty about ability.

Proposition B.3 shows that the answer is yes when (i) luck does not play a very high part in an individual's success (in the formal language of the proposition, the variance of the luck shock must not be too large: σ_ϵ is strictly less than some threshold $\overline{\sigma}_\epsilon$) and (ii) the information individuals have about their ability cannot be too imprecise (in the formal language of the proposition, the variance of the signal σ_ν is strictly less than some threshold $\overline{\sigma}_\nu(\sigma_\epsilon)$).[3] This result is relatively intuitive, though the proof proves relatively complex. When luck plays a large role in success (i.e., its variance is large) and/or individuals know little about their ability (i.e., the signal is very imprecise), a small change in the threshold to join the elite will have little effect on individuals' evaluations of their chances of becoming an elite member. As such, they mostly consider the change in their social reputation, which goes in the same direction no matter their social status. Hence, in a setting with luck being much important and citizens not knowing much about their own ability, all members of the dominant group are likely to approve of a change to the thresholds for joining the elite and all members of the disadvantaged group rejects it. In contrast, when luck is not too important and citizens' knowledge of themselves is not too imprecise, then we recover a split within each group with the ends against the middle. As such, the result in the main text (Proposition 2) does not require individuals to know their ability, but still hold when the uncertainty about their own θ^i is not too large, at least for the special case of normally distributed ability, shock, and signals.

Proposition B.3. *There exist $\overline{\sigma}_\epsilon$ such that if $\sigma_\epsilon < \overline{\sigma}_\epsilon$, there exists $\overline{\sigma}_\nu(\sigma_\epsilon) > 0$ such that there exist unique finite η_D^l, η_D^h satisfying $\frac{\partial W_D(\eta^i,\Delta)}{\partial \Delta} < 0$ for all $\eta^i \in (\eta_D^l, \eta_D^h)$ and $\frac{\partial W_D(\eta^i,\Delta)}{\partial \Delta} \geq 0$ for all $\eta^i \notin (\eta_D^l, \eta_D^h)$ if and only if $\sigma_\nu < \overline{\sigma}_\nu(\epsilon)$.*
There exist $\widehat{\sigma}_\epsilon$ such that if $\sigma_\epsilon < \widehat{\sigma}_\epsilon$, there exists $\widehat{\sigma}_\nu(\sigma_\epsilon) > 0$ such that there exist unique finite η_d^l, η_d^h satisfying $\frac{\partial W_d(\eta^i,\delta)}{\partial \delta} > 0$ for all $\eta^i \in (\eta_d^l, \eta_d^h)$ and $\frac{\partial W_D(\eta^i,\delta)}{\partial \delta} \leq 0$ for all $\eta^i \notin (\eta_d^l, \eta_d^h)$ if and only if $\sigma_\nu < \widehat{\sigma}_\nu(\epsilon)$.

Proof. Consider an individual from the dominant group D with signal η^i. Notice that given the properties of the normal distribution, we obtain that $\theta^i + \epsilon^i|\eta^i \sim \mathcal{N}(\frac{\sigma_\theta^2}{\sigma_\theta^2+\sigma_\nu^2}\eta^i, \frac{\sigma_\theta^2\sigma_\nu^2}{\sigma_\theta^2+\sigma_\nu^2} + \sigma_\epsilon^2)$. As it is common, I use $\Phi(\cdot)$ and $\phi(\cdot)$ to denote respectively the CDF and pdf of the standard normal distribution. Denote $V^2 = \frac{\sigma_\theta^2\sigma_\nu^2}{\sigma_\theta^2+\sigma_\nu^2} + \sigma_\epsilon^2$, the

[3] When the first condition fails, it is possible that we end up in one of the extreme cases detailed in the proof of Proposition 2 even when ability is known.

expected payoff of this individual is:

$$W_D(\eta^i,\Delta) = \left(1-\Phi\left(\frac{E_D+\Delta-\frac{\sigma_\theta^2}{\sigma_\theta^2+\sigma_\nu^2}\eta^i}{V}\right)\right)\left(1+\theta_D^*(1,\Delta)\right)+\Phi\left(\frac{E_D+\Delta-\frac{\sigma_\theta^2}{\sigma_\theta^2+\sigma_\nu^2}\eta^i}{V}\right)\left(0+\theta_D^*(0,\Delta)\right) \tag{B.6}$$

Taking the derivative with respect to Δ, I obtain:

$$\frac{\partial W_D(\eta^i,\Delta)}{\partial\Delta} = -\frac{1}{V}\phi\left(\frac{E_D+\Delta-\frac{\sigma_\theta^2}{\sigma_\theta^2+\sigma_\nu^2}\eta^i}{V}\right)\left(1+\theta_D^*(1,\Delta)-\theta_D^*(0,\Delta)\right)+\left(1-\Phi\left(\frac{E_D+\Delta-\frac{\sigma_\theta^2}{\sigma_\theta^2+\sigma_\nu^2}\eta^i}{V}\right)\right)\frac{\partial\theta_D^*(1,\Delta)}{\partial\Delta}+\Phi\left(\frac{E_D+\Delta-\frac{\sigma_\theta^2}{\sigma_\theta^2+\sigma_\nu^2}\eta^i}{V}\right)\frac{\partial\theta_D^*(0,\Delta)}{\partial\Delta}$$

Observe that as $\eta^i\to\infty$, we obtain $\frac{\partial W_D(\eta^i,\Delta)}{\partial\Delta}>0$ (since $\phi\left(\frac{E_D+\Delta-\frac{\sigma_\theta^2}{\sigma_\theta^2+\sigma_\nu^2}\eta^i}{V}\right)\to 0$ and $\Phi\left(\frac{E_D+\Delta-\frac{\sigma_\theta^2}{\sigma_\theta^2+\sigma_\nu^2}\eta^i}{V}\right)\to 0$). Similarly, as $\eta^i\to-\infty$, we obtain $\frac{\partial W_D(\eta^i,\Delta)}{\partial\Delta}>0$ (since $\phi\left(\frac{E_D+\Delta-\frac{\sigma_\theta^2}{\sigma_\theta^2+\sigma_\nu^2}\eta^i}{V}\right)\to 0$ and $\Phi\left(\frac{E_D+\Delta-\frac{\sigma_\theta^2}{\sigma_\theta^2+\sigma_\nu^2}\eta^i}{V}\right)\to 1$). This corresponds to the observation made in the text.

Now consider how the derivative of $W_D(\eta^i,\Delta)$ wrt to Δ varies with signal η^i:

$$\begin{aligned}\frac{\partial^2 W_D(\eta^i,\Delta)}{\partial\Delta\partial\eta^i} =& \frac{\frac{\sigma_\theta^2}{\sigma_\theta^2+\sigma_\nu^2}}{V^2}\phi'\left(\frac{E_D+\Delta-\frac{\sigma_\theta^2}{\sigma_\theta^2+\sigma_\nu^2}\eta^i}{V}\right)\left(1+\theta_D^*(1,\Delta)-\theta_D^*(0,\Delta)\right)\\ &+\frac{\frac{\sigma_\theta^2}{\sigma_\theta^2+\sigma_\nu^2}}{V}\phi\left(\frac{E_D+\Delta-\frac{\sigma_\theta^2}{\sigma_\theta^2+\sigma_\nu^2}\eta^i}{V}\right)\left(\frac{\partial\theta_D^*(1,\Delta)}{\partial\Delta}-\frac{\partial\theta_D^*(0,\Delta)}{\partial\Delta}\right)\end{aligned}$$

Using the properties of the normal distribution ($\phi'(x)=-x\phi(x)$), I obtain after rearranging that $\frac{\partial^2 W_D(\eta^i,\Delta)}{\partial\Delta\partial\eta^i}$ has the same sign as:

$$-\frac{E_D+\Delta-\frac{\sigma_\theta^2}{\sigma_\theta^2+\sigma_\nu^2}\eta^i}{V^2}\left(1+\theta_D^*(1,\Delta)-\theta_D^*(0,\Delta)\right)+\left(\frac{\partial\theta_D^*(1,\Delta)}{\partial\Delta}-\frac{\partial\theta_D^*(0,\Delta)}{\partial\Delta}\right)$$

Since the equation above is linear and strictly increasing in η^i, it is clear that there exists a unique $\eta^0(\sigma_\nu^2)$ so that $\frac{\partial^2 W_D(\eta^i,\Delta)}{\partial\Delta\partial\eta^i}$ is strictly negative (positive) for all $\eta^i<(>)\eta^0(\sigma_\nu^2)$.

Based on this observation, $\frac{\partial W_D(\eta^i,\Delta)}{\partial\Delta}$ reaches a minimum at $\eta^i=\eta^0(\sigma_\nu^2)$. Further, we have: $\frac{E_D+\Delta-\frac{\sigma_\theta^2}{\sigma_\theta^2+\sigma_\nu^2}\eta^0}{V} = V\frac{\frac{\partial\theta_D^*(1,\Delta)}{\partial\Delta}-\frac{\partial\theta_D^*(0,\Delta)}{\partial\Delta}}{1+\theta_D^*(1,\Delta)-\theta_D^*(0,\Delta)}$. Hence,

$$\begin{aligned}\frac{\partial W_D(\eta^0,\Delta)}{\partial\Delta} = \mathcal{W}_D(V) =& -\frac{1}{V}\phi\left(V\frac{\frac{\partial\theta_D^*(1,\Delta)}{\partial\Delta}-\frac{\partial\theta_D^*(0,\Delta)}{\partial\Delta}}{1+\theta_D^*(1,\Delta)-\theta_D^*(0,\Delta)}\right)\left(1+\theta_D^*(1,\Delta)-\theta_D^*(0,\Delta)\right)\\ &+\left(1-\Phi\left(V\frac{\frac{\partial\theta_D^*(1,\Delta)}{\partial\Delta}-\frac{\partial\theta_D^*(0,\Delta)}{\partial\Delta}}{1+\theta_D^*(1,\Delta)-\theta_D^*(0,\Delta)}\right)\right)\frac{\partial\theta_D^*(1,\Delta)}{\partial\Delta}\\ &+\Phi\left(V\frac{\frac{\partial\theta_D^*(1,\Delta)}{\partial\Delta}-\frac{\partial\theta_D^*(0,\Delta)}{\partial\Delta}}{1+\theta_D^*(1,\Delta)-\theta_D^*(0,\Delta)}\right)\frac{\partial\theta_D^*(0,\Delta)}{\partial\Delta}\end{aligned} \tag{B.7}$$

We then have (the derivative with respect to V should be understood as varying σ_ν^2)

$$\begin{aligned}
\mathcal{W}_D'(V) =& \frac{1}{V^2}\phi\left(V\frac{\frac{\partial\theta_D^*(1,\Delta)}{\partial\Delta}-\frac{\partial\theta_D^*(0,\Delta)}{\partial\Delta}}{1+\theta_D^*(1,\Delta)-\theta_D^*(0,\Delta)}\right)(1+\theta_D^*(1,\Delta)-\theta_D^*(0,\Delta)) \\
&-\frac{\frac{\partial\theta_D^*(1,\Delta)}{\partial\Delta}-\frac{\partial\theta_D^*(0,\Delta)}{\partial\Delta}}{V}\phi'\left(V\frac{\frac{\partial\theta_D^*(1,\Delta)}{\partial\Delta}-\frac{\partial\theta_D^*(0,\Delta)}{\partial\Delta}}{1+\theta_D^*(1,\Delta)-\theta_D^*(0,\Delta)}\right) \\
&-\frac{\left(\frac{\partial\theta_D^*(1,\Delta)}{\partial\Delta}-\frac{\partial\theta_D^*(0,\Delta)}{\partial\Delta}\right)^2}{1+\theta_D^*(1,\Delta)-\theta_D^*(0,\Delta)}\phi\left(V\frac{\frac{\partial\theta_D^*(1,\Delta)}{\partial\Delta}-\frac{\partial\theta_D^*(0,\Delta)}{\partial\Delta}}{1+\theta_D^*(1,\Delta)-\theta_D^*(0,\Delta)}\right) \\
\mathcal{W}_D'(V) =& \frac{1}{V^2}\phi\left(V\frac{\frac{\partial\theta_D^*(1,\Delta)}{\partial\Delta}-\frac{\partial\theta_D^*(0,\Delta)}{\partial\Delta}}{1+\theta_D^*(1,\Delta)-\theta_D^*(0,\Delta)}\right)(1+\theta_D^*(1,\Delta)-\theta_D^*(0,\Delta)) \\
&+\frac{\frac{\partial\theta_D^*(1,\Delta)}{\partial\Delta}-\frac{\partial\theta_D^*(0,\Delta)}{\partial\Delta}}{V}\times V\frac{\frac{\partial\theta_D^*(1,\Delta)}{\partial\Delta}-\frac{\partial\theta_D^*(0,\Delta)}{\partial\Delta}}{1+\theta_D^*(1,\Delta)-\theta_D^*(0,\Delta)}\phi\left(V\frac{\frac{\partial\theta_D^*(1,\Delta)}{\partial\Delta}-\frac{\partial\theta_D^*(0,\Delta)}{\partial\Delta}}{1+\theta_D^*(1,\Delta)-\theta_D^*(0,\Delta)}\right) \\
&-\frac{\left(\frac{\partial\theta_D^*(1,\Delta)}{\partial\Delta}-\frac{\partial\theta_D^*(0,\Delta)}{\partial\Delta}\right)^2}{1+\theta_D^*(1,\Delta)-\theta_D^*(0,\Delta)}\phi\left(V\frac{\frac{\partial\theta_D^*(1,\Delta)}{\partial\Delta}-\frac{\partial\theta_D^*(0,\Delta)}{\partial\Delta}}{1+\theta_D^*(1,\Delta)-\theta_D^*(0,\Delta)}\right) \\
=& \frac{1}{V^2}\phi\left(V\frac{\frac{\partial\theta_D^*(1,\Delta)}{\partial\Delta}-\frac{\partial\theta_D^*(0,\Delta)}{\partial\Delta}}{1+\theta_D^*(1,\Delta)-\theta_D^*(0,\Delta)}\right)(1+\theta_D^*(1,\Delta)-\theta_D^*(0,\Delta)) > 0
\end{aligned}$$

Recall that $V^2 = \frac{\sigma_\theta^2\sigma_\nu^2}{\sigma_\theta^2+\sigma_\nu^2}+\sigma_\epsilon^2$, so the lowest value V can take as we vary the informativeness of the signal is $V = \sigma_\epsilon$. Using Equation B.7, after noting that $\lim_{\sigma_\epsilon\to 0}\mathcal{W}_D(\sigma_\epsilon) = -\infty$ and $\lim_{\sigma_\epsilon\to\infty}\mathcal{W}_D(\sigma_\epsilon) > 0$ ($\frac{1}{\sigma_\epsilon}\phi\left(\sigma_\epsilon\frac{\frac{\partial\theta_D^*(1,\Delta)}{\partial\Delta}-\frac{\partial\theta_D^*(0,\Delta)}{\partial\Delta}}{1+\theta_D^*(1,\Delta)-\theta_D^*(0,\Delta)}\right)$ goes to 0 as σ_ϵ goes to infinity and $\Phi\left(\sigma_\epsilon\frac{\frac{\partial\theta_D^*(1,\Delta)}{\partial\Delta}-\frac{\partial\theta_D^*(0,\Delta)}{\partial\Delta}}{1+\theta_D^*(1,\Delta)-\theta_D^*(0,\Delta)}\right)$ goes to zero or one depending on the sign of $\frac{\partial\theta_D^*(1,\Delta)}{\partial\Delta}-\frac{\partial\theta_D^*(0,\Delta)}{\partial\Delta}$). Hence, there exists a $\overline{\sigma}_\epsilon$ such that $\mathcal{W}_D(\sigma_\epsilon)$ is strictly positive (negative) whenever $\sigma_\epsilon < \overline{\sigma}_\epsilon$. Combining this with the properties of $\frac{\partial^2 W_D(\eta^i,\Delta)}{\partial\Delta\partial\eta^i}$ (strictly negative (positive) for all $\eta^i < (>)\eta^0(\sigma_\nu^2)$) and $\mathcal{W}_D(V)$, we obtain that if $\sigma_\epsilon < \overline{\sigma}_\epsilon$, then there exists a unique $\overline{\sigma}_\nu(\sigma_\epsilon)$ so that:

1. If $\sigma_\nu \geq \overline{\sigma}_\nu(\sigma_\epsilon)$, such that $\frac{\partial W_D(\eta^i,\Delta)}{\partial\Delta} > 0$ for all η^i,
2. If $\sigma_\nu < \overline{\sigma}_\nu(\sigma_\epsilon)$, then there exists $\eta_D^l, \eta_D^h \in (-\infty,\infty)^2$ with $\eta_D^l < \eta_D^h$ such that $\frac{\partial W_D(\eta^i,\Delta)}{\partial\Delta} < 0$ for all $\eta^i \in (\eta_D^l, \eta_D^h)$ and $\frac{\partial W_D(\eta^i,\Delta)}{\partial\Delta} \geq 0$ for all $\eta^i \notin (\eta_D^l, \eta_D^h)$.

A similar reasoning applies for members of the dominated group. □

C Additional formal results

C.1 Endogenous messages

In this appendix, I return to the baseline model with uncertainty about the thresholds . I suppose that the signal individuals receive is not exogenous, but consists of a message sends by a possibly strategic sender. I am interested in comparing how individuals react to messages coming from senders who share their group identity (in-group senders) and senders who come from the opposite group (out-group senders).

As noted in the main text, I build on Alonso and Padro i Miquel (2023) and I assume that individuals receive a message $m \in [\underline{z}, \overline{z}]$ sent by an individual from group $g \in \{d, D\}$ who can either be honest (type $\tau = H$) or biased (type $\tau = B$). A honest sender observes z and always discloses it: $m(z) = z$. A biased sender does not observe z and only seeks to maximize the average social reputation of non-elite members from his group. Denote $\theta_g^*(s^i, \theta^i|m, G)$ the social reputation of an individual i from group $g \in \{d, D\}$, with social status $s^i \in \{0,1\}$ and ability θ^i conditional on receiving message $m \in [\underline{z}, \overline{z}]$ from a sender from group $G \in \{d, D\}$ and $\theta_g^*(s^i|m, G)$ the associated average social reputation. A biased sender's payoff is equal to: $\theta_g^*(0|m, g)$.

The type of the sender is his private information and I assume that there is a probability π that the sender is honest. The public signal z has the same property as in the main text. It is distributed over the interval $[\underline{z}, \overline{z}]$ with CDF and associated pdf conditional on the E_D (the realized threshold for group D): $Z(\cdot|E_D)$ and $\zeta(\cdot|E_D)$, respectively. The conditional distributions satisfy the strict monotone likelihood ration property:

$\frac{\zeta(z|E_D^h)}{\zeta(z'|E_D^h)} > \frac{\zeta(z|E_D^l)}{\zeta(z'|E_D^l)}$ for all $z > z'$, $E_D^h > E_D^l$. To facilitate the exposition, I assume that the distribution $\zeta(\cdot|E)$ contains a an uninformative signal z^u such that for all $E_D \neq E_D'$, $\zeta(z^u|E_D) = \zeta(z^u|E_D')$.

The extended game proceeds as follows: Nature determines the realization of all random variables: each individual's ability θ^i, each citizen's luck ϵ^i, the entry thresholds into the elite E_D and E_d, the public signal z, and the type of the sender $\tau \in \{B, H\}$. The sender observes z if $\tau = H$ and nothing otherwise. The sender sends a message $m \in [\underline{z}, \overline{z}]$. Citizens in each group $g \in \{D, d\}$ with $\theta^i + \epsilon^i$ above the threshold E_g become elite members. Individuals observe the message m, their ability, and their social status, and compute their social reputation. Payoffs are realized.

Before proceeding to the analysis, let me explain why a biased sender maximizes the average social reputation of the non-elite members of his own group. To establish the strategies of a biased sender, it is helpful that this sender targets only one particular social reputation. I assume it is the average social reputation of the non-elite members since it seems in line with recent political events, but it could have been the elite members instead. As we will see, this also helps all individuals with the same group identity. As a result, this assumption on the objective of the biased sender appears to be without loss of generality.

To gain intuition on this extended model, let's consider individuals from the dominant group. First, let's assume that the sender is also from the dominant group. Using the notation introduces above, if the sender was known to be honest, then $\theta_D^*(s^i, \theta^i|m(z), D) = \theta_D^*(s^i, \theta^i|z)$, just like in the main text. If the sender is known to be biased, then the message is obviously completely uninformative and $\theta_D^*(s^i, \theta^i|m(z), D) = \theta_D^*(s^i, \theta^i)$, the expected social reputation absent any additional information. When there is uncertainty about the type, as Alonso and Padro i Miquel (2023) show, the biased sender can influence beliefs and, therefore, social reputation. Building on Alonso and Padro i Miquel (2023), I describe an equilibrium in which a biased sender only sends messages satisfying $m \geq z_D^B$.

First, note that all messages $m \geq z_D^B$ must induce the same average social reputation. Suppose not and there exists $m \geq z_D^B$ that maximizes the average social reputation of non-elite members from the dominant group (recall that this is the target audience of the biased sender by assumption). That is, $\theta_D^*(0|m, D) > \theta_D^*(0|m', D)$ for all $m' \neq m$. Then, the biased sender would only send message m, which would yield $\theta_D^*(0|m, D) < \theta_D^*(0|\hat{m}, D)$ for some $\hat{m}$ close enough to m, a contradiction. Further, if there exists one message m' such that $\theta_D^*(0|m, D) > \theta_D^*(0|m', D)$ for all $m \neq m'$, then the sender would never send message m' and the expected social reputation associated with m' would satisfy $\theta_D^*(0|m, D) < \theta_D^*(0|m', D)$, a contradiction. If all messages sent by a biased sender yield the same average social reputation, we must have $\theta_D^*(0|m, D) = \theta_D^*(0|z_D^B, D)$ for all $m \geq z_D^B$. Second, it must be that the biased sender prefers to send a message $m \geq z_D^B$ to any message $m < z_D^B$. Notice that given the strategy of the biased sender, any message $m' < z_D^B$ yields reputation $\theta_D^*(0|m', D)$ since the individuals believe that it can only be sent by a honest sender. If there exists m' such that $\theta_D^*(0|m', D) > \theta_D^*(0|z_D^B, D)$, the biased sender would deviate to message m', a contradiction.

Based on these observations, we can define the threshold z_D^B of the biased sender's strategy. Importantly, since there is always the possibility that a message $m > z_D^B$ is sent by a honest sender, the threshold z_D^B satisfies: $\theta_D^*(0|z_D^B, D) > \theta_D^*(0) \Leftrightarrow z_D^B > z^u$ (recall from Proposition 1 that for all $z > z^u$, social reputation increases for all individuals from the dominant group). In other words, individuals update positively on their expected social reputation after a high message even though they know that this high message may be sent by a biased sender. On the other end, if individuals from the dominant group receive a low message from an in-group sender (i.e., $m < z^u$), they update very negatively.

The analysis is quite obviously reversed for a sender from the disadvantaged group. A biased sender from the disadvantaged group sends message $m \leq z_d^B$ with the threshold z_d^B satisfying $z_d^B < z^u$. As such, members of the dominant group update slightly negatively after observing message $m \leq z_d^B$ since they take into account that such message can be sent by a biased sender. In turn, they would update very positively for all messages $m > z^u$ since they rightly understand that only an unbiased sender from the disadvantaged group sends such message.

As such, the analysis of this section reveals a few patterns. Messages matter for social reputation even if individuals rightly anticipate that some messages should be taken with a dose of skepticism. Second, how individuals update following a message depends on the identity of the sender, exactly because of this healthy skepticism. Fixing a message m, the expected social reputation of individuals from the dominant (disadvantaged) group is always weakly lower (weakly higher) after m if the sender is from the dominant group rather than the disadvantaged group. This plays a particular role for low message ($m < z_d^B$). In this case, the dominant group individuals would only update slightly negatively about their social reputation when the sender is from the disadvantaged group because there is a risk (or a hope) the sender is biased. However, their social reputation decreases massively after the same message from a sender of the dominant group as such message can only come from a honest sender. This extension, therefore, indicates that negative messages (in the sense that $m < z_d^B$) are to be expected from individuals of the disadvantaged group, but are perceived as a form of treason when they come from members of the dominant group.

The next proposition summarizes the findings of this section. To state it (and prove it), recall that I denote $\theta_g^*(s^i, \theta^i | m, G)$ the social reputation of an individual i from group $g \in \{d, D\}$, social status $s^i \in \{0, 1\}$ and ability θ^i conditional on receiving message $m \in [\underline{z}, \overline{z}]$ from a sender from group $G \in \{d, D\}$. From the main text, recall that $\theta_g^*(s^i, \theta^i | z)$ is the social reputation when the signal is known to be z and $\theta_g^*(s^i, \theta^i)$ is the expected social reputation absent any additional information.

