

# How Citizens Evaluate Trade-offs between Descriptive and Partisan Representation\*

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## Abstract

An active debate in racial politics asks whether racial minorities and racial liberals would trade off descriptive minority representation for partisan representation when they come into conflict. A dominant line of research argues that descriptive representation is paramount given its symbolic importance. Another burgeoning line of research instead argues that partisanship matters more in contemporary American politics when party and race are correlated. I evaluate these competing arguments in the context of racial redistricting, specifically when creating Democratic majority-minority districts has the “perverse effect” of creating Republican districts and gerrymanders, which presents a trade-off between descriptive and partisan representation. Analyzing data from a survey experiment, I find that among those facing a trade-off, contra expectations in the literature, preferences for descriptive representation do not strictly dominate partisan preferences. I find no differences in trade-off evaluations between minorities and whites after controlling for subjects’ baseline preferences. Most importantly, I find strong evidence that among those facing this trade-off, preferences for Democratic legislative control dominate preferences for marginal increases in descriptive representation. These findings corroborate arguments that partisan preferences are central to racial representation in modern-day American politics, and have policy implications for political and legal theories of how to advance racial representation in a racially polarized party system.

Keywords: race; descriptive representation; partisan representation; trade-offs; redistricting

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I'm not the chair of the 'black caucus.' I'm the leader of the Democratic caucus. [... Under the Republican redistricting plan,] we will have the greatest number of minority seats in Georgia history and the least amount of power in modern history.

*Rep. Stacey Abrams (D, 89th District), a Black Democratic legislator and Minority Leader in the Georgia House of Representatives, quoted in Berman (2012)*

Racial redistricting is politically contentious. Scholars of racial representation long have argued that the creation of Democratic majority-minority districts may have a so-called “perverse effect” by reducing minority population shares in other districts, which consequently reduces the aggregate liberalism of elected chambers or delegations (e.g., Erikson 1972; Cain 1984; Lublin 1997). More recent work by Chen (2016) further shows that this effect is most likely to occur—and thus the prospect for extreme Republican gerrymandering is greatest—when drawing district boundaries in places where the level of residential clustering by race and party is high.

Historically, the strategy of creating Democratic majority-minority districts (by packing racial minorities into as few districts as possible, often in growing metropolitan areas) in order to create additional Republican districts (at the expense of elected white Democrats) has been one that Republicans have sought to realize, often in Southern states, going as far back as the late 1970s (Butler and Cain 1992). Beginning in the 1991 redistricting cycle, numerous so-called “unholy alliances” between Black Democrats and white Republicans materialized in order to maximize the number of districts held by both groups (e.g., Berman 2012; Toobin 2003). This strategy was attempted again by Republicans in the 2011 redistricting cycle across the South, but met resistance from some elected Black Democrats (e.g., Berman 2012), but not from others who electorally benefit from representing safe majority-minority districts (e.g., Weiner 2011).

This strategy is politically controversial because it forces racial minorities and non-minority racial liberals to choose between increasing descriptive representation through the creation of majority-minority districts on the one hand and increasing aggregate levels of

Democratic representation on the other. The tension inherent in this trade-off has strengthened over time as the two major political parties in the United States have become polarized both ideologically and racially (Carmines and Stimson 1989; McCarty, Poole and Rosen-thal 2006), a phenomenon scholars have referred to as “conjoined polarization” (Cain and Zhang 2016). Under conjoined polarization, preferences for racial and partisan representation are highly correlated such that racial minorities and racial liberals are more likely to be Democrats than Republicans and partisan preferences are considered a proxy for racial preferences (e.g., Hasen 2017). How this trade-off is evaluated, especially by racial minorities, has important implications for the incentives minority politicians face when deciding whether to join an “unholy alliance,” for the design of redistricting requirements and constraints that preserve minorities’ ability to elect candidates of their choice, and more generally for how power should be distributed across racial and partisan groups in the United States.

Despite the importance of this trade-off to contemporary racial politics, relatively little is known about how those who face this trade-off—and how racial minorities facing this trade-off in particular—think about it.<sup>1</sup> This paper examines two questions at the heart of this tension in modern-day American racial politics: First, who exactly faces this trade-off in the context of redistricting? In popular commentary, the strong correlation between party and race at the aggregate-level often leads people to assume that racial minorities categorically face this trade-off. However, given the existence of heterogeneity among racial and ethnic minorities in both partisan attachments (e.g., Cain, Kiewiet and Uhlaner 1991; Hajnal and Lee 2011; Casellas and Wallace 2015; Stout and Garcia 2015; Wright Rigueur 2014) and in racial political identification and consciousness (e.g., Bobo and Gilliam 1990; Gay 2004; Masuoka 2005), as well as variation in how group attachments translate into preferences for racial and partisan representation, it is problematic to infer the distribution of individual level preferences among any group using aggregate level correlations. This critique

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<sup>1</sup>More generally, there is relatively little research on how racial minorities navigate trade-offs between racial group interest and other interests. A notable and important exception is White, Laird and Allen (2014), who investigate how Blacks navigate conflicts between racial group interest and self-interest.

similarly applies when considering the preferences of non-minority racial liberals who, under conjoined polarization, may also face this trade-off. To test theories about how individuals evaluate trade-offs between any set of options, it is necessary to measure individuals' baseline preferences over these options—in this case, the joint distribution of baseline preferences for descriptive and partisan representation—in order to precisely estimate the proportion of different racial and partisan groups for whom the “perverse effect” of creating Democratic majority-minority districts poses a trade-off in the first place. This paper directly addresses this inferential challenge.

Second, how do those facing this trade-off resolve it? In general, we would expect trade-off evaluations to depend on the relative weights that an individual places over the objects that are in conflict. For example, those who place greater importance on descriptive representation (than partisan representation, despite preferring both) would be expected to be willing to trade off partisan representation to gain more descriptive representation. However, existing scholarship offers conflicting theoretical predictions about how people facing such a trade-off would resolve it and whether either set of preferences would dominate.

On the one hand, there is a longstanding research tradition, building on social psychological theories of group identification (e.g., Tajfel 1982), arguing that individuals who identify with a racial minority group have stronger preferences for descriptive racial representation than those who do not. A stronger version of this argument stipulates that shared racialized political experiences and a sense of linked fate are also necessary for shared group identification to translate into shared political preferences and behavior (e.g., Miller et al. 1981; Dawson 1994, 2001; Gay 2004; McClain et al. 2009). Analyzing original survey data from the 2012 Cooperative Congressional Election Survey (CCES), Casellas and Wallace (2015) find that 64% of Black and 53% of Latino respondents support having more legislators of the same racial or ethnic group as compared to 16% of White respondents. In another study, Wallace (2014) analyzes data from the 2006 Latino National Survey and finds that among Latinos, the demand for Latino representatives is associated with one's attachment to

Latino linked fate, using Spanish as a primary language, perceiving that Latinos as a group experience discrimination, and experiencing discrimination for being Latino. If descriptive representation is paramount to underrepresented groups given its symbolic importance, then preferences for increases in descriptive representation are expected to dominate preferences to increase other types of representation.

Multiple empirical studies in the literature offer evidence consistent with this expectation, but outside of the redistricting context. For instance, in a controlled study that varied the party label of a putatively ethnic candidate (as signaled by the candidate's surname), Lorinskas, Hawkins and Edwards (1969) find that ethnic voters, particularly those from urban areas (containing ethnic enclaves), are more willing to support a co-ethnic candidate regardless of the candidate's party label. Manzano and Sanchez (2010) analyze observational data from the 2004 National Survey of Latinos and find that Latinos with stronger levels of ethnic attachment are more likely to support Latino candidates even when that candidate is less qualified than a non-Latino alternative. In an experiment where subjects from a student research pool were randomly assigned to view the campaign website for a candidate who is putatively Latino or Anglo and then were asked if they would vote for that candidate in a nonpartisan city council election, McConnaughy et al. (2010) find that among Latinos, subjects with stronger Latino linked fate were more likely to vote for the Latino candidate than the Anglo candidate. Hayes and Hibbing (2017) similarly show that Blacks value descriptive representation even if it comes at the expense of substantive representation. They conduct two online survey experiments where white and Black subjects are asked to consider a local government committee deciding between a pro-Black and race-neutral policy proposal and where the level of Black descriptive representation on the committee and the policy proposal chosen are both randomized. Across both experiments, Hayes and Hibbing (2017) assess the effect of levels of Black descriptive representation and substantive policy outcomes on an index measure of subjects' perceived fairness of the decision. They find that when the committee chooses an unfavorable policy outcome (i.e., the race-neutral proposal),

Blacks evaluate it negatively at low levels of descriptive representation but positively at high levels of descriptive representation, suggesting that preferences for descriptive representation crowd out preferences for substantive representation.

On the other hand, a burgeoning line of research argues instead that the representational preferences of racial minorities are not a naive function of their racial identity in contemporary American politics. Instead *partisanship* plays a central role in structuring the representational preferences of racial minorities in a polity with racially polarized parties. Drawing on a combination of in-depth interviews and analyses of public opinion data, Michelson (2005) analyzes how Latinos weighed competing partisan and ethnic group identification cues when choosing between a Latino Republican and an Anglo Democrat in California's 20th congressional district in 2000, only a few years after Republicans in the state championed an anti-Latino and anti-immigrant policy agenda. She finds that partisan cues dominated ethnic cues, with most Latinos choosing to support the Democratic Anglo candidate in this setting. The importance of partisan preferences to racial minorities during this period is corroborated in work by Ansolabehere and Fraga (2016), who analyze public opinion data from the 2008 and 2010 CCES Common Content and find that Black and Hispanic Democrats are indifferent between minority and white incumbents after controlling for party: among Democratic respondents who are represented by Democratic members of Congress (MCs), Blacks are equally as likely to vote for a white or Black Democratic MC (98.9% and 98.7% respectively) and Hispanics are equally as likely to vote for a white, Black, or Hispanic Democratic incumbent (94.5%, 97.3%, and 96.0% respectively) (p. 1581, Table 8).

Thus, despite a dominant expectation in the literature that preferences for descriptive representation should dominate, there is an open theoretical puzzle about how individuals and groups in the mass public who face a trade-off between descriptive and partisan representation resolve it and the conditions under which preferences for descriptive representation are likely to dominate preferences for partisan representation, or vice versa. Moreover, there remains a need to understand whether theoretical predictions about the dominance of either

set of preferences are applicable beyond the choice contexts examined in existing studies. Prior research primarily focuses on answering these questions as they apply to incumbent or candidate evaluations in the context of electoral campaigns or in a dyadic representational framework. By contrast, research answering these questions in a redistricting context, and more generally in settings where political actors face choices about how to design electoral institutions that have implications for how power is distributed over groups, is sparse and additional research is needed.<sup>2</sup>

This paper addresses this need by assessing how individuals in the American mass public evaluate the trade-off between their preferences for descriptive racial representation and their preferences for partisan representation when confronted with the trade-off *ex ante* in a redistricting setting. I first present a simple, decision-theoretic model that clarifies the intuition behind three key theoretical questions. First, the model defines different types of individuals (defined as preference subgroups) who would or would not perceive a trade-off between racial and partisan representational preferences when asked to form preferences toward costly Democratic majority-minority districts. Second, the model generates stylized predictions about the effect of changes in the quantity and price of costly Democratic majority-minority districts on preferences for these districts, and how these preferences vary by preference subgroup. Third, a simple extension to the model clarifies how people evaluate this trade-off when increasing the number of Democratic majority-minority districts not only creates more Republican districts but also causes Republicans to gain majority control of the legislature.

To test the theoretical predictions generated by the model, I designed and analyze data from a survey experiment that elicits subjects' preferences over potential redistricting plans for a hypothetical U.S. state that vary in (1) the number of costly Democratic majority-minority districts proposed; (2) the marginal cost of a Democratic majority-minority dis-

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<sup>2</sup>There is, however, a burgeoning line of research on attitudes toward redistricting institutions (e.g., Tate 2003; Fougere, Ansolabehere and Persily 2010; Panagopoulos 2013) and preferences over other redistricting outcomes involving the preservation of shared representation for “communities of interest” (e.g., Winburn, Henderson and Dowling 2017; Christenson and Makse 2015).

trict; and (3) the state’s partisan context, operationalized as the conditions under which the additional majority-minority district would cause Republicans to gain control of the legislature. The primary outcome variable of interest is a measure of whether subjects support or oppose a given redistricting plan that proposes a certain number of costly Democratic majority-minority districts.

