The Divergent Effects of Anxiety on Political Participation: Anxiety Inhibits Participation Among the Socio-Economic and Racially Marginalized

Dissertation

Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy in the Graduate School of The Ohio State University

By

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Graduate Program in Department of Political Science

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2020

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Abstract

This dissertation presents an exploration of anxiety for politics distinct from previous study in political psychology. Previous studies report on anxiety's potential to mobilize the electorate. Anxiety has been shown to bring political activation, to help sustain the collective action needed for civic and political participation, to increase willingness for compromise, to encourage political learning, and to increase trust in experts. But for many, the political world underlies much of their anxiety. Consider members of marginalized groups, many of whom are chronically taxed by politics, which can rewire neural networks in the brain and which leaves them with less available mental bandwidth to conduct themselves civically and politically. Taken together, I predict members of marginalized groups respond differently to anxiety than members of non-marginalized groups. While non-marginalized persons can muster their cognitive resources to channel anxiety into action, the precarious situations of many marginalized people merits devoting their cognitive resources elsewhere, leaving them demobilized by their anxiety. In Chapter 2 I lay bare this theory and annotate specific hypotheses. In Chapter 3 I launch a preregistered survey experiment to test my theory among a sample of Black subjects, White subjects, and Hispanic subjects, on welfare and off. Findings offer support for a heterogeneous understanding of anxiety's effects. Higher levels of anxiety caused the marginalized to be less likely to express an interest in voting than the non-marginalized. Furthermore, the

interactive effect of race and welfare status inhibited participation the most among the intersectionally marginalized. In Chapter 4 I offer robustness tests for my hypotheses, testing for moderated mediation in particular. In Chapter 5 I conclude by discussing the broad implications of my findings, how government and politics can foster anxiety among the masses, but in particular the negative consequences it has for political participation among the marginalized.

This dissertation is dedicated to my family, for without their unwavering support I would not have been able to see it through to completion.

Acknowledgments

It is most appropriate for me to begin by acknowledging the antecedents of my graduate school career, the faculty in the Department of Government and Politics at my undergraduate institution, the University of Maryland, who infected me with the research bug that led me to choose Ohio State for graduate school. Jim Gimpel, Ric Uslaner, and Edy Kaufman in particular instilled in me their love for research and the joy of the academic endeavor.

This dissertation is only possible because of the support and encouragement of numerous people inside and outside of my academic orbit. My dissertation chair Tom Nelson was everything one can hope for in a dissertation advisor. He was a stable and reliable guidepost, always available to discuss the project for hours on end. He was also endlessly patient, more so than any graduate student would expect a faculty member to be. Not only would Tom help diagnose problems as they arose, he gave up many hours of his time to talk through potential solutions. I always valued meeting with him because I knew we would always talk things through until a resolution was reached, whether that took ten minutes or way over an hour. In the true midwestern spirit I always felt Tom was non-judgmental and fair, but most of all supportive and understanding. My other committee members were instrumental in my progress as well. William Minozzi was my de facto dissertation vice chair and he always told me what I needed to hear rather than what I wanted to hear. Early on in the project

he noted several shortcomings of the project, to my chagrin at the time. Addressing those shortcomings made the dissertation an exponentially better product though, and it made me a more thorough and thoughtful scholar too. I learned a lot of hard lessons and matured greatly as a scholar from William's expert tutelage. My third committee member was Michael Neblo. He always provided a unique theoretical lens by which to ground the project and ensure it remained relevant and engaging to scholars and practitioners alike. My final committee member was Tom Wood. Tom always provided the much needed humor in the room. He also asked tough questions that led me to see the bigger picture, for this dissertation and my research agenda alike.

Funding for the project came from a few sources, of which I am very thankful. I will begin with internal grants. I received the first set of funding through an Alumni Grant for Graduate Research and Scholarship provided by the graduate school at Ohio State. I also received funding from the Department of Political Science as part of two annual grant competitions among the graduate students. I received funding to pilot test my treatment and control stimuli from William Minozzi, of which I am quite appreciative of and extremely grateful for. Externally, I received funding from a Doctoral Dissertation Research Improvement Grant (DDRIG), awarded by the American Political Science Association per a block grant from the National Science Foundation.

I also owe gratitude to Jan Box-Steffensmeier, who despite not being a formal member of my dissertation committee was an invaluable member of my academic network. The journal article her, two others, and myself published in the *American Journal of Political Science* was responsible for much of my professionalization in

graduate school. I vividly remember meeting Jan in March 2015 when the department invited me to visit for recruitment, and in early 2016 I approached her with an idea for a co-authored project. The finished product of that co-authorship, after four years of arduous work, is something I am very proud of. Perhaps no other faculty member in the department is as eager to work with graduate students as she is, to her credit. I am grateful Jan agreed to work with me and the tough love she provided over my years in graduate school.

I would also be remiss if I did not thank Elaine Denny, Davin Phoenix, Jared Edgerton, Erik P. Clarke, and Vlad Kogan for their invaluable assistance. Whether it was reading drafts early on in the project as Elaine and Davin did, providing general feedback early in the project as Vlad did, or providing theoretical and methodological advise at all stages in the project like Jared and Erik did, all were helpful in their own way. I would also like to thank the department workshop in political psychology at Ohio State for always providing a friendly and non-judgmental atmosphere for comments and feedback. Finally, I would like to thank the Winter Experimental Social Science Institute (WESSI) at New York University in Abu Dhabi, United Arab Emirates for inviting me to present this work in January 2020 and for the serious engagement and feedback.

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Publications

Research Publications

J. Box-Steffensmeier, B.W. Campbell, A.W. Podob, and S.J. Walker. "I Get By With a Little Help from My Friends: Leveraging Campaign Resources to Maximize Congressional Power". *American Journal of Political Science*, 64(4):1017–1033, Oct. 2020.

A.W. Podob. Review of Ange-Marie Hancock, "The Politics of Disgust: The Public Identity of the Welfare Queen". New York: New York University Press, 2004. *Politics and the Life Sciences*, 39(2):234–236, Fall 2020.

Fields of Study

Major Field: Department of Political Science

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Chapter 1: Introduction

Accounts of mass anxiety for politics, bordering on hysteria, have seemingly proliferated among the mainstream media. Surrounding the 2016 presidential election, popular journalism sources like *The Atlantic* ran the headline: "How to Cope With Post-Election Stress". *Slate* published articles with the headlines "Should Doctors Treat Trump Anxiety?" and "Fear, Anxiety, and Depression in the Age of Trump." The wellness section of *The New York Times* even ran an article titled "Talking to Your Therapist About Election Anxiety." These are but a few of the headlines propelling into the foray the notion that the masses are anxious about politics.

President Donald Trump's 2016 election in particular further fueled this narrative, likely for the additional angst it shepherded in for members of marginalized groups. An article in *The Atlantic* titled "When Fear of Deportation Keeps Families From Help After a Shooting" details how after the 2019 mass shooting in El Paso, Texas, many victims chose not to seek the medical attention they needed because of their immigration status. Likewise, articles in *The New York Times* such as "'It Feels Like Being Hunted': Latinos Across U.S. in Fear After El Paso Massacre" and in *The Washington Post* such as "Trump's presidency may be making Latinos sick" echo similar sentiments. Hispanics and Latinos are not alone though. African Americans have been subjected to similar angst. Articles with headlines "People of color are

embracing self-care, activism after Trump's latest racist tweets" and "White economic anxiety evaporated after the 2016 election. Now black economic anxiety is on the rise." in *USA Today* and *The Washington Post*, respectively, detail the precarious nature of living while black. It is in this vein that the dissertation project's exigence can be found.

This research project examines the role marginalization plays in the relationship between government, politics, and political anxiety, and the downstream civic and political consequences of such. In contrast to much work that has emphasized the mobilizing effects of anxiety, the project departs from the premise that the experience of anxiety is monolithic. The project theorizes that many members of marginalized groups are chronically taxed by politics, which leaves them with less available mental bandwidth to conduct themselves civically and politically. Because personal resources and political capital are necessary for one to exercise themselves in the political world, many marginalized group members generally have more trouble doing so because their resources and capital are directed elsewhere, outside of politics.

In the succeeding chapters I will engage in the scientific endeavor by theorizing, designing, implementing (data collection), analyzing, visualizing, and summarizing my research. I will begin in Chapter 2 by drawing upon literatures in political science, social and cognitive psychology, and public policy to construct a new theory for how anxiety manifests itself differently among members of marginalized groups. Drawing on theories from scholars in American politics, political psychology, race and gender, and the policy feedback domains allows me to situate my work broadly, at the apex of practicing the social sciences in the academy and practicing the social sciences as policymakers. I will then derive a set of hypotheses and sub-hypotheses. Subsequently

in Chapter 3 I will muster statistical tests to find support for my theory and in Chapter 4 I construct a series of models to test for a moderated mediation causal effect. In Chapter 5 I will conclude by pondering the intellectual merits and broader impacts of the project and its findings.

The findings come from original survey and experimental data. I test my theory by launching a preregistered survey experiment sampling African Americans, Hispanics, and whites, both on and off welfare (Medicaid and food stamps). Findings show higher levels of anxiety caused the marginalized to be less likely to vote than the non-marginalized. Specifically, the interactive effect of race and welfare status inhibited participation the most among the intersectionally marginalized. Those marginalized for their racial and socio-economic statuses therefore are at a strategic disadvantage in politics not only relative to the non-marginalized, but even to fellow individuals who are also marginalized, but less marginalized. Overall, anxiety was more mobilizing for the non-marginalized than it was for the marginalized, which is consistent with both the broader anxiety as a motivator literature and my theory of anxiety among the marginalized.

Chapter 2: The Second

2.1 Anxiety as a Mobilizer for Some

To marginalize someone is to relegate them to an "unimportant or powerless position within a society or group."[1] The marginalized often navigate precarious situations, which leaves them disadvantaged. Marginalized groups are at a numerical and structural disadvantage relative to the dominant group. People can be marginalized for their race, socio-economic status, gender, religion, and sexuality, among other characteristics. Marginalized group membership can have adverse consequences, as marginalization relegates people to the periphery, segmenting them off from the larger society.[2]

Marginalization can also affect reliance on government. People with *less* economic security are *more* at the whim of government, as they rely on government assistance more in hard times. The poor are impacted more than the wealthy by economic fluctuations, as they often hold less secure jobs and are more reliant on welfare programs like food stamps and Medicaid. When policymakers declare that food stamp

[1]Courtesy of Merriam-Webster English Dictionary.

[2]The criteria that needs to be met for someone to be considered marginalized is the relegation to a lower stratum of society, one where they have less influence and less concern is paid to them and/or their group.

recipients are lazy and respond by adding further work requirements to the program, this can directly affect who eats and who starves. Welfare case managers are more likely to discipline Latino and black recipients than white recipients, for instance [51]. If Medicaid enrollment requirements change and a recipient loses their health insurance, that loss is outside of their control. For many marginalized people, large parts of their livelihood are not within their control. Given that elites frame the public discourse, often at the expense of disadvantaged groups, the marginalized are usually left voiceless — shut out of the political process [21].[3]

For vulnerable populations, the political world can be a main source of anxiety.[4] Whether it is the rhetoric spoken or written by elites or the policies themselves, government and politics can be anxiety inducing.[5] The scholarly discourse on anxiety and its relationship with democratic values and political participation concentrates on anxiety's mobilizing effects. But this focus may not reflect the universal reality, as many members of marginalized groups feel they are either under siege by political agents or ignored by the political system.

[3]When "the end of welfare as we know it" came about in 1996 with federal welfare reform, Hancock (2004) [21] shows, though examination of newspapers and congressional debate, how the public discourse created a pervasive caricature of the prototypical recipient as a "welfare queen," an African American female who was single, young, and poor, who was lazy and undeserving of public assistance. In turn, this public identity was used as the rationale to reform the welfare program.

[4]Recent research in public health found that Latina women were between 3.2% to 3.6% more likely to deliver their child prematurely in the nine months following the 2016 U.S. presidential election [19]. The authors attribute the correlation to stress, as preterm birth is linked with a mother's stress levels during pregnancy. Furthermore, the authors conclude the stress was likely brought on by President Donald Trump's focus on immigration as his signature issue.

[5]Anxiety inducing policies include policies intended to harm or disenfranchise a particular group of people; also, policies that were well-intentioned but bring negative externalities. A lack of public policy, where government disregards or turns a blind eye towards particular groups of people, can also be anxiety inducing.

Previous studies in political science report on anxiety's potential to having mobilizing effects. The theory of affective intelligence (AIT) contends that anxious individuals shift from autopilot-type thinking to conscious deliberation, relying less on heuristics likes party and more on substance like candidate positions and candidate personal qualities [32]. While excitement and enthusiasm reinforce people's political thinking and choices, anxiety forces people to engage deeper thought processes, where they abandon preconceived notions and open themselves to conscious deliberation using contemporaneous information. Attempting to calm their anxiety, they engage in an unbiased search for additional information, which they then use when making voting decisions [11, 29, 30]. AIT theorizes a de-politicized thought process under the influence of anxiety. De-politicization is normatively beneficial, according to this scholarship, because it inhibits cognitive biases from coloring political decision making.

Many scholars maintain that a little anxiety can bring political activation — it "gets you off the couch" and engaged. Whether it is voting or participating in protests and social movements, anxiety can help sustain the collective action needed for political activism [25, 20]. For political participation, research shows anxiety arouses people and motivates them to become more active and engaged in politics [33].[6] For political learning, studies show anxiety expressed as fear causes people to hunt for more political information [33, 5, 23, 6, 58, 59]. Anxiety also increases willingness to compromise [30]. Overall, these studies find anxiety motivates behaviors that might not occur absent anxiety exposure.

[6]The effect is conditional on the resources individuals have access to, as well as their levels of political efficacy [5, 48, 59, 57].

Anxiety scholars have found that anxiety increases levels of trust in relevant actors and experts [3]. Additionally, like AIT, they find the non-anxious support public policies in line with their partisan predispositions, something the anxious are less likely to do. Third, like AIT, they find anxiety weakens the strength of partisanship as a predictor of vote choice, as anxiety leads voters towards protectionist policies (and politicians) regardless of party.[7] Overall, the corpus of findings surrounding anxiety paints a picture of anxiety as mobilizing, or at least valuable for many. Anxiety may be crippling for some, it is acknowledged, but it has the power to encourage cognition and behaviors perpendicular to one's priors.

The experience of anxiety for many in the outside world stands in contrast to the findings of anxiety scholarship. This dissertation wades into the clear contradiction by attempting to reconcile what has been found inside and outside the lab, unpacking a fuller picture of anxiety and its effects on political participation. I posit that anxiety works differently for different people.[8] For some people the experience of anxiety can be mobilizing, while for others it can have negative downstream consequences on political involvement and civic engagement.[9] Experimental evidence mustered in the dissertation shows that for the socio-economic and racially marginalized, higher levels of anxiety was associated with being less likely to vote than the non-marginalized. Moreover, the interactive effect of race and welfare status inhibited participation the most among the intersectionally marginalized. The findings in this dissertation

[7]Though they find that the relationship between increased anxiety and prior held political dispositions (like partisanship or vote preference) does not lead to as unbiased an additional information search as AIT so strongly predicts.

[8]Davin Pheonix [43] posits similarly about anger, that it mobilizes whites and blacks differently, much to the detriment of blacks.

[9]I expect some variation across marginalized group members, as no group is entirely homogeneous.

have broad implications for how government and politics can foster anxiety among the masses, but in particular the negative consequences it has for civic and political participation among the marginalized.

2.2 A Theory of Anxiety Among Vulnerable Populations

The sizable literature on "policy feedback" details the relationship between public policy and democratic citizenship. More specifically, it analyzes the relationship between participating in a government program and how enrollment shapes the way one views government [54, 36].[10] Instead of seeing their government programs as a unit of the government, participants often saw government programs as a microcosm of the larger government apparatus — participants used their experiences in a single government program as a heuristic to extrapolate what the entirely of government must be like. For many participants, program experiences are disempowering, especially when bureaucrats make programmatic decisions without the input of program recipients; or to the chagrin of program recipients [37]. Anxiety is absent in the framework of policy feedback. Scholars know very little about how government programs and policies towards groups affects their levels of anxiety for politics. If interaction with government shapes the way one views government, and if interaction with government structures people's political agency, it is reasonable to wonder how interaction with government agents and enrollment in government programs can be anxiety inducing too.

[10]While a main contribution of this line of inquiry is to draw attention to the political effects of public assistance program participation, the specific effects are conditional on the particular government program one is enrolled in.

2.2.1 Anxiety as a Tax on Limited Resources

In an experiment on financial anxiety, Elaine Denny [16] presented respondents with hypothetical scenarios in an attempt to prime them into feeling stressed out. She followed these vignettes by measuring respondents' anxiety levels. She finds that the stress caused by financial anxiety makes it more difficult for poor Americans to participate politically, as stress uses up limited cognitive resources otherwise used by wealthier Americans to conduct themselves civically.[11] The study highlights the differential effects of anxiety among different groups, bringing both face validity and external validity to the study of anxiety among marginalized groups. Denny [16] shows how anxiety is more negatively impactful for a disadvantaged population like the poor.[12]

Additional resources have been considered too. Education, income, time, and civic skills are positively associated with increased participation [7, 45]. Like these more traditional resources, a person's cognitive resources and brainpower are not boundless — they are finite resources [39, 40, 16]. Whereas some people are able to devote much of this resource to engaging in politics, for others they are heavily taxed by stress and their precarious situation, which leaves their mental bandwidth stretched thin [31].[13] This results in the former being able to exercise themselves in normatively positive ways civically and politically, and the latter less able to.

[11]Denny [16] and I are not arguing that the poor have fewer base-level cognitive resources than the wealthy, rather they have fewer *unused* cognitive resources available to tap for political purposes.

[12]More specifically, Elaine Denny finds that the marginal effect of an additional unit of anxiety for an already-anxious group (e.g., the poor) is negative, whereas it is positive for a group that is not already anxious (e.g., the non-poor).

[13]Having access to more psychological resources can buffer the impact of stress [28].

Moreover, emotional states like anxiety monopolize brain resources, meaning people utilize their brainpower for some purposes at the expense of others [27]. Participating in politics is made more difficult when people are preoccupied with and overburdened by anxiety and stress.[14]

Research in behavioral economics and psychiatry on stress distinguishes between the effects of acute stress, which is short term, and chronic stress, which is continuous. It finds that increased levels of cortisol — the "stress hormone" — over time can rewire neural networks in the brain, which affects decision making [17]. These findings mean chronically anxious individuals can be hard wired to think and then behave differently from their more fortunate brethren, who are not subjected to chronic stress. The chronic stress is sourced from society at large, interactions with government and politics, and also micro-aggressions, prejudice, subjugation, or neglect [56, 61, 35]. The result is divergence in civic and political behaviors. Being a member of a marginalized group brings stressors members of non-marginalized groups are largely sequestered from (ex. worries about being harassed by the police because of one's race). Members of marginalized groups may behave differently under politically anxious conditions because chronic stress has transformed their cognition. Considering a physiological component in the relationship between political anxiety and responses to it helps explain why persons of high socioeconomic status respond to political anxiety by engaging in politics, while less privileged persons respond by disengaging from politics.

My theory is not inconsistent with the 2018 finding by Clinton and Sances [12] that counties in states that expanded Medicaid as a result of the Affordable Care Act

[14]For example, making the monthly rent payment, putting food on the table, etc.

saw increased political participation in the 2014 election. Relative to similar counties in non-expansion states, poor people in counties that did expand Medicaid had less to worry about vis-a-vi their health insurance. Being less overburdened by not having health insurance, they were able to devote more cognitive resources to participate in politics.

2.2.2 What About Politics Makes Some People Anxious?

Political anxiety results from a real or perceived threat to one's security, status, or wellbeing [3]; be it economic security (will I receive or have access to necessary government-provided or protected resources), physical security (will a member of my family be harassed by the government without due process), or ontological security (will my lifestyle be disrupted because of government policy or lack thereof). Freedom from politically caused anxiety is a security members of marginalized groups are less likely to have. This does not mean members of non-marginalized groups do not face threats too. White Christians, for instance, report large levels of status threat in both surveys and experiments — the fear their social positions are threatened by minorities and other non-indigenous groups [41, 13, 63]. The difference is members of non-marginalized groups respond differently to these threats. While stereotypical "white suburban soccer moms" are able to respond to threat and channel their anxiety into increased political participation (as the anxiety as a motivator literature predicts), members of marginalized groups do not have similar access to unused cognitive and personal resources to channel threat into increased participation. Members of non-marginalized groups, who are both more privileged and less cognitively taxed by

threats, have the resources and capital accessible to channel threat into increased participation.

This theory of a differentiation in anxiety response for members of marginalized versus non-marginalized groups does not run counter to the findings of previous anxiety scholarship. One would expect to find mobilizing effects for anxiety among the non-marginalized precisely because their circumstances allow them to behave politically in entirely different ways from marginalized group members. Therefore, my theory does not discount previous anxiety scholarship; rather, it broadens it by suggesting researchers should expect a different relationship between anxiety and political outcomes for members of marginalized and non-marginalized groups. Previous scholarship utilizes respondent populations that are mostly white and non-marginalized. When the subject pool expands to focus on members of marginalized groups, expectations differ. Because personal resources and political capital are necessary for one to exercise themselves politically, marginalized groups members have more trouble doing so because their resources and capital are directed elsewhere.

2.2.3 Preliminary Investigation of My Theory

Preliminary investigation utilizing survey data from the American National Election Studies (ANES) shows citizens were on average more anxious about Donald Trump than Hillary Clinton in the 2016 presidential election, especially African Americans and Hispanics. Figure 2.1 displays the mean level of anxiety for each presidential candidate, conditional on race.[15] Each of the six plots charts the mean level of anxiety for each candidate for members of different racial groups. Besides whites — who are the racial majority while the other five groups are racial minorities — all other

[15]Standard practice is to used ANES's measures for fear or anger as a measure for anxiety.

racial groups were more anxious about Trump than Clinton. The solid lines are the focal point of each plot. They show the mean levels of anxiety for each candidate among members of that particular racial group. The dashed lines show the mean level of anxiety for each candidate across all races. Because the dashed lines are the average level of anxiety for each candidate among all survey respondents, the same dashed line is included in each plot as a general reference point. Close co-variation between the solid lines and the dashed lines in some of the plots reveals that Whites, Native Americans, and bi-racial individuals were on average no more anxious than the average survey respondents. The average member of the three racial minority groups (African Americans, Asians, and Hispanics) were more anxious than the average survey respondent. On a five-point scale, African Americans were two units more fearful of Trump than Clinton, and one unit more fearful of Trump than the average survey respondent. Hispanics were one and a half units more fearful of Trump than Clinton, and half an unit more fearful of Trump than the average survey respondent. This provides survey evidence to confirm the claim that marginalized groups like African Americans and Hispanics are more anxious than non-marginalized groups like whites, and particularly fearful about the man who was elected president, Donald Trump. The analysis of survey data from the ANES serves as a preliminary inquiry into anxiety among members of marginalized groups, and it informs the forthcoming hypotheses about the relationship between anxiety and politics, conditioned by marginalized group membership.

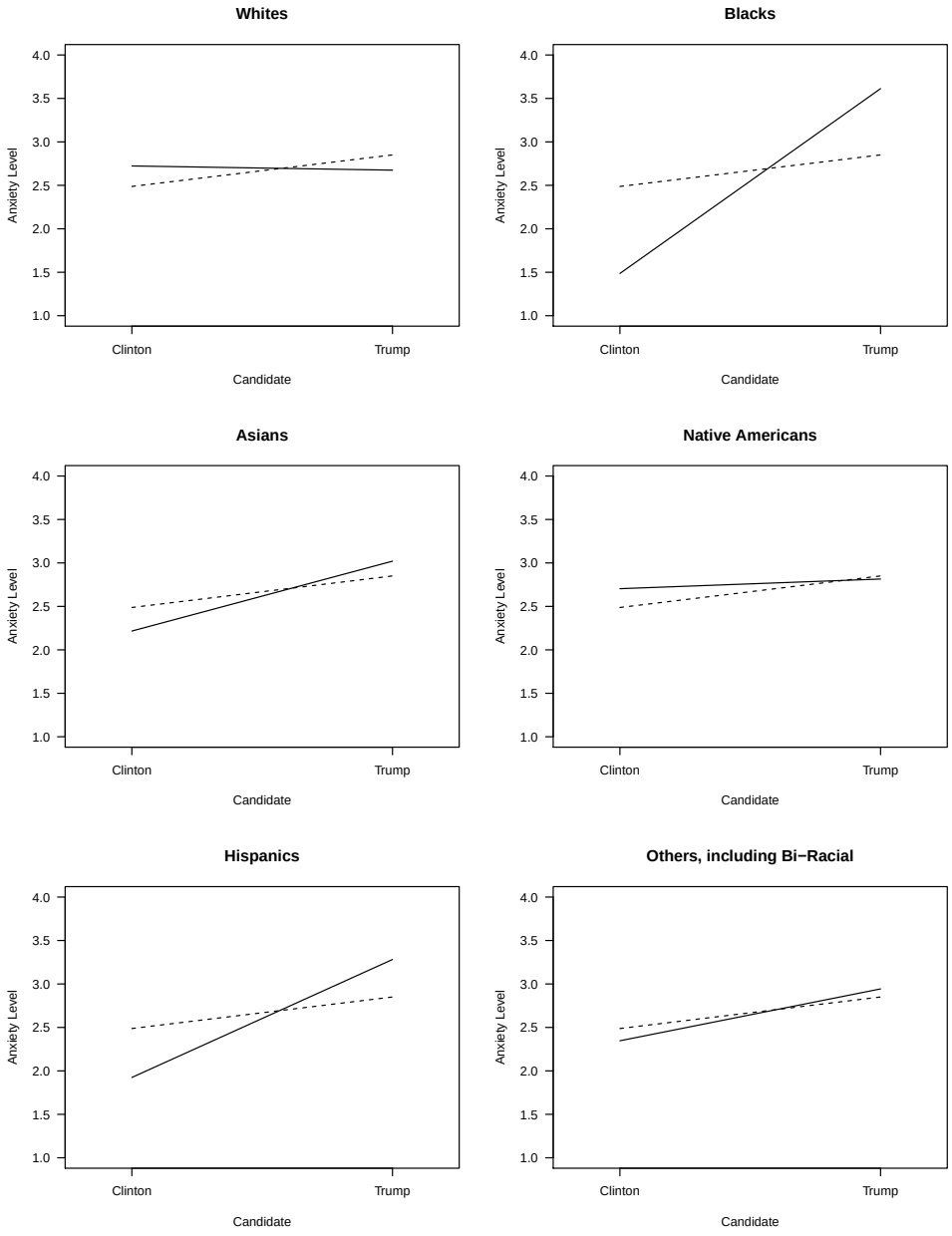

Figure 2.1: **Mean Level of Anxiety in 2016, By Race**: Source: 2016 ANES. Respondents are asked their affect for the two major party presidential candidates. Respondents are asked "How often would you say you've felt afraid because of the kind of person [Hillary Clinton/Donald Trump] is?" Answers are recoded by the author, least anxious (1) to most anxious (5). Solid lines show mean level of anxiety for each candidate among members of each race. Dashed lines show mean level of anxiety for each candidate across all races. The same dashed line is included in each plot as a general reference point.

2.3 Hypotheses

2.3.1 Hypothesis 1

While a little anxiety may bring political activation, thereby making it a normatively good thing, too much anxiety is overwhelming, leading to the type of avoidance behavior and disengagement from the political process that scholars fear. Reasoning of the sort is an appropriation of the Yerkes-Dodson Law [64], which demonstrates a parabola-like, non-linear relationship between arousal and performance (Figure 2.2). While low arousal is associated with weak performance, increasing arousal leads to increased attention and interest. Moderate arousal leads to strong performance, making it the most optimal outcome. Increasing arousal from the most optimal outcome decreases performance. High arousal is associated with weak performance due to the impairment anxiety causes.

If the Yerkes-Dodson curve explains the relationship between anxiety and political involvement, it clarifies why stereotypical "white suburban soccer moms" can respond differently to an anxiety stimuli than many marginalized persons can. The curve is similar for the marginalized and non-marginalized alike. What differs is where on the curve both groups are found. The marginalized and non-marginalized are located at different points on the curve. Whereas an anxiety-inducing stimulus takes non-marginalized group members ascending up the left curve of the parabola, which increases their participation, anxiety inducing stimuli take marginalized group members descending down the right side of the parabola, which decreases their participation. For many marginalized individuals who are chronically tax by politics, anxiety is too mentally taxing on the brain to channel anxiety (arousal) into participation (performance). Relating this back to Denny's (2016) finding about the poor, the financial

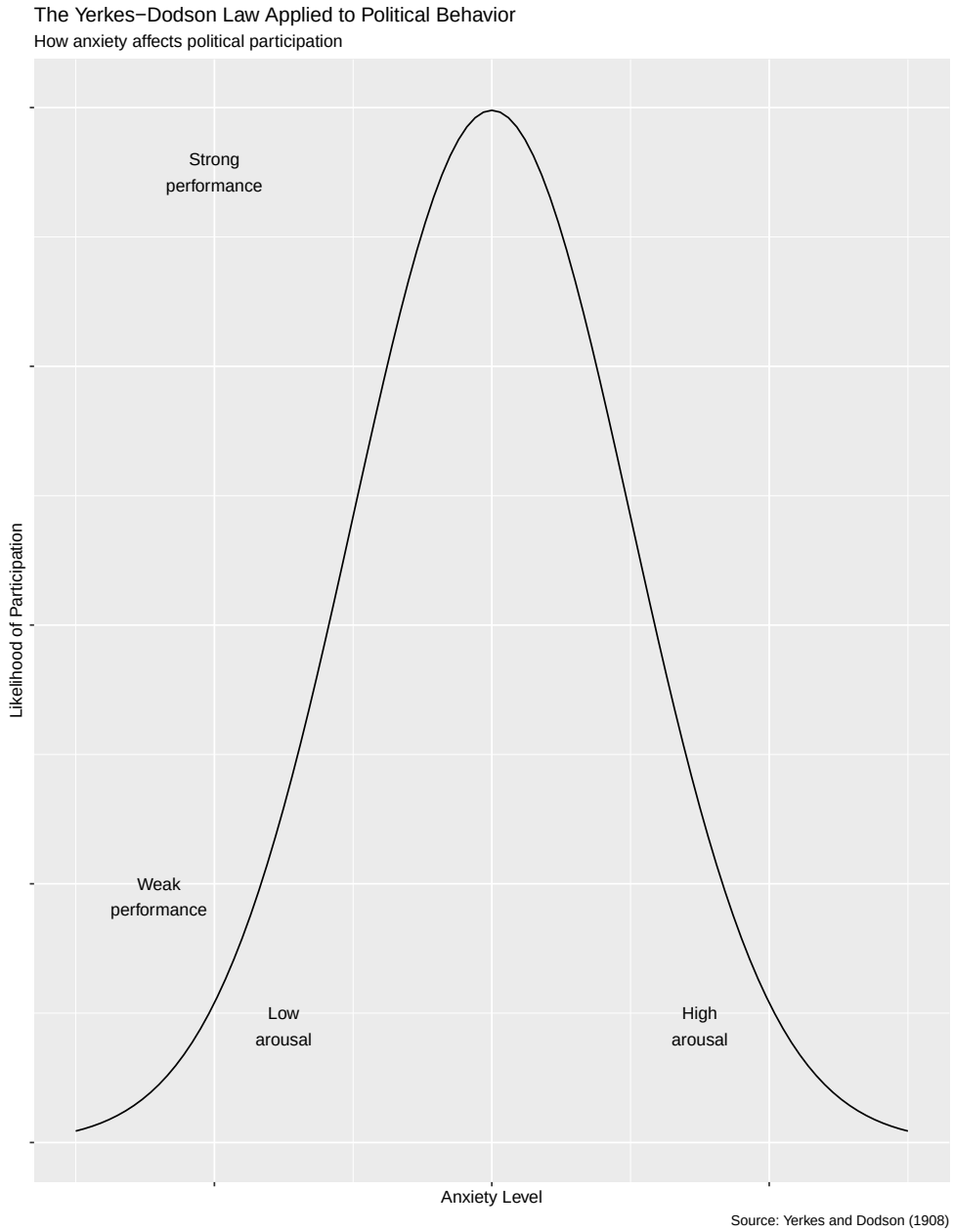

Figure 2.2: **Hypothesis 1 Visualized**: The predicted relationship between level of anxiety and political participation. Group membership leads to differing expectations about where on the x-axis one begins before being introduced to an anxiety stimuli.

anxiety prime was more debilitating for the poor than the wealthy, which resulted in lower participation by the poor. Taken together, anxiety's relationship with intention to engage in politics is non-linear. One would expect the most anxious members of marginalized groups to display tendencies towards aversion. This leads to my first hypothesis.

H_1 *Moderately anxious group members will be the most likely to participate. The least and most anxious group members will be the least likely to participate.*

2.3.2 Hypothesis 2

Secondly, I hypothesize an interaction between group membership and response to stimuli. Research on synaptic plasticity in the brain shows that familiarity and repeated experience lead to quicker recall [27]. As disadvantaged individuals are more often made repeatedly anxious by politics [56], their levels of anxiety should be cued and manipulated more easily. Figure 2.3 shows this concisely. How much someone's level of anxiety increases upon being given an experimental anxiety prime is conditional upon an endogenous factor like group membership. We would expect those persons in marginalized groups to display stronger effects for outcomes of interest because the prime was more anxiety inducing for them, as opposed to those who are not members of marginalized groups, who were moved by the prime, though much less so. This leads to my second hypothesis.

H_2 *Anxiety levels among members of marginalized groups will increase at a higher rate due to treatment.*

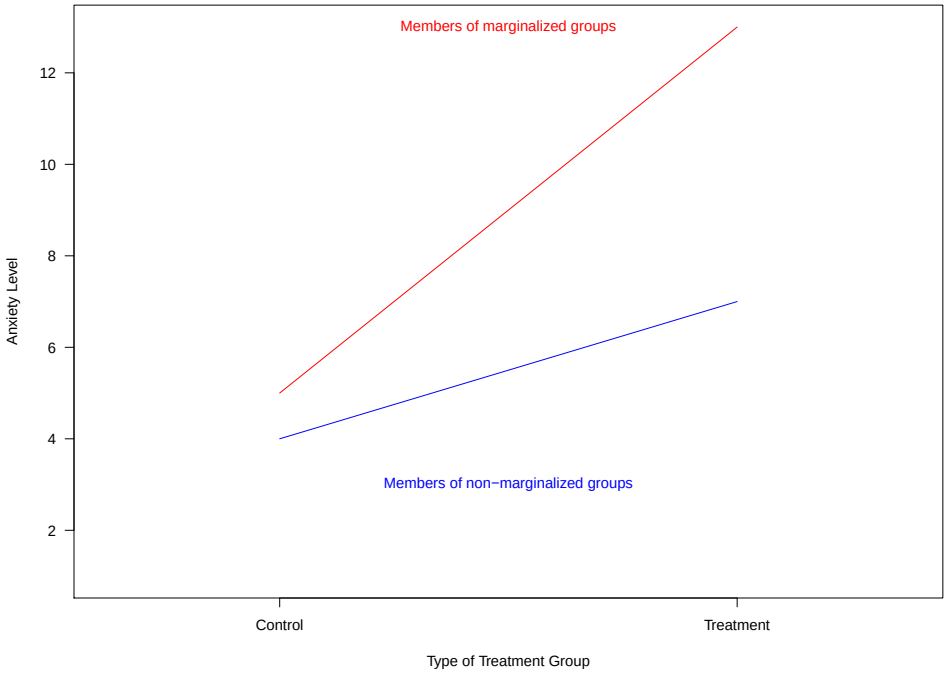

Figure 2.3: **Hypothesis 2 Visualized**: The anticipated relationship between type of treatment group and level of anxiety, conditioned by group membership. Group membership in a marginalized or non-marginalized group leads to differing expectations about the effect of an anxiety prime. Note that, consistent with Hypothesis 1, members of marginalized groups are more anxious at time $t = 0$, denoted here by the two control groups.

Hypotheses 2.1-2.4

The next four hypotheses identify the moderators influencing the predicted relationship in Hypothesis 2 and are offered as sub-hypotheses. Recall from earlier, experiencing chronic levels of stress taxes the brain's bandwidth and has the power to rewire the brain [17, 31]. This chronic stress and the resulting rewiring are a byproduct of the marginalization inherent in group membership. Marginalization therefore moderates the relationship between exposure and anxiety.[16] The relationship is shown in the flow chart in Figure 2.4. The non-marginalized should be made less anxious by exposure because either they are not as chronically taxed by politics, or they feel less threatened by the exposure. Two further moderators are locus of control and self-esteem.

Locus of control is the extent to which one believes they have power over their own life choices and events [46]. Those with an internal locus of control recognize the agency within themselves. Those with an external locus of control feel the agency over their lives is held by others. Locus of control is relevant to anxiety among marginalized groups because repeated negative interactions with state actors and institutions can hinder one's sense of agency. It is not empowering for a person when a state changes its Medicaid rules without soliciting input from the stakeholders themselves [37]. Marginalized group members *can* feel a strong sense of agency despite their vulnerabilities making that less likely, relative to more privileged people, but over time these negative interactions can suppress one's sense of agency by conditioning learned helplessness [52, 1].

[16]Exposure is an interaction with government or politics or a stimulus in an experimental setting.

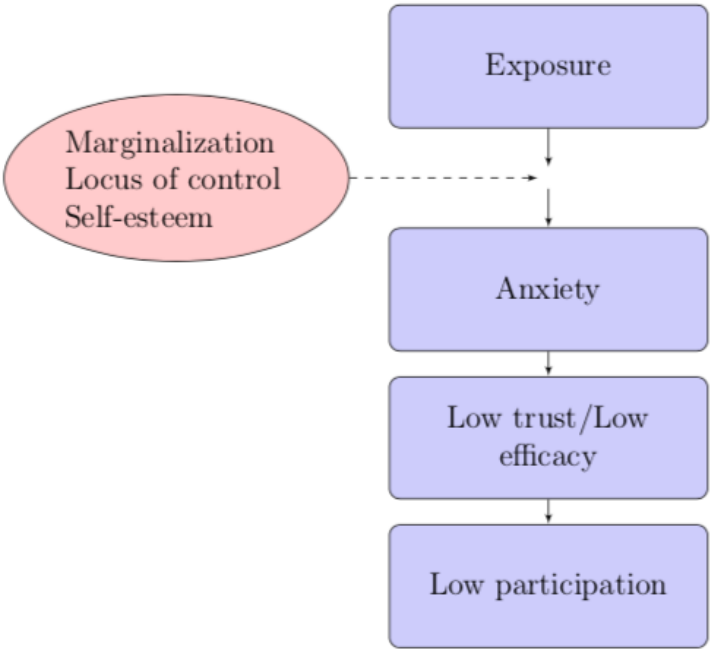

Figure 2.4: **Moderated Mediation Relationship**: The theorized relationship between exposure to government or an experimental stimulus (independent variable) and anxiety (dependent variable), moderated by one's membership in a marginalized group, their locus of control, and their self-esteem. The downstream effects of anxiety (low trust and low efficacy and low political and civic participation) are additional dependent variables.

$H_{2.1}$ *Members of marginalized groups will exhibit a lower [higher] internal [external] locus of control than members of non-marginalized groups.*

$H_{2.2}$ *Anxious members of marginalized groups will exhibit a lower [higher] internal [external] locus of control than non-anxious members of marginalized groups.*

Self-esteem is one's confidence in their self-worth, value, and abilities [60]. Self-esteem is relevant to anxiety among marginalized groups because people low in self-esteem are less efficacious than those high in self-esteem [24, 26], and those with high self-esteem score higher on feelings of both political efficacy and trust [15, 2]. Low levels of efficacy and trust translate into low levels of political involvement. In the same way politics can condition learned helplessness and an external locus of control for marginalized group members, likewise for self-esteem. When decisions affecting the livelihoods of marginalized people are made without their knowledge or consent, they can lose confidence in their worth or abilities. For politics, it translates into lessening the likelihood of participation.

$H_{2.3}$ *Anxious members of marginalized groups will exhibit lower levels of self-esteem than anxious members of non-marginalized groups.*

$H_{2.4}$ *Anxious members of marginalized groups exhibiting the lowest levels of self-esteem will be the least likely to vote, and will express the lowest levels of trust and efficacy.*

Like the more traditional resources education, income, and time, locus of control and self-esteem are the cognitive resources necessary for one to conduct themselves civically and politically. Many marginalized people, because of their precarious situations, are less able to call on these resources. Those with the lowest levels of

self-esteem and with an external locus of control will be made the most anxious by exposure, which has negative downstream consequences for trust and efficacy, and further negative downstream consequences for participation.

2.3.3 Hypotheses 3 and 4

Anxiety among marginalized groups is invariably related to the way members of these groups form their political attitudes and make political judgments [18, 17, 4]. I direct attention towards civic attitudes like trust and efficacy because both are foundational determinants of political involvement and faith in democracy.[17] Without high levels of trust, and without high levels of internal and external efficacy, citizen participation in democratic society is moot. Citizens will either choose not to participate, or feel their participation is meaningless. Low levels of trust and efficacy are particularly worrisome for members of marginalized groups because engagement in the political process may be the only way to mitigate their circumstances. An endless feedback loop can emerge where members of marginalized groups do not participate, so nobody of importance pays any attention to them, which only lowers their levels of trust and efficacy even more [49]. As the loop continues it becomes a cyclical dynamic: Public policy or a lack of public policy leads to anxiety among members of marginalized groups; members of these groups choose not to participate in the political process because they see little value in doing so; the status quo continues as agents of government have no impetus to act in the group's interest.

Civic attitudes are inextricably linked to political outcomes like voting because positive civic attitudes must be held prior to political attitude formation and voting

[17]Political trust is the belief that policymakers will act fairly and impartially. Internal efficacy is one's belief in their ability to positively affect the political process. External efficacy is one's belief in the responsiveness of the political system.

decisions.[18] Studies have shown that participation in government welfare programs can lower participants' perceived external efficacy [54], with further studies finding this decrease in efficacy decreases political participation [45].[19] A study of three welfare programs found that, generally speaking, program participation was associated with a lower incidence of political and civic participation [8].[20] This finding was confirmed by a more recent study of Medicaid recipients [38]. While none of these studies are studies of anxiety, they operate in the realm of anxiety scholarship because program membership can cause anxiety and program membership is associated with negative normative outcomes. Political anxiety will lead to lower levels of trust and external efficacy because members of marginalized groups blame policy makers or society for their disadvantaged situation [9, 37, 53].[21] Additionally, anxiety will lead to lower internal efficacy because of learned helplessness and a low internal locus of control. Weakly held civic attitudes translate into lower likelihoods of voting and civic engagement.

I group these constructs into two larger constructs. A civic and political participation involvement battery, political trust, and external efficacy are folded into a superordinate construct I label civic engagement. All involve one's relationship with the outside (external) world. I label internal efficacy as civic self confidence, for it

[18]I equate intention to engage in politics with internal efficacy because internal efficacy is one's belief in their ability to positively affect the political process. Both are intertwined, as a desire to engage in politics is drawn from a sense of internal efficacy.

[19]But see the finding by Soss (1999) [54] that participation in the public assistance program Aid to Familiar with Dependent Children (AFDC) actually increased participants' perceived internal efficacy.

[20]The study found that paternalistically-structured government programs like Temporary Assistance for Needy Families (TANF) saw program participants exhibit lower political participation rates than democratically-structured government programs like Head Start.

[21]See Sahar (2014) [50] for a general discussion in political psychology of external, often called structural, attributions for marginalization.

differs from the items in the civic engagement construct because it is internal. This leads to my third and fourth hypotheses.

H_3 *Marginalized group members will have lower levels of civic engagement than the non-marginalized.*

H_4 *Marginalized group members will have lower levels of civic self confidence than the non-marginalized.*

In the next chapter I will detail my research design to test the aforementioned hypotheses and then conduct the statistical tests to do so.

Chapter 3: The Third

3.1 Research Design

3.1.1 Survey Experiments

I design a survey experiment to test the relationship between political anxiety and a variety of social psychological, political, and normatively relevant outcomes. Opting for an experiment rather than a survey alone allows me to make causal claims about the role anxiety plays in outcomes for members of marginalized groups.[22] Furthermore, it allows me to probe anxiety in politics in a broader sense, not just for presidential candidates like ANES measures. Table 3.1 details the 3x2x2 factorial experimental design. Across treatment and control conditions, half the sample are welfare recipients and half are not. Furthermore, one-third of the sample is white, one-third black, one-third Hispanic. This design helps maximize statistical power because it includes main effects for race and welfare status, respectively, and interactive effects for race and welfare status. I contend that black and Hispanic respondents are

[22] An experiment avoids the shortcomings of survey data like ANES, where respondents are asked to produce their judgments and opinions either on-the-spot or from recollections. Namely, shortcomings like the potential for hindsight bias in affirmative reports of having felt anxious (angry or afraid) during the election, the potential for acquiescence bias, where respondents have the tendency to agree with questions posed to them, and social desirability bias, where respondents feel social pressure to report feeling anxious because they remember their neighbors being anxious — i.e. "the Millers down the street said they were anxious, and so did the Smiths, so we must be anxious too." All of these factors could lead to over-reports of anxiety in the ANES data.

Treatment Conditions

Welfare	Non-Welfare	
Marginalized	Contrast group	White
Marginalized	Marginalized	Black
Marginalized	Marginalized	Hispanic

Control Conditions

Welfare	Non-Welfare	
Marginalized	Contrast group	White
Marginalized	Marginalized	Black
Marginalized	Marginalized	Hispanic

Table 3.1: **Experimental Design:** This 3x2x2 factorial design allows for studying welfare recipients and their non-welfare counterparts across three different races. Whites not on welfare are the contrast (non-marginalized) group in both experimental conditions. All other combinations of race and welfare status are marginalized groups. The design could also be described as a 2x1 with six subgroups of subjects: race(black, white, hispanic) x welfare status(recipient, non-recipient).

marginalized because of their race — regardless of whether they are on welfare — but those respondents who are non-white and also on welfare are further marginalized because they live in poverty. Likewise, white respondents who are on welfare are marginalized because they live in poverty. Whites who are not on welfare are the dominant social group and are affluent, therefore are non-marginalized (referred to as the contrast group).

Neither race nor socio-economic status are manipulated in the experiment; only anxiety level. Being endogenous to the individual, survey researchers can cue one's race and attempt to make it more salient, but cannot randomly assign it and maintain face validity. Socio-economic status on the other hand *can* be experimentally induced (ex. the different experimental conditions can assign subjects different levels of economic stimulus or welfare payment), but it was not induced or measured as a dependent variable in the experiment. Two main limitations result. First, because I have randomized anxiety between each pair of treatment and control groups, respectively, I can attribute mean differences in participation between groups in the two

respective conditions to the randomization. These two groups are, by design, indistinguishable on confounding variables. Secondly, because I only measure race and socio-economic status, I can only measure the relationship between these variables and civic and political participation while controlling for confounding variables.

Subjects were recruited through the Lucid Marketplace platform. Lucid was contracted to provide 1,200 subjects fitting the main conditions for each racial and welfare category. Race was determined by Lucid given subject self-responses. Welfare status was determined by two pre-screener questions I directed Lucid to ask respondents before feeding them into the survey. Figure 3.1 shows both questions. Potential subjects were shown both questions. Potential subjects who answered "I am covered by Medicaid" for Question 1 satisfied the welfare recipiency requirement; those that did not did not. Likewise potential subjects who answered either "Supplemental Nutrition Assistance Program (SNAP, food stamps)" or "Medicaid" for Question 2 satisfied the welfare recipiency requirement. Restated, subjects who chose any of the three highlighted answer choices in the figure demonstrated they were a recipient of one of or both of the welfare programs deemed welfare in this study. Based upon answers to both questions, Lucid directed potential subjects, given their race, into either the welfare or non-welfare track of the survey.

I induce anxiety in the survey by showing respondents in the treatment condition a short video of young people engaging in daredevil-like behaviors. For instance, hanging on a rope many yards off the ground; hanging off the side of a tall building; holding your cell phone over the side of a railing. In each scene something catastrophic

Question 1:

What best describes your current health insurance?

☐ I do not have health insurance
☐ I have health insurance through my employer
☐ I have health insurance through my spouse's employer
☐ I/my spouse buys an individual/family plan health insurance
☐ I am covered by my school
☐ I am covered by my parents
☐ I am covered by Medicaid
☐ I am covered by Medicare
☐ I don't know or prefer not to say

Question 2:

Do you receive any public assistance? Check all that apply.

☐ Public housing
☐ Supplemental Nutrition Assistance Program (SNAP, food stamps)
☐ Supplemental Security Income (SSI)
☐ Medicaid
☐ Section 8
☐ Temporary Assistance for Needy Families (TANF)
☐ Other
☐ Not Applicable

Figure 3.1: **Welfare Status Pre-Screener Questions.**

could potentially happen.[23] Subjects randomly assigned to the control group are shown a calming video of birds sitting on tree limbs and chirping.

3.1.2 Measurement

Measurement of the moderating variables precedes treatment and measurement of the dependent variables follows treatment. Each subject's locus of control is measured using the 8-item Likert scale measure created by Parada (2006) [42]. Each subject's level of self esteem is measured using the long-established 10-item scale by Rosenberg (1965) [44].[24]

To control for the possibility that one's level of political knowledge could condition their ability to properly relate their political anxieties to politics and be able to channel their anxieties into action or abstention, I include Delli Carpini and Keeter's (1993) [10] political knowledge measure. Subjects are also asked how often they pay attention to politics and elections. This measure, like the knowledge measure, is measured pre-treatment. The expectation is that subjects most interested in politics are also the ones most likely to follow politics. Those who pay closest attention are most likely to have the wherewithal necessary to influence political outcomes. If someone's knowledge of and interest in politics conditions their reactions to feeling politically anxious, it is necessary to control for both. For the Hispanic respondents only I also ask about citizenship status (post-treatment).

Following the experimental stimulus subjects were given a manipulation check. It consisted of showing subjects a list of ten emotions (in a random order) and asked them to check off which ones they felt in the last hour. If the treatment video induced

[23]Detailed discussion of my pilot of these videos can be found in the appendix.

[24]See the appendix for Rosenberg's self-esteem scale.

the intended emotion, one would expect subjects in treatment to be more likely than subjects in control to select anxiety from among the list. A problem of internal validity would arise otherwise.

The focal point of the post-test questionnaire is measuring each subject's level of anxiety. The randomized nature of including a control group in the research design alleviates the need for pre- and post-test measures of subjects' anxiety.[25] I measure anxiety two ways. The goal is to measure short-term state anxiety cued by the treatment. Levels of state anxiety will be measured using the State-Trait Anxiety Inventory (STAI) Form Y-1 as developed by psychologist Charles Spielberger in the 1980s [55]. The version I use, the STAI-6, is a shortened version developed by psychologists Marteau and Becker (1992) [34]. Secondly, I ask respondents how anxious the video they watched made them on a scale of 0-10. I call this the anxiety feeling thermometer score.[26]

The post-treatment dependent variable measuring civic and political participation is expansive and includes a battery of nine items: propensity to vote in the next election (primary and general), likelihood of donating money to a political campaign, likelihood of volunteering for a political campaign, working together with others to solve a problem, attending a meeting that addresses a local issue, contacting an

[25]The research design is a between subjects design rather than a within subjects design. One limit of this type of design is that I am unable to test whether members of marginalized groups have higher levels of anxiety pre-treatment. Instead, I am able to test whether anxiety levels among members of marginalized groups increase at a higher rate due to treatment.

[26]To ensure the STAI-6 and anxiety feeling thermometer measures do not bias answers to the manipulation check question, the manipulation check question is asked directly before them in the survey flow.

elected official, attending a public protest, and participating in a boycott. Finally, levels of political trust,[27] internal efficacy, and external efficacy are measured too.[28]

3.2 Analysis

3.2.1 Descriptive Statistics

Subjects whose survey responses were incomplete (they did not finish the survey) and who failed the preliminary attention check were dropped from all analyses.[29] The analyses included 1229 respondents in total. Table 3.2 shows the number of subjects randomly assigned to treatment or control for each of the six sampled groups. Roughly similar numbers of subjects were in the treatment and control conditions for each group.[30] Full tables of summary statistics for the measured variables can be found in the appendix. This includes subject's demographic characteristics like age and income as well as social psychological variables I posit are central to studies of anxiety among the marginalized. External and internal locus of control have been logged to ensure a more normal distribution, as they are rightward (external LOC) or leftward (internal LOC) skewed in the data.

Though the respondents who did not finish the survey were dropped from all analyses, the survey data of those persons can still be examined.[31] Table 3.3 below

[27]Trust is measured using the standard question "how often do you trust the government in Washington to do what is right?"

[28]I use scales from Craig (1979) [14] and others like him (see the appendix), who separate their efficacy measures into internal and external, each a scale of five short questions.

[29]A question offered pre-treatment asked respondents to read a set of directions and select two particular answer choices from the ones listed. Subjects who answered the question incorrectly are unlikely to have read the prompt carefully. This is indicative of rushing through the survey.

[30]Differences in survey completion rates are explored in Table 3.3.

[31]These respondents have incomplete data, but Qualtrics denotes they began but did not finish completing the survey.

Group	Control	Treatment
White + Welfare	108	93
White + Non-Welfare	113	103
Black + Welfare	114	90
Black + Non-Welfare	111	96
Hispanic + Welfare	118	84
Hispanic + Non-Welfare	105	94
All respondents	669	560

Table 3.2: **Subject Assignment by Group**: Number of subjects in each group.

shows the rate of survey completion for each group. The rate of survey completion was generally higher among less marginalized groups. The contrast group members (white + non-welfare) completed the survey at a higher rate than average (+7.46%) and at a higher rate than four of the other five marginalized groups. While 52.94% of white participants not on welfare finished the survey, only 32.53% of Hispanic subjects on welfare and 41.38% of black subjects on welfare did. Racial minorities on welfare finished the survey at the lowest rates; lower than average and lower than all other less marginalized groups. The marginalized — particularly the intersectionally marginalized — finishing the survey at such low rates may be indicative of them being cognitively taxed to the point of not being able to complete the task, or that the anxiety stimulus systematically taxed some survey participants more than others, many to the extent of them withdrawing from the survey without finishing. Although untestable with these data, that explanation would be favorable to my theory of how cognitively taxing anxiety can be for some people. Alternatively, lower completion rates among the intersectionally marginalized could simply mean the contrast group had more resources like money to hire a babysitter or free time away from work to

Group	% Completed
White + Welfare	46.96
White + Non-Welfare	52.94
Black + Welfare	41.38
Black + Non-Welfare	61.79
Hispanic + Welfare	32.53
Hispanic + Non-Welfare	47.72
Welfare Recipients	40.29
Non-Welfare Recipients	54.15
White Respondents	49.95
Black Respondents	51.59
Hispanic Respondents	40.13
All respondents	45.48

Table 3.3: **Survey Completion Rates by Group**.

complete the survey. Further studies should take care to parse the cause of increased drop off among the marginalized and extreme drop off among the intersectionally marginalized.

I begin by examining the post-treatment manipulation check question. Following the manipulation video, subjects were shown a list of ten emotions (in a random order) and asked to check off which ones they felt in the last hour. If the treatment video induced the intended emotion of anxiety, one would expect subjects in treatment to be more likely than subjects in control to select anxiety from among the list. Thankfully the manipulation was successful. While 41% of respondents in the treatment condition selected anxious from the list, only 37% of respondents in the control condition did so.[32] Because assignment to conditions was random, the differentiation in anxiety induced by condition can be attributed to the experimental manipulation.