Proposition C.1. *There exist unique z_d^B, z_D^B satisfying $\underline{z} < z_d^B < z^u < z_D^B < \overline{z}$ such that:*

- *For all $m > z_D^B$, $\theta_D^*(s^i, \theta^i) < \theta_D^*(s^i, \theta^i | m, D) < \theta_D^*(s^i, \theta^i | m, d) = \theta_D^*(s^i, \theta^i | m)$ and $\theta_d^*(s^i, \theta^i) > \theta_d^*(s^i, \theta^i | m, D) > \theta_d^*(s^i, \theta^i | m, d) = \theta_d^*(s^i, \theta^i | m)$.*
- *For all $m < z_d^B$, $\theta_D^*(s^i, \theta^i) > \theta_D^*(s^i, \theta^i | m, d) > \theta_D^*(s^i, \theta^i | m, D) = \theta_D^*(s^i, \theta^i | m)$ and $\theta_d^*(s^i, \theta^i) < \theta_d^*(s^i, \theta^i | m, d) < \theta_d^*(s^i, \theta^i | m, D) = \theta_d^*(s^i, \theta^i | m)$.*
- *For $m \in [z_d^B, z_D^B]$, $\theta_g^*(s^i, \theta^i | m, D) = \theta_g^*(s^i, \theta^i | m, d) = \theta_g^*(s^i, \theta^i | m)$ for $g \in \{d, D\}$.*

Proof. To state the proof, it is useful to add some additional pieces of notation. Let $\theta_g^*(s^i, \theta^i | m, G, \tau)$ be the expected social reputation of an individual i from group $g \in \{d, D\}$, social status $s^i \in \{0, 1\}$, type θ^i conditional on receiving message $m \in [\underline{z}, \overline{z}]$ from a sender from group $G \in \{d, D\}$ whose type is known to be $\tau \in \{H, B\}$. Obviously, $\theta_g^*(s^i, \theta^i | m, G, H) = \theta_g^*(s^i, \theta^i | m)$ and $\theta_g^*(s^i, \theta^i | m, G, B) = \theta_g^*(s^i, \theta^i)$. Further, let $Z(z)$ be the unconditional CDF of z and $\zeta(z)$ its associated pdf. Finally, let $\rho_G^B(m)$ be the pdf of the distribution of messages m is sent by a biased sender from group G.
To find the thresholds and their properties, I follow quite closely the proof of Proposition 1 in Alonso and Padro i Miquel (2023). There are a few differences worth stressing nonetheless. First, Alonso and Padro i Miquel (2023) consider biased senders who want to affect the posterior about a state of the world. In turn, I suppose that a biased sender from group G wants to maximize the average social reputation of non-elite members from his own group. Given the nature of the signal, this is equivalent to influence beliefs about z. Second, in Alonso and Padro i Miquel (2023), the receiver does not know whether the sender is biased in favour of one or the other state of the world. Here, I assume that the sender is biased in favour of its own group. This is without loss of generality since biased senders always send different signals in Alonso and Padro i Miquel (2023).
Consider a sender from group D. After observing message m, the average social reputation of individuals with status $s \in \{0, 1\}$ takes value:

$$\begin{aligned}
\theta_g^*(s|m, D) =& \frac{\pi\zeta(m)}{\pi\zeta(m) + (1-\pi)\rho_D^B(m)} \theta_g^*(s|m, D, H) + \frac{(1-\pi)\rho_D^B(m)}{\pi\zeta(m) + (1-\pi)\rho_D^B(m)} \theta_g^*(s|m, D, B) \\
=& \frac{\pi\zeta(m)}{\pi\zeta(m) + (1-\pi)\rho_D^B(m)} \theta_g^*(s|m) + \frac{(1-\pi)\rho_D^B(m)}{\pi\zeta(m) + (1-\pi)\rho_D^B(m)} \theta_g^*(s) \qquad \text{(C.1)}
\end{aligned}$$

From Equation C.1, it can be seen that if m is such that $\theta_D^*(0|m, D) > \theta_D^*(0|m', D)$ for all $m' \neq m$, the biased sender's strategy is degenerate and always sends message m so that $\theta_D^*(0|m, D) = \frac{\pi\zeta(m)}{\pi\zeta(m)+(1-\pi)} \theta_D^*(0|m) + \frac{(1-\pi)}{\pi\zeta(m)+(1-\pi)} \theta_D^*(0)$. For any other m', $\theta_D^*(0|m', D) = \theta_D^*(0|m')$. It is immediate that for m' close enough to m if $m > z^u$ or for any $m > z^u$ if $m < z^u$, we have $\theta_D^*(0|m', D) > \theta_D^*(0|m, D)$, a contradiction. Notice that this directly implies $z_D^B < \overline{z}$. A similar reasoning explains why a biased sender's support contains all messages satisfying $m \geq z_D^B$ and why $\theta_D^*(0|m, D) = \theta_D^*(0|m', D) = \theta_D^*(0|z_D^B, D)$ for all $m, m' \geq z_D^B$, with a similar equality holding for the disadvantaged group.
As a result, for all $m \geq z_D^B$, we obtain from Equation C.1

$$\begin{aligned}
\theta_D^*(0|z_D^B, D) =& \frac{\pi\zeta(m)}{\pi\zeta(m) + (1-\pi)\rho_D^B(m)} \theta_D^*(0|m) + \frac{(1-\pi)\rho_D^B(m)}{\pi\zeta(m) + (1-\pi)\rho_D^B(m)} \theta_D^*(0) \\
\Leftrightarrow (1-\pi)\rho_D^B(m)(\theta_D^*(0|z_D^B, D) - \theta_D^*(0)) =& \pi\zeta(m)(\theta_D^*(0|m) - \theta_D^*(0|z_D^B, D)) \qquad \text{(C.2)}
\end{aligned}$$

Integrating Equation C.2 for all $m \geq z_D^B$, I obtain:

$$(1-\pi)(\theta_D^*(0|z_D^B, D) - \theta_D^*(0)) = \pi \int_{z_D^B}^{\overline{z}} \theta_D^*(0|m) - \theta_D^*(0|z_D^B, D) dZ(m) \tag{C.3}$$

Equation C.3 determines the unique z_D^B (using the same steps as in Proposition 1, it can be shown that $\theta_D^*(s^i|z)$ is strictly increasing with z and so is $\theta_D^*(0|z, D)$ by Equation C.1). Notice further that $z_D^B > z^u$ (otherwise the left-hand side is zero and the right-hand side is strictly positive).

Now given the properties of social reputation, the average social reputation of individuals from group g with status $s \in \{0,1\}$ is: $\theta_g^*(s|z_D^B, D)$ for all $m \geq z_D^B$ and $\theta_g^*(s|m, D) = \theta_g^*(s|m)$ for all $m < z_D^B$, with z_D^B defined by Equation C.3.

Taking a sender from the disadvantaged group and applying the same reasoning, I obtain that a biased sender sends message $m \leq z_d^B \in (\underline{z}, z^u)$ with the threshold defined by $(1-\pi)(\theta_d^*(0|z_d^B, d) - \theta_d^*(0)) = \pi \int_{\underline{z}}^{z_d^B} \theta_d^*(0|m) - \theta_d^*(0|z_d^B, d)dZ(m)$. As a result, the average social reputation of individuals from group g with status $s \in \{0,1\}$ is: $\theta_g^*(s|z_d^B, d)$ for all $m \leq z_d^B$ and $\theta_g^*(s|m, d) = \theta_g^*(s|m)$ for all $m > z_d^B$.

Given the relationship between the social reputations of the two groups (see the proof of Proposition 1) and Equation C.2, we necessarily have for all $s \in \{0,1\}$:

- For all $m > z_D^B$, $\theta_D^*(s) < \theta_D^*(s|m, D) < \theta_D^*(s|m, d) = \theta_D^*(s|m)$ and $\theta_d^*(s) > \theta_d^*(s|m, D) > \theta_d^*(s|m, d) = \theta_d^*(s|m)$.
- For all $m < z_d^B$, $\theta_D^*(s) > \theta_D^*(s|m, d) > \theta_D^*(s|m, D) = \theta_D^*(s|m)$ and $\theta_d^*(s) < \theta_d^*(s|m, d) < \theta_d^*(s|m, D) = \theta_d^*(s|m)$.
- For $m \in [z_d^B, z_D^B]$, $\theta_g^*(s|m, D) = \theta_g^*(s|m, d) = \theta_g^*(s|m)$ for $g \in \{d, D\}$.

To finish the proof, note that for an individual from group $g \in \{d, D\}$ with ability θ^i and status s^i, we can write the social reputation after message m from a sender from the dominant group as:

$$\begin{aligned}
\theta_g^*(s^i, \theta^i|m, D) =& \frac{\pi\zeta(m)}{\pi\zeta(m) + (1-\pi)\rho_D^B(m)} \theta_g^*(s^i, \theta^i|m) + \frac{(1-\pi)\rho_D^B(m)}{\pi\zeta(m) + (1-\pi)\rho_D^B(m)} \theta_g^*(s^i, \theta^i) && \text{if } m \geq z_D^B \\
\theta_g^*(s^i, \theta^i|m, D) =& \theta_g^*(s^i, \theta^i|m) && \text{if } m < z_D^B
\end{aligned}$$

In turn, when the sender is from the disadvantaged group, the expected social reputation of the same individual after message m is:

$$\begin{aligned}
\theta_g^*(s^i, \theta^i|m, d) =& \frac{\pi\zeta(m)}{\pi\zeta(m) + (1-\pi)\rho_d^B(m)} \theta_g^*(s^i, \theta^i|m) + \frac{(1-\pi)\rho_d^B(m)}{\pi\zeta(m) + (1-\pi)\rho_d^B(m)} \theta_g^*(s^i, \theta^i) && \text{if } m \leq z_d^B \\
\theta_g^*(s^i, \theta^i|m, d) =& \theta_g^*(s^i, \theta^i|m) && \text{if } m > z_d^B
\end{aligned}$$

Since $z_D^B > z^u > z_d^B$, it must be that for all $m > z_D^B$, $\theta_D^*(s^i, \theta^i|m) > \theta_D^*(s^i, \theta^i)$ so that $\theta_D^*(s^i, \theta^i|m, d) = \theta_D^*(s^i, \theta^i|m) > \theta_D^*(s^i, \theta^i|m, D)$. In turn, for all $m < z_d^B$, then $\theta_D^*(s^i, \theta^i|m) < \theta_D^*(s^i, \theta^i)$ so that $\theta_D^*(s^i, \theta^i|m, D) = \theta_D^*(s^i, \theta^i|m) < \theta_D^*(s^i, \theta^i|m, d)$. For all $m \in (z_d^B, z_d^B)$, the expected social reputation satisfies: $\theta_D^*(s^i, \theta^i|m, d) = \theta_D^*(s^i, \theta^i|m, d) = \theta_D^*(s^i, \theta^i|m)$. By continuity, the equality must also be true at $m = z_D^B$ and $m = z_d^B$. Since we know that the social reputation of members of the disadvantaged group moves in the opposite direction, we obtain the result. □

C.2 Uncertainty about the distribution of abilities

In this last formal supplementary appendix, I sketch a simpler model with uncertainty about the distribution of abilities in the dominant group. I assume that ability in group $g \in \{d, D\}$ is uniformly distributed over the interval $[-\overline{\theta} + k_g, \overline{\theta} + k_g]$, with $\overline{\theta} > 1$. I further assume that while $k_d = 0$ is common knowledge, k_D is uncertain. However, it is commonly known that $k_D \in \{0, D\}$ with $0 < D < 1$ and $Pr(k_D = D) = \pi$. As such, the distribution of ability among the dominant group is either equal to that of the disadvantaged group or higher. There is, thus, a possibility that the dominant group is more deserving than the disadvantaged group.

Of course, this better distribution of skills may be due to past discrimination, but for my concern, I take it as given.

I make a few further assumptions to facilitate the analysis: (i) the distribution of the threshold $\widetilde{E}_D$ takes two values: $\widetilde{E}_D \in \{0, 1\}$ with $Pr(\widetilde{E}_D = 1) = \gamma$, (ii) individuals do not know their ability, and (iii) luck plays no role.[4] In turn, like in the main model, the size of the elite is known, whereas the threshold for the disadvantaged group is not.

Under the assumptions above, the proportion of dominant group members that make it into the elite can take one of four values:

- $P_1 = \frac{\bar{\theta}+D}{2\bar{\theta}}$ if $k_D = D$ and $E_D = 0$ (i.e., with probability $\pi(1-\gamma)$),
- $P_2 = \frac{1}{2}$ if $k_D = 0$ and $E_D = 0$ (i.e., with probability $(1-\pi)(1-\gamma)$),
- $P_3 = \frac{\bar{\theta}+D-1}{2\bar{\theta}}$ if $k_D = D$ and $E_D = 1$ (i.e., with probability $\pi\gamma$),
- $P_4 = \frac{\bar{\theta}-1}{2\bar{\theta}}$ if $k_D = 0$ and $E_D = 1$ (i.e., with probability $(1-\pi)\gamma$).

These proportions are ranked as: $P_1 > P_2 > P_3 > P_4$. Each proportion, you will notice, is associated with a different threshold for the disadvantaged group which I can rank as $E_d^1 > E_d^2 > E_d^3 > E_d^4$.

In this setting, we can think of two types of public signal that still maintain some uncertainty about the distribution of abilities in the dominant group. The first is a public message that reveals members from group D constitute strictly more than $\alpha P_4/e$. I call this signal z_1. The second message is that members from group D constitute strictly more than $\alpha P_3/e$ of the elite. I label this signal z_2.

Absent any information, individuals evaluate an elite member from group D based on the chances a high-ability individual makes it to the elite relative to a low-ability one across the four events above, which can broadly be summarized as high/low share of high-ability individuals, easy/hard threshold to reach to join the elite. With the first signal (z_1), everyone knows that it is not possible to have simultaneously a distribution of ability in the dominant group equal to the distribution in the disadvantaged group and a hard threshold for joining the elite. Hence, signal z_1 provides both good news (regarding the distribution of types) and bad news (regarding the threshold) for the social reputation of individuals from group D. Good news dominates when the gain from putting more weight on a better distribution of ability in the dominant group, which is proportional to πD , is higher than the loss from the higher chances of an easy threshold, which is proportional to $(1-\gamma) \times 1$. As such, uncertainty about abilities can serve as an "excuse" to actually improve the social reputation of the dominant group only if the disadvantaged group is viewed as sufficiently undeserving (in term of probability or differences in ability).

In turn, it is easy to see why signal z_2 necessarily hurts the social reputation of group-D members. After observing z_2, every citizen faces uncertainty about the distribution of types, but all know that the threshold for entering the elite for individuals from the dominant group is low ($\widetilde{E}_D = 0$). Hence, the social reputation of group-D citizens necessarily decrease relative to a setting with no information.

Notice that after information z_1 or z_2, the social reputation of individuals from the disadvantaged group necessarily increase. This signal indicates that more weight should be put on high thresholds than on low thresholds for the disadvantaged group. Here, we recover the first-order stochastic dominance effect at play in the main text.

Overall, the analysis of this section reveals that uncertainty about the proportion of high-ability type in the dominant group yields some interesting patterns. The possibility of explaining the dominant group success by its greater deservedness can help the social reputation of the dominant group, but not always. There are still cases where Proposition 1 holds and public information hurts all the individuals from the dominant group. Further, even when it helps the dominant group, the effect of information is the same for all members of the same group, regarding of their social status. While a full analysis is left for future research, the amended model presented here suggests that the results are not necessarily overturned by the introduction of second-order uncertainty.

The findings of this section are summarized in Proposition C.2. I denote $\theta_g^*(s^i)$ the (expected) social ability of a group-g individual with status s^i absent information (remember that individuals do not know their ability). In turn, $\theta_g^*(s^i|z)$ is the (expected) social ability after signal $z \in \{z_1, z_2\}$ (recall that z_1 states that group-D

[4] These last two assumptions do not play an important role in establishing Proposition 1. Here, they make the analysis much simpler.

individuals constitute strictly more than $\alpha P_4/e$ percent of the elite and z_2 that they constitute strictly more than $\alpha P_3/e$ percent of the elite).

Proposition C.2. *For the dominant group, $\theta^*_D(s^i) > (<)\theta^*_D(s^i|z_1)$ for all $s^i \in \{0,1\}$ if and only if $1-\gamma > (<)\pi D$. For all $s^i \in \{0,1\}$, $\theta^*_D(s^i) > \theta^*_D(s^i|z_2)$.*
For the disadvantaged group, $\theta^*_d(s^i) < \theta^*_d(s^i|z)$ for all $s^i \in \{0,1\}$ and $z \in \{z_1, z_2\}$.

Proof. Consider a member of the dominant group. Absent information, his social reputation is for elite and non-elite status, respectively:

$$\theta^*_D(1) = \overbrace{\frac{\overline{\theta}+D}{2}\pi(1-\gamma)}^{k_D=D,E_D=0} + \overbrace{\frac{\overline{\theta}}{2}(1-\pi)(1-\gamma)}^{k_D=0,E_D=0} + \overbrace{\frac{\overline{\theta}+D+1}{2}\pi\gamma}^{k_D=D,E_D=1} + \overbrace{\frac{\overline{\theta}+1}{2}(1-\pi)\gamma}^{k_D=0,E_D=1} \tag{C.4}$$

$$\theta^*_D(0) = \overbrace{\frac{-\overline{\theta}+D}{2}\pi(1-\gamma)}^{k_D=D,E_D=0} + \overbrace{\frac{-\overline{\theta}}{2}(1-\pi)(1-\gamma)}^{k_D=0,E_D=0} + \overbrace{\frac{-\overline{\theta}+D+1}{2}\pi\gamma}^{k_D=D,E_D=1} + \overbrace{\frac{-\overline{\theta}+1}{2}(1-\pi)\gamma}^{k_D=0,E_D=1} \tag{C.5}$$

After signal $z = z_1$, the social reputations are:

$$\theta^*_D(1|z_1) = \overbrace{\frac{\overline{\theta}+D}{2}\frac{\pi(1-\gamma)}{(1-\gamma)+\pi\gamma}}^{k_D=D,E_D=0} + \overbrace{\frac{\overline{\theta}}{2}\frac{(1-\pi)(1-\gamma)}{(1-\gamma)+\pi\gamma}}^{k_D=0,E_D=0} + \overbrace{\frac{\overline{\theta}+D+1}{2}\frac{\pi\gamma}{(1-\gamma)+\pi\gamma}}^{k_D=D,E_D=1} \tag{C.6}$$

$$\theta^*_D(0|z_1) = \overbrace{\frac{-\overline{\theta}+D}{2}\frac{\pi(1-\gamma)}{(1-\gamma)+\pi\gamma}}^{k_D=D,E_D=0} + \overbrace{\frac{-\overline{\theta}}{2}\frac{(1-\pi)(1-\gamma)}{(1-\gamma)+\pi\gamma}}^{k_D=0,E_D=0} + \overbrace{\frac{-\overline{\theta}+D+1}{2}\frac{\pi\gamma}{(1-\gamma)+\pi\gamma}}^{k_D=D,E_D=1} \tag{C.7}$$

Simple algebra yield the result.
In turn, for $z = z_2$, social reputations are:

$$\theta^*_D(1|z_2) = \overbrace{\frac{\overline{\theta}+D}{2}\pi}^{k_D=D,E_D=0} + \overbrace{\frac{\overline{\theta}}{2}(1-\pi)}^{k_D=0,E_D=0} \tag{C.8}$$

$$\theta^*_D(0|z_2) = \overbrace{\frac{-\overline{\theta}+D}{2}\pi}^{k_D=D,E_D=0} + \overbrace{\frac{-\overline{\theta}}{2}(1-\pi)}^{k_D=0,E_D=0} \tag{C.9}$$

Quite clearly, the claim holds.
The result for the disadvantaged group follows from the observation that signals z_1 and z_2 lead to more weight being put on the more stringent thresholds relative to the case without information.

□

D Empirical analysis

In this section, I present the results of the empirical analysis of the British Election Study, General Social Survey, and Cooperative Election Study. Information on the dependent variables used can be found in the notes of the table. Regressions with controls include variables on education (university or finished high school), home ownership, marital situation, age, income, working status, working sector, wave or year fixed effects, religion fixed effects, and (when possible) location fixed effects. All regressions are OLS regressions with robust standard errors. For more details on data sources, variable constructions, and empirical specifications, see the documentation for this article available on the APSR Dataverse at https://doi.org/10.7910/DVN/B3P41O.

D.1 Happiness

British Election Study

Table D.1 reports the result on self-rated happiness and life worthiness from the BES. Absent controls, white men are slightly more likely to report that they are happy (column (1)). Yet, white men tend to be more successful on average and success may bring happiness. When I include controls that proxy for social success (income, education, owning houses), the coefficient changes signs and becomes highly significant (column (2)). While the size of the coefficient is relatively small relative to the mean, the difference between white men and other respondents equals more than half the difference between renters and owners or is equal to the difference between divorcees and singles or in cohabitation (see Table F.1 in the document Angry White Males - Dataverse.pdf on the APSR Dataverse for this article). Notice that this is very much a white *male* phenomenon as when I restrict the sample to whites (column (3))—so that the reference category is white women—, the coefficients remain unchanged. When it comes to life worthiness, white men are always less likely to rate their life lower, with or without controls, when they are compared to all respondents or just white women (columns (4) to (6)).

Table D.1: Self-reported happiness and life worthiness in the UK (2014-2023)

	(1)	(2)	(3)	(4)	(5)	(6)
	Happy yesterday			Life worthwhile		
White Male	0.066*	-0.139***	-0.147***	-0.207***	-0.393***	-0.388***
	(0.054)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Sample	All	All	White	All	All	White
Mean dep variable	6.07	6.09	6.11	6.22	6.23	6.24
Individual controls		✓	✓		✓	✓
N.obs	21954	20811	19280	21611	20484	19006

Notes: Dependent variables are categorical variable from 0 (not at all) to 10 (very). Complete model results can be found in Table F.1 in the Angry White Males - Dataverse.pdf file available in the APSR Dataverse for this article. Robust standard errors. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

General Social Survey

The patterns are the same when we look at US data from the General Social Survey. For ease of comparison with the UK data, Table D.2 restricts the sample to respondents interviewed in 2014 or after. Absent controls for social success, white men are moderately more happy than other respondents (column (1)). With controls, the coefficient on white male becomes highly significant and negative even after restricting the sample to whites (columns (2) and (3)). The magnitude of the effect is also similar: more than half the difference between renters and owners, equal to the differences between divorcees and singles or in cohabitation (see Table F.2 in the document Angry White Males - Dataverse.pdf on the APSR Dataverse for this article).

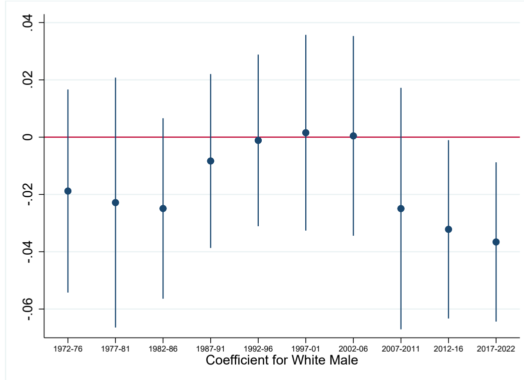
Table D.2: Self-reported happiness in the USA (2014-2022)

	(1)	(2)	(3)
	Self-rated happiness		
White Male	0.011	-0.040***	-0.036***
	(0.350)	(0.000)	(0.004)
Sample	All	All	White
Mean dep variable	1.07	1.07	1.08
Individual controls		✓	✓
N.obs	15267	14547	10825

Notes: Happy is a categorical variable from 0 (not too happy) to 2 (very). Complete model results can be found in Table F.2 in the Angry White Males - Dataverse.pdf file available in the APSR Dataverse for this article. Robust standard errors. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

I take advantage of the full GSS data and look at the evolution of white men's happiness relative to other respondents over time. To limit sample variations, I group surveys in 5-year periods from 1972 until the last available data (6-year for the last period, though the relevant question was not asked in 2017 and 2018). I

Figure D.1: Self-reported happiness over time in the USA



Notes: Happy is a categorical variable from 0 (not too happy) to 2 (very). Complete model results can be found in Table F.3 in the Angry White Males - Dataverse.pdf file available in the APSR Dataverse for this article. Dots represent point estimates and vertical lines display the 95% confidence intervals.

plot the coefficients on white men from the regression displayed in column (2) of Table D.2 (with all controls). Figure D.1 reveals three distinct periods. White men were on average less happy than other respondents until the end of the 1980s. They were as happy as women and minorities in the 1990s and until 2006. They returned to a lower level of reported happiness afterwards. Further, the difference between white men and other groups seem to be greater nowadays than at any point in time.

D.2 Additional results: Information vs Policy

British Election Study

Table D.3 looks at attitudes towards policies in favour of minorities (columns (1) and (2)), women (columns (3) and (4)), lesbian and gays (columns (5) and (6)). With or without controls, the findings are always the same. White men are more likely to oppose such policies. The effects are quite substantial between one fourth and 50% relative to the mean.

Table D.3: Attitudes on policies toward minorities

	(1)	(2)	(3)	(4)	(5)	(6)
Equal opport. to	Minorities gone too far		Women gone too far		Lesbians-Gays gone too far	
White Male	0.098***	0.078***	0.072***	0.069***	0.124***	0.102***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Sample	All	All	All	All	All	All
Mean dep variable	0.29	0.30	0.14	0.14	0.27	0.27
Individual controls		✓		✓		✓
N.obs	169545	162210	169761	162426	169545	162210

Notes: Dependent variables are indicator variables taking value 1 if respondent believes policies have gone too far or much too far. Complete model results can be found in Table F.4 in the Angry White Males - Dataverse.pdf file available in the APSR Dataverse for this article. Robust standard errors. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table D.4 looks at the differences between white men and other respondents on policies towards disadvantaged groups by level of education. As respondents' level of education increases, they become less likely to oppose improving equal opportunity for the various groups considered (see the row titled mean dep. variable). For every disadvantaged group, however, the difference in attitudes between white men and other respondents remains constant. White men are around 8% more likely to state that equal opportunities to minorities have gone too far, 7% more likely to state that equal opportunities to women have gone too far, and 10% more likely to state that equal opportunities to lesbians and gays have gone too far. These findings are much more aligned with white men's anger being triggered by information rather than by policy changes as noted in the main text.

Table D.5 looks at the differences between white men and other respondents on policies towards disadvantaged groups by age groups. Here again, we see little differences between age groups. One exception is policies

Table D.4: Attitudes on policies toward minorities by level of educations

Equal opport. to	(1)	(2) Minorities gone too far	(3)	(4)	(5) Women gone too far	(6)	(7)	(8) Lesbians-Gays gone too far	(9)
White Male	0.080***	0.075***	0.084***	0.061***	0.068***	0.072***	0.102***	0.112***	0.095***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Sample	No qualif./answer	High School	University	No qualif./answer	High School	University	No qualif./answer	High School	University
Mean dep variable	0.36	0.35	0.24	0.14	0.15	0.12	0.32	0.30	0.23
Individual controls	✓	✓	✓	✓	✓	✓	✓	✓	✓
N.obs	16100	72483	73627	16115	72580	73731	16100	72483	73627

Notes: Dependent variables are indicator variables taking value 1 if respondent believes policies have gone too far or much too far. Complete model results can be found in Table F.5 in the Angry White Males - Dataverse.pdf file available in the APSR Dataverse for this article. Robust standard errors. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

in favour of women with over-65 white men being closer to the attitudes of other groups than younger age groups (the highest difference between white men and others for this item is actually for under-25 respondents, consistent with the observed divergence on feminism, mentioned in the introduction). Yet the coefficient on white men for over 65 is only one third smaller than the coefficient for 26-64 years old. The evidence in favour of policy changes favouring disadvantaged groups as a source of white men's anger is, thus, limited.

Table D.5: Attitudes on policies toward minorities by age groups

Equal opport. to	(1)	(2) Minorities gone too far	(3)	(4)	(5) Women gone too far	(6)	(7)	(8) Lesbians-Gays gone too far	(9)
White Male	0.106***	0.068***	0.085***	0.096***	0.074***	0.051***	0.055***	0.084***	0.144***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Sample	Under 25	26-64	Over 65	Under 25	26-64	Over 65	Under 25	26-64	Over 65
Mean dep variable	0.14	0.28	0.38	0.11	0.13	0.15	0.12	0.23	0.40
Individual controls	✓	✓	✓	✓	✓	✓	✓	✓	✓
N.obs	11815	103471	46924	11829	103606	46991	11815	103471	46924

Notes: Dependent variables are indicator variables taking value 1 if respondent believes policies have gone too far or much too far. Complete model results can be found in Table F.6 in the Angry White Males - Dataverse.pdf file available in the APSR Dataverse for this article. Robust standard errors. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

When it comes to opinions about discrimination, white men are more likely to say that men or whites are discriminated and less likely to agree that women or ethnic minorities (BME) are discriminated as shown in Table D.6. Again, this holds with or without controls.