Analyzing data from the experiment, I report several main findings. First, in the experimental sample, I find that large majorities of Blacks and Democrats and a near-majority of Latinos prefer to elect both more minorities and more Democrats. Many individuals therefore face a trade-off between their preferences for descriptive and partisan representation when forming preferences over redistricting plans that involve costly Democratic majority-minority districts. Second, I find that among subjects who face a trade-off (i.e., who prefer to elect more minorities and who prefer to elect more Democrats), preferences for descriptive representation do not dominate preferences for partisan representation when these subjects express preferences over costly majority-minority districts. That is, for this group, support for redistricting plans does not strictly increase in the number of Democratic majority-minority districts proposed when these districts come at the cost of creating more Republican districts. This finding challenges canonical accounts in the racial and ethnic politics literature arguing that racial liberals value descriptive representation even at the expense of other welfare-improving representational outcomes. Third and relatedly, contra expectations from the literature that minority group identification (or membership) causes the demand for descriptive minority representation to be greater for racial minorities than for whites, I find that there is no difference between either Blacks or Latinos and whites in preferences over the number of majority-minority districts when these districts come at a partisan cost and when conditioning on subjects’ baseline preferences for racial and partisan representation. Finally and most importantly, I find strong evidence that for those confronting a trade-off between racial and partisan representation, preferences for legislative control by Democrats strongly dominate preferences for marginal increases in racial representation. Taken together, these



findings bolster the argument in the literature that the representational preferences of racial minorities are not a naive function of their racial identity. Instead the findings suggest that partisan preferences dominate, particularly when they are considered instrumental to achieving substantive representation.

This paper proceeds as follows. In the next section I present a simple decision-theoretic model to generate theoretical intuitions and testable predictions. Then I describe the design and implementation of the survey experiment. The next section presents the main results, and the final section concludes by discussing implications and directions for future research.

# 1 Theoretical Expectations

## 1.1 A Model of Preferences for Costly Democratic Majority-Minority Districts

I begin by presenting a simple decision-theoretic model to formalize intuitions and to develop testable predictions about (1) the types of individuals who would view evaluating preferences over costly Democratic majority-minority districts as involving a trade-off and (2) the preferences that different types of people would have over costly Democratic majority-minority districts.

Consider a state with  $N$  single-member districts and two major political parties, Democrats and Republicans. In all districts, assume that either Democrats or Republicans (and no third party) will have majority support. In  $n$  of these districts, district lines have yet to be drawn. For the sake of simplicity, assume that each of the  $n$  districts may be one of the following types: (1) a Democratic majority-minority district, (2) a Democratic majority-white district, or (3) a Republican majority-white district. Let  $m$  denote the number of Democratic majority-minority districts,  $d$  denote the number of Democratic majority-white districts, and  $r$  denote the number of Republican majority-white districts, where  $n = m + d + r$  and

$m, d, r \geq 0$  and  $m \in \mathbb{Z}^+$ . To formalize the notion that creating a Democratic majority-minority district comes at a partisan cost, I define the the number of Republican majority-white districts created when creating one Democratic majority-minority district as  $c \in \mathbb{Z}^+$ , such that  $r = cm$ . Let person  $i$ 's payoff  $u_i$  from a given redistricting plan  $\mathcal{P}(m, d, r)$  be the sum of the expected returns from the level of partisan representation proposed by the plan,  $P_i(d + m)$ , and the expected returns from the level of descriptive racial representation proposed by the plan,  $R_i(m)$ , or  $u_i(d, m) = P_i(d + m) + R_i(m)$ .

At this point, we can develop intuition behind preferences over redistricting plans for two groups that do *not* face a trade-off when creating Democratic majority-minority districts also creates Republican majority-white districts: individuals who only have preferences over the partisan distribution of seats and individuals who only have preferences over the racial distribution of seats. For people who only care about partisan representation, payoffs are only affected by  $P_i(d + m)$ , or  $u_i(d, m) = P_i(d + m)$ . For partisan seat maximizers who are Democrats (Republicans), payoffs are expected to be increasing (decreasing) in the quantity  $(d + m)$ . More specifically, because  $d = n - mc - m$ , we can rewrite plans as  $\mathcal{P}(m, c|n)$  and payoffs as  $u_i(m, c|n) = P_i(n - mc - m + m) = P_i(n - mc)$ . Holding fixed  $c$ , for people who only want to maximize the number of seats held by Democrats (Republicans), payoffs are expected to be decreasing (increasing) in  $m$ , the number of costly Democratic majority-minority districts. Holding fixed  $m$ , the same comparative statics are expected with respect to  $c$ , the cost of each Democratic majority-minority created in terms of the number of Republican majority-white districts that are also created. Similarly, for people who only care about descriptive racial representation, payoffs are only affected by  $R_i(m)$ , or  $u_i(m) = R_i(m)$ , where payoffs are increasing (decreasing) in  $m$  for people who want to maximize (minimize) the number of descriptive minority representatives elected via any means, including the creation of Democratic majority-minority districts. For this group, payoffs are invariant in  $c$ .

For groups that face a trade-off, both  $P_i(d+m)$  and  $R_i(m)$  affect payoffs. By substitution,

$$\begin{aligned}
u_i(d, m) &= P_i(d + m) + R_i(m) \\
\Rightarrow u_i(m, c|n) &= P_i(n - mc - m + m) + R_i(m) \\
&= P_i(n - mc) + R_i(m)
\end{aligned} \tag{1}$$

Let a person's payoffs for two alternative plans  $\mathcal{P}_1(m_1, c_1)$  and  $\mathcal{P}_2(m_2, c_2)$  be  $u_{1i}(m_1, c_1)$  and  $u_{2i}(m_2, c_2)$ , respectively. Comparing utilities, a person prefers  $\mathcal{P}_1 \succ \mathcal{P}_2$  when:

$$\begin{aligned}
u_{1i}(m_1, c_1) - u_{2i}(m_2, c_2) &> 0 \\
[P_{1i}(n - m_1c_1) + R_{1i}(m_1)] - [P_{2i}(n - m_2c_2) + R_{2i}(m_2)] &> 0 \\
[P_{1i}(n - m_1c_1) - P_{2i}(n - m_2c_2)] + [R_{1i}(m_1) - R_{2i}(m_2)] &> 0.
\end{aligned}$$

Denoting  $\Delta P = P_{1i}(n - m_1c_1) - P_{2i}(n - m_2c_2)$  and  $\Delta R = R_{1i}(m_1) - R_{2i}(m_2)$  to simplify notation, this yields the following theoretical expectations about how changes in the quantity or price of costly Democratic majority-minority districts proposed in a redistricting plan affect preferences for that plan:

- *Quantity effects:* Assuming  $m_1 > m_2$  and holding fixed  $c_1 = c_2$ , a person prefers a plan with more costly Democratic majority-minority districts,  $\mathcal{P}_1 \succ \mathcal{P}_2$ , if and only if one of the following three conditions hold:  $\Delta P > 0$  and  $\Delta R > 0$ ;  $\Delta P > 0$  and  $\Delta R = 0$ ; or  $\Delta P = 0$  and  $\Delta R > 0$ .
- *Price effects:* Assuming  $c_1 > c_2$  and holding fixed  $m_1 = m_2$ , a person prefers a plan with a greater cost per Democratic majority-minority district (in terms of the number of Republican majority-white districts that are also created) if and only if  $\Delta P > 0$ .

Importantly, how  $\Delta P$  and  $\Delta R$  are signed for any given person at any arbitrary values of  $m$  and  $c$  — and thus how they would choose between alternative redistricting plans — is a central theoretical question that the model alone does not address and that requires

empirical investigation.<sup>3</sup> It is also important to note that it is possible for  $\Delta P$  and  $\Delta R$  to have different signs at different values of  $m$  and  $c$  for the *same* person if the relationship between  $u$  and either  $m$  or  $c$  is non-monotonic for that person (for example, if there is a quadratic relationship between  $m$  or  $c$  and  $u$ ).

Finally, I consider an important extension to the model for the case where creating costly Democratic majority-minority districts also causes Republicans to gain control of the legislature. If a person's preferences for a redistricting plan are a partially a function of the likely majority party proposed by that plan, then we can reparameterize first component of Equation 1 that denotes the expected partisan returns from a plan as:

$$P_i(\cdot) = \begin{cases} P_i(n - mc) + M_i(\mathbb{1}[D > \frac{N}{2}]) & \text{if } i \text{ prefers Democratic majority control,} \\ P_i(n - mc) + M_i(\mathbb{1}[D < \frac{N}{2}]) & \text{if } i \text{ prefers Republican majority control, and} \\ P_i(n - mc) & \text{otherwise;} \end{cases}$$

where  $M_i(\cdot)$  denotes additional partisan returns from one's preferred party obtaining likely majority control of the legislature under a plan and  $D$  is the likely number of seats controlled by Democrats proposed by a plan. If individuals place a disproportionately high weight on the consideration of which party will likely have a majority and control a legislative chamber when they form preferences over redistricting proposals, then the magnitude of  $M$  is expected to be large and preferences are expected to be more responsive to changes in party control than to changes in the distribution of district types.

## 1.2 Main Hypotheses

Using this theoretical framework, I develop testable hypotheses about how various subgroups of substantive political interest evaluate redistricting proposals involving costly Democratic

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<sup>3</sup>Because  $m$  and  $c$  are discrete, and not continuous variables, I focus on the signs of  $\Delta P$  and  $\Delta R$  at values of  $m_1, m_2, c_1$ , and  $c_2$  instead of the sign of the partial derivatives of  $u$  or  $P$  with respect to  $m$  or  $c$  or the sign of the partial derivative of  $R$  with respect to  $m$ .

majority-minority districts. I focus on four subgroups in particular that are defined by the combination of their baseline preferences toward descriptive racial and partisan representation: (1) those who neither want to elect more racial minorities nor want to elect more Democrats; (2) those who only want to elect more Democrats; (3) those who only want to elect more minorities; and (4) those who want to elect both more minorities and more Democrats. I note that while the group that prefers electing neither more minorities nor more Democrats is likely a composite group comprised of Republicans without racial preferences, non-partisan racial conservatives, and people without partisan or racial preferences, because this study is conducted in a political setting where parties are polarized by race and ideology and where members of the mass public likely sort toward the poles, as a first approximation I expect this group to be primarily comprised of Republicans who have strong partisan preferences but lack strong preferences about racial representation per se.

I expect the first two of these groups (i.e., those who prefer neither and those who only prefer to elect more Democrats) to behave as Republican and Democratic partisan seat maximizers, respectively, for whom preferences for a redistricting plan are only affected by  $P$ , the expected returns from partisan representation. This can happen through two possible channels,  $m$  or  $c$ . With respect to expected effects on preferences due to changes in the quantity of majority-minority districts proposed, I hypothesize that support for a redistricting proposal is expected to increase in  $m$  for those who prefer neither (because as Republicans who prefer to maximize the number of Republican-controlled seats, each additional costly Democratic majority-minority district created is expected to increase the total number of Republican seats created). Conversely, support for redistricting proposals is expected to decrease in  $m$  for those who only prefer to elect more Democrats. With regard to price effects, the second possible channel by which expectations of partisan returns can affect preferences over redistricting proposals, I hypothesize that preferences are increasing in  $c$  for those who prefer neither and are decreasing in  $c$  for those who only prefer to elect more Democrats.

For the third group (i.e., those who only prefer to elect more racial minorities), their payoffs are only affected by  $R$ , the expected returns from descriptive racial representation. Thus for this group, I hypothesize that support over redistricting proposals is expected to increase in  $m$ , the number of Democratic majority-minority districts created, regardless of the fact that it also creates Republican majority-white districts.

The fourth group (i.e., those who prefer to elect more minorities and more Democrats) is expected to face a trade-off between their preferences for racial and partisan representation when forming preferences over costly Democratic majority-minority districts. For those facing a trade-off, payoffs can be affected by both  $P$  (either via quantity or price effects) and  $R$  (via quantity effects). As shown in the framework explicated above, there is no ex ante theoretical expectation why preferences for descriptive representation should “dominate” preferences for partisan representation among this group, or vice versa, because  $\Delta P$  and  $\Delta R$  are unknown for each individual and may be a function of the values of  $m$  and  $c$  being considered in any set of alternative plans.

Rather, it remains an open theoretical and empirical question whether, among those who prefer to elect more minorities and more Democrats, either (1) preferences for descriptive representation strictly dominate preferences for partisan representation (in which case preferences over the number of costly Democratic majority-minority districts would look similar to the preferences of those who only prefer to elect more minorities), (2) preferences for partisan representation strictly dominate preferences for descriptive representation (in which case preferences over costly Democratic majority-minority districts would look similar to the preferences of those who only prefer to elect more Democrats), or (3) neither set of preferences strictly dominate the other (in which case payoffs may have a flat or non-monotonic relationship with the number of costly Democratic majority-minority districts proposed).

In addition, given the expectation in the political psychology and racial and ethnic politics literatures that minority group membership (or identification) causes an individual to have stronger preferences for both symbolic and descriptive representation, I additionally

test whether support for plans involving costly Democratic majority-minority districts is higher for minorities than for whites among those facing a trade-off. If there is evidence of such a difference in this direction, then this would suggest that minorities who face this trade-off, when compared to whites who face this trade-off, place greater weight on their preferences for racial representation than on their preferences for partisan representation. More generally, the results of this test will also contribute evidence about whether group identification theories of political preference formation are applicable to this domain.

Finally, I test whether, among those facing a trade-off, individuals place a premium on their preferred party controlling a majority of the legislature. If this is the case, then among this groups, support for redistricting proposals will sharply drop (and arguably flip to opposition) if creating the marginal Democratic majority-minority district causes Republicans to gain a majority of seats in the legislature.