[32]However a t-test indicates this difference is statistically insignificant (p-value = 0.09797).

The manipulation check question also gives a window into the prevalence of anxiety within racial groups and when race interacts with welfare status. Hispanic respondents as a group were the most likely to select anxiety from the list of emotions (42.64% did). Likewise, respondents on welfare were more likely to select anxiety from the list of emotions than those not on welfare (42.99% did). Across all three races, subjects on welfare were more likely to select the emotion anxiety than subjects in the same racial group but not on welfare. Among Hispanic respondents, those not on welfare selected anxiety from the list of emotions 40.50% of the time while those on welfare selected anxiety 44.78% of the time. For Black respondents, 31.90% of those not on welfare selected anxiety while 36.82% of those on welfare did. And while fewer than a third (31.94%) of white respondents not on welfare selected anxiety from the list of emotions, nearly half (47.26%) of white respondents on welfare did. Given that white respondents not on welfare are non-marginalized relative to the other five groups (they are the contrast group in the 3x2x2 factorial design), one can think of their likelihood of selecting anxiety from the list of emotions as the base rate.

Next I gauge state-anxiety levels using STAI-6 scores. These are shown in Table 3.4. For the control group, treatment group, and full sample (across conditions), respectively, I give the mean and median scaled score. The scale ranges from 6-24 with higher numbers indicating higher levels of state-anxiety. For this measure white and Hispanic respondents on welfare are the most anxious. This comports with the theory that being a welfare beneficiary is associated with additional stress. Likewise, Hispanic respondents regardless of welfare status are more anxious than Black respondents. Interestingly the least anxious group was Black respondents not on welfare.

Group	Control	Treatment	Full Sample
White + Welfare*	13.77 (14)	15.51 (16)	14.57 (15)
White + Non-Welfare	13.3 (13)	12.4 (12)	12.88 (13)
Black + Welfare	12.90 (12)	13.02 (13)	12.96 (13)
Black + Non-Welfare	11.84 (11)	11.23 (10)	11.56 (11)
Hispanic + Welfare	14.28 (14)	14.53 (15)	14.39 (14)
Hispanic + Non-Welfare	13.49 (12)	13.84 (14)	13.65 (13)
All respondents*	12.49 (12)	14.32 (14)	13.32 (13)

Table 3.4: **State-Level Anxiety**: Mean (Median) STAI-6 scaled score for each marginalization group. Scaled scores range from 6-24. Note: An asterisk next to group name indicates a statistically significant difference between the treatment and control groups.

Comparing STAI-6 scores between conditions overall, the treatment video successfully induced higher levels of state-anxiety than the control video. This can be seen in the bottom row of Table 3.4 for all respondents. Subjects in the treatment condition are more than 1.8 units more state-anxious than subjects in the control condition.[33] The most pronounced difference between control and treatment in the anticipated direction is for white respondents on welfare. Those in treatment are nearly 2 units more anxious than those in control (15.51 vs. 13.77).[34] And because this is the only group of the six to exhibit a statistically significant difference between treatment and control, it appears to be driving the larger difference between treatment and control in the sample writ large.

Furthermore I can collapse STAI-6 score on welfare status and race. Welfare recipients regardless of race are more than one unit more state anxious than their

[33]A t-test indicates this difference is statistically significant (p-value = 5.35e-11).

[34]A t-test indicates this difference is statistically significant (p-value = 0.01368).

more fortunate brethren who are not (13.97 vs. 12.69).[35] Within all three racial groups subjects on welfare were more state-anxious. White respondents who were also welfare recipients were more than 1.5 units more anxious than those who were not welfare recipients (14.57 vs. 12.88).[36] Likewise with Black respondents, those on welfare were 1.4 units more anxious than those not on welfare (12.96 vs. 11.56).[37] Hispanic respondents on welfare were more anxious than Hispanic respondents not on welfare (14.39 vs. 13.65), but the difference was statistically insignificant (p-value = 0.1279).

I compliment the STAI-6 measure with a self-reported level of anxiety. This anxiety feeling thermometer is shown in Table 3.5. The table displays the mean and median for the control group, treatment group, and full sample (across conditions), respectively. Values range from 0-10 with higher numbers indicating higher levels of self-reported anxiety. Among all respondents, subjects in the treatment condition reported their anxiety level 4.85 units higher — almost half the range of the scale — than subjects in the control condition, on average (6.31 vs. 1.46).[38] The most pronounced difference between control and treatment is for white respondents on welfare, where those in treatment are more than 5 units more anxious than those in control (6.42 vs. 1.32).[39] And like it was for the STAI-6 scaled score, because this is the only group of the six to exhibit a statistically significant difference between

[35]A t-test indicates this difference is statistically significant (p-value = 3.799e-06).

[36]A t-test indicates this difference is statistically significant (p-value = 0.000556).

[37]A t-test indicates this difference is statistically significant (p-value = 0.001761).

[38]A t-test indicates this difference is statistically significant (p-value = 2.2e-16).

[39]A t-test indicates this difference is statistically significant (p-value = 2.2e-16).

Group	Control	Treatment	Full Sample
White + Welfare*	1.32 (0)	6.42 (7)	3.62 (3)
White + Non-Welfare	4.19 (3)	3.64 (2)	3.94 (3)
Black + Welfare	3.09 (1)	3.01 (1)	3.05 (1)
Black + Non-Welfare	3.91 (3)	3.58 (2)	3.76 (3)
Hispanic + Welfare	3.99 (4)	3.44 (3)	3.74 (3)
Hispanic + Non-Welfare	4.23 (4)	3.39 (2.5)	3.84 (3)
All respondents*	1.46 (0)	6.31 (7)	3.67 (3)

Table 3.5: **Anxiety Feeling Thermometer**: Mean (Median) self-reported anxiety level (0-10 scale) for each marginalization group. Note: An asterisk next to the group name indicates a statistically significant difference between the treatment and control groups.

treatment and control, it appears to be driving the larger difference between treatment and control in the sample writ large.

3.2.2 Hypothesis Testing

My first hypothesis predicts a non-linear relationship between anxiety level and civic and political participation. To analyze it I will begin with Figure 3.2. Each dot represents a respondent. Each point corresponds to a respondent's likelihood of voting in the general election given their level of anxiety. The six lines in the figure are lowess lines, plotting local regressions. Notice the separation between the bottom three and top three lines in the plot. Figure 3.2 shows how higher levels of anxiety are associated with the economically marginalized respondents being less likely to vote.[40] The bottom three lines (orange, blue, and yellow) represent economically marginalized respondents while the top three lines (red, purple, and green) represent respondents

[40]Note that Figure 3.2 does not disaggregate by treatment and control conditions, the only manipulated independent variable.

who are not (though Black and Hispanic respondents are still marginalized for their race). All respondents represented by the bottom three lines are welfare recipients, and two of the three groups are intersectionally marginalized — marginalized both racially and economically. Members of each intersectionally marginalized group at the highest levels of anxiety are less likely to vote in an election than similar group members at the lowest levels of anxiety. The opposite holds for those not economically marginalized. Members of each non-welfare group at the highest levels of anxiety are more likely to participate than similar group members at the lowest levels. Therefore the evidence here is twofold. First, it confirms what many in the emotions literature have found among standard survey samples. Second, it lends direct support to my prediction that members of marginalized groups have more difficulty translating their anxieties into political action.

Figure 3.3 is a similar test but it collapses the nominal moderator variable for each group into a dummy variable indicating marginalization or not.[41] The blue line on top is non-marginalized respondents and the bottom red line is marginalized respondents. What the two lines show is that at the lowest levels of anxiety there is no difference in voting likelihood between those who are marginalized and those who are not. But, the expanding gap between the two lines as one moves rightward on the x-axis shows that high levels of anxiety are associated with non-marginalized respondents being more likely to participate than marginalized respondents.

Figure 3.4 expands the marginalization dichotomy above into an ordinal variable by plotting the likelihood of voting based upon degree of marginalization. The red line on the top represents those respondents who are marginalized for *neither* racial

[41]Note again that Figure 3.3 does not disaggregate by treatment and control conditions, the only manipulated independent variable.

Figure 3.2: **Across racial groups, higher levels of anxiety associated with a decreased voting likelihood among the economically marginalized.**

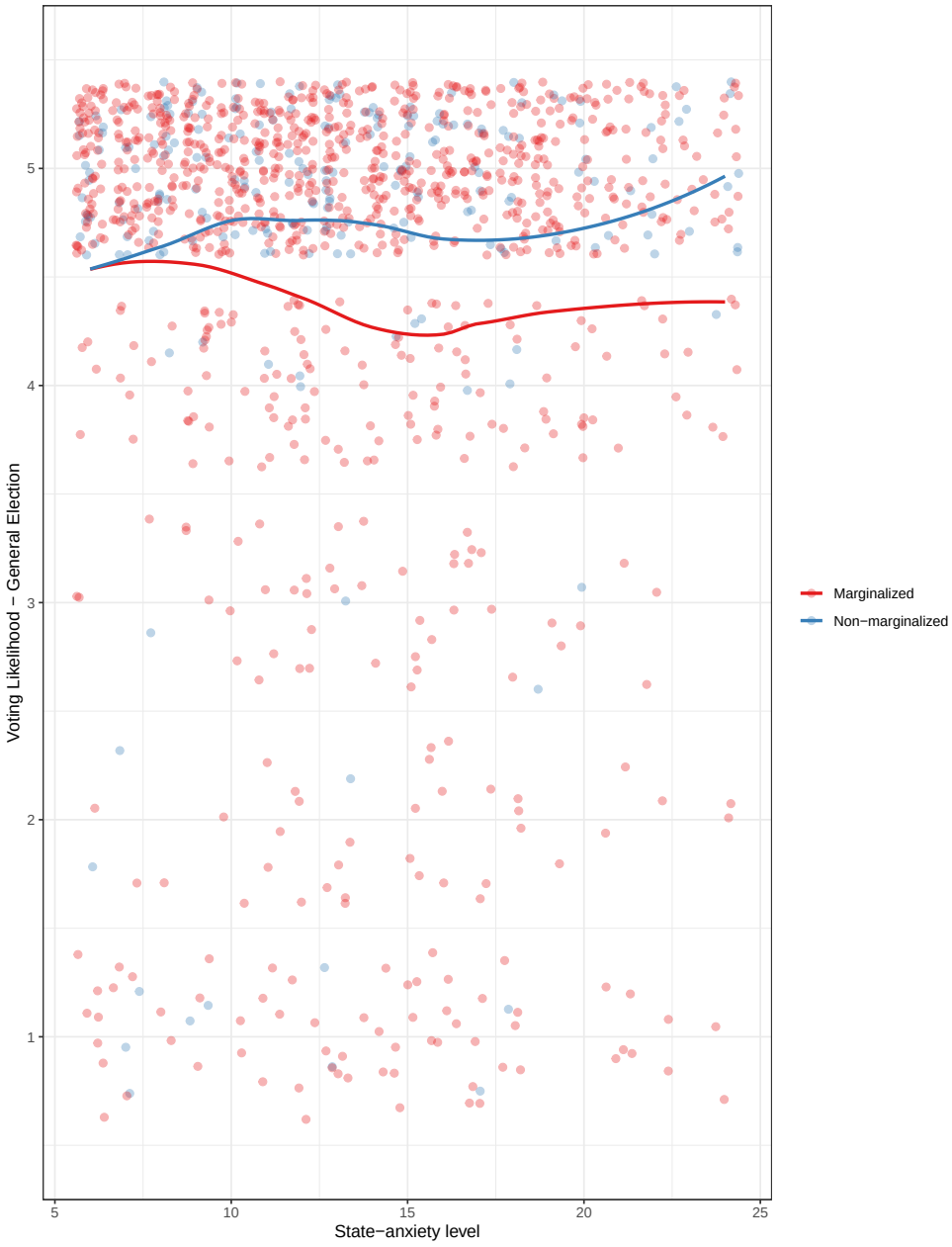

Figure 3.3: **Higher levels of anxiety are associated with a decreased voting likelihood among the marginalized.**

nor economic reasons. This line encompasses members of the contrast group (White + Non-Welfare). The blue line in the middle represents those respondents who are marginalized for *either* their race or their welfare status, but not both. Hispanics and Black respondents who are not welfare recipients or white respondents who are welfare recipients are included here. The green line on the bottom represents those respondents who are marginalized for *both* their race and their welfare status. Hispanic and Black respondents who are also welfare recipients comprise the intersectionally marginalized groups included here.

Overall, what Figure 3.4 shows is that at the lowest levels of anxiety, degree of marginalization is weakly associated with likelihood of voting. But as anxiety level increases, while likelihood of participation increases among the non-marginalized, likelihood of participating decreases slightly among the marginalized and substantially among the intersectionally marginalized. This confirms the hypothesis that the relationship between anxiety level and participation is non-linear and provides support for my theory that anxiety inhibits participation among the racially and economically marginalized. Further evidence can be found by dichotomizing the intersectional marginalization variable. The relationship shown in Figure 3.5 is twofold. First, the intersectionally marginalized are less likely to vote at all levels of anxiety. Moreover, for the intersectionally marginalized there is a sharp drop off in likelihood of voting at the most extreme levels of anxiety.

Because neither Figure 3.4 nor Figure 3.5, like Figure 3.2 and Figure 3.3, disaggregate subjects between the manipulated variable (random assignment to a treatment or control condition), I include Figure 3.6. Figure 3.6 groups respondents into those

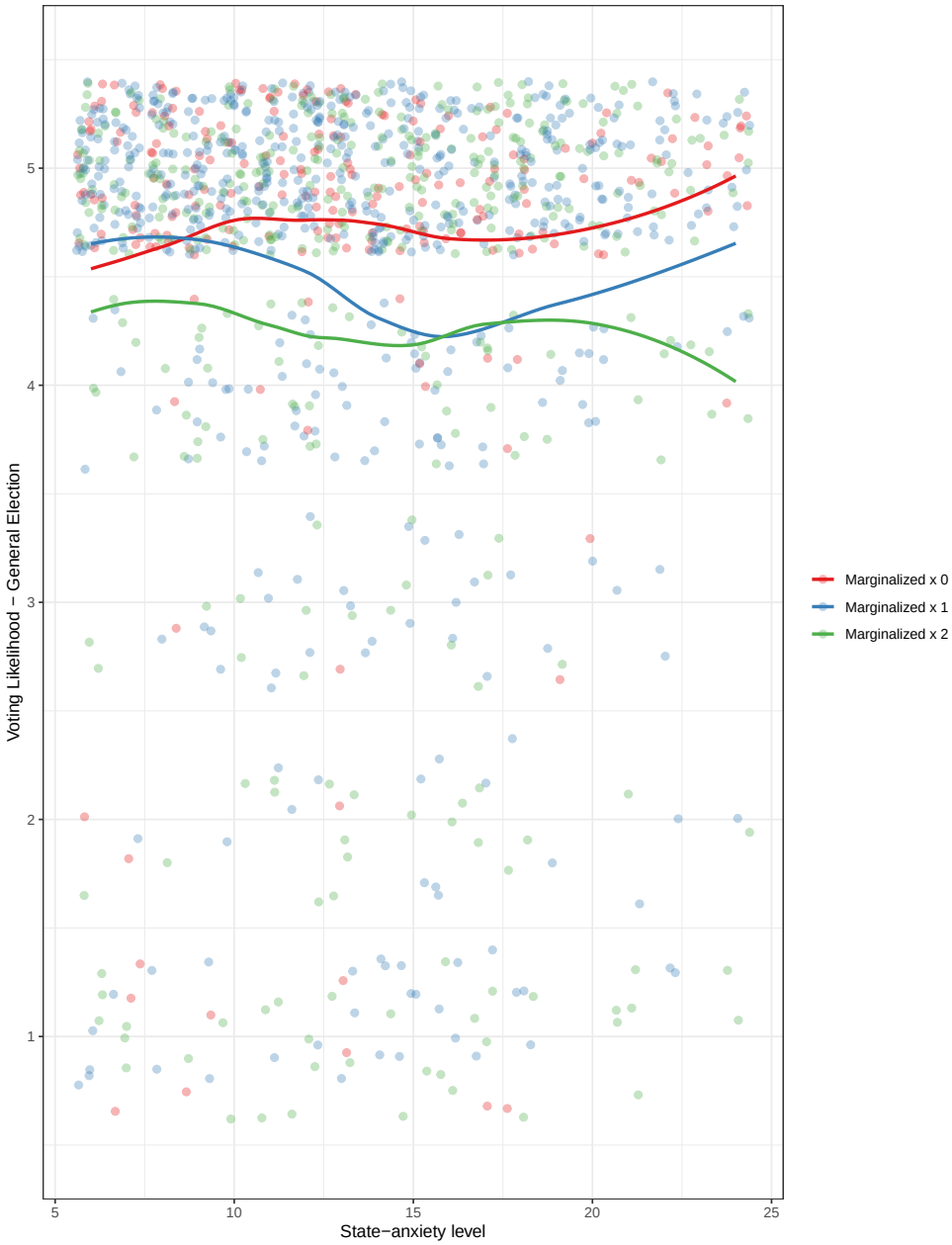

Figure 3.4: **Higher levels of anxiety are associated with a decreased voting likelihood among the marginalized, but especially so among the intersectionally marginalized.**

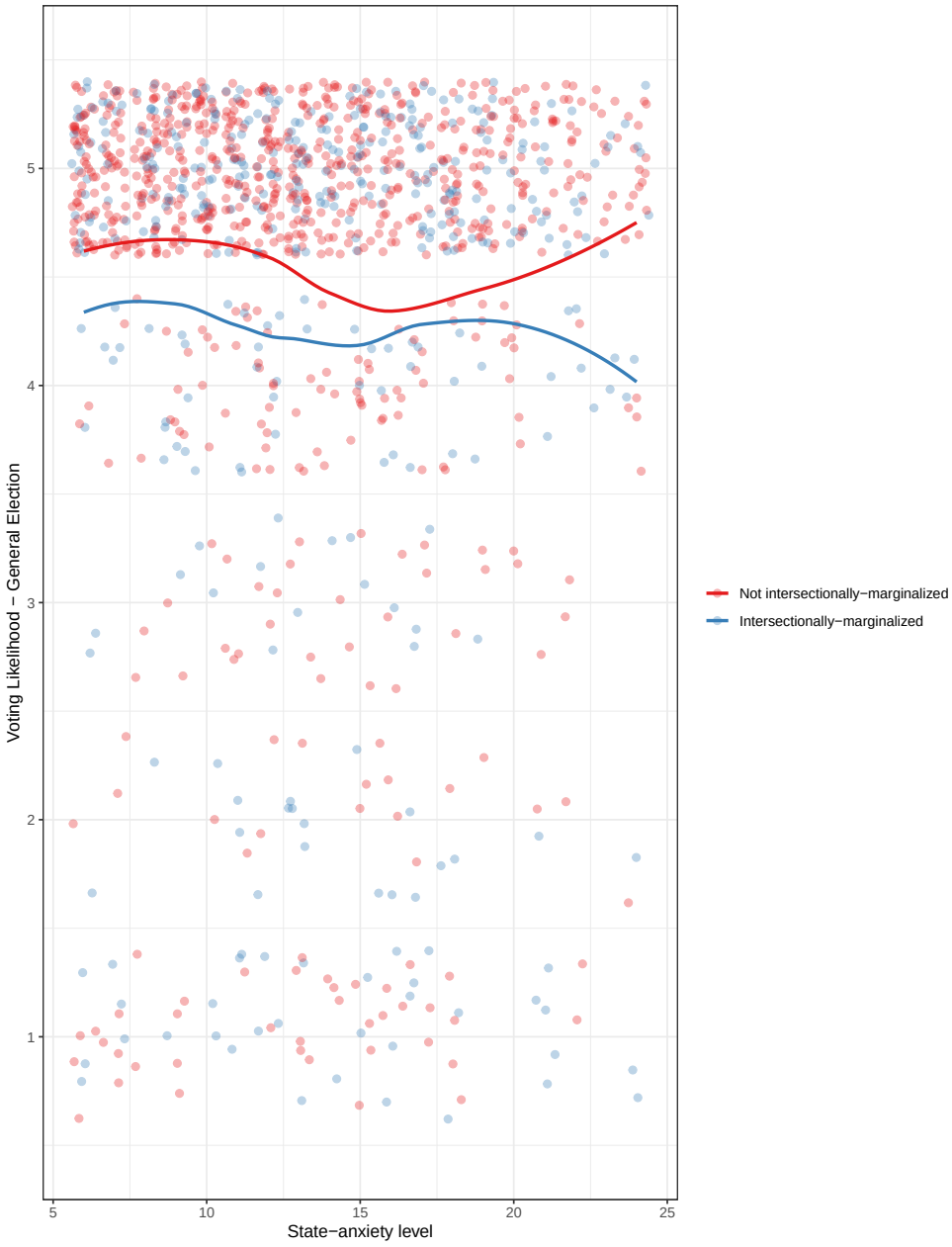

Figure 3.5: **Intersectionally marginalized less likely to vote at all levels of anxiety.**

that received the treatment stimuli and those that received the control stimuli. Respondents from all demographic situations are lumped together in each. But, in grouping this way, both lines comprise respondents from each racially and economically marginalized group. The data demonstrate how higher levels of anxiety do not cause a decreased voting likelihood among the treatment group absent racial and/or economic marginalization. Being in a treatment group alone cannot explain the relationship found between anxiety and participation unless race and socio-economic class are also factored in.

Figure 3.7 and Figure 3.8 probe economic and racial marginalization, respectively. Figure 3.7 shows how welfare recipients are less likely to participate than non-recipients at nearly every anxiety level beyond the lowest level. The effect is especially pronounced at the highest levels of anxiety, where the gap between the two lines is largest. Contrast the effect for welfare status with a lack of effect for race (Figure 3.8). White, Black, and Hispanic subjects largely track together on participation likelihood at each level of anxiety. What this signals is that the distinguishing theme is the interplay between racial and economic status as a harbinger of decreased participation. Whereas racial minorities generally express the same will to participate at higher levels of anxiety that the dominant racial group does, intersectional marginality based on welfare status specifically inhibits participation at high levels of anxiety.

Collectively, the data reveal a non-linear relationship between anxiety level and participation among marginalized subjects. Though the data do not map onto the Yerkes-Dodson curve as clearly as Yerkes and Dodson predicted, the lack of linearity

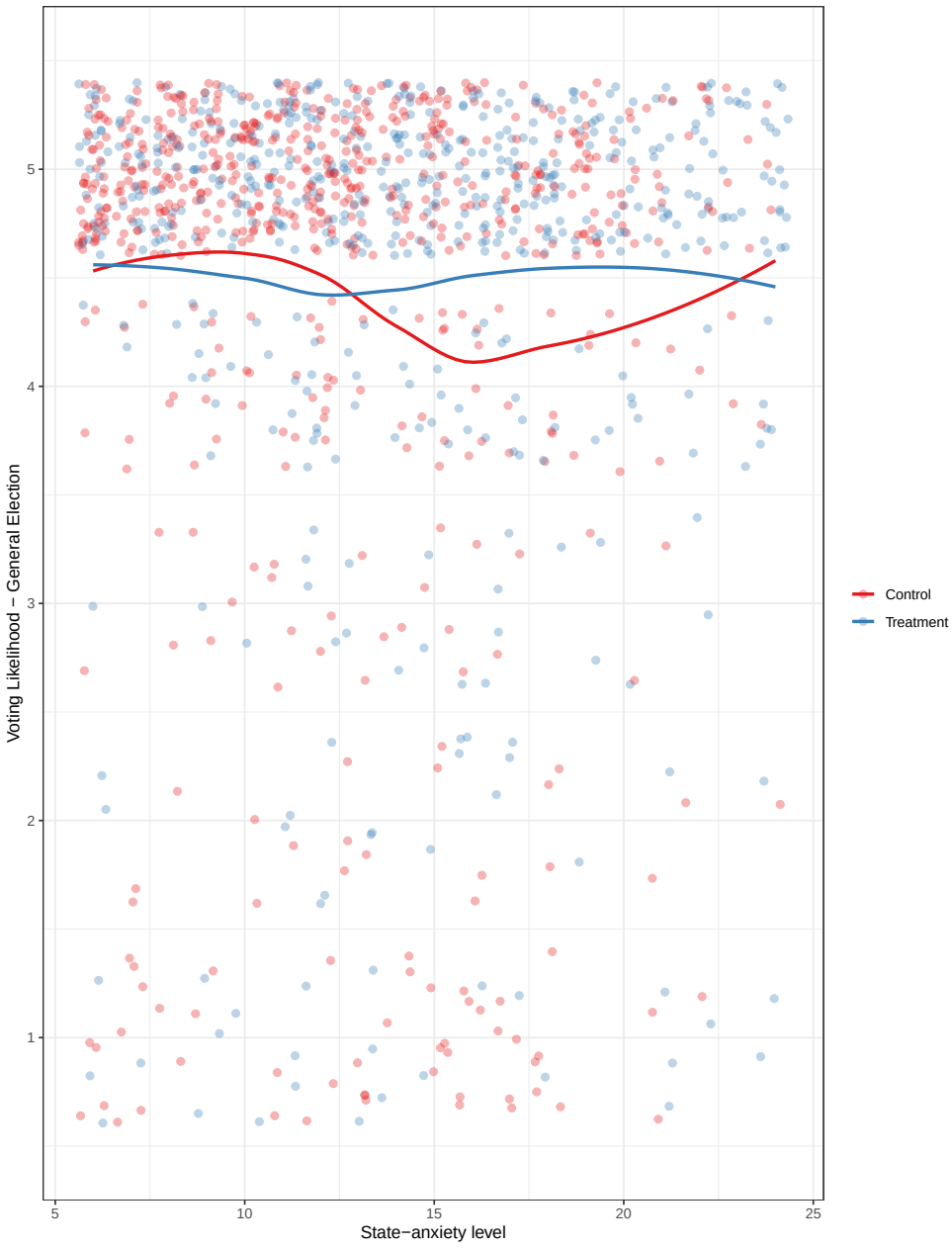

Figure 3.6: **Higher levels of anxiety do not cause a decreased voting likelihood among treatment group absent racial and/or economic marginalization.**

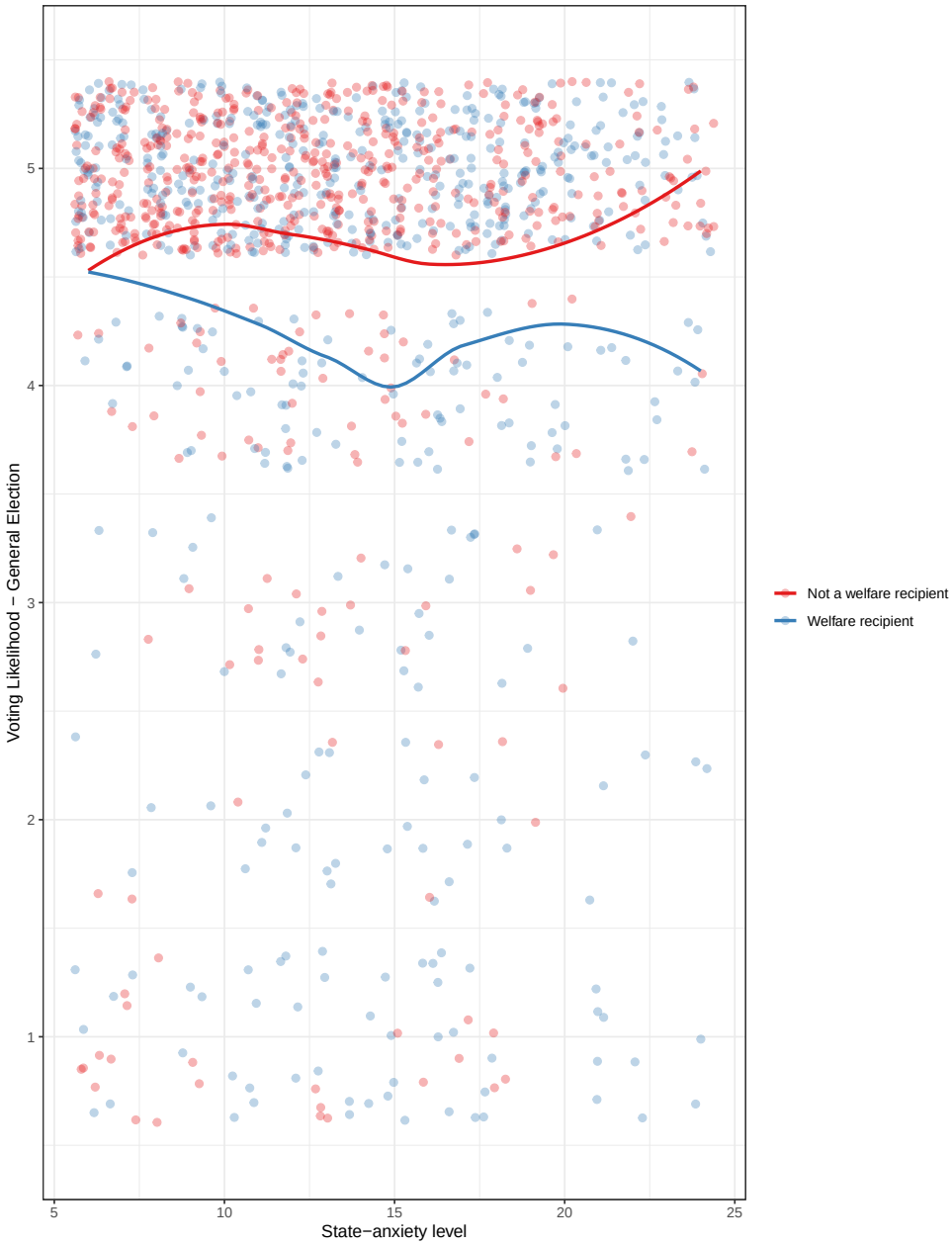

Figure 3.7: **Higher levels of anxiety are associated with a decreased voting likelihood among welfare recipients.**

Figure 3.8: **Higher levels of anxiety do not cause a decreased voting likelihood among racial groups absent economic marginalization.**

in the relationship suggests Yerkes-Dodson Law is an appropriate framework for understanding how individuals respond to their anxiety. Furthermore, the figures reveal a divergence between the political behaviors of the non-marginalized, marginalized, and intersectionally marginalized under anxious conditions. In particular, Figure 3.2 and Figure 3.4 lend direct support to my theory of anxiety among the marginalized — that the marginalized and non-marginalized respond differently to the same anxiety stimuli.

Hypothesis 2 considers the relationship between marginalization and response to stimuli (STAI score). I predict that anxiety levels among members of marginalized groups will increase at a higher rate due to treatment. Figure 3.9 plots mean STAI-6 scores for each condition based on marginalization. In the control condition, absent any anxiety stimulus, marginalized group members exhibited higher base levels of anxiety as compared to the non-marginalized; 0.88 units higher on average. Moreover, while the average anxiety level for the non-marginalized increased 1.48 units from the control condition to the treatment condition, the average anxiety level of the marginalized increased 2.15 units moving from control to treatment, slightly less than one and a half times as much. I test for an interactive effect using an analysis of covariance (ANCOVA) model.[42] The model shows there is evidence of a significant interaction between marginalization and being in the treatment or control group (p-value = 0.00436). Therefore, I can reject the null hypothesis that the gradients of the relationship between marginalization and treatment do not differ between the different levels of the treatment.

[42]The type of ANCOVA test I utilize is a Type 1 sum of squares, which controls for marginalization and treatment condition when looking at the effect of the interaction between marginalization and treatment on anxiety level.

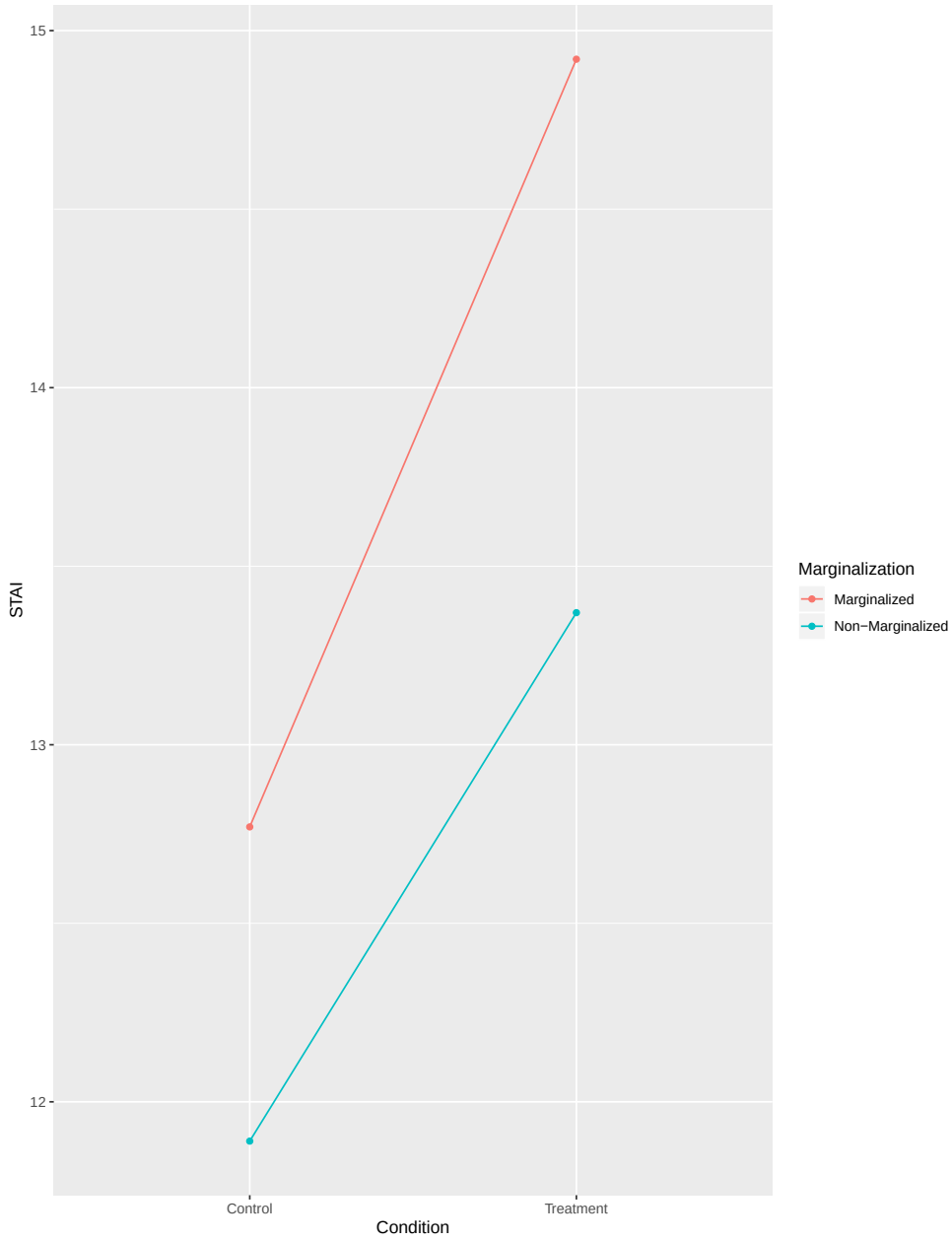

Figure 3.9: **Stimulus interacts with condition to influence anxiety level**: ANCOVA coefficients for treatment group and the interaction between treatment group and marginalization are statistically significant. The coefficient for marginalization is statistically insignificant.

Hypothesis 2.1 predicts that the marginalized will exhibit a lower [higher] internal [external] locus of control than the non-marginalized. I test this hypothesis two ways. The first test is to compare the mean external and internal loci of control levels between groups. The mean external LOC is 2.11 for the marginalized and 2.10 for the non-marginalized, with no statistically significant difference. The mean internal LOC for the marginalized is 2.79 and for the non-marginalized 2.82.[43] Therefore the hypothesis is partially supported, as the marginalized have a lower internal LOC, but not higher external LOC, than the non-marginalized. The second test is to regress marginalization on LOC, creating separate models for internal and external. Interpreting the LOC coefficients in the models reveals a similar finding to the t-tests. Being marginalized is associated with a lower internal but not external LOC.[44]

Hypothesis 2.2 predicts that, among the marginalized, the anxious will exhibit a lower [higher] internal [external] locus of control than the non-anxious.[45] The mean external LOC for respondents with a high level of anxiety is 2.14, versus 2.10 for respondents with low anxiety. The mean internal LOC for respondents with a high level of anxiety is 2.78, versus 2.79 for respondents with low anxiety. Both of these comparisons are in the predicted directions, though t-tests reveal neither is statistically significant. Respondents who were anxious had a more externalized locus of control than respondents who were not anxious. Overall there is limited support for Hypothesis 2.2.

[43]T-test reveals a statistically significant difference (p-value = 0.04608).

[44]Full model in Figure A.14 in appendix.

[45]For analysis I define "the anxious" as those with STAI-6 scores above the mean level and "the non-anxious" as those below the mean. Replicating the analyses with the median level as the dividing line renders similar results, with external and internal LOC comparisons in the predicted directions, though t-tests show both comparisons are statistically insignificant.

Hypothesis 2.3 predicts that, among the anxious, the marginalized will exhibit lower levels of self-esteem than the non-marginalized. I test this hypothesis two ways. First I compare the mean self-esteem level between anxious subjects who are marginalized and non-marginalized.[46] The mean level of self-esteem is 20.16 for the marginalized and 22.24 for the non-marginalized. A t-tests reveal a true difference in means between groups (p-value = 0.0002009). As Hypothesis 2.3 predicts, anxious people who are marginalized had lower levels of self-esteem, on average, than anxious people who are not. As a secondary test I can use simple OLS regression and regress self-esteem on STAI-6 score. The model, included in full in Table A.15 in the appendix, lends support to the hypothesis. Controlling for marginalization, as one's level of anxiety increases their level of self-esteem decreases. Taken together, the two tests lend support for the hypothesis.

Hypothesis 2.4 predicts that, among the marginalized, those who are anxious and who exhibit low self-esteem will be the least likely to be vote and will express the lowest levels of political trust and internal and external efficacy.[47] For the test I create a dummy control variable that takes a value of 1 when a subject is marginalized, is anxious, and has low self-esteem.[48] 215 of the 1229 respondents fit the bill. The dummy variable takes a value of 0 for the remaining respondents. To test the hypothesis I create four models using OLS regression, each regressing one of the four

[46]For analysis I define "the anxious" as those with STAI-6 scores above the mean level. Replicating the analyses with the median level as the dividing line renders similar results.

[47]I conducted a principal components analysis (PCA) to build one composite dependent variable through information compression. However, because the four variables each load on a different factor I declined doing so.

[48]I code high anxiety and low self-esteem using the median as the cut point. Replicating the results with the mean as the cut point yields similar results.

outcome variables on level of anxiety. All models control for those who are marginalized, anxious, and have low self-esteem by incorporating the aforementioned dummy variable as a control variable. The results of the four models, included in Table A.16 in the appendix, confirm the hypothesis. As anxiety level increases, respondents are less likely to vote, express lower levels of political trust, and have lower efficacy.

Hypothesis 3 considers the effect marginalization has on civic engagement, a superordinate construct involving one's relationship with the outside world.[49] I predict that marginalization has a negative impact on civic engagement, as the marginalized concentrate their cognitive resources elsewhere, which decreases their ability to participate in politics. The models in Table 3.6 regress each facet of engagement on each group, relative to the contrast group (non-marginalized whites). The most pronounced coefficients are political trust. While marginalization is associated with decreased trust, trust decreases the most for black respondents regardless of welfare status and Hispanic respondents not on welfare. Despite many of the model outputs in Table 3.6 running contrary to my predictions, they should please scholars who fear anxiety's negative impacts on civic participation.[50]

Hypothesis 4 considers the effect marginalization has on civic self-confidence, namely internal efficacy. I predict that marginalization has a negative impact on civic self-confidence, as the marginalized are (or at least feel they are) under siege

[49]Before using multivariate regression I conducted a principal components analysis (PCA) in an attempt to build one composite dependent variable through information compression. However, because the seven variables loaded onto four different factors, roughly two on each, I declined doing so. I also conducted a factor analysis, finding roughly equal distribution of variance between three factors.

[50]In Table A.17 the appendix I rerun the models but without control variables. I find lower R^2 values, but the majority of the coefficients for the majority of the groups are statistically significant. Given they hold a large degree of explanatory power, adding controls for external LOC, interest in politics, and education weaken the group coefficients. The basic models lacking additional covariates therefore run contrary to the models including them.

	Dependent variable:									
	Trust	External Efficacy	Vote General	Donate to Campaign	Volunteer for Campaign	Work to solve community problem	Attend local meeting	Contact elected official	Protest	Boycott
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
White + Welfare	−0.232*	0.101	−0.137	−0.308*	−0.369**	−0.135	−0.207	−0.250	−0.242	−0.202
	(0.133)	(0.182)	(0.142)	(0.164)	(0.148)	(0.161)	(0.168)	(0.161)	(0.167)	(0.173)
Black + Non-Welfare	−0.326***	0.327*	0.152	0.100	−0.043	0.297**	0.270*	−0.111	0.327**	0.421***
	(0.122)	(0.167)	(0.130)	(0.151)	(0.135)	(0.147)	(0.154)	(0.148)	(0.153)	(0.159)
Hispanic + Non-Welfare	−0.324***	−0.109	−0.027	−0.157	−0.138	0.031	−0.063	−0.074	0.117	0.135
	(0.124)	(0.170)	(0.133)	(0.154)	(0.138)	(0.150)	(0.157)	(0.151)	(0.156)	(0.162)
Black + Welfare	−0.328**	0.286	0.087	−0.141	−0.182	−0.040	0.077	−0.309*	0.201	0.092
	(0.150)	(0.206)	(0.161)	(0.186)	(0.167)	(0.182)	(0.190)	(0.183)	(0.189)	(0.196)
Hispanic + Welfare	−0.246*	0.256	−0.050	−0.086	−0.097	0.051	0.086	−0.105	0.316*	−0.006
	(0.149)	(0.204)	(0.159)	(0.184)	(0.166)	(0.180)	(0.188)	(0.181)	(0.187)	(0.194)
Ext. Locus Control (Logged)	0.275***	−0.176	−0.119	0.207**	0.299***	0.221**	0.156	0.399***	0.230**	0.412***
	(0.084)	(0.116)	(0.090)	(0.104)	(0.094)	(0.102)	(0.107)	(0.103)	(0.106)	(0.110)
Int. Locus Control (Logged)	0.242	0.563**	0.144	0.135	0.231	0.650***	0.608***	0.090	−0.027	0.087
	(0.163)	(0.224)	(0.175)	(0.202)	(0.181)	(0.197)	(0.206)	(0.198)	(0.205)	(0.212)
Self Esteem	0.022***	0.053***	−0.006	−0.004	−0.010	0.014	0.019**	0.007	−0.007	−0.012
	(0.007)	(0.010)	(0.007)	(0.009)	(0.008)	(0.008)	(0.009)	(0.009)	(0.009)	(0.009)
Knowledge	−0.100***	0.112***	0.193***	−0.035	−0.082***	−0.065**	−0.039	0.039	−0.065**	0.093***
	(0.026)	(0.035)	(0.028)	(0.032)	(0.029)	(0.031)	(0.033)	(0.031)	(0.032)	(0.034)
Interest In Politics	0.098***	0.203***	0.260***	0.289***	0.239***	0.199***	0.218***	0.374***	0.163***	0.228***
	(0.033)	(0.046)	(0.036)	(0.041)	(0.037)	(0.040)	(0.042)	(0.040)	(0.042)	(0.043)
Age	−0.007***	0.001	0.001	−0.004	−0.008***	−0.017***	−0.014***	−0.003	−0.026***	−0.013***
	(0.002)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Female	−0.203***	0.112	0.067	−0.286***	−0.374***	−0.187**	−0.138	−0.197**	−0.206**	−0.034
	(0.075)	(0.103)	(0.080)	(0.093)	(0.083)	(0.091)	(0.095)	(0.091)	(0.094)	(0.098)
Income	0.004	0.008	0.005	−0.005	−0.008	0.001	0.006	−0.017**	0.011	−0.004
	(0.007)	(0.010)	(0.008)	(0.009)	(0.008)	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)
Education	0.003	0.021	0.012	0.096***	0.123***	0.088***	0.081***	0.127***	0.098***	0.122***
	(0.019)	(0.026)	(0.020)	(0.023)	(0.021)	(0.023)	(0.024)	(0.023)	(0.024)	(0.025)
Republican	0.634***	0.168	0.251***	0.169	0.076	−0.055	0.064	0.093	−0.314***	−0.379***
	(0.089)	(0.122)	(0.095)	(0.110)	(0.099)	(0.108)	(0.113)	(0.108)	(0.112)	(0.116)
South	−0.025	−0.118	−0.043	0.081	0.176**	0.122	−0.005	0.092	0.040	0.020
	(0.070)	(0.096)	(0.075)	(0.086)	(0.078)	(0.084)	(0.088)	(0.085)	(0.088)	(0.091)
Constant	1.157**	−1.090	2.554***	0.237	0.250	0.276	−0.109	−0.384	2.186***	0.495
	(0.576)	(0.788)	(0.616)	(0.711)	(0.640)	(0.697)	(0.728)	(0.700)	(0.722)	(0.749)
Observations	909	909	909	909	909	909	909	909	909	909
R^2	0.142	0.165	0.188	0.139	0.176	0.146	0.130	0.206	0.207	0.179
Adjusted R^2	0.127	0.150	0.173	0.123	0.162	0.130	0.115	0.192	0.193	0.164
Residual Std. Error (df = 892)	0.998	1.366	1.067	1.233	1.109	1.207	1.261	1.212	1.252	1.298
F Statistic (df = 16; 892)	9.241***	11.052***	12.895***	8.970***	11.942***	9.494***	8.361***	14.480***	14.573***	12.158***
Note:										*p<0.1; **p<0.05; ***p<0.01

Table 3.6: **The effect marginalization has on civic engagement**: OLS regressions testing civic and political participation.

by government and politics. The bivariate regression model on the left and the multivariate regression model on the right in Table 3.7 lend varied support for this prediction.[51] For Black respondents not on welfare, singular marginalization based upon race is associated with increased rather than decreased civic self-confidence, the opposite of the predicted direction. But for the intersectional marginalized, particularly Hispanic respondents on welfare, marginalization is associated with decreased civic self-confidence. Therefore I find the most support for Hypothesis 4 among the intersectionally marginalized.

3.2.3 Summarizing Hypothesis Tests

The data lend support to a robust understand of the relationship between anxiety and political participation. The relationship is a non-linear one, and non-monolithic as well. While moderate levels of anxiety increase participation among the non-marginalized, as the anxiety-as-a-motivator literature predicts, extreme levels of anxiety inhibit participation, especially among the intersectionally marginalized. Those individuals who are not racially and socioeconomically marginalized can channel their anxiety into participation — they can respond to the threat with political action — while the marginalized and intersectionally marginalized are less likely to do so.

[51] White + Welfare, because it is the contrast group, is base factor.

	Dependent variable:	
	Internal Efficacy	
	(1)	(2)
White + Welfare	-0.435^{***}	0.082
	(0.141)	(0.171)
Black + Non-Welfare	0.491^{***}	0.510^{***}
	(0.140)	(0.157)
Hispanic + Non-Welfare	0.088	0.064
	(0.142)	(0.160)
Black + Welfare	0.018	0.373^{*}
	(0.141)	(0.194)
Hispanic + Welfare	-0.408^{***}	0.195
	(0.141)	(0.192)
External Locus of Control (Logged)		-0.422^{***}
		(0.109)
Internal Locus of Control (Logged)		-0.123
		(0.211)
Self Esteem		0.068^{***}
		(0.009)
Knowledge		0.106^{***}
		(0.033)
Interest In Politics		0.167^{***}
		(0.043)
Age		-0.005
		(0.003)
Female		-0.016
		(0.097)
Income		0.006
		(0.009)
Education		0.082^{***}
		(0.024)
Republican		0.196^{*}
		(0.115)
South		0.012
		(0.090)
Constant	1.968^{***}	0.152
	(0.098)	(0.743)
Observations	1,229	909
R^2	0.045	0.245
Adjusted R^2	0.042	0.232
Residual Std. Error	1.444 (df = 1223)	1.288 (df = 892)
F Statistic	11.657^{***} (df = 5; 1223)	18.099^{***} (df = 16; 892)
Note:		*p<0.1; **p<0.05; ***p<0.01

Table 3.7: **The effect of marginalization on civic self-confidence:** Intersectionally marginalized exhibit lowest levels of civic self-confidence.

Chapter 4: The Fourth

4.1 Testing Alternative Moderators

Hypothesis 2 formalizes the predicted relationship between marginalization and response to anxiety stimuli (measured by STAI-6 scaled score). I predicted that anxiety levels among members of marginalized groups would increase at a higher rate due to treatment. Stated differently, I predicted that exposure to anxiety stimuli, conceptualized here as being in the treatment condition, and the resulting level of anxiety subjects expressed was moderated by marginalization status. I found evidence for an interactive effect between marginalization and treatment, where marginalized respondents who were treated expressed greater levels of anxiety than both marginalized subjects who were not treated and the non-marginalized, regardless of whether they were treated or not.

The predicted moderation relationship is best articulated in Figure 2.4, which details the theorized relationship between exposure to government or an experimental stimulus (the independent variable) and anxiety (the dependent variable), moderated

by one's membership in a marginalized group, their locus of control, and their self-esteem, respectively.[52] The downstream effects of anxiety (low trust, low efficacy, and low political and civic participation) are additional dependent variables.

I will construct a series of tests for moderated mediation in the next section, but before doing so it is appropriate for me to replicate the same ANCOVA test I performed to test Hypothesis 2 in the prior chapter but for the other three potential moderators: External locus of control, internal locus of control, self-esteem. In the three new ANCOVA models I substitute the three additional proposed moderators for marginalization, respectively. The first two tests will be for locus of control, external and then internal, the third test for level of self-esteem. Like before I am testing for an interactive effect.[53] Beginning with external locus of control, while the coefficients in the ANCOVA model for external locus of control and treatment condition are significant, the interaction effect is not (p-value = 0.477). The results are similar for internal locus of control, where each coefficient is significant but the interactive effect is not (p-value = 0.563). The final ANCOVA model for self esteem does on the other hand demonstrate the presence of an interactive effect between level of self esteem and treatment. Three coefficients for self esteem level and treatment condition are significant, as is the interaction between them (p-value = 0.00155). Every 0.39 unit decrease in self-esteem is associated with a 1 unit increase in STAI-6 scaled score.

[52]It is unlikely marginalization, loci of control, and self-esteem are independent of one another. One's degree of marginalization likely affects their level of self-esteem, for instance, when marginalized people face discrimination in the workplace and going about their daily lives. For cleaner tests I will test them independently.

[53]The type of ANCOVA test I utilize is a Type 1 sum of squares, which controls for locus of control (logged) or self esteem, respectively, and treatment condition when looking at the effect of the interaction between locus of control (logged) or self esteem, respectively, and treatment on anxiety level.

Therefore I find evidence for self-esteem, but not loci of control, moderating the relationship between treatment condition and state anxiety level.

One's loci of control does not appear to effect the strength of the relationship between exposure to the treatment and their resulting anxiety level; but, like being in a marginalized group, one's level of self-esteem does, as those with higher levels of self-esteem expressed lower levels of state anxiety.

4.2 Testing for Moderated Mediation

Beyond testing for moderation I can also test Figure 2.4 directly by testing for moderated mediation. The specificity of the predicted relationship does not allow me to construct a single test of the full figure, but I can construct a series of tests that aim to test particular parameterizations — i.e. sections of the figure. Recall that I predict the relationship between exposure to an anxiety stimulus (treatment) and anxiety level (STAI-6 scaled score) is moderated by marginalization, loci of control (separated into external and internal facets), and self-esteem, respectively. Further, anxiety level then leads leads to lower civic and political participation, mediated through lower levels of trust and efficacy (separated into external and internal facets).

I will work backwards in the figure and begin by constructing models to test the mediation portion of the predicted relationship (the bottom three boxes). I use the Baron-Kenny procedure to estimate causal mediation effects.[54] I will replicate this process three times, once for each predicted mediator of anxiety and participation: first trust, then internal efficacy, and finally external efficacy.

[54]See the following by Imai et al. (2019) for detailed code https://cran.r-project.org/web/packages/mediation/vignettes/mediation-old.pdf. Note that this modeling strategy assumes that the moderator and outcomes variables are continuous.

4.2.1 Testing Trust as a Mediator

The process begins by using linear regression to estimate (1) the effect of anxiety (the independent variable) on participation (the dependent variable); and (2) the effect of anxiety (the independent variable) on level of trust (the mediating variable). STAI-6 scaled score is the independent variable and likelihood of voting in the general election is the dependent variable.[55] Both models are then fed, using the *mediate* function, into a model to predict the mediation effect. The model calls for quasi-Bayesian Monte Carlo approximation with 2,000 resamples.[56] Plotted below in Figure 4.1 are the coefficients with confidence bands at the 95% confidence level. The average causal mediation effect (ACME) is the only coefficient distinguishable from zero. I find that trust mediates the effect of anxiety on participation in the negative direction. This effect, however, was small with a point estimate of -0.002 (p-value = 0.001) and the 95% confidence interval nearly touches zero. As a proportion of the total effect mediated, the model accounts for 15.9%.

4.2.2 Testing Internal Efficacy as a Mediator

I replicate the process with internal efficacy as the mediator in place of trust. I find similarly, albeit with large effect sizes. The coefficients are plotted below in Figure 4.2. The ACME coefficient is the only significant one (p-value = 2e-16). I find that internal efficacy mediates the effect of anxiety on participation in the negative direction. The effect was rather large, with a point estimate of -0.010 and a proportion of the total effect mediated at 78.8%.

[55]Of the nine measured dependent variables, voting in a general election was chosen because it is most consistent with what political participation is broadly speaking.

[56]See the appendix where I include alternative models utilizing non-parametric bootstrapping with 2,000 simulations.

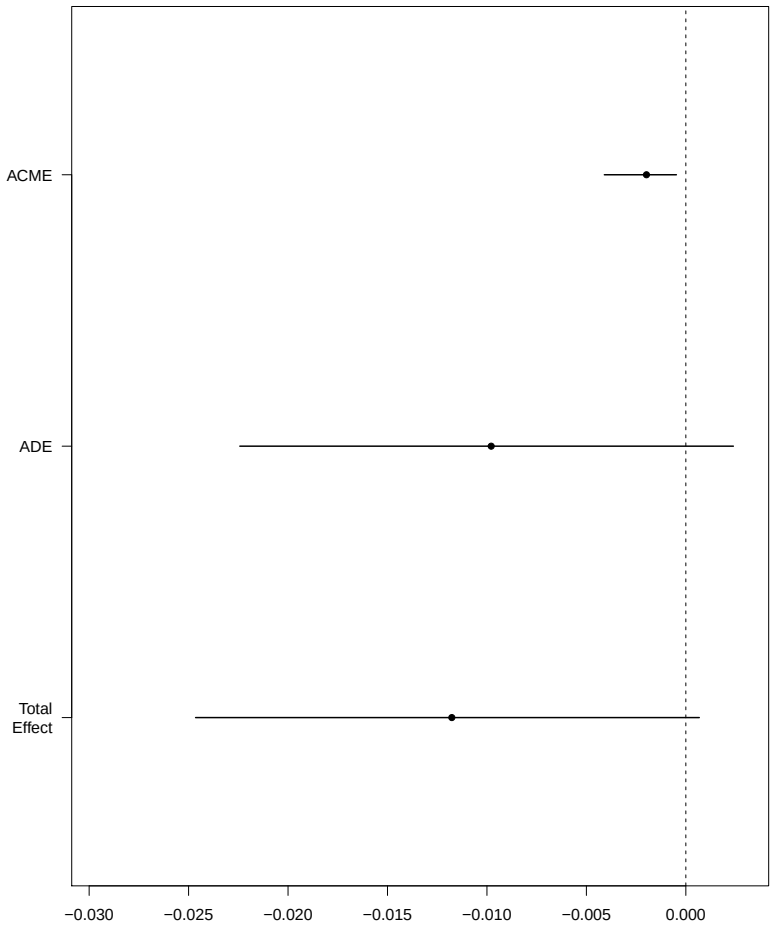

Figure 4.1: **Graphical Summary of Casual Mediation Analysis**: Trust.