Table D.6: Attitudes on discrimination

	(1) Men discriminated	(2)	(3) Women discriminated	(4)	(5) White discriminated	(6)	(7) BME discriminated	(8)
White Male	1.413***	1.352***	-0.867***	-0.788***	0.652***	0.547***	-0.698***	-0.598***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Sample	All	All	All	All	All	All	All	All
Mean dep variable	4.08	4.09	5.76	5.75	4.69	4.73	5.91	5.89
Individual controls		✓		✓		✓		✓
N.obs	77037	73834	78832	75560	77812	74616	78297	75072

Notes: Dependent variables are categorical variable from 0 (a lot of discrimination in favour) to 10 (a lot of discrimination against). Complete model results can be found in Table F.7 in the Angry White Males - Dataverse.pdf file available in the APSR Dataverse for this article. Robust standard errors. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

In Table D.7, I look at how likely white men are to state that men and whites are discriminated relative to other groups by level of education. Again, we observe that education is associated with a lower propensity to state that whites or men are discriminated (see the mean of dep. variable row). Yet, the coefficient on white men is very similar across all columns and, if anything, it is higher for white men with university degree than others. As such, the evidence presented in Table D.7 are more consistent with white men's anger triggered by information than by policy changes.

Looking at opinions on discrimination against whites and men by age groups in Table D.8, quite strikingly, among the under-25, white men are much more likely to state that whites are discriminated, consistent with the finding that there is a growing liberal divide between men and other groups as noted in the introduction (column (4)). We also observe patterns more consistent with a policy effect (at least for discrimination against whites, columns (4) to (6)). Indeed, white men have less distinct attitudes than women and minorities in the

Table D.7: Attitudes on discrimination by level of educations

Equal opport. to	(1)	(2) Men discriminated	(3)	(4)	(5) White discriminated	(6)
White Male	1.103***	1.361***	1.371***	0.372***	0.482***	0.614***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Sample	No qualif./answer	High School	University	No qualif./answer	High School	University
Mean dep variable	4.45	4.20	3.92	5.49	5.04	4.30
Individual controls	✓	✓	✓	✓	✓	✓
N.obs	5920	32698	35216	6149	33155	35312

Notes: Dependent variables are categorical variable from 0 (a lot of discrimination in favour) to 10 (a lot of discrimination against). Complete model results can be found in Table F.8 in the Angry White Males - Dataverse.pdf file available in the APSR Dataverse for this article. Robust standard errors. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

over-65 age group than in other groups. The coefficient in column (3), however, is only 20% smaller than the coefficient in column (2). In turn, the coefficient in column (6) is 32% smaller than the coefficient in column (5). Hence, even if policies matter, the results suggest there is still room for a substantively significant effect of information.

Table D.8: Attitudes on discrimination by age groups

	(1)	(2) Men discriminated	(3)	(4)	(5) White discriminated	(6)
White Male	1.427***	1.445***	1.156***	1.266***	0.563***	0.388***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Sample	Under 25	26-64	Over65	Under 25	26-64	Over65
Mean dep variable	3.42	4.03	4.34	3.23	4.69	5.11
Individual controls	✓	✓	✓	✓	✓	✓
N.obs	4860	45642	23332	4846	46027	23743

Notes: Dependent variables are categorical variable from 0 (a lot of discrimination in favour) to 10 (a lot of discrimination against). Complete model results can be found in Table F.9 in the Angry White Males - Dataverse.pdf file available in the APSR Dataverse for this article. Robust standard errors. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

General Social Survey

I now turn to variables in the General Social Survey. To facilitate comparisons with the other surveys, and given the evolution over time noted in Figure D.1, I restrict the sample to the post-2014 surveys. Table D.9 considers opposition to affirmative action (columns (1) and (2)), beliefs that Blacks should find their way up without assistance (resentment item in columns (3) and (4)), and beliefs that there is too much spending on assistance to Blacks (columns (5) and (6)), too much is spent on the improvement of Blacks (columns (7) and (8)). In all cases, with or without controls, white men hold much less favourable views to policies that benefit African-Americans.

Table D.9: Policy attitudes towards Blacks

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Oppose affirmative action		Resentment		Too much assistance		Too much on improvement	
White Male	0.058***	0.058***	0.042***	0.033***	0.030***	0.029***	0.058***	0.058***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Sample	All	All	All	All	All	All	All	All
Mean dep variable	0.85	0.85	0.36	0.36	0.06	0.06	0.08	0.08
Individual controls		✓		✓		✓		✓
N.obs	15329	14596	15329	14596	15329	14596	15329	14596

Notes: Dependent variables are indicator variables. For columns (1) and (2), variable equals one if respondent opposes (strongly or not strongly) affirmative action, 0 otherwise. For columns (3) and (4), variable equals one if respondent agrees (somewhat or strongly) that Blacks should overcome prejudice without favors and 0 otherwise. Columns (5) to (8), variable equals one if respondent states that the US spends too much on improving the conditions of/on assistance to Blacks. Complete model results can be found in Table F.10 in the Angry White Males - Dataverse.pdf file available in the APSR Dataverse for this article. Robust standard errors. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

In Table D.10, I look at attitudes on spending for the assistance (columns (1)-(3)) and for the improvement (columns (4)-(6)) of Blacks by levels of education. As for the British Election Survey, respondents with higher level of education are less likely to state that too much is spent on such policies (see the mean of the dep. variable row). When it comes to spending on assistance to Blacks, we see very little difference across education groups. When it comes to spending on improvement of Blacks, we observe that university graduates are significantly less likely to oppose such policy (the coefficient in column (6) is less than half the coefficient in column (5)). Yet, there is little difference between high school graduates and those who did not finish High School. As such, Table D.10 provides moderate evidence in favour of a policy impact, but suggests that information could still explain half of white men's anger.

Table D.10: Policy attitudes towards assistance to Blacks by levels of education

	(1)	(2)	(3)	(4)	(5)	(6)
		Too much on assistance			Too much for improvement	
White Male	0.033*	0.029***	0.028***	0.068***	0.074***	0.035***
	(0.058)	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)
Sample	No qualif./answer	High School	University	No qualif./answer	High School	University
Mean dep variable	0.07	0.07	0.05	0.10	0.09	0.07
Individual controls	✓	✓	✓	✓	✓	✓
N.obs	1605	7549	5442	1605	7549	5442

Notes: Dependent variables are indicator variables, which equal one if respondent states that the US spends too much on improving the conditions of Blacks (columns (1)-(3)) or on assistance to Blacks (columns (4)-(6)). Complete model results can be found in Table F.11 in the Angry White Males - Dataverse.pdf file available in the APSR Dataverse for this article. Robust standard errors. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

When I look at the same survey items by age groups in Table D.11, we no longer see patterns consistent with a policy effect. For spending on the assistance to Blacks, there are very little differences between age groups (see columns (1)-(3)). For spending on the improvement of Blacks, over-65 white men differ more than any other age groups (columns (4)-(6)). This suggests again that information is a more likely cause of white men's anger, at least in the survey data analyzed in this appendix.

Table D.11: Policy attitudes towards assistance to Blacks by age groups

	(1)	(2)	(3)	(4)	(5)	(6)
		Too much on assistance			Too much for improvement	
White Male	0.027**	0.031***	0.028***	0.012	0.056***	0.076***
	(0.034)	(0.000)	(0.004)	(0.337)	(0.000)	(0.000)
Sample	Under 25	26-64	Over 65	Under 25	26-64	Over 65
Mean dep variable	0.03	0.06	0.07	0.04	0.08	0.10
Individual controls	✓	✓	✓	✓	✓	✓
N.obs	1260	9824	3512	1260	9824	3512

Notes: Dependent variables are indicator variables, which equal one if respondent states that the US spends too much on improving the conditions of Blacks (columns (1)-(3)) or on assistance to Blacks (columns (4)-(6)). Complete model results can be found in Table F.12 in the Angry White Males - Dataverse.pdf file available in the APSR Dataverse for this article. Robust standard errors. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Cooperative Election Study

Using the Copperative Election Study, I look in Table D.12 how white men differ from other respondents on four items: feeling about white advantage or lack thereof (columns (1) and (2)), belief that racial problems are rare (columns (3) and (4)), belief that Blacks should work their way up without help (labelled resentment 1 in columns (5) and (6)) or that slavery and discrimination are not impeding Blacks' advancement (labelled resentment 2 in columns (7) and (8)). On all survey items, with or without controls, white men are more opposed to social changes than other respondents.

In Table D.13, I look at the first two items from Table D.12 (no advantages for Whites and no racial problems) by levels of education. Education reduces the willingness to say that whites have no advantage or that racial problems are rare as for other surveys (see the row mean of dep. variable). Yet, the coefficient on white men remains constant when we look at high school graduates and university graduates (the coefficient on no high school is actually lower when it comes to racial problems). Hence, there is little evidence in favour of a policy effect and, rather, some evidence in favour of information being the cause of white men's anger.

Table D.12: Policy attitudes towards racial discrimination

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	No advantages for Whites		Racial problems uncommon		Racial resentment 1		Racial resentment 2	
White Male	0.119***	0.103***	0.110***	0.104***	0.124***	0.101***	0.121***	0.091***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Sample	All	All	All	All	All	All	All	All
Mean dep variable	0.29	0.29	0.22	0.22	0.51	0.51	0.40	0.40
Individual controls		✓		✓		✓		✓
N.obs	206864	206319	203284	202762	202873	202167	202888	202183

Notes: Dependent variables are indicator variables. For columns (1) and (2), variable equals one if respondent disagrees (strongly or somewhat) that Whites have advantages. For columns (3) and (4), variable equals one if respondent agrees (somewhat or strongly) that racial problems are rare. For columns (5) and (6), variable equals one if respondent agrees (somewhat or strongly) that Blacks should overcome prejudice without special favors. For columns (7) and (8), variable equals one if respondent disagrees (somewhat or strongly) that slavery and discrimination have created conditions that make it difficult for Blacks to progress socially. Complete model results can be found in Table F.13 in the Angry White Males - Dataverse.pdf file available in the APSR Dataverse for this article. Robust standard errors. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table D.13: Policy attitudes towards racial discrimination by levels of education

	(1)	(2)	(3)	(4)	(5)	(6)
Equal opport. to	No advantages for Whites			Racial problems uncommon		
White Male	0.111***	0.106***	0.101***	0.070***	0.105***	0.106***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Sample	No high school	High School	University	No high school	High School	University
Mean dep variable	0.35	0.34	0.25	0.22	0.23	0.21
Individual controls	✓	✓	✓	✓	✓	✓
N.obs	5210	96490	104619	5086	94404	103272

Notes: Dependent variables are indicator variables. For columns (1) to (3), variable equals one if respondent disagrees (strongly or somewhat) that Whites have advantages. For columns (4) to (6), variable equals one if respondent agrees (somewhat or strongly) that racial problems are rare. Complete model results can be found in Table F.14 in the Angry White Males - Dataverse.pdf file available in the APSR Dataverse for this article. Robust standard errors. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

When we look by age groups in Table D.14, we see some evidence in favour of a policy effect. Over 65 white men look more similar to other respondents than other age groups. Yet, the coefficient on White Male for over 65 is only around 25% smaller than the coefficient for other age groups. Hence, while there is some evidence in favour of a policy effect, there is still some room for an informational source of white men's anger.

Table D.14: Policy attitudes towards racial discrimination by age groups

	(1)	(2)	(3)	(4)		
Equal opport. to	No advantages for Whites			Racial problems uncommon		
White Male	0.111***	0.112***	0.083***	0.111***	0.112***	0.086***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Sample	Under 25	26-64	Over 65	Under 25	26-64	Over 65
Mean dep variable	0.15	0.29	0.34	0.16	0.22	0.22
Individual controls	✓	✓	✓	✓	✓	✓
N.obs	12944	143263	50112	12875	141305	48582

Notes: Dependent variables are indicator variables. For columns (1) to (3), variable equals one if respondent disagrees (strongly or somewhat) that Whites have advantages. For columns (4) to (6), variable equals one if respondent agrees (somewhat or strongly) that racial problems are rare. Complete model results can be found in Table F.15 in the Angry White Males - Dataverse.pdf file available in the APSR Dataverse for this article. Robust standard errors. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

White, Male, and Angry:
A Reputation-based Rationale for Backlash
DATAVERSE MATERIAL

Stephane Wolton

E Description of the surveys and variables

E.1 British Election Study

The reference for the British Election Study (BES) is Fieldhouse, E., J. Green, G. Evans, J. Mellon & C. Prosser, J. Bailey, R. de Geus, H. Schmitt and C. van der Eijk (2023) British Election Study Internet Panel Waves 1-25. DOI: 10.5255/UKDA-SN-8202-2. The dataset I use combines waves 1 to 25 that run from 2014 until 2023. The data can be downloaded after registration at the following link. In term of main dependent variables, I use the following variables:

- In Supplementary Material D.1:
  - lifeHappy.
    Full wording: *"Overall, how happy did you feel yesterday?"*
    The answer ranges from 0 (not at all happy) to 10 (completely happy).
  - lifeWorthwhile.
    Full wording: *"Overall, to what extent do you feel that the things you do in your life are worthwhile?"*
    The answer ranges from 0 (not at all worthwhile) to 10 (completely worthwhile).
- In Supplementary Material D.2:
  - blackEquality.
    Full wording: *Please say whether you think these things have gone too far or have not gone far enough in Britain. Attempts to give equal opportunities to ethnic minorities:*
    The possible answers are not gone nearly far enough, not gone far enough, are about right, have gone too far, have gone much too far.
  - femaleEquality.
    Full wording: *Please say whether you think these things have gone too far or have not gone far enough in Britain. Attempts to give equal opportunities to women:*
    The possible answers are not gone nearly far enough, not gone far enough, are about right, have gone too far, have gone much too far.
  - gayEquality.
    Full wording: *Please say whether you think these things have gone too far or have not gone far enough in Britain. Attempts to give equal opportunities to gays and lesbians:*

The possible answers are not gone nearly far enough, not gone far enough, are about right, have gone too far, have gone much too far.

- discrimBME.
  Full wording: *"How much discrimination is there for or against the following groups? Black and Asian people.*
  The answer ranges from a lot of discrimination in favour (0) to a lot of discrimination against (10).
- discrimWhite.
  Full wording: *"How much discrimination is there for or against the following groups? White British people.*
  The answer ranges from a lot of discrimination in favour (0) to a lot of discrimination against (10).
- discrimWomen.
  Full wording: *"How much discrimination is there for or against the following groups? Women.*
  The answer ranges from a lot of discrimination in favour (0) to a lot of discrimination against (10).
- discrimMen
  Full wording: *"How much discrimination is there for or against the following groups? Men people.*
  The answer ranges from a lot of discrimination in favour (0) to a lot of discrimination against (10).

I dichotomize blackEquality, femaleEquality, gayEquality with an indicator variable equal to one if respondents answer gone too far or much too far.

The main explanatory variables is a dummy WhiteMale equal to one if the respondent reports to be a male (using the variable gender) and white (using the variable p_ethnicity). The full wording for these two variables are:

- gender: *Are you...?* Answers are Male or Female
- p_ethnicity: *To which of these groups do you consider you belong?* Possible answers are: White British, Any other white background, White and Black Caribbean, White and Black African, White and Asian, Any other mixed background, Indian, Pakistani, Bangladeshi, Any other Asian background, Black Caribbean, Black African, Any other black background, Chinese, Other ethnic group, Prefer not to say.
  I group White British and Any other white background together.

I use the following individual controls:

- Education using the variable p_education.
  Full wording for p_education: *What is the highest educational or work-related qualification you have?*
  Possible answers are: No formal qualifications, Youth training certificate/skillseekers, Recognised trade apprenticeship completed, Clerical and commercial, City & Guilds certificate, City & Guilds certificate - advanced, ONC, CSE grades 2-5, CSE grade 1, GCE O level, GCSE, School Certificate, Scottish Ordinary/ Lower Certificate, GCE A level or Higher

Certificate, Scottish Higher Certificate, Nursing qualification (e.g. SEN, SRN, SCM, RGN), Teaching qualification (not degree), University diploma, University or CNAA first degree (e.g. BA, B.Sc, B.Ed), University or CNAA higher degree (e.g. M.Sc, Ph.D), Other technical, professional or higher qualification, Don't know, Prefer not to say.
Every individual with the following qualification is qualified as having High School diploma: Youth training certificate/skillseekers, Recognised trade apprenticeship completed, Clerical and commercial, City & Guilds certificate, City & Guilds certificate - advanced, ONC, CSE grades 2-5, CSE grade 1, GCE O level, GCSE, School Certificate, Scottish Ordinary/ Lower Certificate, GCE A level or Higher Certificate, Scottish Higher Certificate, Nursing qualification (e.g. SEN, SRN, SCM, RGN), Teaching qualification (not degree),
Everyone with the following qualification is categorized as having a University diploma: University diploma, University or CNAA first degree (e.g. BA, B.Sc, B.Ed), University or CNAA higher degree (e.g. M.Sc, Ph.D), Other technical, professional or higher qualification.

- Home ownership using the variable p_housing.
  Full wording for p_housing: *Do you own or rent the home in which you live?*
  Possible answers are: Own – outright, Own – with a mortgage, Own (part-own) – through shared ownership scheme (i.e. pay part mortgage, part rent), Rent – from a private landlord, Rent – from my local authority, Rent – from a housing association, Neither – I live with my parents, family or friends but pay some rent to them, Neither – I live rent-free with my parents, family or friends, Other.
  Every individual who answers Own – outright, Own – with a mortgage, Own (part-own) – through shared ownership scheme (i.e. pay part mortgage, part rent) is categorized as a Owner.

- Marital status using the variable p_marital.
  Full wording: *What is your current marital or relationship status?*
  Possible answers are: Married, In a civil partnership, Separated but still legally married or in a civil partnership, Living with a partner but neither married nor in a civil partnership, In a relationship, but not living together, Single, Divorced, Widowed.
  Individuals who respond Married or In a civil partnership are classified as Married.
  Individuals who respond Separated but still legally married or in a civil partnership or Divorced are classified as Divorced.

- age using the variable age.
  Full wording: *What is your age?*

- Household income using the variable p_gross_household.
  Full wording: *Gross HOUSEHOLD income is the combined income of all those earners in a household from all sources, including wages, salaries, or rents and before tax deductions. What is your gross household income?*
  Possible answers are: under £5,000 per year, £5,000 to £9,999 per year, £10,000 to £14,999 per year, £15,000 to £19,999 per year, £20,000 to £24,999 per year, £25,000 to £29,999 per year, £30,000 to £34,999 per year, £35,000 to £39,999 per year, £40,000 to £44,999 per year, £45,000 to £49,999 per year, £50,000 to £59,999 per year, £60,000 to £69,999 per year, £70,000 to £99,999 per year, £100,000 to £149,999 per year, £150,000 and over, Don't know, Prefer not to answer.
  I use a fixed effect for each possible answer.

- Working status using the variable p_work_stat.
  Full wording: *Which of these applies to you?*
  Possible answers are: Working full time (30 or more hours per week), Working part time (8-29 hours a week), Working part time (Less than 8 hours a week), Full time student, Retired, Unemployed, Not working, Other.
  I use a fixed effect for each possible answer.

- Work sector using the variable p_job_sector.
  Full wording: *What kind of organisation do you work for?*
  Possible answers are: Private sector - profit seeking (e.g., public limited company, partnership), Public sector - government funded or owned (e.g., civil service, local government, NHS, university), Third sector - non-profit, non-governmental (e.g., charity, social enterprise), Don't know, Not applicable.
  I use a fixed effect for each possible answer.

For more information on the BES, , please consult the documentation available here.

For the regression analyses, I run the following model as a linear probability model for respondent i in wave W (see Online Appendix F.2) for probit models):

$$Y_{iW} = \alpha + \beta WhiteMale_{iW} + \gamma' X_{iW} + \delta_W + \epsilon_{iW}$$

Y_{iW} is one of the outcomes of interest described above X is the set of controls described above, δ_W is a fixed effect for each wave, and ϵ_{iW} are robust standard errors.

E.2 General Social Survey

The reference for the General Social Survey (GSS) is Davern, Michael; Bautista, Rene; Freese, Jeremy; Herd, Pamela; and Morgan, Stephen L.; General Social Survey 1972-2022. [Machine-readable data file]. Principal Investigator, Michael Davern; Co-Principal Investigators, Rene Bautista, Jeremy Freese, Pamela Herd, and Stephen L. Morgan. NORC ed. Chicago, 2024. 1 datafile (Release 3a) and 1 codebook (2022 Release 3a). The dataset I use can be accessed at the following link. The survey starts in 1972 and data are available until 2022.

In term of main dependent variables, I use the following variables:

- In Supplementary Material D.1:
  - Happy.
    Full wording: *How would you say things are these days–would you say that you are very happy, pretty happy, or not too happy?*
    The possible answers are not too happy (3), pretty happy (2), very happy (1).

  I rescale the variable so that very happy takes a value of 2 and not too happy takes a value of 0.

- In Supplementary Material D.2:
  - affrmact. Full wording: *"Some people say that because of past discrimination, Blacks should be given preference in hiring and promotion. Others say that such preference in hiring and promotion of Blacks is wrong because it discriminates against Whites. What about your opinion? Are you for or against preferential hiring and promotion of Blacks?"*
    The possible answers are: Strongly favors, Not strongly favors, Not strongly opposes, Strongly opposes, Don't Know.
  - wrkwayup.
    Full wording: *"Do you agree strongly, agree somewhat, neither agree nor disagree, disagree somewhat, or disagree strongly with the following statement: Irish, Italians, Jewish and many other minorities overcame prejudice and worked their way up. Blacks should do the same without special favors."*
    The possible answers are Agree strongly, Agree somewhat, Neither agree nor disagree, Disagree somewhat, Strongly disagree, Don't know.
  - natrace.
    Full wording: *Are we spending too much, too little, or about the right amount on improving the conditions of Blacks?*
    Possible answers are: Too little, About right, Too much, Don't know.
  - natracey.
    Full wording: *Are we spending too much, too little, or about the right amount on assistance to Blacks?*
    Possible answers are: Too little, About right, Too much, Don't know.

  I dichotomize those variables with an indicator variable equal to one if respondent answers oppose or strongly oppose preferential hiring for blacks (affrmact), if the respondent agrees or strongly agrees that Blacks should not have special favors (wrkwayup), if the respondent states that spending is too much for natrace and natracey.

The main explanatory variables is a dummy WhiteMale equal to one if the respondent reports to be a male (using the variable sex) and white (using the variable race).

- sex: Prior to 2021, SEX was interviewer coded with possible answers being Male or Female. In 2021, SEX is a composite of Sexbirth1 and sexnow1
  - Sexbirth1: *Was your sex recorded as male or female at birth?* Answers are Male or Female.
  - Sexnow1: *Do you describe yourself as male, female, or transgender?* Answers are Male, Female, Transgender, None of these.
- Race: Wordings of the question and instruction are *What race do you consider yourself? RECORD VERBATIM AND CODE. CODE WITHOUT ASKING ONLY IF THERE IS NO DOUBT IN YOUR MIND.* Possible answers are White, Black, Other.

I use the following individual controls:

- Education using the variable educ.
  Full wording: *Respondent's education?*
  Possible answers are: 5TH GRADE, 6TH GRADE, 7TH GRADE, 8TH GRADE, 9TH GRADE, 10TH GRADE, 11TH GRADE, 12TH GRADE, 1 YEAR OF COLLEGE, 2 YEARS OF COLLEGE, 3 YEARS OF COLLEGE, 4 YEARS OF COLLEGE, 5 YEARS OF COLLEGE, 6 YEARS OF COLLEGE, 7 YEARS OF COLLEGE, 8 YEARS OF COLLEGE.
  Every respondent with 4 years of college or more is categorized as having a university diploma, every respondent who has finished high school (12th grade), but strictly less than 4 years of college is categorized as having finished high school.
- Home ownership using the variable dwelown.
  Full wording: *(Do you/Does your family) own your (home/apartment), pay rent, or what?*
  Possible answers are: Own or is buying, Pays rent, Others.
  I classify as owning any respondent who answers own or is buying.
- Marital status using the variable marital.
  Full wording: *Are you currently married, widowed, divorced, separated, or have you never been married?*
  Possible answers are: Married, Widowed, Divorced, Separated, Never married.
  I classify an individual as married if they report being married. I classify an individual as divorced if they report being divorced or separated.
- age using variable age.
  Full wording: *RESPONDENT'S AGE* based on date of birth.
- Household income using the variable income.
  Full wording: *In which of these groups did your total family income, from all sources, fall last year before taxes, that is?*
  Possible answers are: Under $1,000, $1,000 to $2,999, $3,000 to $3,999, $4,000 to $4,999, $5,000 to $5,999, $6,000 to $6,999, $7,000 to $7,999, $8,000 to $9,999, $10,000 to $14,999,

\$15,000 to \$19,999, \$20,000 to \$24,999, more than \$25,000.
I construct a dummy equal to one if the respondent's household earns more than \$25,000.[1]

- Working status of the respondent using the variable wrkstat.
  Full wording *Last week were you working full time, part time, going to school, keeping house, or what?*
  Possible answers are: WORKING FULL TIME, WORKING PART TIME, WITH A JOB, BUT NOT AT WORK BECAUSE OF TEMPORARY ILLNESS, VACATION, STRIKE, UNEMPLOYED, LAID OFF, LOOKING FOR WORK, RETIRED, IN SCHOOL, KEEPING HOUSE, OTHER.
  I construct a fixed effect for each status.

- Sector of the respondent using the variable indus10.
  Full wording: *Respndent's occupation*
  Possible answers are OCC10 and INDUS10 are coded using the U.S. Bureau of the Census occupation (2010) and industry codes (2010).
  I construct a dummy equal to one if the respondent works in the public sector (occupation code above 9300).

- Religion using the variable relig.
  Full wording: *What is your religious preference? Is it Protestant, Catholic, Jewish, some other religion, or no religion?*
  Possible answers are: PROTESTANT, CATHOLIC, JEWISH, NONE, OTHER, BUDDHISM, HINDUISM, OTHER EASTERN RELIGIONS, MUSLIM/ISLAM, ORTHODOX-CHRISTIAN, CHRISTIAN, NATIVE AMERICAN, INTER-NONDENOMINATIONAL.
  I create dummy variables for each reported religious preference.

- Region using the variable region.
  Full wording: *REGION OF INTERVIEW.*
  I construct fixed effects for each region.

For more information on the GSS, please consult the survey documentation available here.

For the regression analyses, I run the following model as a linear probability model for respondent i in region r in year t (see Online Appendix F.2) for probit models):

$$Y_{irt} = \alpha + \beta WhiteMale_{irt} + \gamma' X_{irt} + \delta_t + \delta_r + \epsilon_{irt}$$

Y_{irt} is one of the outcomes of interest described above X is the set of controls described above, δ_t is a year fixed effect, δ_r are US region fixed effects, and ϵ_{irt} are robust standard errors.