## 2 Experimental Design

To test these theoretical expectations, I designed and analyze data from a novel survey experiment that randomly assigns features of redistricting plans, in particular the proposed number of costly Democratic majority-minority districts, the marginal cost of a Democratic majority-minority district, and the expected partisan distribution of seats (in order to randomly manipulate the point at which the additional costly Democratic majority-minority district flips control of the legislative chamber to Republicans). In this section, I describe the design and implementation of the experiment.

**Subjects recruitment and sample definition.** Respondents who are U.S. residents age 18 and older were recruited from Amazon Mechanical Turk (MTurk) to complete an academic survey on their views and opinions. Sampling and subject recruitment occurred in three waves. In the first two waves, which occurred on June 16 and 19, 2017, 455 subjects were recruited from a convenience sample on MTurk.<sup>4</sup> In the third wave of sampling,

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<sup>4</sup>101 subjects were recruited on June 16 and 354 subjects were recruited on June 19; subjects from the

which occurred between July 4-12, 2017, Black and Latino respondents—who had previously completed unrelated MTurk surveys conducted by the researcher, who had reported their racial identification in a prior survey, and who were not a subject in the first two waves—were recontacted to take this survey and were given one week to complete the survey. No information about the study content was communicated in the recontact study recruitment email. Of the 661 Black and Latino-identified respondents recontacted, 403 (60.9%) began the survey and were admitted into the experiment as subjects.<sup>5</sup> In total, the experiment includes 815 subjects who are either Black, Latino, or White.

**Pre-treatment covariates: Partisanship, race, and baseline representational preferences.** Respondents who begin the survey provide informed consent, indicate whether they are a U.S. citizen, and confirm their year of birth. Respondents who are under 18 are immediately screened out. Respondents who proceed in the study then answer additional demographic questions about the racial groups with which they identify (multiple choice), their gender (single choice: male, female, other), and their partisan identification (7-point scale).

At this point, back-end survey logic is used to define a key pre-treatment covariate, the subject’s racial group membership (as a function of their response to the multiple-choice racial identity item). To construct this variable, I first code whether the respondent selected one or multiple racial identities. Among those who selected one racial category, their racial group membership is coded as “Black,” “Latino,” “White,” or “Other Race,” based on the category they selected.<sup>6</sup> Among those who selected more than one racial category and who select both “Black” and “Latino,” these respondents are initially classified as “Black and Latino.” Among the remaining respondents who selected more than one racial category, respondents are classified as “Black” if “Black” is selected, then (if not classified as “Black”) as “Latino” if “Latino” is selected, then (if not classified as “Black” or “Latino”) as “White”

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first wave were not allowed to enter the study in the second wave.

<sup>5</sup>No additional incentives other than standard payment for completing the survey was offered.

<sup>6</sup>Respondents who are not “Black,” “Latino,” or “White” are pooled into an “Other Race” racial category due to small sample size.



if “White” is selected, and finally all remaining respondents are classified as “Other Race.”

Based on this racial group membership covariate, subjects who are admitted into the experiment are branched into either a survey experiment that asks about descriptive minority representation specific to Blacks or to Latinos. I refer to the racial minority group for which the subject is asked to think about racial representation as the “minority group of interest.” For respondents where the racial group membership variable is coded as “Black” or as “Latino,” the minority group of interest is the same as their racial group membership. For “White,” “Black and Latino,” and “Other Race” respondents, the minority group of interest is randomly assigned as Black or Latino with equal probability.<sup>7</sup> Additionally, for the purpose of analysis, the racial group membership for “Black and Latino” respondents is subsequently recoded to match the randomly assigned minority group of interest.<sup>8</sup> The main analyses focus on 815 subjects (of 858 initial respondents) whose racial group membership is coded as “Black,” “Latino,” or “White” and are conducted separately by the minority group of interest.<sup>9</sup>

Table 1 summarizes the number of subjects in the experimental sample by the minority group of interest, the subject’s racial group membership, and the subject’s party identification. Of the 815 Black, Latino, and White subjects in the experiment, 438 subjects (250 Black and 188 White subjects) were branched to the questionnaire asking about Black representation and 377 subjects (182 Latino and 195 White subjects) were branched to the questionnaire asking about Latino representation. The Black and Latino subjects in the

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<sup>7</sup>I fail to reject the null hypothesis that, among the 383 white subjects in the experimental sample, pre-treatment demographic covariates (including partisanship, gender, education, ideology, level of political interest, class background, age, and citizenship status) are not jointly prognostic of assignment to Black or Latino as the minority group of interest ( $F = 0.74, p = 0.81$ ).

<sup>8</sup>As detailed ex ante in the pre-analysis plan, this recoding step is done in order to pool subjects who are Black and Latino with either Black subjects or with Latino subjects for the analysis. This is necessary because the number of subjects who identify as both Black and Latino is small and there is not adequate statistical power to analyze them as a separate subgroup.

<sup>9</sup>As specified ex ante in the pre-analysis plan, the “Other Race” category is not included in the analysis because there is not enough statistical power due to small sample size and because the interpretation of results for that group is not straightforward because it is a composite group of individuals with varied racial backgrounds. Appendix Table A1 summarizes the distribution of respondents and subjects included in the analysis by racial group membership and by minority group of interest.

study are majority and plurality Democratic, respectively, with 57.6% of Black subjects and 48.9% of Latino subjects identifying as Democrats. By contrast, while the white subjects in the study are plurality Democratic, a lower percentage of the white subjects identify as Democrats: 37.2% of whites asked about Black representation identify as Democrats whereas 42.6% of whites asked about Latino representation identify as Democrats.

**Table 1: Distribution of subjects by minority group of interest, subject race, and subject party.** Cells report frequencies, with row percentages (denoting the partisan distribution of subjects by the subject’s race) shown in parentheses.

Subject's racial group membership	Subject's party identification			Total
	Democrat	Independent	Republican	
<b>A. Minority group of interest: Blacks</b>				
Black	144 (57.6%)	79 (31.6%)	27 (10.8%)	250
White	70 (37.2%)	54 (28.7%)	64 (34.0%)	188
Total	214 (48.9%)	133 (30.4%)	91 (20.8%)	438
<b>B. Minority group of interest: Latinos</b>				
Latino	89 (48.9%)	49 (26.9%)	44 (24.2%)	182
White	83 (42.6%)	41 (21.0%)	71 (36.4%)	195
Total	172 (45.6%)	90 (23.9%)	115 (30.5%)	377

Respondents are then asked two key questions about their baseline racial and partisan representational preferences. First, they are asked whether they agree or disagree with the statement: “[Minority Group of Interest: Blacks/Latinos] are underrepresented in government today” (single choice: -2 Strongly Disagree; -1 Disagree; 0 Don’t Know/No Opinion; 1 Agree; 2 Strongly Agree). This question is designed to capture respondents’ beliefs about whether there are not enough Blacks or Latinos elected to government and whether there should be more Blacks or Latinos elected. Second, they are asked whether they agree or disagree with the statement: “I support electing as many Democrats as possible” (single choice: -2 Strongly Disagree; -1 Disagree; 0 Don’t Know/No Opinion; 1 Agree; 2 Strongly Agree).

I recode the responses to these two questions as two binary indicators. First, I construct a binary indicator for whether the respondent prefers to elect more Blacks or Latinos (i.e., the minority group of interest), coded 1 if the respondent agrees or strongly agrees with the

statement that the minority group of interest is underrepresented in government today and 0 otherwise. Second, I construct a binary indicator for whether the respondent prefers to elect more Democrats, coded 1 if the respondent agrees or strongly agrees with the statement that they support electing as many Democrats as possible and 0 otherwise. I then classify respondents into four strata defined by the combination of their responses to these two binary indicators, where strata capture baseline preferences for electing more racial minorities and for electing more Democrats. These strata are summarized in Table 2 and are used to observationally partition the data to assess heterogeneity in trade-off evaluations by baseline preferences.

**Table 2: Definition of strata.** Strata are defined by baseline preferences for electing more racial minorities and for electing more Democrats

Stratum	Baseline Preference for Electing More Blacks/Latinos	Baseline Preference for Electing More Democrats	Group Description
1	0	0	Prefers Neither
2	0	1	Prefers Electing More Democrats Only
3	1	0	Prefers Electing More Minorities Only
4	1	1	Prefers Both (Faces Trade-Off)

**Background information about trade-offs.** Before respondents are admitted into the experiment as subjects, they are provided with background information about the potential trade-off between descriptive and partisan representation that exists when creating Democratic majority-minority districts. The full text of the background information is shown in Appendix A. This information is provided to all subjects to ensure that all subjects explicitly know about the trade-off before being asked to evaluate it.

**Trade-off evaluation tasks and definition of treatments.** At this point, respondents are admitted into the experiment as subjects. Subjects are asked to evaluate different redistricting plans. The following three features of the redistricting plans shown to subjects are randomly assigned in order to test theoretical predictions about quantity effects, price effects, and the effect of changes in likely party control on preferences toward costly Democratic majority-minority districts:

1. The cost of each Democratic majority-minority district (in terms of the number of Republican majority-white districts also created),
2. The number of (costly) Democratic majority-minority districts, and
3. The conditions under which an additional costly Democratic majority-minority district flips control of the legislature to the Republican Party.

The task is set up as follows. Subjects are asked to compare and evaluate three different pairs of redistricting plans. (See Appendix B for the full text of the task instructions and the setup of the evaluation task.) Each pair corresponds to a different marginal cost (in terms of the number of Republican majority-white districts created) of one Democratic majority-minority district. The marginal cost of a Democratic majority-minority district can equal 1, 2, or 3 Republican majority-white districts. The order of the pairs to evaluate, by marginal cost, is randomized. Subjects can be randomly assigned with equal probability to one of  ${}_3P_3 = 6$  possible question orderings by cost.

All of these plans are for a hypothetical U.S. state where a nonpartisan and independent redistricting commission is considering different proposals for how to draw state legislative district lines for 80 legislative districts, all of which are single member districts.<sup>10</sup> The commission has already drawn the lines for 65 districts (defining them as either Democratic-advantage or Republican-advantage districts) and must decide how to draw the remaining 15 districts.<sup>11</sup> The remaining 15 districts may be one of three district types: a Democratic majority-white district, a Democratic majority-minority district, or a Republican majority-white district. The minority group of interest determines whether the majority-minority district is majority-Black or majority-Latino. Table 3 summarizes the district types as they

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<sup>10</sup>By employing a hypothetical scenario, rather than asking subjects to think about the legislature in the state in which they live, the design is able to avoid potential exclusion restriction violations and reduce outcome measurement error, both of which can arise when subjects' evaluations of treatments and responses are potentially a function of their political and electoral context.

<sup>11</sup>In a pilot study containing open-ended items to elicit subjects' reactions to the evaluation task, I found that some subjects reacted negatively to any explicit suggestion of gerrymandering in a way that raised doubts about whether they were focusing on evaluating the trade-off. Thus to increase the likelihood that subjects focus their attention on the trade-off evaluation task, (i) the redistricting authority is specified as a nonpartisan and independent commission and (ii) the districts for which lines are already drawn are labeled as Democratic or Republican "advantage" districts rather than "safe" Democratic or Republican districts.

are described to subjects.

**Table 3: District types for the 15 remaining districts.**

District Type	Majority of Voters in District Are:	Racial Composition of District:	Likely to Elect a:
Democratic Majority-White	Democrats	Over 60% White	White Democrat
Democratic Majority-[Black/Latino]	Democrats	50-60% [Black/Latino]	[Black/Latino] Democrat
Republican Majority-White	Republicans	Over 60% White	White Republican

Within a given pair of plans, conditional on the marginal cost of a Democratic majority-minority district, the proposed marginal number of costly Democratic majority-minority districts (among the 15 districts not yet drawn) is varied across plans. Each plan can propose either 0, 1, 2, or 3 costly Democratic majority-minority districts (where the racial minority group is the minority group of interest, defined earlier): by cost, two of the four values are randomly sampled without replacement, randomly ordered and then labeled as “Plan A” (left column) and “Plan B” (right column) in a comparison table (see Appendix B for a sample comparison table). Accordingly, the proposed number of Republican majority-white districts proposed is equal to the number of Democratic majority-minority districts proposed times the marginal cost of a Democratic majority-minority district, and the proposed number of Democratic majority-white districts is 15 minus the number of Republican majority-white and Democratic majority-minority districts. Table 4 summarizes the full set of possible distributions of district types that can be randomly assigned as a proposed plan, conditional on cost. For each possible marginal cost, there are 4 possible plans and therefore  ${}_4C_2 = 6$  possible pairs from which a subject is randomly assigned one with equal probability to compare and evaluate.