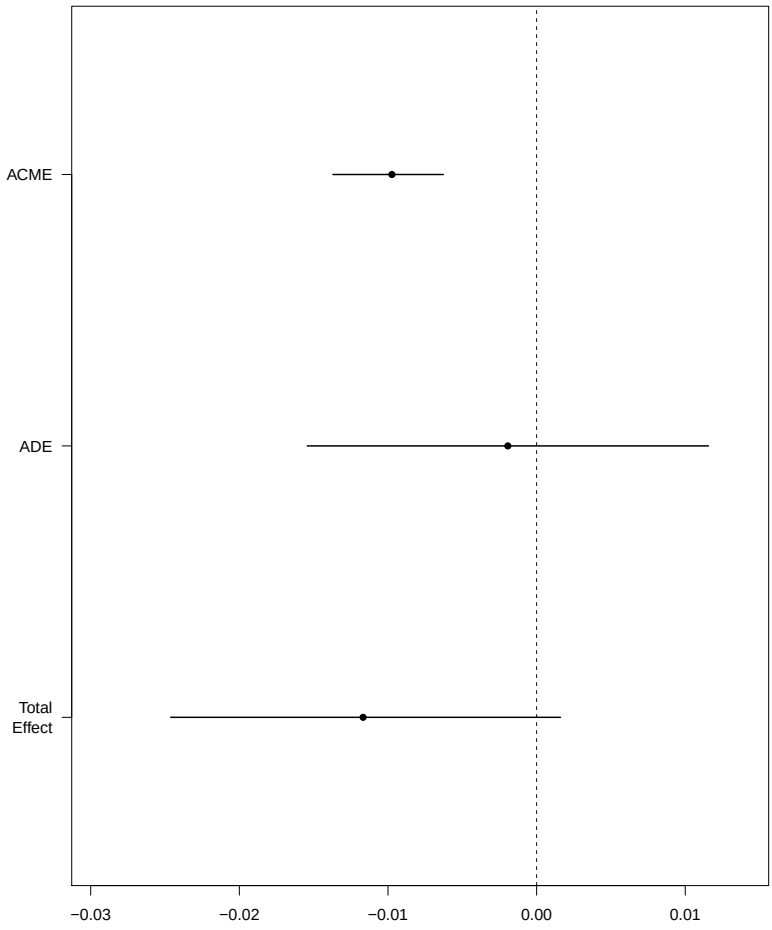

Figure 4.2: **Graphical Summary of Casual Mediation Analysis**: Internal Efficacy.

4.2.3 Testing External Efficacy as a Mediator

I replicate the process once more with external efficacy as the mediator. The coefficients are plotted in Figure 4.3. The ACME coefficient is the only significant one (p-value = 2e-16). Like for the other two tested mediators, I find that external efficacy mediates the effect of anxiety on participation in the negative direction. The effect was large, with a point estimate of -0.013 and a proportion of the total effect mediated at 1.029.

Overall, in none of the three models were the coefficients for direct effects and total effects statistically significant.[57] Next I will construct models to test the remainder of the relationship.

4.2.4 Modeling Moderated Mediation

In this section I estimate the causal effects of treatment (exposure) on voting likelihood (participation), mediated by anxiety level (STAI-6 scaled score). But since I argue that the relationship between exposure and anxiety is itself moderated by marginalization, locus of control, and self-esteem, respectively, I construct a series of models that encompass both the moderation and mediation aspects. Like I did in the prior section, I will estimate the effect of each moderator separately. I will begin testing for moderated mediation with marginalization as the mediator.

In the first step I construct a linear regression where anxiety level is the dependent variable, treatment condition is the independent variable, and marginalization is interacted with the treatment condition.[58] In the second step I construct a second

[57]Likely because of the high standard errors associated with the direct effects.

[58]Treatment condition is a dummy variable taking a 1 for treatment, 0 for control. Marginalization is a dummy variable taking a 1 for the marginalized, a 0 for the non-marginalized.

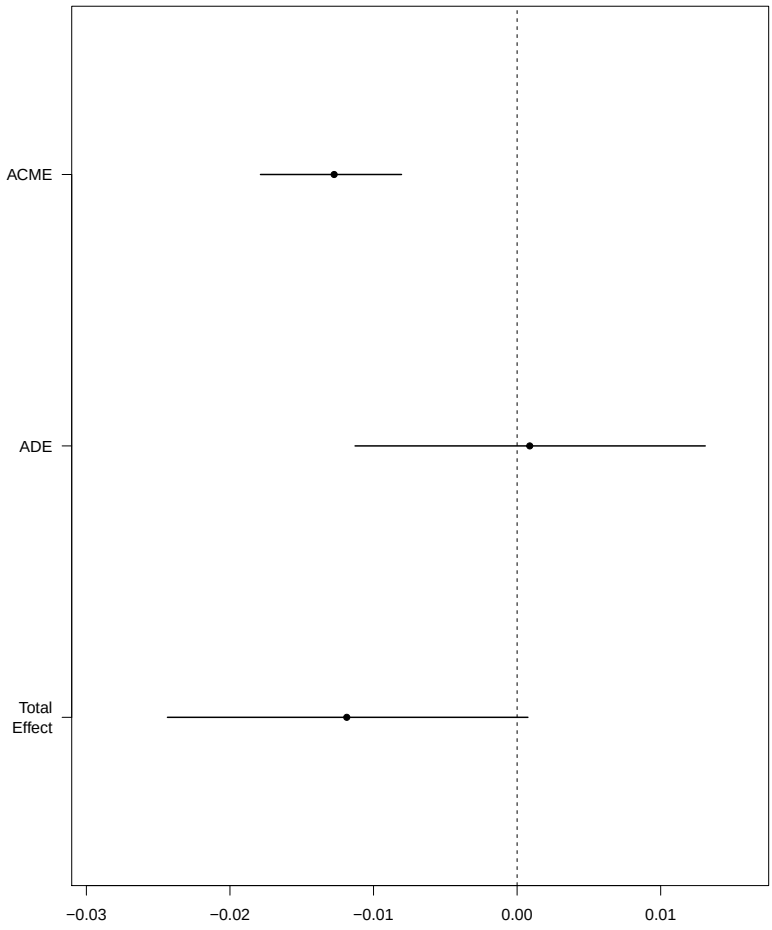

Figure 4.3: **Graphical Summary of Casual Mediation Analysis**: External Efficacy.

linear regression where participation is the dependent variable, treatment condition remains the independent variable, and marginalization is again interacted with treatment condition. Constructing two slightly different models allows me to estimate the direct and indirect effect of the moderator, isolating it. In the third step I feed both models into the *mediate* function twice, each with with 2,000 simulations, once where marginalization takes its high value (1) and once where marginalization takes its low value (0).[59] This allows me to examine the mediating effect separately at the high and low values of the mediator.

In the final step I feed the high and low value models into the *mediate* function once again to test whether the difference between indirect effects at the high and low levels of the moderator is significantly different from zero. I then replicated this process with the other three moderators, yielding the following results. For none of the four moderators were the indirect effects significantly different such that the effect of treatment on participation through anxiety level is stronger for the marginalized compared to the non-marginalized. Similarly, there is no difference in the size of the direct effects either. Therefore the test for moderated mediation yields little evidence for a causal relationship exactly as constructed in Figure 2.4.

What should scholars make of this? The selection of moderators and mediators, and most importantly which variables were predicted to be moderators and which mediators, was rooted in social psychological and political theories, but one could posit alternative theories that are equally plausible. Future study should therefore take care to parse what moderates and/or mediates the relationship between anxiety

[59]For the other three non-dummy-variable mediators I set the high level of the variable 1 standard deviation below the mean and the high value 1 standard deviation above the mean. Because marginalization is a dummy variable I took the high and low values as the only two values the variable can hold.

stimuli and participation. Furthermore, likelihood of voting in a general election was the dependent variable for the tests in this chapter. Given the study measured nine dependent variables in total — two political and seven civic — one could replicate the tests with the other eight and see if results are similar.

Chapter 5: Conclusion

The social theorist Max Weber defined a state as having a monopoly on the use of force in a geographic area [62]. Democratic theorists more generally have constructed a vision of the state as a regime set up to quell the types of uncertainties that cause anxiety; uncertainties about who wields power over whom, who directs economic output in an efficient manner, who in society has rights, and what those rights entail. White males of sufficient means, long considered the most prosperous and entitled group, do not worry about the state's arbitrary power over them — the state's monopoly on usage of force — because these bourgeoisie individuals compose the ruling class wielding the state's power.

But many groups do worry about the state's arbitrary power over them. People more generally may think society is stable enough to need not worry anymore about this exercise of power, especially in established democratic republics like the United States of America, but some vulnerable populations are extremely worried about the state's power over them. In this dissertation I consider groups who are racially or socio-economically marginalized, some both. Generally speaking they are disadvantaged, at least relative to the ruling class, and they are much more so at the mercy

of forces outside their control. Focused studies of them serve as a response to a historical idea: taming the arbitrary power of the state and how it relates to anxieties surrounding democratic life.

Theories on the republican form of government argue that government was formed to stop the arbitrary and capricious rule of the state, in which uncertainty surrounding the state caused anxiety.[60] If you distrust the state and are less efficacious, worries either caused by the states' (unfair) exercise of power over you or resulting from the states' (unfair) exercise of power over you, democratic theorists would question the true success of the state, and especially of how the state's power is regulated and checked. Furthermore, discussion of the sort cuts directly to the heart of social contract theory, where individuals cede some of their rights to the state in return for the ruler's protection of the remainder of their rights [22, 47]. The foundational assumption here is that the ruler upon which individuals surrendered some of their rights will then treat these individuals fairly and honestly. It is a necessary condition for the contract to be sustaining. A breakdown in this contract, for which there appears to be, at least in the opinion of many disadvantaged populations who worry about the state's unchecked power over them, questions the entire legitimacy of the state.

One concern related to vulnerable populations, as well as the literature in political psychology on anxiety, is how the discourse on anxiety conflates worries about the consequences of an election, for instance, with worries like "what if my [African American] son wears a hoodie outside, will he be mistreated by the police?" The

[60]See a variety of writings by Machiavelli, Montesquieu, Adams, and Madison for commentary on the subject; the former two for Italian and French accounts and the latter two for later commentary surrounding the formation of the U.S. Constitution and the American federal government.

former is a worry of the ruling class — the bourgeoisie — while the latter is a worry of the proletariat — who are among society's most disadvantaged. Additionally, the former is a political and more superficial worry while the latter is a worry about state-practiced authoritarianism and misappropriated justice doled out by the state. Focusing on groups with precarious situations is one way to study the relationship between anxiety and the civic attitudes serving as foundational determinants of political participation.

This dissertation makes both theoretical and empirical contributions to the study of anxiety among the marginalized and intersectionally marginalized. The project advances the discussion of the complex relationship between politics, racial, and economic marginalization. I find that those marginalized for their racial and economic statuses are at a strategic disadvantage not only relative to the non-marginalized, but even to fellow individuals who are also marginalized, but less marginalized. The project can also help political actors understand how and why their rhetoric and policies may inadvertently be harmful to marginalized people. Moreover, the project has implications for the design and performance of the federal government and nearly every state and local government across America. If interaction with the political world causes increased anxiety, and if it is especially demobilizing for members of marginalized groups, as the data lend evidence for, practitioners will need to take a hard look at how government presents itself to the vulnerable citizens it is endeavored to serve.

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Appendix A: For Chapter 3

A.1 Pilot Testing Potential Anxiety-Inducing Videos

In August 2019 I fielded two survey experiments on a roughly half-black, half-white sample. The goal was to make respondents display moderate levels of state anxiousness. The results were mixed. Anxiety was induced among very few respondents. I believe weak treatments were to blame — the treatments did not make subjects as anxious as intended. That being the case, I looked to pilot test alternative anxiety-inducing treatments. Between October 2019 and the present I designed and fielded two pilot studies. Both pilots were operationally similar, albeit with different samples of respondents. The goal of the first pilot was to validate the new anxiety measures I chose (detailed below). Subjects in the first pilot were a convenience sample of political science undergraduate students culled from the political science department's research pool. Extra credit points on an assignment or exam were given in exchange for participation. Roughly 100 students participated. The goal of the second pilot was to test alternative treatments. Testing so many alternative treatments allows me as the researcher to pick the most anxiety-inducing one to include when I rerun my original experiments in February 2020. Subjects in the second pilot were a Census representative sample obtained using the Lucid Theorem forum. 1545 participants

were obtained though Lucid Theorem. That number drops to 907 participants once certain ones were dropped (ex. those who began but did not complete the survey and those who attempted to take the survey more than once).

A.1.1 Research Design

I randomly assigned subjects to one of nine conditions. Rather than showing subjects newspaper articles like I have before, I opted for videos instead. I expected videos to be both more engaging and to elicit stronger emotional reactions. The video clips I used were taken from YouTube. There were six treatment conditions, three control conditions. All six treatment conditions and two of the three control conditions included a different video clip. Subjects randomly assigned to the third control condition were not shown a video. Following the videos I measured each subject's level of state anxiety. The survey ended by asking subjects to reflect on the video and to give their comments/feedback about how I can improve the survey going forward.

A.1.2 Treatment and Control Videos

The six treatment videos I pilot tested are 1:05 seconds in length on average. The two control videos are also 1:05 seconds in length on average. I edited the videos for length (but not content) to ensure watching one of them was roughly the same time commitment for subjects randomly assigned to each condition. The aim of the treatment videos is to make subjects moderately state anxious upon watching them. The goal of the control videos is to do the opposite. A brief description of each video follows:

- Treatment 1: The video shows different scenes of young people engaging in daredevil like behaviors. For instance, hanging on a rope many feet off the ground; hanging off the side of a tall building; holding your cell phone over the side of a railing. In each scene something catastrophic could potentially happen.

- Treatment 2: The video is a clip from the movie Jaws where the shark attacks a child swimming in the water. The scene begins with a bunch of kids enjoying the summer day, then the shark approaches the beach and attacks. Everyone screams and rushes to get out of the water. The original sound from the movie is included.

- Treatment 3: The video is a clip from the movie Jaws where the shark attacks a man and three children sitting on boats in a smaller pond right off the ocean. When the shark approaches and attacks the man the boat with the three children capsizes. Although the shark never attacks the three children there is a strong possibility that it might. By the end of the scene, one of the children is in shock. The original sound from the movie is included.

- Treatment 4: The video is a clip of a man playing what can best be termed the "knife stabbing between the fingers game." In the game the man fans out one of his hands. While his hand is fanned out he stabs a sharp kitchen knife (the blade is a few inches long) into the table between each of his fingers in rapid succession. He increases the speed with which he moves the knife back and forth between his fingers, increasing the odds he accidentally stabs one of his fingers. To add additional suspense, the man is blindfolded for almost the

entirety of the video and he sings a song about how he may accidentally stab one of his fingers.

- Treatment 5: The video is a clip of a man playing what can best be termed the "pencil stabbing between the fingers game." In the game the man fans out one of his hands. While his hand is fanned out he stabs a sharp pencil into the table between each of his fingers in rapid succession. He increases the speed with which he moves the pencil back and forth between his fingers, increasing the odds he accidentally stabs one of his fingers.

- Treatment 6: The video begins with pretty flowers blowing in the wind in a field. The video then cuts to a car driving through the countryside on a winding road. Serene music is playing in the background. Out of the blue a scary zombie jumps onto the screen, startling viewers.

- Control 1: The video shows clouds in the daytime sky moving over a field. There are no people or animals in the video. The video is accompanied by light music. I included this control group to test whether the "true" control condition is a video that induces positive feelings.

- Control 2: The video shows a few different birds sitting on tree limbs and chirping. I included this control group to test whether the "true" control condition is a video that induces positive feelings.

- Control 3: There is no video for subjects randomly assigned to this control group. I included this control group to test whether the "true" control condition is the absence of seeing an anxiety inducing video.

A.1.3 Results

Here I will present summary statistics and plots of the data for both pilots. In addition to summary statistics, I include QQplots, which compare the quantiles of the whole distribution of values (as opposed to T-tests, which only consider differences in means). QQplots assume that the STAI score (the dependent variable) is continuous. I will also use the *ks.boot* function from the *Matching* package to account for this assumption.

Student Pilot

92 subjects took part in the student pilot. 8 were dropped because their data are incomplete — they started but did not finish the survey. Of the 84 remaining subjects, 39 were randomly assigned to the treatment condition and 45 to the control condition. Because the goal of the student pilot was the validate the new anxiety measures I chose, and because the sample size was expectedly smaller than the Lucid sample in the second pilot, I selected only one treatment video to show subjects. All subjects in the treatment condition were shown Treatment 3, the pond scene in the movie Jaws. All subjects in the control condition saw no video.

Figure A.1 shows the density of STAI scores across the full sample. The range of scores is relatively normally distributed — i.e. it is not skewed towards low levels of state anxiety or high levels of state anxiety. Breaking the sample into group type, Figure A.2 separates treatment from control. Treatment is in blue, control in red. Subjects in the treatment condition were on average more anxious, though a T-test reveals a p-value of 0.06158.[61] But because a T-test is only for a difference in means,

[61]Results held similarly when I logged the STAI score.

I arranged a qqplot to compare the quantiles of the whole distribution of values. The qqplot in Figure A.3 compares the distribution of STAI scores for student subjects in the treatment and control conditions. The curvature of the mass of circles below and then above the solid black line indicates that only in the upper quantiles subjects in the treatment condition had higher STAI scores than subjects in the control condition.

The survey also included a manipulation check question to ensure subjects were being made anxious my treatment rather than angry, afraid, etc. Subjects are shown a list of ten emotions (in a random order) and asked to check off which ones they were currently feeling. If subjects were being made angry or afraid rather than anxious, that would mean my treatments were not inducing the intended emotion. A problem of internal validity would arise. Table A.1 shows how many student subjects across the entire sample indicated they felt each emotion (Table A.2 further disaggregates by experimental condition). Subjects were more than 4x as likely to indicate feeling anxious than feeling afraid and nearly 5x as likely to indicate feeling anxious than feeling angry.

Lucid Theorem Pilot

1545 subjects took part in the Lucid pilot. After subsetting the data to those who finished the survey, to those who attempted to take the survey only once, and to those who consented to participate I was left with 907 subjects. Collectively, 580 subjects were assigned to one of the six treatment groups and 327 subjects were assigned to one of the three control groups. On average the treatment conditions had 97 subjects per condition and the control conditions had 109 subjects per condition. Table A.3 shows the number of subjects assigned to each of the nine groups. The groups were

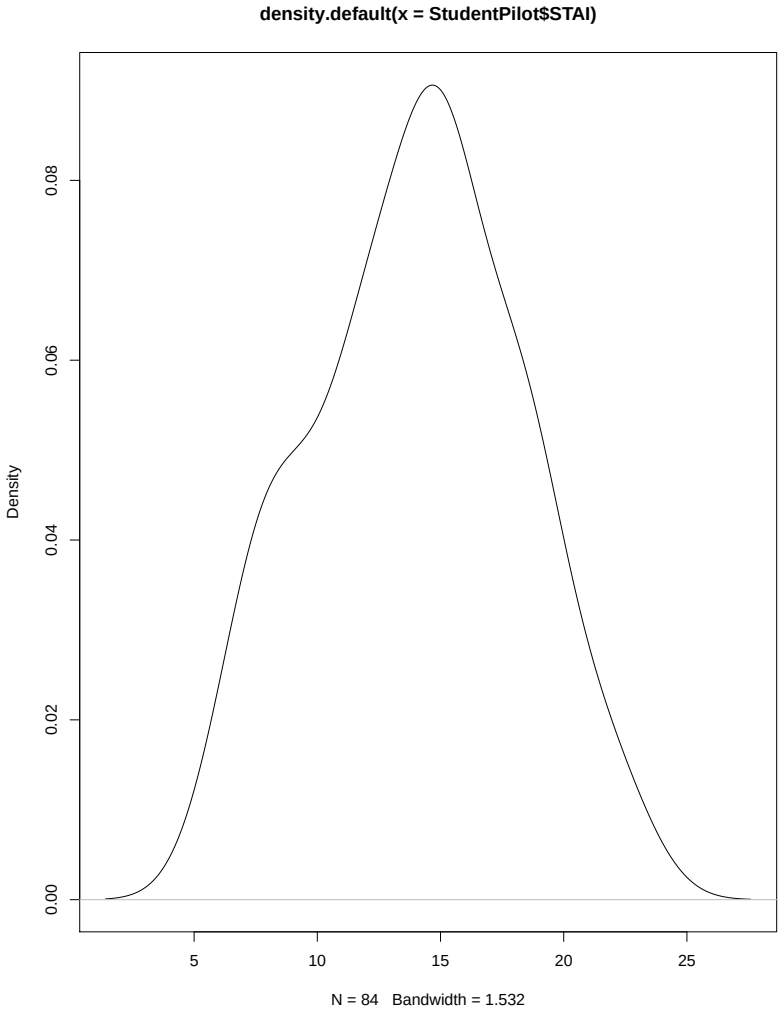

Figure A.1: STAI scores normally distributed among student sample.

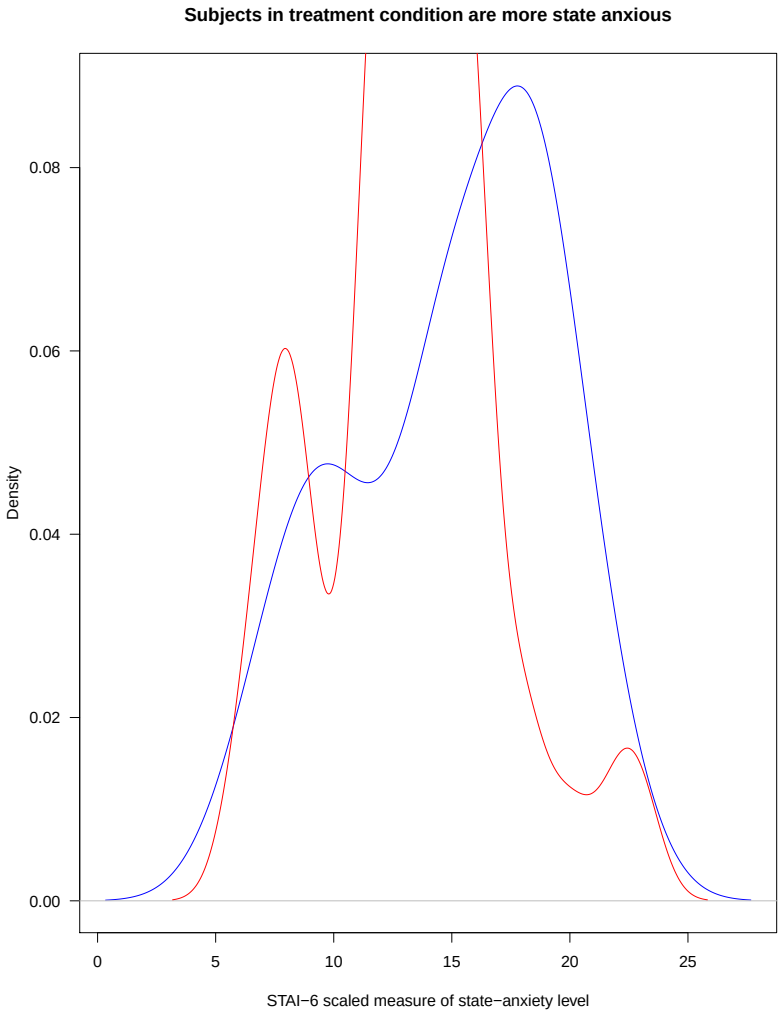

Figure A.2: STAI scores distributed by group type: Student Pilot. Treatment in blue (right line), control in red (left line).

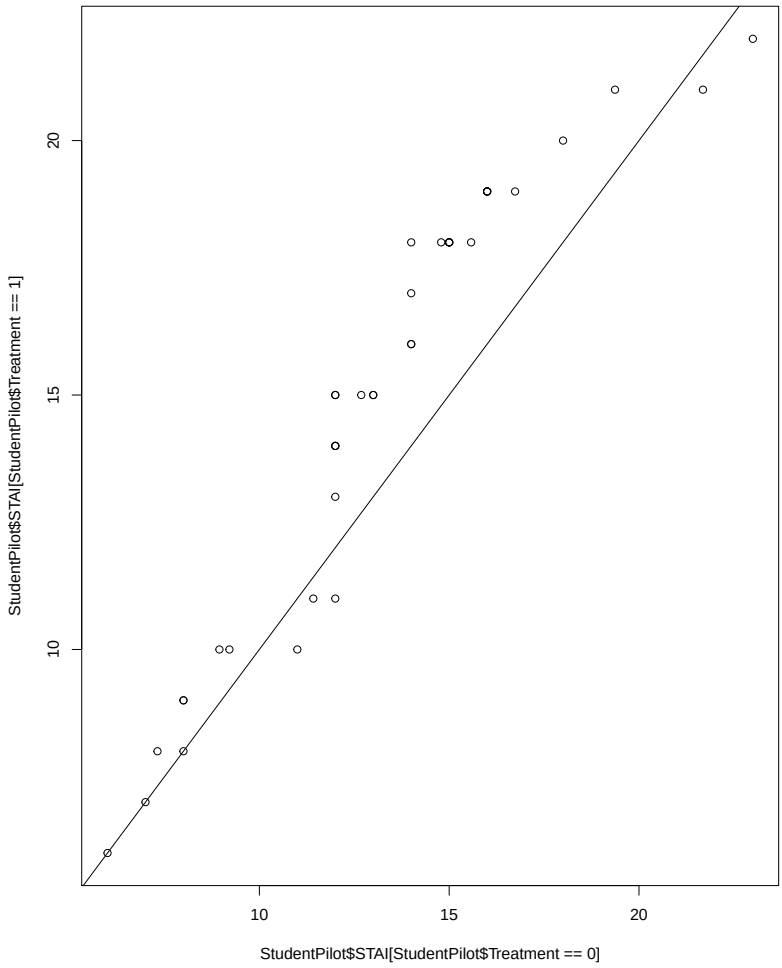

Figure A.3: qqplot comparing STAI scores of subjects in treatment condition to subjects in control condition. Student Pilot.

Emotion	# of Yes	# of No
Anxious	64	20
Afraid	15	69
Angry	13	71
Happy	46	38
Sad	21	63
Cheerful	21	63
Lazy	45	39
Bored	44	40
Excited	26	58
Other	13	71

Table A.1: Manipulation Check: Student Pilot. Number indicates raw number of respondents who indicated feeling each emotion.

Felt Emotion: Condition:	Yes Treatment	No Treatment	Yes Control	No Control
Anxious	28	11	36	9
Afraid	8	31	7	38
Angry	7	32	6	39
Happy	20	19	26	19
Sad	10	29	11	34
Cheerful	9	30	12	33
Lazy	24	15	21	24
Bored	22	17	22	23
Excited	13	26	13	32
Other	8	31	5	40

Table A.2: **Manipulation Check by Condition**: Student Pilot. Number indicates raw number of respondents who indicated feeling each emotion.

Group	# of Respondents
Treatment 1	91
Treatment 2	99
Treatment 3	86
Treatment 4	110
Treatment 5	91
Treatment 6	103
Control 1	98
Control 2	94
Control 3	135

Table A.3: **Subject Assignment by Group**: Lucid Theorem Pilot.

roughly equal in size.[62] Figure A.4 and Figure A.5 show the density of STAI scores for the treatment and control conditions. STAI scores in former are not logged, in the latter they are. Treatment is indicated by the blue line, control by the red line. Whether STAI is logged or not, subjects in the treatment conditions were on average more anxious than subjects in the control conditions.

Now I will compare treatment and control conditions by how anxious each condition made respondents. This will allow me to ascertain which condition made subjects the most anxious. I can then use that treatment condition as the treatment in my next round of survey experiments. Table A.4 shows summary statistics for each of the six treatment conditions and each of the three control conditions. The median and mean levels of anxiety are shown (the STAI scaled score, unlogged), as well as the standard deviation. Figure A.6 and Figure A.7 plot the distributions of the STAI

[62]Control 3 ended up with more respondents than the other conditions, likely because fewer respondents needed to be dropped from this condition for not completing the survey. Recall that respondents in Control 3 were not shown a video. This shortened the survey for these respondents only, leading to decreased roll off.

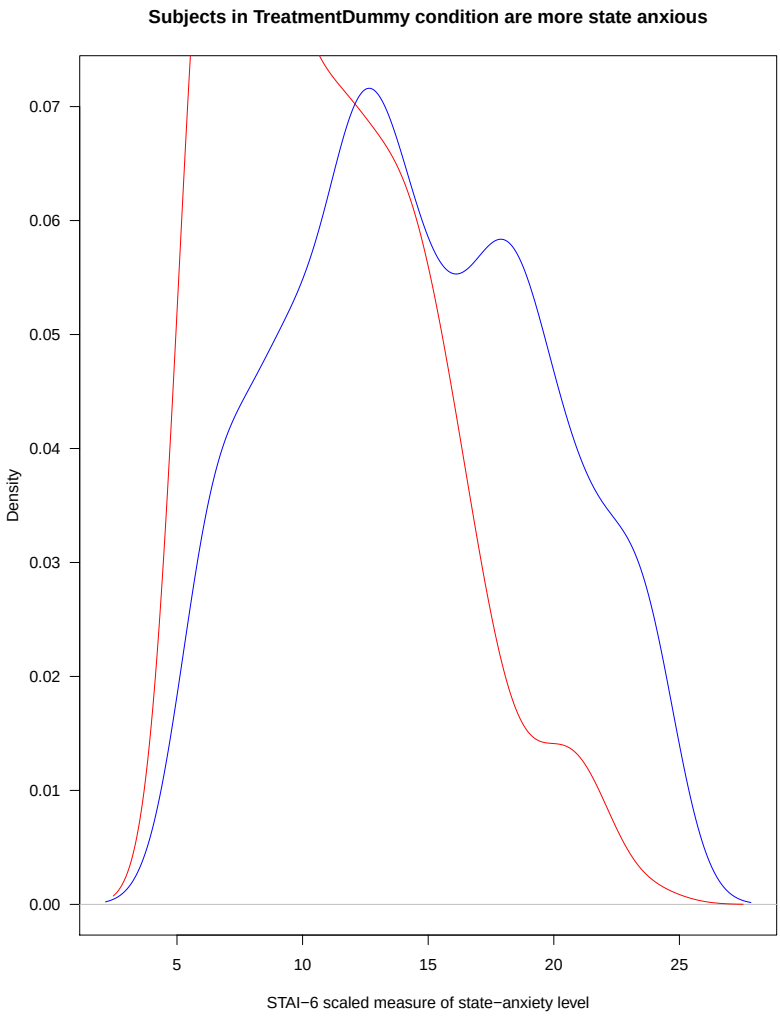

Figure A.4: **STAI scaled measure of state-anxiety level**: Lucid Theorem Pilot. Treatment in blue (right line), control in red (left line). Note that neither the treatment line nor the control line are broken down into each of the six and three conditions each comprise, respectively.

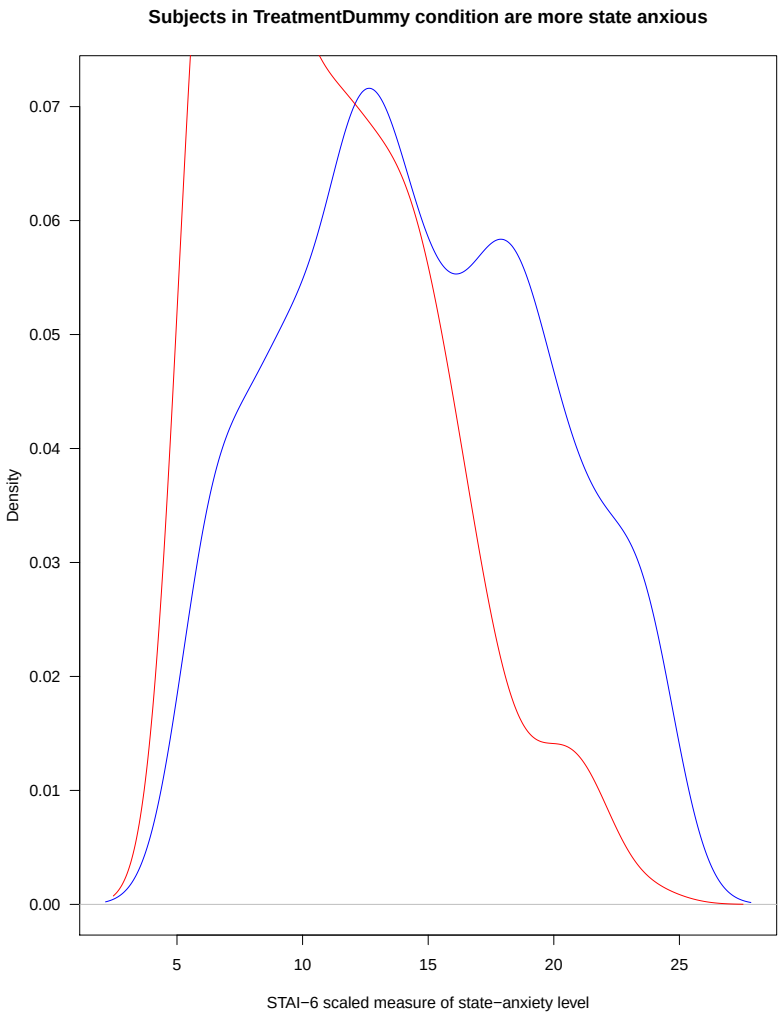

Figure A.5: **Logged STAI scaled measure of state-anxiety level**: Lucid Theorem Pilot. Treatment in blue (right line), control in red (left line). Note that neither the treatment line nor the control line are broken down into each of the six and three conditions each comprise, respectively.

scores for each of the nine groups — Figure A.6 for the treatment groups, Figure A.7 for the control groups.

Major Takeaways: Viewing the video in the Treatment 1 condition made subjects the most anxious, on average.[63] The video in the Control 1 condition made subjects the least anxious, even less anxious than the Control 3 condition, where subjects were not shown a video. This means that showing subjects a neutral video made them more calm than not showing them a video at all. Moreover, because the Control 3 condition did not include a video, it could be thought of as what the base level of anxiety is in the population absent any stimulus or experimental intervention. In the Control 3 condition respondents are not primed. This means that viewing the video in the Treatment 1 condition moved respondents on average 4.21 units higher on the STAI scale than respondents who saw no video, and viewing the video in the Control 1 condition moved respondents on average 2.04 units lower on the STAI scale than respondents who saw no video.

Recall that in addition to measuring STAI I also asked respondents how anxious the videos made them on a scale of 1-10. This raw anxiety feeling thermometer score is reported in Table A.5. Summary statistics for each condition are given in Table A.6 below it. Lastly, histograms of how frequently respondents indicated each score on the anxiety feeling thermometer are given in Figure A.8 and Figure A.9. Collectively, although perhaps best shown in Table A.6 in particular, respondents in the Treatment 1 condition indicated the video made them feel the most anxious. While respondents the other five treatment conditions indicated average feeling thermometer ratings of 4 or 5, respondents in the Treatment 1 condition indicated an average feeling

[63]Note that the median STAI score is also higher in the Treatment 1 condition than it is in any of the other five treatment conditions.

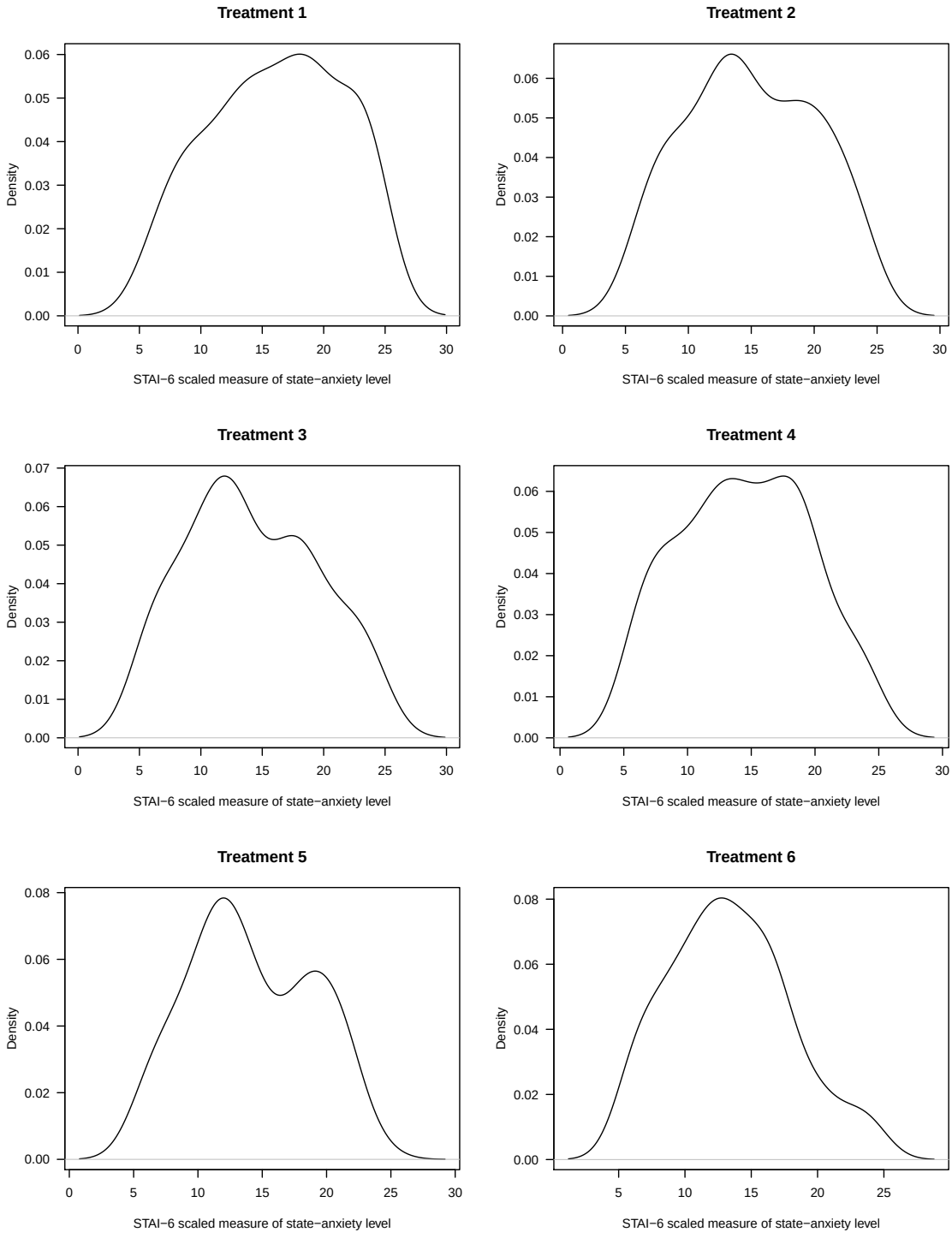

Figure A.6: **Density Plot**: Level of anxiety (STAI) for treatment groups, Lucid Theorem Pilot. Subjects in treatments 1 and 2 appear to be the most state anxious.

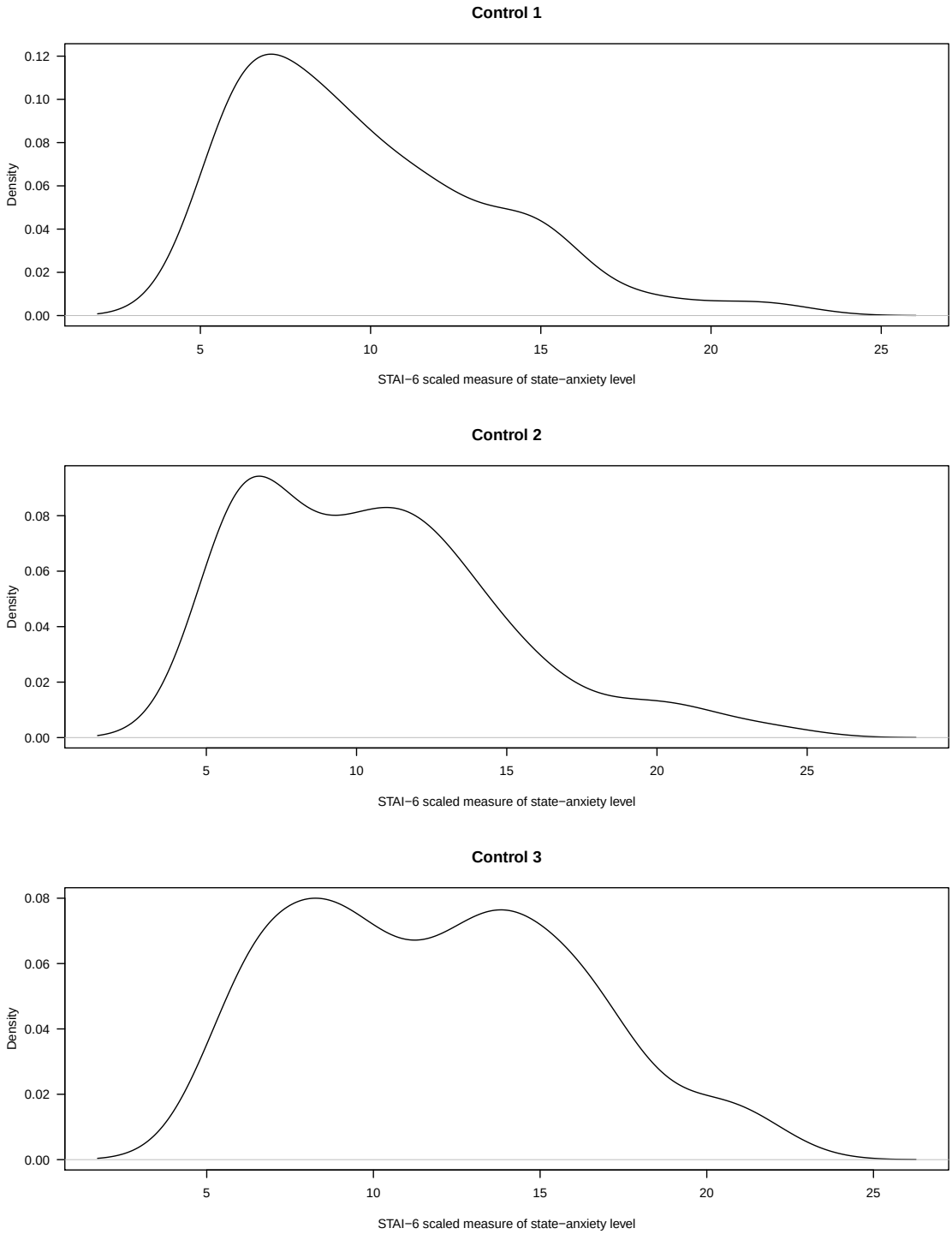

Figure A.7: **Density Plot**: Level of anxiety (STAI) for control groups, Lucid Theorem Pilot. Subjects in control 1 appear to be the least state anxious.

Group	Median	Mean	Standard Deviation
Treatment 1	17	16.14	5.37
Treatment 2	15	14.96	5.13
Treatment 3	13	14.17	5.31
Treatment 4	15	14.45	5.06
Treatment 5	14	14.12	4.76
Treatment 6	13	13.35	4.57
Control 1	9	9.89	3.72
Control 2	10	10.61	4.25
Control 3	12	11.93	4.22

Table A.4: **Summary Statistics**: Level of anxiety (STAI) for treatment and control groups, Lucid Theorem Pilot. Note that STAI scores range from 6-24.

thermometer rating of 6. The median feeling thermometer rating was also higher in the Treatment 1 condition than it was in any of the other treatment conditions. Overall, the results from the anxiety feeling thermometer are consistent with the results from the STAI measure of anxiety.

Next I will compare the quantiles of the whole distribution of values for STAI scores and each of the ten manipulation check emotions using qqplots. The first qqplot in Figure A.10 is for the Lucid data and is similar to Figure A.3 above in that it compares the STAI scores of subjects in the treatment condition to subjects in the control condition. Note that in this plot treatment and control are dummy variables taking a 1 if a subject was randomly assigned to one of the six treatment groups and a 0 if a subject was randomly assigned to one of the three control groups. The curvature of the mass of circles above the solid black line indicates at nearly every quantile subjects in the treatment conditions had higher STAI scores than subjects in the control conditions.

Anxiety Level	0	1	2	3	4	5	6	7	8	9	10
Treatment 1	9	3	3	5	4	5	3	11	9	8	31
Treatment 2	15	5	1	8	9	12	9	13	10	3	14
Treatment 3	15	5	2	7	9	3	8	9	14	7	7
Treatment 4	17	6	4	7	6	12	10	10	17	8	13
Treatment 5	23	3	6	2	5	6	13	9	9	6	9
Treatment 6	24	9	6	7	8	13	9	6	10	3	8
Control 1	63	13	5	2	2	3	1	4	1	2	2
Control 2	65	8	6	4	3	3	0	3	0	1	1
Treatment Total	103	31	22	36	41	51	52	58	69	35	82
Control Total	128	21	11	6	5	6	1	7	1	3	3
Grand Total	231	52	33	42	46	57	53	65	70	38	85

Table A.5: **Anxiety Feeling Thermometer**: Distribution of subjects by indicated anxiety feeling thermometer score (0-10), Lucid Theorem Pilot. *Number indicates raw number of respondents who indicated feeling each emotion.* Note that Control 3 is excluded as only the subjects assigned to watch a video answered the anxiety feeling thermometer survey question.

Group	Median	Mean	Standard Deviation
Treatment 1	8	6.75	3.46
Treatment 2	5	5.24	3.27
Treatment 3	6	5.08	3.37
Treatment 4	6	5.34	3.37
Treatment 5	6	4.70	3.55
Treatment 6	4	4.10	3.32
Control 1	0	1.35	2.57
Control 2	0	1.05	2.11
Full Sample	4	4.19	na

Table A.6: **Anxiety Feeling Thermometer Summary Statistics**: Distribution of subjects by indicated anxiety feeling thermometer score (0-10), Lucid Theorem Pilot. Note that Control 3 is excluded as only the subjects assigned to watch a video answered the anxiety feeling thermometer survey question.

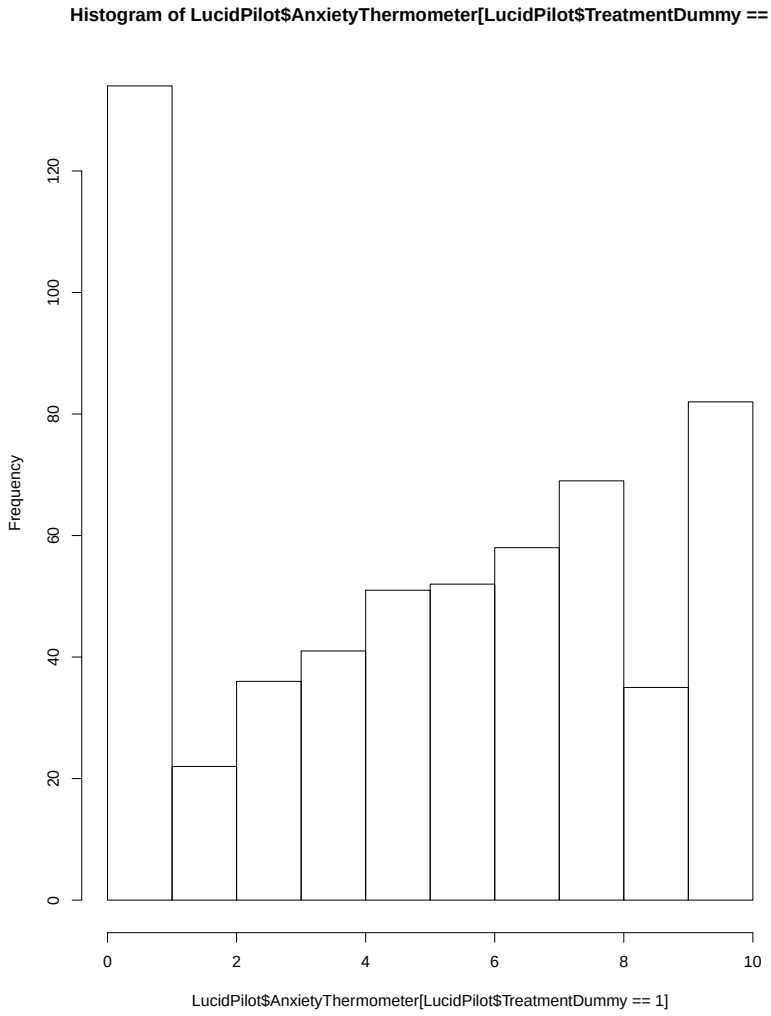

Figure A.8: **Histograms of Anxiety Thermometer Scores for Subjects in Treatment Condition**: Lucid Theorem Pilot.

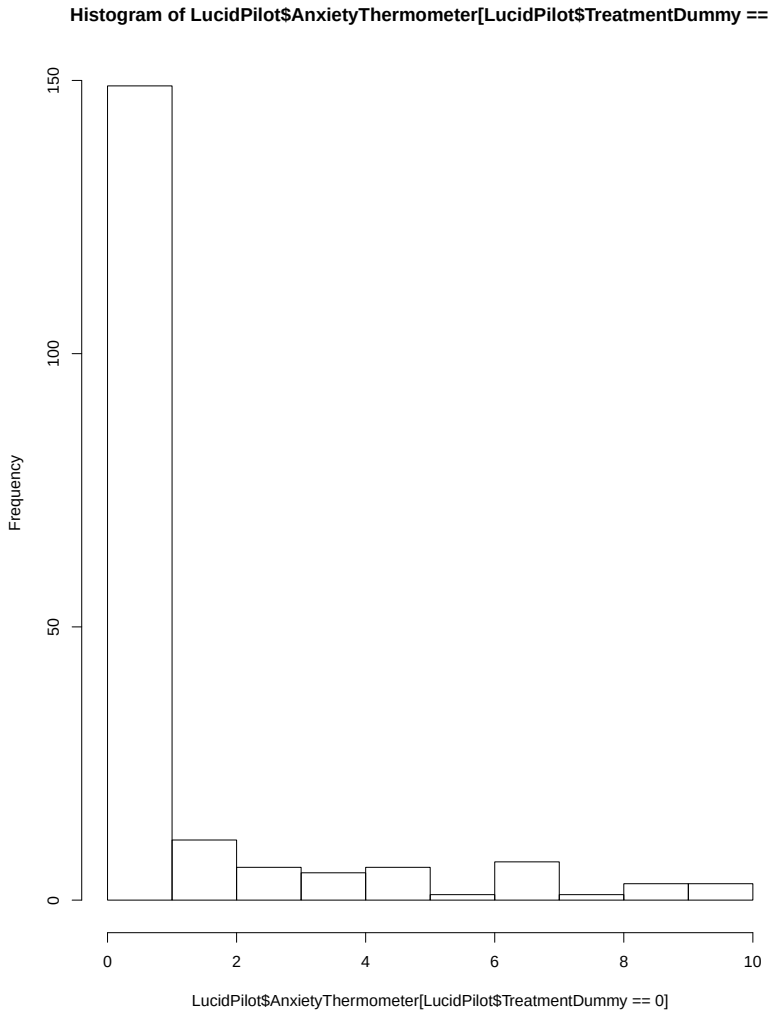

Figure A.9: **Histograms of Anxiety Thermometer Scores for Subjects in Control Condition**: Lucid Theorem Pilot.

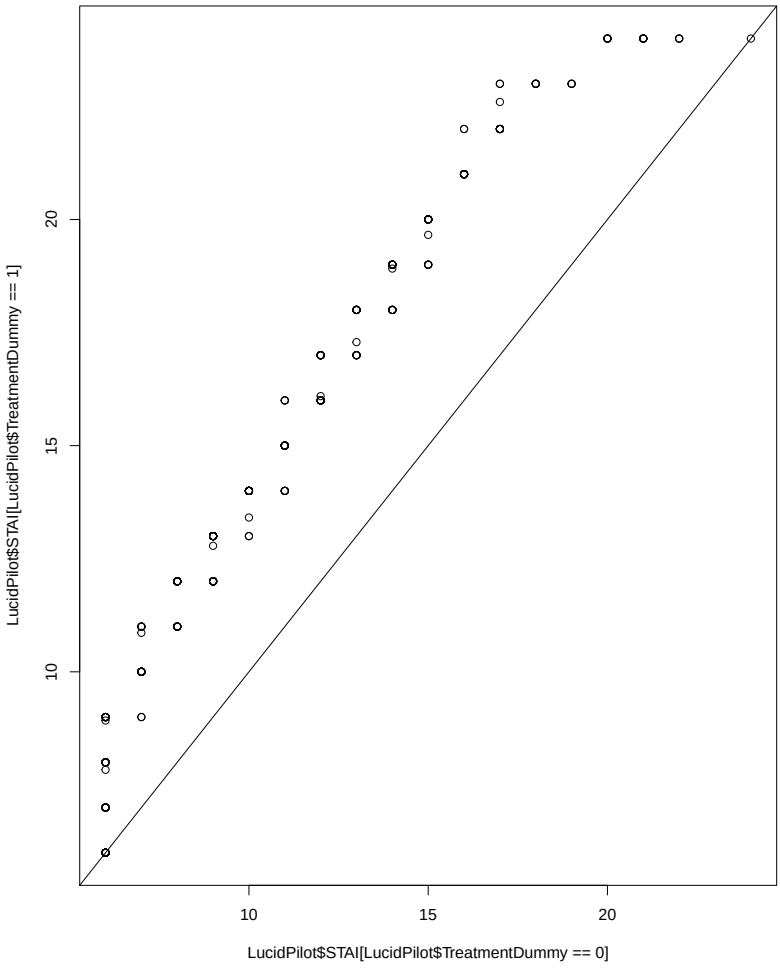

Figure A.10: **qqplot comparing STAI scores of subjects in treatment condition to subjects in control condition.** Lucid Theorem Pilot. Note that treatment and control are dummy variables.

The next three series of qqplots — Figure A.11, Figure A.12, and Figure A.13 — compare treatment groups with control groups but using categorical rather than dummy variables. The first series of qqplots compares the distributions of STAI scores for each of the six treatment groups to Control 1; the second series to Control 2; the third series of Control 3, respectively. Rather than walk through each of the 18 subfigures, I direct attention to the top left subfigure in each of the three sets of qqplots. The curvature of the mass of circles above the solid black line indicates that at nearly every quantile subjects in the Treatment 1 condition had higher STAI scores than subjects in all three of the control conditions. And this effect was most pronounced in the Treatment 1 condition as opposed to the other five treatment conditions.