[1]The GSS only asks questions about higher income in later years. As shown in the do file (but not in this Supplementary Material), the results hold when using fixed effects by income status by \$10,000 or more increments taking advantage of the variable income16. The full wording for the variable income16 is *In which of these groups did your total family income, from all sources, fall last year? That is, before taxes.*

E.3 Cooperative Election Study

The references for the Cooperative Election Study (CES) surveys I use are:

- CES 2022: Schaffner, Brian; Ansolabehere, Stephen; Shih, Marissa, 2023, "Cooperative Election Study Common Content, 2022", https://doi.org/10.7910/DVN/PR4L8P, Harvard Dataverse, V4.
- CES 2020: Schaffner, Brian; Ansolabehere, Stephen; Luks, Sam, 2021, "Cooperative Election Study Common Content, 2020", https://doi.org/10.7910/DVN/E9N6PH, Harvard Dataverse, V4.
- CES 2018: Brian Schaffner; Stephen Ansolabehere; Sam Luks, 2019, "CCES Common Content, 2018", https://doi.org/10.7910/DVN/ZSBZ7K, Harvard Dataverse, V6.
- CES 2016: Ansolabehere, Stephen; Schaffner, Brian F., 2017, "CCES Common Content, 2016", https://doi.org/10.7910/DVN/GDF6Z0, Harvard Dataverse, V4.
- CES 2014: Schaffner, Brian; Ansolabehere, Stephen, 2015, "CCES Common Content, 2014", https://doi.org/10.7910/DVN/XFXJVY, Harvard Dataverse, V5.
- CES 2012: Ansolabehere, Stephen; Schaffner, Brian, 2013, "CCES Common Content, 2012", https://doi.org/10.7910/DVN/HQEVPK, Harvard Dataverse, V9 (in the dataset, but not used in the regressions).

The raw data for the Cooperative Election Study (CES) can be accessed at the following link.

In term of main dependent variables, I use the following variables:

- In Supplementary Material D.2 (numbers after CC correspond to the survey year):
  - CC22_441a, CC20_441a, CC18_422e, CC14_422a, CC12_422a.
    Full wording: *Irish, Italians, Jewish and many other minorities overcame prejudice and worked their way up. Blacks should do the same without any special favors.* Possible answers are Strongly agree, Somewhat agree, Neither agree nor disagree, Somewhat disagree, Strongly disagree.
  - CC22_441b, CC20_441b, CC18_422f, CC14_422b, CC12_422b.
    Full wording: *Generations of slavery and discrimination have created conditions that make it difficult for blacks to work their way out of the lower class.* Possible answers are Strongly agree, Somewhat agree, Neither agree nor disagree, Somewhat disagree, Strongly disagree.
  - CC22_440a, CC20_440a, CC18_422a, CC16_422d.
    Full wording: *White people in the U.S. have certain advantages because of the color of their skin.* Possible answers are Strongly agree, Somewhat agree, Neither agree nor disagree, Somewhat disagree, Strongly disagree.
  - CC22_440b, CC20_440b, CC18_422b, CC16_422f.
    Full wording *Racial problems in the U.S. are rare, isolated situations.* Possible answers are Strongly agree, Somewhat agree, Neither agree nor disagree, Somewhat disagree, Strongly disagree.

I dichotomize those variables with an indicator variable equal to one if respondents answer they agree or strongly agree that Blacks should not have special favors (CC22_441a, CC20_441a, CC18_422e, CC14_422a, CC12_422a) or that racial problems are rare (CC22_440b, CC20_440b, CC18_422b, CC16_422f.); if the respondents answer that they disagree or disagree strongly that conditions are difficult for blacks to make their way up (CC22_441b, CC20_441b, CC18_422f, CC14_422b, CC12_422b) or that whites have special advantages (CC22_440a, CC20_440a, CC18_422a, CC16_422d).

The main explanatory variables is a dummy WhiteMale equal to one if the respondent reports to be male (using the variable gender or gender4 for the year 2022) and white (using the variable race).

- For gender questions, full wording is:
    - gender: *Are you...?* with answers being Male or Female.
- gender4: *What is your gender?* Man, Woman, Non-binary, Other.

- race: *What racial or ethnic group best describes you?* Possible answers are: White, Black, Hispanic, Asian, Native Americans, Middle Eastern, Two or more races, Other.

I use the following individual controls:

- Education using the variable educ.
  Full wording: *What is the highest level of education you have completed?*
  Possible answers are: High school graduate, Some college, 2-year college, 4-year college, Post-grad.
  I create a dummy equal to one if the respondent has finished high school, but has less than a BA and another dummy equal to one if the respondent has completed 4 years of college or more.
- Home ownership using the variable ownhome.
  Full wording: *Do you own your home or pay rent?*
  Possible answers: Own, Rent, Other.
  A respondent is characterized as owning if they answer own.
- Marital status using the variable marital.
  Full wording: *What is your marital status?*
  Possible answers are: Married, Separated, Divorced, Widowed, Never married, Domestic/civil partnership.
  I classify an individual as married if they report being married and as divorced if they report being divorced or separated.
- Age using variable birthyr and the survey year.
  Full wording of birthyr: *What is your year of birth?*
- Household income using the variable faminc.
  Full wording: *Thinking back over the last year, what was your family's annual income?*
  Possible answers are: Less than $10,000, $10,000 - $19,999, $20,000 - $29,999, $30,000 - $39,999, $40,000 - $49,999, $50,000 - $59,999 5053, $60,000 - $69,999, $70,000 - $79,999, $80,000 - $99,999, $100,000 - $119,999, $120,000 - $149,999, $150,000 - $199,999, $200,000 - $249,999, $250,000 - $349,999, $350,000 - $499,999$500,000 or more, Prefer not to say.
  I create a fixed effect variable for each reported level of income with prefer not to say as the reference category.

- Working status using the variable employ.
  Full wording: *Which of the following best describes your current employment status?*
  Possible answers are: Full-time, Part-time, Temporarily laid off, Unemployed, Retired, Permanently disabled, Homemaker, Student, Other.
  I create a fixed effect for each employment status.

- State of residence using the variable inputstate

For more information on the CES survey, please consult the documentation available here.

For the regression analyses, I run the following model as a linear probability model for respondent i in state s and year t (see Online Appendix F.2) for probit models):

$$Y_{ist} = \alpha + \beta WhiteMale_{ist} + \gamma' X_{ist} + \delta_s + \delta_t + \epsilon_{ist}$$

Y_{ist} is one of the outcomes of interest described above X is the set of controls described above, δ_t is a year fixed effect, δ_s is a state fixed effect, and ϵ_{ist} are robust standard errors.

F Empirical analysis: Full tables and Probit models

F.1 Full tables

Table F.1: Full table associated with Table D.1

	Happy yesterday	Happy yesterday	Life worthwhile	Life worthwhile
White Male	-0.1392***	-0.1467***	-0.3928***	-0.3876***
	(0.0349)	(0.0359)	(0.0334)	(0.0342)
University diploma	0.0293	0.0544	0.0964	0.1039
	(0.0693)	(0.0720)	(0.0662)	(0.0686)
High School and professional diploma	0.0908	0.1114	0.0348	0.0484
	(0.0682)	(0.0706)	(0.0652)	(0.0674)
Own house	0.2460***	0.2564***	0.3145***	0.3180***
	(0.0441)	(0.0462)	(0.0425)	(0.0444)
Married	0.3379***	0.3046***	0.4393***	0.4153***
	(0.0402)	(0.0418)	(0.0385)	(0.0400)
Divorced	-0.1202*	-0.1334**	-0.1230**	-0.1149*
	(0.0649)	(0.0667)	(0.0621)	(0.0635)
Age	0.0153***	0.0160***	0.0169***	0.0176***
	(0.0017)	(0.0018)	(0.0016)	(0.0017)
Income under £5000 per year	-0.7481***	-0.8465***	-0.7206***	-0.8595***
	(0.1453)	(0.1579)	(0.1586)	(0.1703)
Income between £10000 and £14999 per year	-0.7787***	-0.8230***	-0.7989***	-0.8617***
	(0.1071)	(0.1111)	(0.1035)	(0.1071)
Income between £15000 and £19999 per year	-0.0857	-0.1224	-0.1458**	-0.1888**
	(0.0759)	(0.0788)	(0.0739)	(0.0764)
Income between £20000 and £24999 per year	-0.0378	-0.0384	-0.0098	-0.0458
	(0.0750)	(0.0773)	(0.0712)	(0.0732)
Income between £25000 and £29999 per year	-0.0312	-0.0452	-0.0263	-0.0396
	(0.0691)	(0.0714)	(0.0659)	(0.0678)
Income between £30000 and £34999 per year	0.1828***	0.1673**	0.1132*	0.0903
	(0.0697)	(0.0717)	(0.0665)	(0.0682)
Income between £35000 and £39999 per year	0.2717***	0.2632***	0.1925***	0.1685**
	(0.0698)	(0.0721)	(0.0684)	(0.0707)
Income between £40000 and £44999 per year	0.1955**	0.1648**	0.2137***	0.1752**
	(0.0785)	(0.0806)	(0.0711)	(0.0725)
Income between £45000 and £49999 per year	0.3007***	0.2887***	0.2390***	0.2292***
	(0.0778)	(0.0801)	(0.0724)	(0.0743)
Income between £50000 and £54999 per year	0.2128**	0.2318***	0.1971**	0.2206***
	(0.0863)	(0.0898)	(0.0799)	(0.0819)
Income between £50000 and £59999 per year	0.3472***	0.3458***	0.3524***	0.3331***
	(0.0750)	(0.0774)	(0.0697)	(0.0720)
Income between £60000 and £69999 per year	0.5308***	0.5528***	0.5560***	0.5447***
	(0.0827)	(0.0854)	(0.0783)	(0.0807)
Income between £70000 and £99999 per year	0.5003***	0.4740***	0.4449***	0.4446***
	(0.0729)	(0.0764)	(0.0678)	(0.0704)
Income between £100000 and £149999 per year	0.5079***	0.4873***	0.5210***	0.5025***
	(0.1039)	(0.1100)	(0.0940)	(0.1008)
Income over £150000 per year	0.7847***	0.8760***	0.7014***	0.7656***
	(0.1605)	(0.1642)	(0.1600)	(0.1603)
Working full time ($\geq$ 30 h. per week)	0.3419***	0.3923***	0.3052***	0.3390***
	(0.1012)	(0.1069)	(0.0994)	(0.1033)
Working part time (8-29 h. per week)	0.5354***	0.5798***	0.5347***	0.5803***
	(0.1058)	(0.1114)	(0.1037)	(0.1074)
Working part time (< 8 h. per week)	0.4981***	0.5637***	0.5590***	0.6722***
	(0.1531)	(0.1592)	(0.1487)	(0.1516)
Full time student	0.9984***	1.0074***	1.0107***	1.0697***
	(0.1476)	(0.1567)	(0.1484)	(0.1581)
Retired	0.8853***	0.9587***	0.6543***	0.7186***
	(0.0993)	(0.1042)	(0.0982)	(0.1017)
Unemployed	-0.4314***	-0.2795**	-0.6967***	-0.6358***
	(0.1289)	(0.1367)	(0.1326)	(0.1399)
Not working	-0.1970*	-0.1424	-0.2927**	-0.2664**
	(0.1146)	(0.1201)	(0.1146)	(0.1187)
Private sector	0.2320***	0.2502***	0.1322**	0.1563***
	(0.0590)	(0.0612)	(0.0563)	(0.0582)
Public sector	0.1869***	0.1644**	0.2899***	0.2812***
	(0.0651)	(0.0678)	(0.0611)	(0.0634)
Non-profit, non-government	0.1590*	0.1894**	0.2890***	0.3428***
	(0.0896)	(0.0933)	(0.0858)	(0.0887)
Sample	All	White	All	White
Wave FE	✓	✓	✓	✓
N.obs	20811	19280	20484	19006

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table F.2: Full table associated with Table D.2

	Self-rated happiness	Self-rated happiness
White Male	-0.0398***	-0.0357***
	(0.0112)	(0.0122)
BA or more	0.1203***	0.1596***
	(0.0205)	(0.0244)
At least high School diploma	0.0658***	0.0873***
	(0.0190)	(0.0230)
Own house	0.0561***	0.0428***
	(0.0109)	(0.0123)
Married	0.2705***	0.2660***
	(0.0131)	(0.0150)
Divorced	-0.0342**	-0.0416**
	(0.0156)	(0.0180)
Age	-0.0010**	-0.0009*
	(0.0004)	(0.0005)
Working full time	0.1735***	0.1753***
	(0.0316)	(0.0365)
Working part time	0.1493***	0.1799***
	(0.0341)	(0.0393)
Temporarily not at work	0.1111**	0.1079**
	(0.0467)	(0.0544)
Unemployed	-0.0851**	-0.0932**
	(0.0383)	(0.0455)
Retired	0.1639***	0.1684***
	(0.0328)	(0.0378)
Student	0.2206***	0.2436***
	(0.0444)	(0.0527)
Keeping house	0.0878**	0.1179***
	(0.0354)	(0.0412)
HH Income over USD25,0000	0.0742***	0.1014***
	(0.0129)	(0.0151)
public	-0.0074	-0.0105
	(0.0172)	(0.0202)
# of children	0.0078**	0.0077*
	(0.0038)	(0.0045)
protestant	0.0000	0.0000
	(.)	(.)
catholic	0.0267*	0.0183
	(0.0138)	(0.0155)
jewish	-0.0038	-0.0216
	(0.0392)	(0.0405)
none	-0.0614***	-0.0634***
	(0.0135)	(0.0154)
other	-0.1130**	-0.0940*
	(0.0460)	(0.0520)
buddhism	0.0210	0.1113
	(0.0524)	(0.0689)
hinduism	0.1024	-0.1883
	(0.0653)	(0.4550)
other eastern religions	-0.1556	-0.1968
	(0.1940)	(0.3175)
muslim/islam	0.0130	-0.0945
	(0.0778)	(0.1362)
orthodox-christian	-0.0719	-0.0289
	(0.0723)	(0.0744)
christian	-0.0643*	-0.0723*
	(0.0356)	(0.0438)
native american	-0.0985	-0.0397
	(0.1897)	(0.4842)
inter-nondenominational	-0.2007**	-0.1308
	(0.0912)	(0.1099)
Sample	All	White
Location FE	✓	✓
Year FE	✓	✓
N.obs	14547	10825

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Note: Protestant is the reference category and is, thus, omitted

Table F.3: Full table associated with Figure D.1

	1972-76	1977-81	1982-86	1987-91	1992-1996
White Male	-0.0188	-0.0228	-0.0249	-0.0083	-0.0011
	(0.0181)	(0.0222)	(0.0161)	(0.0155)	(0.0153)
BA or more	0.1384***	0.1509***	0.1606***	0.0817***	0.1294***
	(0.0246)	(0.0317)	(0.0233)	(0.0234)	(0.0242)
At least high School diploma	0.0838***	0.1060***	0.0587***	0.0498***	0.0717***
	(0.0175)	(0.0234)	(0.0181)	(0.0187)	(0.0207)
Own house	0.0000	0.0000	0.0311	0.0328**	0.0319**
	(.)	(.)	(0.0242)	(0.0147)	(0.0147)
Married	0.3039***	0.2287***	0.1819***	0.2179***	0.2394***
	(0.0194)	(0.0239)	(0.0181)	(0.0176)	(0.0180)
Divorced	-0.1029***	-0.0385	-0.1025***	-0.0706***	-0.0647***
	(0.0319)	(0.0350)	(0.0241)	(0.0224)	(0.0214)
Age	0.0016***	0.0027***	0.0030***	0.0013**	0.0012**
	(0.0006)	(0.0007)	(0.0006)	(0.0006)	(0.0006)
Working full time	0.1352*	0.0453	0.2303***	0.2011***	0.1752***
	(0.0815)	(0.0747)	(0.0619)	(0.0685)	(0.0596)
Working part time	0.1641*	0.1085	0.2315***	0.1962***	0.1725***
	(0.0848)	(0.0793)	(0.0646)	(0.0703)	(0.0622)
Temporarily not at work	0.0533	0.0012	0.1961***	0.0724	0.1047
	(0.0960)	(0.0957)	(0.0756)	(0.0822)	(0.0766)
Unemployed	-0.1410	-0.2212**	0.0343	0.0361	-0.0416
	(0.0906)	(0.0933)	(0.0728)	(0.0859)	(0.0724)
Retired	0.1989**	0.0539	0.2331***	0.2333***	0.2159***
	(0.0847)	(0.0801)	(0.0649)	(0.0707)	(0.0626)
Student	0.1952**	0.1513	0.3362***	0.3202***	0.2425***
	(0.0918)	(0.0943)	(0.0768)	(0.0772)	(0.0740)
Keeping house	0.1506*	0.0595	0.2477***	0.1689**	0.1727***
	(0.0825)	(0.0760)	(0.0627)	(0.0694)	(0.0617)
HH Income over USD25,0000	0.1038***	0.1217***	0.0979***	0.1030***	0.0625***
	(0.0291)	(0.0254)	(0.0167)	(0.0160)	(0.0163)
public	0.0015	-0.0252	-0.0416*	0.0490**	-0.0118
	(0.0189)	(0.0267)	(0.0214)	(0.0222)	(0.0241)
# of children	-0.0146***	-0.0137**	-0.0116***	-0.0118***	-0.0141***
	(0.0043)	(0.0060)	(0.0045)	(0.0046)	(0.0051)
protestant	0.0000	0.0000	0.0000	0.0000	0.0000
	(.)	(.)	(.)	(.)	(.)
catholic	-0.0433**	0.0100	-0.0101	0.0075	0.0070
	(0.0182)	(0.0232)	(0.0171)	(0.0169)	(0.0176)
jewish	-0.1419***	-0.1196*	-0.0852*	-0.0651	0.0290
	(0.0502)	(0.0637)	(0.0516)	(0.0533)	(0.0491)
none	-0.1044***	-0.0934**	-0.1012***	-0.0559**	-0.0611**
	(0.0300)	(0.0380)	(0.0290)	(0.0273)	(0.0248)
other	-0.0851	-0.0839	-0.1020*	-0.0938**	0.0234
	(0.0741)	(0.0739)	(0.0604)	(0.0460)	(0.0365)
Sample	All	All	All	All	All
Location FE	✓	✓	✓	✓	✓
Year FE	✓	✓	✓	✓	✓
N.obs	7509	4455	7765	7594	7410

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Note: Protestant is the reference category and is, thus, omitted

Table F.3 (cont'd): Full table associated with Figure D.1

	1997-01	2002-06	2007-11	2012-16	2017-22
White Male	0.0016	0.0004	-0.0249	-0.0322**	-0.0366***
	(0.0174)	(0.0178)	(0.0215)	(0.0159)	(0.0142)
BA or more	0.1708***	0.1598***	0.1948***	0.1427***	0.0821***
	(0.0285)	(0.0283)	(0.0338)	(0.0269)	(0.0270)
At least high School diploma	0.0909***	0.0744***	0.0835***	0.0794***	0.0358
	(0.0247)	(0.0250)	(0.0304)	(0.0244)	(0.0253)
Own house	0.0283*	0.0687***	0.0891***	0.0405***	0.0669***
	(0.0169)	(0.0173)	(0.0212)	(0.0153)	(0.0137)
Married	0.2649***	0.2629***	0.2988***	0.2484***	0.2934***
	(0.0206)	(0.0209)	(0.0246)	(0.0183)	(0.0166)
Divorced	-0.0463*	-0.0707***	-0.0092	-0.0382*	-0.0281
	(0.0245)	(0.0246)	(0.0291)	(0.0219)	(0.0197)
Age	0.0006	-0.0008	-0.0012	-0.0003	-0.0017***
	(0.0007)	(0.0007)	(0.0008)	(0.0006)	(0.0006)
Working full time	0.3442***	0.1958***	0.0943	0.2299***	0.1199***
	(0.0632)	(0.0563)	(0.0577)	(0.0495)	(0.0379)
Working part time	0.3434***	0.1493**	0.1265**	0.1989***	0.1076***
	(0.0667)	(0.0602)	(0.0634)	(0.0523)	(0.0415)
Temporarily not at work	0.2615***	0.0351	0.0427	0.1635**	0.0624
	(0.0869)	(0.0797)	(0.0893)	(0.0720)	(0.0561)
Unemployed	0.0894	0.0333	-0.0210	-0.0885	-0.1023**
	(0.0881)	(0.0703)	(0.0714)	(0.0600)	(0.0455)
Retired	0.3992***	0.2662***	0.1592**	0.1791***	0.1388***
	(0.0680)	(0.0594)	(0.0628)	(0.0522)	(0.0390)
Student	0.4116***	0.2710***	0.2384***	0.3020***	0.1144**
	(0.0796)	(0.0719)	(0.0757)	(0.0654)	(0.0550)
Keeping house	0.3191***	0.1788***	0.1103*	0.1366**	0.0480
	(0.0667)	(0.0611)	(0.0631)	(0.0539)	(0.0432)
HH Income over USD25,0000	0.0908***	0.0617***	0.0318	0.0726***	0.0680***
	(0.0190)	(0.0194)	(0.0229)	(0.0180)	(0.0163)
public	0.0121	0.0252	-0.0380	-0.0263	0.0046
	(0.0269)	(0.0276)	(0.0353)	(0.0243)	(0.0216)
# of children	-0.0035	-0.0040	-0.0028	-0.0012	0.0122**
	(0.0058)	(0.0058)	(0.0070)	(0.0054)	(0.0047)
protestant	0.0000	0.0000	0.0000	0.0000	0.0000
	(.)	(.)	(.)	(.)	(.)
catholic	-0.0084	-0.0494**	-0.0324	0.0062	0.0188
	(0.0203)	(0.0201)	(0.0255)	(0.0189)	(0.0177)
jewish	-0.1281**	-0.0147	-0.0393	-0.0770	0.0284
	(0.0612)	(0.0630)	(0.0807)	(0.0565)	(0.0486)
none	-0.0772***	-0.0904***	-0.0473*	-0.0351*	-0.0736***
	(0.0244)	(0.0246)	(0.0281)	(0.0201)	(0.0167)
other	-0.0745	-0.2238***	0.0366	-0.1296*	-0.1133**
	(0.0742)	(0.0808)	(0.1064)	(0.0753)	(0.0528)
buddhism	-0.1502	-0.1085	-0.0969	-0.0667	0.0524
	(0.0976)	(0.0950)	(0.1106)	(0.0797)	(0.0678)
hinduism	0.0315	-0.2208*	-0.2879**	0.0255	0.1455*
	(0.1209)	(0.1269)	(0.1227)	(0.0951)	(0.0792)
other eastern religions	0.3429	-0.1953	0.3466*	-0.2536**	0.0049
	(0.3018)	(0.2621)	(0.1845)	(0.1224)	(0.3409)
muslim/islam	0.0734	-0.0263	-0.0225	-0.1503	0.0631
	(0.1313)	(0.1270)	(0.1131)	(0.1067)	(0.0953)
orthodox-christian	0.1881*	0.1620	-0.2866	-0.1455	-0.0627
	(0.1112)	(0.1163)	(0.1945)	(0.1482)	(0.0776)
christian	0.0781	-0.0347	-0.0925*	-0.0482	-0.0791*
	(0.0721)	(0.0556)	(0.0525)	(0.0398)	(0.0477)
native american	-0.3783	-0.2343**	0.4574	-0.1438	-0.0852
	(0.2854)	(0.0958)	(0.3230)	(0.1580)	(0.3120)
inter-nondenominational	0.0193	0.0462	0.0222	-0.2227*	-0.2289*
	(0.0921)	(0.0949)	(0.1383)	(0.1266)	(0.1232)
Sample	All	All	All	All	All
Location FE	✓	✓	✓	✓	✓
Year FE	✓	✓	✓	✓	✓
N.obs	5517	5642	4018	7275	9223

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Note: Protestant is the reference category and is, thus, omitted

Table F.4: Full table associated with Table D.3

	Minorities too far	Women too far	L-G too far
White Male	0.0783***	0.0693***	0.1025***
	(0.0024)	(0.0019)	(0.0023)
Own house	0.0195***	0.0181***	0.0192***
	(0.0028)	(0.0022)	(0.0027)
Married	0.0262***	0.0030	0.0486***
	(0.0027)	(0.0021)	(0.0026)
Divorced	0.0159***	-0.0088***	0.0004
	(0.0044)	(0.0032)	(0.0042)
University diploma	-0.0901***	-0.0152***	-0.0441***
	(0.0042)	(0.0032)	(0.0040)
High School and professional diploma	0.0043	0.0105***	0.0093**
	(0.0041)	(0.0031)	(0.0040)
Age	0.0037***	0.0001	0.0040***
	(0.0001)	(0.0001)	(0.0001)
Income under £5000 per year	0.0042	0.0094	-0.0129*
	(0.0082)	(0.0064)	(0.0076)
Income between £10000 and £14999 per year	0.0006	-0.0003	-0.0305***
	(0.0060)	(0.0044)	(0.0056)
Income between £15000 and £19999 per year	-0.0108**	-0.0022	-0.0158***
	(0.0048)	(0.0036)	(0.0046)
Income between £20000 and £24999 per year	-0.0087*	-0.0020	-0.0077*
	(0.0047)	(0.0036)	(0.0046)
Income between £25000 and £29999 per year	-0.0018	0.0087**	0.0022
	(0.0046)	(0.0035)	(0.0044)
Income between £30000 and £34999 per year	-0.0047	0.0068*	-0.0018
	(0.0046)	(0.0036)	(0.0045)
Income between £35000 and £39999 per year	-0.0134***	0.0006	-0.0101**
	(0.0049)	(0.0038)	(0.0048)
Income between £40000 and £44999 per year	-0.0188***	0.0033	-0.0066
	(0.0053)	(0.0041)	(0.0051)
Income between £45000 and £49999 per year	-0.0022	0.0082*	-0.0024
	(0.0055)	(0.0044)	(0.0054)
Income between £50000 and £54999 per year	-0.0202***	-0.0034	-0.0215***
	(0.0059)	(0.0046)	(0.0057)
Income between £50000 and £59999 per year	-0.0239***	-0.0040	-0.0280***
	(0.0052)	(0.0041)	(0.0050)
Income between £60000 and £69999 per year	-0.0275***	-0.0080*	-0.0376***
	(0.0060)	(0.0048)	(0.0058)
Income between £70000 and £99999 per year	-0.0388***	-0.0123***	-0.0435***
	(0.0053)	(0.0042)	(0.0051)
Income between £100000 and £149999 per year	-0.0695***	-0.0165***	-0.0724***
	(0.0076)	(0.0063)	(0.0073)
Income over £150000 per year	-0.0378***	0.0104	-0.0491***
	(0.0120)	(0.0105)	(0.0116)
Working full time ($\geq$ 30 h. per week)	-0.0155**	-0.0132**	-0.0005
	(0.0077)	(0.0060)	(0.0073)
Working part time (8-29 h. per week)	-0.0183**	-0.0199***	-0.0015
	(0.0079)	(0.0062)	(0.0075)
Working part time ($<$ 8 h. per week)	-0.0393***	-0.0174**	-0.0063
	(0.0109)	(0.0083)	(0.0104)
Full time student	-0.0813***	-0.0339***	-0.0054
	(0.0084)	(0.0069)	(0.0079)
Retired	-0.0097	0.0014	0.0400***
	(0.0076)	(0.0058)	(0.0071)
Unemployed	-0.0226**	-0.0034	-0.0052
	(0.0091)	(0.0072)	(0.0085)
Not working	0.0114	-0.0029	0.0058
	(0.0080)	(0.0061)	(0.0074)
Private sector	0.0289***	0.0142***	0.0166***
	(0.0045)	(0.0035)	(0.0043)
Public sector	-0.0066	-0.0060	-0.0160***
	(0.0048)	(0.0038)	(0.0046)
Non-profit, non-government	-0.0448***	-0.0177***	-0.0276***
	(0.0061)	(0.0047)	(0.0059)
Wave FE	✓	✓	✓
N.obs	162,210	162,426	162,210