In addition, for each cost-specific pair, the distribution of partisan-advantage seats among the 65 already-drawn districts is randomized. The set of potential distributions (from which an actual distribution is randomly drawn and assigned to a cost-pair) are defined, conditional on the marginal cost, to vary the point at which the additional costly Democratic majority-minority district leads to expected Republican control of the legislature (e.g., the legislature flips to Republican control when moving from 0 to 1 Democratic majority-minority districts,

**Table 4: Possible distributions of district types among 15 districts not yet drawn, by the marginal cost of a Democratic majority-minority district.**

Marginal cost of a Democratic majority-minority district	Number of Districts by Type		
	Democratic Majority Minority	Republican Majority White	Democratic Majority White
1 Republican majority-white district	0	0	15
	1	1	13
	2	2	11
	3	3	9
2 Republican majority-white districts	0	0	15
	1	2	12
	2	4	9
	3	6	6
3 Republican majority-white districts	0	0	15
	1	3	11
	2	6	7
	3	9	3

from 1 to 2, etc.). Table 5 summarizes the possible distribution of partisan-advantage seats that can be randomly assigned with equal probability to a pair of plans, conditional on the marginal cost of a Democratic majority-minority district.

**Table 5: Possible distributions of partisan-advantage seats among 65 already-drawn districts, by the marginal cost of a Democratic majority-minority district.**

Marginal cost of Democratic majority-minority district	Condition when additional Democratic majority-minority district flips control of legislature to Republicans	Number of Democratic advantage districts	Number of Republican advantage districts
1 Republican majority-white district	Never (R control always)	23	42
	0 to 1 Dem. maj-min districts	25	40
	1 to 2 Dem. maj-min districts	26	39
	2 to 3 Dem. maj-min districts	27	38
	Never (D control always)	36	29
2 Republican majority-white districts	Never (R control always)	23	42
	0 to 1 Dem. maj-min districts	26	39
	1 to 2 Dem. maj-min districts	28	37
	2 to 3 Dem. maj-min districts	30	35
	Never (D control always)	36	29
3 Republican majority-white districts	Never (R control always)	23	42
	0 to 1 Dem. maj-min districts	27	38
	1 to 2 Dem. maj-min districts	30	35
	2 to 3 Dem. maj-min districts	33	32
	Never (D control always)	36	29

Each comparison table presents the two redistricting plans side-by-side, and shows the number of Democratic- and Republican-advantage districts that are already defined (same for both plans); the number of Democratic majority-white, Democratic majority-minority, and

Republican majority-white districts for the districts not yet drawn (different across plans); and the likely partisan distribution of seats and the likely party in control of the legislature for each plan (different across plans).

**Outcome measures.** For each pair in the comparison, the subject rates how much they like each plan on a scale of 0 (strongly dislike) to 100 (strongly like), with 50 labeled as “neutral.” Subjects also rate on a 5-item scale how difficult it was for them to evaluate the pair of plans (-2 Very easy, -1 Somewhat easy, 0 Neither easy nor difficult, 1 Somewhat difficult, 2 Very difficult). These questions are presented directly below each comparison table.<sup>12</sup>

This experiment is therefore designed to have the subject effectively be a member of a redistricting commission who is asked to engage in the types of trade-offs that elites confront when making redistricting decisions. Manipulating the features of potential redistricting plans they are asked to evaluate provides leverage to test theoretically-derived hypotheses about how differences between plans affect subjects’ preferences over plans and whether these preferences are driven by changes in the expected partisan or racial returns to a given plan. Finally, because the design does not examine redistricting preferences only by race or by party, which is a common practice in the literature, it avoids the need to make untested empirical assumptions about how racial and partisan groups evaluate this trade-off and the extent to which there is preference heterogeneity within each of these groups. Instead, because the design directly measures subjects’ baseline preferences for racial and partisan representation and how subjects identify with racial and partisan groups, this study advances the empirical literature on preferences for racial representation by employing these pre-treatment covariates as conditioning variables to produce exact empirical inferences that answer theoretical questions about which subgroups in the population face a trade-off and how those groups resolve it.

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<sup>12</sup>The analyses reported in this paper focus on subjects’ preferences over plans as the primary outcome. I also assess whether subjects who face a trade-off find the task of forming preferences over costly majority-minority districts more difficult than subjects who do not face this trade-off. This analysis is not central to the paper and therefore is reported in the online appendix.

## 3 Results

### 3.1 Baseline Representational Preferences

To contextualize the main results, I first describe the sample by examining the distribution of baseline representational preferences for racial and partisan representation in the experimental sample by the race and partisanship of the subject. Figure 1 presents the distribution of subjects who either only prefer to elect more racial minorities, only prefer to elect more Democrats, prefer both, or prefer neither, by the race and party identification of the subject.

Among Black and Latino Democrats, an overwhelming majorities of subjects (84% and 79.8%, respectively) prefer to elect more minorities and more Democrats. A majority of white Democrats also prefer to elect more minorities and to elect more Democrats, but at a lower rate than Black and Latino Democrats (74.3% among whites as compared to 84% among Blacks when asked about electing Blacks and 69.9% among whites as compared to 79.8% among Latinos when asked about electing Latinos). Among Democrats who do not prefer to elect more minorities and more Democrats, racial minorities are more likely to prefer to elect more minorities only whereas whites are more likely to prefer to elect more Democrats only.<sup>13</sup>

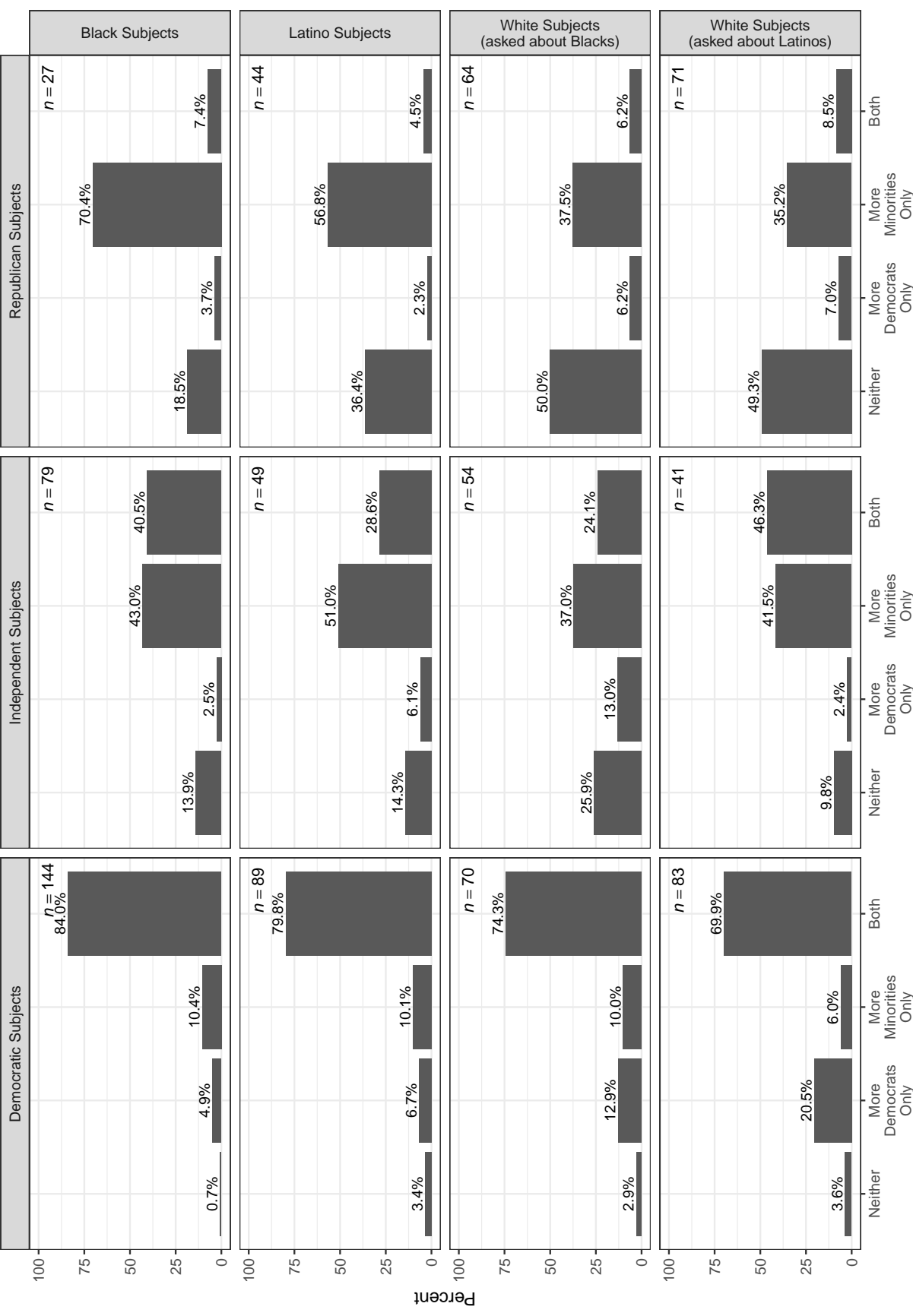
The distribution of baseline representational preferences is different among Independents. Among Black and Latino Independents, more subjects only prefer to elect more minorities of the same racial group than to elect both more minorities and more Democrats (43% vs. 40.5% among Black Independents and 51% vs. 28.6% among Latino Independents). By contrast, baseline preferences among white Independents look different and vary by the minority group of interest. Among white Independents who are asked about Black representation, 37% only prefer to elect more Blacks, 25.9% prefer neither, 24.1% prefer both, and 13% only prefer to elect more Democrats. Among white Independents who are asked asked about Latino

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<sup>13</sup>This descriptive result importantly bolsters the face validity of the sample.



**Figure 1: Distribution of baseline representational preferences by the race and partisanship of the subject.** The figure presents, for each race-by-party cell, the sample size and the relative frequency of preferences for electing more racial minorities and for electing more Democrats.



Baseline Preferences for Electing More Minorities and for Electing More Democrats (Stratum)

representation, 46.3% prefer to elect more Latinos and more Democrats, 41.5% only prefer to elect more Latinos, 9.8% prefer neither, and 2.4% only prefer to elect more Democrats.

Among Black and Latino Republicans, a majority of subjects (70.4% of Black Republicans and 56.8% of Latino Republicans) only prefer to elect more racial minorities. By contrast, most white Republicans (50% of those asked about Black representation and 49.3% of those asked about Latino representation) do not prefer to elect either more minorities or more Democrats. However, about 35-37% of white Republicans in the experimental sample reported a preference for electing more racial minorities.

Taken together, these descriptive results suggest that while partisan and racial group identification are reasonable proxies for group-specific preferences, there nonetheless exists variation in the distribution of baseline preferences for racial representation within a racial group (across partisan groups) and variation in the distribution of baseline preferences for partisan representation within a partisan group (across racial group). Consequently, as I show in the next section, partitioning the sample by baseline representation preferences, rather by racial and partisan group membership alone, provides greater leverage to make precise inferences about the type of individual who perceives and faces a trade-off and how potential trade-offs are evaluated by different types of individuals.

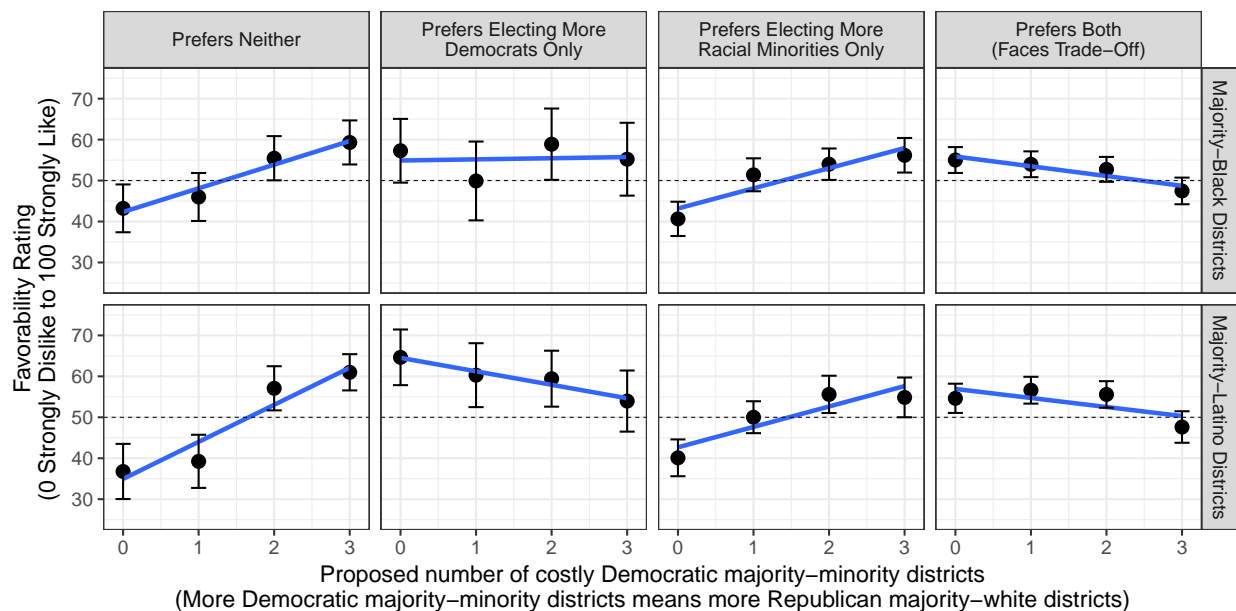
### **3.2 Quantity Effects by Baseline Representational Preferences**

When creating Democratic majority-minority districts results in the creation of Republican majority-white districts, do individuals with different baseline preferences toward racial and partisan representation form preferences over the number of costly Democratic majority-minority districts differently?