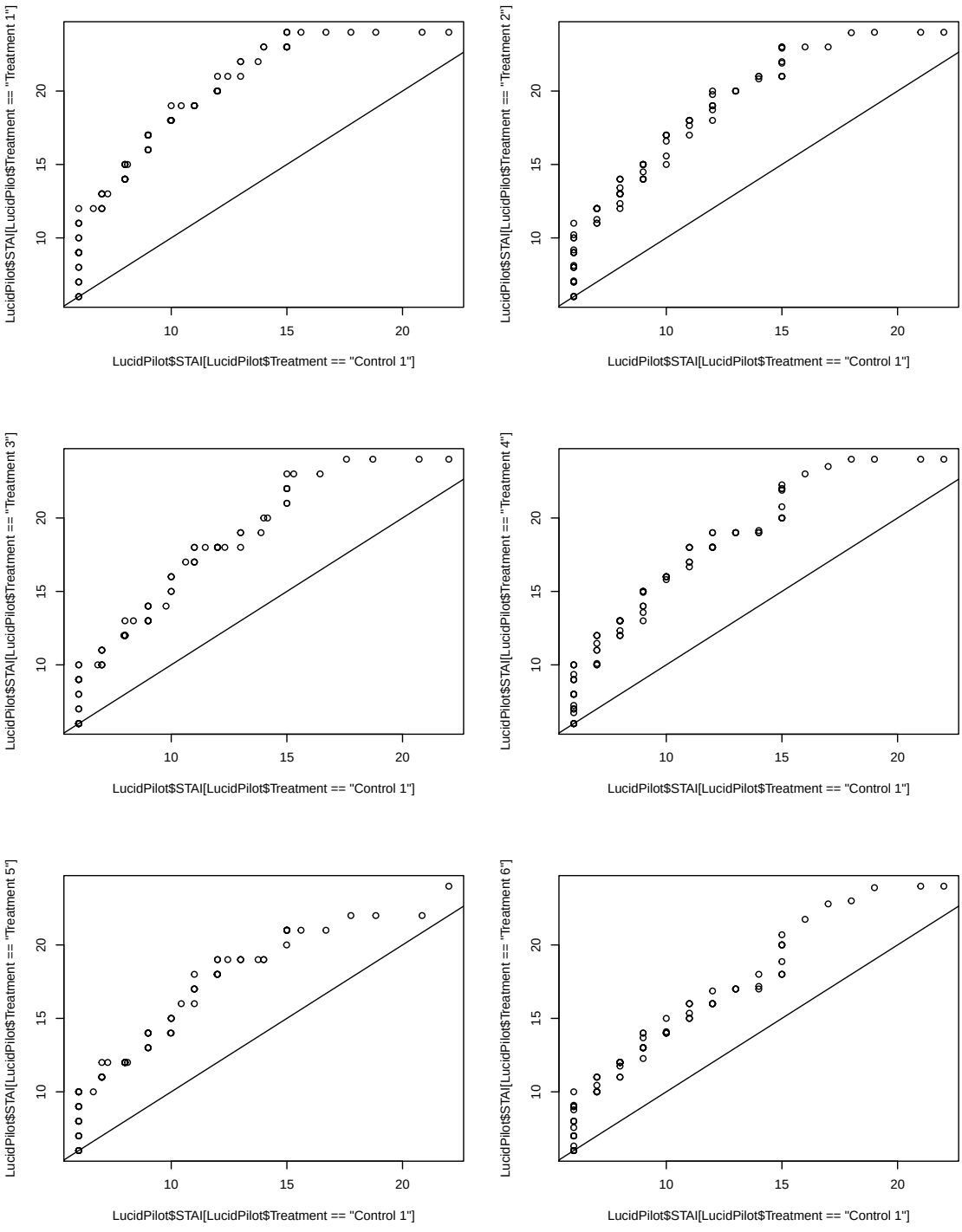

Figure A.11: **qqplot comparing STAI scores of subjects in all six treatment conditions to subjects in Control 1 condition.** Lucid Theorem Pilot.

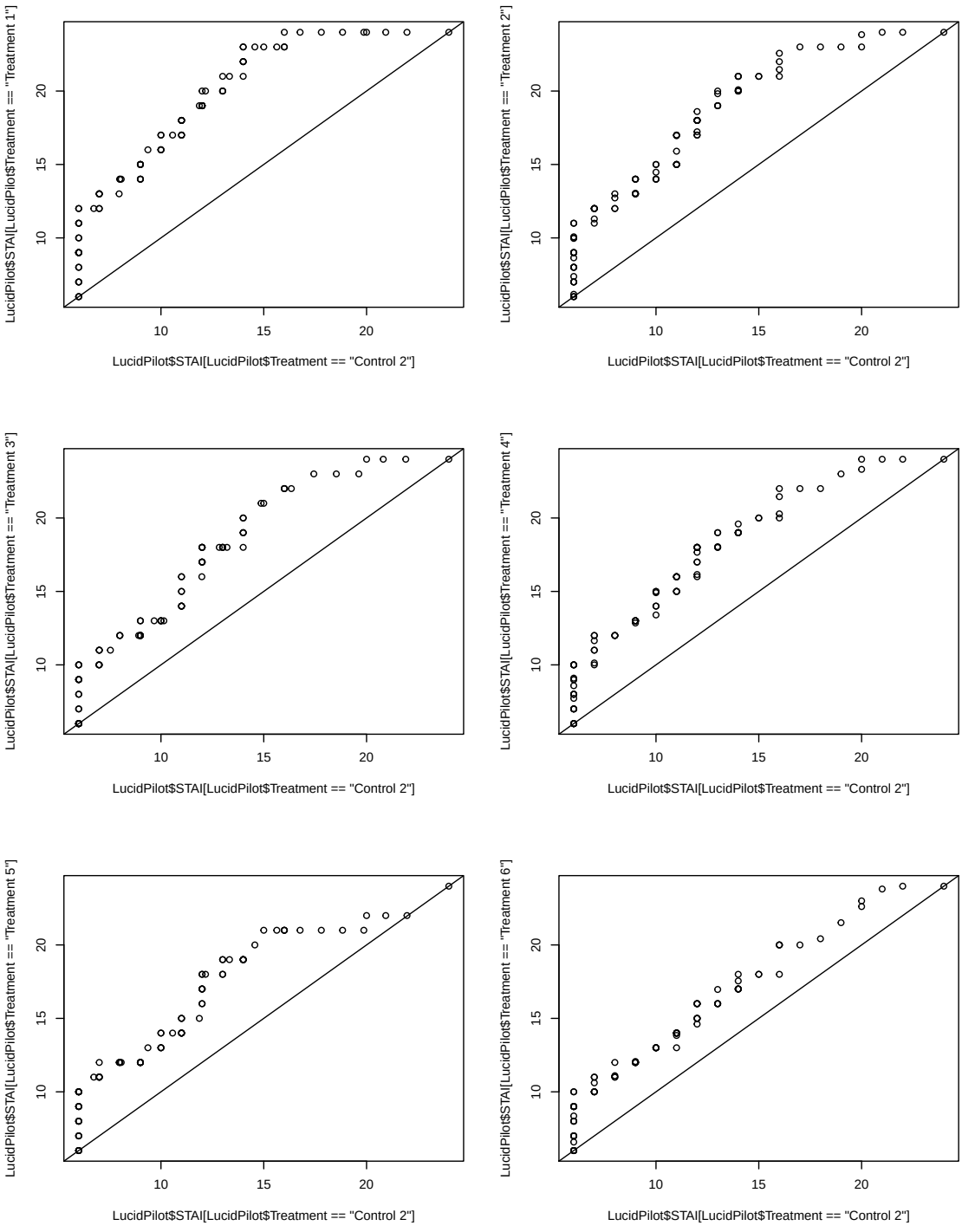

Figure A.12: **qqplot comparing STAI scores of subjects in all six treatment conditions to subjects in Control 2 condition.** Lucid Theorem Pilot.

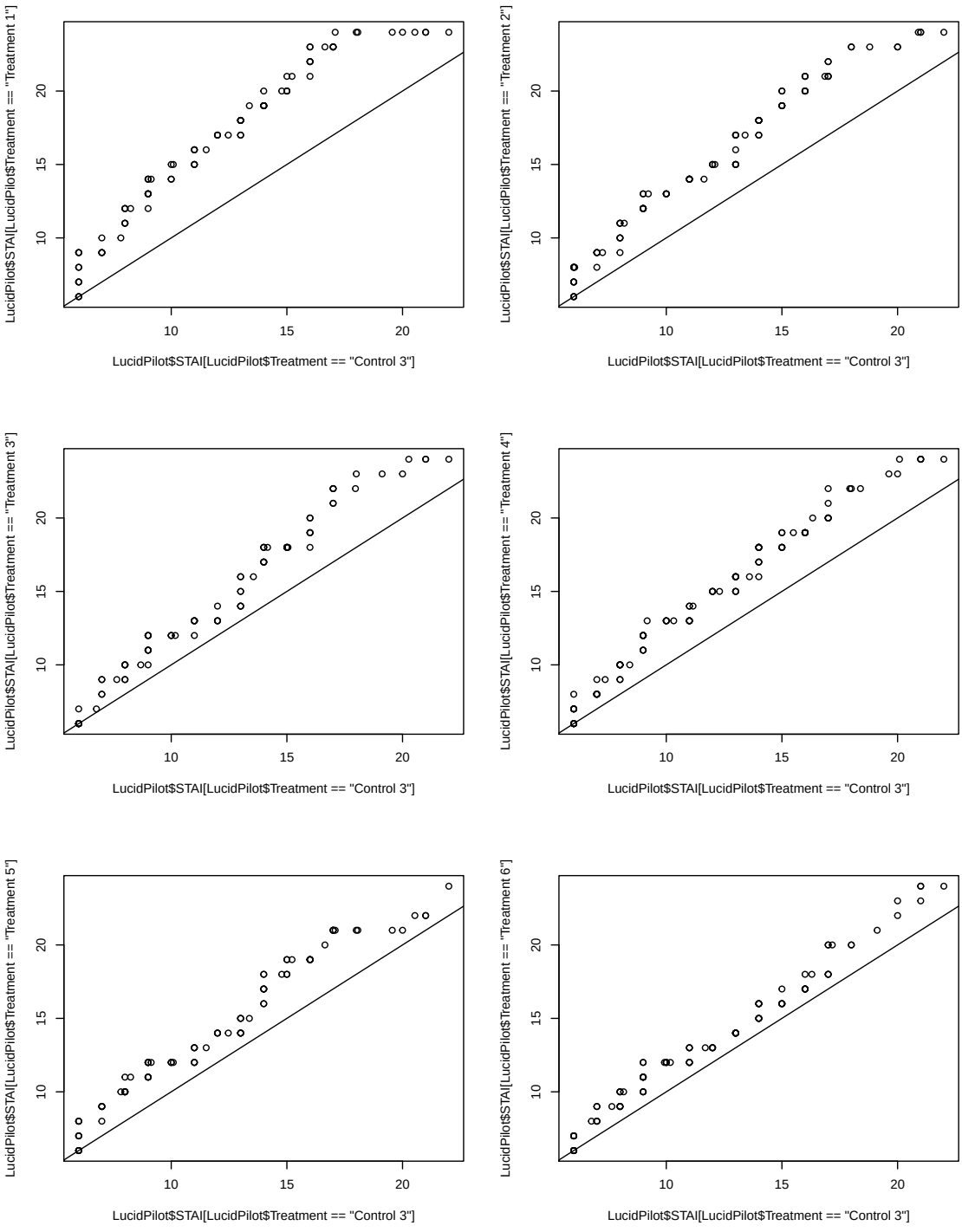

Figure A.13: **qqplot comparing STAI scores of subjects in all six treatment conditions to subjects in Control 3 condition.** Lucid Theorem Pilot.

Rather than performing T-tests I ran bootstrapped Kolmogorov-Smirnov tests using the *ks.boot* function in the *Matching* package. I used the *ks.boot* function instead of the *ks.test* function because the latter assumes that STAI scores are continuous. A two-sided test for differences in the distribution of STAI scores for the treatment and control dummies has a *p-value = 2.2204e-16*, providing evidence that a true difference exists between STAI scores in both distributions. Further I conducted bootstrapped Kolmogorov-Smirnov tests to compare the treatment and control conditions for each of the ten manipulation check emotions and none returned a p-value < 0.05.

A.2 Scales and Measurement

Beck Anxiety Inventory

Below is a list of common symptoms of anxiety. Please carefully read each item in the list. Indicate how much you have been bothered by that symptom during the past month, including today, by circling the number in the corresponding space in the column next to each symptom.

	Not At All	Mildly but it didn't bother me much.	Moderately - it wasn't pleasant at times	Severely – it bothered me a lot
Numbness or tingling	0	1	2	3
Feeling hot	0	1	2	3
Wobbliness in legs	0	1	2	3
Unable to relax	0	1	2	3
Fear of worst happening	0	1	2	3
Dizzy or lightheaded	0	1	2	3
Heart pounding/racing	0	1	2	3
Unsteady	0	1	2	3
Terrified or afraid	0	1	2	3
Nervous	0	1	2	3
Feeling of choking	0	1	2	3
Hands trembling	0	1	2	3
Shaky / unsteady	0	1	2	3
Fear of losing control	0	1	2	3
Difficulty in breathing	0	1	2	3
Fear of dying	0	1	2	3
Scared	0	1	2	3
Indigestion	0	1	2	3
Faint / lightheaded	0	1	2	3
Face flushed	0	1	2	3
Hot/cold sweats	0	1	2	3
Column Sum				

Scoring - Sum each column. Then sum the column totals to achieve a grand score. Write that score here _____ .

Interpretation

A grand sum between **0 – 21** indicates very low anxiety. That is usually a good thing. However, it is possible that you might be unrealistic in either your assessment which would be denial or that you have learned to "mask" the symptoms commonly associated with anxiety. Too little "anxiety" could indicate that you are detached from yourself, others, or your environment.

A grand sum between ***22 – 35*** indicates moderate anxiety. Your body is trying to tell you something. Look for patterns as to when and why you experience the symptoms described above. For example, if it occurs prior to public speaking and your job requires a lot of presentations you may want to find ways to calm yourself before speaking or let others do some of the presentations. You may have some conflict issues that need to be resolved. Clearly, it is not "panic" time but you want to find ways to manage the stress you feel.

A grand sum that **exceeds 36** is a potential cause for concern. Again, look for patterns or times when you tend to feel the symptoms you have circled. Persistent and high anxiety is not a sign of personal weakness or failure. It is, however, something that needs to be proactively treated or there could be significant impacts to you mentally and physically. You may want to consult a physician or counselor if the feelings persist.

Figure A.14: Beck et al. (1988) Anxiety Inventory (BAI).

Locus of Control Indicator

Items
External
Other people and events dominate my life.
My future is mostly in the hands of other people.
Luck and or other people and events control most of my life.
External things mostly control my life.
Internal
Most good things that happen to me are the result of my own actions.
What I do and how I do it will determine my successes in life.
If I succeed in life, it will be because of my efforts.
My own efforts and actions are what will determine my future.

Figure A.15: Parada's (2006) Locus of Control Scale.

A.3 Robustness Checks for Modeling Anxiety Among Marginalized Groups

A.3.1 Summary Statistics

The experiment was relatively balanced on the demographic variables. White respondents were wealthier on average, as they had higher incomes. Also, white respondents were on average more anxious than black ones, though a t-test reveals no statistically significant difference in mean level of anxiety between the groups. There are however statistically significant differences in average external LOC, internal LOC, and self esteem between groups. An additional way to compare base anxiety level between groups is to compare the mean level of worry about nuclear war among

STATEMENT	Strongly Agree	Agree	Disagree	Strongly Disagree
1. I feel that I am a person of worth, at least on an equal plane with others.	○	○	○	○
2. I feel that I have a number of good qualities..	○	○	○	○
3. All in all, I am inclined to feel that I am a failure.	○	○	○	○
4. I am able to do things as well as most other people.	○	○	○	○
5. I feel I do not have much to be proud of.	○	○	○	○
6. I take a positive attitude toward myself.	○	○	○	○
7. On the whole, I am satisfied with myself.	○	○	○	○
8. I wish I could have more respect for myself.	○	○	○	○
9. I certainly feel useless at times.	○	○	○	○
10. At times I think I am no good at all.	○	○	○	○

Score Results Reset

Your score on the Rosenberg self-esteem scale is: .

Scores are calculated as follows:

- *For items 1, 2, 4, 6,* and *7:*
  Strongly agree = 3
  Agree = 2
  Disagree = 1
  Strongly disagree = 0
- *For items 3, 5, 8, 9,* and *10* (which are reversed in valence):
  Strongly agree = 0
  Agree = 1
  Disagree = 2
  Strongly disagree = 3

The scale ranges from 0-30. Scores between 15 and 25 are within normal range; scores below 15 suggest low self-esteem.

Figure A.16: Rosenberg's (1965) Self-Esteem Scale.

3. The following items comprise the final versions of the scales for input and output efficacy and political trust. The response in parentheses indicated high efficacy or trust:

A. *Input Efficacy:* (1) A person like me could never get elected to public office. (Disagree) (2) Sometimes politics and government seem too complicated that a person like me can't really understand what's going on. (Disagree) (3) Most public officials wouldn't listen to me no matter what I did. (Disagree) (4) In today's world, votes don't speak loud enough; nowadays, you have to shout to be heard. (Disagree) (5) It doesn't matter what a person does—if the politicians want to listen, they will, and if they don't want to listen, they won't. (Disagree)

B. *Output Efficacy:* (1) The real political power in this country belongs to people like me. (Agree) (2) People who don't vote throw away a good chance to choose their leaders and change public policy. (Agree) (3) There are plenty of ways for people like me to have to say in what our government does. (Agree) (4) It hardly makes any difference who I vote for because whoever gets elected does whatever he wants to do anyway. (Disgree) (5) It doesn't seem like public officials anywhere care much what people like me think. (Disagree)

C. *Political Trust:* Most public officials are fairly smart people who usually know what they're doing. (Agree) (2) A candidate's ability is the most important thing in helping him win an election. (Agree) (3) It really doesn't matter whether I get involved with politics because I know things will turn out pretty well anyway. (Agree) (4,5,6) You can generally trust the government (in Washington, of Illinois, in my home town) to do what is right. (Agree)

Figure A.17: Craig's (1979) scales for internal and external efficacy and trust

whites and blacks. On a 5 point scale, blacks were 0.214 more anxious about the possibility for the United States being involved in nuclear war in the near future.[64] Furthermore, the median score for blacks was higher than it is for whites (a level 4 versus a level 3).

Table A.12 shows how happy was indicated most frequently by respondents, anxious second, and bored third.

A.3.2 Exploring STAI-6 Scores

For the following three figures (A.18, A.19, and A.20), each subfigure has two vertical lines. The dashed line indicates the mean STAI score for the entire sample. The same dashed line is included in each subfigure as a common reference point. The

[64]I conducted a t-test to check whether this difference is statistically significant and it is (p-value = 0.004522).

	Treatment	Control
Mean STAI Level*	14.32	12.49
Median STAI Level	14	12
Mean Anxiety Feeling Thermometer*	6.31	1.46
Median Anxiety Feeling Thermometer		
Mean External Locus of Control (Logged)	2.10	2.11
Median External Locus of Control (Logged)	2.08	2.08
Mean Internal Locus of Control (Logged)	2.78	2.80
Median Internal Locus of Control (Logged)	2.83	2.83
Mean Self Esteem	20.98	20.97
Median Self Esteem	21	21
Mean Internal Efficacy	1.90	1.96
Median Internal Efficacy	2	2
Mean External Efficacy	2.88	2.86
Median External Efficacy	3	3
Mean Survey Duration (in seconds)	958.7	871.2
Median Survey Duration (in seconds)	738.5	642.0
Mean Age (in years)*	46.08	44.39
Median Age (in years)	45	42
Gender (percent female)	66.61	70.85
Mean Income Level	$40,000-44,999	$40,000-44,999
Median Income Level	$30,000-34,999	$30,000-34,999
Mean Education Level*	Completed some college, no degree	Completed some college, no degree
Median Education Level	Completed some college, no degree	Completed some college, no degree

Note: Statistically significant differences in means indicated by asterisk.

Table A.7: **Checking For Balancing by Group Type**: Random assignment to treatment and control groups. Lack of statistically significant differences shows that randomization worked successfully.

	Marginalized	Non-Marginalized
Mean STAI Level	13.41	12.88
Median STAI Level	13	13
Mean Anxiety Feeling Thermometer	3.61	3.94
Median Anxiety Feeling Thermometer		
Mean External Locus of Control (Logged)	2.11	2.10
Median External Locus of Control (Logged)	2.08	2.08
Mean Internal Locus of Control (Logged)*	2.79	2.82
Median Internal Locus of Control (Logged)	2.83	2.83
Mean Self Esteem*	20.72	22.19
Median Self Esteem	21	22
Mean Internal Efficacy	1.92	1.97
Median Internal Efficacy	2	2
Mean External Efficacy	2.83	3.03
Median External Efficacy	3	3
Mean Survey Duration (in seconds)	931.1	817.1
Median Survey Duration (in seconds)	706.0	633.5
Mean Age (in years)*	42.98	55.39
Median Age (in years)	41	59.50
Gender (percent female)*	70.98	59.26
Mean Income Level*	$35,000-39,999	$65,000-69,999
Median Income Level	$25,000-29,999	$65,000-69,999
Mean Education Level*	Completed some college, no degree	Associate's Degree
Median Education Level	Completed some college, no degree	Bachelor's Degree

Note: Statistically significant differences in means indicated by asterisk.

Table A.8: **Checking For Balancing by Group Type**: Marginalized and non-marginalized groups.

Group	Treatment	Control	Full Segment
White + Welfare	2.20 (2.30)	2.25 (2.30)	2.23 (2.30)
White + Non-Welfare	2.11 (2.10)	2.10 (2.10)	2.10 (2.10)
Black + Welfare	2.04 (2.08)	1.20 (2.10)	2.02 (2.08)
Black + Non-Welfare	1.92 (1.95)	2.00 (1.95)	1.95 (1.95)
Hispanic + Welfare	2.20 (2.20)	2.24 (2.30)	2.10 (2.25)
Hispanic + Non-Welfare	2.18 (2.20)	2.12 (2.20)	2.15 (2.20)
All respondents	2.10 (2.10)	2.11 (2.10)	2.11 (2.10)

Table A.9: **External Locus of Control (Logged)**: Mean (Median) for each marginalization group. An asterisk next to the group name indicates a statistically significant difference between the treatment and control group.

Group	Treatment	Control	Full Sample
White + Welfare	2.79 (2.77)	2.76 (2.77)	2.77 (2.77)
White + Non-Welfare	2.81 (2.83)	2.82 (2.83)	2.82 (2.83)
Black + Welfare	2.79 (2.83)	2.83 (2.89)	2.81 (2.83)
Black + Non-Welfare	2.77 (2.83)	2.76 (2.77)	2.76 (2.77)
Hispanic + Welfare	2.78 (2.89)	2.79 (2.83)	2.80 (2.83)
Hispanic + Non-Welfare	2.80 (2.83)	2.82 (2.89)	2.81 (2.89)
All respondents	2.80 (2.83)	2.80 (2.83)	2.80 (2.83)

Table A.10: **Internal Locus of Control (Logged)**: Mean (Median) for each marginalization group. An asterisk next to the group name indicates a statistically significant difference between the treatment and control group.

Group	Treatment	Control	Full Sample
White + Welfare*	19.95 (19)	18 (19)	18.9 (19)
White + Non-Welfare	22.49 (23)	21.92 (22)	22.19 (22)
Black + Welfare	20.96 (21)	21.10 (22)	21.03 (21)
Black + Non-Welfare	23.49 (25)	22.46 (23)	22.93 (24)
Hispanic + Welfare	19.18 (20)	19.54 (19)	19.38 (20)
Hispanic + Non-Welfare	20.88 (21)	21.64 (22)	21.29 (22)
All respondents	20.98 (21)	20.97 (21)	20.98 (21)

Table A.11: **Self-Esteem**: Mean (Median) for each marginalization group. The self-esteem score ranges from 1-30. An asterisk next to the group name indicates a statistically significant difference between the treatment and control group.

Emotion	# of Yes	# of No
Anxious	476	753
Afraid	146	1083
Angry	164	1065
Happy	498	731
Sad	207	1022
Cheerful	308	921
Lazy	385	844
Bored	396	833
Excited	222	1007
Other	148	1081

Table A.12: **Manipulation Check**: Number indicates raw number of respondents who indicated feeling each emotion.

Felt Emotion: Condition:	Yes Treatment	No Treatment	Yes Control	No Control
Anxious	231	329	245	424
Afraid	90	470	56	613
Angry	69	491	95	574
Happy	215	345	283	386
Sad	99	461	108	561
Cheerful	122	438	186	483
Lazy	161	399	224	445
Bored	175	385	221	448
Excited	98	462	124	545
Other	66	494	82	587

Table A.13: **Manipulation Check by Condition**: Number indicates raw number of respondents who indicated feeling each emotion.

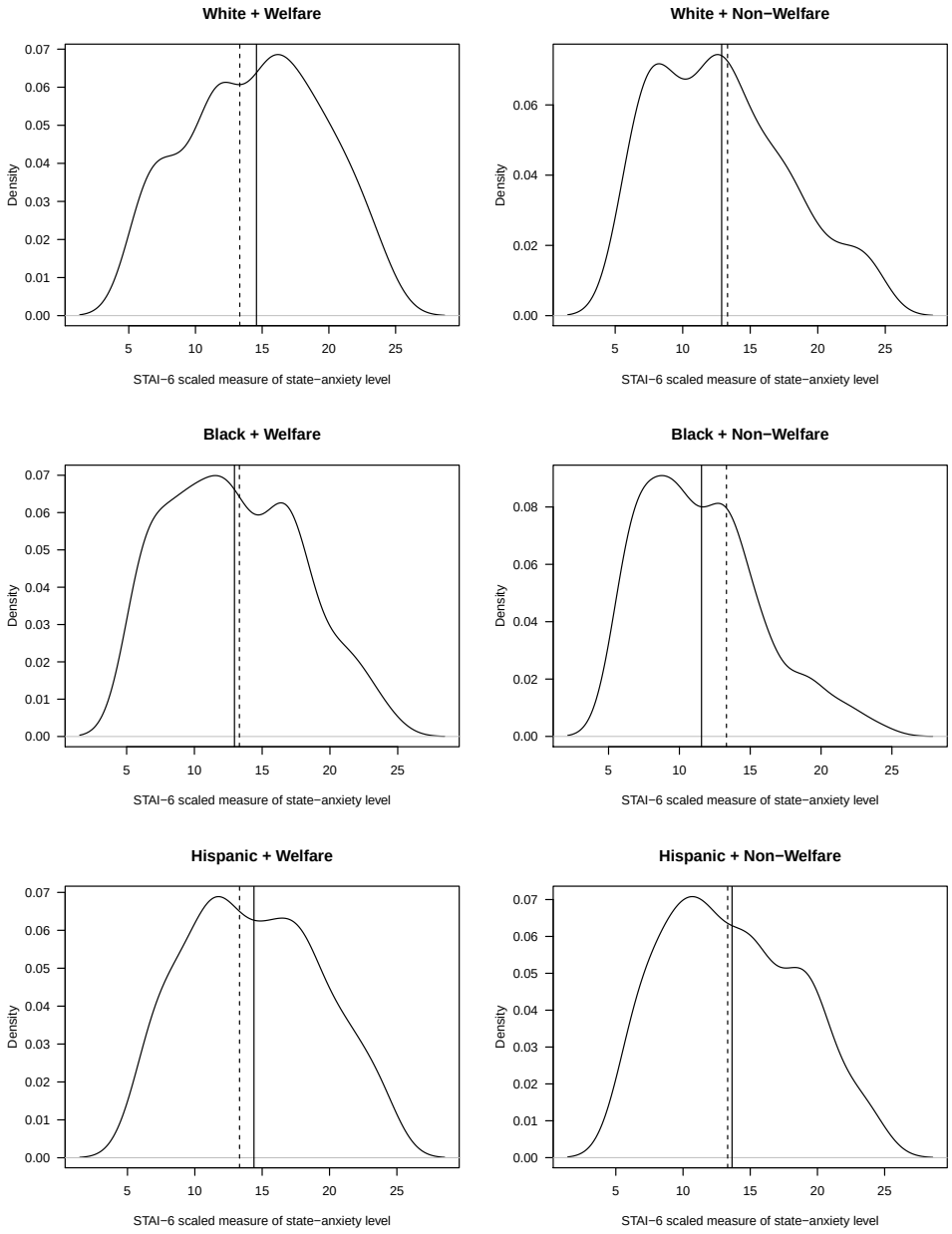

Figure A.18: **Average Group Anxiety Level as Compared to Full Sample**: Hispanics on and off welfare, Whites on welfare, the most anxious groups.

solid line indicates the mean STAI score for that particular subgroup. The location of the solid line varies in each subfigure.

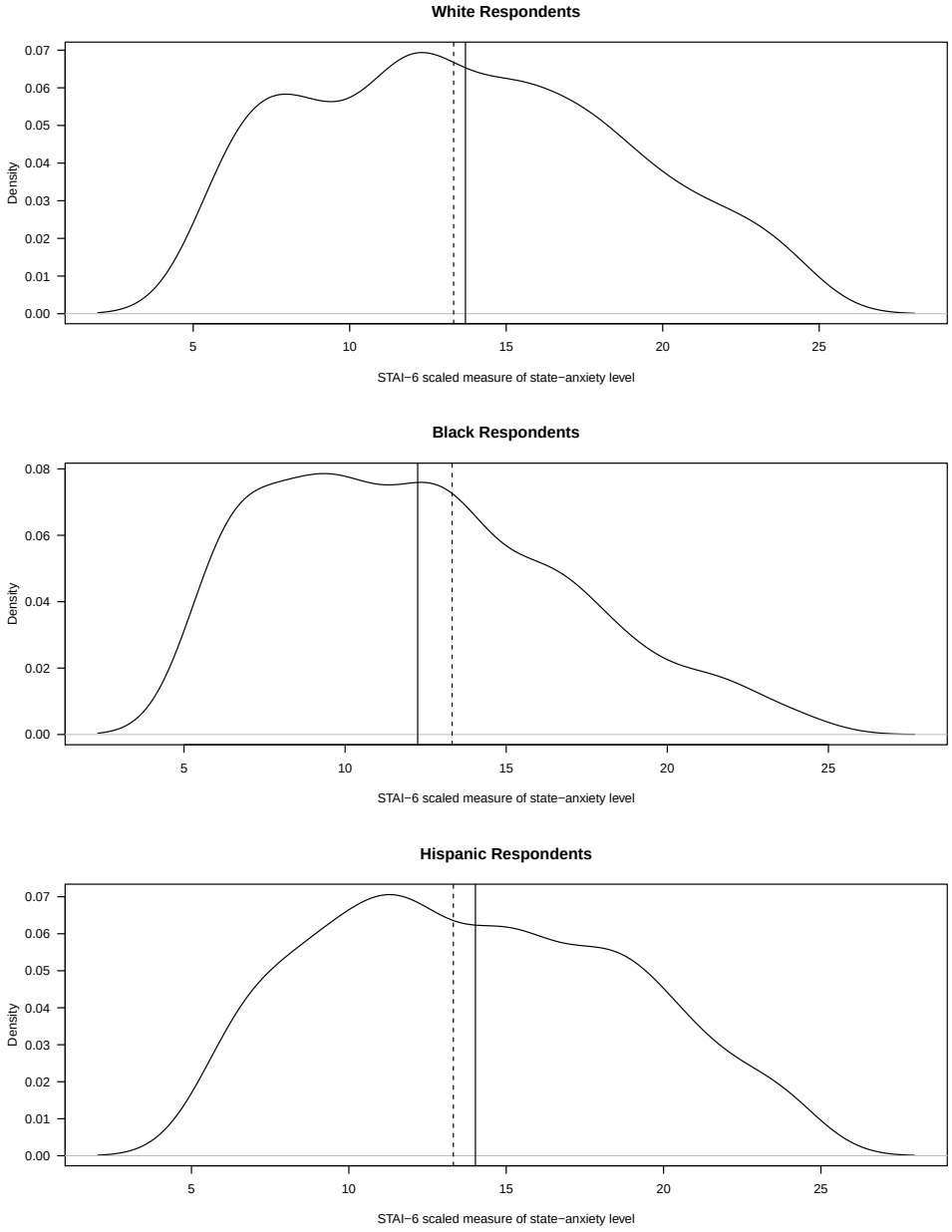

Figure A.19: **STAI-6 Scaled Score by Race**: On average, Hispanic respondents are more state anxious than Black and White respondents are.

A.3.3 Hypothesis Testing

Hypothesis 1

Figure A.26 through Figure A.33 separate subjects into the six combinations of welfare and racial group.

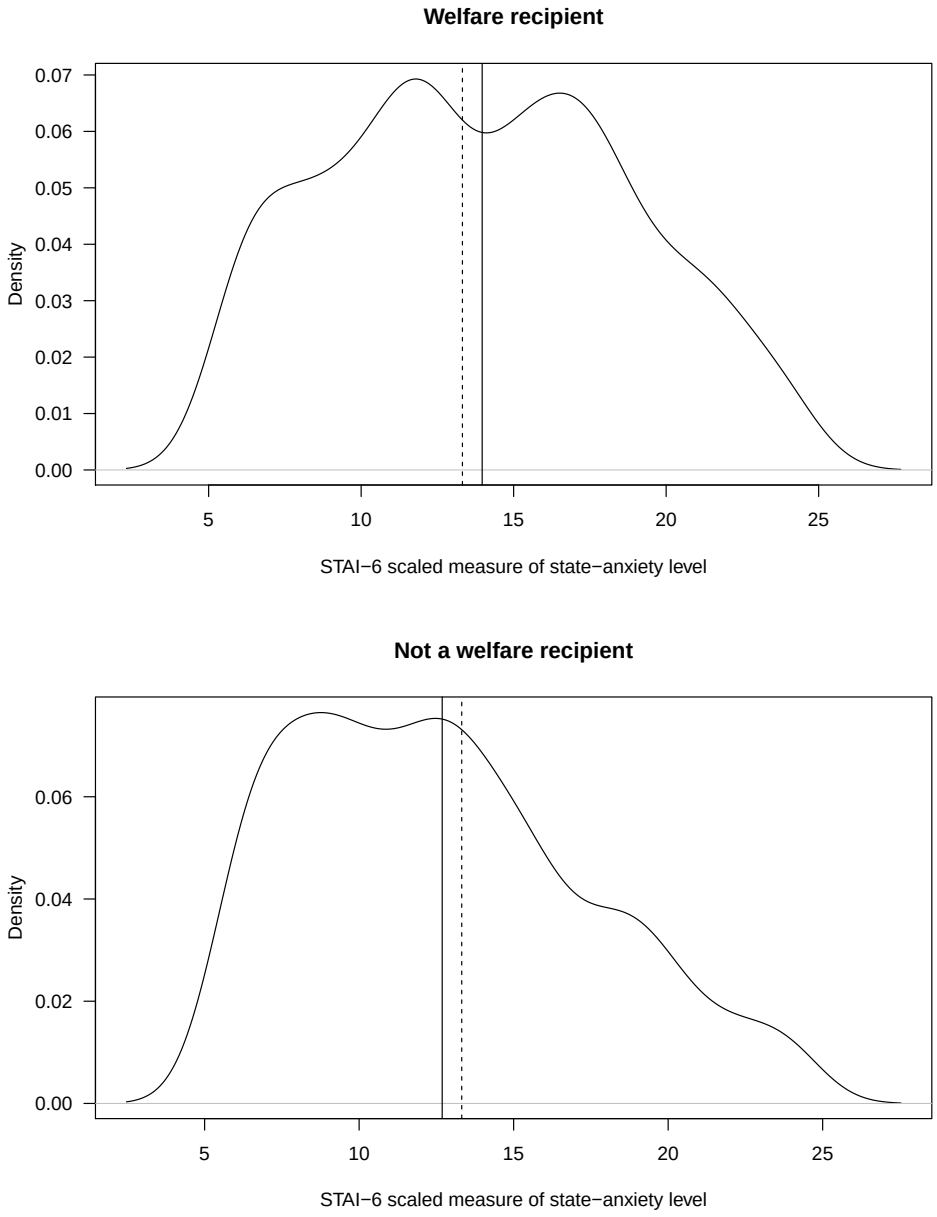

Figure A.20: **STAI-6 Scaled Score by Welfare Status**: Welfare recipients are more state anxious than non-recipients, on average.

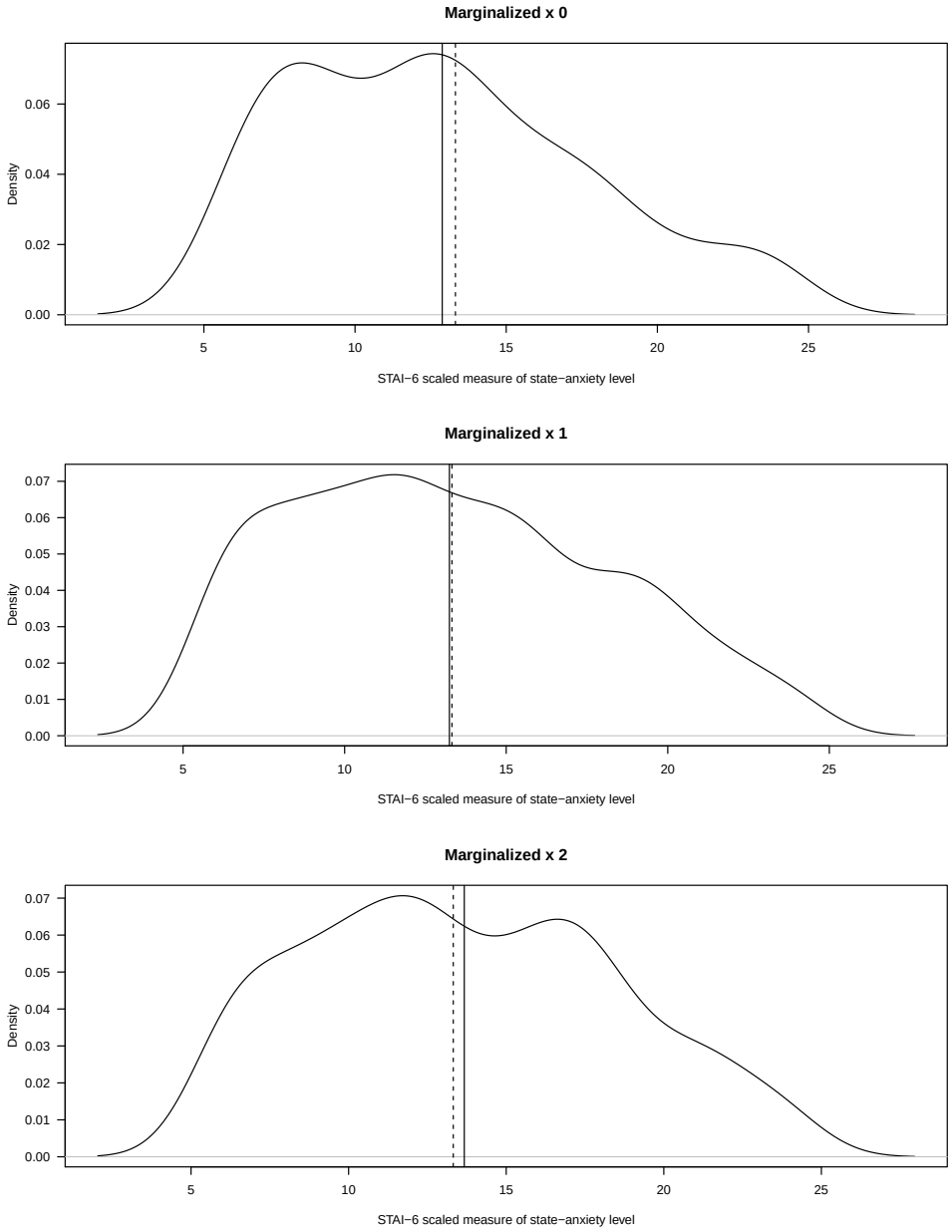

Figure A.21: **STAI Score by Degree of Marginalization**: The intersectionally marginalized (x2 marginalization) are the most state anxious, on average.

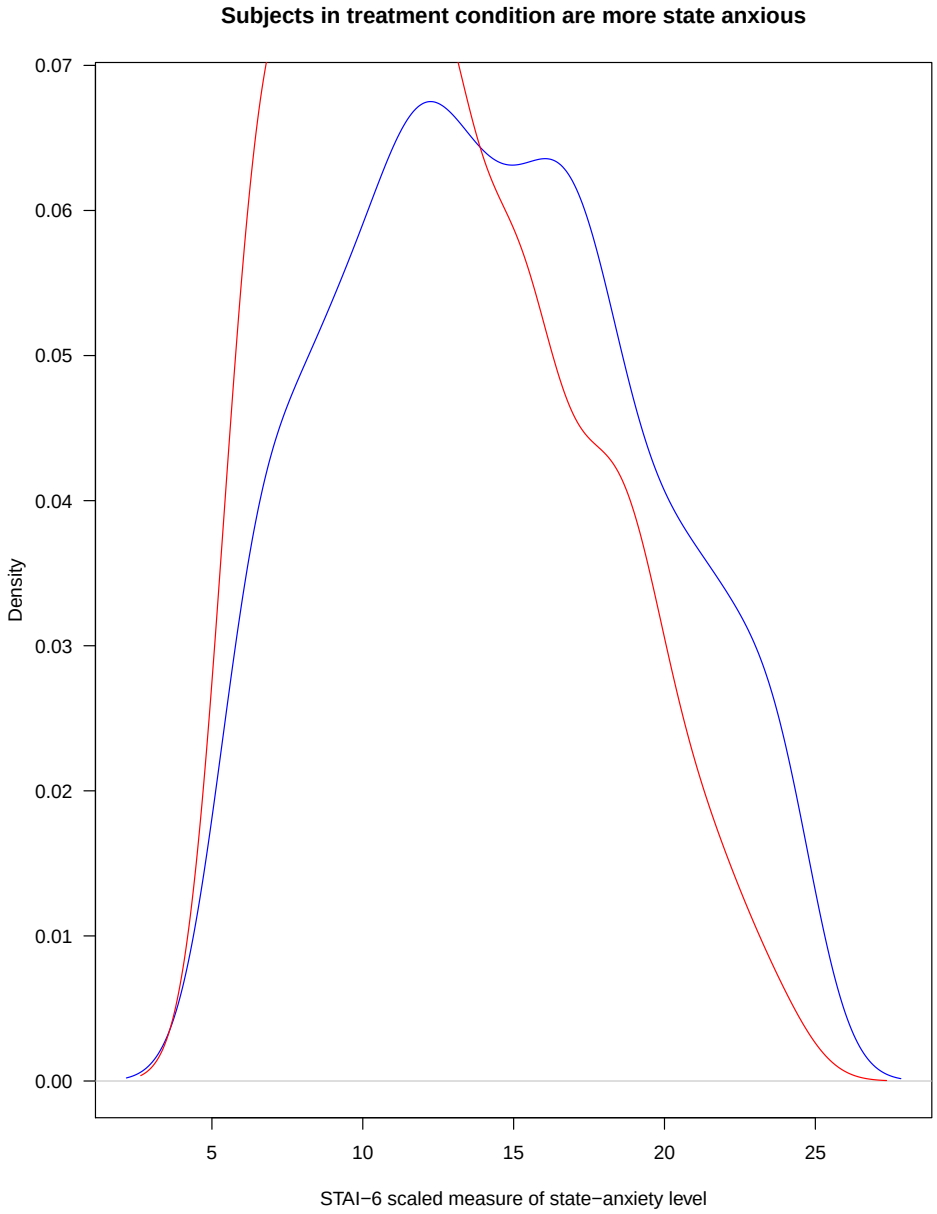

Figure A.22: **STAI Score by Condition**: Subjects in treatment condition (blue line) are more state anxious, on average, than subjects in control condition (red line).

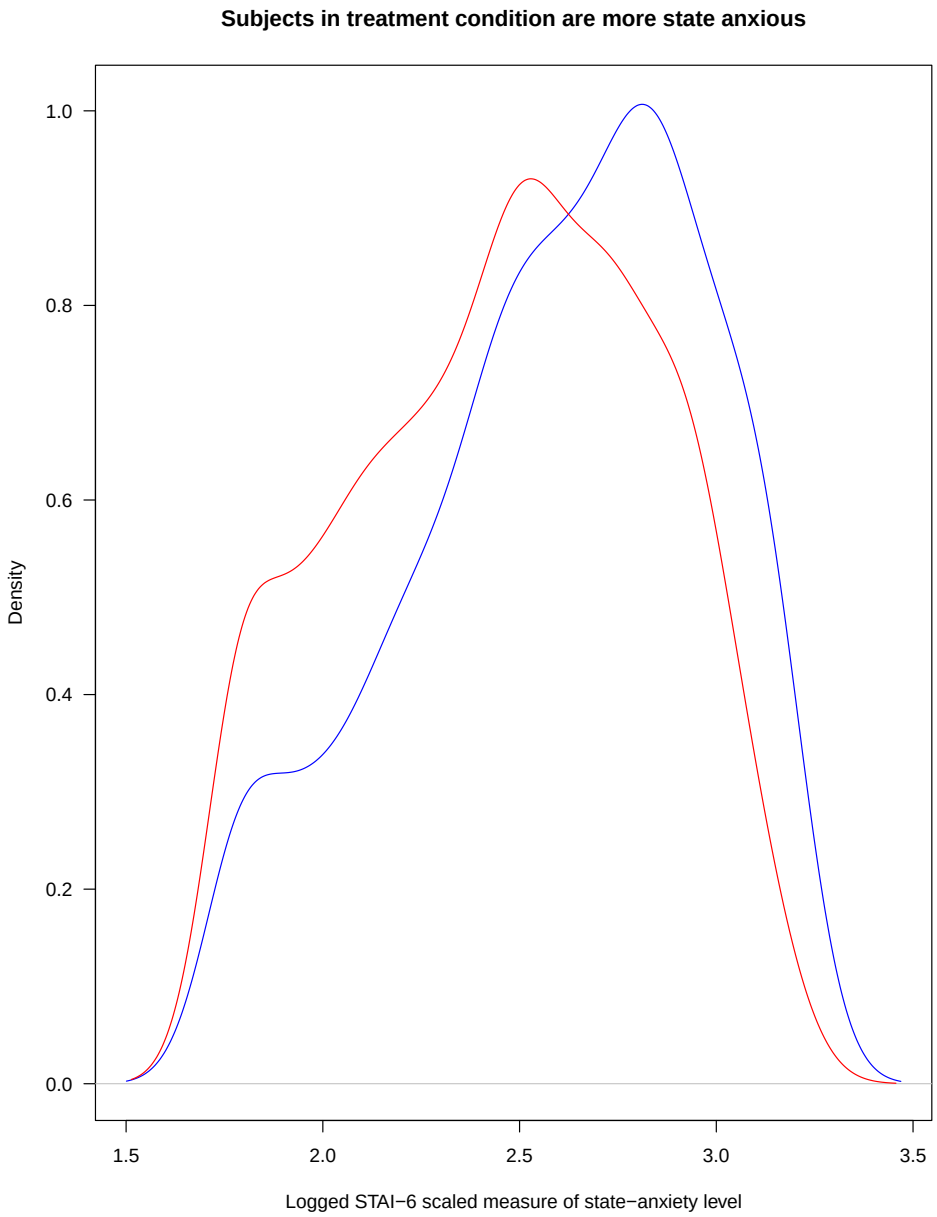

Figure A.23: **Logged STAI Score by Condition**: Subjects in treatment condition (blue line) are more state anxious, on average, than subjects in control condition (red line).

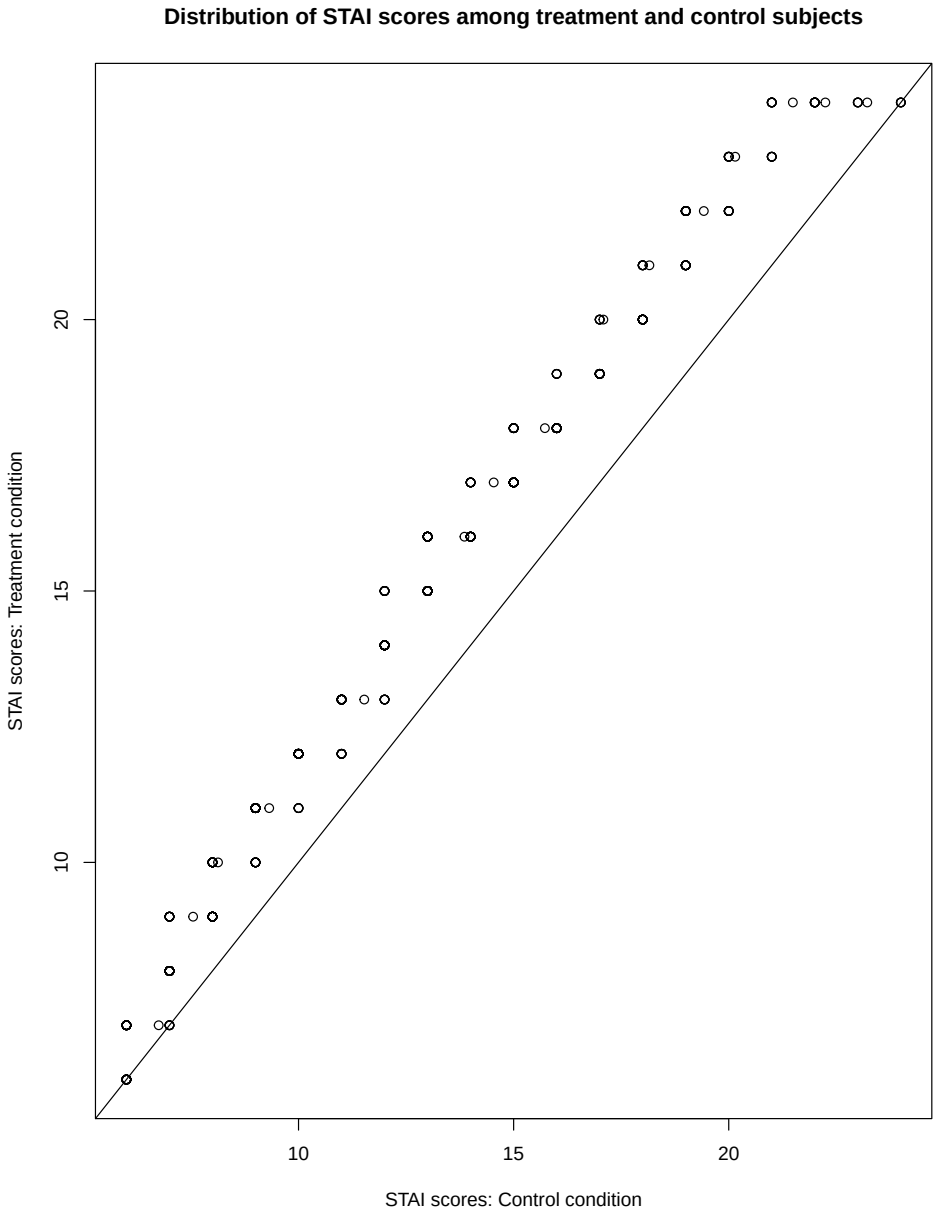

Figure A.24: **Quantile-Quantile Plot**: Across distributions, subjects in treatment condition more state anxious than subjects in control condition.

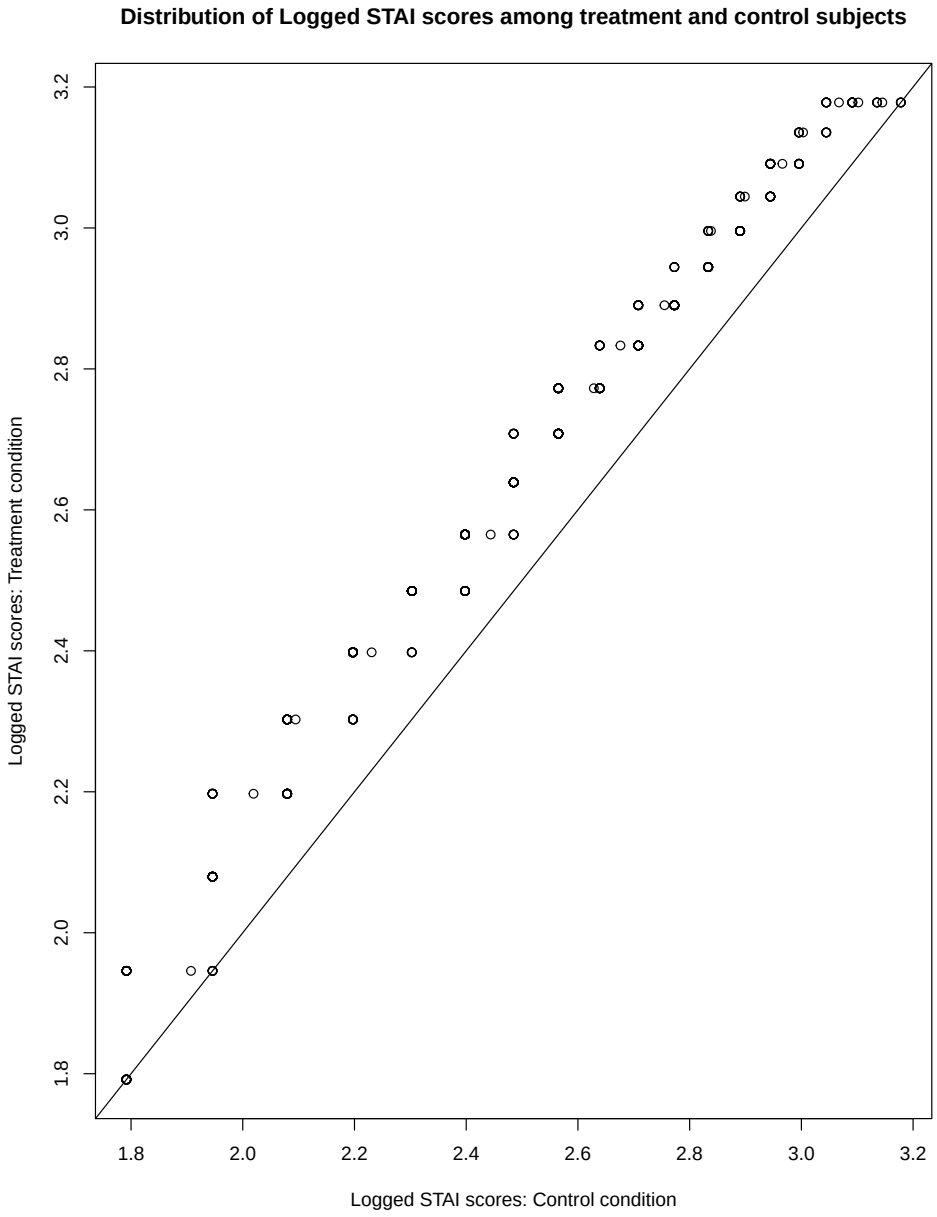

Figure A.25: **Quantile-Quantile Plot (Logged)**: Across distributions, subjects in treatment condition more state anxious than subjects in control condition.