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table F.5: Full table associated with Table D.4

	Minorities	Minorities	Minorities	Women	Women	Women	L-G	L-G	L-G
White Male	0.0798***	0.0748***	0.0839***	0.0609***	0.0682***	0.0717***	0.1020***	0.1116***	0.0950***
	(0.0078)	(0.0037)	(0.0033)	(0.0060)	(0.0029)	(0.0026)	(0.0076)	(0.0036)	(0.0032)
Own house	0.0283***	0.0244***	0.0119***	0.0219***	0.0211***	0.0132***	0.0228***	0.0386***	-0.0029
	(0.0088)	(0.0044)	(0.0040)	(0.0065)	(0.0033)	(0.0031)	(0.0085)	(0.0042)	(0.0038)
Married	0.0311***	0.0283***	0.0227***	-0.0012	-0.0022	0.0093***	0.0409***	0.0385***	0.0607***
	(0.0090)	(0.0043)	(0.0037)	(0.0067)	(0.0033)	(0.0030)	(0.0086)	(0.0041)	(0.0036)
Divorced	0.0108	0.0139**	0.0226***	-0.0201**	-0.0180***	0.0036	0.0004	-0.0113*	0.0158**
	(0.0136)	(0.0066)	(0.0065)	(0.0094)	(0.0047)	(0.0049)	(0.0130)	(0.0062)	(0.0063)
Age	0.0045***	0.0039***	0.0031***	-0.0004	-0.0001	0.0002*	0.0038***	0.0039***	0.0042***
	(0.0004)	(0.0002)	(0.0002)	(0.0003)	(0.0001)	(0.0001)	(0.0003)	(0.0002)	(0.0002)
Income under	0.0111	-0.0031	0.0155	0.0264*	0.0052	0.0079	0.0109	-0.0160	-0.0186
£5000 per year	(0.0195)	(0.0119)	(0.0141)	(0.0159)	(0.0091)	(0.0110)	(0.0189)	(0.0109)	(0.0127)
Income between	0.0368**	-0.0173**	0.0114	-0.0004	-0.0054	0.0161*	-0.0154	-0.0426***	-0.0125
£10000 and £14999 per year	(0.0149)	(0.0084)	(0.0106)	(0.0106)	(0.0062)	(0.0083)	(0.0140)	(0.0078)	(0.0100)
Income between	0.0059	-0.0212***	-0.0057	-0.0110	-0.0009	0.0033	0.0005	-0.0206***	-0.0169**
£15000 and £19999 per year	(0.0125)	(0.0068)	(0.0081)	(0.0088)	(0.0051)	(0.0061)	(0.0121)	(0.0066)	(0.0078)
Income between	0.0022	-0.0193***	-0.0023	-0.0134	-0.0035	0.0059	0.0054	-0.0163**	-0.0010
£20000 and £24999 per year	(0.0138)	(0.0068)	(0.0076)	(0.0098)	(0.0051)	(0.0059)	(0.0134)	(0.0065)	(0.0074)
Income between	0.0100	-0.0109	0.0017	0.0187*	0.0019	0.0154***	0.0430***	-0.0091	0.0033
£25000 and £29999 per year	(0.0147)	(0.0067)	(0.0070)	(0.0113)	(0.0051)	(0.0055)	(0.0146)	(0.0065)	(0.0068)
Income between	0.0302*	-0.0077	-0.0136**	0.0170	0.0068	0.0045	0.0383**	-0.0077	-0.0057
£30000 and £34999 per year	(0.0170)	(0.0070)	(0.0067)	(0.0131)	(0.0053)	(0.0053)	(0.0165)	(0.0067)	(0.0066)
Income between	0.0140	-0.0154**	-0.0201***	0.0085	0.0030	-0.0037	0.0474**	-0.0249***	-0.0054
£35000 and £39999 per year	(0.0207)	(0.0076)	(0.0068)	(0.0157)	(0.0058)	(0.0053)	(0.0203)	(0.0072)	(0.0067)
Income between	0.0158	-0.0227***	-0.0237***	0.0176	0.0016	0.0023	-0.0134	-0.0060	-0.0087
£40000 and £44999 per year	(0.0232)	(0.0083)	(0.0071)	(0.0180)	(0.0064)	(0.0057)	(0.0222)	(0.0080)	(0.0070)
Income between	-0.0238	-0.0010	-0.0057	0.0018	0.0151**	0.0023	-0.0246	-0.0091	0.0017
£45000 and £49999 per year	(0.0257)	(0.0091)	(0.0072)	(0.0206)	(0.0071)	(0.0057)	(0.0249)	(0.0087)	(0.0071)
Income between	0.0729**	-0.0223**	-0.0291***	0.0482*	0.0079	-0.0164***	0.0518*	-0.0235**	-0.0275***
£50000 and £54999 per year	(0.0306)	(0.0099)	(0.0075)	(0.0251)	(0.0079)	(0.0058)	(0.0302)	(0.0095)	(0.0074)
Income between	0.0633**	-0.0075	-0.0409***	0.0042	0.0103	-0.0135***	0.0398	-0.0286***	-0.0327***
£50000 and £59999 per year	(0.0299)	(0.0093)	(0.0064)	(0.0231)	(0.0074)	(0.0051)	(0.0291)	(0.0089)	(0.0063)
Income between	0.0450	-0.0096	-0.0420***	0.0608*	0.0070	-0.0186***	0.0358	-0.0185*	-0.0509***
£60000 and £69999 per year	(0.0385)	(0.0114)	(0.0073)	(0.0325)	(0.0090)	(0.0057)	(0.0368)	(0.0109)	(0.0070)
Income between	-0.0049	-0.0147	-0.0510***	-0.0196	0.0077	-0.0198***	-0.0209	-0.0370***	-0.0470***
£70000 and £99999 per year	(0.0363)	(0.0108)	(0.0063)	(0.0276)	(0.0086)	(0.0050)	(0.0355)	(0.0102)	(0.0062)
Income between	0.0109	-0.0406**	-0.0818***	0.0282	-0.0053	-0.0209***	-0.0018	-0.0439***	-0.0821***
£100000 and £149999 per year	(0.0655)	(0.0179)	(0.0085)	(0.0548)	(0.0142)	(0.0072)	(0.0640)	(0.0169)	(0.0083)
Income over	0.1643*	-0.0016	-0.0558***	0.1874**	0.0445*	-0.0040	0.2006**	-0.0094	-0.0670***
£150000 per year	(0.0884)	(0.0300)	(0.0132)	(0.0822)	(0.0268)	(0.0114)	(0.0839)	(0.0294)	(0.0127)
Working full	-0.0148	-0.0209*	-0.0150	-0.0019	-0.0126	-0.0127	-0.0210	0.0041	0.0022
time ($\geq$ 30 h. per week)	(0.0196)	(0.0122)	(0.0115)	(0.0151)	(0.0097)	(0.0091)	(0.0188)	(0.0114)	(0.0110)
Working part	-0.0246	-0.0244*	-0.0147	-0.0123	-0.0239**	-0.0178*	-0.0374*	0.0071	-0.0003
time (8-29 h. per week)	(0.0207)	(0.0125)	(0.0119)	(0.0159)	(0.0098)	(0.0093)	(0.0197)	(0.0116)	(0.0113)
Working part	-0.0356	-0.0586***	-0.0258*	0.0028	-0.0134	-0.0267**	0.0002	0.0002	-0.0119
time ($<$ 8 h. per week)	(0.0345)	(0.0174)	(0.0156)	(0.0269)	(0.0135)	(0.0118)	(0.0332)	(0.0164)	(0.0150)
Full time	-0.0659**	-0.1203***	-0.0329**	-0.0132	-0.0535***	-0.0138	-0.0007	-0.0186	0.0139
student	(0.0258)	(0.0125)	(0.0134)	(0.0245)	(0.0102)	(0.0109)	(0.0267)	(0.0117)	(0.0125)
Retired	-0.0065	-0.0183	-0.0074	0.0135	0.0025	0.0013	0.0319*	0.0510***	0.0293***
	(0.0199)	(0.0117)	(0.0117)	(0.0150)	(0.0089)	(0.0092)	(0.0189)	(0.0108)	(0.0111)
Unemployed	-0.0322	-0.0188	-0.0225	-0.0142	-0.0067	0.0060	-0.0316	-0.0051	0.0088
	(0.0215)	(0.0138)	(0.0144)	(0.0169)	(0.0108)	(0.0118)	(0.0204)	(0.0126)	(0.0137)
Not working	0.0114	0.0131	0.0031	0.0155	-0.0039	-0.0082	-0.0008	0.0126	0.0008
	(0.0195)	(0.0121)	(0.0126)	(0.0151)	(0.0092)	(0.0098)	(0.0185)	(0.0111)	(0.0119)
Private sector	0.0228*	0.0316***	0.0197***	0.0088	0.0110**	0.0163***	0.0380***	0.0110	0.0135**
	(0.0135)	(0.0070)	(0.0066)	(0.0101)	(0.0055)	(0.0052)	(0.0129)	(0.0067)	(0.0064)
Public sector	-0.0119	0.0023	-0.0189***	-0.0131	0.0039	-0.0110**	-0.0228	-0.0144*	-0.0211***
	(0.0169)	(0.0079)	(0.0068)	(0.0126)	(0.0062)	(0.0053)	(0.0159)	(0.0075)	(0.0066)
Non-profit,	-0.0478*	-0.0105	-0.0684***	0.0021	0.0060	-0.0313***	0.0013	-0.0255**	-0.0353***
non-government	(0.0273)	(0.0112)	(0.0078)	(0.0214)	(0.0086)	(0.0061)	(0.0271)	(0.0104)	(0.0078)
Sample	No qualif./answer	HighSchool	University	No qualif./answer	High School	University	No qualif./answer	HighSchool	University
Wave FE	✓	✓	✓	✓	✓	✓	✓	✓	✓
N.obs	16100	72483	73627	16115	72580	73731	16100	72483	73627

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table F.6: Full table associated with Table D.5

	Minorities	Minorities	Minorities	Women	Women	Women	L-G	L-G	L-G
White Male	0.1058***	0.0677***	0.0852***	0.0962***	0.0745***	0.0506***	0.0553***	0.0839***	0.1436***
	(0.0073)	(0.0030)	(0.0046)	(0.0067)	(0.0024)	(0.0035)	(0.0066)	(0.0028)	(0.0047)
Own house	0.0511***	0.0095***	0.0061	0.0517***	0.0146***	0.0156***	0.0492***	0.0159***	0.0268***
	(0.0122)	(0.0033)	(0.0063)	(0.0115)	(0.0025)	(0.0046)	(0.0116)	(0.0031)	(0.0062)
Married	0.0218	0.0222***	0.0423***	0.0437**	0.0083***	-0.0060	0.0988***	0.0471***	0.0637***
	(0.0191)	(0.0032)	(0.0057)	(0.0190)	(0.0025)	(0.0043)	(0.0210)	(0.0030)	(0.0057)
Divorced	0.0899	0.0179***	-0.0059	0.0157	-0.0035	-0.0223***	0.1739**	0.0166***	-0.0124
	(0.0634)	(0.0055)	(0.0077)	(0.0582)	(0.0040)	(0.0056)	(0.0699)	(0.0051)	(0.0076)
Age	-0.0027	0.0052***	-0.0002	-0.0057***	0.0003**	0.0002	-0.0039**	0.0044***	0.0058***
	(0.0018)	(0.0001)	(0.0005)	(0.0017)	(0.0001)	(0.0004)	(0.0017)	(0.0001)	(0.0005)
Income under	0.0334**	0.0074	0.0146	0.0411***	0.0078	0.0040	0.0183	-0.0108	0.0282
£5000 per year	(0.0152)	(0.0101)	(0.0315)	(0.0141)	(0.0076)	(0.0235)	(0.0137)	(0.0092)	(0.0325)
Income between	-0.0080	0.0133*	0.0023	0.0013	0.0141**	-0.0252***	-0.0028	-0.0106	-0.0401***
£10000 and £14999 per year	(0.0149)	(0.0078)	(0.0111)	(0.0137)	(0.0059)	(0.0077)	(0.0141)	(0.0071)	(0.0108)
Income between	0.0072	-0.0009	-0.0111	0.0239*	0.0029	-0.0112*	0.0231	0.0015	-0.0291***
£15000 and £19999 per year	(0.0153)	(0.0065)	(0.0081)	(0.0144)	(0.0048)	(0.0059)	(0.0148)	(0.0060)	(0.0080)
Income between	-0.0058	0.0046	-0.0167**	0.0138	0.0009	-0.0057	0.0134	-0.0114*	-0.0005
£20000 and £24999 per year	(0.0146)	(0.0063)	(0.0081)	(0.0139)	(0.0046)	(0.0061)	(0.0145)	(0.0058)	(0.0082)
Income between	0.0301**	0.0122**	-0.0225***	0.0331**	0.0176***	-0.0063	0.0392***	0.0091	-0.0135*
£25000 and £29999 per year	(0.0147)	(0.0059)	(0.0081)	(0.0134)	(0.0046)	(0.0061)	(0.0142)	(0.0056)	(0.0082)
Income between	-0.0032	0.0037	-0.0233***	-0.0077	0.0074*	0.0100	-0.0018	0.0096*	-0.0250***
£30000 and £34999 per year	(0.0153)	(0.0059)	(0.0085)	(0.0132)	(0.0045)	(0.0067)	(0.0141)	(0.0056)	(0.0086)
Income between	0.0034	0.0060	-0.0682***	0.0108	0.0084*	-0.0162**	-0.0111	0.0012	-0.0417***
£35000 and £39999 per year	(0.0157)	(0.0062)	(0.0095)	(0.0146)	(0.0047)	(0.0071)	(0.0144)	(0.0058)	(0.0095)
Income between	0.0106	-0.0036	-0.0758***	0.0491***	0.0043	-0.0059	0.0407**	-0.0004	-0.0387***
£40000 and £44999 per year	(0.0180)	(0.0064)	(0.0105)	(0.0182)	(0.0049)	(0.0082)	(0.0186)	(0.0061)	(0.0108)
Income between	0.0463**	0.0048	-0.0577***	0.0187	0.0102**	-0.0000	0.0431**	-0.0030	-0.0255**
£45000 and £49999 per year	(0.0187)	(0.0066)	(0.0121)	(0.0160)	(0.0052)	(0.0094)	(0.0176)	(0.0062)	(0.0123)
Income between	0.0182	-0.0161**	-0.0739***	0.0300*	-0.0016	-0.0232**	-0.0004	-0.0160**	-0.0587***
£50000 and £54999 per year	(0.0189)	(0.0070)	(0.0139)	(0.0179)	(0.0054)	(0.0103)	(0.0169)	(0.0066)	(0.0142)
Income between	-0.0127	-0.0121**	-0.1242***	-0.0265**	0.0011	-0.0265***	-0.0266*	-0.0174***	-0.0991***
£50000 and £59999 per year	(0.0162)	(0.0061)	(0.0130)	(0.0133)	(0.0048)	(0.0100)	(0.0142)	(0.0058)	(0.0134)
Income between	0.0249	-0.0253***	-0.1284***	-0.0162	-0.0060	-0.0275**	-0.0308*	-0.0284***	-0.1275***
£60000 and £69999 per year	(0.0204)	(0.0069)	(0.0171)	(0.0163)	(0.0054)	(0.0131)	(0.0162)	(0.0065)	(0.0177)
Income between	0.0168	-0.0482***	-0.1186***	0.0252	-0.0185***	-0.0134	0.0228	-0.0482***	-0.0981***
£70000 and £99999 per year	(0.0171)	(0.0060)	(0.0158)	(0.0161)	(0.0047)	(0.0125)	(0.0165)	(0.0057)	(0.0164)
Income between	0.0235	-0.0900***	-0.1589***	-0.0113	-0.0209***	-0.0330	-0.0064	-0.0786***	-0.1588***
£100000 and £149999 per year	(0.0243)	(0.0084)	(0.0296)	(0.0201)	(0.0069)	(0.0228)	(0.0215)	(0.0080)	(0.0305)
Income over	0.0350	-0.0832***	0.0604	0.0387	-0.0071	0.0899*	0.0390	-0.0832***	0.0563
£150000 per year	(0.0301)	(0.0133)	(0.0555)	(0.0281)	(0.0115)	(0.0493)	(0.0294)	(0.0127)	(0.0554)
Working full	-0.0356*	-0.0163*	0.0643**	-0.0348*	-0.0149**	0.0512**	-0.0140	-0.0027	0.0644**
time ($\geq$ 30 h. per week)	(0.0191)	(0.0087)	(0.0323)	(0.0187)	(0.0068)	(0.0222)	(0.0181)	(0.0082)	(0.0322)
Working part	-0.0235	-0.0110	0.0051	-0.0381*	-0.0180***	0.0196	-0.0060	-0.0058	0.0371
time (8-29 h. per week)	(0.0206)	(0.0090)	(0.0313)	(0.0197)	(0.0070)	(0.0212)	(0.0195)	(0.0084)	(0.0312)
Working part	-0.0247	-0.0330**	-0.0221	-0.0327	-0.0109	0.0021	-0.0116	-0.0074	0.0041
time ($<$ 8 h. per week)	(0.0301)	(0.0129)	(0.0342)	(0.0282)	(0.0099)	(0.0231)	(0.0284)	(0.0122)	(0.0341)
Full time	-0.0588***	-0.0809***	0.0014	-0.0545***	-0.0146	-0.0099	-0.0224	-0.0327**	0.1291
student	(0.0182)	(0.0142)	(0.1449)	(0.0177)	(0.0122)	(0.1022)	(0.0172)	(0.0132)	(0.1602)
Retired	0.2326***	-0.0166*	0.0427	0.1995**	-0.0022	0.0386**	0.1682**	0.0144*	0.0626**
	(0.0805)	(0.0092)	(0.0291)	(0.0803)	(0.0070)	(0.0195)	(0.0779)	(0.0086)	(0.0289)
Unemployed	-0.0295	-0.0177*	0.0494	-0.0150	-0.0029	0.0208	-0.0152	-0.0010	0.0276
	(0.0212)	(0.0102)	(0.0545)	(0.0208)	(0.0079)	(0.0394)	(0.0198)	(0.0095)	(0.0540)
Not working	0.0267	0.0042	0.0777**	-0.0059	-0.0041	0.0401	0.0254	0.0054	0.0660*
	(0.0245)	(0.0087)	(0.0382)	(0.0229)	(0.0066)	(0.0269)	(0.0230)	(0.0081)	(0.0379)
Private sector	0.0371***	0.0172***	0.0236*	0.0204**	0.0133***	0.0001	0.0229***	0.0194***	0.0111
	(0.0090)	(0.0057)	(0.0121)	(0.0084)	(0.0044)	(0.0088)	(0.0087)	(0.0053)	(0.0122)
Public sector	0.0413***	-0.0319***	-0.0397***	0.0246**	-0.0113**	-0.0103	0.0296***	-0.0223***	-0.0424***
	(0.0118)	(0.0059)	(0.0148)	(0.0108)	(0.0045)	(0.0111)	(0.0111)	(0.0056)	(0.0148)
Non-profit,	-0.0176	-0.0746***	-0.0645***	-0.0083	-0.0241***	-0.0173	0.0159	-0.0394***	-0.0370*
non-government	(0.0154)	(0.0073)	(0.0188)	(0.0144)	(0.0055)	(0.0135)	(0.0164)	(0.0068)	(0.0189)
Sample	Under 25	26-64	Over 65	Under 25	26-64	Over 65	Under 25	26-64	Over 65
Wave FE	✓	✓	✓	✓	✓	✓	✓	✓	✓
N.obs	11815	103471	46924	11829	103606	46991	11815	103471	46924

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table F.7: Full table associated with Table D.6

	Men discriminated	Women discriminated	White discriminated	BME discriminated
White Male	1.3522***	-0.7877***	0.5468***	-0.5982***
	(0.0176)	(0.0155)	(0.0199)	(0.0187)
Own house	0.1534***	-0.1356***	0.1225***	-0.2356***
	(0.0222)	(0.0195)	(0.0251)	(0.0234)
Married	0.1216***	-0.0085	0.1883***	-0.0951***
	(0.0204)	(0.0179)	(0.0230)	(0.0215)
Divorced	-0.0453	0.0450	0.0641*	-0.0653*
	(0.0319)	(0.0283)	(0.0365)	(0.0345)
University diploma	-0.4126***	0.1280***	-0.8948***	0.5199***
	(0.0349)	(0.0326)	(0.0400)	(0.0389)
High School and professional diploma	-0.1246***	-0.0475	-0.2489***	0.1366***
	(0.0343)	(0.0323)	(0.0393)	(0.0386)
Age	0.0087***	-0.0081***	0.0259***	-0.0163***
	(0.0009)	(0.0008)	(0.0010)	(0.0009)
Income under £5000 per year	0.1542**	0.1934***	0.2127**	-0.0255
	(0.0772)	(0.0694)	(0.0851)	(0.0795)
Income between £10000 and £14999 per year	-0.0208	0.1100***	-0.0160	0.1857***
	(0.0477)	(0.0418)	(0.0535)	(0.0505)
Income between £15000 and £19999 per year	-0.0882**	0.0371	-0.0716*	0.1546***
	(0.0362)	(0.0329)	(0.0417)	(0.0396)
Income between £20000 and £24999 per year	-0.0576*	0.0056	-0.1177***	0.1107***
	(0.0348)	(0.0313)	(0.0399)	(0.0378)
Income between £25000 and £29999 per year	-0.0939***	0.0202	-0.2044***	0.1839***
	(0.0331)	(0.0293)	(0.0384)	(0.0359)
Income between £30000 and £34999 per year	-0.1092***	-0.0140	-0.2314***	0.1541***
	(0.0334)	(0.0296)	(0.0385)	(0.0363)
Income between £35000 and £39999 per year	-0.1205***	0.0215	-0.2161***	0.1516***
	(0.0369)	(0.0320)	(0.0416)	(0.0392)
Income between £40000 and £44999 per year	-0.0626	-0.0351	-0.2232***	0.1086***
	(0.0385)	(0.0334)	(0.0436)	(0.0407)
Income between £45000 and £49999 per year	-0.0773*	-0.0252	-0.2540***	0.2110***
	(0.0403)	(0.0346)	(0.0454)	(0.0417)
Income between £50000 and £54999 per year	-0.0830*	-0.0132	-0.2555***	0.1193***
	(0.0440)	(0.0376)	(0.0495)	(0.0458)
Income between £50000 and £59999 per year	-0.1682***	-0.0056	-0.4162***	0.2667***
	(0.0389)	(0.0327)	(0.0434)	(0.0400)
Income between £60000 and £69999 per year	-0.1938***	-0.0770**	-0.4552***	0.2670***
	(0.0461)	(0.0385)	(0.0513)	(0.0465)
Income between £70000 and £99999 per year	-0.2310***	-0.0323	-0.5283***	0.2551***
	(0.0393)	(0.0330)	(0.0437)	(0.0399)
Income between £100000 and £149999 per year	-0.3043***	0.0771	-0.6337***	0.3511***
	(0.0609)	(0.0505)	(0.0646)	(0.0581)
Income over £150000 per year	-0.1084	-0.1575*	-0.3259***	0.0849
	(0.0989)	(0.0820)	(0.1100)	(0.0992)
Working full time ($\geq$ 30 h. per week)	0.0138	-0.1716***	0.0021	-0.0224
	(0.0672)	(0.0570)	(0.0753)	(0.0692)
Working part time (8-29 h. per week)	-0.0930	-0.1142*	-0.1221	0.0389
	(0.0690)	(0.0584)	(0.0773)	(0.0711)
Working part time ($<$ 8 h. per week)	0.0205	-0.2192***	-0.0920	0.0590
	(0.0883)	(0.0766)	(0.0986)	(0.0908)
Full time student	-0.4069***	-0.1412**	-0.9587***	0.2937***
	(0.0777)	(0.0655)	(0.0879)	(0.0779)
Retired	-0.1169*	-0.2080***	-0.3487***	0.0601
	(0.0640)	(0.0548)	(0.0722)	(0.0674)
Unemployed	0.0004	-0.2940***	-0.1135	0.0437
	(0.0834)	(0.0734)	(0.0943)	(0.0869)
Not working	-0.0334	-0.1621***	0.0853	-0.0956
	(0.0681)	(0.0580)	(0.0768)	(0.0713)
Private sector	0.0518	-0.1538***	0.0770*	-0.1770***
	(0.0377)	(0.0328)	(0.0421)	(0.0391)
Public sector	-0.0563	-0.0127	-0.0269	-0.0185
	(0.0401)	(0.0347)	(0.0446)	(0.0411)
Non-profit, non-government	-0.2207***	0.0424	-0.3156***	0.1610***
	(0.0509)	(0.0433)	(0.0575)	(0.0518)
Wave FE	✓	✓	✓	✓
N.obs	73,834	75,560	74,616	75,072

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table F.8: Full table associated with Table D.7