Figure 2 presents, by subjects' baseline preferences for electing more minorities and electing more Democrats (columns), mean favorability ratings for redistricting plans that vary in the number of proposed costly Democratic majority-Black (top row) and majority-Latino (bottom row) districts. The means shown in this and subsequent figure are calculated by

partitioning the data into cells by baseline preference stratum, minority group of interest, and the proposed number of costly Democratic majority-minority districts; pooling all subject-pair-plan-level observations over all possible marginal costs for all subjects within each stratum-minority group-quantity cell; then calculating the cluster mean rating where clusters are defined at the subject level. The figure presents 95% confidence intervals calculated using clustered standard errors.<sup>14</sup> The figure also presents the linear fit between the number of Democratic majority-minority districts proposed,  $m$ , and the mean favorability rating at each value of  $m$ .

**Figure 2: Preferences for costly Democratic majority-minority districts by baseline representational preferences.** The figure plots cluster means and 95% confidence intervals calculated using clustered standard errors, where data are clustered at the subject level. The blue lines show the estimated linear relationship between the proposed number of costly Democratic majority-minority districts and the (binned) mean favorability rating, by group.



As Figure 2 shows, the shape of preferences over the number of costly Democratic majority-minority districts vary by subjects' baseline preferences for racial and partisan representation (i.e., across strata) in a manner that suggests that assessing preference heterogeneity as a function of baseline preferences toward racial and partisan representation is a useful approach and that quantity effects (i.e., changes in  $m$ ) are an important channel

<sup>14</sup>See Appendix Table A4 for a table of estimates that correspond to the results shown in Figure 2.

through which preferences for redistricting proposals are affected.

The first (left-most) column of Figure 2 shows that among subjects who neither prefer to elect more minorities nor more Democrats ( $n=65$  evaluating majority-Black districts and  $n=68$  evaluating majority-Latino districts), preferences are also increasing in the number of costly Democratic majority-minority districts for both majority-Black and majority-Latino districts. Given that those in this stratum are predominately Republican (66.2% Republican, 27.1% Independent, and 6.8% Democratic) and white (67.7% white, 19.5% Latino, 12.8% Black), this result may be interpreted as and is consistent with the payoffs for a Republican who prioritizes maximizing Republican seats and who finds that increasing the number of costly Democratic majority-minority districts is incentive compatible with their preferences for partisan representation because they always prefer to reduce the total number of seats controlled by Democrats.

Moving right, the second column of Figure 2 shows preferences over the number of costly Democratic majority-minority districts among subjects who only prefer to elect more Democrats. There are relatively few subjects in this stratum ( $n=30$  evaluating majority-Black districts and  $n=33$  evaluating majority-Latino districts), as would be expected in a study setting where partisanship and racial attitudes are highly correlated, thus I do not expect *ex ante* to obtain precise estimates of preferences among this stratum. This column of the figure shows that subjects who only prefer to elect more Democrats have preferences that are decreasing in the number of majority-minority districts, but only for majority-Latino districts. This lends suggestive support to the theoretical expectation that individuals who only care about maximizing the number of Democrats elected will have preferences decreasing in the number of costly Democratic majority-minority districts. The result for majority-Black districts is not consistent with theoretical expectations and thus requires further investigation in future research. More generally, future experimental replications are needed using larger samples of subjects who belong to this stratum.

The third column of Figure 2 shows that among subjects who only prefer to elect more

racial minorities ( $n=119$  evaluating majority-Black districts and  $n=106$  evaluating majority-Latino districts), preferences are increasing in the number of costly Democratic majority-minority districts for both majority-Black and majority-Latino districts. This result is consistent with the expectations explicated in the theoretical framework.

The last and right-most column of Figure 2 shows that among subjects who face a trade-off because they prefer to elect more minorities and elect more Democrats ( $n=224$  evaluating majority-Black districts and  $n=170$  evaluating majority-Latino districts), preferences are non-monotonic over the number of costly Democratic majority-minority districts. Mean favorability ratings are above 50 at proposals with 0, 1, and 2 majority-minority districts, but then fall below 50 when 3 majority-minority districts are proposed. This pattern is observed for both majority-Black and majority-Latino districts. These results provide strong evidence that among those expected to face this trade-off, preferences for racial representation do not strictly dominate preferences for partisan representation when these individuals evaluate this trade-off.

### **3.3 Do Trade-off Evaluations Vary by Race Among Subjects Facing a Trade-off?**

I then test whether among those who prefer to elect more minorities and more Democrats, minorities are more likely than whites to support costly Democratic majority-minority districts. To do so, I examine whether preferences toward costly Democratic majority-minority districts vary by the race of the subject among this stratum. For this and subsequent main analyses examining quantity and price effects, I focus on the stratum of subjects who prefer to elect more minorities and who prefer to elect more Democrats because this is the group of primary substantive interest for whom costly majority-minority districts pose a trade-off. I additionally condition on subjects who are not Republicans to exclude subjects who identify as Republicans and may have misreported their baseline preference for electing as many

Democrats as possible.<sup>15</sup>

Figure 3 presents, by the race of the subject, preferences over redistricting plans that vary by the proposed number of costly Democratic majority-Black and majority-Latino districts. As the figure shows, the preference curves are virtually the same when comparing Blacks and whites (who evaluate plans involving costly majority-Black districts, left panel) and when comparing Latinos and whites (who evaluate plans involving costly majority-Latino districts, right panel). This suggests that, contra expectations from the literature that minority Democrats would be more supportive of costly majority-minority districts than white Democrats, there are no differences in preferences over the number of costly Democratic majority-minority districts between the minority group of interest and whites when we also condition on subjects' baseline representational preferences.

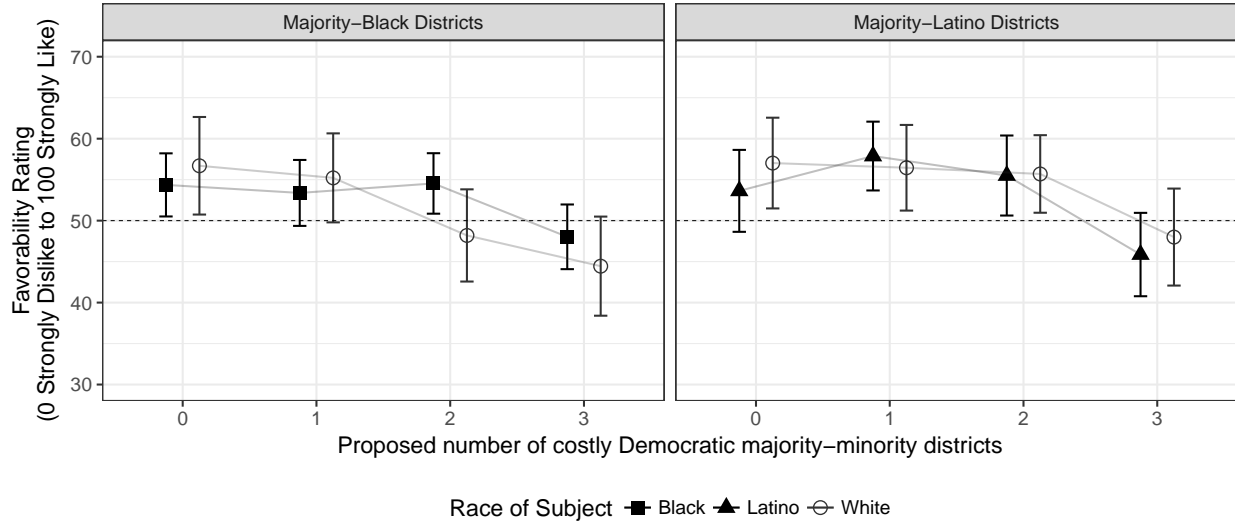
Figure A4 in the Appendix shows similar patterns for subjects who only prefer to elect more minorities and for subjects who do not prefer to elect more minorities or more Democrats.<sup>16</sup> Among subjects who only prefer to elect more minorities, there is suggestive evidence that Latinos place a greater positive on creating Democratic majority-minority districts than whites (as evidenced by the fact that the preference curve for Latinos is above that for whites among subjects in this stratum). For subjects who only prefer to elect more Democrats, the sample sizes in each cell are too small to make meaningful comparisons between the preferences of minority subjects and white subjects.

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<sup>15</sup>Excluding Republicans is necessary for two reasons. First, as shown in Appendix Figure A5, when partitioning the sample to include only subjects who say at baseline that they prefer both electing more minorities and more Democrats and then when further partitioning by party identification, subjects who identify as Republicans express preferences for electing more Republicans, not more Democrats. Excluding subjects who identify as Republicans from subsequent analyses of subjects who prefer to elect more minorities and more Democrats helps reduce the likelihood that estimates are biased (downward at lower levels of costly majority-minority districts and upward at higher levels of costly majority-minority districts). By contrast, I include subjects in the stratum-of-interest who identify as Independents under the assumption that independents who are partisan leaners will politically behave like partisans (e.g., Keith et al. 1986).

<sup>16</sup>The additional analyses shown in Figure A4 do not condition on partisanship.

**Figure 3: Preferences for costly Democratic majority-Black and majority-Latino districts by the race of the subject, among non-Republicans who want to elect more minorities and more Democrats.** The figure plots cluster means and 95% confidence intervals calculated from clustered standard errors (clustering at the subject level). The sample is restricted to subjects who prefer to elect more minorities and more Democrats and who do not identify as Republican.



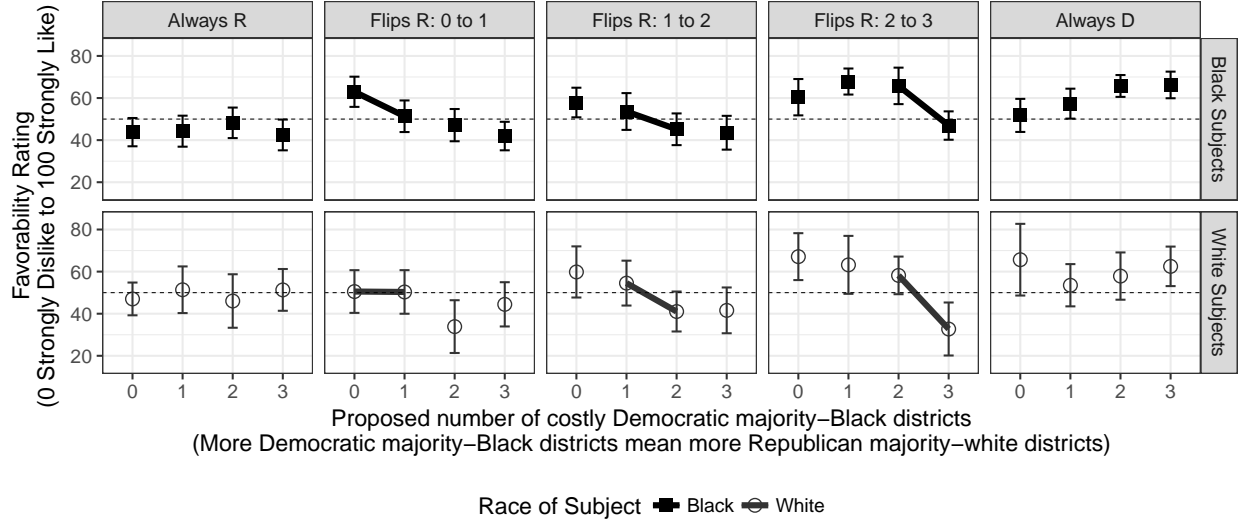
### 3.4 Party Control Premium Effects on Trade-off Evaluations

To test whether those facing a trade-off place a premium on which party is the majority party and have preferences that are highly sensitive to changes in party control, I assess whether preferences toward the number of costly Democratic majority-minority districts are affected by the conditions under which the additional majority-minority district flips control of the legislature to Republicans. Figure 4 presents preferences over the proposed number of costly Democratic majority-Black districts (panel a) and majority-Latino districts (panel b) by the race of the subject (rows) and by the condition under which the additional majority-minority district flips the legislature to Republican control (columns).