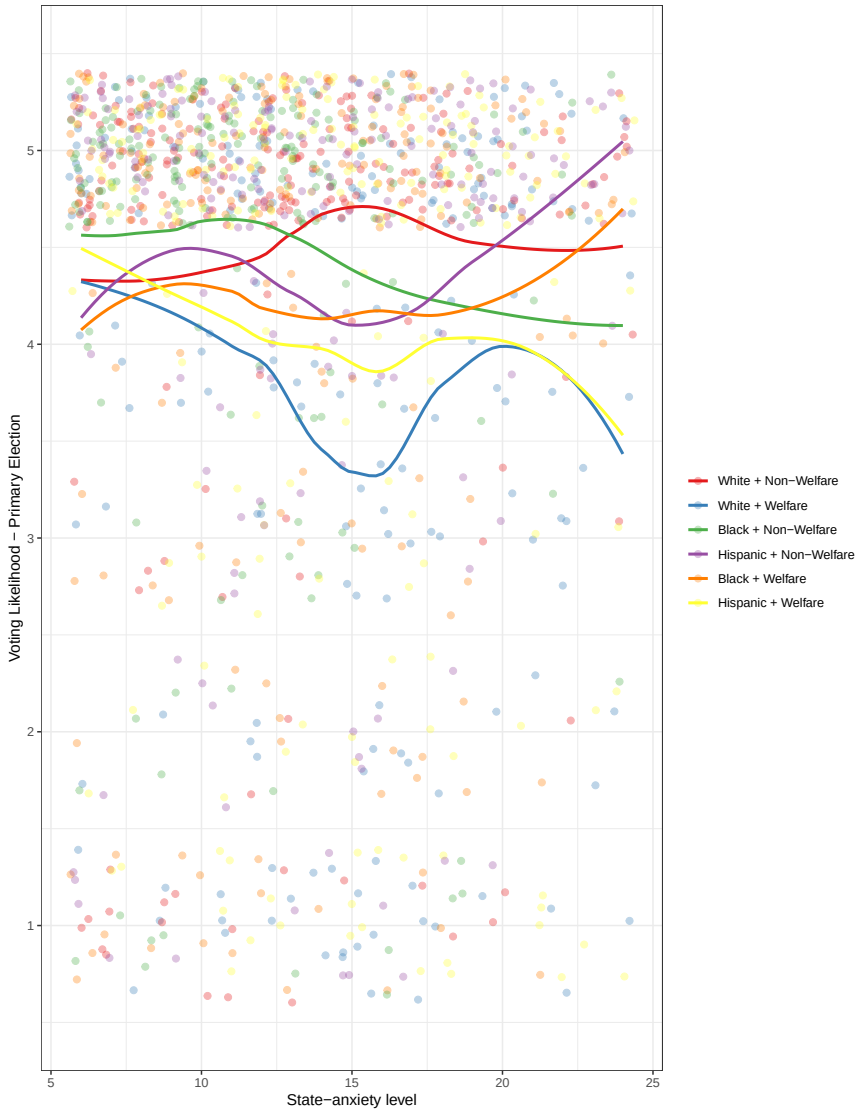

Figure A.26: Whites on welfare, Hispanics on welfare least likely to vote in primary election at highest levels of anxiety.

Figure A.34 through Figure A.41 separate subjects into dummy variables for those who are marginalized and those who are not.

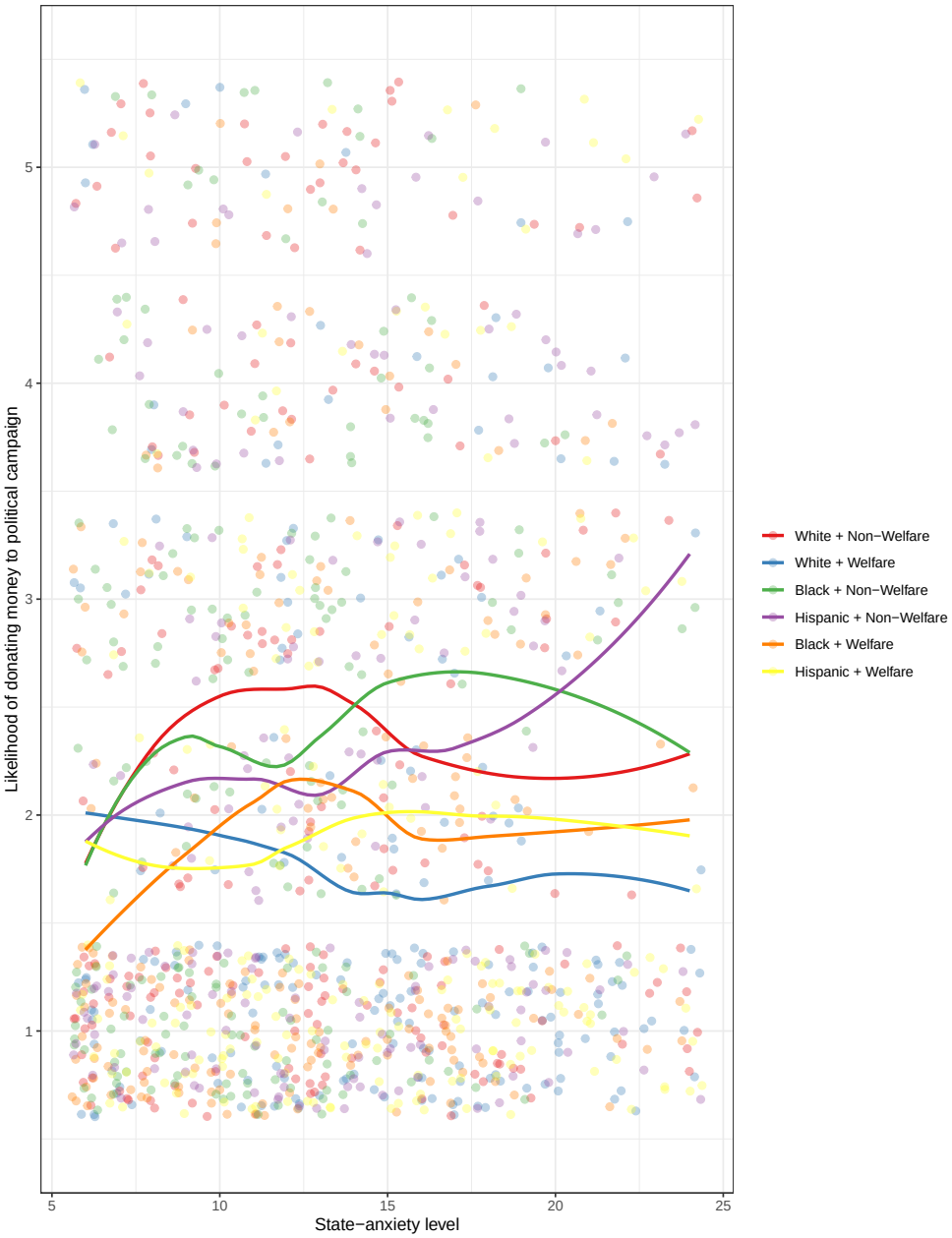

Figure A.27: Likelihood of donating money to a political campaign unrelated to racial marginalization. All three non-welfare groups more likely to donate at the highest levels of anxiety.

Figure A.28: Black and Hispanic respondents not on welfare most likely to volunteer for a campaign at highest levels of anxiety.

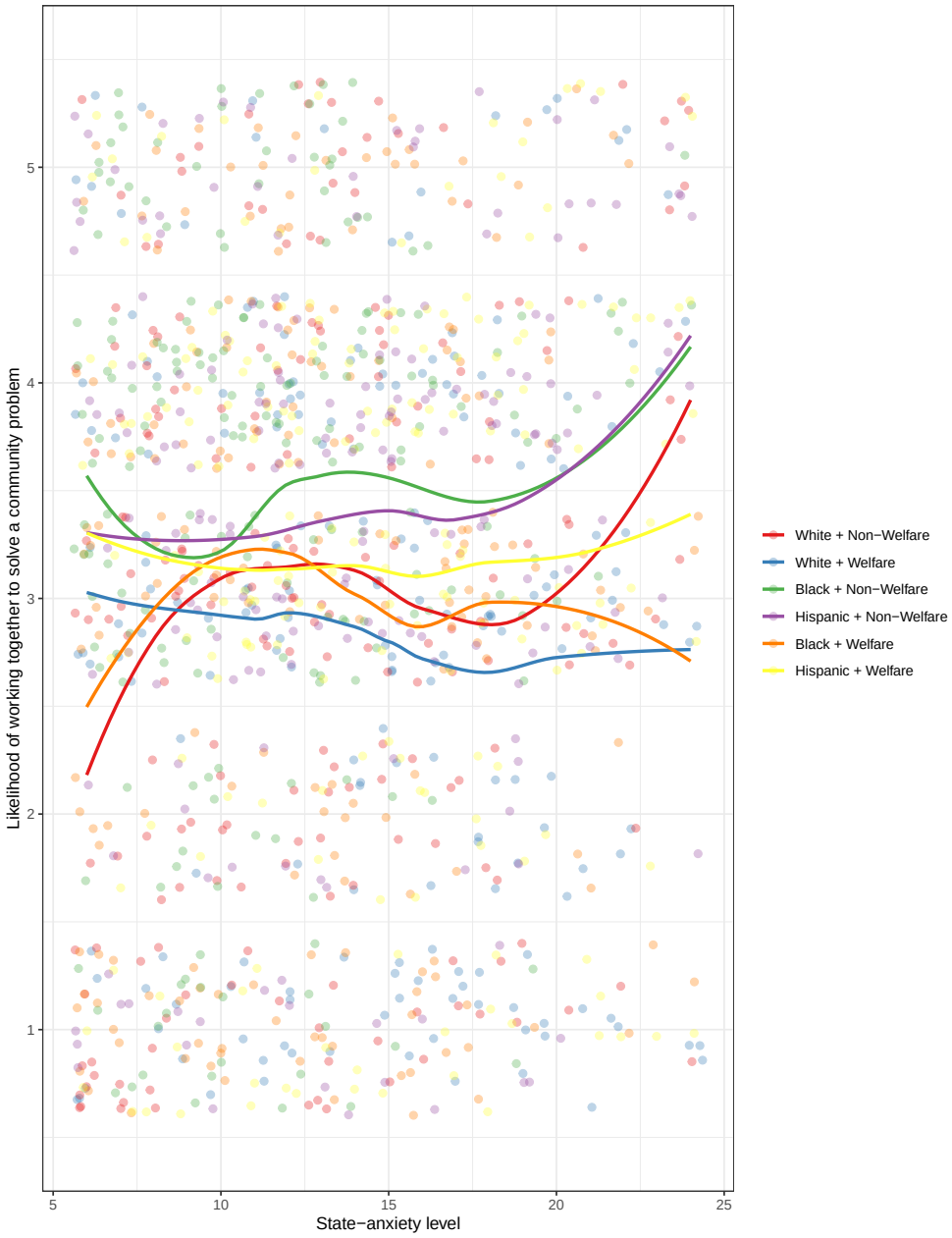

Figure A.29: Respondents not on welfare, across races, most likely to work with others to solve a local community problem at highest levels of anxiety.

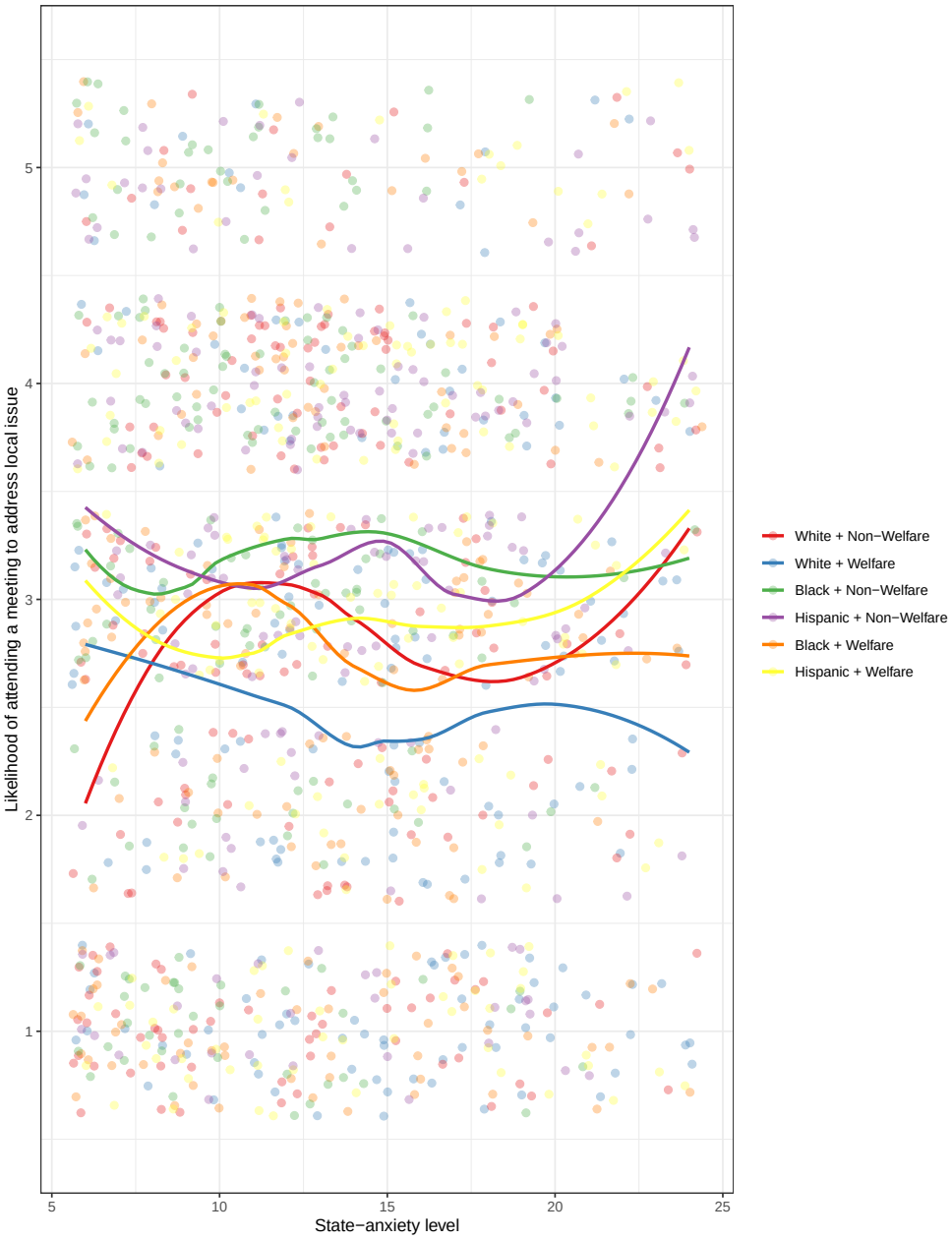

Figure A.30: Hispanic respondents most likely to attend a meeting to address a local issue at highest levels of anxiety.

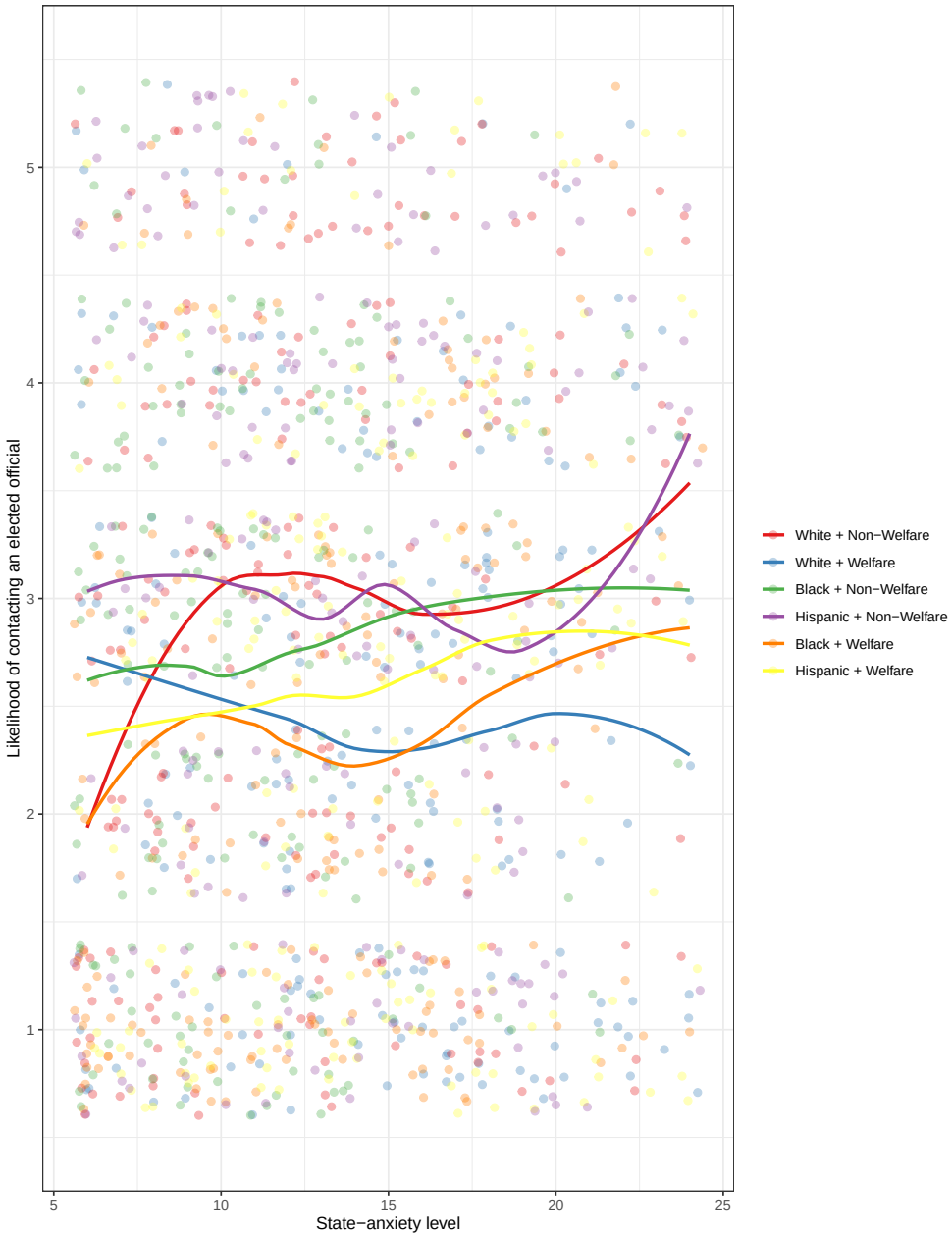

Figure A.31: Respondents not on welfare, across races, most likely to contact an elected official at highest levels of anxiety.

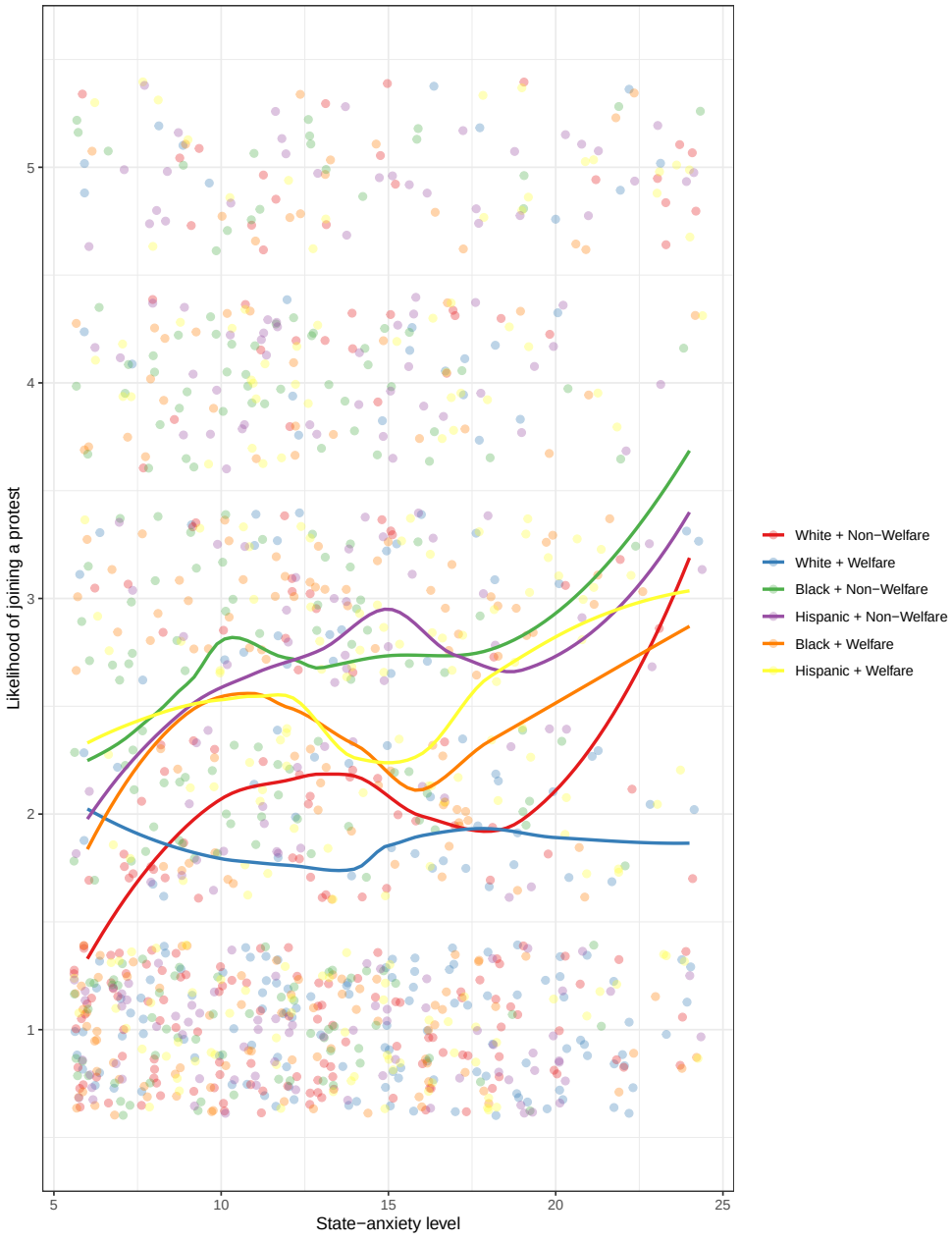

Figure A.32: All groups except Whites on welfare are more likely to join a protest at the highest levels of anxiety.

Figure A.33: Black and Hispanic respondents not on welfare most likely to participate in a boycott at highest levels of anxiety.

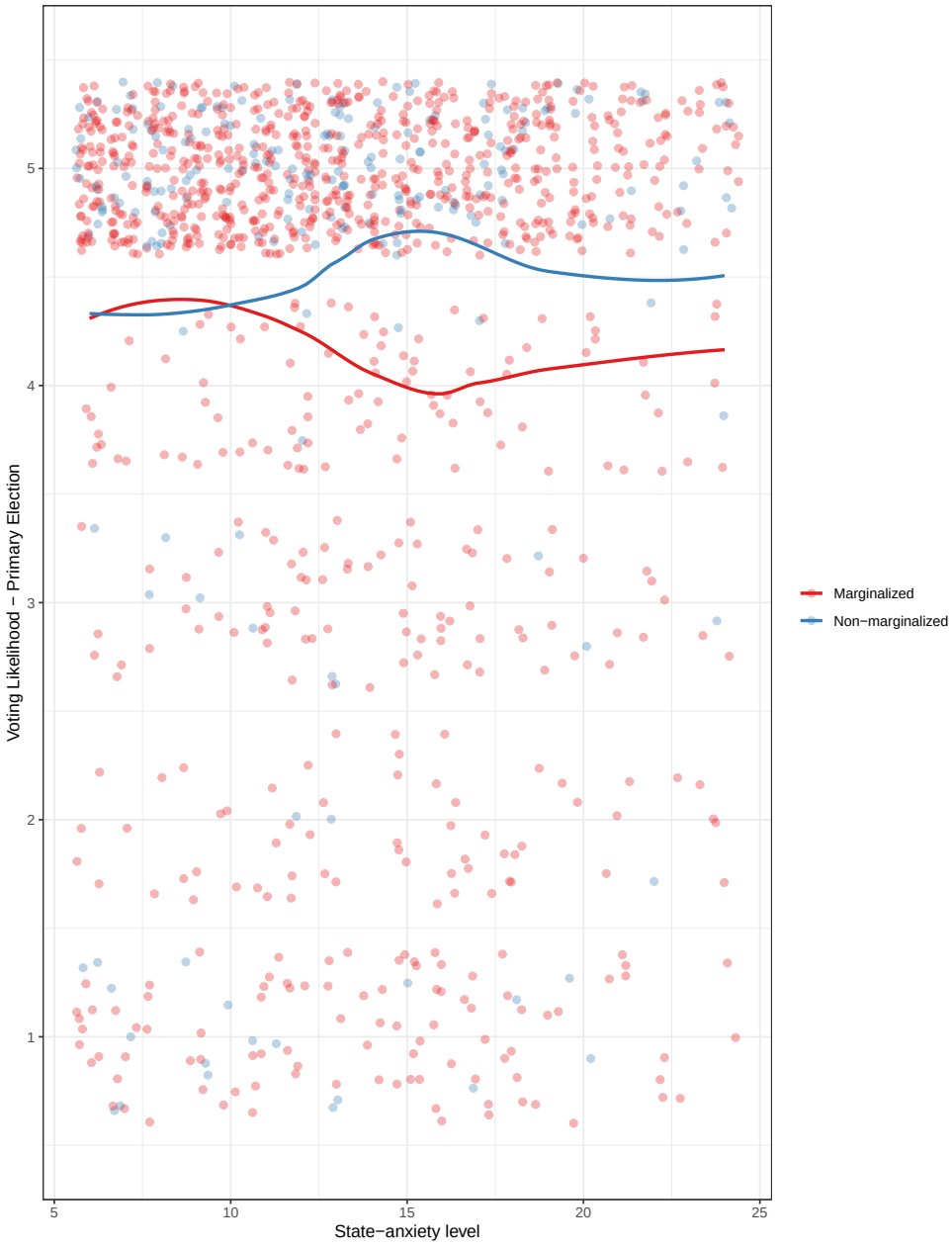

Figure A.34: Non-marginalized most likely to vote in a primary election at the highest levels of anxiety. No difference in voting likelihood at lowest level of anxiety.

Figure A.42 through Figure A.49 separate subjects into degree of marginalization.

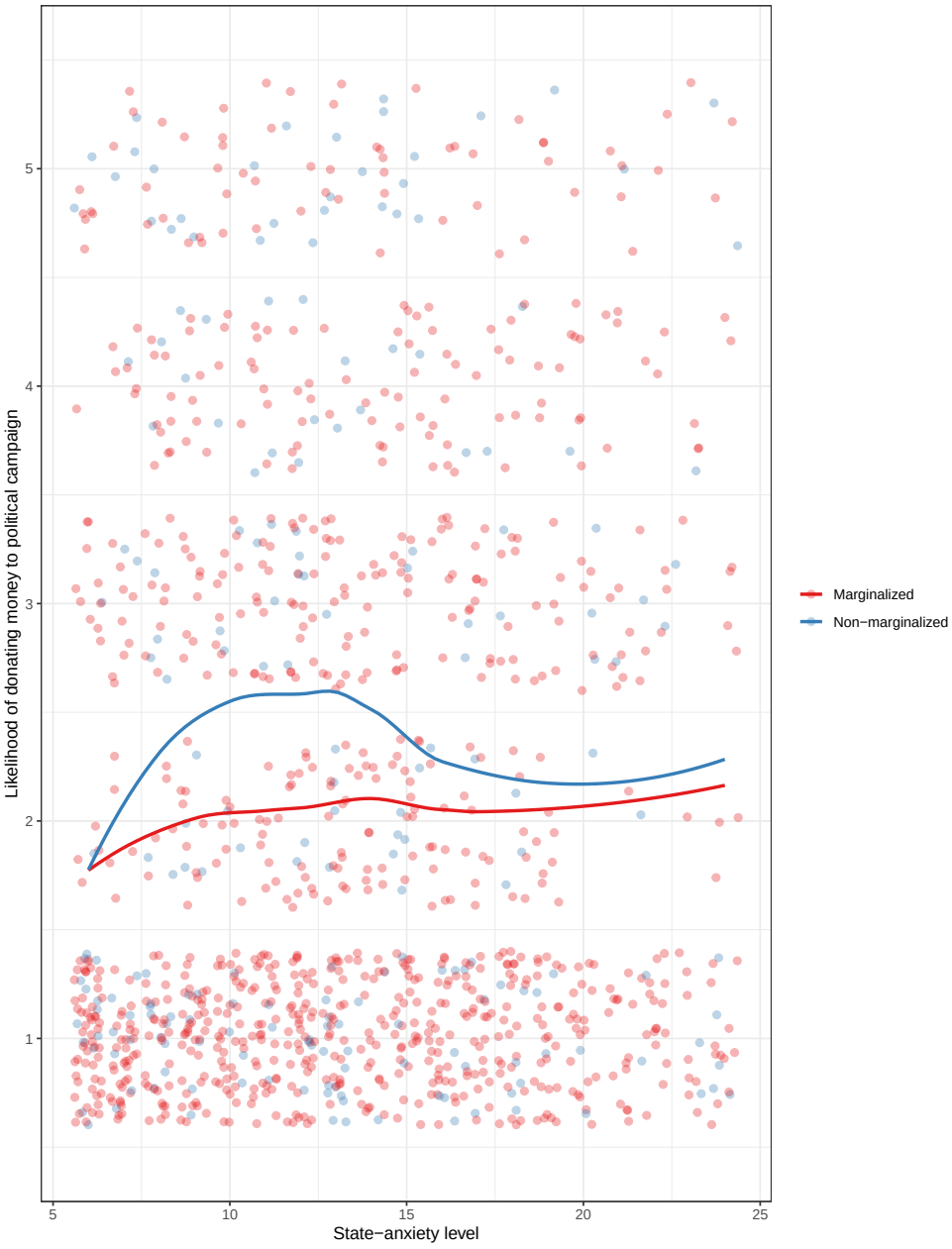

Figure A.35: Non-marginalized slightly more likely to donate money to a political campaign at the highest levels of anxiety.

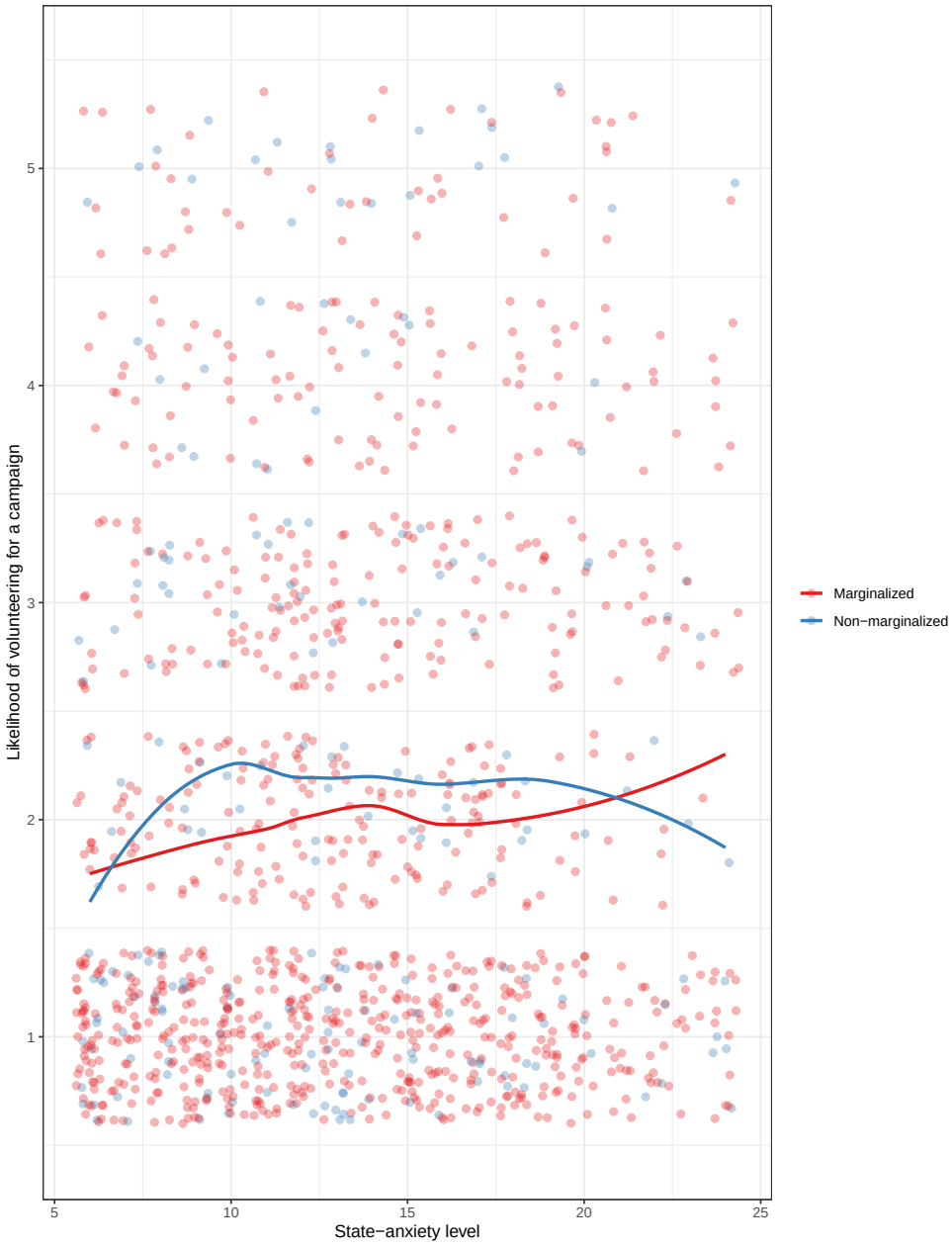

Figure A.36: Weak relationship between likelihood of volunteering for a campaign and level of anxiety.

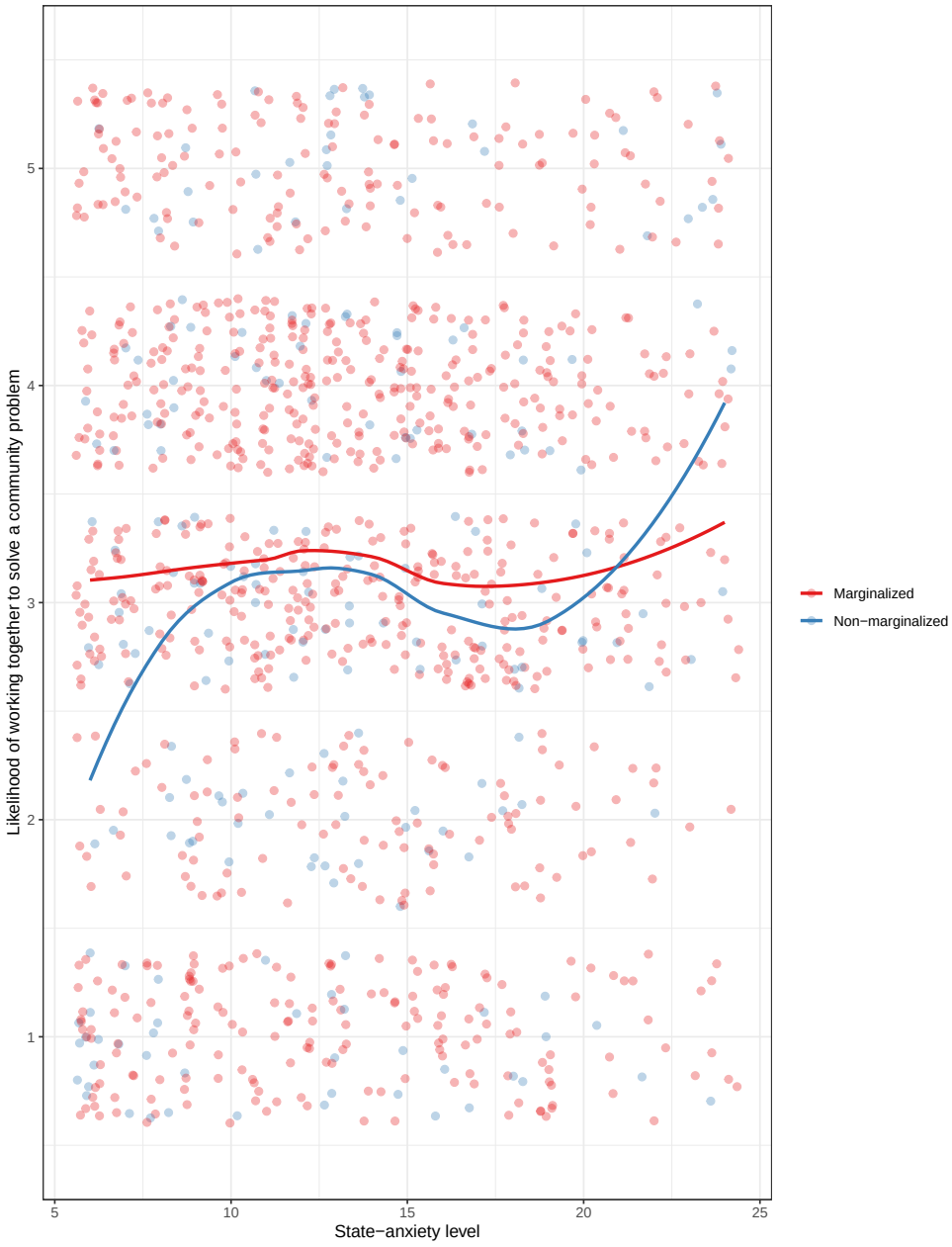

Figure A.37: Non-marginalized most likely to work with others to solve a local community problem at highest levels of anxiety.

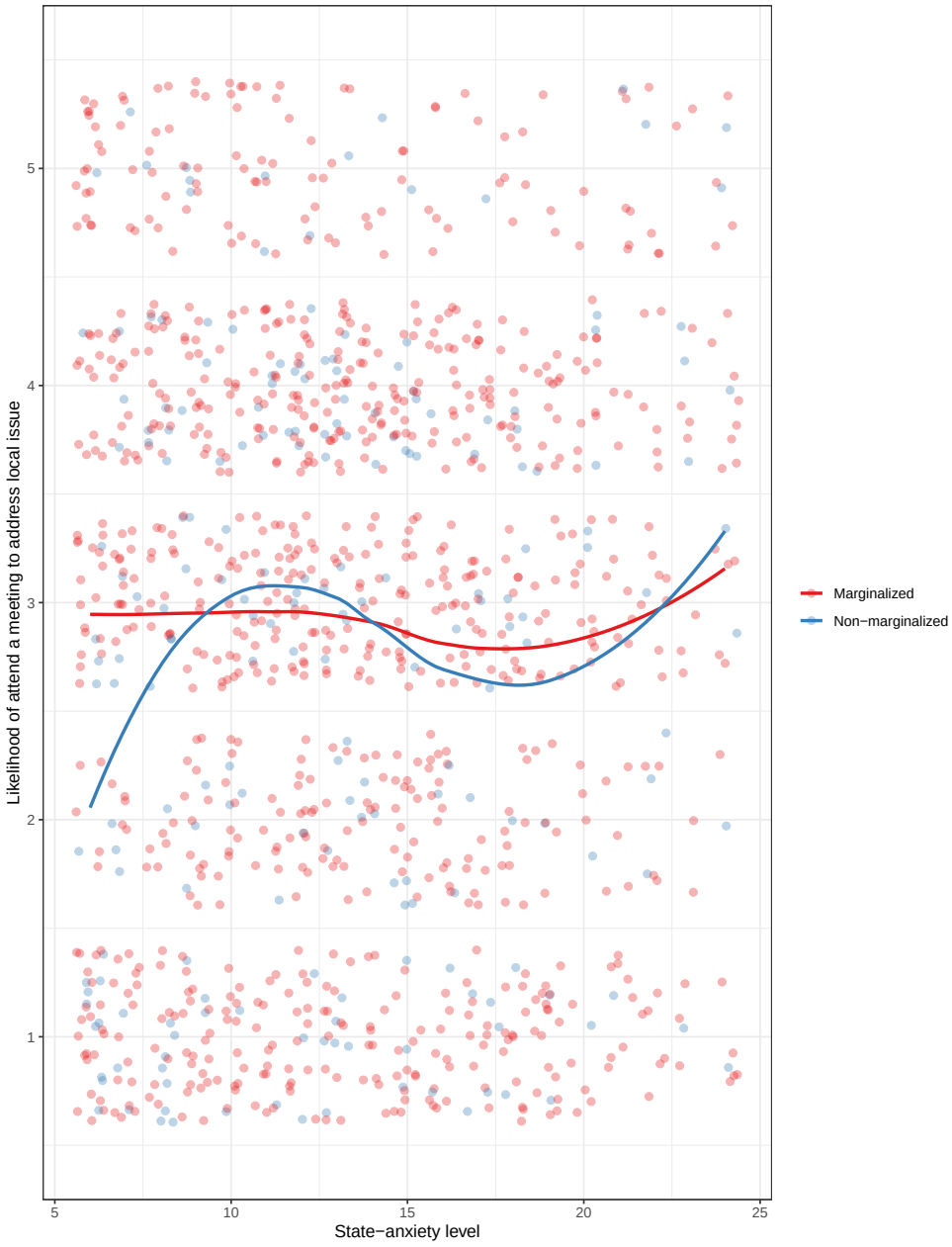

Figure A.38: Weak relationship between likelihood of likelihood of attending a meeting to address a local issue and level of anxiety.

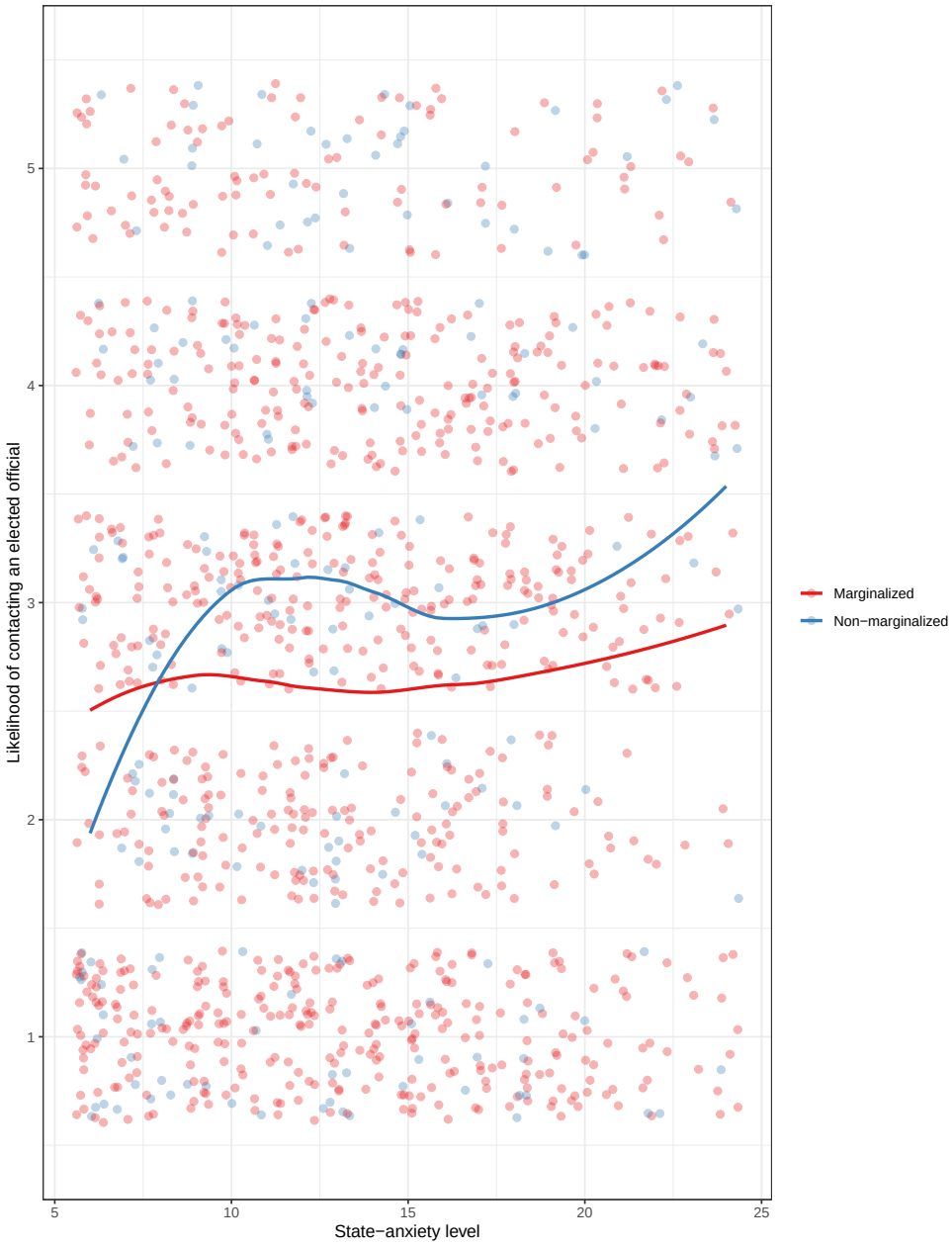

Figure A.39: Non-marginalized more likely to contact an elected official at most levels of anxiety.

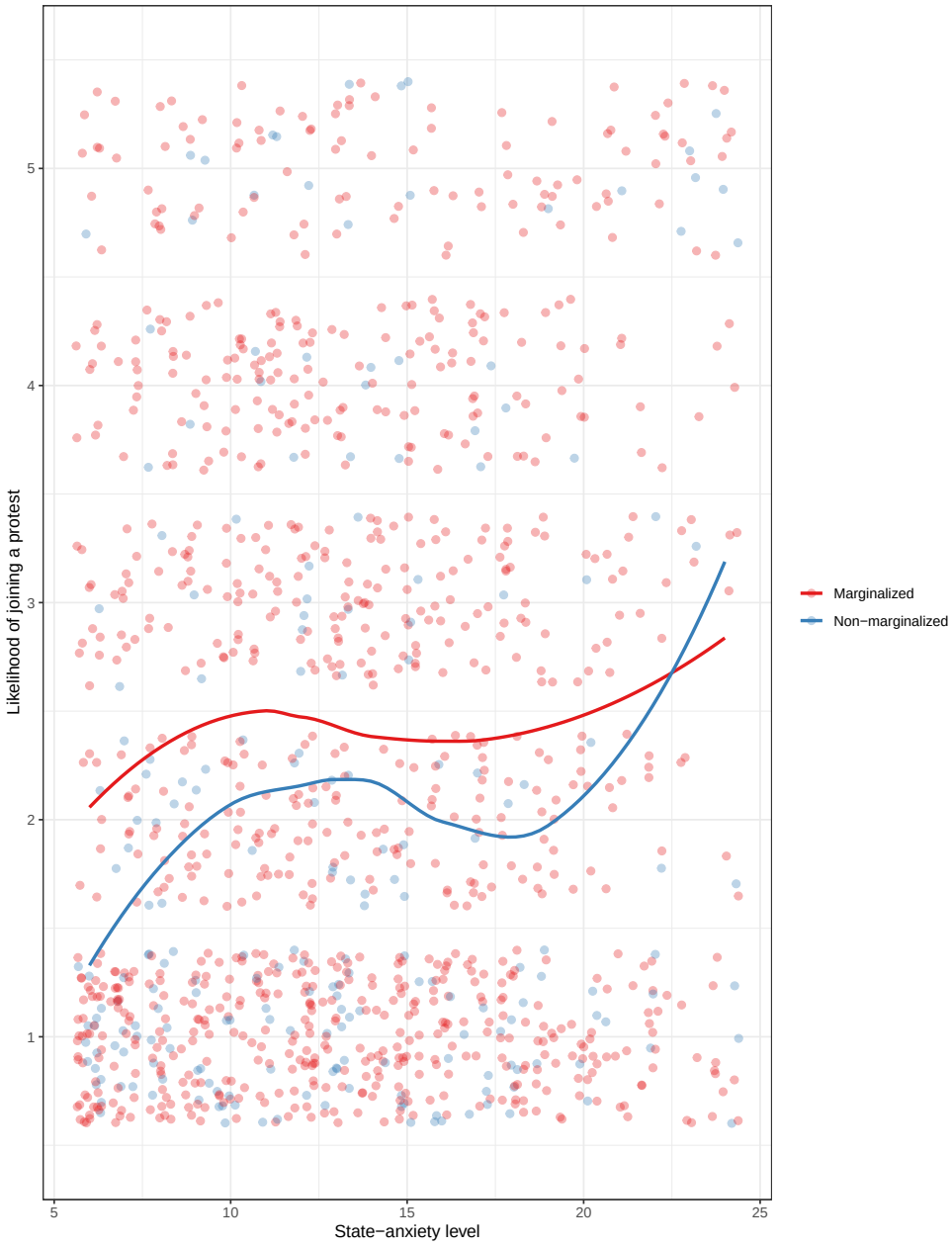

Figure A.40: Marginalized are more likely to join a protest at most levels of anxiety except for the most extreme level.

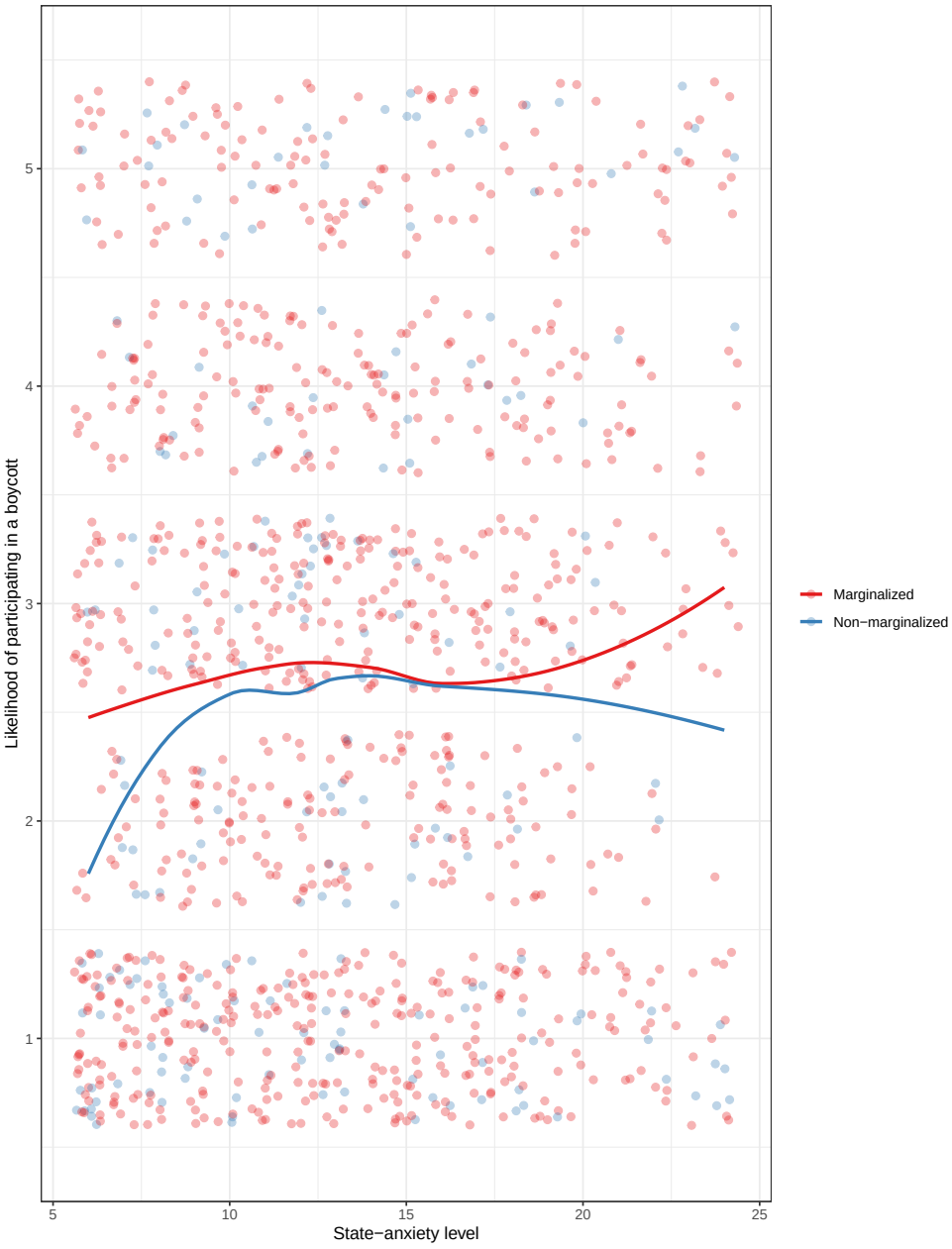

Figure A.41: Marginalized more likely to participate in a boycott at all levels of anxiety. Relationship most pronounced at lowest and highest anxiety levels.

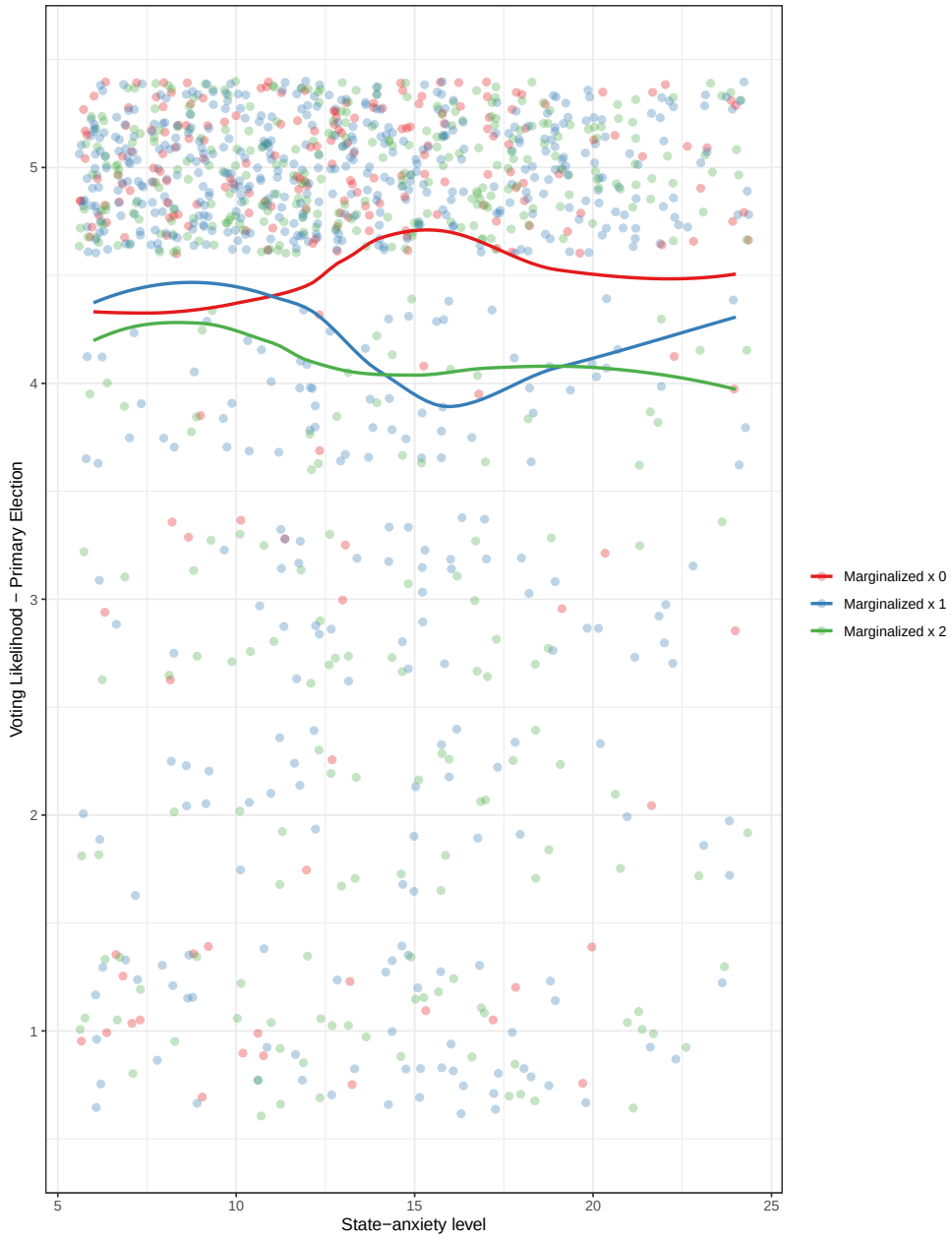

Figure A.42: Intersectionally marginalized respondents (marginalized x2) least likely to vote in a primary election at the highest level of anxiety.