	Men discriminated	Men discriminated	Men discriminated	White discriminated	White discriminated	White discriminated
White Male	1.1031***	1.3612***	1.3710***	0.3724***	0.4816***	0.6138***
	(0.0659)	(0.0263)	(0.0254)	(0.0755)	(0.0300)	(0.0284)
Own house	0.2048***	0.1724***	0.1123***	0.1594*	0.0681*	0.1646***
	(0.0739)	(0.0328)	(0.0330)	(0.0850)	(0.0373)	(0.0369)
Married	0.1106	0.0585*	0.1812***	0.0299	0.2126***	0.1836***
	(0.0773)	(0.0307)	(0.0293)	(0.0870)	(0.0350)	(0.0326)
Divorced	0.0192	-0.1634***	0.0494	-0.0038	-0.0127	0.1323**
	(0.1146)	(0.0459)	(0.0481)	(0.1322)	(0.0528)	(0.0547)
Age	0.0007	0.0051***	0.0128***	0.0202***	0.0210***	0.0293***
	(0.0034)	(0.0014)	(0.0013)	(0.0039)	(0.0016)	(0.0014)
Income under £5000 per year	0.0621	0.1907*	0.1226	0.1428	0.1507	0.2550*
	(0.2238)	(0.1060)	(0.1267)	(0.2402)	(0.1193)	(0.1390)
Income between £10000 and £14999 per year	-0.0448	0.1127*	-0.2181***	0.0211	0.0563	-0.1748*
	(0.1335)	(0.0651)	(0.0833)	(0.1494)	(0.0725)	(0.0942)
Income between £15000 and £19999 per year	-0.1353	-0.1067**	0.0179	-0.2210*	-0.1102*	0.0758
	(0.1036)	(0.0497)	(0.0629)	(0.1169)	(0.0574)	(0.0721)
Income between £20000 and £24999 per year	-0.0194	-0.0525	-0.0422	-0.0518	-0.1765***	-0.0359
	(0.1078)	(0.0475)	(0.0588)	(0.1267)	(0.0550)	(0.0655)
Income between £25000 and £29999 per year	-0.2110*	-0.0690	-0.0767	-0.2539*	-0.2607***	-0.1247**
	(0.1113)	(0.0470)	(0.0517)	(0.1341)	(0.0543)	(0.0593)
Income between £30000 and £34999 per year	-0.0684	-0.1017**	-0.1127**	-0.2816*	-0.2240***	-0.2485***
	(0.1239)	(0.0483)	(0.0500)	(0.1509)	(0.0557)	(0.0570)
Income between £35000 and £39999 per year	-0.0568	-0.1029*	-0.1466***	-0.2171	-0.2701***	-0.1840***
	(0.1626)	(0.0547)	(0.0526)	(0.1821)	(0.0613)	(0.0596)
Income between £40000 and £44999 per year	0.0651	-0.0145	-0.1173**	-0.1868	-0.2194***	-0.2484***
	(0.1774)	(0.0580)	(0.0539)	(0.2209)	(0.0660)	(0.0604)
Income between £45000 and £49999 per year	0.2853	-0.0484	-0.1320**	-0.1214	-0.2729***	-0.2658***
	(0.2363)	(0.0632)	(0.0541)	(0.2656)	(0.0718)	(0.0604)
Income between £50000 and £54999 per year	-0.1358	-0.0024	-0.1421**	-0.1693	-0.2517***	-0.2708***
	(0.2760)	(0.0715)	(0.0572)	(0.3097)	(0.0807)	(0.0641)
Income between £50000 and £59999 per year	-0.0075	-0.0563	-0.2431***	-0.1567	-0.3940***	-0.4362***
	(0.2413)	(0.0657)	(0.0498)	(0.2640)	(0.0748)	(0.0550)
Income between £60000 and £69999 per year	0.1261	-0.0354	-0.2834***	-0.5086	-0.4051***	-0.4636***
	(0.2995)	(0.0820)	(0.0574)	(0.3614)	(0.0912)	(0.0638)
Income between £70000 and £99999 per year	-0.1732	-0.0794	-0.2915***	-0.6353**	-0.4930***	-0.5074***
	(0.2561)	(0.0758)	(0.0480)	(0.2979)	(0.0830)	(0.0535)
Income between £100000 and £149999 per year	-0.5455	-0.1069	-0.3543***	0.3479	-0.7006***	-0.5885***
	(0.5925)	(0.1325)	(0.0703)	(0.7788)	(0.1412)	(0.0743)
Income over £150000 per year	0.4364	-0.1935	-0.1200	-0.1762	-0.4034	-0.2708**
	(0.6819)	(0.2218)	(0.1128)	(0.7939)	(0.2612)	(0.1237)
Working full time ($\geq$ 30 h. per week)	0.0202	-0.0067	0.0900	-0.0472	-0.1292	0.2257**
	(0.2334)	(0.1013)	(0.0971)	(0.2584)	(0.1148)	(0.1077)
Working part time (8-29 h. per week)	-0.2878	-0.0900	-0.0453	-0.3412	-0.3218***	0.1303
	(0.2461)	(0.1028)	(0.1000)	(0.2680)	(0.1169)	(0.1112)
Working part time (< 8 h. per week)	-0.1162	0.0270	0.0386	-0.1464	-0.2808*	0.1252
	(0.3465)	(0.1397)	(0.1215)	(0.3772)	(0.1516)	(0.1386)
Full time student	-0.6313*	-0.5425***	-0.2180*	-1.6395***	-1.4347***	-0.3182**
	(0.3673)	(0.1100)	(0.1207)	(0.4076)	(0.1261)	(0.1353)
Retired	-0.3240	-0.0244	-0.0977	-0.5388**	-0.4203***	-0.1318
	(0.2179)	(0.0937)	(0.0952)	(0.2376)	(0.1063)	(0.1077)
Unemployed	-0.2845	0.1712	-0.2112	-0.2872	-0.1105	-0.1917
	(0.2573)	(0.1179)	(0.1326)	(0.2927)	(0.1350)	(0.1473)
Not working	-0.3344	0.0004	0.0351	-0.1651	-0.0495	0.3080***
	(0.2257)	(0.0979)	(0.1040)	(0.2478)	(0.1116)	(0.1165)
Private sector	-0.2035	0.1064*	0.0431	-0.0071	0.1878***	-0.0233
	(0.1393)	(0.0562)	(0.0546)	(0.1590)	(0.0622)	(0.0612)
Public sector	-0.4348**	0.1038*	-0.1074*	-0.2304	0.1837***	-0.1534**
	(0.1716)	(0.0617)	(0.0564)	(0.1981)	(0.0685)	(0.0626)
Non-profit, non-government	-0.1170	-0.1196	-0.2690***	-0.1845	-0.1101	-0.4560***
	(0.2745)	(0.0824)	(0.0681)	(0.2847)	(0.0972)	(0.0756)
Sample	No qualif./answer	High School	University	No qualif./answer	High School	University
Wave FE	✓	✓	✓	✓	✓	✓
N.obs	5920	32698	35216	6149	33155	35312

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table F.9: Full table associated with Table D.8

	Men discriminated	Men discriminated	Men discriminated	White discriminated	White discriminated	White discriminated
White Male	1.4269***	1.4453***	1.1560***	1.2658***	0.5634***	0.3881***
	(0.0720)	(0.0234)	(0.0290)	(0.0788)	(0.0262)	(0.0336)
Own house	0.6032***	0.1237***	0.1353***	0.8096***	0.0655**	-0.0177
	(0.1189)	(0.0272)	(0.0429)	(0.1322)	(0.0306)	(0.0494)
Married	0.8926***	0.1526***	0.0290	0.7026***	0.1448***	0.0840**
	(0.1988)	(0.0253)	(0.0365)	(0.2093)	(0.0284)	(0.0417)
Divorced	1.2678**	0.0121	-0.2208***	2.2214***	0.0411	-0.1849***
	(0.5860)	(0.0418)	(0.0511)	(0.6821)	(0.0480)	(0.0583)
Age	-0.0292	0.0077***	0.0010	-0.0032	0.0303***	-0.0207***
	(0.0206)	(0.0012)	(0.0030)	(0.0225)	(0.0014)	(0.0034)
Income under £5000 per year	0.0274	0.2095**	-0.0781	0.2411	0.2034*	-0.0665
	(0.1546)	(0.0955)	(0.2606)	(0.1701)	(0.1041)	(0.2987)
Income between £10000 and £14999 per year	0.0384	-0.0282	-0.0604	-0.1173	-0.0553	-0.1409
	(0.1663)	(0.0640)	(0.0802)	(0.1767)	(0.0710)	(0.0916)
Income between £15000 and £19999 per year	-0.0208	-0.0726	-0.1250**	0.0664	-0.0867	-0.1777***
	(0.1588)	(0.0516)	(0.0545)	(0.1682)	(0.0594)	(0.0626)
Income between £20000 and £24999 per year	-0.2224	-0.0334	-0.0773	0.0262	-0.1152**	-0.2063***
	(0.1591)	(0.0492)	(0.0519)	(0.1687)	(0.0564)	(0.0594)
Income between £25000 and £29999 per year	0.0029	-0.0400	-0.1940***	0.2407	-0.1859***	-0.3596***
	(0.1480)	(0.0462)	(0.0501)	(0.1758)	(0.0529)	(0.0583)
Income between £30000 and £34999 per year	-0.0389	-0.1147**	-0.1163**	-0.0038	-0.2145***	-0.3735***
	(0.1536)	(0.0459)	(0.0512)	(0.1606)	(0.0522)	(0.0606)
Income between £35000 and £39999 per year	0.2816	-0.1242**	-0.1774***	0.2898	-0.1707***	-0.4509***
	(0.1740)	(0.0490)	(0.0589)	(0.1846)	(0.0549)	(0.0675)
Income between £40000 and £44999 per year	0.2604	-0.1126**	-0.0243	0.2036	-0.2230***	-0.3501***
	(0.1882)	(0.0498)	(0.0640)	(0.2178)	(0.0562)	(0.0725)
Income between £45000 and £49999 per year	-0.0184	-0.0781	-0.0925	0.3912**	-0.2117***	-0.5111***
	(0.1729)	(0.0512)	(0.0715)	(0.1917)	(0.0566)	(0.0832)
Income between £50000 and £54999 per year	0.0096	-0.0994*	-0.0787	0.1195	-0.2335***	-0.4491***
	(0.2062)	(0.0547)	(0.0793)	(0.2087)	(0.0611)	(0.0919)
Income between £50000 and £59999 per year	0.0927	-0.2214***	-0.0485	-0.0576	-0.3952***	-0.5290***
	(0.1622)	(0.0475)	(0.0763)	(0.1777)	(0.0528)	(0.0853)
Income between £60000 and £69999 per year	-0.1341	-0.1812***	-0.2727***	-0.2659	-0.3783***	-0.7666***
	(0.1844)	(0.0549)	(0.0975)	(0.2036)	(0.0601)	(0.1178)
Income between £70000 and £99999 per year	-0.2829*	-0.2295***	-0.1814**	-0.1427	-0.4926***	-0.5932***
	(0.1475)	(0.0468)	(0.0893)	(0.1641)	(0.0518)	(0.1012)
Income between £100000 and £149999 per year	0.1346	-0.3260***	-0.2426	-0.1807	-0.6103***	-0.4613**
	(0.2273)	(0.0692)	(0.1696)	(0.2394)	(0.0726)	(0.1940)
Income over £150000 per year	0.0771	-0.1630	0.2793	0.5169*	-0.4281***	0.2063
	(0.2612)	(0.1113)	(0.3783)	(0.2972)	(0.1222)	(0.4214)
Working full time ($\geq$ 30 h. per week)	0.0699	-0.0432	0.1723	0.1467	0.0043	0.3565
	(0.2082)	(0.0769)	(0.2584)	(0.2294)	(0.0852)	(0.2652)
Working part time (8-29 h. per week)	0.0518	-0.1328*	0.0291	0.0611	-0.0510	-0.0394
	(0.2251)	(0.0786)	(0.2514)	(0.2462)	(0.0872)	(0.2564)
Working part time (< 8 h. per week)	-0.3499	0.0576	0.0388	0.2506	0.0495	-0.0025
	(0.3151)	(0.1063)	(0.2645)	(0.3525)	(0.1167)	(0.2726)
Full time student	-0.3468*	-0.5159***	0.3623	-0.2149	-0.6232***	2.5060*
	(0.1978)	(0.1362)	(0.2543)	(0.2165)	(0.1579)	(1.4049)
Retired	0.9284	-0.0713	-0.0753	2.4985***	-0.2758***	0.0686
	(0.8938)	(0.0740)	(0.2420)	(0.9358)	(0.0838)	(0.2420)
Unemployed	-0.2379	0.0267	0.0301	0.1434	-0.1503	0.2545
	(0.2384)	(0.0916)	(0.4376)	(0.2610)	(0.1035)	(0.4974)
Not working	0.0207	-0.0448	0.3133	0.1695	-0.0218	0.3636
	(0.2787)	(0.0733)	(0.2869)	(0.3011)	(0.0826)	(0.3061)
Private sector	-0.0341	0.1222**	-0.0813	0.1020	0.0166	-0.0950
	(0.1039)	(0.0505)	(0.0727)	(0.1121)	(0.0559)	(0.0831)
Public sector	-0.1251	0.0272	-0.1449*	0.2307*	-0.1158**	-0.0807
	(0.1182)	(0.0526)	(0.0881)	(0.1313)	(0.0581)	(0.0985)
Non-profit, non-government	-0.3961**	-0.1416**	-0.2497**	0.1665	-0.4173***	-0.3662***
	(0.1623)	(0.0639)	(0.1126)	(0.1885)	(0.0708)	(0.1328)
Sample	Under 25	26-64	Over 65	Under 25	26-64	Over 65
Wave FE	✓	✓	✓	✓	✓	✓
N.obs	4860	45642	23332	4846	46027	23743

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table F.10: Full table associated with Table D.9

	Opposed aff action	Resentment	Too much assistance	Too much for improv.
White Male	0.0577***	0.0327***	0.0293***	0.0580***
	(0.0061)	(0.0078)	(0.0047)	(0.0054)
BA or more	0.0123	-0.1916***	-0.0276***	-0.0467***
	(0.0113)	(0.0141)	(0.0079)	(0.0090)
At least high School diploma	0.0620***	-0.0559***	-0.0118	-0.0158*
	(0.0106)	(0.0132)	(0.0073)	(0.0084)
Own house	-0.1096***	0.3641***	0.0061	0.0100**
	(0.0062)	(0.0076)	(0.0044)	(0.0050)
Married	0.0594***	-0.0252***	0.0150***	0.0192***
	(0.0074)	(0.0090)	(0.0049)	(0.0056)
Divorced	0.0332***	0.0307***	0.0104*	0.0270***
	(0.0088)	(0.0109)	(0.0058)	(0.0069)
Age	0.0009***	0.0000	0.0005***	0.0005***
	(0.0002)	(0.0003)	(0.0002)	(0.0002)
Working full time	-0.0033	0.0220	-0.0048	-0.0014
	(0.0173)	(0.0213)	(0.0128)	(0.0141)
Working part time	-0.0092	-0.0099	-0.0023	-0.0211
	(0.0188)	(0.0230)	(0.0137)	(0.0147)
Temporarily not at work	-0.0269	-0.0184	-0.0230	-0.0090
	(0.0270)	(0.0313)	(0.0164)	(0.0194)
Unemployed	-0.0423*	-0.0097	-0.0112	-0.0202
	(0.0221)	(0.0259)	(0.0149)	(0.0160)
Retired	0.0062	0.0082	-0.0151	-0.0064
	(0.0176)	(0.0220)	(0.0130)	(0.0150)
Student	0.0013	-0.0107	-0.0203	-0.0092
	(0.0255)	(0.0299)	(0.0152)	(0.0175)
Keeping house	0.0014	0.0371	-0.0117	0.0029
	(0.0192)	(0.0237)	(0.0136)	(0.0153)
HH Income over USD25,0000	0.0272***	-0.0448***	-0.0014	0.0045
	(0.0072)	(0.0090)	(0.0049)	(0.0056)
public	-0.0042	-0.0289**	-0.0024	-0.0030
	(0.0097)	(0.0117)	(0.0063)	(0.0074)
# of children	-0.0028	0.0078***	-0.0022	-0.0005
	(0.0021)	(0.0026)	(0.0014)	(0.0016)
protestant	0.0000	0.0000	0.0000	0.0000
	(.)	(.)	(.)	(.)
catholic	0.0182**	0.0142	0.0061	-0.0075
	(0.0072)	(0.0098)	(0.0057)	(0.0062)
jewish	-0.0857***	-0.0545**	-0.0240*	-0.0553***
	(0.0261)	(0.0256)	(0.0132)	(0.0122)
none	-0.0623***	-0.0920***	-0.0254***	-0.0284***
	(0.0082)	(0.0095)	(0.0048)	(0.0057)
other	-0.0034	-0.0811***	-0.0076	-0.0299*
	(0.0241)	(0.0284)	(0.0161)	(0.0161)
buddhism	-0.0642*	-0.0322	-0.0240	-0.0167
	(0.0345)	(0.0361)	(0.0167)	(0.0215)
hinduism	0.0132	0.0501	-0.0507***	-0.0252
	(0.0375)	(0.0479)	(0.0054)	(0.0201)
other eastern religions	0.0650	0.0730	0.0883	-0.0139
	(0.0769)	(0.1321)	(0.0982)	(0.0749)
muslim/islam	-0.0808*	-0.0029	-0.0557***	-0.0276
	(0.0446)	(0.0494)	(0.0047)	(0.0227)
orthodox-christian	-0.0313	0.0792*	0.0443	0.0632
	(0.0436)	(0.0476)	(0.0373)	(0.0417)
christian	-0.0015	-0.0093	0.0298*	-0.0330**
	(0.0181)	(0.0231)	(0.0153)	(0.0129)
native american	-0.2892**	-0.0613	-0.0608***	0.0055
	(0.1255)	(0.1039)	(0.0086)	(0.0791)
inter-nondenominational	-0.0120	-0.0930	0.0186	-0.0310
	(0.0603)	(0.0619)	(0.0501)	(0.0417)
Location FE	✓	✓	✓	✓
Year FE	✓	✓	✓	✓
N.obs	14596	14596	14596	14596

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table F.11: Full table associated with Table D.10

	Too much assistance	Too much assistance	Too much assistance	Too much for improv.	Too much for improv.	Too much for improv.
White Male	0.0328*	0.0294***	0.0277***	0.0680***	0.0736***	0.0347***
	(0.0173)	(0.0068)	(0.0068)	(0.0200)	(0.0080)	(0.0076)
Own house	-0.0013	0.0097	0.0036	0.0127	0.0169**	0.0016
	(0.0165)	(0.0064)	(0.0065)	(0.0191)	(0.0074)	(0.0070)
Married	-0.0011	0.0140*	0.0198***	0.0219	0.0281***	0.0047
	(0.0160)	(0.0072)	(0.0075)	(0.0197)	(0.0082)	(0.0084)
Divorced	-0.0017	0.0121	0.0090	0.0182	0.0341***	0.0165
	(0.0168)	(0.0080)	(0.0093)	(0.0196)	(0.0094)	(0.0117)
Age	-0.0001	0.0008***	0.0002	0.0003	0.0004	0.0007**
	(0.0005)	(0.0002)	(0.0003)	(0.0006)	(0.0003)	(0.0003)
Working full time	-0.0166	0.0005	-0.0047	-0.0125	-0.0009	0.0175
	(0.0302)	(0.0170)	(0.0262)	(0.0337)	(0.0193)	(0.0243)
Working part time	-0.0034	-0.0086	0.0137	-0.0221	-0.0389**	0.0221
	(0.0345)	(0.0181)	(0.0280)	(0.0363)	(0.0197)	(0.0263)
Temporarily not at work	-0.0225	-0.0214	-0.0246	-0.0843*	-0.0136	0.0235
	(0.0540)	(0.0234)	(0.0293)	(0.0461)	(0.0285)	(0.0309)
Unemployed	-0.0266	-0.0118	-0.0040	-0.0290	-0.0207	-0.0062
	(0.0362)	(0.0196)	(0.0306)	(0.0379)	(0.0217)	(0.0278)
Retired	-0.0076	-0.0181	-0.0055	-0.0099	-0.0088	0.0142
	(0.0291)	(0.0174)	(0.0270)	(0.0370)	(0.0205)	(0.0257)
Student	-0.0521	-0.0064	-0.0312	-0.0383	-0.0233	0.0406
	(0.0393)	(0.0209)	(0.0284)	(0.0477)	(0.0226)	(0.0343)
Keeping house	-0.0164	-0.0160	0.0028	-0.0166	0.0087	0.0202
	(0.0291)	(0.0182)	(0.0286)	(0.0335)	(0.0210)	(0.0276)
HH Income over USD25,0000	0.0149	-0.0027	-0.0087	0.0023	0.0060	-0.0071
	(0.0159)	(0.0064)	(0.0091)	(0.0175)	(0.0074)	(0.0098)
public	-0.0095	-0.0015	-0.0004	0.0039	-0.0084	0.0033
	(0.0203)	(0.0092)	(0.0098)	(0.0251)	(0.0108)	(0.0113)
# of children	-0.0030	-0.0018	-0.0023	0.0001	0.0006	0.0001
	(0.0038)	(0.0021)	(0.0024)	(0.0042)	(0.0022)	(0.0029)
protestant	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	(.)	(.)	(.)	(.)	(.)	(.)
catholic	0.0360**	-0.0004	0.0074	0.0176	-0.0101	-0.0091
	(0.0167)	(0.0081)	(0.0095)	(0.0190)	(0.0090)	(0.0097)
jewish	-0.0493*	-0.0128	-0.0333**	0.1091	-0.0768***	-0.0517***
	(0.0259)	(0.0276)	(0.0152)	(0.1605)	(0.0187)	(0.0154)
none	0.0147	-0.0248***	-0.0382***	0.0182	-0.0299***	-0.0380***
	(0.0171)	(0.0069)	(0.0070)	(0.0218)	(0.0084)	(0.0081)
other	-0.0316	-0.0245	0.0250	0.0590	-0.0553***	-0.0266
	(0.0416)	(0.0187)	(0.0322)	(0.0698)	(0.0189)	(0.0252)
buddhism	0.0397	-0.0067	-0.0476***	0.0305	-0.0194	-0.0245
	(0.1004)	(0.0330)	(0.0152)	(0.0949)	(0.0374)	(0.0267)
hinduism	-0.0593***	-0.0757***	-0.0546***	-0.0845***	-0.0248	-0.0340
	(0.0210)	(0.0095)	(0.0073)	(0.0287)	(0.0685)	(0.0217)
other eastern religions	-0.0135	0.1278	0.0904	-0.0756*	-0.0971***	0.0785
	(0.0243)	(0.1830)	(0.1437)	(0.0407)	(0.0138)	(0.1501)
muslim/islam	-0.0811***	-0.0563***	-0.0610***	-0.0975***	-0.0137	-0.0451*
	(0.0208)	(0.0074)	(0.0074)	(0.0231)	(0.0366)	(0.0271)
orthodox-christian	-0.0677***	0.1249	0.0031	0.1030	0.0184	0.0927
	(0.0184)	(0.0759)	(0.0412)	(0.1454)	(0.0616)	(0.0595)
christian	0.1417**	0.0174	0.0066	-0.0613*	-0.0270	-0.0263
	(0.0603)	(0.0186)	(0.0261)	(0.0343)	(0.0174)	(0.0228)
native american	-0.0453	-0.0619***	-0.0474***	-0.0588	0.0879	-0.0673***
	(0.0350)	(0.0153)	(0.0118)	(0.0408)	(0.1520)	(0.0128)
inter-nondenominational	-0.1092***	0.0032	0.0405	0.3994	-0.0150	-0.0853***
	(0.0298)	(0.0688)	(0.0751)	(0.3904)	(0.0759)	(0.0093)
Sample	No qualif./answer	High School	University	No qualif./answer	High School	University
Location FE	✓	✓	✓	✓	✓	✓
Year FE	✓	✓	✓	✓	✓	✓
N.obs	1605	7549	5442	1605	7549	5442

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table F.12: Full table associated with Table D.11

	Too much assistance	Too much assistance	Too much assistance	Too much for improv.	Too much for improv.	Too much for improv.
White Male	0.0266**	0.0310***	0.0278***	0.0121	0.0565***	0.0761***
	(0.0126)	(0.0058)	(0.0097)	(0.0126)	(0.0067)	(0.0118)
BA or more	-0.0245	-0.0283***	-0.0241	-0.0338	-0.0505***	-0.0309
	(0.0245)	(0.0100)	(0.0159)	(0.0269)	(0.0111)	(0.0191)
At least high School diploma	-0.0137	-0.0198**	0.0105	-0.0394*	-0.0128	-0.0081
	(0.0194)	(0.0092)	(0.0150)	(0.0225)	(0.0104)	(0.0177)
Own house	0.0275*	0.0043	0.0042	-0.0225*	0.0107*	0.0165
	(0.0141)	(0.0054)	(0.0090)	(0.0124)	(0.0062)	(0.0105)
Married	0.0221	0.0107*	0.0196*	-0.0023	0.0113*	0.0311**
	(0.0222)	(0.0061)	(0.0111)	(0.0199)	(0.0068)	(0.0129)
Divorced	0.0542	0.0117	-0.0003	0.0316	0.0326***	0.0030
	(0.0556)	(0.0072)	(0.0111)	(0.0450)	(0.0086)	(0.0132)
Age	0.0022	0.0007***	0.0013*	-0.0052*	0.0003	-0.0007
	(0.0032)	(0.0003)	(0.0007)	(0.0029)	(0.0003)	(0.0008)
Working full time	-0.0497	-0.0092	0.0374	0.0214	0.0106	-0.0837*
	(0.0629)	(0.0147)	(0.0252)	(0.0577)	(0.0151)	(0.0479)
Working part time	-0.0714	-0.0019	0.0536**	-0.0107	-0.0097	-0.0959**
	(0.0626)	(0.0162)	(0.0260)	(0.0588)	(0.0160)	(0.0470)
Temporarily not at work	-0.0953	-0.0232	0.0125	-0.0234	0.0044	-0.0861
	(0.0621)	(0.0189)	(0.0388)	(0.0576)	(0.0213)	(0.0697)
Unemployed	-0.0638	-0.0111	-0.0276	-0.0180	-0.0054	-0.1177**
	(0.0650)	(0.0173)	(0.0219)	(0.0577)	(0.0175)	(0.0572)
Retired	0.0000	-0.0137	0.0365*	0.0000	0.0311	-0.0895**
	(.)	(0.0176)	(0.0211)	(.)	(0.0201)	(0.0441)
Student	-0.0696	-0.0182	-0.0315	-0.0020	0.0163	-0.0318
	(0.0634)	(0.0208)	(0.0264)	(0.0559)	(0.0254)	(0.1656)
Keeping house	-0.0658	-0.0132	0.0326	0.0069	0.0163	-0.0708
	(0.0663)	(0.0157)	(0.0266)	(0.0574)	(0.0166)	(0.0484)
HH Income over USD25,0000	-0.0063	0.0008	-0.0010	-0.0032	0.0081	-0.0031
	(0.0106)	(0.0064)	(0.0104)	(0.0118)	(0.0072)	(0.0121)
public	-0.0047	-0.0087	0.0121	0.0066	0.0028	-0.0252
	(0.0115)	(0.0078)	(0.0147)	(0.0176)	(0.0097)	(0.0153)
# of children	0.0025	-0.0011	-0.0066**	-0.0014	0.0001	-0.0027
	(0.0100)	(0.0017)	(0.0028)	(0.0054)	(0.0019)	(0.0032)
protestant	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	(.)	(.)	(.)	(.)	(.)	(.)
catholic	-0.0321**	0.0065	0.0158	-0.0124	0.0050	-0.0334***
	(0.0149)	(0.0071)	(0.0118)	(0.0165)	(0.0078)	(0.0123)
jewish	-0.0446***	-0.0218	-0.0200	0.0669	-0.0432**	-0.0990***
	(0.0149)	(0.0186)	(0.0221)	(0.0790)	(0.0169)	(0.0166)
none	-0.0317**	-0.0238***	-0.0340***	-0.0319**	-0.0238***	-0.0381**
	(0.0132)	(0.0058)	(0.0108)	(0.0132)	(0.0069)	(0.0150)
other	-0.0297	0.0009	-0.0323	0.0287	-0.0454***	0.0121
	(0.0327)	(0.0202)	(0.0373)	(0.0533)	(0.0164)	(0.0521)
buddhism	0.1888*	-0.0414**	-0.0602***	-0.0580***	0.0137	-0.0715**
	(0.1125)	(0.0171)	(0.0097)	(0.0183)	(0.0302)	(0.0314)
hinduism	-0.0430**	-0.0491***	-0.0649***	-0.0507**	-0.0199	-0.0330
	(0.0185)	(0.0068)	(0.0109)	(0.0232)	(0.0222)	(0.0682)
muslim/islam	-0.0584***	-0.0538***	-0.0727***	-0.0595***	-0.0158	-0.1066***
	(0.0179)	(0.0058)	(0.0167)	(0.0214)	(0.0255)	(0.0272)
orthodox-christian	-0.0436**	0.0281	0.1421	0.0880	0.0716	0.0280
	(0.0172)	(0.0419)	(0.1085)	(0.1604)	(0.0490)	(0.0971)
christian	-0.0101	0.0332*	0.0454	-0.0292	-0.0345**	0.0036
	(0.0359)	(0.0175)	(0.0516)	(0.0272)	(0.0144)	(0.0523)
native american	-0.0041	-0.0617***	-0.0685***	-0.0741**	0.0671	-0.0693***
	(0.0254)	(0.0113)	(0.0204)	(0.0295)	(0.1287)	(0.0241)
inter-nondenominational	-0.0436*	0.0453	-0.0636***	0.2112	-0.0528	-0.0792***
	(0.0237)	(0.0681)	(0.0169)	(0.1995)	(0.0414)	(0.0160)
other eastern religions		0.0473	0.1762		-0.0745***	0.1063
		(0.1056)	(0.2064)		(0.0121)	(0.2245)
Sample	Under 25	26-64	Over 65	Under 25	26-64	Over 65
Location FE	✓	✓	✓	✓	✓	✓
Year FE	✓	✓	✓	✓	✓	✓
N.obs	1260	9824	3512	1260	9824	3512