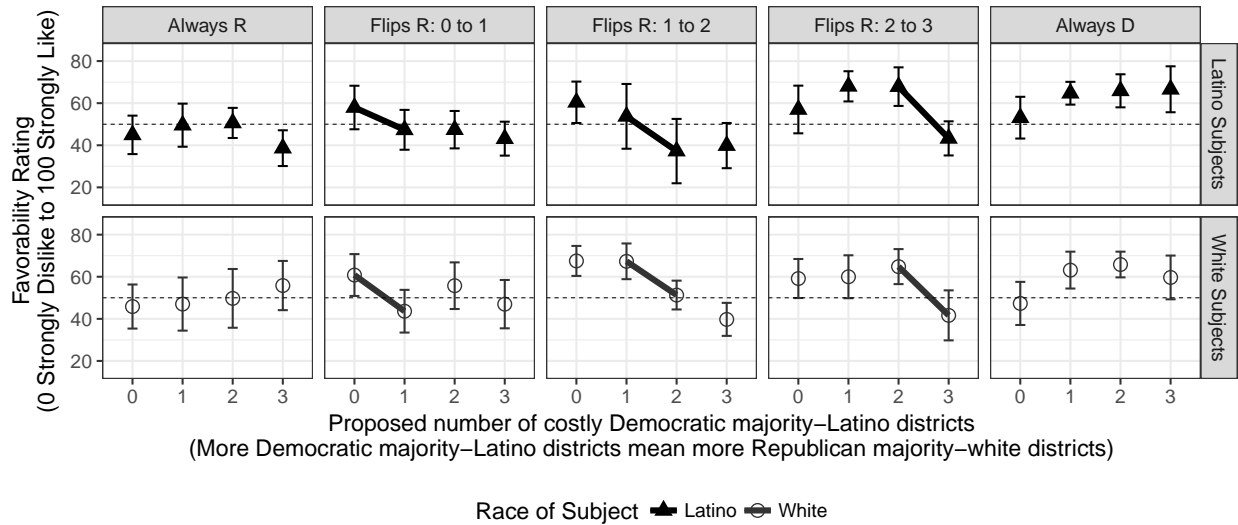
In the left-most column, which conditions on contexts where Republicans are the likely majority party across all possible redistricting plans, mean favorability ratings for both minority and white subjects are generally below 50 regardless of the number of majority-minority districts proposed. By contrast, in the right-most column, which conditions on contexts where Democrats are the likely majority party across all possible redistricting plans,

**Figure 4: Among non-Republicans facing a trade-off, how preferences toward costly Democratic majority-minority districts are affected by the conditions under which the additional majority-minority district flips legislature to Republican control.** The figure plots cluster means and 95% confidence intervals calculated from clustered standard errors (clustering at the subject level). The sample is restricted to subjects who prefer to elect more minorities and more Democrats who do not identify as Republicans. The thick black line highlights the change in preferences from the counterfactual plan where Republicans do not control the legislature to the plan where Republicans gain control of the legislature (after adding one costly Democratic majority-minority district).

(a) Majority-Black Districts



(b) Majority-Latino Districts



mean favorability ratings for Blacks and Latinos begin at around 50 when there are no majority-minority districts and are above 50 when there are 1, 2, or 3 majority-minority districts. In the middle three columns, the solid black lines highlight the difference in prefer-



ences at the point an additional costly majority-minority district flips control of the chamber to Republicans. For both minority and white subjects who face a trade-off, preferences for redistricting plans sharply decrease when adding an additional majority-minority district flips control of the legislature to Republicans (as compared to not adding that additional district).

To assess this difference formally, I restrict the data to observations at the subject-pair-plan level in contexts where a marginal majority-minority district flips the chamber to Republican control and where the proposed number of majority-minority districts is either the quantity that flips the chamber to Republican control (treatment) or the counterfactual quantity (control). Thus, for example, in a context where moving from 1 to 2 majority-minority districts flips chamber control to Republicans, the plan that includes 2 majority-minority districts would be a “treatment” plan and the plan that includes 1 majority-minority district would be a “control” plan. I then non-parametrically compare the mean rating for treatment plans to that for control plans and calculate standard errors clustered at the subject level. I find that when the marginal majority-minority district causes Republicans to gain control of the legislature, subjects who prefer to elect more minorities and more Democrats (and who are not Republicans) reduce mean support for plans from a mean of 59.79 to a mean of 45.72, or a mean difference of about 14 percentage points (s.e.=1.91,  $p<0.01$ ). As columns 1 and 2 of Table 6 show, this result is robust to the use of parametric estimators with or without covariate adjustment. Thus I find strong evidence that for those who confront a trade-off between racial and partisan representation in the context of creating costly majority-minority districts, preferences for legislative control by one’s preferred party strongly dominate preferences for marginal increases in racial representation.

I additionally conduct two sets of exploratory analyses to assess whether there are observational differences in this effect by the subject’s race or by the subject’s partisan identification, among those facing a trade-off. To explore treatment-by-race interactions, I regress subjects’ plan ratings on the “treatment” indicator, dummy indicators for race (omitting

**Table 6: Average and heterogeneous treatment effects on redistricting plan evaluations of adding a Democratic majority-minority district that causes Republicans to gain likely majority party status, among non-Republicans facing a trade-off.** The table presents estimates of the average treatment effect of changes in likely majority party on support for redistricting plan and heterogeneous effects by the subject’s race and party, among non-Republicans who prefer to elect more minorities and more Democrats.

VARIABLES	(1) Average Effect Without Covariate Adjustment	(2) Average Effect With Covariate Adjustment	(3) Effect by Race Without Covariate Adjustment	(4) Effect by Race With Covariate Adjustment	(5) Effect by Party Without Covariate Adjustment	(6) Effect by Party With Covariate Adjustment
Likely R majority (1=Yes, 0=No)	-14.07*** (1.91)	-14.73*** (1.93)	-15.02*** (2.88)	-16.10*** (2.92)	-7.04* (4.04)	-6.98* (4.23)
Subject’s race: Black (1=Yes, 0=No)		7.19** (3.05)	0.81 (3.36)	4.74 (3.83)		7.45** (3.04)
Subject’s race: Latino (1=Yes, 0=No)		-3.40 (3.04)	0.35 (3.76)	-2.38 (3.93)		-3.35 (3.02)
Likely R majority * Subject is Black			3.53 (4.14)	4.34 (4.23)		
Likely R majority * Subject is Latino			-2.64 (5.54)	-1.60 (5.52)		
Subject’s party: Democrat (1=Yes, 0=No)		-0.86 (2.79)		-1.06 (2.80)	4.34 (3.43)	4.83 (3.79)
Likely R majority * Subject is a Democrat					-9.04** (4.58)	-9.99** (4.76)
Constant	59.79*** (1.46)	46.91** (23.59)	59.43*** (2.04)	46.91** (23.28)	56.37*** (3.00)	39.91*** (14.27)
Number of Observations	644	644	644	644	644	644
Number of Subjects	334	334	334	334	334	334
Reference Group Mean Outcome	59.79	59.79	59.43	59.43	56.37	56.37
Subset of Control Group Defined as Reference Group	All	All	Whites	Whites	Independents	Independents
With Covariates?	No	Yes	No	Yes	No	Yes
Robust Clustered Standard Errors?	Yes	Yes	Yes	Yes	Yes	Yes

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01

Cells report OLS coefficient estimates with robust clustered standard errors (clustered at the subject level) in parentheses.

The outcome variable is the subject’s favorability rating of the redistricting plan on a 0 (strongly dislike) to 100 (strongly like) scale.

Covariates included for regression adjustment include dummy variables for the partisan context (i.e., whether Republicans gain likely majority control when moving from 0 to 1, or 1 to 2, etc.); the cost of each Democratic majority-minority district; and demographic covariates including age, gender, education, ideology, political interest, social class, and citizenship status.

white), and treatment-by-race interactions. Similarly, to explore treatment-by-party interactions, I regress subjects’ plan ratings on the “treatment” indicator, a binary indicator for the subject’s partisanship coded 1 if the subject is a Democrat (instead of an Independent), and a treatment-by-party interaction.

Columns 3-4 and 5-6 of Table 6, respectively, present estimates of the differences in the effect of Republicans gaining majority party status on plan ratings by race and by party. As the estimates on the treatment-by-race interactions in Columns 3 and 4 show, I find no statistically distinguishable differences in the effect of Republicans gaining majority party status on subjects’ evaluations of redistricting plans across the three racial subgroups.

However, among those facing at trade-off, I find statistically significant differences between Democrats and Independents in the effect of Republicans gaining majority party sta-

tus on subjects' evaluations of redistricting plans. When adding a majority-minority district causes Republicans to gain control of a legislature, plan favorability ratings decrease by about 7 percentage points on average (s.e.=4.04,  $p=0.08$ ) among Independents who face a trade-off. By contrast, this decrease in plan favorability ratings is about 9 to 10 points larger on average (unadjusted estimate=-9.04, s.e.=4.58,  $p=0.05$ ; covariate adjusted estimate=-9.99, s.e.=4.76,  $p=0.037$ ) among Democrats (as compared to Independents) among subjects who face a trade-off. Taken together, these findings suggest that the premium on avoiding Republican majority control is more than twice as large for people who identify as Democrats than for people who identify as Independents.

### 3.5 Does Increasing the Marginal Cost of a Democratic Majority-Minority District Affect Preferences?

Finally, I assess whether preferences toward redistricting plans that create costly Democratic majority-minority districts are affected by changes in the cost of these districts. Price effects are a second possible channel (in addition to quantity effects) through which expected changes in the partisan returns to a redistricting plan affect a person's evaluations of that plan, but are only expected to exist for individuals whose payoffs are affected through  $P$ . Given the design of this experiment, the three strata for whom price effects are relevant include subjects who prefer neither electing more minorities nor more Democrats, subjects who only prefer to elect more Democrats, and subjects who prefer to elect more minorities and more Democrats. In order to conduct a more exact test of the predictions derived from the theoretical framework, I further condition each of these groups by party identification.<sup>17</sup>

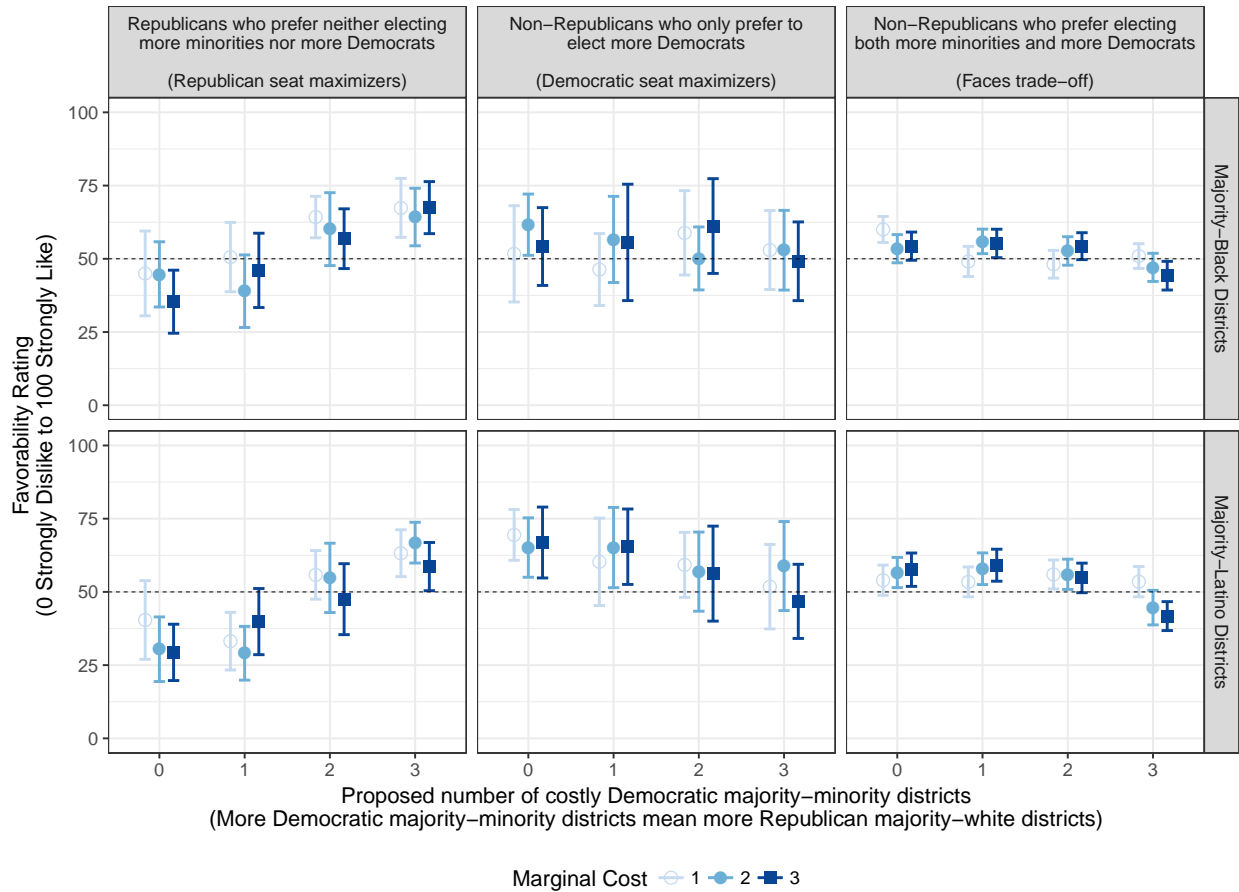
I first assess whether price effects exist for the first two of these groups: Republican and Democratic partisan seat maximizers. The left and center panels of Figure 5 presents, by the minority group of interest, mean favorability ratings at varying levels of cost  $c$  while

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<sup>17</sup>Specifically, I focus on *Republicans* who prefer neither electing more minorities nor more Democrats, *non-Republicans* who only prefer to elect more Democrats, and *non-Republicans* who prefer both electing more minorities and more Democrats.

holding fixed  $m$ , the number of costly Democratic majority-minority districts for these two groups. The theoretical framework predicts that those who only care about maximizing the number of seats controlled by Democrats (Republicans) would have preferences that decrease (increase) in  $c$ . As Figure 5 shows, there is no evidence of these patterns in the data among either of these groups. More generally, there is no evidence of consistent price effects among these two groups.