Figure A.50 through Figure A.57 separate subjects into a dummy variable for whether they are intersectionally marginalization or not.

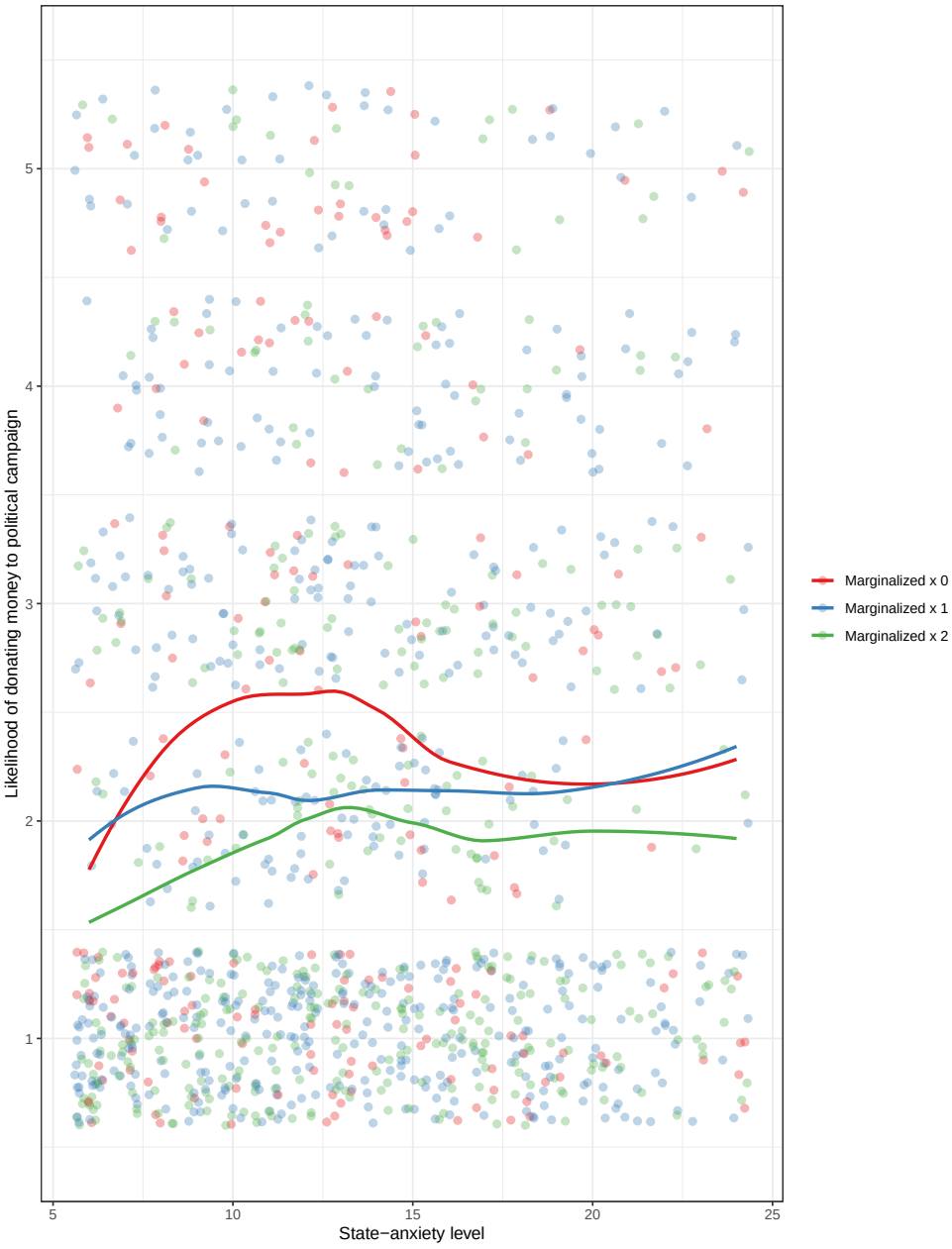

Figure A.43: Intersectionally marginalized respondents (marginalized x2) least likely to donate money to a political campaign at all levels of anxiety.

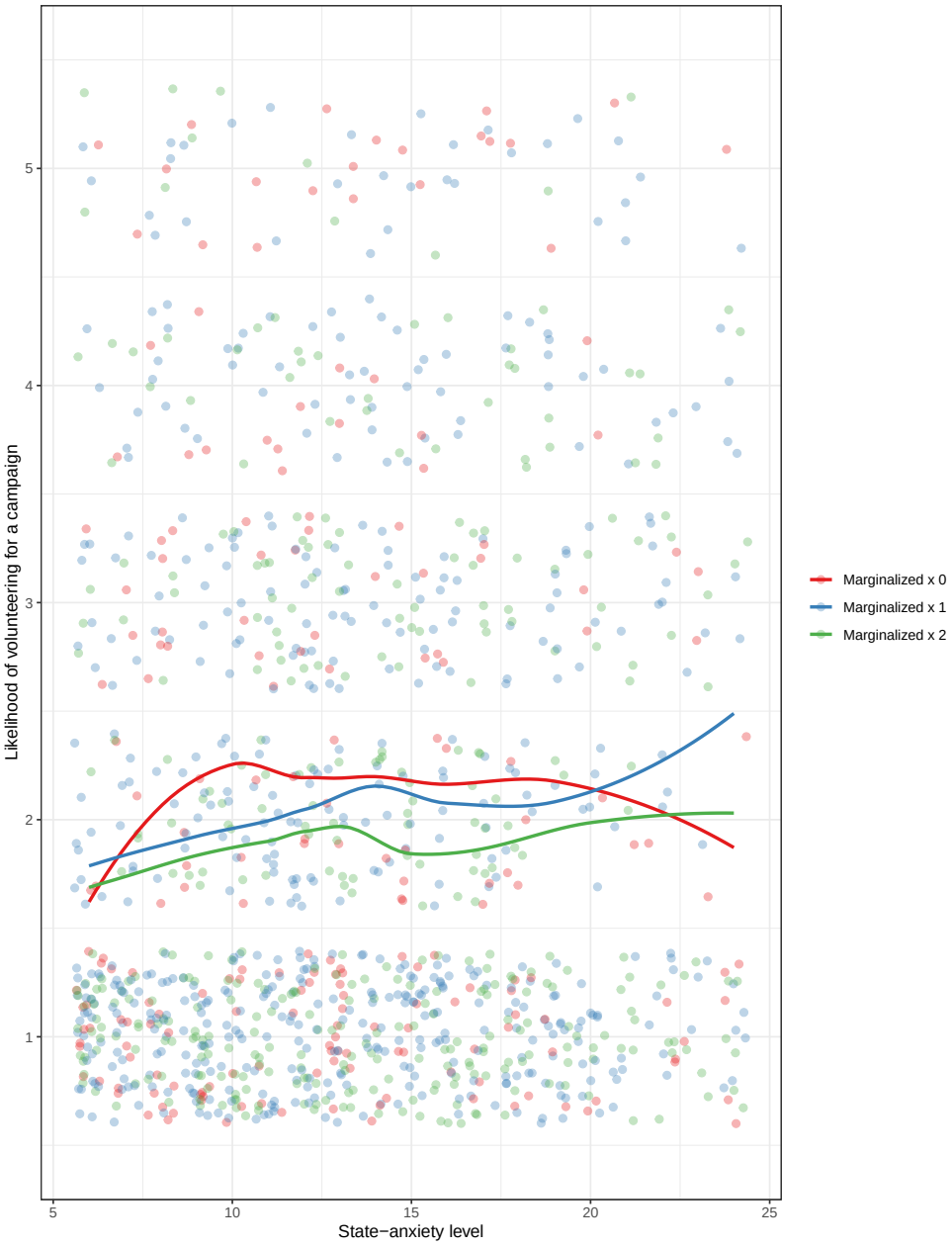

Figure A.44: Singularly marginalized respondents (marginalized x1) most likely to volunteer for a campaign at the highest level of anxiety.

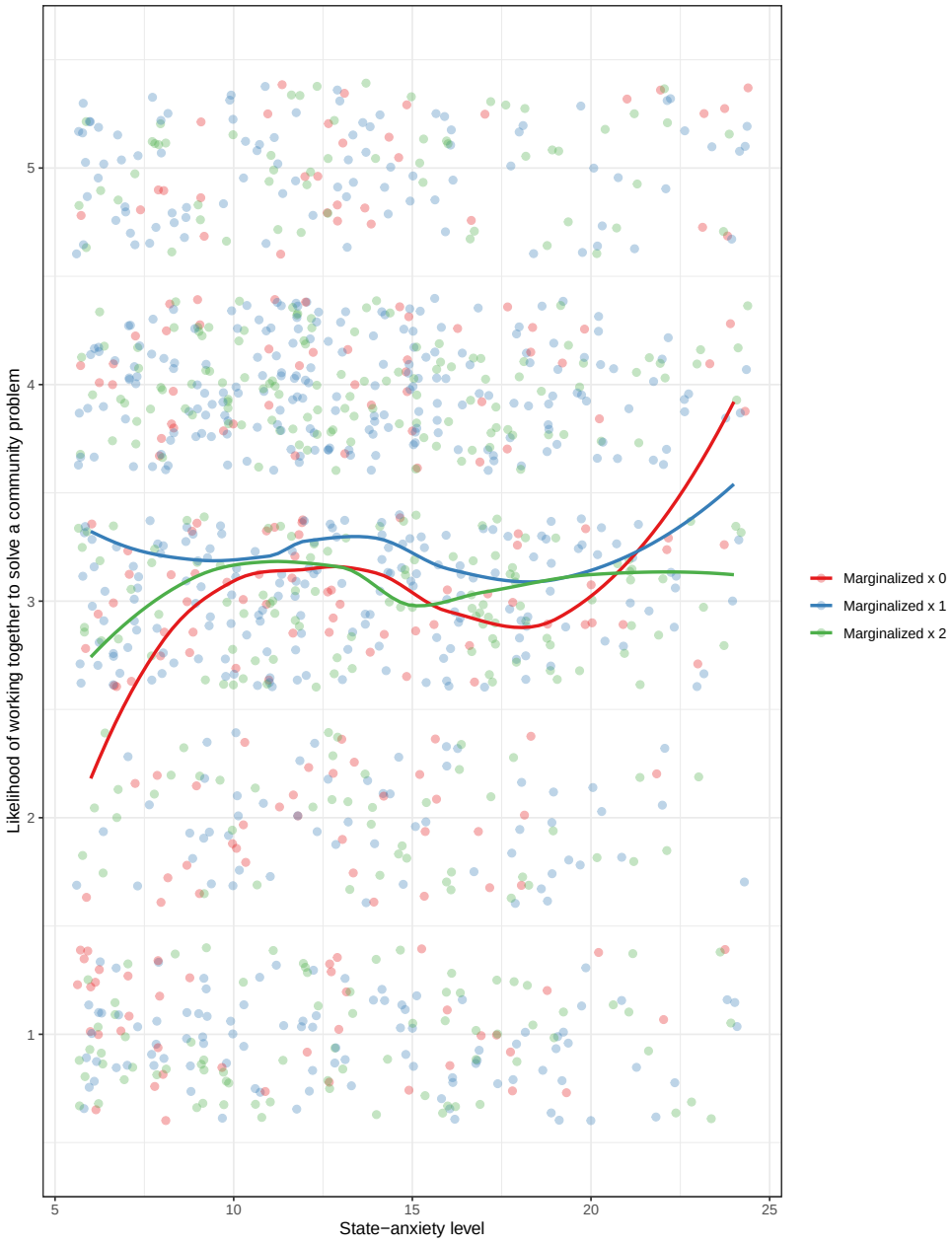

Figure A.45: Non-marginalized most likely to work together to solve a community problem at highest level of anxiety.

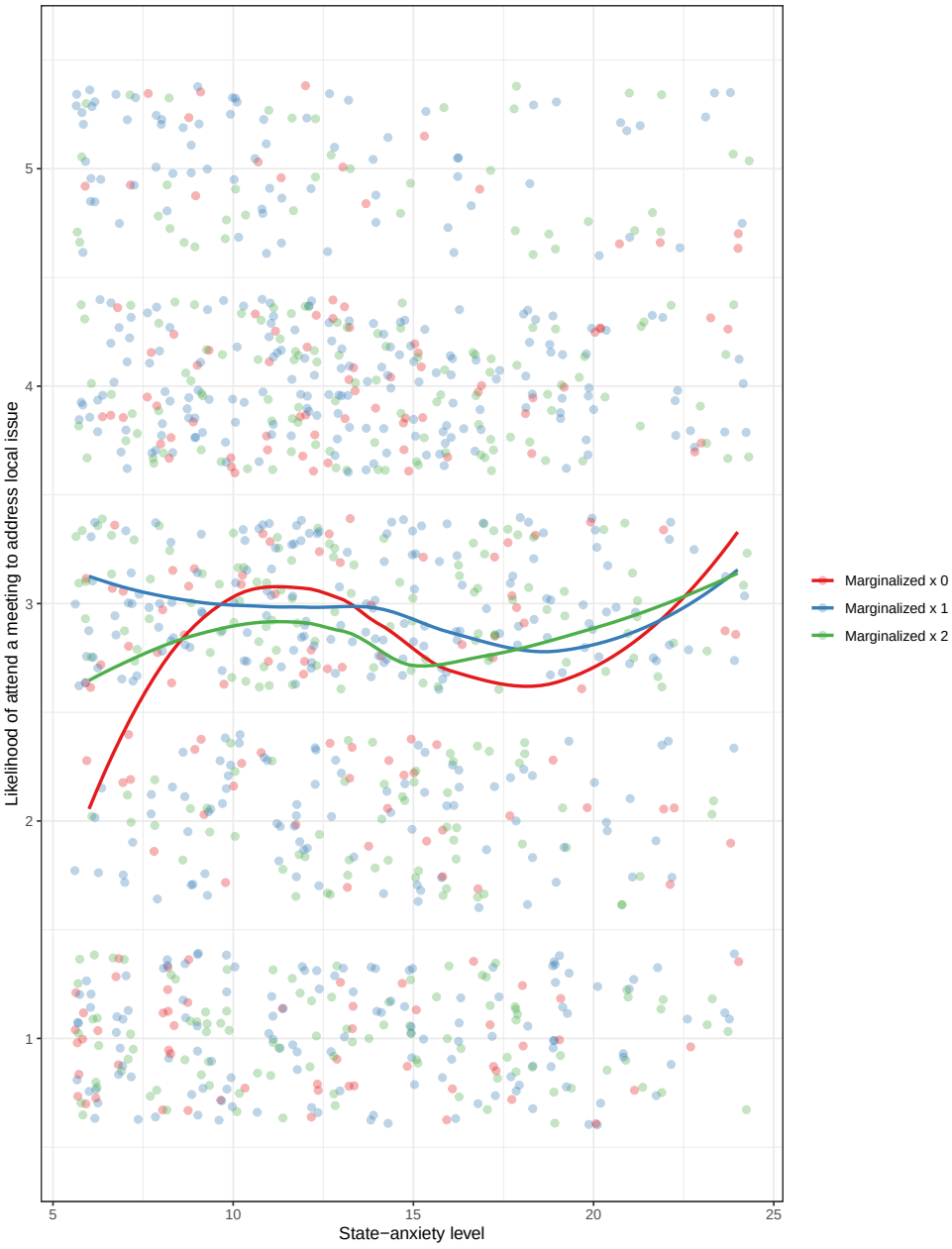

Figure A.46: Non-marginalized slightly more likely to attend a meeting to address a local issue at highest level of anxiety.

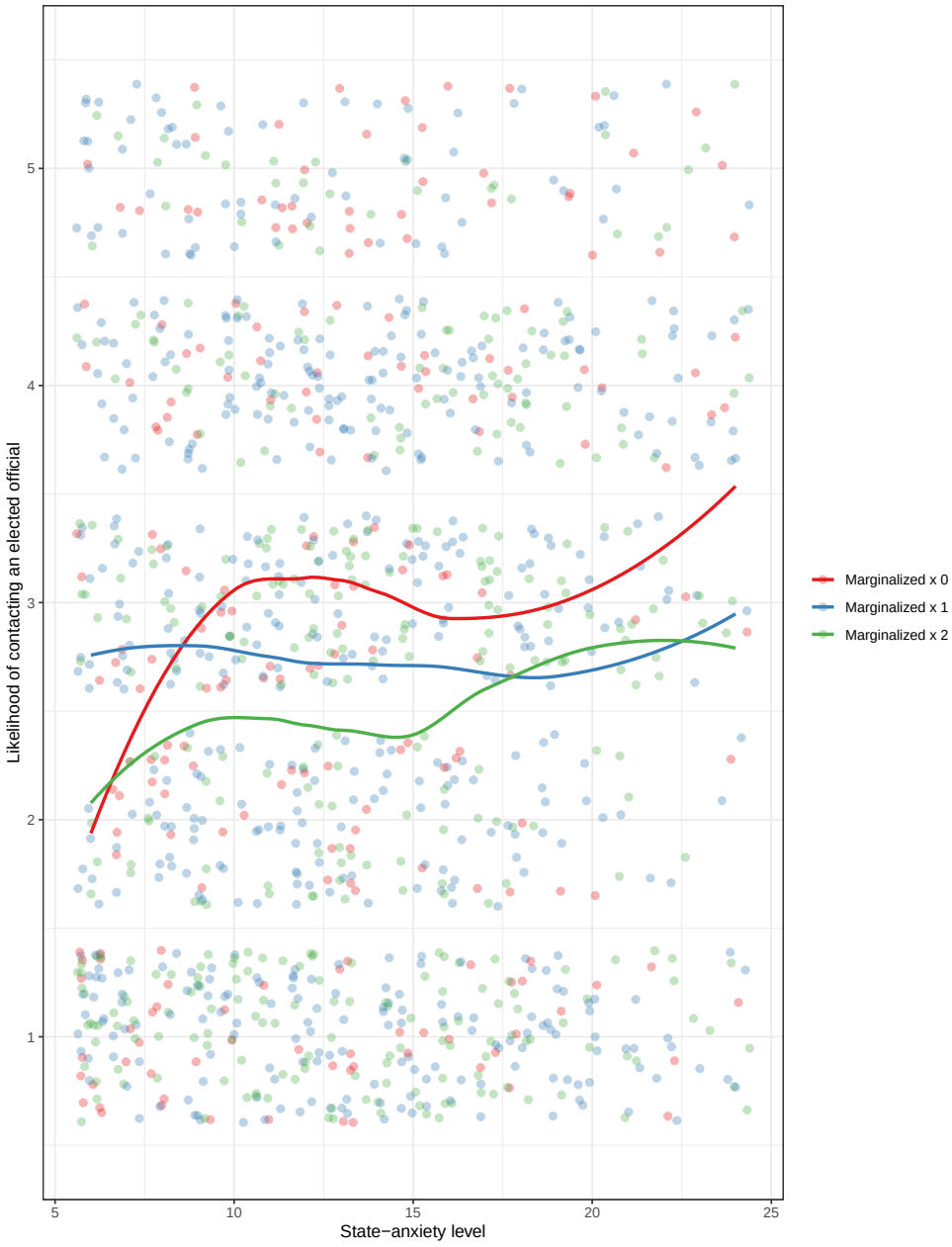

Figure A.47: Non-marginalized more likely to contact an elected official at all levels of anxiety except the lowest level.

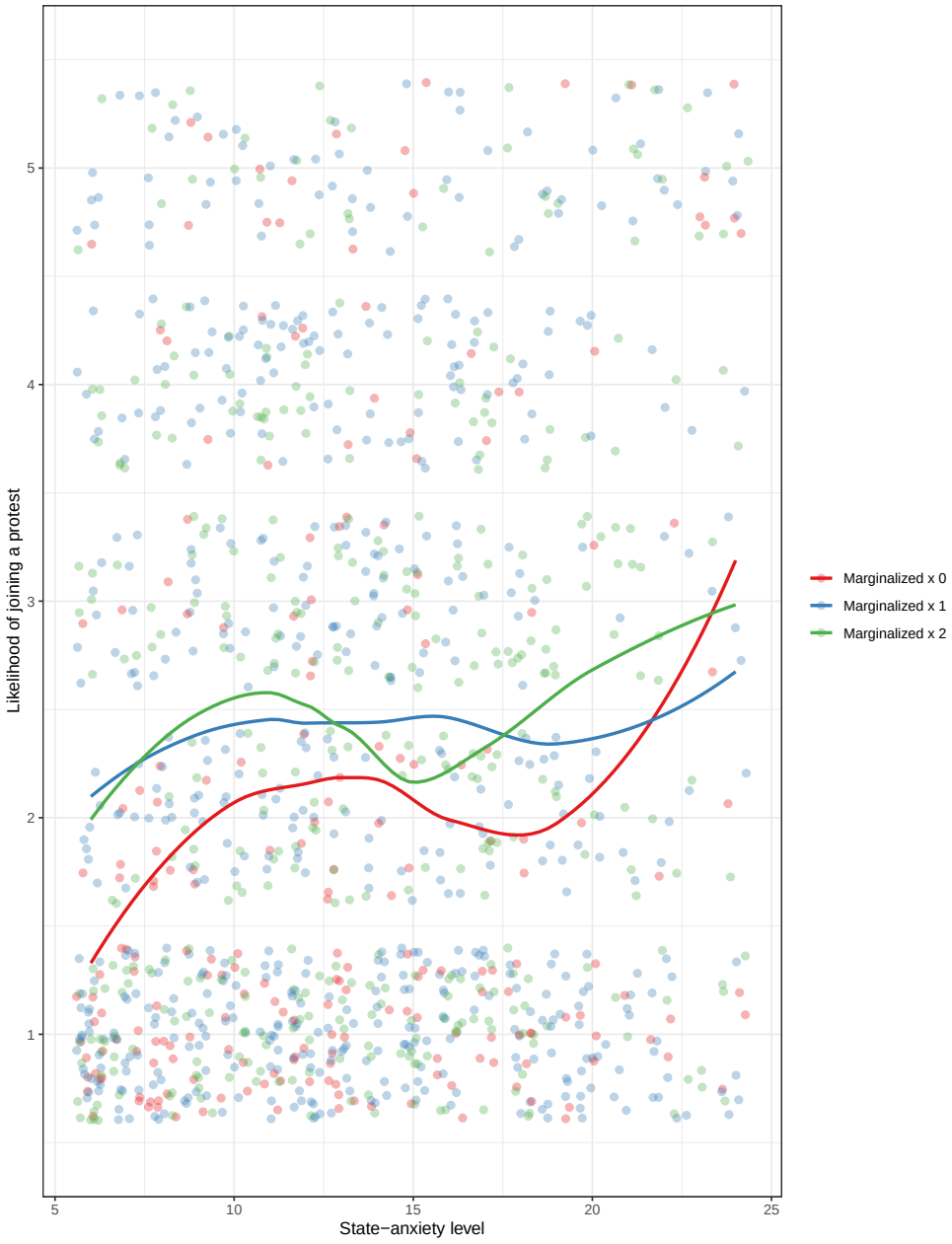

Figure A.48: Non-marginalized slightly more likely to join a protest at highest level of anxiety.

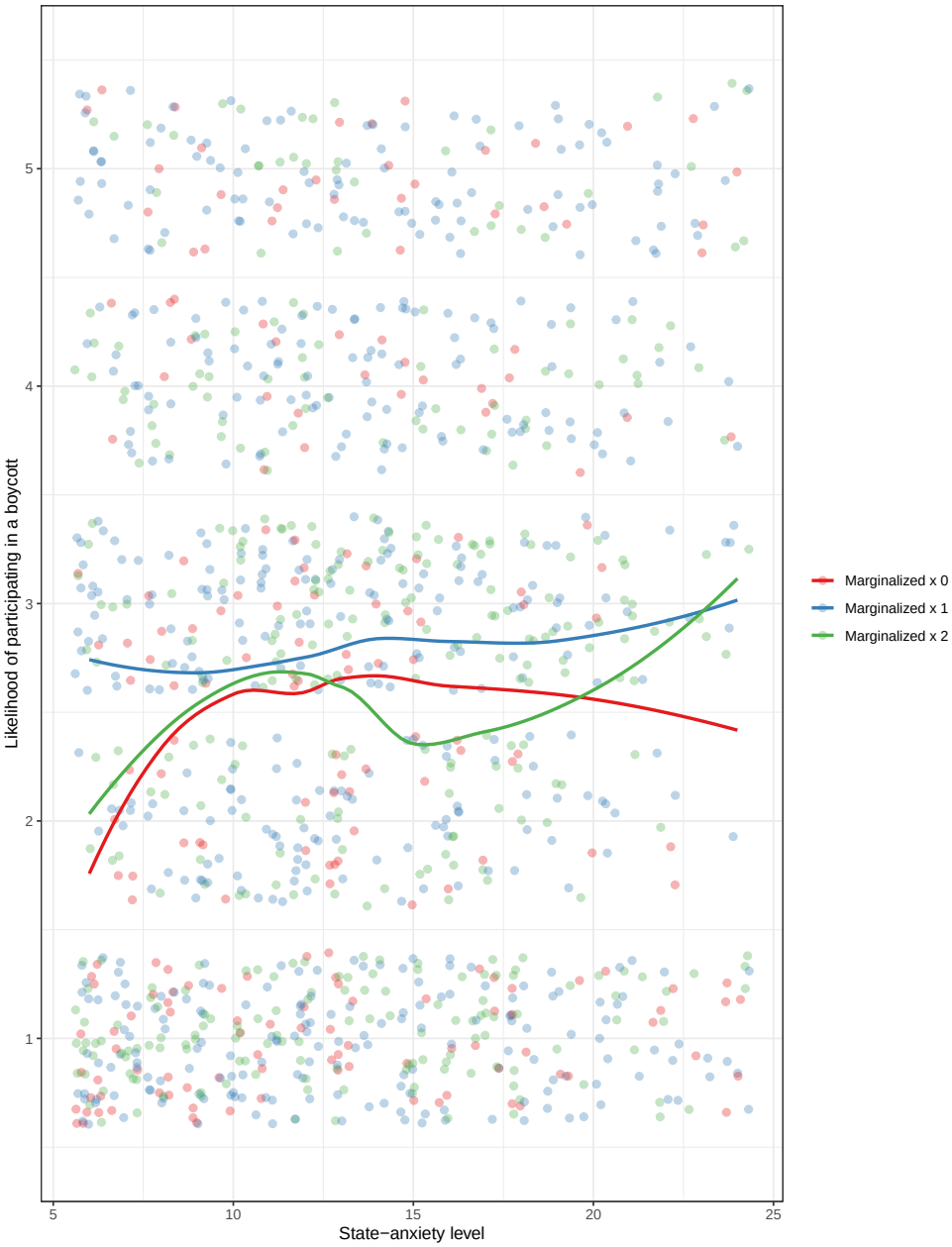

Figure A.49: Intersectionally marginalized respondents (marginalized x2) slightly more likely to participate in a boycott at highest level of anxiety.

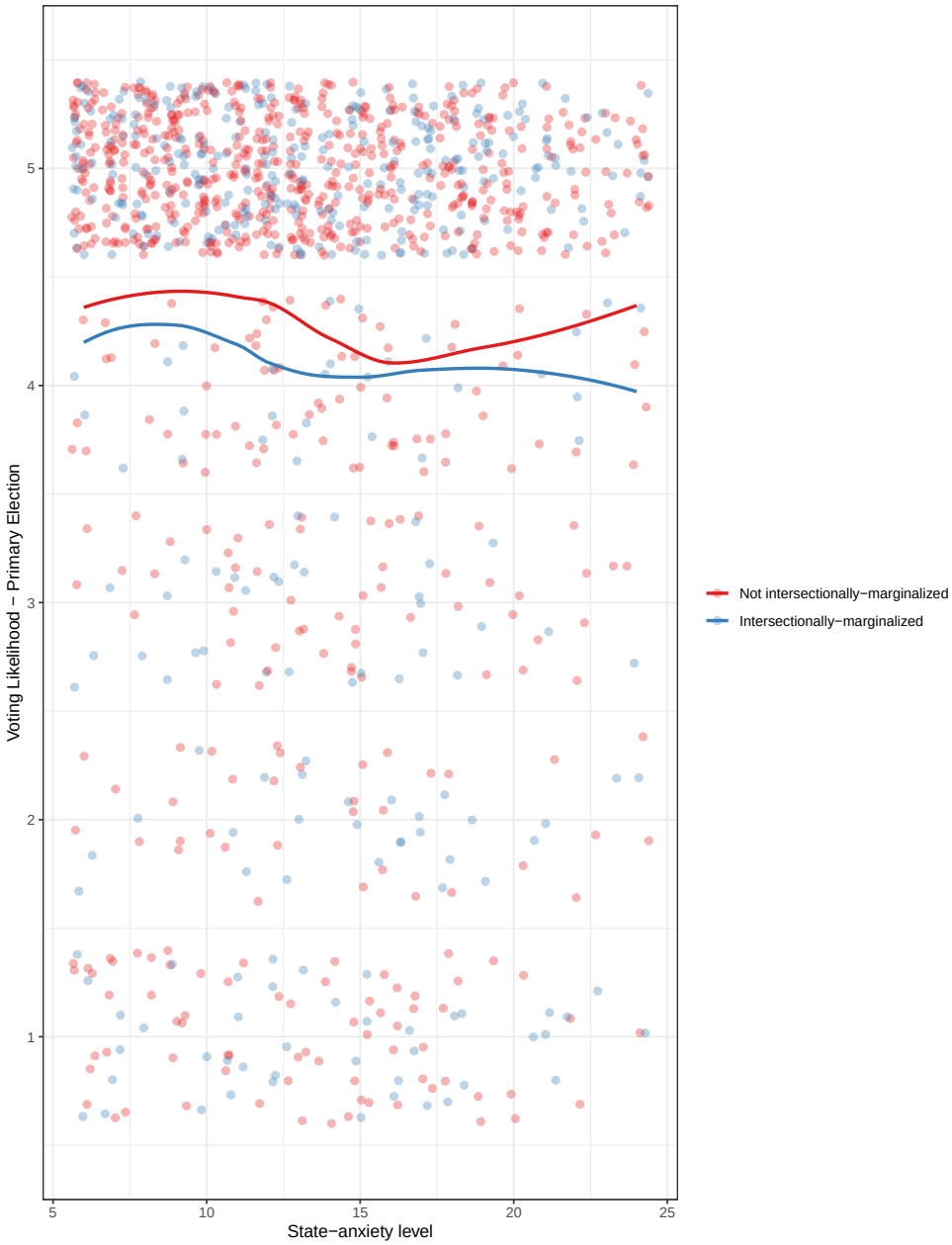

Figure A.50: Not intersectionally-marginalized respondents more likely to vote in primary elections at all levels of anxiety.

Figure A.58 through Figure A.65 separate subjects into the treatment group or control group, whichever they were randomly assigned to.

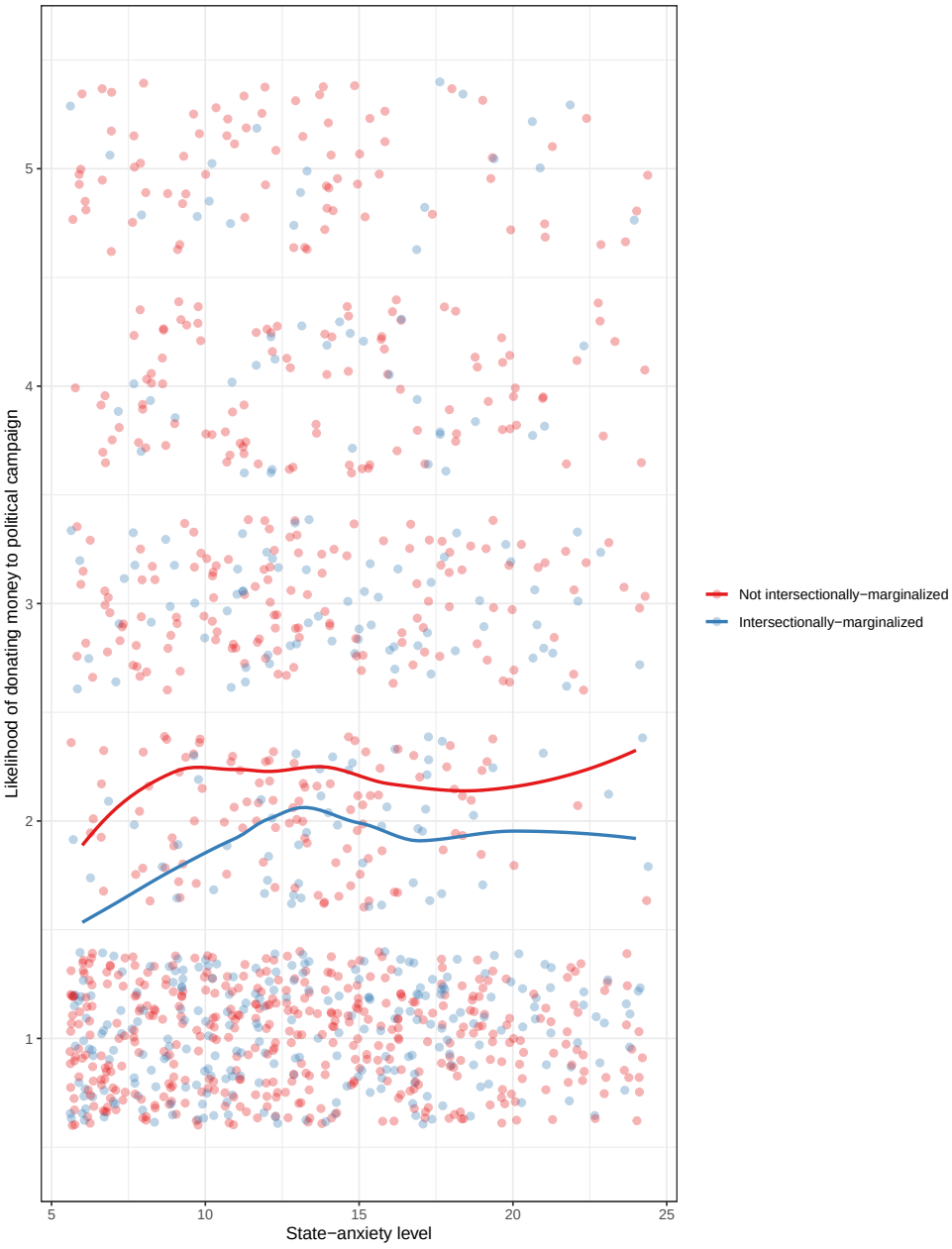

Figure A.51: Not intersectionally-marginalized respondents more likely to donate money to political campaigns at all levels of anxiety.

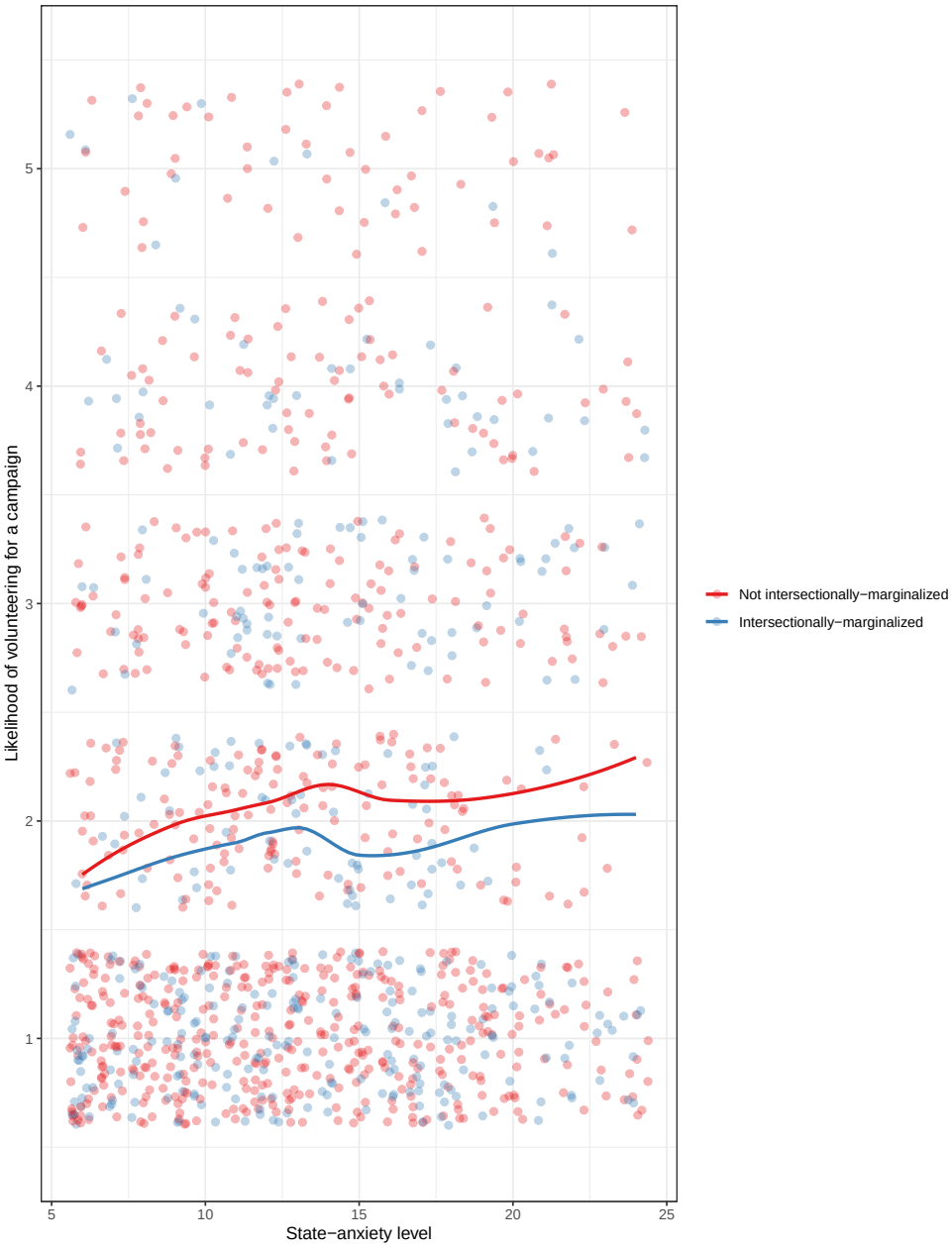

Figure A.52: Not intersectionally-marginalized respondents more likely to volunteer for a campaign at all levels of anxiety.

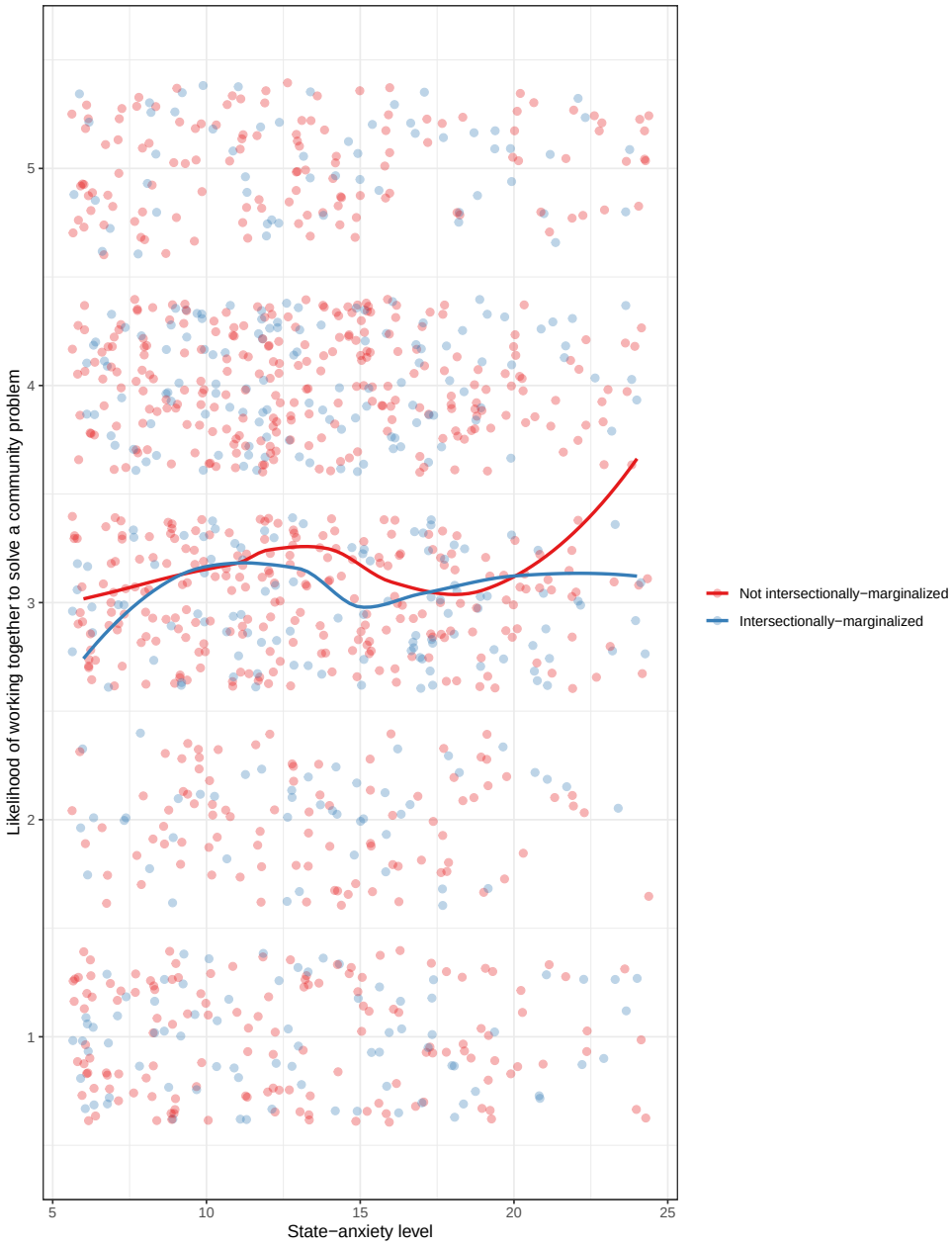

Figure A.53: Not intersectionally-marginalized respondents more likely to work together to solve a community problem at highest level of anxiety.

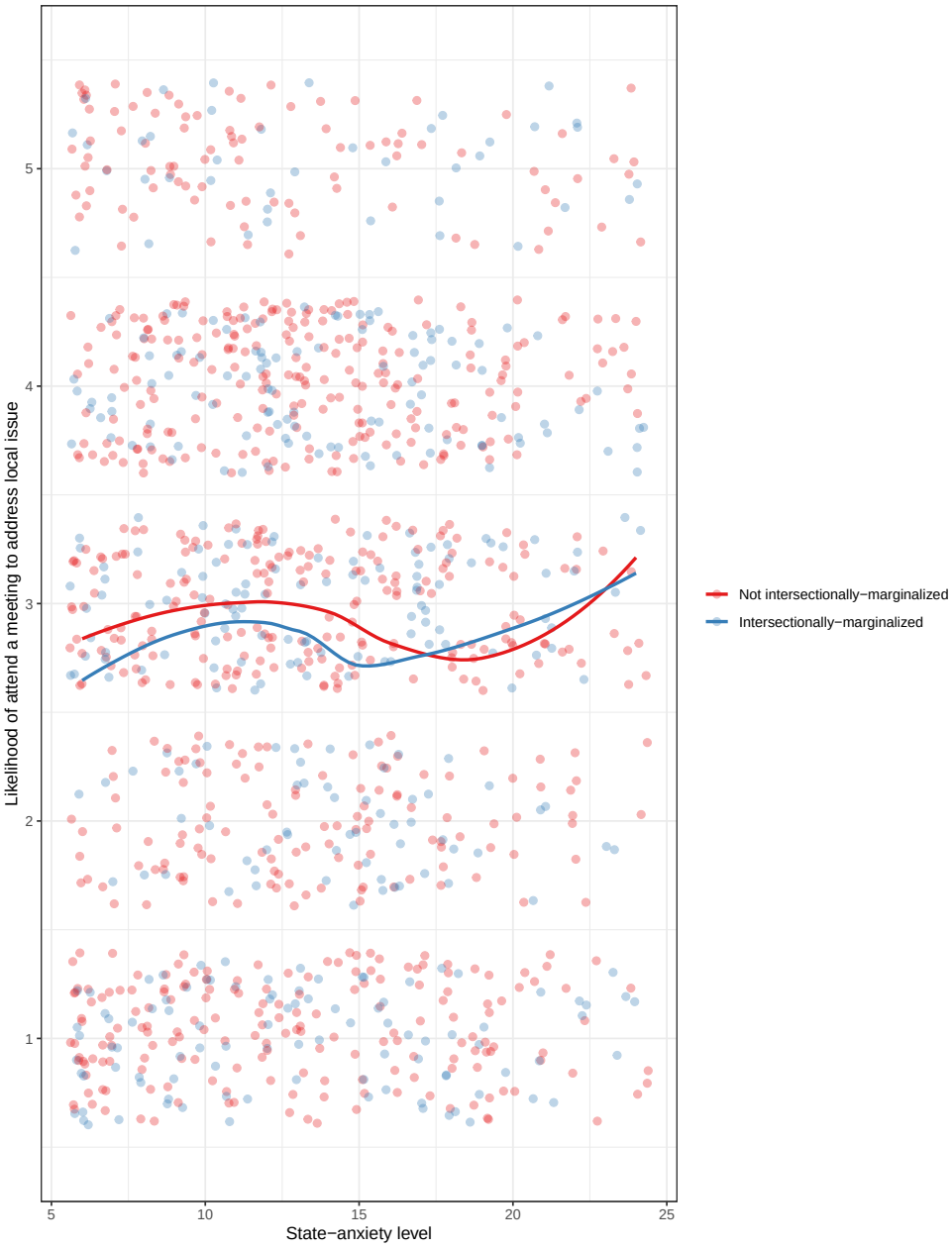

Figure A.54: Weak relationship for those intersectionally marginalized or not between likelihood of attending a meeting to address a local issue and level of anxiety.

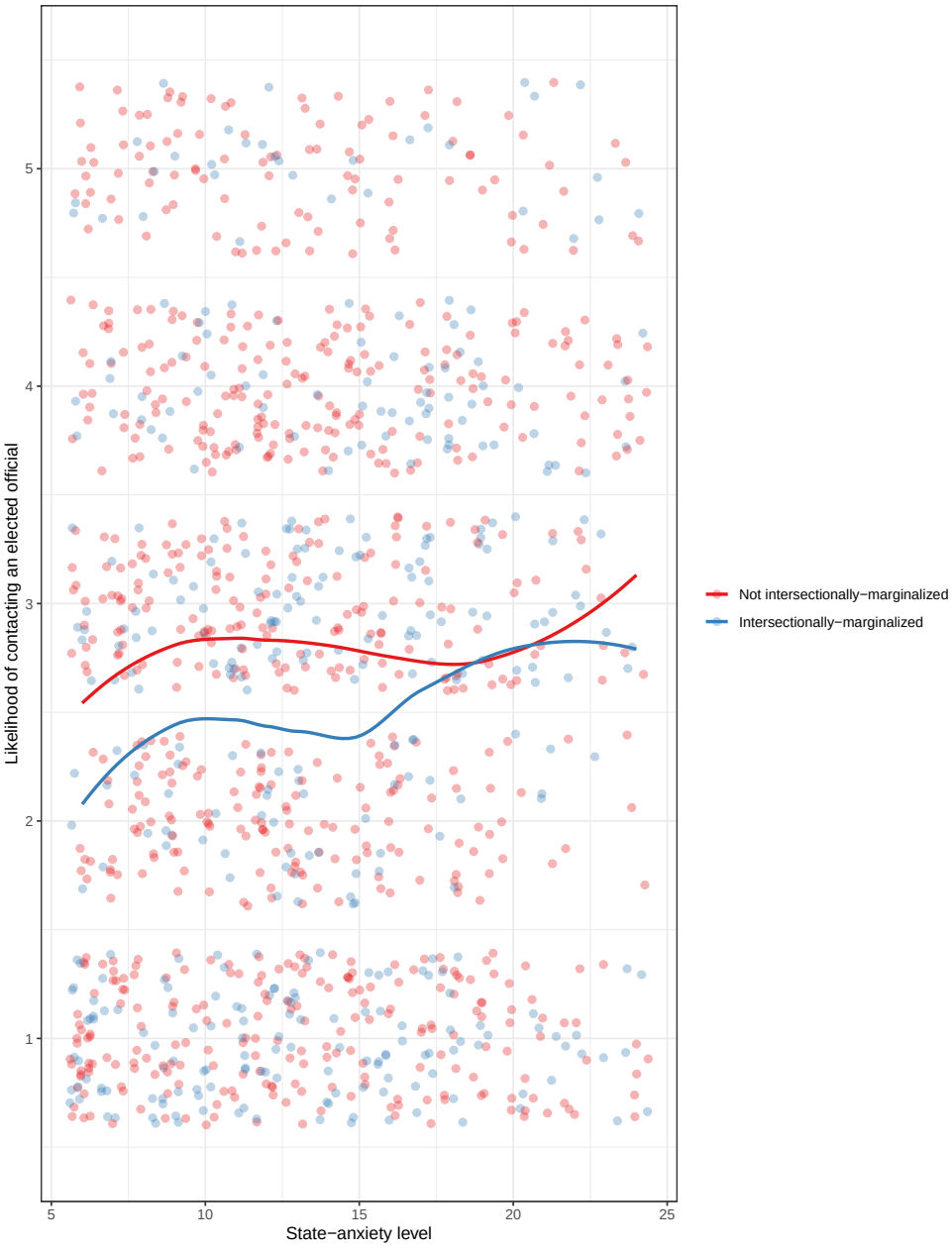

Figure A.55: Not intersectionally-marginalized respondents more likely to contact an elected official at nearly all levels of anxiety.

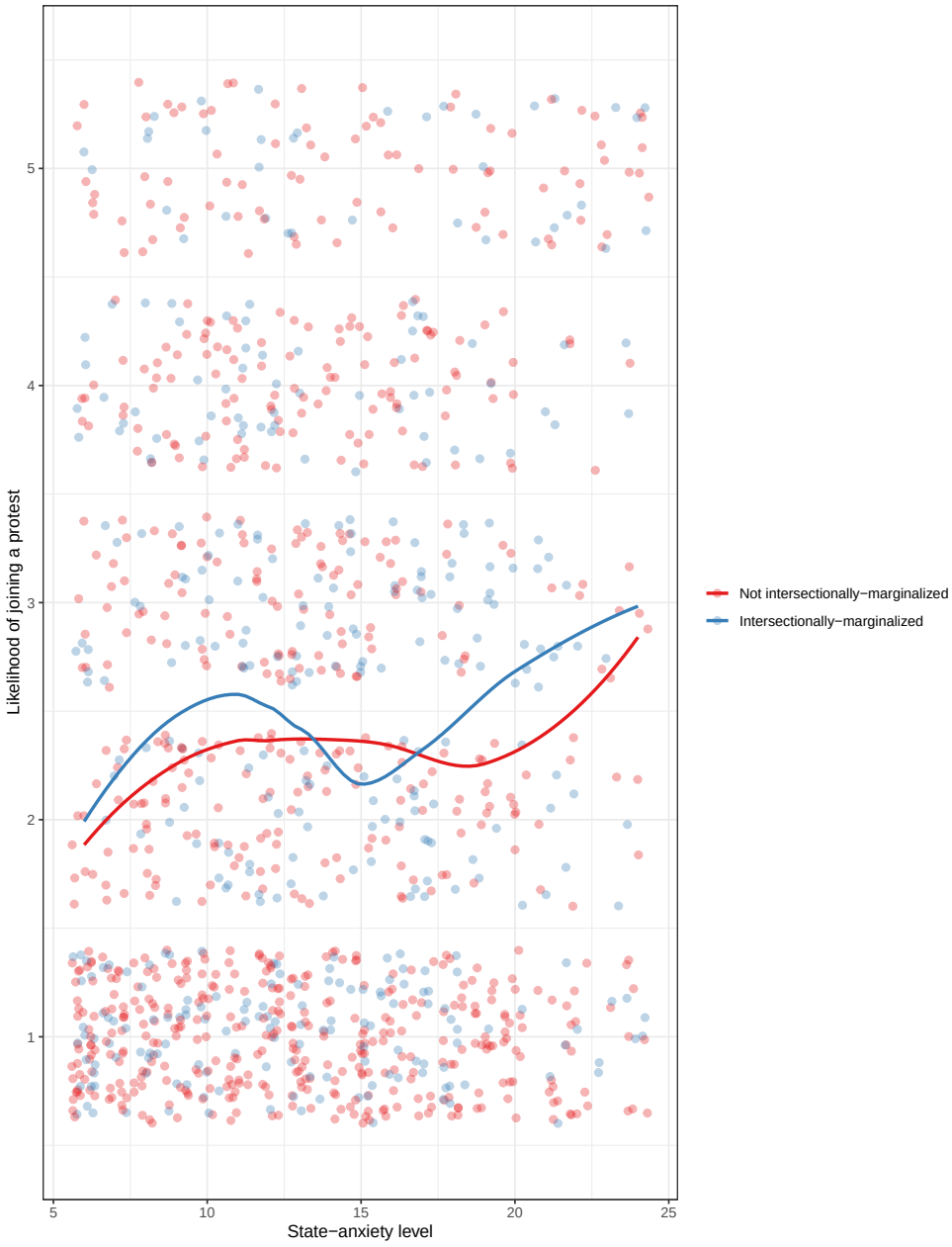

Figure A.56: Intersectionally-marginalized respondents more likely to join a protest at highest level of anxiety.