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table F.13: Full table associated with Table D.12

	No White Adv.	Rac. Probl. Rare	Resentment 1	Resentment 2
White Male	0.1032***	0.1044***	0.1013***	0.0911***
	(0.0022)	(0.0021)	(0.0023)	(0.0023)
Own house	0.0714***	0.0572***	0.0819***	0.0767***
	(0.0023)	(0.0021)	(0.0026)	(0.0025)
Married	0.0683***	0.0448***	0.0772***	0.0755***
	(0.0024)	(0.0023)	(0.0028)	(0.0027)
Divorced	0.0450***	0.0213***	0.0268***	0.0468***
	(0.0034)	(0.0030)	(0.0037)	(0.0036)
University diploma	-0.1217***	-0.0412***	-0.1298***	-0.1030***
	(0.0068)	(0.0061)	(0.0070)	(0.0069)
High School diploma	-0.0302***	-0.0055	-0.0076	0.0042
	(0.0067)	(0.0060)	(0.0069)	(0.0068)
Age	0.0026***	-0.0002**	0.0033***	0.0043***
	(0.0001)	(0.0001)	(0.0001)	(0.0001)
Income under USD10000 per year	-0.0514***	0.0237***	0.0195***	-0.0537***
	(0.0058)	(0.0055)	(0.0065)	(0.0061)
Income between USD10000 and USD19999 per year	-0.0418***	-0.0131***	0.0220***	-0.0346***
	(0.0051)	(0.0045)	(0.0055)	(0.0053)
Income between USD20000 and USD29999 per year	-0.0406***	-0.0105**	0.0179***	-0.0289***
	(0.0046)	(0.0042)	(0.0049)	(0.0049)
Income between USD30000 and USD39999 per year	-0.0431***	-0.0149***	0.0187***	-0.0223***
	(0.0045)	(0.0041)	(0.0048)	(0.0048)
Income between USD40000 and USD49999 per year	-0.0433***	-0.0081*	0.0097**	-0.0184***
	(0.0047)	(0.0043)	(0.0050)	(0.0049)
Income between USD50000 and USD59999 per year	-0.0495***	-0.0147***	0.0007	-0.0315***
	(0.0047)	(0.0043)	(0.0050)	(0.0049)
Income between USD60000 and USD69999 per year	-0.0470***	-0.0103**	-0.0017	-0.0238***
	(0.0050)	(0.0046)	(0.0053)	(0.0053)
Income between USD70000 and USD79999 per year	-0.0503***	-0.0004	-0.0126**	-0.0331***
	(0.0049)	(0.0045)	(0.0052)	(0.0052)
Income between USD80000 and USD99999 per year	-0.0576***	-0.0060	-0.0197***	-0.0332***
	(0.0047)	(0.0043)	(0.0050)	(0.0050)
Income between USD100000 and USD119999 per year	-0.0663***	-0.0058	-0.0343***	-0.0541***
	(0.0051)	(0.0048)	(0.0056)	(0.0055)
Income between USD120000 and USD149999 per year	-0.0704***	-0.0004	-0.0363***	-0.0519***
	(0.0052)	(0.0049)	(0.0057)	(0.0056)
Income between USD150000 and USD199999 per year	-0.0787***	-0.0178***	-0.0599***	-0.0700***
	(0.0059)	(0.0056)	(0.0065)	(0.0063)
Income between USD200000 and USD249999 per year	-0.0917***	-0.0134*	-0.0709***	-0.0877***
	(0.0081)	(0.0079)	(0.0093)	(0.0088)
Income between USD250000 and USD349999 per year	-0.0975***	-0.0308***	-0.0978***	-0.0914***
	(0.0101)	(0.0099)	(0.0116)	(0.0110)
Income between USD350000 and USD499999 per year	-0.0907***	0.0004	-0.0489***	-0.0754***
	(0.0151)	(0.0154)	(0.0176)	(0.0166)
Income over USD500000 per year	-0.0621***	0.0065	-0.0127	-0.0319*
	(0.0158)	(0.0158)	(0.0175)	(0.0168)
Working full time	0.0011	0.0141**	0.0439***	0.0165**
	(0.0073)	(0.0066)	(0.0078)	(0.0077)
Working part time	-0.0224***	0.0034	0.0271***	-0.0145*
	(0.0076)	(0.0070)	(0.0083)	(0.0081)
Temporarily laid off	-0.0192	-0.0096	0.0154	-0.0083
	(0.0123)	(0.0117)	(0.0138)	(0.0134)
Unemployed	-0.0110	-0.0058	0.0053	-0.0173**
	(0.0081)	(0.0074)	(0.0088)	(0.0086)
Retired	-0.0492***	-0.0169**	0.0144*	-0.0376***
	(0.0075)	(0.0068)	(0.0080)	(0.0080)
Permanently disabled	0.0151*	-0.0146**	0.0529***	0.0232***
	(0.0081)	(0.0073)	(0.0087)	(0.0086)
Homemaker	0.0301***	0.0135*	0.0662***	0.0562***
	(0.0081)	(0.0073)	(0.0087)	(0.0086)
Student	-0.0397***	-0.0380***	-0.0333***	-0.0523***
	(0.0086)	(0.0080)	(0.0098)	(0.0092)
Sample				
Year Fe	✓	✓	✓	✓
State Fe	✓	✓	✓	✓
N.obs	206319	202762	202167	202183

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table F.14: Full table associated with Table D.13

	No White Adv.	No White Adv.	No White Adv.	Rac. Probl. Rare	Rac. Probl. Rare	Rac. Probl. Rare
White Male	0.1111***	0.1059***	0.1011***	0.0695***	0.1047***	0.1059***
	(0.0161)	(0.0034)	(0.0029)	(0.0142)	(0.0032)	(0.0028)
Own house	0.0605***	0.0828***	0.0600***	0.0277**	0.0520***	0.0639***
	(0.0152)	(0.0034)	(0.0031)	(0.0135)	(0.0031)	(0.0030)
Married	0.0405**	0.0793***	0.0601***	0.0360**	0.0413***	0.0485***
	(0.0160)	(0.0037)	(0.0032)	(0.0143)	(0.0034)	(0.0031)
Divorced	0.0606***	0.0565***	0.0325***	-0.0026	0.0208***	0.0232***
	(0.0202)	(0.0049)	(0.0047)	(0.0175)	(0.0043)	(0.0044)
Age	0.0015***	0.0025***	0.0026***	0.0000	-0.0000	-0.0003***
	(0.0006)	(0.0001)	(0.0001)	(0.0005)	(0.0001)	(0.0001)
Income under USD10000 per year	-0.0696***	-0.0460***	-0.0279***	0.0121	0.0256***	0.0286***
	(0.0255)	(0.0077)	(0.0101)	(0.0238)	(0.0072)	(0.0099)
Income between USD10000 and USD19999 per year	-0.0417	-0.0334***	-0.0452***	-0.0401*	-0.0072	-0.0137*
	(0.0260)	(0.0069)	(0.0080)	(0.0230)	(0.0061)	(0.0073)
Income between USD20000 and USD29999 per year	-0.0297	-0.0425***	-0.0296***	-0.0323	-0.0066	-0.0076
	(0.0264)	(0.0064)	(0.0071)	(0.0236)	(0.0057)	(0.0065)
Income between USD30000 and USD39999 per year	0.0134	-0.0395***	-0.0514***	-0.0152	-0.0073	-0.0209***
	(0.0301)	(0.0065)	(0.0065)	(0.0268)	(0.0058)	(0.0060)
Income between USD40000 and USD49999 per year	0.0446	-0.0383***	-0.0558***	-0.0102	-0.0010	-0.0136**
	(0.0335)	(0.0068)	(0.0065)	(0.0303)	(0.0061)	(0.0061)
Income between USD50000 and USD59999 per year	0.0044	-0.0517***	-0.0524***	0.0130	-0.0118*	-0.0161***
	(0.0351)	(0.0070)	(0.0064)	(0.0317)	(0.0063)	(0.0059)
Income between USD60000 and USD69999 per year	-0.0086	-0.0414***	-0.0567***	-0.0163	-0.0014	-0.0177***
	(0.0430)	(0.0077)	(0.0066)	(0.0379)	(0.0069)	(0.0062)
Income between USD70000 and USD79999 per year	-0.0138	-0.0345***	-0.0658***	-0.0469	0.0194***	-0.0146**
	(0.0430)	(0.0078)	(0.0063)	(0.0380)	(0.0072)	(0.0060)
Income between USD80000 and USD99999 per year	-0.0891**	-0.0437***	-0.0686***	-0.0108	0.0031	-0.0137**
	(0.0448)	(0.0077)	(0.0060)	(0.0406)	(0.0070)	(0.0056)
Income between USD100000 and USD119999 per year	0.0008	-0.0520***	-0.0757***	-0.0195	0.0109	-0.0168***
	(0.0542)	(0.0091)	(0.0064)	(0.0498)	(0.0084)	(0.0060)
Income between USD120000 and USD149999 per year	0.0541	-0.0449***	-0.0828***	0.0829	0.0170*	-0.0117*
	(0.0592)	(0.0097)	(0.0064)	(0.0587)	(0.0090)	(0.0061)
Income between USD150000 and USD199999 per year	0.0268	-0.0462***	-0.0907***	0.0398	0.0135	-0.0314***
	(0.0683)	(0.0122)	(0.0070)	(0.0683)	(0.0115)	(0.0067)
Income between USD200000 and USD249999 per year	-0.0003	-0.0618***	-0.1003***	0.0679	0.0294	-0.0284***
	(0.0980)	(0.0195)	(0.0091)	(0.0997)	(0.0187)	(0.0090)
Income between USD250000 and USD349999 per year	0.0549	-0.0652**	-0.1061***	0.1318	0.0169	-0.0454***
	(0.1314)	(0.0270)	(0.0111)	(0.1234)	(0.0257)	(0.0109)
Income between USD350000 and USD499999 per year	-0.2784***	0.0068	-0.1074***	-0.1085	0.0920**	-0.0205
	(0.0774)	(0.0410)	(0.0164)	(0.1243)	(0.0411)	(0.0169)
Income over USD500000 per year	-0.1244	-0.0275	-0.0723***	0.1683	0.0035	-0.0015
	(0.1539)	(0.0352)	(0.0179)	(0.1766)	(0.0340)	(0.0180)
Working full time	-0.0833*	0.0039	0.0063	0.0532	0.0135	0.0138
	(0.0469)	(0.0110)	(0.0099)	(0.0387)	(0.0099)	(0.0091)
Working part time	-0.1235**	-0.0206*	-0.0173*	0.0427	0.0058	-0.0007
	(0.0486)	(0.0115)	(0.0104)	(0.0405)	(0.0104)	(0.0097)
Temporarily laid off	-0.1736**	-0.0379**	0.0108	0.0517	-0.0330**	0.0111
	(0.0692)	(0.0180)	(0.0174)	(0.0650)	(0.0167)	(0.0169)
Unemployed	-0.1121**	-0.0146	0.0052	0.0215	-0.0103	-0.0011
	(0.0465)	(0.0119)	(0.0115)	(0.0383)	(0.0108)	(0.0107)
Retired	-0.0753	-0.0457***	-0.0478***	0.0337	-0.0178*	-0.0173*
	(0.0473)	(0.0113)	(0.0103)	(0.0388)	(0.0102)	(0.0094)
Permanently disabled	-0.0467	0.0036	0.0434***	0.0299	-0.0242**	-0.0013
	(0.0459)	(0.0118)	(0.0120)	(0.0374)	(0.0105)	(0.0108)
Homemaker	-0.0748	0.0291**	0.0399***	0.0203	0.0073	0.0259**
	(0.0474)	(0.0118)	(0.0114)	(0.0384)	(0.0106)	(0.0106)
Student	-0.1629***	-0.0535***	-0.0129	0.0519	-0.0487***	-0.0315***
	(0.0553)	(0.0125)	(0.0123)	(0.0483)	(0.0115)	(0.0116)
Sample	No high school	High School	University	No qualif./answer	High School	University
Year Fe	✓	✓	✓	✓	✓	✓
State Fe	✓	✓	✓	✓	✓	✓
N.obs	5210	96490	104619	5086	94404	103272

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table F.15: Full table associated with Table D.14

	No White Adv.	No White Adv.	No White Adv.	Rac. Probl. Rare	Rac. Probl. Rare	Rac. Probl. Rare
White Male	0.1109***	0.1121***	0.0832***	0.1112***	0.1116***	0.0864***
	(0.0092)	(0.0027)	(0.0045)	(0.0093)	(0.0025)	(0.0041)
Own house	0.0347***	0.0678***	0.0657***	0.0560***	0.0599***	0.0322***
	(0.0072)	(0.0027)	(0.0056)	(0.0075)	(0.0025)	(0.0049)
Married	0.0396***	0.0746***	0.0645***	0.0518***	0.0467***	0.0460***
	(0.0092)	(0.0029)	(0.0057)	(0.0097)	(0.0027)	(0.0050)
Divorced	0.0455	0.0588***	-0.0138**	0.1122***	0.0265***	0.0013
	(0.0344)	(0.0040)	(0.0066)	(0.0398)	(0.0037)	(0.0057)
Age	-0.0043***	0.0041***	-0.0005	-0.0024	0.0002*	0.0006*
	(0.0016)	(0.0001)	(0.0004)	(0.0017)	(0.0001)	(0.0003)
Income under USD10000 per year	-0.0216	-0.0188***	-0.0085	0.0437***	0.0367***	0.0093
	(0.0139)	(0.0069)	(0.0192)	(0.0148)	(0.0066)	(0.0165)
Income between USD10000 and USD19999 per year	-0.0209	-0.0206***	-0.0113	0.0091	-0.0049	-0.0142
	(0.0145)	(0.0064)	(0.0102)	(0.0144)	(0.0057)	(0.0086)
Income between USD20000 and USD29999 per year	-0.0124	-0.0174***	-0.0195**	-0.0018	-0.0028	-0.0043
	(0.0130)	(0.0059)	(0.0090)	(0.0126)	(0.0053)	(0.0078)
Income between USD30000 and USD39999 per year	-0.0285**	-0.0183***	-0.0386***	-0.0087	-0.0060	-0.0151**
	(0.0132)	(0.0058)	(0.0087)	(0.0131)	(0.0053)	(0.0076)
Income between USD40000 and USD49999 per year	-0.0230	-0.0233***	-0.0468***	0.0064	-0.0082	0.0065
	(0.0142)	(0.0059)	(0.0090)	(0.0141)	(0.0054)	(0.0081)
Income between USD50000 and USD59999 per year	-0.0225	-0.0263***	-0.0824***	0.0208	-0.0117**	-0.0193**
	(0.0139)	(0.0059)	(0.0091)	(0.0142)	(0.0054)	(0.0082)
Income between USD60000 and USD69999 per year	-0.0268*	-0.0336***	-0.0696***	0.0126	-0.0099*	-0.0103
	(0.0161)	(0.0062)	(0.0099)	(0.0165)	(0.0057)	(0.0088)
Income between USD70000 and USD79999 per year	-0.0243	-0.0424***	-0.0761***	0.0301*	-0.0013	-0.0055
	(0.0156)	(0.0061)	(0.0097)	(0.0164)	(0.0057)	(0.0088)
Income between USD80000 and USD99999 per year	-0.0378**	-0.0483***	-0.1105***	-0.0123	-0.0022	-0.0280***
	(0.0152)	(0.0058)	(0.0093)	(0.0149)	(0.0054)	(0.0084)
Income between USD100000 and USD119999 per year	-0.0251	-0.0631***	-0.1382***	0.0108	-0.0047	-0.0375***
	(0.0162)	(0.0063)	(0.0105)	(0.0165)	(0.0059)	(0.0096)
Income between USD120000 and USD149999 per year	-0.0345*	-0.0760***	-0.1265***	-0.0025	-0.0007	-0.0300***
	(0.0186)	(0.0064)	(0.0108)	(0.0191)	(0.0061)	(0.0099)
Income between USD150000 and USD199999 per year	-0.0331	-0.0906***	-0.1365***	-0.0024	-0.0279***	-0.0212*
	(0.0206)	(0.0071)	(0.0130)	(0.0215)	(0.0067)	(0.0121)
Income between USD200000 and USD249999 per year	-0.0391	-0.0983***	-0.1932***	0.0039	-0.0201**	-0.0400**
	(0.0281)	(0.0095)	(0.0180)	(0.0292)	(0.0094)	(0.0176)
Income between USD250000 and USD349999 per year	0.0136	-0.1128***	-0.2014***	0.0607	-0.0401***	-0.0810***
	(0.0394)	(0.0116)	(0.0241)	(0.0411)	(0.0114)	(0.0223)
Income between USD350000 and USD499999 per year	-0.0425	-0.1039***	-0.1835***	0.1077*	-0.0045	-0.0692**
	(0.0461)	(0.0176)	(0.0361)	(0.0600)	(0.0180)	(0.0338)
Income over USD500000 per year	0.0122	-0.0663***	-0.2161***	-0.0049	0.0031	-0.0246
	(0.0411)	(0.0189)	(0.0386)	(0.0397)	(0.0189)	(0.0408)
Working full time	0.0227	-0.0170**	0.0483***	0.0895***	0.0013	0.0313*
	(0.0243)	(0.0084)	(0.0187)	(0.0203)	(0.0076)	(0.0168)
Working part time	0.0098	-0.0244***	-0.0066	0.0782***	0.0001	0.0040
	(0.0247)	(0.0089)	(0.0187)	(0.0208)	(0.0081)	(0.0168)
Temporarily laid off	0.0081	-0.0145	-0.0383	0.1245***	-0.0142	-0.0531*
	(0.0368)	(0.0140)	(0.0349)	(0.0396)	(0.0133)	(0.0307)
Unemployed	0.0287	-0.0070	0.0189	0.0779***	-0.0111	0.0266
	(0.0255)	(0.0093)	(0.0275)	(0.0218)	(0.0085)	(0.0248)
Retired	0.3148**	-0.0258***	-0.0026	-0.0012	-0.0078	-0.0017
	(0.1307)	(0.0093)	(0.0173)	(0.0837)	(0.0085)	(0.0155)
Permanently disabled	0.0137	0.0111	0.0289	0.0576	-0.0218***	0.0081
	(0.0388)	(0.0092)	(0.0226)	(0.0372)	(0.0082)	(0.0200)
Homemaker	0.0856***	0.0437***	0.0078	0.0810***	0.0132	0.0296
	(0.0284)	(0.0092)	(0.0250)	(0.0243)	(0.0083)	(0.0225)
Student	0.0012	-0.0544***	-0.3113***	0.0512**	-0.0525***	0.0234
	(0.0243)	(0.0115)	(0.0325)	(0.0200)	(0.0108)	(0.1440)
Sample	Under 25	26-64	Over 65	Under 25	26-64	Over 65
Year Fe	✓	✓	✓	✓	✓	✓
State Fe	✓	✓	✓	✓	✓	✓
N.obs	12944	143263	50112	12875	141305	48582

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

F.2 Probit models

Table F.16: Ordered probit model for Table D.1

	Happy yesterday	Happy yesterday	Life satisfying	Life satisfying	happy5	happy6
main						
White Male	0.0183	-0.0681***	-0.0713***	-0.0961***	-0.1814***	-0.1781***
	(0.0139)	(0.0149)	(0.0154)	(0.0140)	(0.0151)	(0.0156)
University diploma		-0.0189	-0.0088		0.0139	0.0146
		(0.0301)	(0.0313)		(0.0303)	(0.0315)
High School and professional diploma		0.0167	0.0248		-0.0071	-0.0018
		(0.0297)	(0.0308)		(0.0299)	(0.0310)
Own house		0.0914***	0.0965***		0.1298***	0.1325***
		(0.0186)	(0.0195)		(0.0190)	(0.0199)
Married		0.1475***	0.1339***		0.1996***	0.1902***
		(0.0172)	(0.0179)		(0.0175)	(0.0183)
Divorced		-0.0498*	-0.0561**		-0.0599**	-0.0574**
		(0.0274)	(0.0282)		(0.0277)	(0.0285)
Age		0.0071***	0.0074***		0.0078***	0.0081***
		(0.0007)	(0.0008)		(0.0007)	(0.0008)
Income under £5000 per year		-0.3140***	-0.3535***		-0.2777***	-0.3389***
		(0.0592)	(0.0646)		(0.0693)	(0.0746)
Income between £10000 and £14999 per year		-0.3078***	-0.3293***		-0.3234***	-0.3548***
		(0.0446)	(0.0463)		(0.0450)	(0.0467)
Income between £15000 and £19999 per year		-0.0354	-0.0509		-0.0594*	-0.0810**
		(0.0325)	(0.0337)		(0.0332)	(0.0345)
Income between £20000 and £24999 per year		-0.0195	-0.0199		-0.0034	-0.0201
		(0.0319)	(0.0330)		(0.0323)	(0.0333)
Income between £25000 and £29999 per year		-0.0217	-0.0296		-0.0071	-0.0150
		(0.0293)	(0.0303)		(0.0298)	(0.0309)
Income between £30000 and £34999 per year		0.0684**	0.0582*		0.0477	0.0327
		(0.0301)	(0.0310)		(0.0302)	(0.0312)
Income between £35000 and £39999 per year		0.0975***	0.0947***		0.0840***	0.0755**
		(0.0301)	(0.0312)		(0.0310)	(0.0323)
Income between £40000 and £44999 per year		0.0747**	0.0574*		0.0808**	0.0590*
		(0.0336)	(0.0346)		(0.0323)	(0.0332)
Income between £45000 and £49999 per year		0.1129***	0.1056***		0.0996***	0.0932***
		(0.0332)	(0.0343)		(0.0333)	(0.0344)
Income between £50000 and £54999 per year		0.0825**	0.0919**		0.0774**	0.0868**
		(0.0366)	(0.0382)		(0.0364)	(0.0376)
Income between £50000 and £59999 per year		0.1402***	0.1375***		0.1496***	0.1391***
		(0.0324)	(0.0335)		(0.0323)	(0.0336)
Income between £60000 and £69999 per year		0.2153***	0.2223***		0.2504***	0.2422***
		(0.0360)	(0.0373)		(0.0369)	(0.0383)
Income between £70000 and £99999 per year		0.1939***	0.1819***		0.1861***	0.1840***
		(0.0315)	(0.0330)		(0.0314)	(0.0327)
Income between £100000 and £149999 per year		0.1949***	0.1880***		0.2115***	0.2084***
		(0.0444)	(0.0470)		(0.0432)	(0.0464)
Income over £150000 per year		0.3405***	0.3750***		0.3430***	0.3662***
		(0.0714)	(0.0743)		(0.0764)	(0.0784)
Working full time ($\geq$ 30 h. per week)		0.1416***	0.1634***		0.1146***	0.1351***
		(0.0420)	(0.0443)		(0.0438)	(0.0455)
Working part time (8-29 h. per week)		0.2192***	0.2395***		0.2190***	0.2451***
		(0.0440)	(0.0464)		(0.0460)	(0.0477)
Working part time ($<$ 8 h. per week)		0.2129***	0.2442***		0.2490***	0.3044***
		(0.0653)	(0.0680)		(0.0682)	(0.0703)
Full time student		0.4004***	0.3989***		0.4223***	0.4507***
		(0.0607)	(0.0641)		(0.0648)	(0.0688)
Retired		0.3745***	0.4067***		0.2672***	0.3010***
		(0.0415)	(0.0436)		(0.0434)	(0.0450)
Unemployed		-0.1737***	-0.1165**		-0.2953***	-0.2660***
		(0.0524)	(0.0556)		(0.0570)	(0.0602)
Not working		-0.0715	-0.0468		-0.1207**	-0.1035**
		(0.0470)	(0.0494)		(0.0497)	(0.0516)
Private sector		0.0905***	0.0972***		0.0476*	0.0567**
		(0.0248)	(0.0258)		(0.0251)	(0.0261)
Public sector		0.0664**	0.0549*		0.1142***	0.1079***
		(0.0272)	(0.0284)		(0.0274)	(0.0286)
Non-profit, non-government		0.0542	0.0649*		0.1144***	0.1379***
		(0.0373)	(0.0389)		(0.0389)	(0.0405)
Sample	All	All	White	All	All	White
N.obs	21,954	20,811	19,280	21,611	20,484	19,006

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table F.17: Ordered probit model for Table D.2