**Figure 5: Price effects among (i) Republican subjects who neither prefer to elect more minorities nor more Democrats (left), (ii) non-Republican subjects who only want to elect more Democrats (center), and (iii) non-Republican subjects who face a trade-off (right).** The figure plots means with 95% confidence intervals.



Next, I assess whether price effects exist among subjects who face a trade-off (i.e., non-Republicans who want to elect more minorities and more Democrats). The right panel of Figure 5 shows, by the type of majority-minority district and by the marginal cost of a

Democratic majority-minority district, mean plan ratings for redistricting plans with 95% confidence intervals among this group. I similarly find no consistent evidence that subjects' evaluation of redistricting plans are affected by increasing the cost of each Democratic majority-minority district.<sup>18</sup>

These results suggest that quantity effects, rather than price effects, are the primary channel through which changes in the proposed level of descriptive and partisan representation affect preferences for redistricting plans involving costly Democratic majority-minority districts.

## 4 Discussion

As preferences for partisan representation become increasingly conjoined with preferences with racial representation in America's contemporary polarized political system, citizens who prefer to elect Democrats are more likely to be racially liberal and vice versa. Accordingly, a central question to the politics of racial representation is how individuals who prefer to elect more minorities and more Democrats form preferences over alternative racial redistricting proposals where the creation of a Democratic majority-minority district also results in the creation of Republican districts or, in extreme cases, Republican gerrymanders. In such a choice context, the tension between one's preferences for partisan and racial representation poses a trade-off between competing group commitments that is expected to matter for a sizable segment of the American electorate.

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<sup>18</sup>In the Appendix, I report an exploratory analysis where, focusing on non-Republican subjects who face a trade-off, I regress plan favorability ratings on the dummy indicators for the marginal cost of a majority-minority district, the proposed number of costly Democratic majority-minority districts, and interactions between the two sets of factor variables. Appendix Table A8 reports results for this additional analysis, which is conducted for all subjects in this partition (Column 1) and then separately by the type of majority-minority district and the race of the subject (Columns 2-5). I find that increasing the marginal cost from 1 to 3 has larger negative effects on support for plans as the number of costly Democratic majority-minority districts increases to 2 or 3, but this effect only appears to exist among white subjects who are evaluating plans involving costly majority-Latino districts. Among whites evaluating plans involving costly majority-Black districts, the estimated coefficients on the interactions between a marginal cost of 3 and either 2 or 3 majority-Black districts are negative but are not statistically distinguishable from zero. By contrast, the payoffs of Black and Latino subjects who face trade-offs do not appear to be affected similarly by increases in the marginal cost of a majority-minority district.

Understanding how this trade-off is evaluated by those who face it has important theoretical implications for our understanding of the conditions under which preferences for descriptive representation trump preferences for partisan representation or vice versa. This is an active debate among scholars studying the politics of descriptive racial representation. On the one hand, a longstanding line of research argues that many citizens, especially racial and ethnic minorities, symbolically value descriptive minority representation and demand it even when it comes at the cost of substantive representation. Related work studying the effect of party and racial cues on voter evaluations of candidates and incumbents similarly find that racial and ethnic cues dominate partisan cues. On the other hand, a competing view argues that partisanship plays a dominant role in structuring representational preferences, particularly in contexts where the two major parties are racially polarized and where partisanship is instrumental to advancing the substantive interests of racial minorities. Moreover, understanding how these trade-offs are resolved also has important policy implications and can inform how political actors evaluate and weigh alternative racial redistricting proposals as a strategy to advance racial representation, broadly defined. However, questions about who exactly faces this trade-off and how those facing this trade-off evaluate it are not well understood in the literature.

This paper examines these questions both theoretically and empirically. I first develop a simple theoretical framework to clarify predictions about the type of individual who would perceive a trade-off in when creating Democratic majority-minority districts comes at a partisan cost and how different types of individuals would form preferences over the number of costly majority-minority districts. I then test the predictions from the model by designing and analyzing data from a survey experiment.

This paper has several main findings. First, I find that large majorities of Blacks and Democrats and a near-majority of Latinos—and overwhelming majorities of Democrats regardless of race—prefer to elect more minorities and more Democrats, which supports the thesis that under conjoined polarization, preferences for racial and partisan representation

are closely intertwined.

Second, I find strong evidence that preferences for racial representation do not strictly dominate preferences for partisan representation when those who prefer to elect more minorities and more Democrats form preferences over costly Democratic majority-minority districts. This result stands in contrast to dominant expectations from the literature that preferences for descriptive minority representation dominate preferences for substantive representation (and meaningful proxies for it) when the two are in conflict. Instead, as the model suggests, how each person confronting this trade-off resolves it depends on the shape of their payoff function and the specific alternatives considered.

Third and relatedly, preferences over the number of majority-minority districts in redistricting proposals do not vary by the subject's race when these districts come at a partisan cost and when controlling for subjects' baseline preferences toward racial and partisan representation. Substantively, this result challenges the validity of naive expectations from the literature that racial minorities have stronger preferences for descriptive representation than whites, particularly in a choice environment where majority-minority districts come at a partisan cost and in a context characterized by conjoined polarization. This finding also underscores a key methodological innovation of this study: the need to first condition analyses of trade-off evaluations by the joint distribution of subjects' baseline preferences, rather than only conditioning by party or race.

Most importantly, among those who prefer to elect more minorities and more Democrats (and face a trade-off), preferences for legislative control by Democrats strongly dominate preferences for marginal increases in racial representation when the counterfactual would allow Republicans to gain a majority control over the legislature. Moreover, exploratory analyses fail to find evidence of heterogeneous effects by the race of the subject. This set of findings further strengthens the argument that racial liberals and racial minorities do not naively view increasing descriptive representation as the primary means by which to improve racial representation and corroborate arguments by Michelson (2005) and Ansolabehere and

Fraga (2016) about the centrality of racial minorities' party preferences as a component of their substantive representational preferences when the two major American parties are racially polarized.

Finally, this study has several limitations that raise additional avenues for future research. First, this study primarily focused on understanding the preferences of subjects who prefer to elect more minorities and who prefer to elect more Democrats. Future studies should examine other preference subgroups of substantive interest including racial minorities who only care about increasing descriptive minority representation; Democrats who only care about increasing Democratic representation; and racial minorities who identify as Republicans, who others in the literature argue have a strong aversion to increasing minority representation if the representatives are Democrats (Casellas and Wallace 2015). Relatedly, future work should explore the extent to which there is heterogeneity in preferences among white Republicans, in particular whether preferences differ between white Republicans who strategically support increasing the number of costly Democratic majority-minority districts and white Republicans whose preference against increasing descriptive racial representation dominates their preference for increasing Republican representation. Additional experimental replications should therefore include oversamples to generate precise evidence for other subgroups of interest.

Second, future extensions should additionally assess whether trade-off evaluations vary by the relative intensity of baseline preferences for descriptive racial representation and for partisan representation. The design of this experiment is not able to distinguish, *ex ante*, those with stronger preferences for racial representation (than partisan representation) from those with stronger preferences for partisan representation (than racial representation) among Democrats who prefer both increasing racial and Democratic representation, for example. In addition to measuring the relative intensity of baseline preferences, future replications should also be conducted using elite subjects with stronger group commitments.

Third, future replications should also assess the extent to which the findings reported in



this study are externally valid and generalizable. Relatedly, an important empirical question that future work should investigate is the extent to which there is heterogeneity in baseline representational preferences and trade-off evaluations among specific racial and partisan subgroups in the population, and whether the composition of preferences in these populations are congruent with those articulated and revealed by organized interests and politicians that purport to represent these groups.

Fourth, while the experimental design reported in this study focused on understanding subjects' trade-off evaluations by assessing how preferences for costly majority-minority districts respond to changes in quantity and price at the margin, the design ignores other features of choice environments that may also affect preferences toward racial representation in real-world political contexts. Thus, future experimental extensions should additionally manipulate other features of the proposals being considered, including the racial and partisan distribution of all seats being redistricted, as well as the political and demographic conditions under which redistricting is occurring (for example, whether preferences vary by the racial minority share of the state population, by the partisan distribution of voters in the state, whether the redistricting authority is a state legislature or an independent commission, and the distribution of party control over the executive and legislative branches of government).

Fifth, the scope of this study focused on how individuals form preferences over the distribution of racial and partisan representation at the aggregate level while bracketing questions about subjects' preferences over dyadic descriptive representation (i.e., preferences to be represented by minority Democrat or to be drawn into a majority-minority district) and potential trade-offs that arise between dyadic representation and aggregate level representation. Future research should build on the framework presented in this paper to explore these extensions.

Finally, building on existing research on the effects of argumentation on minority preferences for racial redistricting (e.g., Tate 2003), the theoretical framework can be extended to

investigate whether trade-off evaluations may be affected by persuasive appeals among those who face a trade-off between partisan and descriptive representation. As politicians who seek to forge or unravel “unholy alliances” between minority Democrats and white Republicans seek mass support for their respective strategies and actions, an important feature of the politics of racial representation that requires further examination is the degree to which subjects’ preferences toward potential trade-offs between descriptive and partisan representation may be shaped by appeals from competing political entrepreneurs.

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Supplemental Appendix for:

**How Citizens Evaluate Trade-offs between Descriptive and Partisan  
Representation**

FOR ONLINE PUBLICATION ONLY

September 20, 2017

<b>A Text of Background Information about Trade-Offs between Descriptive and Partisan Representation</b>	<b>A-2</b>
<b>B Text of Instructions and Setup for Trade-off Evaluation Tasks</b>	<b>A-4</b>
<b>C Summary Statistics</b>	<b>A-7</b>
<b>D Additional Tables and Figures</b>	<b>A-10</b>

## A Text of Background Information about Trade-Offs between Descriptive and Partisan Representation

Prior to randomization, all subjects are shown the following two pages of background information about potential trade-offs between descriptive and partisan representation.

Page 1:

**Please read the following carefully:**

A central question in politics is who should hold office and govern. The process that determines who governs is determined by how electoral district lines are drawn, which happens in every U.S. state every 10 years.

When redrawing district lines, all states are bound by two main requirements:

1. Every district in a state must have the same number of people, and
2. Every district must be a single, unbroken shape.

A major implication of these requirements is that if you move one person from a district into an adjacent district, you have to move another person from that adjacent district back into the initial district.

This is important because creating a district with more people who belong to one group (such as Republicans, African Americans, or rural Americans) means that there are fewer people from that group who can be distributed across the remaining districts.

As a result, any two proposals for how to draw district lines in any given state could involve trade-offs about the political and demographic composition of districts.

On the next page, you will read more about a specific and common example of such a trade-off.

Page 2:

Since the mid-20th century, racial and ethnic minorities in the United States have relied on the Voting Rights Act to create majority-minority districts, which are districts where a majority of the population belongs to a historically underrepresented racial group (like African Americans or Latinos) so that members of that group can elect minority representatives of their choice.

Over time, the share of racial and ethnic minorities that support the Democratic Party has grown steadily. Now, overwhelming majorities of Blacks, Latinos, and Asians are

more likely to identify as and vote for Democrats instead of Republicans. Consequently, majority-minority districts have become a way to increase the number of Black, Latino, and Asian American Democrats elected at the local, state, and federal levels.

One possible consequence of creating Democratic majority-minority districts is that it results in the creation of Republican majority-white districts. This is because when people are residentially clustered by race and by party, requiring districts to have the same number of people means that putting more Democratic racial minorities into one district also means that the remaining districts are more likely to contain white Republicans.

**To summarize this trade-off:**

**Increasing the number of Democratic majority-minority districts potentially increases the number of Republican majority-white districts.**



## B Text of Instructions and Setup for Trade-off Evaluation Tasks

Subjects are first shown the following instructions:

Now for a different task.

On each of the next 3 pages, you will see a pair of redistricting scenarios to compare and evaluate.

In each pair of scenarios:

- You will be asked to think about a U.S. state.
- In that state, a **nonpartisan** and **independent** commission is charged with re-drawing the lines for the state’s legislative districts.
- The legislature has 80 districts and each district elects 1 representative.
- Most of the districts (65 of 80) have been drawn, but 15 of the 80 districts have yet to be drawn.

The remaining 15 districts could be one of the following 3 types:

District Type	Majority of Voters in District Are:	Racial Composition of District:	Likely to Elect a:
Democratic Majority-White	Democrats	Over 60% White	White Democrat
Democratic Majority-[Black/Latino]	Democrats	50-60% [Black/Latino]	[Black/Latino] Democrat
Republican Majority-White	Republicans	Over 60% White	White Republican

How district lines are drawn for these remaining 15 districts will not affect any of the 65 districts whose lines have already been drawn.

Within any pair of scenarios:

- The 65 districts that have been drawn will be the **same**.
- For the remaining 15 districts, the number of districts by district type will be **different**.