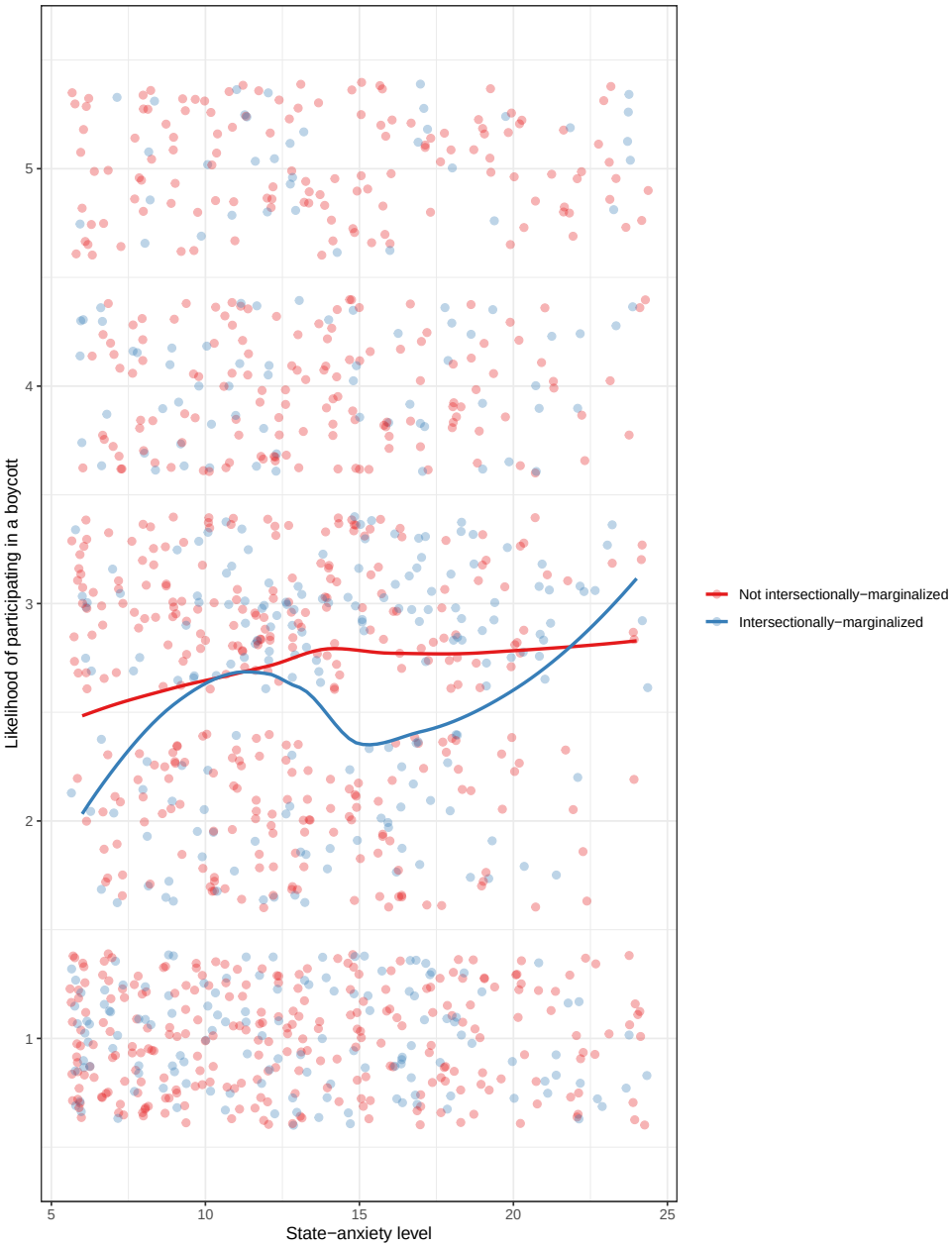

Figure A.57: Intersectionally-marginalized respondents more likely to participate in a boycott at highest level of anxiety.

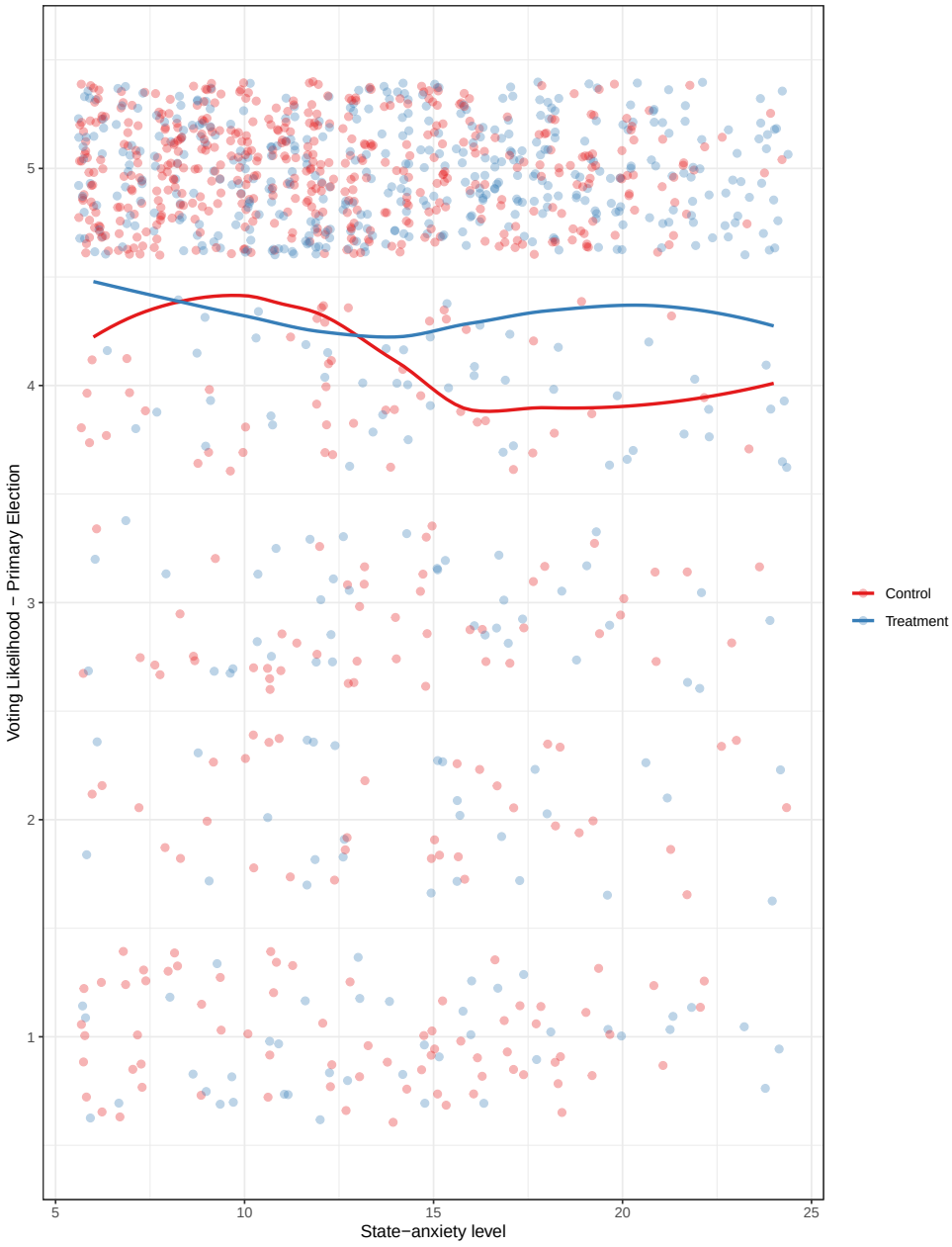

Figure A.58: Respondents randomly assigned to treatment condition more likely to vote in primary election at highest level of anxiety.

Figure A.66 through Figure A.73 separate subjects into a dummy variable for whether they are a welfare recipient or not.

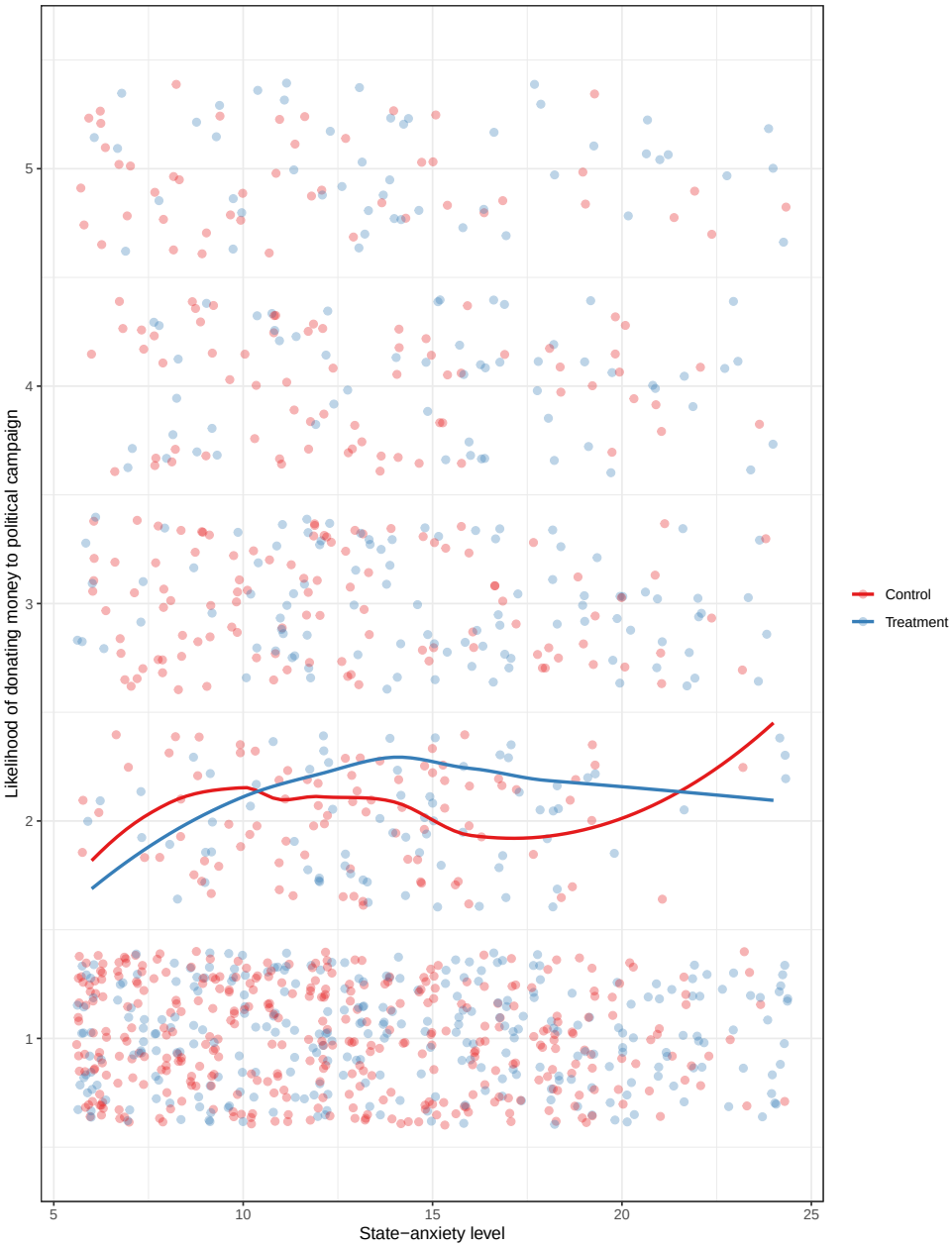

Figure A.59: Respondents randomly assigned to treatment condition slightly more likely to donate money to a political campaign at highest level of anxiety.

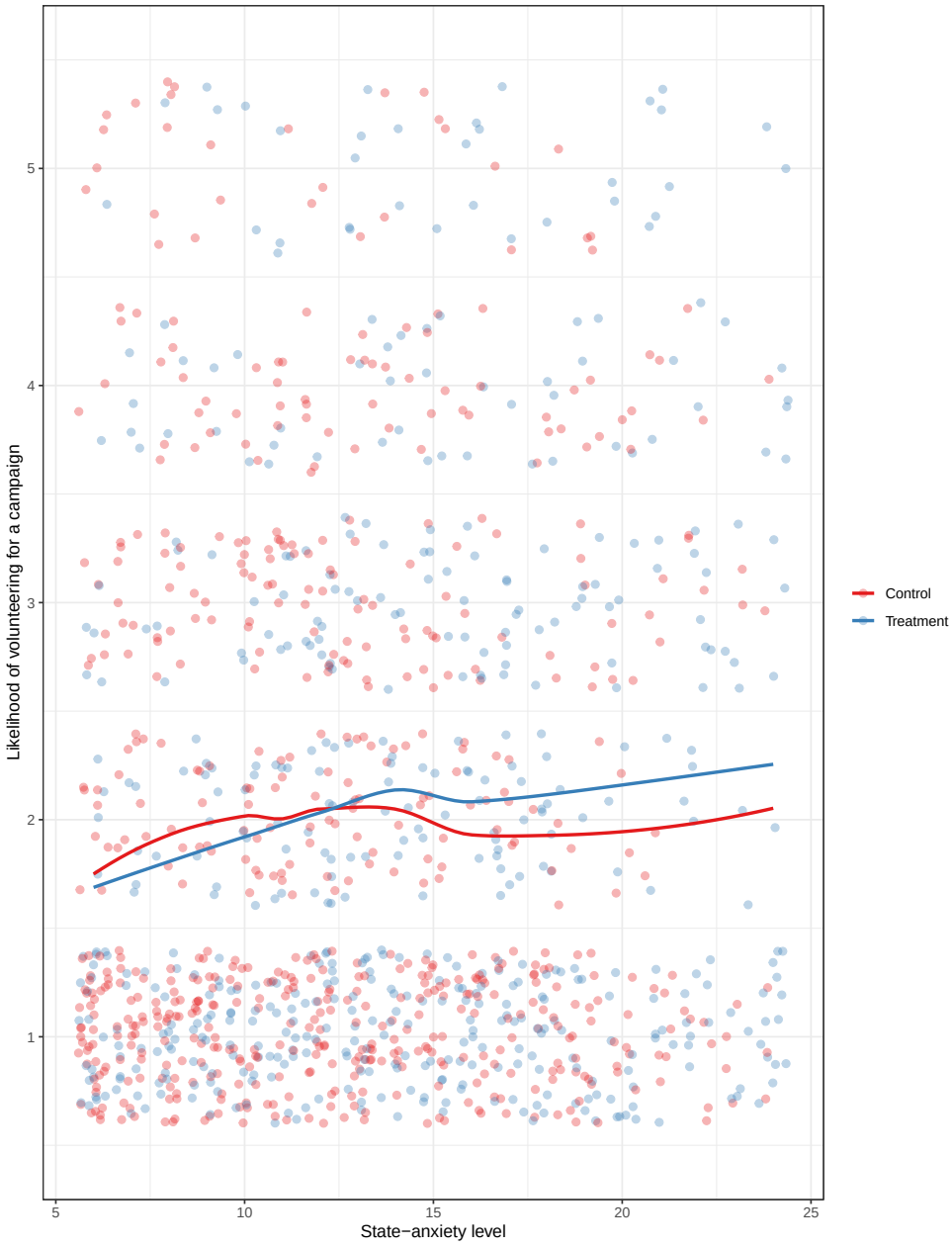

Figure A.60: Respondents randomly assigned to treatment condition slightly more likely to volunteer for a campaign at highest level of anxiety.

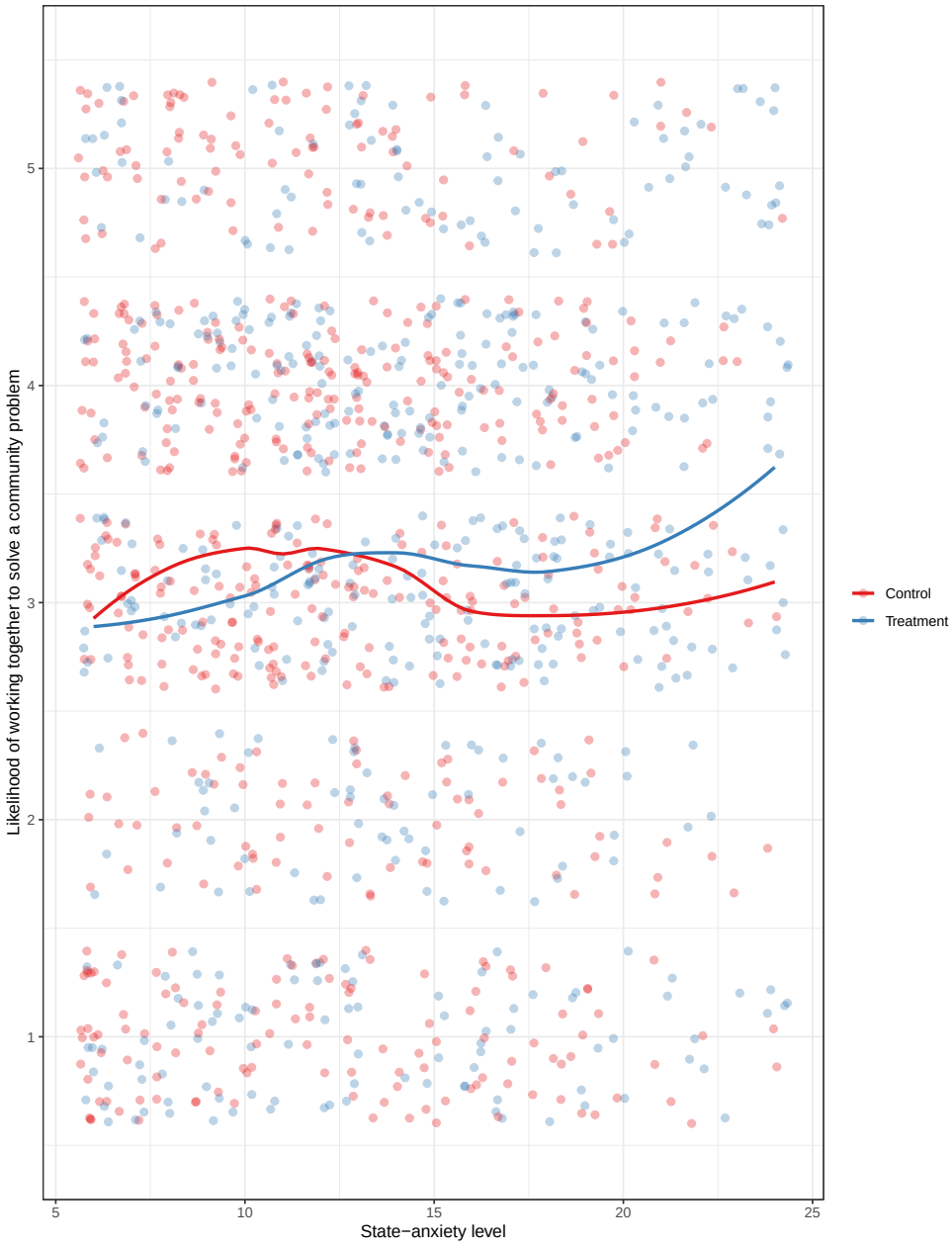

Figure A.61: Respondents randomly assigned to treatment condition slightly more likely to work together to solve a community problem at highest level of anxiety.

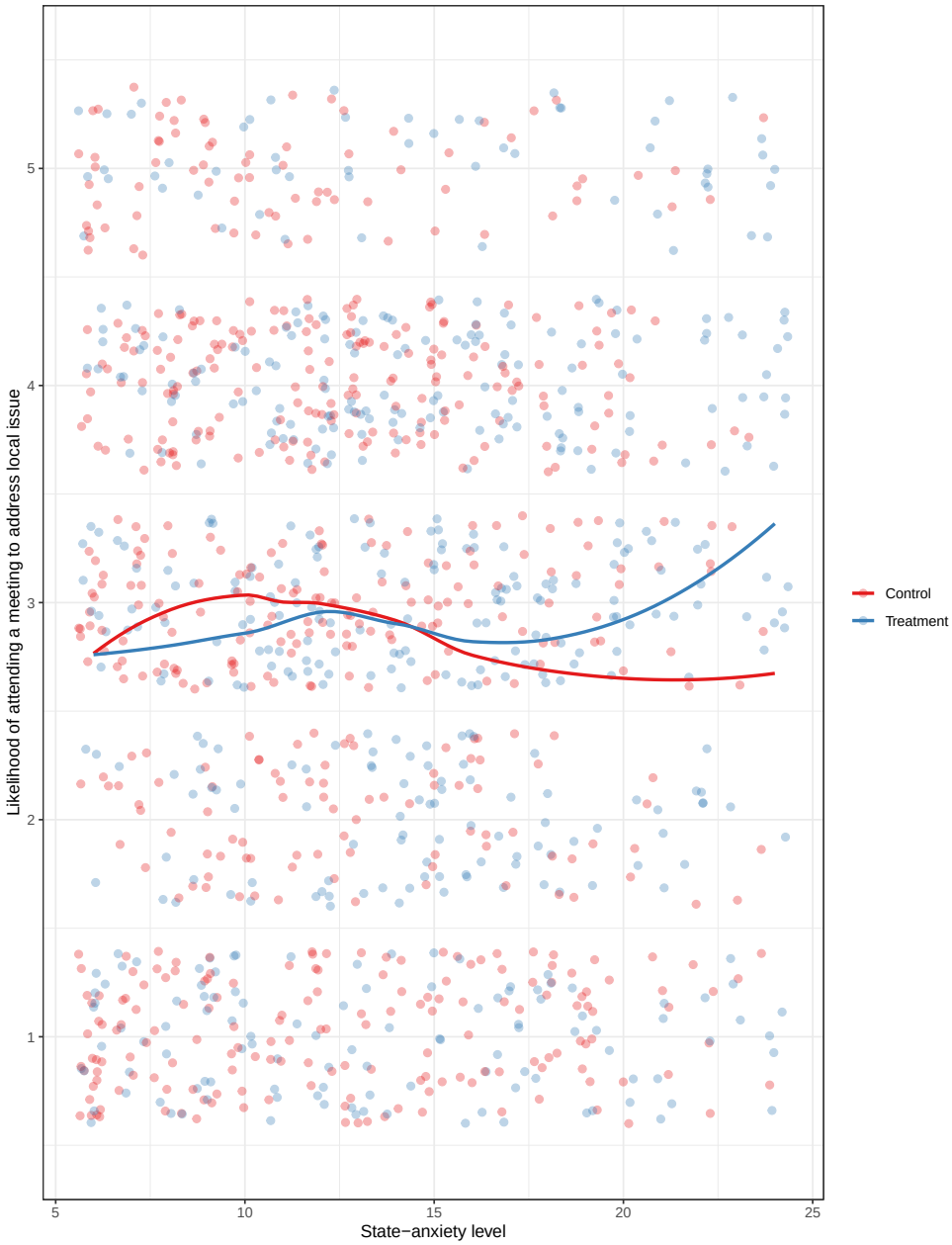

Figure A.62: Respondents randomly assigned to treatment condition more likely to attend a meeting to address local issue at highest level of anxiety.

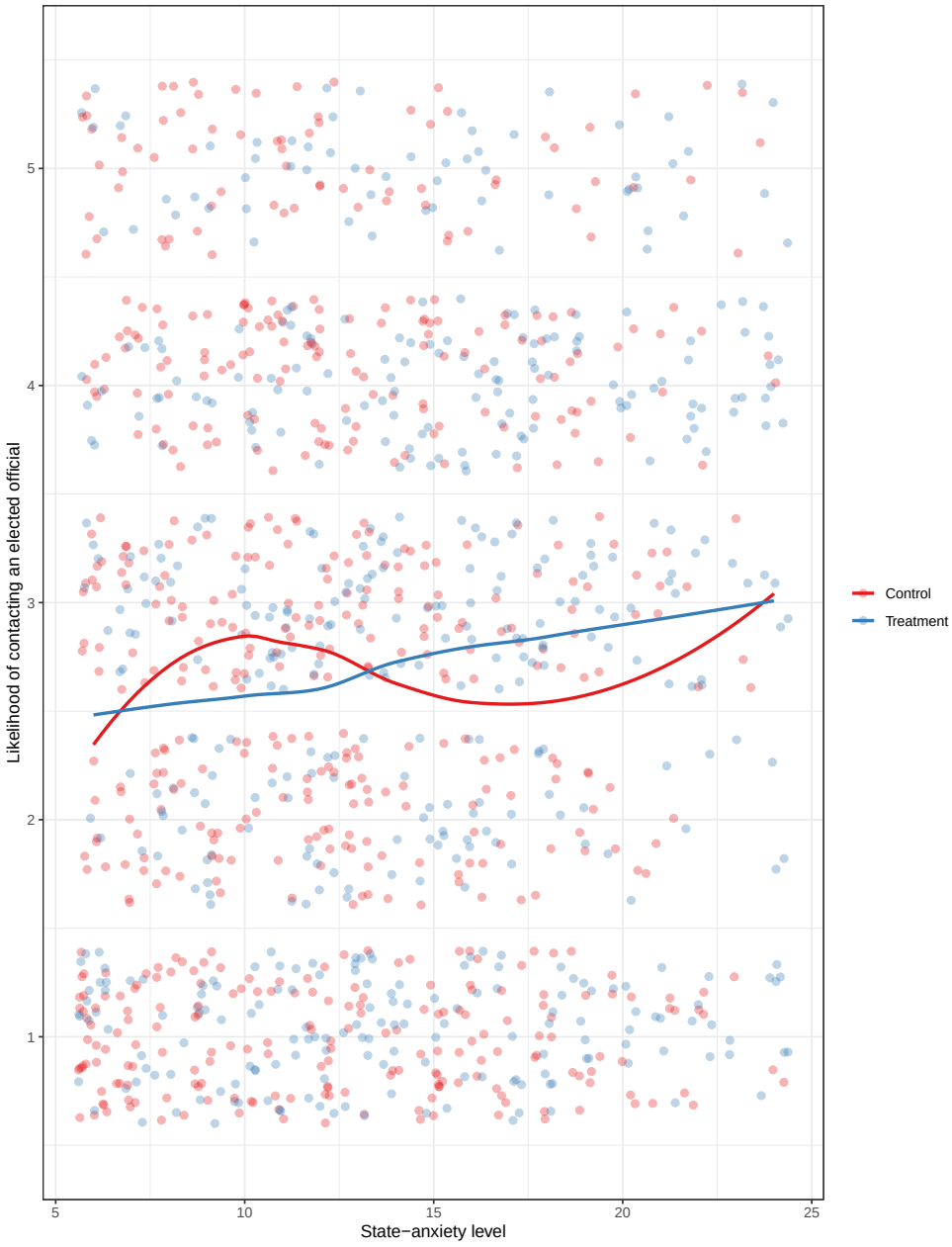

Figure A.63: Weak relationship between assignment to treatment condition and likelihood of contacting an election official across anxiety levels.

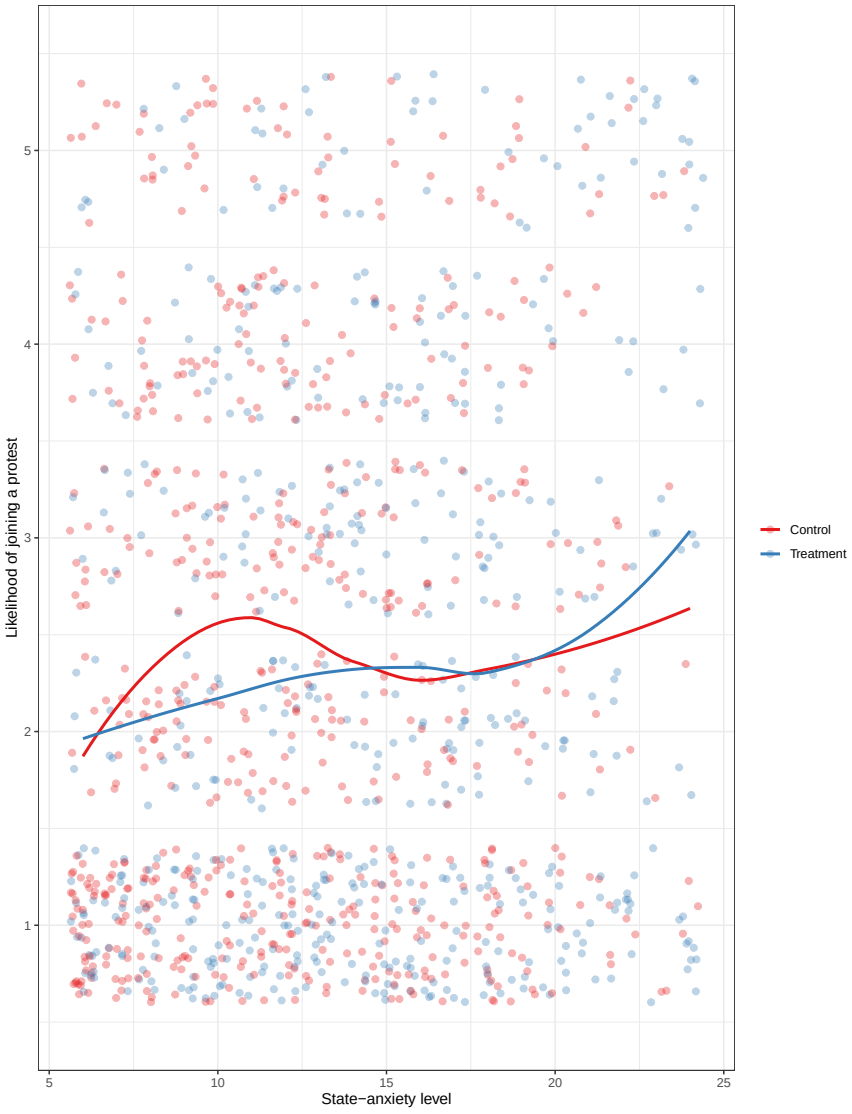

Figure A.64: Respondents randomly assigned to treatment condition slightly more likely to join a protest at highest level of anxiety.

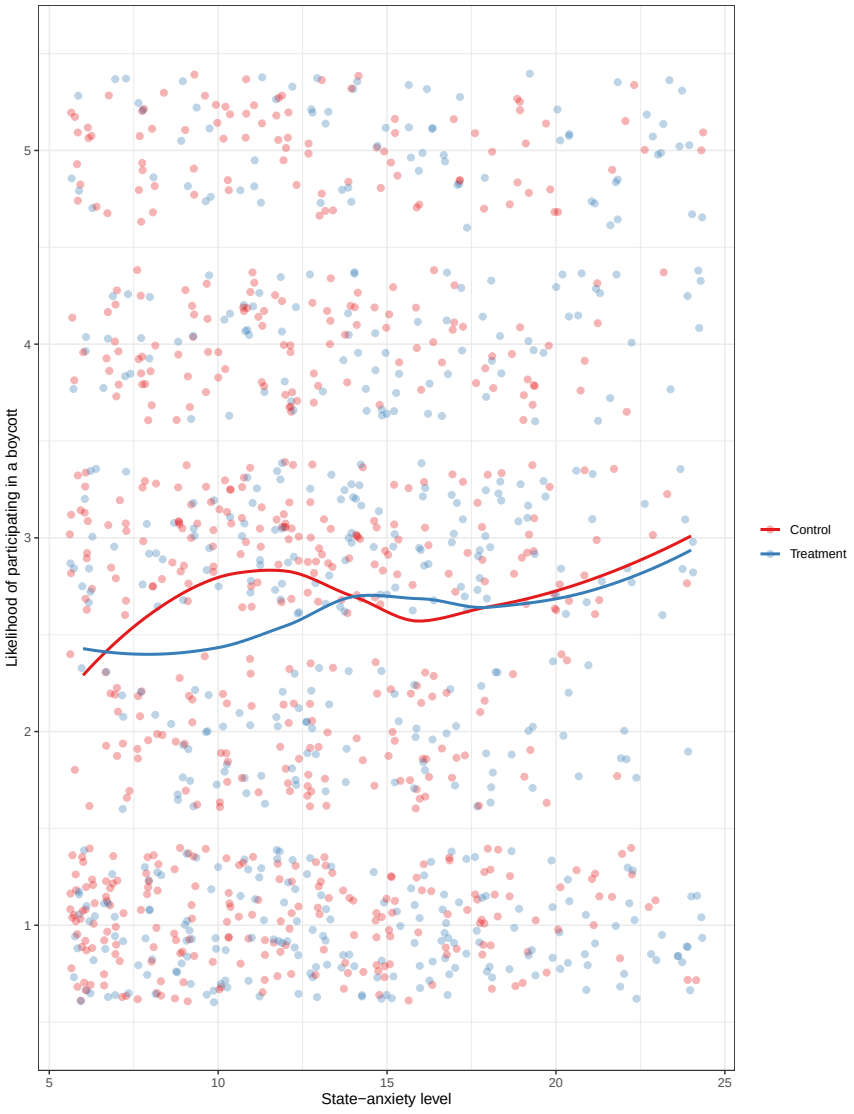

Figure A.65: Weak relationship between random assignment to treatment condition and likelihood of participating in a boycott across anxiety levels.

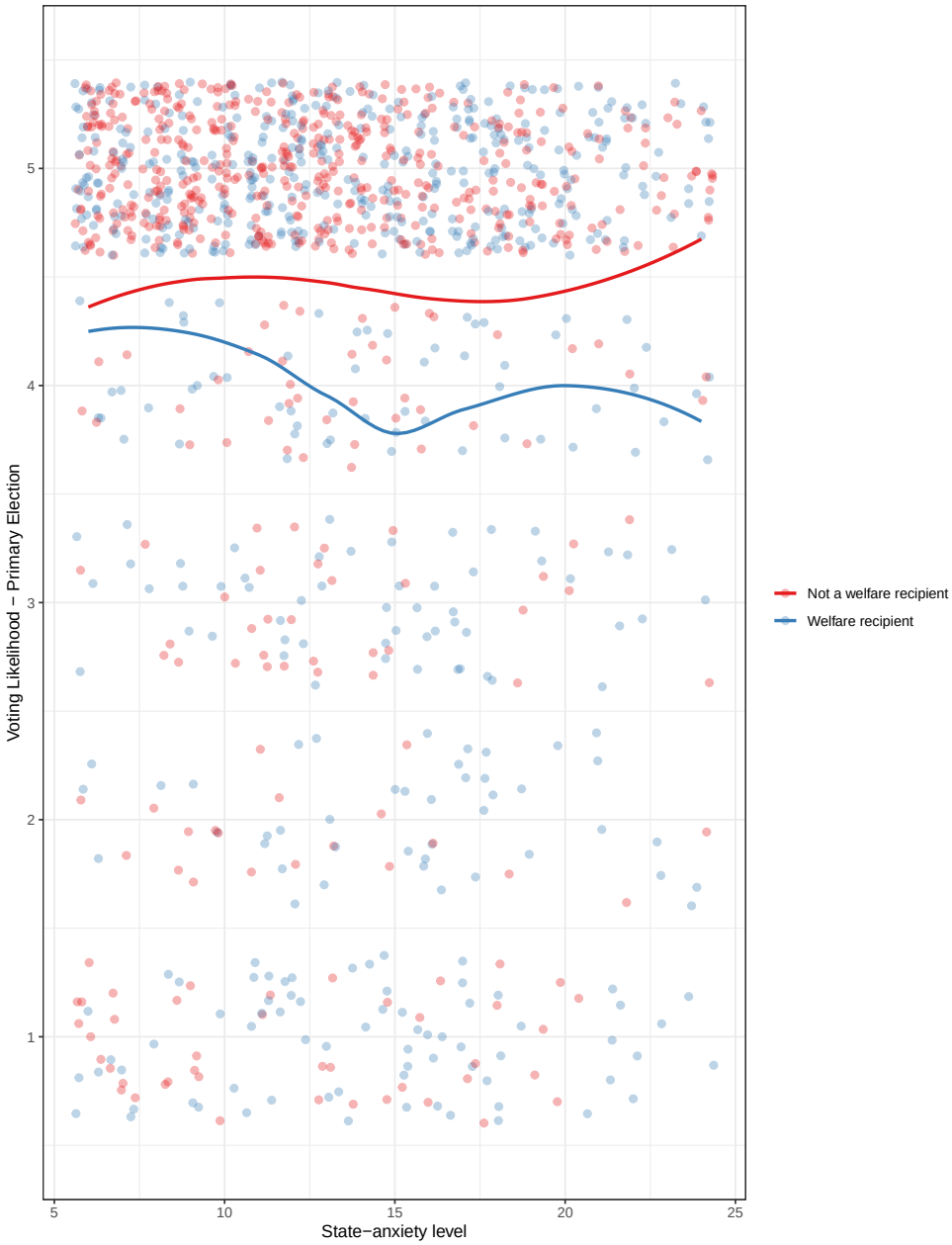

Figure A.66: Respondents not recipients of welfare more likely to vote in primary election at all levels of anxiety. Effect most pronounced at highest levels of anxiety.

Figure A.74 through Figure A.81 separate subjects by their race.

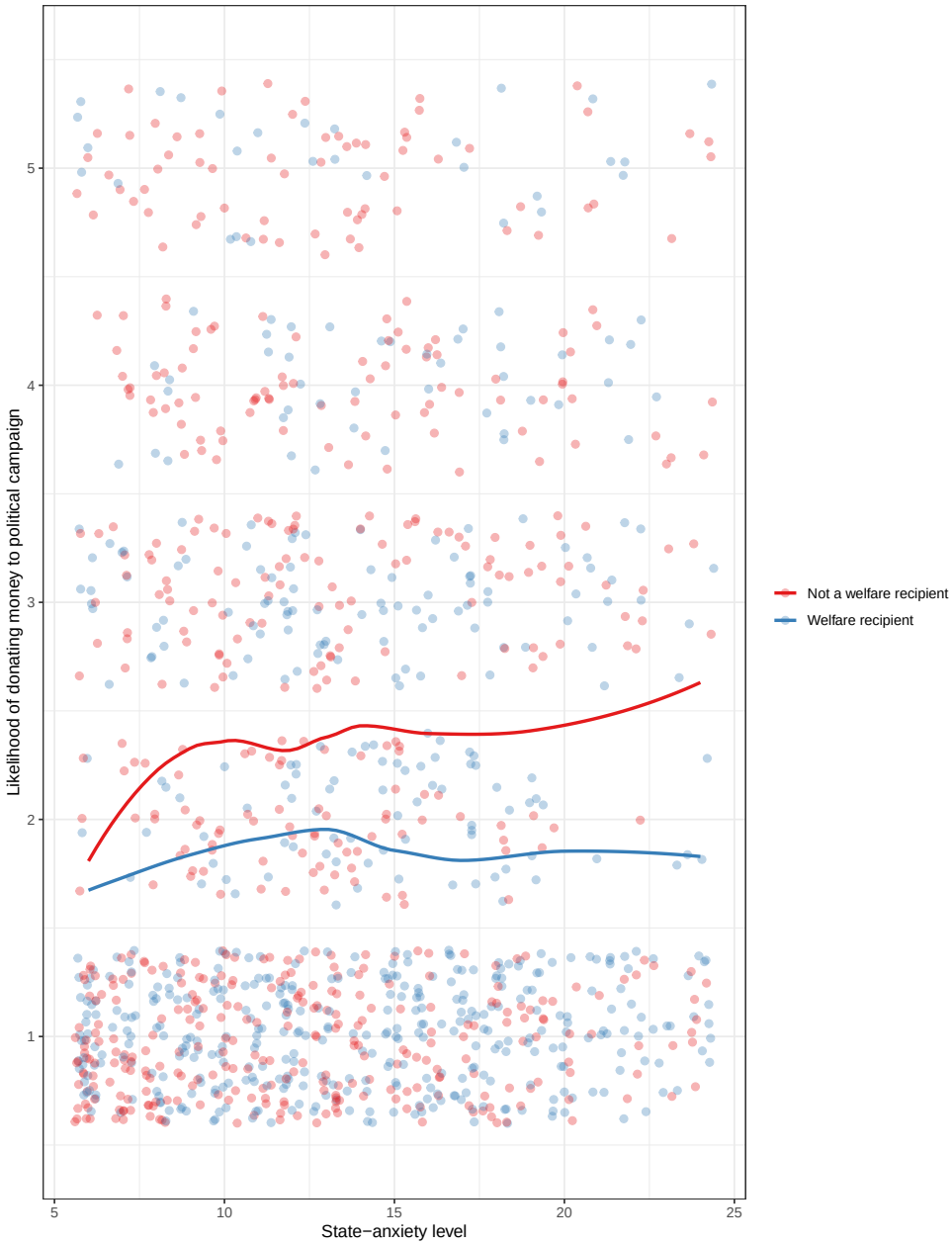

Figure A.67: Respondents not recipients of welfare more likely to donate money to a political campaign at all levels of anxiety. Effect most pronounced at highest levels of anxiety.

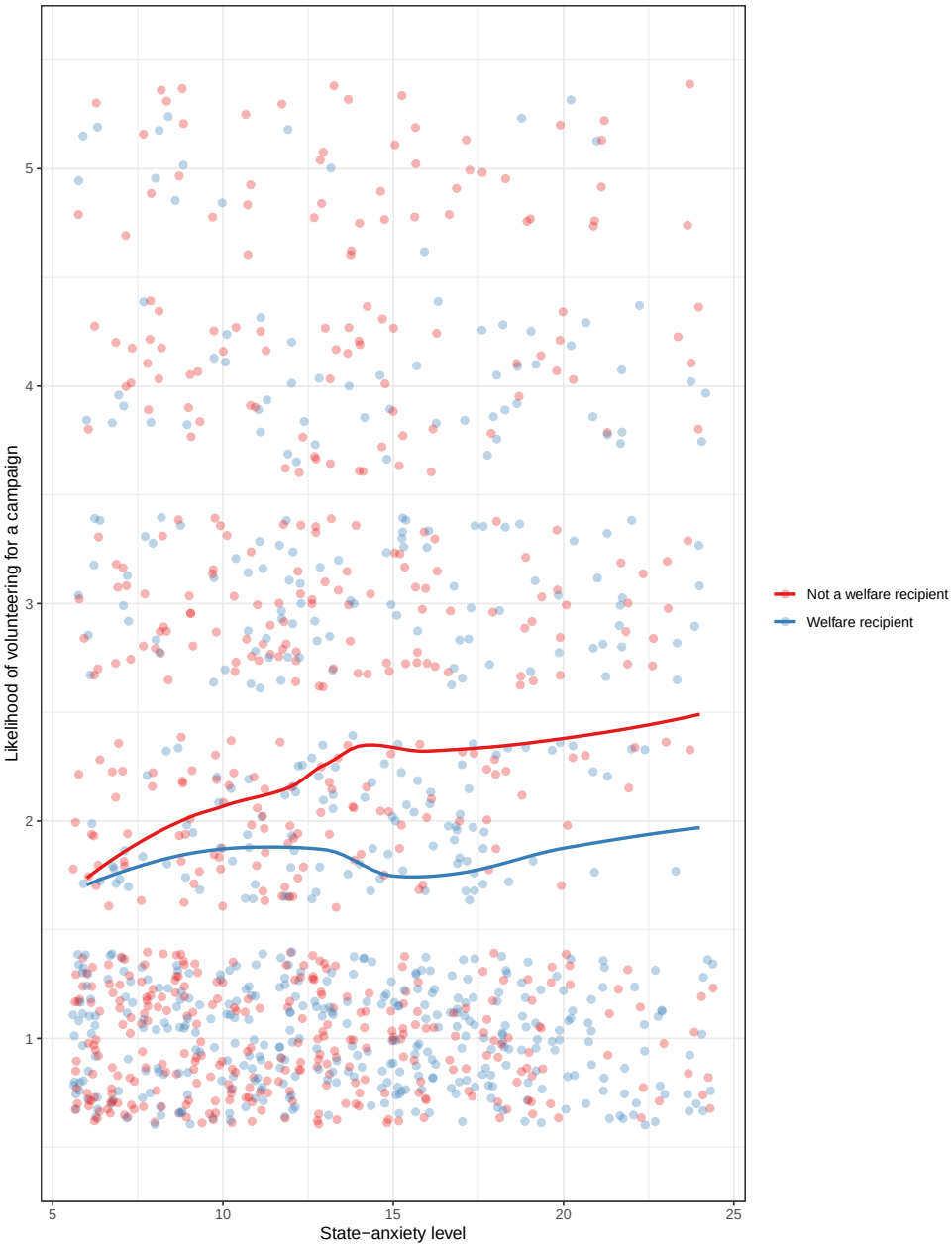

Figure A.68: Respondents not recipients of welfare more likely to volunteer for a campaign at all levels of anxiety. Effect most pronounced at highest levels of anxiety.

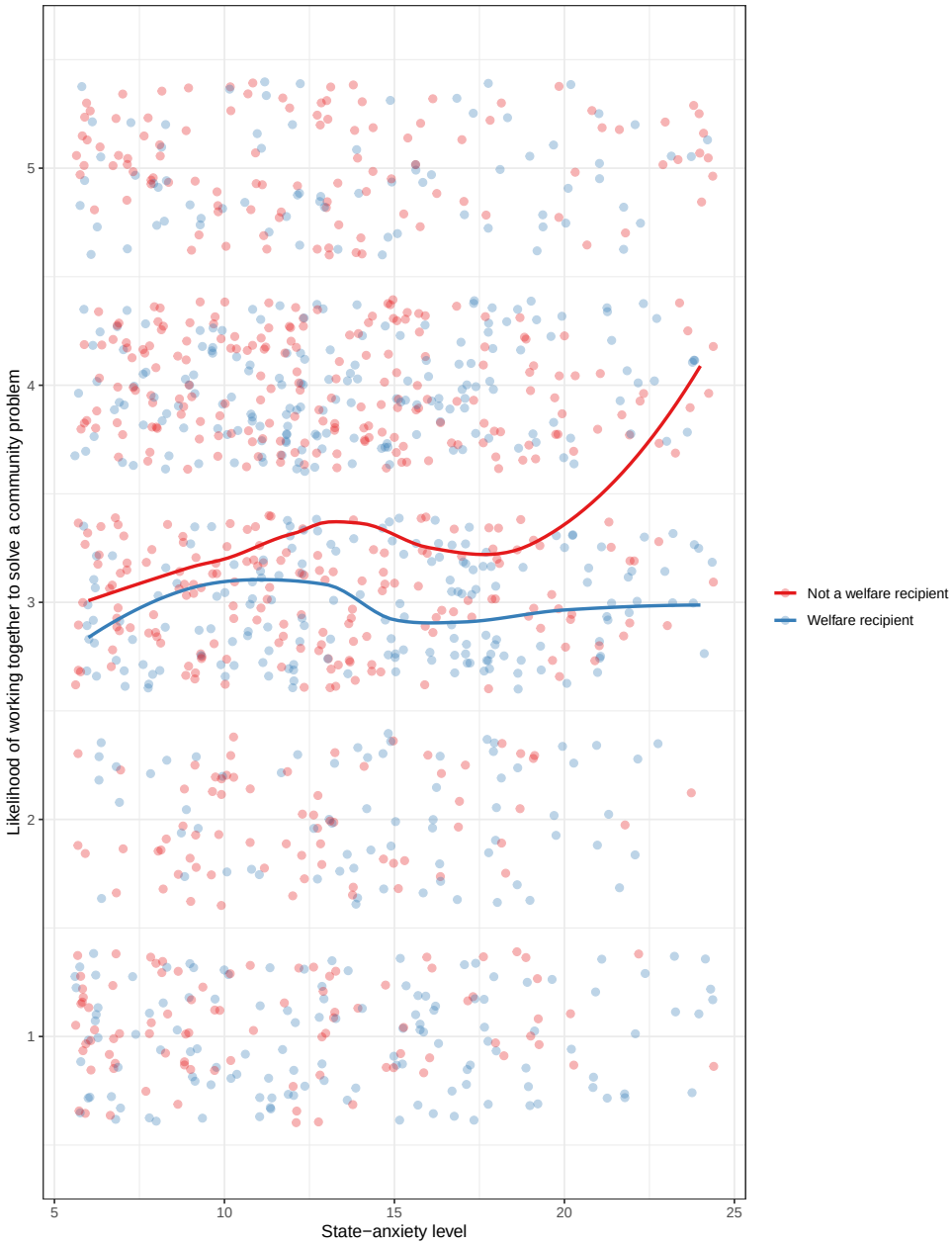

Figure A.69: Respondents not recipients of welfare more likely to work together to solve a community problem at all levels of anxiety. Effect most pronounced at highest levels of anxiety.

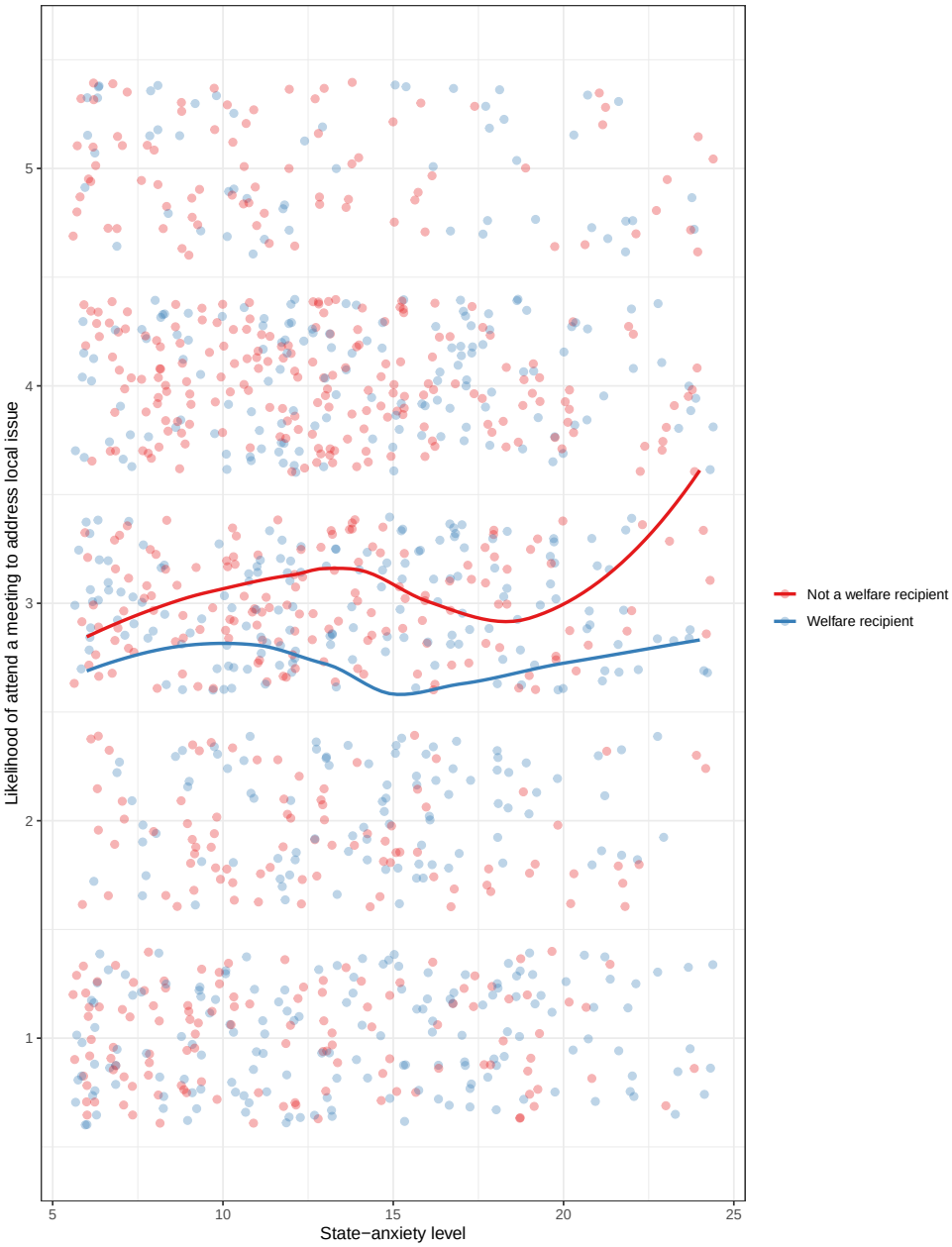

Figure A.70: Respondents not recipients of welfare more likely to attend a meeting to address a local issue at all levels of anxiety. Effect most pronounced at highest levels of anxiety.

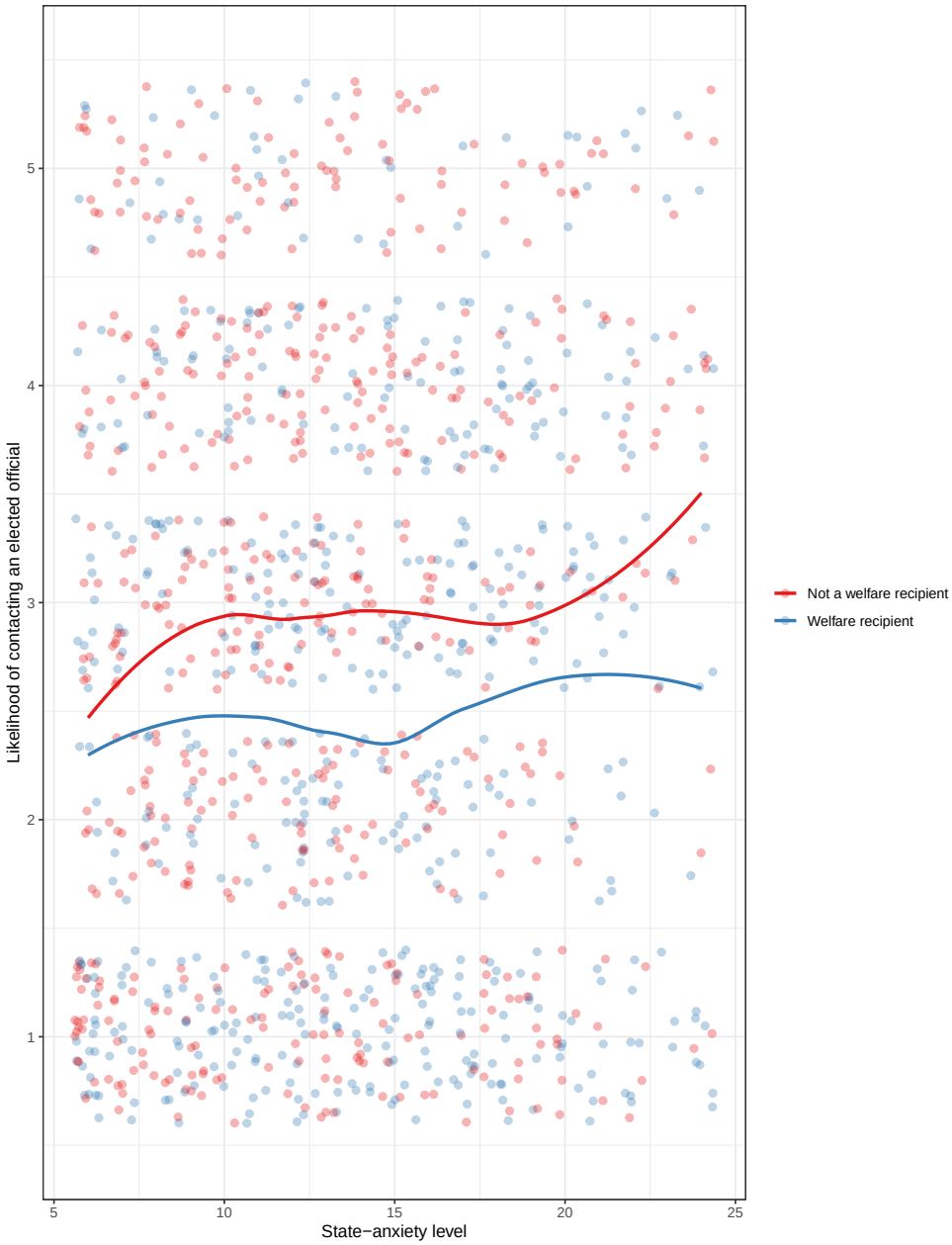

Figure A.71: Respondents not recipients of welfare more likely to contact an elected official at all levels of anxiety. Effect most pronounced at highest levels of anxiety.