	Self-rated happiness	Self-rated happiness	Self-rated happiness
Happy			
White Male	0.0523***	-0.0728***	-0.0671***
	(0.0090)	(0.0206)	(0.0229)
BA or more		0.2209***	0.2990***
		(0.0375)	(0.0457)
At least high School diploma		0.1206***	0.1631***
		(0.0348)	(0.0430)
Own house		0.1018***	0.0794***
		(0.0200)	(0.0230)
Married		0.4905***	0.4926***
		(0.0240)	(0.0281)
Divorced		-0.0622**	-0.0775**
		(0.0282)	(0.0333)
Age		-0.0018**	-0.0016*
		(0.0008)	(0.0009)
Working full time		0.3168***	0.3277***
		(0.0584)	(0.0691)
Working part time		0.2733***	0.3368***
		(0.0629)	(0.0743)
Temporarily not at work		0.2036**	0.2032**
		(0.0857)	(0.1022)
Unemployed		-0.1590**	-0.1797**
		(0.0717)	(0.0876)
Retired		0.2996***	0.3148***
		(0.0605)	(0.0714)
Student		0.4024***	0.4552***
		(0.0815)	(0.0988)
Keeping house		0.1607**	0.2203***
		(0.0652)	(0.0776)
HH Income over USD25,0000		0.1345***	0.1880***
		(0.0236)	(0.0282)
public		-0.0132	-0.0192
		(0.0315)	(0.0379)
# of children		0.0142**	0.0144*
		(0.0070)	(0.0084)
protestant		0.0000	0.0000
		(.)	(.)
catholic		0.0485*	0.0336
		(0.0253)	(0.0291)
jewish		-0.0076	-0.0409
		(0.0717)	(0.0757)
none		-0.1124***	-0.1183***
		(0.0246)	(0.0287)
other		-0.2069**	-0.1770*
		(0.0841)	(0.0970)
buddhism		0.0357	0.2066
		(0.0953)	(0.1298)
hinduism		0.1918	-0.3514
		(0.1236)	(0.8651)
other eastern religions		-0.2869	-0.3845
		(0.3574)	(0.6400)
muslim/islam		0.0243	-0.1739
		(0.1428)	(0.2507)
orthodox-christian		-0.1300	-0.0517
		(0.1318)	(0.1384)
christian		-0.1190*	-0.1381*
		(0.0652)	(0.0822)
native american		-0.1803	-0.0736
		(0.3425)	(0.8818)
inter-nondenominational		-0.3684**	-0.2417
		(0.1701)	(0.2049)
Sample	All	All	White
Location FE		✓	✓
Year FE		✓	✓
N.obs	67588	14547	10825

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Note: Protestant is the reference category and is, thus, omitted

Table F.18: Probit model for Table D.3

	Minorities too far	Women too far	L-G too far	discrimmodel4	discrimmodel5	discrimmodel6	discrimmodelQ1	discrimmodelQ2	discrimmodelQ3	discrimmodelQ4	discrimmodelQ5	discrimmodelQ6	discrimmodelQ7	discrimmodelQ8
main														
White Male	0.2812***	0.2395***	0.3263***	0.3140***	0.3739***	0.3210***	1.4133***	1.3522***	-0.8666***	-0.7877***	0.6519***	0.5468***	-0.6976***	-0.5982***
	(0.0065)	(0.0071)	(0.0077)	(0.0083)	(0.0066)	(0.0072)	(0.0165)	(0.0176)	(0.0145)	(0.0155)	(0.0191)	(0.0199)	(0.0177)	(0.0187)
Own house		0.0663***		0.0861***		0.0741***		0.1534***		-0.1356***		0.1225***		-0.2356***
		(0.0087)		(0.0103)		(0.0089)		(0.0222)		(0.0195)		(0.0251)		(0.0234)
Married		0.0806***		0.0164*		0.1600***		0.1216***		-0.0085		0.1883***		-0.0951***
		(0.0082)		(0.0097)		(0.0084)		(0.0204)		(0.0179)		(0.0230)		(0.0215)
Divorced		0.0569***		-0.0418***		0.0244*		-0.0453		0.0450		0.0641*		-0.0653*
		(0.0128)		(0.0155)		(0.0132)		(0.0319)		(0.0283)		(0.0365)		(0.0345)
University diploma		-0.2687***		-0.0736***		-0.1436***		-0.4126***		0.1280***		-0.8948***		0.5199***
		(0.0120)		(0.0144)		(0.0124)		(0.0349)		(0.0326)		(0.0400)		(0.0389)
High School and professional diploma		0.0200*		0.0468***		0.0332***		-0.1246***		-0.0475		-0.2489***		0.1366***
		(0.0116)		(0.0139)		(0.0120)		(0.0343)		(0.0323)		(0.0393)		(0.0386)
Age		0.0117***		0.0004		0.0139***		0.0087***		-0.0081***		0.0259***		-0.0163***
		(0.0003)		(0.0004)		(0.0004)		(0.0009)		(0.0008)		(0.0010)		(0.0009)
Income under £5000 per year		0.0253		0.0468		-0.0321		0.1542**		0.1934***		0.2127**		-0.0255
		(0.0262)		(0.0302)		(0.0277)		(0.0772)		(0.0694)		(0.0851)		(0.0795)
Income between £10000 and £14999 per year		0.0062		-0.0001		-0.0854***		-0.0208		0.1100***		-0.0160		0.1857***
		(0.0177)		(0.0212)		(0.0185)		(0.0477)		(0.0418)		(0.0535)		(0.0505)
Income between £15000 and £19999 per year		-0.0289**		-0.0082		-0.0414***		-0.0882**		0.0371		-0.0716*		0.1546***
		(0.0141)		(0.0169)		(0.0145)		(0.0362)		(0.0329)		(0.0417)		(0.0396)
Income between £20000 and £24999 per year		-0.0250*		-0.0083		-0.0229		-0.0576*		0.0056		-0.1177***		0.1107***
		(0.0139)		(0.0166)		(0.0142)		(0.0348)		(0.0313)		(0.0399)		(0.0378)
Income between £25000 and £29999 per year		-0.0031		0.0408***		0.0070		-0.0939***		0.0202		-0.2044***		0.1839***
		(0.0135)		(0.0158)		(0.0137)		(0.0331)		(0.0293)		(0.0384)		(0.0359)
Income between £30000 and £34999 per year		-0.0131		0.0300*		-0.0049		-0.1092***		-0.0140		-0.2314***		0.1541***
		(0.0138)		(0.0161)		(0.0141)		(0.0334)		(0.0296)		(0.0385)		(0.0363)
Income between £35000 and £39999 per year		-0.0386***		0.0036		-0.0323**		-0.1205***		0.0215		-0.2161***		0.1516***
		(0.0149)		(0.0174)		(0.0151)		(0.0369)		(0.0320)		(0.0416)		(0.0392)
Income between £40000 and £44999 per year		-0.0531***		0.0166		-0.0194		-0.0626		-0.0351		-0.2232***		0.1086***
		(0.0161)		(0.0186)		(0.0163)		(0.0385)		(0.0334)		(0.0436)		(0.0407)
Income between £45000 and £49999 per year		-0.0033		0.0372*		-0.0053		-0.0773*		-0.0252		-0.2540***		0.2110***
		(0.0168)		(0.0194)		(0.0171)		(0.0403)		(0.0346)		(0.0454)		(0.0417)
Income between £50000 and £54999 per year		-0.0589***		-0.0143		-0.0677***		-0.0830*		-0.0132		-0.2555***		0.1193***
		(0.0185)		(0.0215)		(0.0189)		(0.0440)		(0.0376)		(0.0495)		(0.0458)
Income between £50000 and £59999 per year		-0.0738***		-0.0177		-0.0913***		-0.1682***		-0.0056		-0.4162***		0.2667***
		(0.0167)		(0.0193)		(0.0171)		(0.0389)		(0.0327)		(0.0434)		(0.0400)
Income between £60000 and £69999 per year		-0.0846***		-0.0367		-0.1223***		-0.1938***		-0.0770**		-0.4552***		0.2670***
		(0.0197)		(0.0227)		(0.0203)		(0.0461)		(0.0385)		(0.0513)		(0.0465)
Income between £70000 and £99999 per year		-0.1218***		-0.0556***		-0.1417***		-0.2310***		-0.0323		-0.5283***		0.2551***
		(0.0177)		(0.0203)		(0.0181)		(0.0393)		(0.0330)		(0.0437)		(0.0399)
Income between £100000 and £149999 per year		-0.2327***		-0.0760**		-0.2533***		-0.3043***		0.0771		-0.6337***		0.3511***
		(0.0279)		(0.0310)		(0.0284)		(0.0609)		(0.0505)		(0.0646)		(0.0581)
Income over £150000 per year		-0.1228***		0.0519		-0.1619***		-0.1084		-0.1575*		-0.3259***		0.0849
		(0.0423)		(0.0460)		(0.0438)		(0.0989)		(0.0820)		(0.1100)		(0.0992)
Working full time ($\geq$ 30 h. per week)		-0.0577**		-0.0672**		-0.0094		0.0138		-0.1716***		0.0021		-0.0224
		(0.0245)		(0.0285)		(0.0259)		(0.0672)		(0.0570)		(0.0753)		(0.0692)
Working part time (8-29 h. per week)		-0.0620**		-0.1000***		-0.0153		-0.0930		-0.1142*		-0.1221		0.0389
		(0.0253)		(0.0296)		(0.0267)		(0.0690)		(0.0584)		(0.0773)		(0.0711)
Working part time (< 8 h. per week)		-0.1256***		-0.0837**		-0.0321		0.0205		-0.2192***		-0.0920		0.0590
		(0.0349)		(0.0408)		(0.0361)		(0.0883)		(0.0766)		(0.0986)		(0.0908)
Full time student		-0.3518***		-0.1796***		-0.0945***		-0.4069***		-0.1412**		-0.9587***		0.2937***
		(0.0323)		(0.0357)		(0.0338)		(0.0777)		(0.0655)		(0.0879)		(0.0779)
Retired		-0.0524**		-0.0011		0.0771***		-0.1169*		-0.2080***		-0.3487***		0.0601
		(0.0233)		(0.0272)		(0.0244)		(0.0640)		(0.0548)		(0.0722)		(0.0674)
Unemployed		-0.0735**		-0.0166		-0.0219		0.0004		-0.2940***		-0.1135		0.0437
		(0.0291)		(0.0336)		(0.0309)		(0.0834)		(0.0734)		(0.0943)		(0.0869)
Not working		0.0355		-0.0133		0.0245		-0.0334		-0.1621***		0.0853		-0.0956
		(0.0246)		(0.0289)		(0.0260)		(0.0681)		(0.0580)		(0.0768)		(0.0713)
Private sector		0.0934***		0.0676***		0.0625***		0.0518		-0.1538***		0.0770*		-0.1770***
		(0.0146)		(0.0169)		(0.0150)		(0.0377)		(0.0328)		(0.0421)		(0.0391)
Public sector		-0.0207		-0.0305		-0.0522***		-0.0563		-0.0127		-0.0269		-0.0185
		(0.0159)		(0.0186)		(0.0164)		(0.0401)		(0.0347)		(0.0446)		(0.0411)
Non-profit, non-government		-0.1614***		-0.0976***		-0.1008***		-0.2207***		0.0424		-0.3156***		0.1610***
		(0.0217)		(0.0255)		(0.0221)		(0.0509)		(0.0433)		(0.0575)		(0.0518)
Wave FE		✓		✓		✓		✓	✓	✓		✓		✓
N.obs	169,545	162,210	169,761	162,426	169,545	162,210	77,037	73,834	78,832	75,560	77,812	74,616	78,297	75,072

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table F.19: Ordered probit model for Table D.6

	Men discriminated	Women discriminated	White discriminated	BME discriminated	discrimmodelQ5	discrimmodelQ6	discrimmodelQ7	discrimmodelQ8
main								
White Male	0.6396***	0.6204***	-0.4472***	-0.4107***	0.2515***	0.2192***	-0.2974***	-0.2579***
	(0.0076)	(0.0082)	(0.0074)	(0.0080)	(0.0073)	(0.0079)	(0.0073)	(0.0079)
Own house		0.0743***		-0.0763***		0.0531***		-0.1170***
		(0.0101)		(0.0100)		(0.0101)		(0.0100)
Married		0.0560***		-0.0063		0.0753***		-0.0380***
		(0.0093)		(0.0092)		(0.0092)		(0.0091)
Divorced		-0.0197		0.0259*		0.0280*		-0.0292**
		(0.0145)		(0.0146)		(0.0145)		(0.0146)
University diploma		-0.1816***		0.0653***		-0.3512***		0.1940***
		(0.0158)		(0.0165)		(0.0160)		(0.0164)
High School and professional diploma		-0.0497***		-0.0322**		-0.0942***		0.0337**
		(0.0155)		(0.0163)		(0.0157)		(0.0163)
Age		0.0043***		-0.0045***		0.0105***		-0.0071***
		(0.0004)		(0.0004)		(0.0004)		(0.0004)
Income under £5000 per year		0.0597*		0.1094***		0.0841**		0.0028
		(0.0351)		(0.0355)		(0.0347)		(0.0345)
Income between £10000 and £14999 per year		-0.0134		0.0552**		-0.0040		0.0822***
		(0.0218)		(0.0215)		(0.0214)		(0.0217)
Income between £15000 and £19999 per year		-0.0385**		0.0209		-0.0269		0.0612***
		(0.0165)		(0.0168)		(0.0166)		(0.0169)
Income between £20000 and £24999 per year		-0.0234		-0.0046		-0.0459***		0.0377**
		(0.0159)		(0.0161)		(0.0158)		(0.0160)
Income between £25000 and £29999 per year		-0.0386**		0.0039		-0.0798***		0.0651***
		(0.0151)		(0.0151)		(0.0153)		(0.0152)
Income between £30000 and £34999 per year		-0.0455***		-0.0125		-0.0885***		0.0527***
		(0.0152)		(0.0152)		(0.0153)		(0.0154)
Income between £35000 and £39999 per year		-0.0525***		0.0080		-0.0832***		0.0539***
		(0.0168)		(0.0165)		(0.0165)		(0.0166)
Income between £40000 and £44999 per year		-0.0247		-0.0190		-0.0853***		0.0334*
		(0.0175)		(0.0172)		(0.0174)		(0.0171)
Income between £45000 and £49999 per year		-0.0315*		-0.0193		-0.0978***		0.0710***
		(0.0183)		(0.0178)		(0.0181)		(0.0177)
Income between £50000 and £54999 per year		-0.0338*		-0.0161		-0.1001***		0.0347*
		(0.0201)		(0.0194)		(0.0198)		(0.0193)
Income between £50000 and £59999 per year		-0.0722***		-0.0126		-0.1617***		0.0980***
		(0.0178)		(0.0170)		(0.0173)		(0.0171)
Income between £60000 and £69999 per year		-0.0854***		-0.0462**		-0.1780***		0.0942***
		(0.0210)		(0.0199)		(0.0205)		(0.0199)
Income between £70000 and £99999 per year		-0.1010***		-0.0234		-0.2054***		0.0851***
		(0.0180)		(0.0170)		(0.0175)		(0.0171)
Income between £100000 and £149999 per year		-0.1340***		0.0386		-0.2489***		0.1243***
		(0.0278)		(0.0261)		(0.0261)		(0.0251)
Income over £150000 per year		-0.0509		-0.0719*		-0.1280***		0.0345
		(0.0451)		(0.0415)		(0.0443)		(0.0419)
Working full time (≥ 30 h. per week)		0.0117		-0.0946***		0.0069		-0.0289
		(0.0306)		(0.0294)		(0.0306)		(0.0302)
Working part time (8-29 h. per week)		-0.0366		-0.0673**		-0.0410		-0.0096
		(0.0314)		(0.0303)		(0.0314)		(0.0309)
Working part time (< 8 h. per week)		0.0138		-0.1151***		-0.0291		-0.0039
		(0.0402)		(0.0394)		(0.0397)		(0.0392)
Full time student		-0.1738***		-0.0837**		-0.3860***		0.0971***
		(0.0358)		(0.0341)		(0.0366)		(0.0348)
Retired		-0.0491*		-0.1155***		-0.1333***		-0.0003
		(0.0291)		(0.0283)		(0.0293)		(0.0292)
Unemployed		0.0054		-0.1523***		-0.0428		0.0093
		(0.0380)		(0.0376)		(0.0384)		(0.0379)
Not working		-0.0116		-0.0907***		0.0409		-0.0564*
		(0.0310)		(0.0300)		(0.0312)		(0.0310)
Private sector		0.0211		-0.0810***		0.0307*		-0.0742***
		(0.0172)		(0.0169)		(0.0169)		(0.0168)
Public sector		-0.0275		-0.0058		-0.0091		-0.0094
		(0.0183)		(0.0179)		(0.0179)		(0.0177)
Non-profit, non-government		-0.1038***		0.0250		-0.1263***		0.0762***
		(0.0234)		(0.0225)		(0.0232)		(0.0225)
Wave FE		✓	✓	✓		✓		✓
N.obs	77,037	73,834	78,832	75,560	77,812	74,616	78,297	75,072

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table F.20: Probit model for Table D.9

	Opposed aff action	Opposed aff action	Resentment	Resentment	Too much assistance	Too much assistance	Too much for improv.	Too much for improv.
main								
White Male	0.2553***	0.2698***	0.1113***	0.0994***	0.2321***	0.2349***	0.3545***	0.3665***
	(0.0271)	(0.0293)	(0.0219)	(0.0249)	(0.0324)	(0.0356)	(0.0297)	(0.0327)
BA or more		0.0542		-0.6121***		-0.2349***		-0.3166***
		(0.0460)		(0.0429)		(0.0622)		(0.0565)
At least high School diploma		0.2728***		-0.1696***		-0.1029*		-0.1088**
		(0.0433)		(0.0385)		(0.0556)		(0.0500)
Own house		-0.4913***		1.0744***		0.0563		0.0646**
		(0.0272)		(0.0245)		(0.0357)		(0.0326)
Married		0.2752***		-0.0781***		0.1312***		0.1382***
		(0.0325)		(0.0290)		(0.0431)		(0.0399)
Divorced		0.1386***		0.1055***		0.0988**		0.1923***
		(0.0382)		(0.0338)		(0.0494)		(0.0452)
Age		0.0043***		-0.0004		0.0047***		0.0041***
		(0.0011)		(0.0009)		(0.0014)		(0.0013)
Working full time		-0.0051		0.0637		-0.0351		-0.0045
		(0.0772)		(0.0671)		(0.0920)		(0.0864)
Working part time		-0.0299		-0.0391		-0.0134		-0.1602*
		(0.0832)		(0.0729)		(0.1007)		(0.0971)
Temporarily not at work		-0.0985		-0.0776		-0.2340		-0.0657
		(0.1111)		(0.1023)		(0.1551)		(0.1366)
Unemployed		-0.1603*		-0.0341		-0.0790		-0.1483
		(0.0915)		(0.0831)		(0.1171)		(0.1106)
Retired		0.0442		0.0204		-0.1242		-0.0543
		(0.0802)		(0.0692)		(0.0931)		(0.0902)
Student		0.0174		-0.0396		-0.2611		-0.0664
		(0.1071)		(0.0994)		(0.1624)		(0.1371)
Keeping house		0.0128		0.1098		-0.0878		0.0344
		(0.0846)		(0.0739)		(0.1041)		(0.0961)
HH Income over USD25,0000		0.1322***		-0.1497***		-0.0188		0.0302
		(0.0315)		(0.0284)		(0.0425)		(0.0388)
public		-0.0052		-0.0917**		-0.0249		-0.0112
		(0.0424)		(0.0381)		(0.0562)		(0.0508)
# of children		-0.0134		0.0254***		-0.0191		-0.0019
		(0.0094)		(0.0079)		(0.0121)		(0.0106)
protestant		0.0000		0.0000		0.0000		0.0000
		(.)		(.)		(.)		(.)
catholic		0.0919**		0.0440		0.0512		-0.0427
		(0.0363)		(0.0296)		(0.0427)		(0.0394)
jewish		-0.3504***		-0.1831**		-0.2235		-0.4947***
		(0.0922)		(0.0884)		(0.1449)		(0.1538)
none		-0.2548***		-0.2978***		-0.2502***		-0.2032***
		(0.0332)		(0.0313)		(0.0472)		(0.0422)
other		-0.0062		-0.2575**		-0.0370		-0.2078
		(0.1079)		(0.1025)		(0.1464)		(0.1446)
buddhism		-0.2618**		-0.1082		-0.2179		-0.1086
		(0.1254)		(0.1230)		(0.2096)		(0.1717)
hinduism		0.0782		0.1809		0.0000		-0.2810
		(0.1614)		(0.1560)		(.)		(0.2612)
other eastern religions		0.3332		0.2418		0.4866		-0.0564
		(0.5353)		(0.3917)		(0.4192)		(0.5262)
muslim/islam		-0.3091**		0.0006		0.0000		-0.2322
		(0.1540)		(0.1528)		(.)		(0.2375)
orthodox-christian		-0.1568		0.2484*		0.2739		0.3310*
		(0.1781)		(0.1499)		(0.1928)		(0.1794)
christian		-0.0091		-0.0249		0.1939**		-0.2243**
		(0.0855)		(0.0709)		(0.0920)		(0.1064)
native american		-0.9607***		-0.2367		0.0000		0.0542
		(0.3364)		(0.3951)		(.)		(0.5175)
inter-nondenominational		-0.0585		-0.3415		0.1316		-0.2045
		(0.2660)		(0.2487)		(0.3129)		(0.3536)
Sample								
Location FE		✓		✓		✓		✓
Year FE		✓	✓	✓		✓		✓
N.obs	15329	14596	15329	14596	15329	14411	15329	14596

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table F.21: Probit model for Table D.12

	No White Adv.	No White Adv.	Rac. Probl. Rare	Rac. Probl. Rare	Resentment 1	Resentment 1	Resentment 2	Resentment 2
main								
White Male	0.3398***	0.3081***	0.3597***	0.3484***	0.3121***	0.2705***	0.3100***	0.2471***
	(0.0061)	(0.0065)	(0.0064)	(0.0068)	(0.0059)	(0.0063)	(0.0059)	(0.0063)
Own house		0.2284***		0.2075***		0.2188***		0.2169***
		(0.0074)		(0.0078)		(0.0069)		(0.0071)
Married		0.2212***		0.1624***		0.2071***		0.2155***
		(0.0079)		(0.0083)		(0.0074)		(0.0076)
Divorced		0.1587***		0.0821***		0.0721***		0.1431***
		(0.0104)		(0.0113)		(0.0098)		(0.0100)
University diploma		-0.3697***		-0.1486***		-0.3457***		-0.2850***
		(0.0194)		(0.0210)		(0.0189)		(0.0190)
High School diploma		-0.0908***		-0.0231		-0.0211		0.0078
		(0.0190)		(0.0207)		(0.0186)		(0.0187)
Age		0.0083***		-0.0006**		0.0087***		0.0122***
		(0.0003)		(0.0003)		(0.0003)		(0.0003)
Income under USD10000 per year		-0.1442***		0.0929***		0.0544***		-0.1423***
		(0.0188)		(0.0197)		(0.0175)		(0.0181)
Income between USD10000 and USD19999 per year		-0.1142***		-0.0468***		0.0593***		-0.0869***
		(0.0155)		(0.0169)		(0.0147)		(0.0150)
Income between USD20000 and USD29999 per year		-0.1137***		-0.0353**		0.0485***		-0.0733***
		(0.0139)		(0.0151)		(0.0134)		(0.0136)
Income between USD30000 and USD39999 per year		-0.1278***		-0.0520***		0.0516***		-0.0583***
		(0.0136)		(0.0147)		(0.0131)		(0.0132)
Income between USD40000 and USD49999 per year		-0.1295***		-0.0282*		0.0272**		-0.0489***
		(0.0140)		(0.0150)		(0.0135)		(0.0136)
Income between USD50000 and USD59999 per year		-0.1472***		-0.0504***		0.0025		-0.0852***
		(0.0140)		(0.0150)		(0.0135)		(0.0137)
Income between USD60000 and USD69999 per year		-0.1402***		-0.0359**		-0.0040		-0.0638***
		(0.0149)		(0.0159)		(0.0145)		(0.0146)
Income between USD70000 and USD79999 per year		-0.1499***		-0.0035		-0.0345**		-0.0899***
		(0.0146)		(0.0154)		(0.0142)		(0.0143)
Income between USD80000 and USD99999 per year		-0.1713***		-0.0226		-0.0538***		-0.0899***
		(0.0140)		(0.0148)		(0.0136)		(0.0137)
Income between USD100000 and USD119999 per year		-0.1961***		-0.0214		-0.0925***		-0.1464***
		(0.0155)		(0.0162)		(0.0150)		(0.0152)
Income between USD120000 and USD149999 per year		-0.2053***		-0.0031		-0.0972***		-0.1388***
		(0.0157)		(0.0164)		(0.0153)		(0.0154)
Income between USD150000 and USD199999 per year		-0.2317***		-0.0611***		-0.1594***		-0.1879***
		(0.0182)		(0.0189)		(0.0174)		(0.0177)
Income between USD200000 and USD249999 per year		-0.2733***		-0.0463*		-0.1892***		-0.2407***
		(0.0258)		(0.0263)		(0.0249)		(0.0253)
Income between USD250000 and USD349999 per year		-0.2869***		-0.1002***		-0.2578***		-0.2469***
		(0.0330)		(0.0336)		(0.0312)		(0.0316)
Income between USD350000 and USD499999 per year		-0.2669***		0.0019		-0.1304***		-0.2059***
		(0.0493)		(0.0490)		(0.0467)		(0.0475)
Income over USD500000 per year		-0.1753***		0.0217		-0.0336		-0.0818*
		(0.0505)		(0.0506)		(0.0467)		(0.0475)
Working full time		0.0035		0.0497**		0.1178***		0.0478**
		(0.0221)		(0.0234)		(0.0212)		(0.0215)
Working part time		-0.0704***		0.0182		0.0738***		-0.0413*
		(0.0235)		(0.0248)		(0.0224)		(0.0228)
Temporarily laid off		-0.0583		-0.0227		0.0439		-0.0178
		(0.0400)		(0.0419)		(0.0371)		(0.0383)
Unemployed		-0.0289		-0.0132		0.0156		-0.0473*
		(0.0252)		(0.0267)		(0.0238)		(0.0244)
Retired		-0.1522***		-0.0527**		0.0400*		-0.1072***
		(0.0226)		(0.0240)		(0.0217)		(0.0220)
Permanently disabled		0.0476*		-0.0481*		0.1423***		0.0675***
		(0.0243)		(0.0260)		(0.0234)		(0.0237)
Homemaker		0.1026***		0.0580**		0.1759***		0.1615***
		(0.0243)		(0.0258)		(0.0234)		(0.0237)
Student		-0.1748***		-0.1607***		-0.0983***		-0.2021***
		(0.0304)		(0.0314)		(0.0274)		(0.0290)
Year Fe		✓		✓		✓		✓
State Fe		✓		✓		✓		✓
N.obs	206864	206319	203284	202762	202873	202167	202888	202183

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$