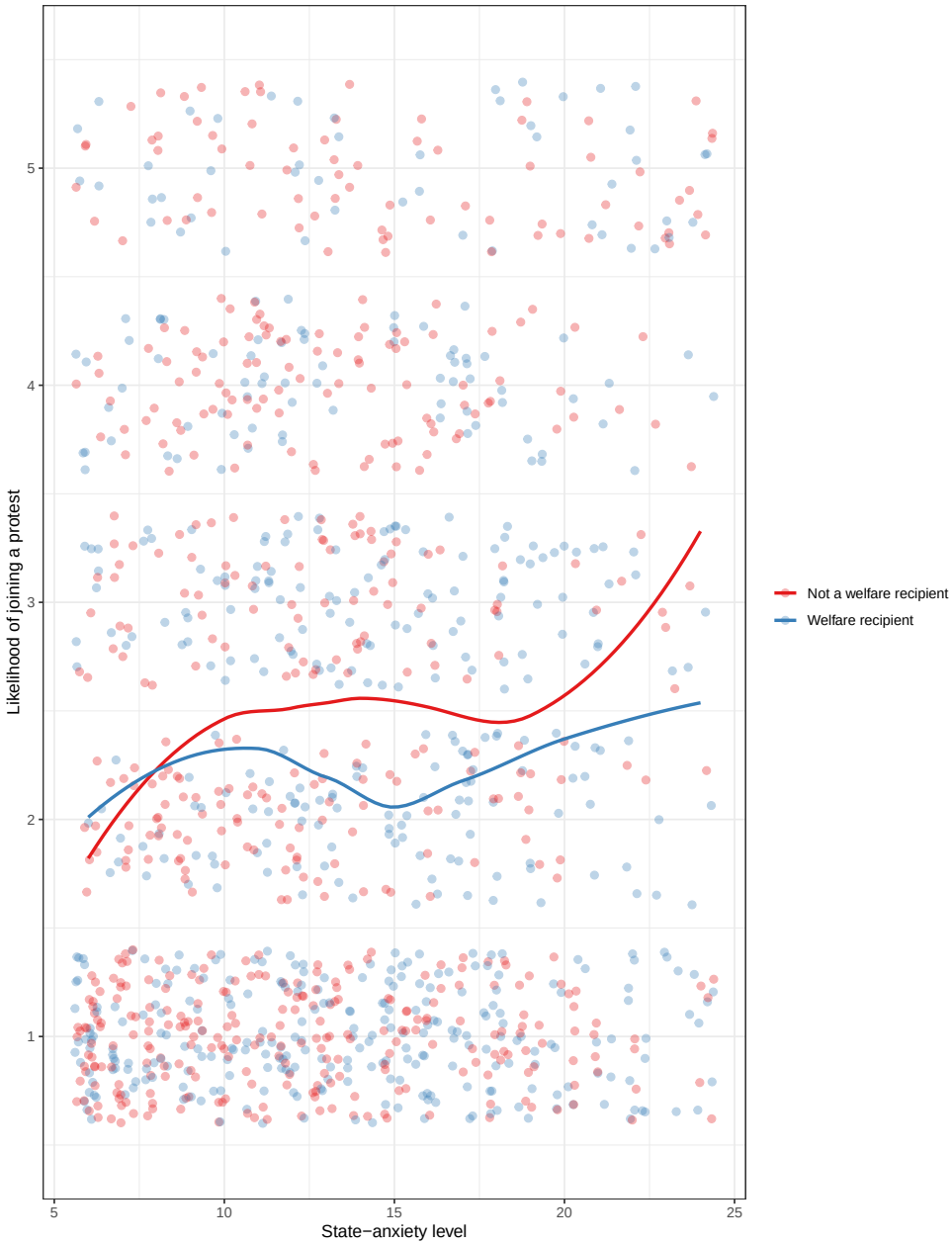

Figure A.72: Respondents not recipients of welfare more likely to join a protest at all levels of anxiety except the lowest level. Effect most pronounced at highest levels of anxiety.

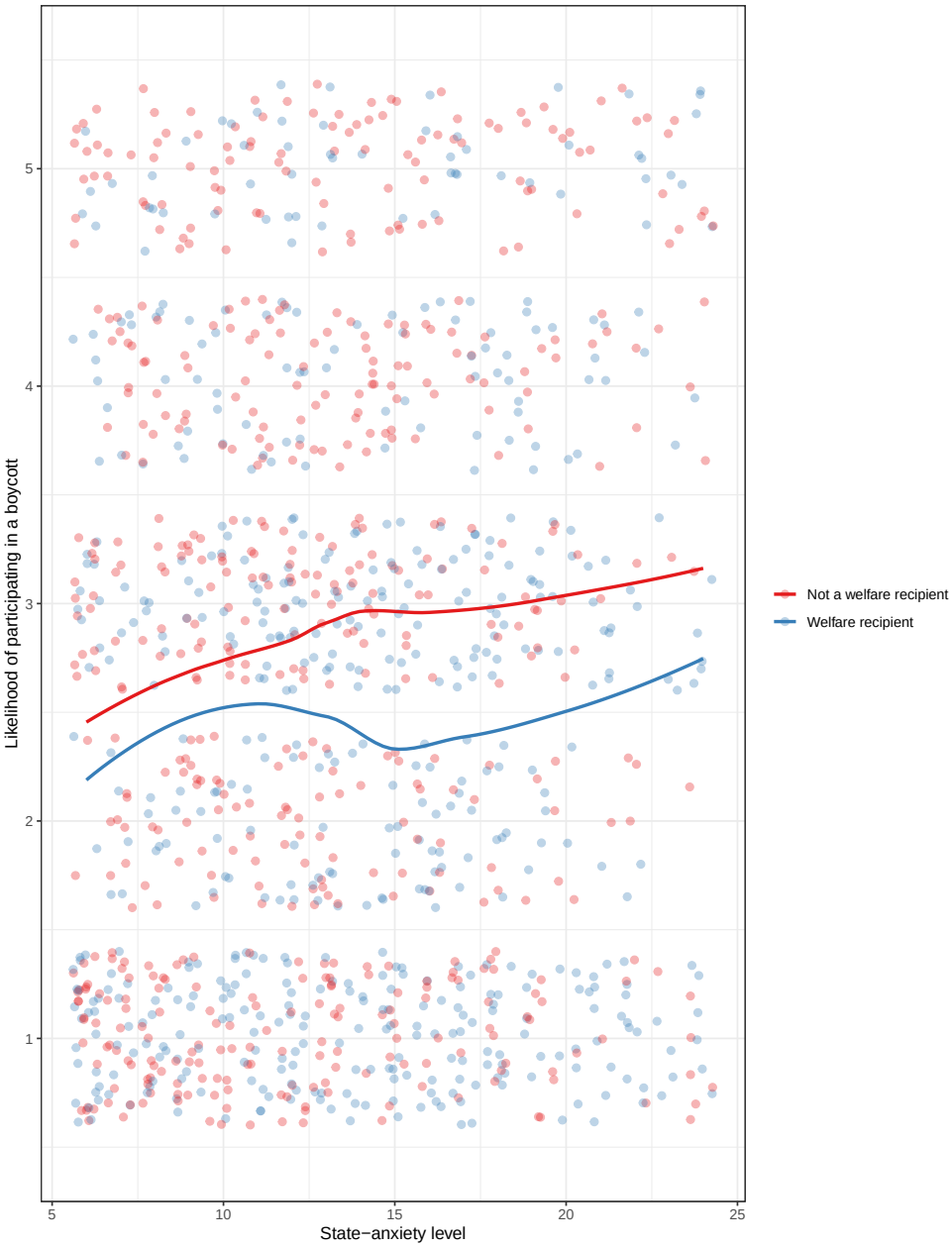

Figure A.73: Respondents not recipients of welfare more likely to participate in a boycott at all levels of anxiety. Effect most pronounced at moderate levels of anxiety.

Figure A.74: Clustering among racial groups in relationship between voting likelihood in primary election and anxiety level. Black respondents slightly more likely to vote in primary election at highest level of anxiety.

Hypothesis 2

Figure A.82 and Figure A.83 include box and whisker plots testing Hypothesis 2. While the former treats marginalization as a dummy variable, the latter treats marginalization as a categorical variable.

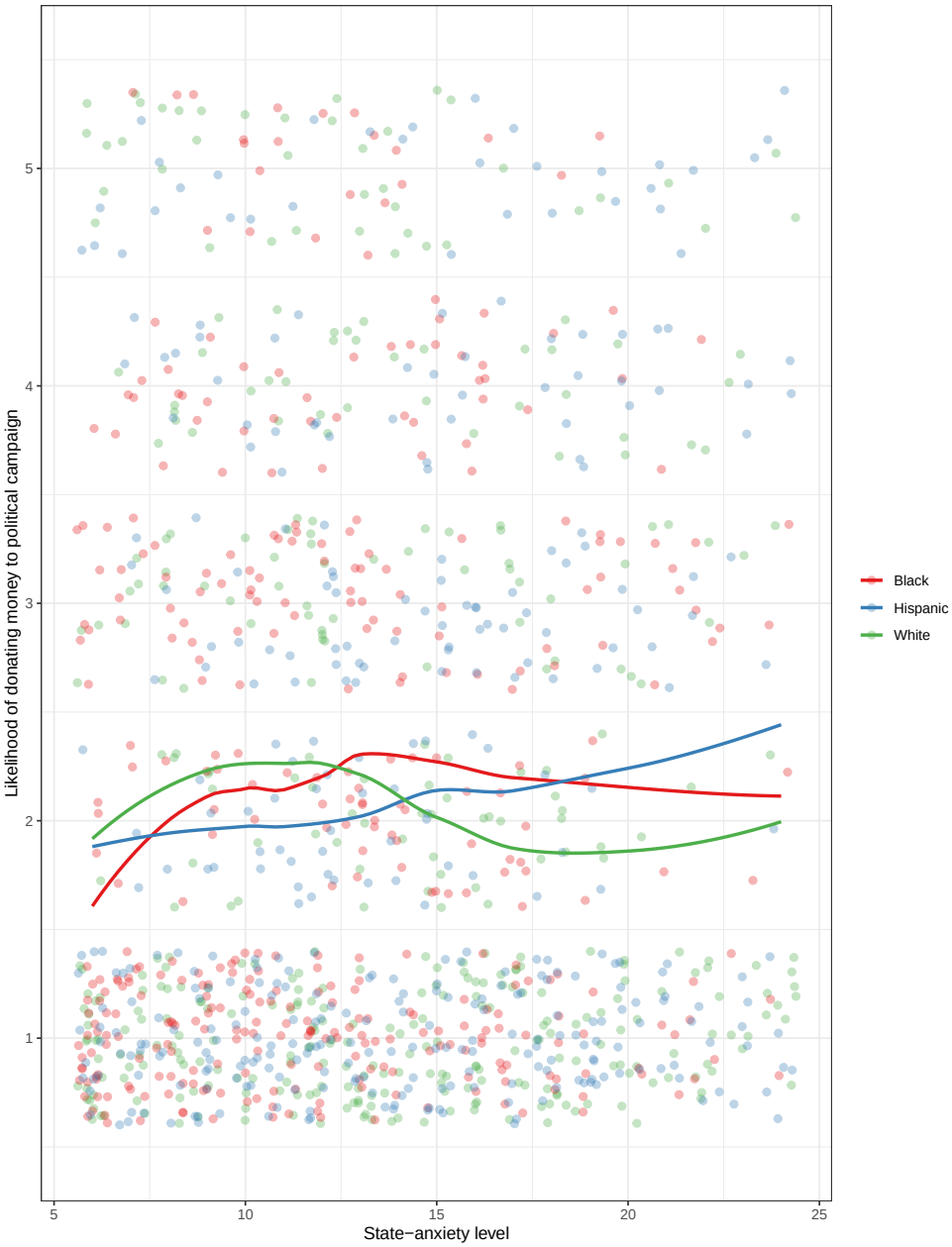

Figure A.75: Clustering among racial groups in relationship between donating money to a political campaign and anxiety level. Hispanic respondents slightly more likely to donate at highest level of anxiety.

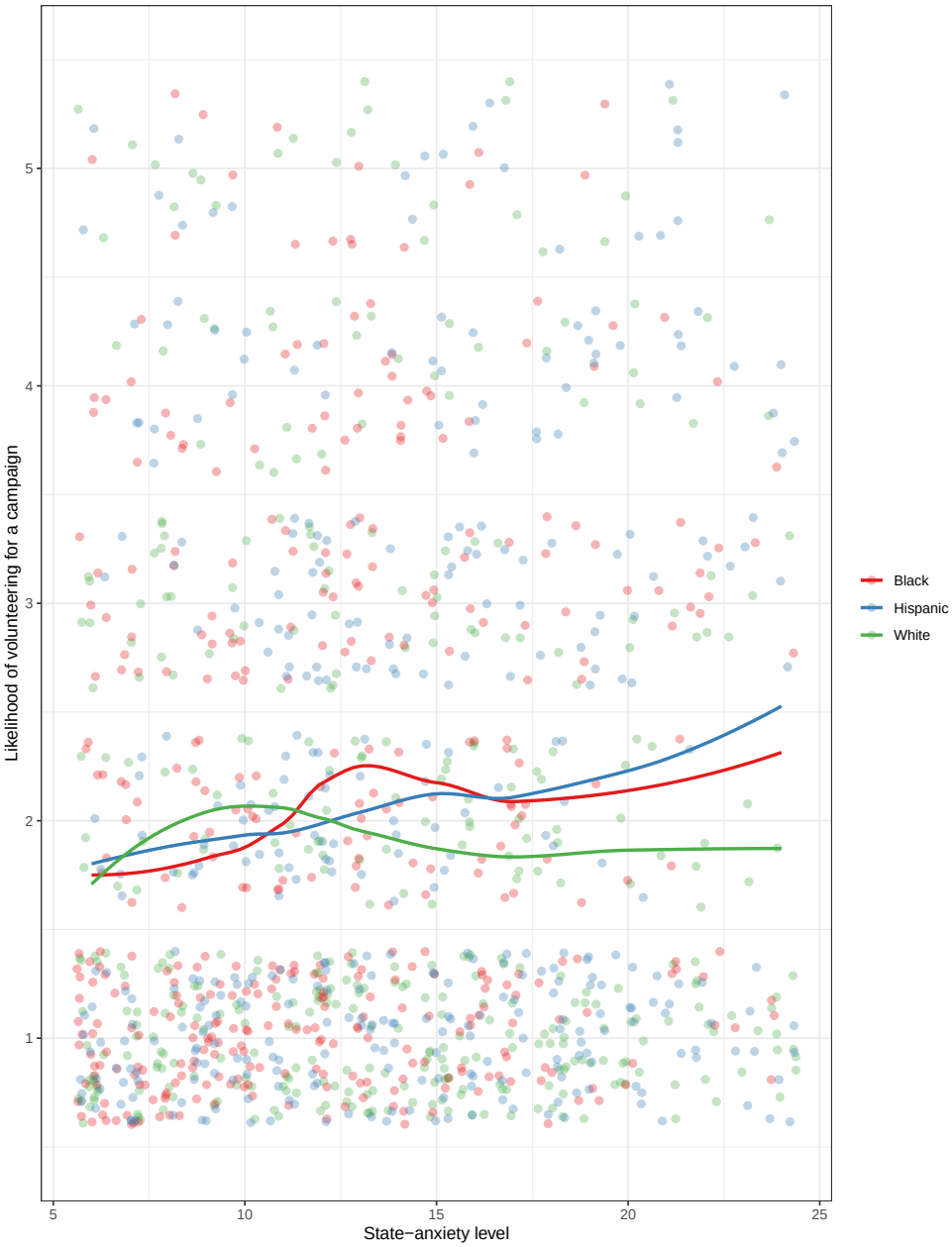

Figure A.76: Likelihood of volunteering for a campaign weakly related to anxiety level at lowest anxiety level. Hispanic respondents most likely to volunteer for a campaign at the highest level of anxiety.

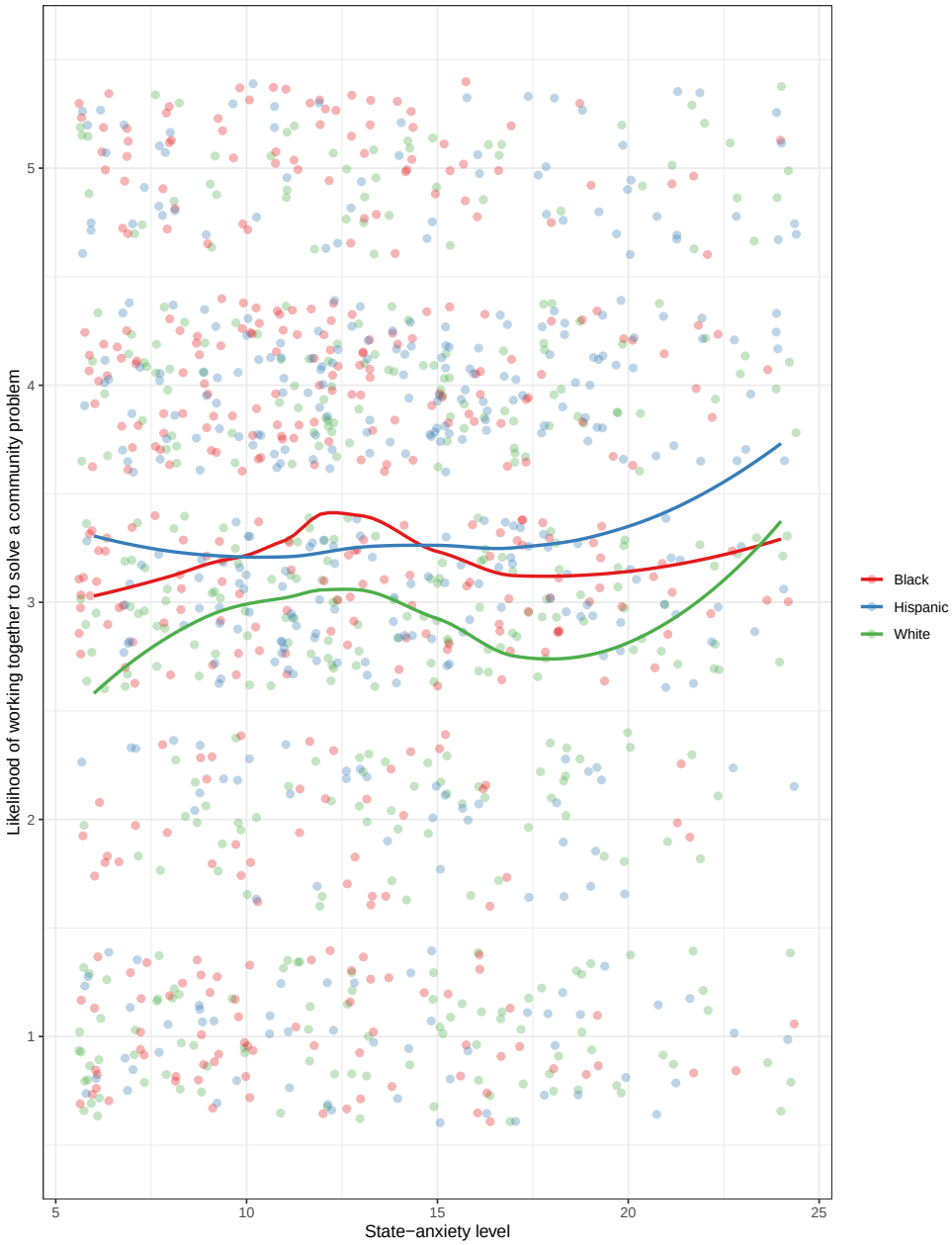

Figure A.77: Weak relationship between likelihood of working together to solve a community problem and level of anxiety. Hispanic respondents most likely to work together to solve a community problem at highest levels of anxiety.

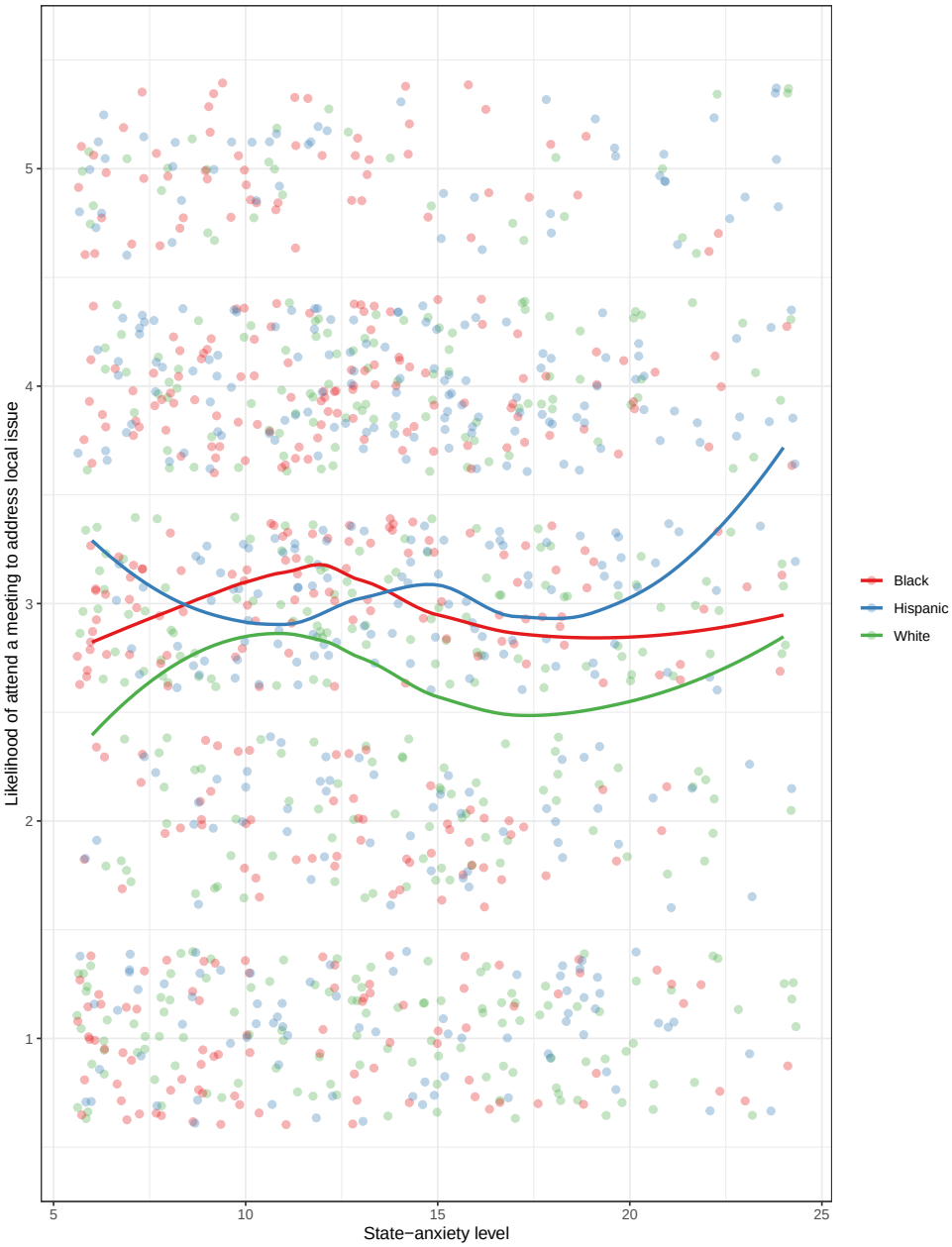

Figure A.78: Hispanic respondents most likely to attend a meeting to address a local issue at lowest and highest levels of anxiety.

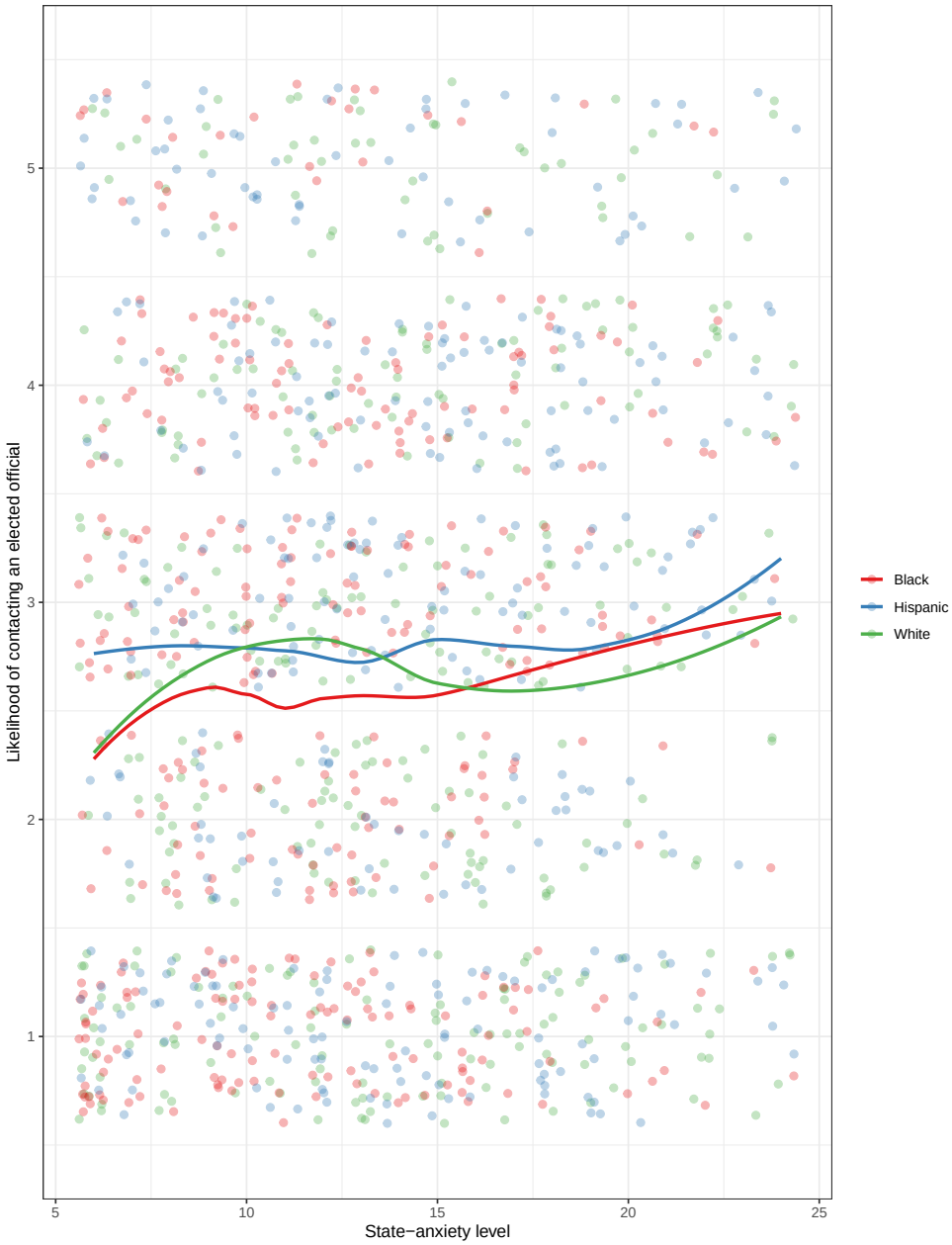

Figure A.79: Likelihood of contacting an elected official weakly related to anxiety level. Hispanic respondents most likely to contact an elected official at the highest and lowest levels of anxiety.

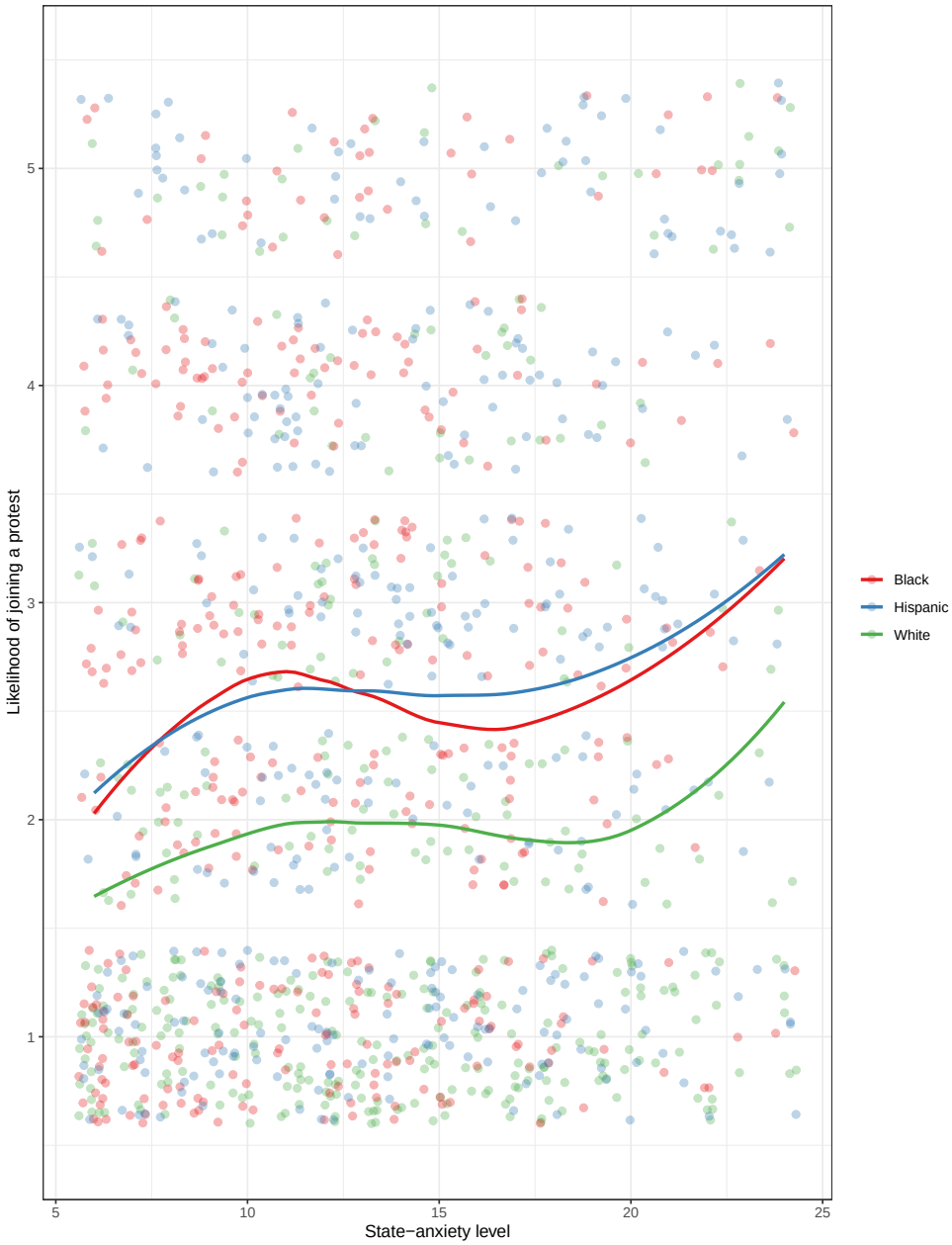

Figure A.80: White respondents less likely than Black or Hispanic respondents to join a protest at all levels of anxiety.

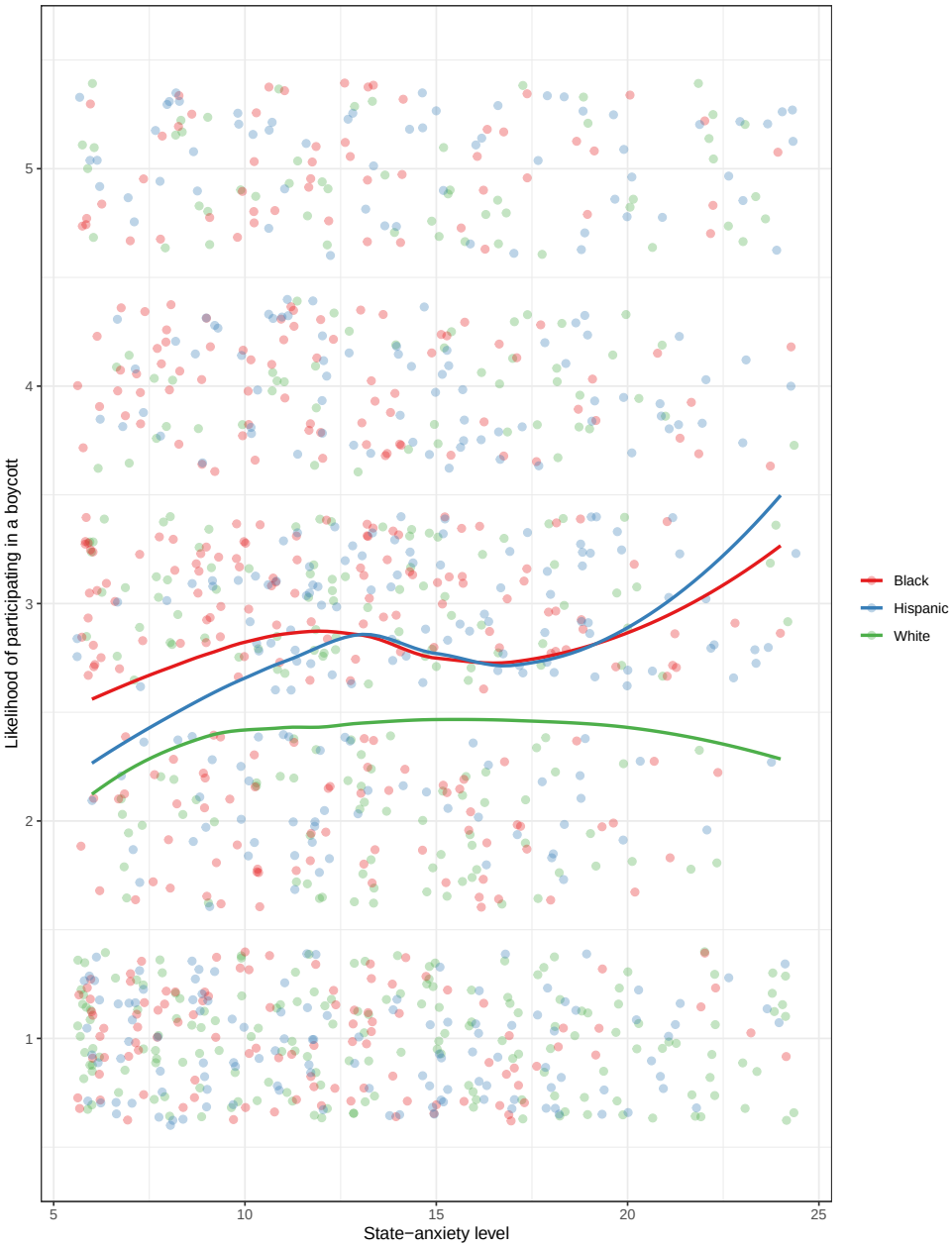

Figure A.81: White respondents less likely than Black or Hispanic respondents to participate in a boycott at all levels of anxiety.

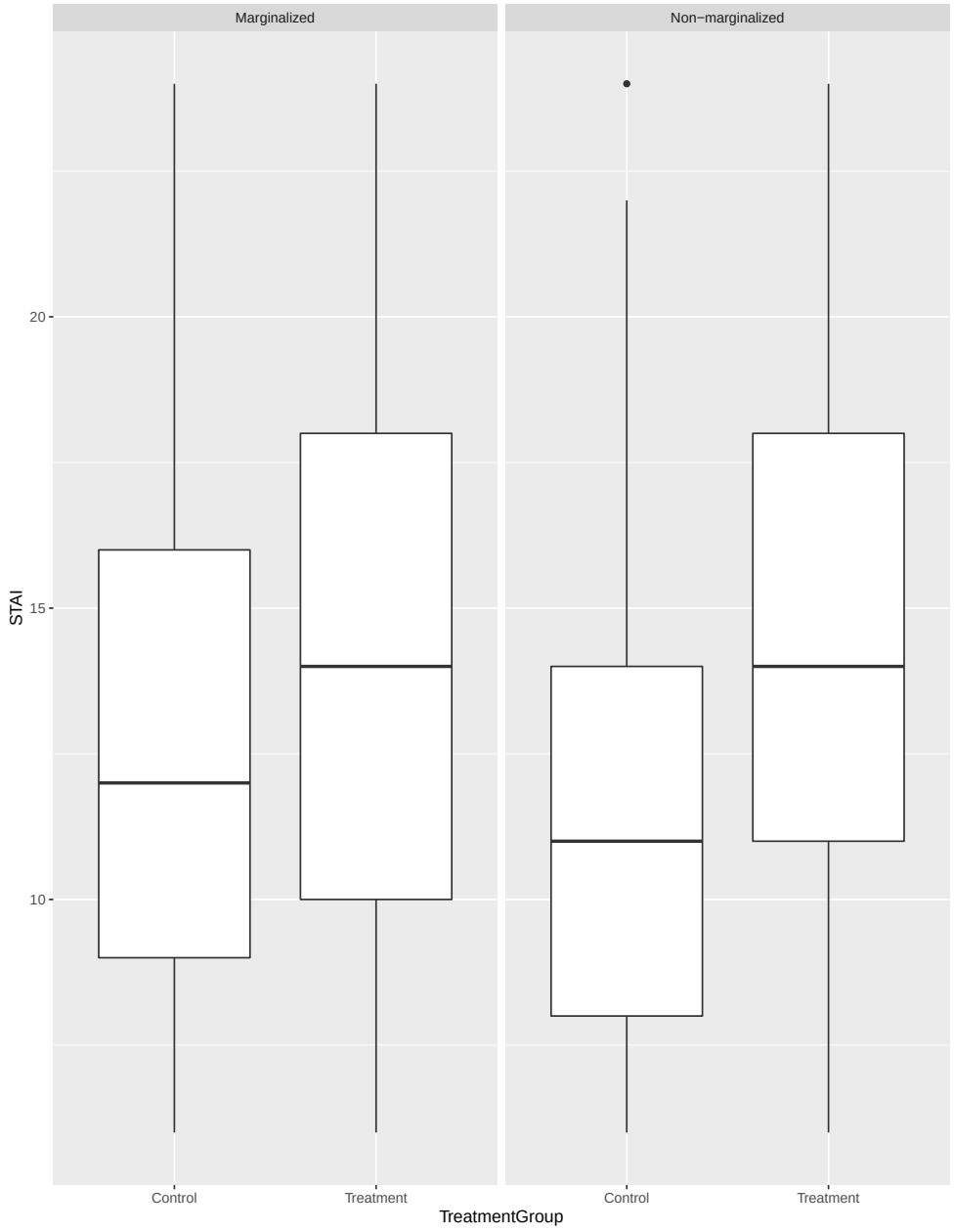

Figure A.82: **Whisker Plot**: Base level of anxiety higher among marginalized group members. In control condition, absent anxiety stimulus, marginalized are more anxious.

	Dependent variable:	
	External Locus of Control (Logged)	Internal Locus of Control (Logged)
	(1)	(2)
Marginalization (Dummy)	−0.007	−0.040*
	(0.049)	(0.023)
Treatment Group	−0.033	−0.032
	(0.064)	(0.031)
Marginalization (Dummy):Treatment Group	0.034	0.022
	(0.071)	(0.034)
Constant	2.115***	2.831***
	(0.044)	(0.021)
Observations	1,229	1,229
R^2	0.0003	0.004
Adjusted R^2	−0.002	0.001
Residual Std. Error (df = 1225)	0.473	0.224
F Statistic (df = 3; 1225)	0.115	1.543
Note:		*p<0.1; **p<0.05; ***p<0.01

Table A.14: Hypothesis 2.1

Hypothesis 2.1

Table A.14 through Table A.16 include models testing the four sub-hypotheses emanating from Hypothesis 2. Control is the base level for the treatment group independent variable.

Hypothesis 2.3

Hypothesis 2.4

Hypothesis 3

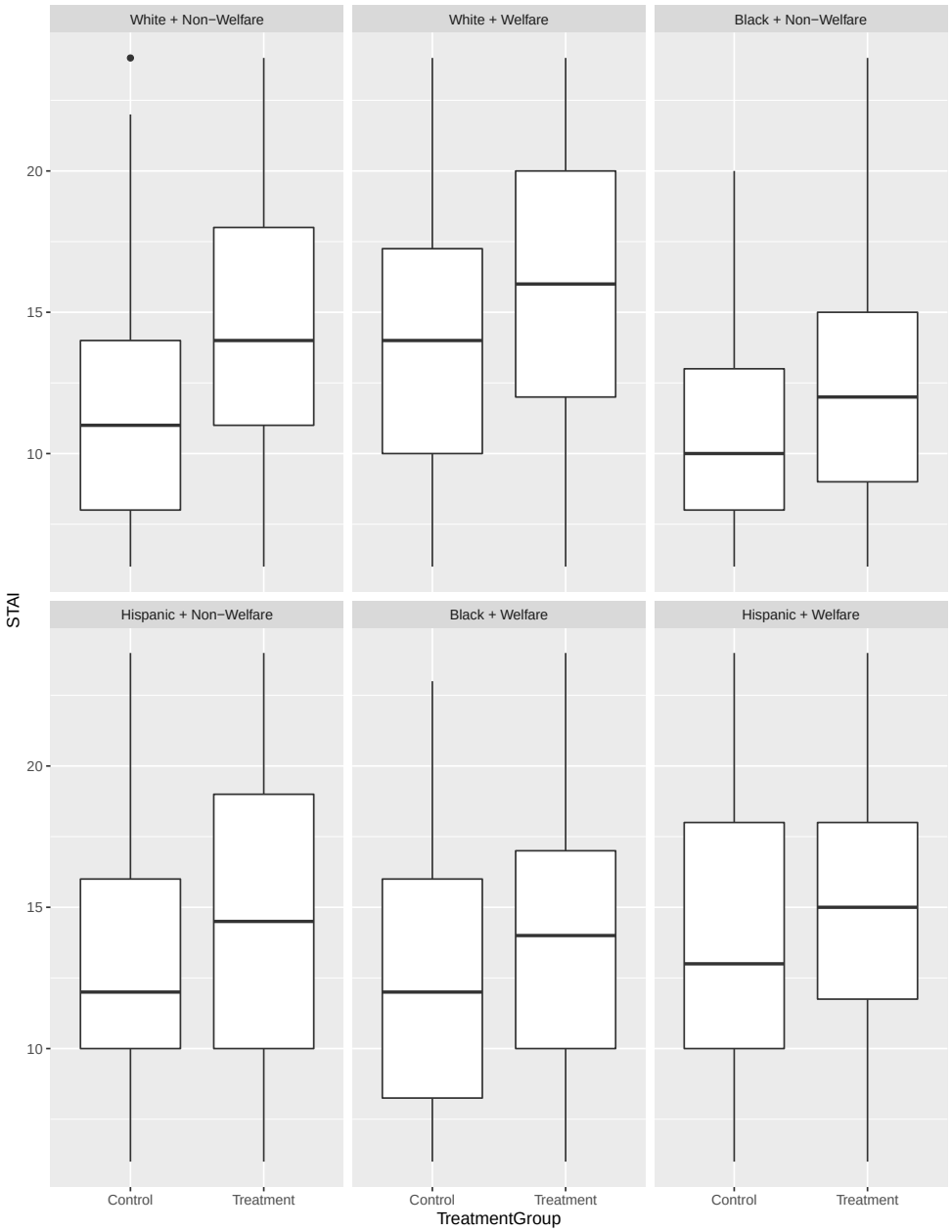

Figure A.83: **Whisker Plot**: Subjects in treatment conditions are more anxious, on average, across all racial and socioeconomic groups.

	Dependent variable:
	Self Esteem
STAI	-0.507^{***}
	(0.032)
Marginalization (Dummy)	-1.198^{***}
	(0.410)
Constant	28.720^{***}
	(0.556)
Observations	1,229
R^2	0.176
Adjusted R^2	0.175
Residual Std. Error	5.473 (df = 1226)
F Statistic	131.353^{***} (df = 2; 1226)
Note:	*p<0.1; **p<0.05; ***p<0.01

Table A.15: Hypothesis 2.3

	Dependent variable:			
	Vote in General Election	Trust	Internal Efficacy	External Efficacy
	(1)	(2)	(3)	(4)
STAI	-0.012^{*}	-0.019^{***}	-0.065^{***}	-0.049^{***}
	(0.007)	(0.006)	(0.009)	(0.009)
Dummy Control Variable	0.017	0.022	−0.110	0.065
	(0.085)	(0.080)	(0.109)	(0.110)
Constant	4.621^{***}	2.674^{***}	2.815^{***}	3.504^{***}
	(0.093)	(0.088)	(0.120)	(0.120)
Observations	1,229	1,229	1,229	1,229
R^2	0.003	0.007	0.049	0.026
Adjusted R^2	0.001	0.006	0.047	0.024
Residual Std. Error (df = 1226)	1.119	1.060	1.440	1.445
F Statistic (df = 2; 1226)	1.623	4.458^{**}	31.439^{***}	16.204^{***}
Note:				*p<0.1; **p<0.05; ***p<0.01

Table A.16: Hypothesis 2.4

	Dependent variable:									
	Trust	External Efficacy	Vote General	Donate to Campaign	Volunteer for Campaign	Work to solve community problem	Attend local meeting	Contact elected official	Protest	Boycott
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
White + Welfare	-0.357^{***}	-0.475^{***}	-0.485^{***}	-0.563^{***}	-0.385^{***}	-0.137	-0.280^{**}	-0.427^{***}	-0.140	-0.149
	(0.103)	(0.142)	(0.108)	(0.130)	(0.120)	(0.125)	(0.128)	(0.132)	(0.133)	(0.136)
Black + Non-Welfare	-0.460^{***}	0.199	-0.047	-0.005	0.067	0.452^{***}	0.382^{***}	-0.112	0.623^{***}	0.571^{***}
	(0.102)	(0.141)	(0.107)	(0.129)	(0.119)	(0.124)	(0.127)	(0.131)	(0.132)	(0.135)
Hispanic + Non-Welfare	-0.227^{**}	-0.213	-0.071	-0.052	0.089	0.429^{***}	0.398^{***}	0.120	0.653^{***}	0.492^{***}
	(0.103)	(0.142)	(0.108)	(0.130)	(0.120)	(0.126)	(0.128)	(0.133)	(0.134)	(0.137)
Black + Welfare	-0.539^{***}	-0.170	-0.376^{***}	-0.451^{***}	-0.259^{**}	0.017	0.002	-0.487^{***}	0.353^{***}	0.028
	(0.103)	(0.141)	(0.108)	(0.129)	(0.119)	(0.125)	(0.127)	(0.132)	(0.133)	(0.136)
Hispanic + Welfare	-0.388^{***}	-0.354^{**}	-0.447^{***}	-0.433^{***}	-0.166	0.210^{*}	0.104	-0.261^{**}	0.544^{***}	0.062
	(0.103)	(0.142)	(0.108)	(0.129)	(0.120)	(0.125)	(0.127)	(0.132)	(0.133)	(0.136)
Constant	2.755^{***}	3.032^{***}	4.699^{***}	2.329^{***}	2.102^{***}	2.963^{***}	2.782^{***}	2.880^{***}	1.995^{***}	2.468^{***}
	(0.071)	(0.099)	(0.075)	(0.090)	(0.083)	(0.087)	(0.089)	(0.092)	(0.093)	(0.095)
Observations	1,229	1,229	1,229	1,229	1,229	1,229	1,229	1,229	1,229	1,229
R^2	0.028	0.023	0.033	0.031	0.020	0.029	0.031	0.026	0.049	0.036
Adjusted R^2	0.024	0.019	0.029	0.027	0.016	0.025	0.028	0.022	0.045	0.032
Residual Std. Error (df = 1223)	1.050	1.449	1.104	1.323	1.224	1.280	1.302	1.350	1.361	1.390
F Statistic (df = 5; 1223)	7.047^{***}	5.757^{***}	8.254^{***}	7.811^{***}	4.994^{***}	7.331^{***}	7.947^{***}	6.426^{***}	12.498^{***}	9.025^{***}
Note:										*p<0.1; **p<0.05; ***p<0.01

Table A.17: **The effect marginalization has on civic engagement**: Testing civic and political participation DVs.

Appendix B: For Chapter 4

B.1 Estimating Causal Mediation Effects with Alternative Models

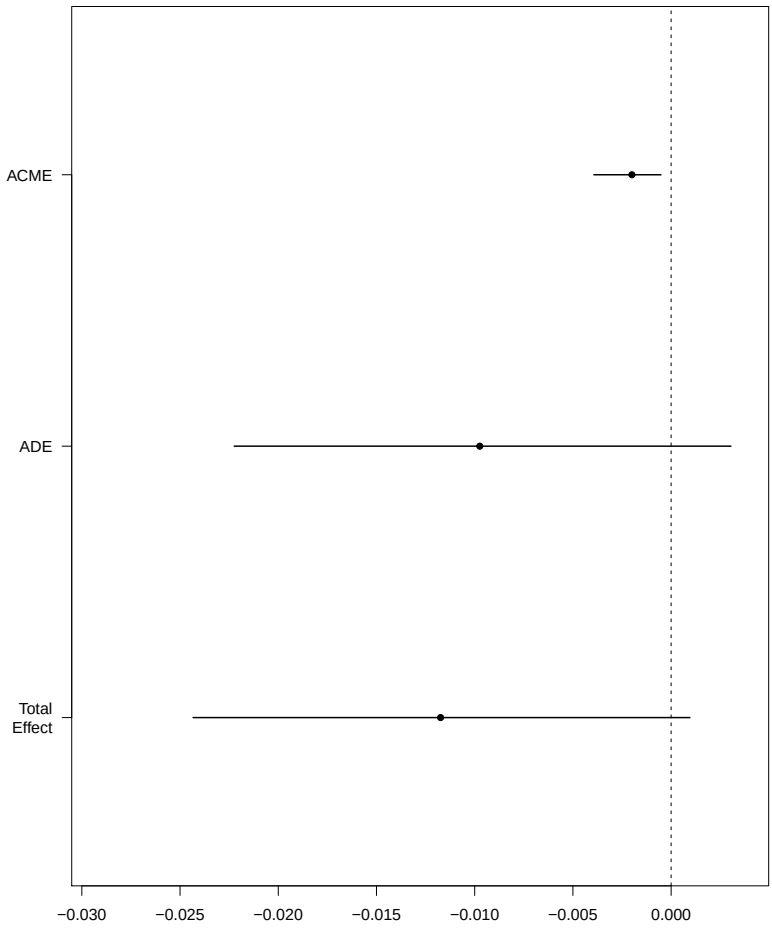

Figure B.1: **Graphical Summary of Casual Mediation Analysis**: Trust.

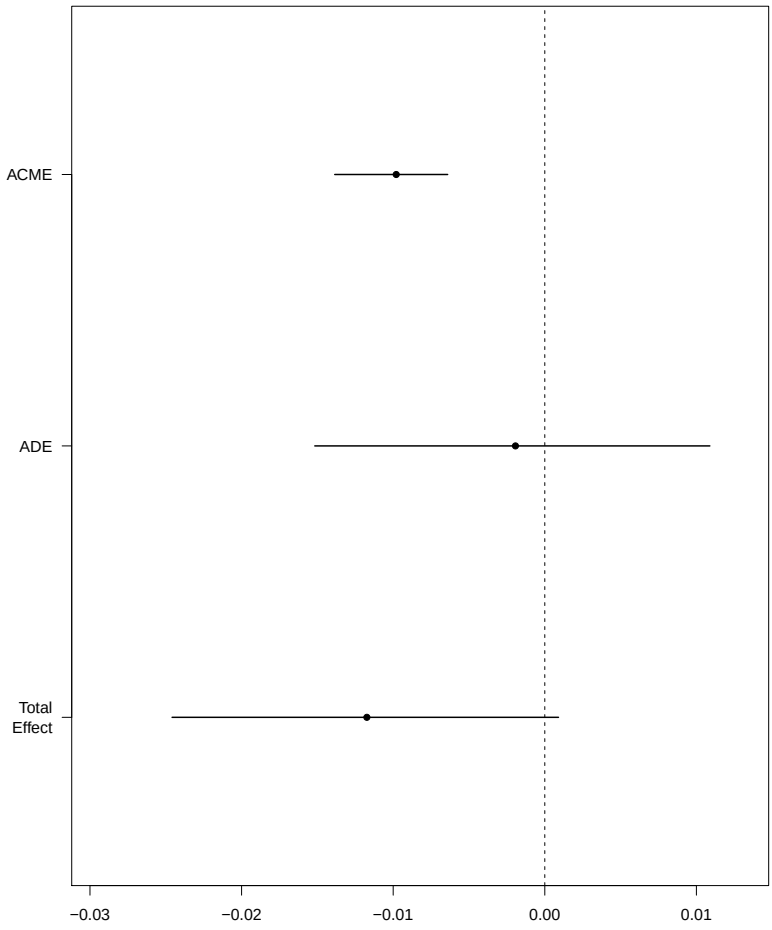

Figure B.2: **Graphical Summary of Casual Mediation Analysis**: Internal Efficacy.

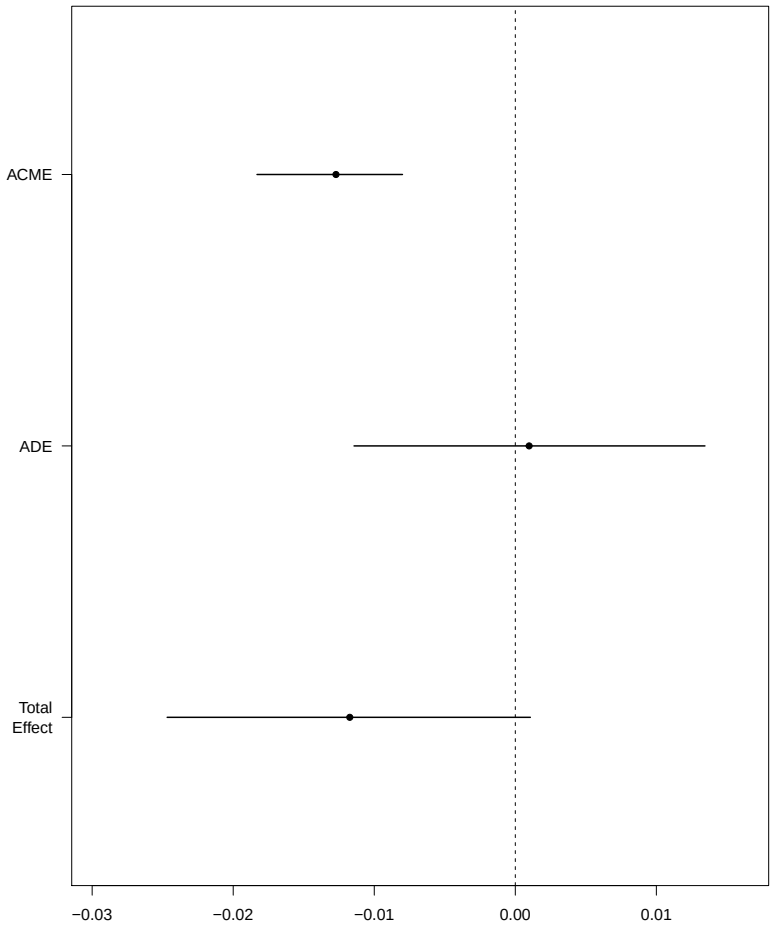

Figure B.3: **Graphical Summary of Casual Mediation Analysis**: External Efficacy.