When you are ready to proceed, click the “>>” button.

Each comparison task is designed as follows:

There are 80 legislative districts in this state, of which:

- 65 districts have already been drawn
  - In [DefinedDem] of these districts, Democrats have an advantage
  - In [DefinedRep] of these districts, Republican have an advantage
- 15 districts have not yet been defined

The state’s nonpartisan and independent redistricting commission is considering the following two proposals for how to draw the lines for the last 15 districts. Please compare the two plans:

	Plan A	Plan B
<b>Districts already defined (same for both plans)</b>		
Number of districts, Democratic advantage	<i>DefinedDem</i>	<i>DefinedDem</i>
Number of districts, Republican advantage	<i>DefinedRep</i>	<i>DefinedRep</i>
<b>Districts not yet defined (different across plans)</b>		
Democratic, Majority-White	<i>DMW<sub>A</sub></i>	<i>DMW<sub>B</sub></i>
Democratic, Majority-[Black/Latino]	<i>DMM<sub>A</sub></i>	<i>DMM<sub>B</sub></i>
Republican, Majority-White	<i>RMW<sub>A</sub></i>	<i>RMW<sub>B</sub></i>
<b>Likely partisan distribution of seats (different across plans)</b>		
Likely Number of Democratic Seats	<i>TotDem<sub>A</sub></i>	<i>TotDem<sub>B</sub></i>
Likely Number of Republican Seats	<i>TotRep<sub>A</sub></i>	<i>TotRep<sub>B</sub></i>
Likely Party in Control of Legislature	<i>Party<sub>A</sub></i>	<i>Party<sub>B</sub></i>

where, for plan  $p$ ,  $DMW_p$  = number of Democratic majority-white districts,  $DMM_p$  = number of Democratic majority-minority districts,  $RMW_p$  = number of Republican majority-white districts,  $TotDem_p = DefinedDem + DMW_p + DMM_p$  is the likely number of Democratic seats in the legislature,  $TotRep_p = DefinedRep + RMW_p$  is the likely number of Republican seats in the legislature, and  $Party_p$  is the likely party in control of the legislature (Democratic if  $TotDem_p > TotRep_p$ , Republican if  $TotRep_p > TotDem_p$  and Tied if  $TotDem_p = TotRep_p$ ).

Here is an example table that assumes: the minority group of interest is Blacks, DefinedDem=30, DefinedRep=35, Plan A is (DMM=2, RMW=4, DMW=9), and Plan B is (DMM=3, RMW=6, DMW=6).

	Plan A	Plan B
<b>Districts already defined (same for both)</b>		
Number of districts, Democratic advantage	30	30
Number of districts, Republican advantage	35	35
<b>Districts not yet defined (different across plans)</b>		
Democratic, Majority-White	9	6
Democratic, Majority-Black	2	3
Republican, Majority-White	4	6
<b>Likely partisan distribution of seats (different across plans)</b>		
Likely Number of Democratic Seats	41	39
Likely Number of Republican Seats	39	41
Likely Party in Control of Legislature	Democratic	Republican

For each comparison, subjects will be asked the following questions that measure the main outcomes. These questions are displayed directly below each comparison table.

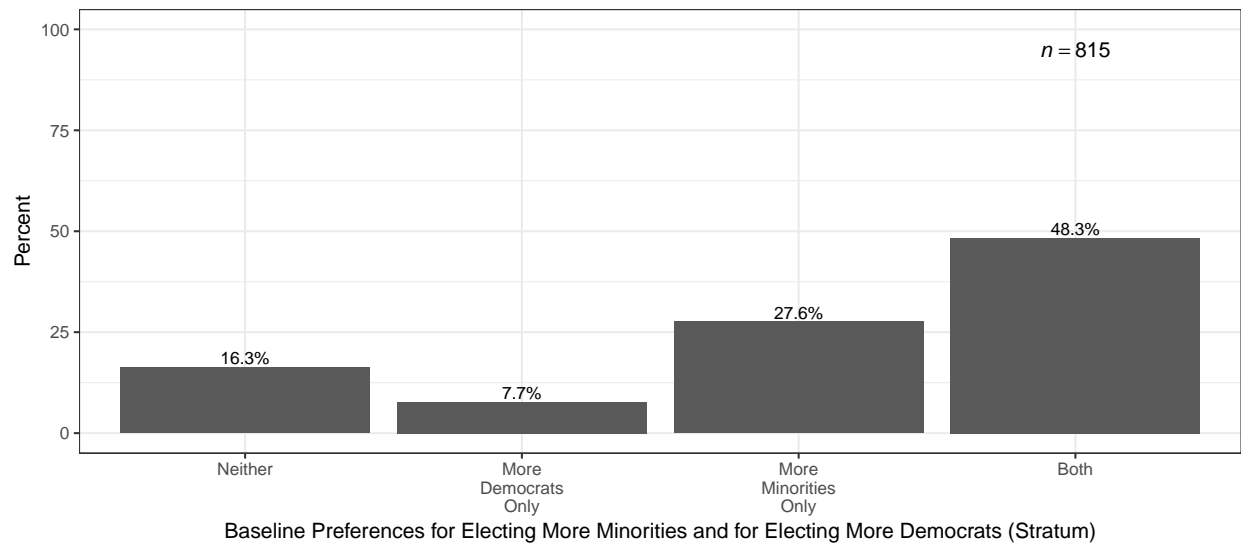
- Rate how much you like each plan:  
Plan A [scale: 0 strongly dislike, 50=neutral, 100 strongly like]  
Plan B [scale: 0 strongly dislike, 50=neutral, 100 strongly like]
  - How easy or difficult was it for you to come to that choice? (Very easy; Somewhat easy; Neither easy nor difficult; Somewhat difficult; Very difficult)

## C Summary Statistics

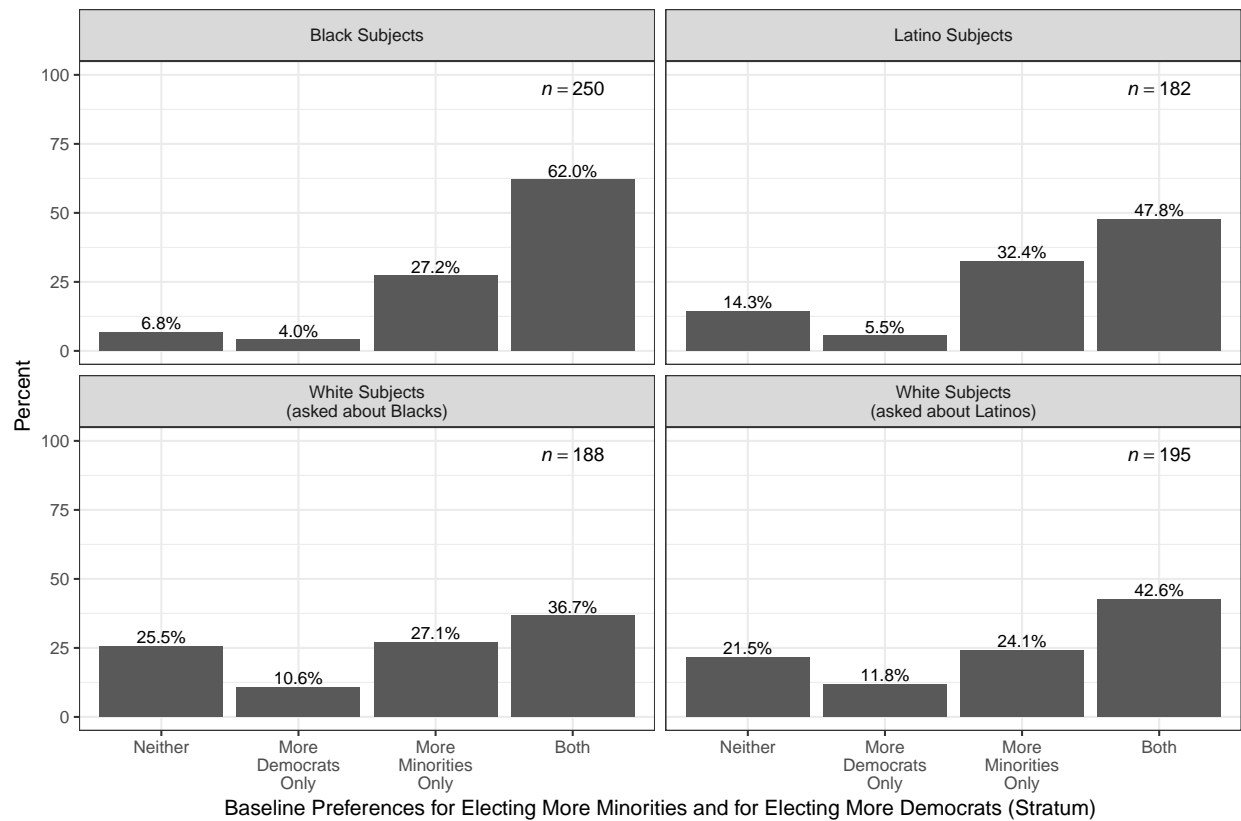
**Table A1: Distribution of respondents and subjects by racial group membership and by minority group of interest.**

Racial Group Membership	Minority Group of Interest		Total
	Black	Latino	
Black	245	0	245
Black and Latino	5	4	9
Latino	0	178	178
White	188	195	383
Other	22	21	43
Total Number of Respondents (including “Other”)	460	398	858
Total Number of Subjects (excluding “Other”; experimental sample)	438	377	815

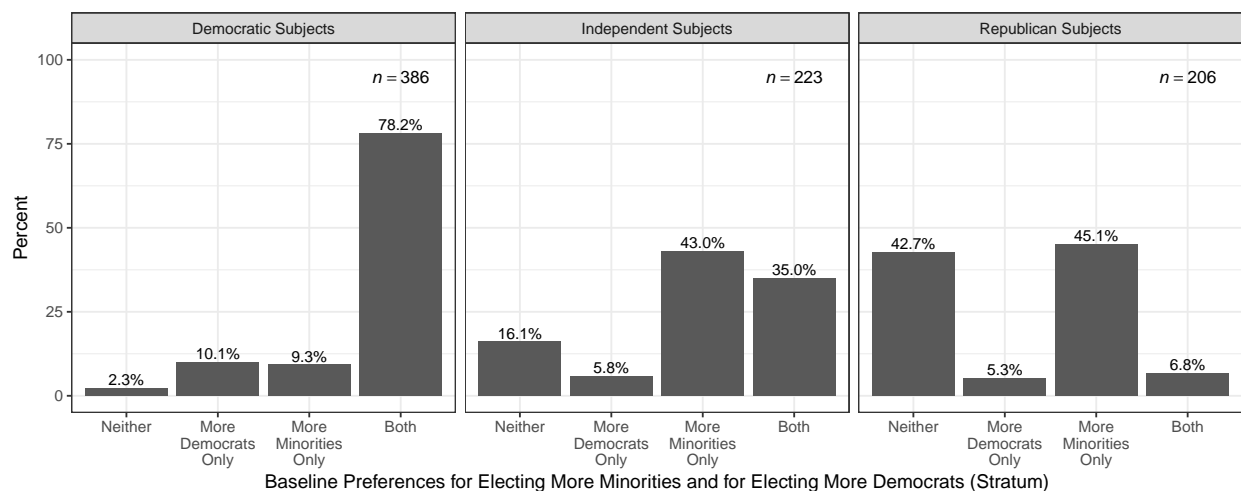
**Figure A1: Distribution of baseline representational preferences among all subjects in experimental sample.** The figure presents the sample size and the relative frequency of preferences for electing more racial minorities and for electing more Democrats.



**Figure A2: Distribution of baseline representational preferences by the subject's race.** The figure presents, for each racial group, the sample size and the relative frequency of preferences for electing more racial minorities and for electing more Democrats.



**Figure A3: Distribution of baseline representational preferences by the subject's partisanship.** The figure presents, for each partisan group, the sample size and the relative frequency of preferences for electing more racial minorities and for electing more Democrats.



**Table A2: Racial distribution of subjects by stratum.** Cells report frequencies, with row percentages reported in parentheses. Percentages may not sum to 100 due to rounding.

Stratum	Subject's racial group membership		
	Black	Latino	White
Prefers Both	155 (39.3)	87 (22.1)	152 (38.6)
Prefers Electing More Democrats Only	10 (15.9)	10 (15.9)	43 (68.3)
Prefers Electing More Minorities Only	68 (30.2)	59 (26.2)	98 (43.6)
Prefers Neither	17 (12.8)	26 (19.5)	90 (67.7)

**Table A3: Partisan distribution of subjects by stratum.** Cells report frequencies, with row percentages reported in parentheses. Percentages may not sum to 100 due to rounding.

Stratum	Subject's party identification		
	Democrat	Independent	Republican
Prefers Both	302 (76.6)	78 (19.8)	14 (3.6)
Prefers Electing More Democrats Only	39 (61.9)	13 (20.6)	11 (17.5)
Prefers Electing More Minorities Only	36 (16.0)	96 (42.7)	93 (41.3)
Prefers Neither	9 (6.8)	36 (27.1)	88 (66.2)

## D Additional Tables and Figures

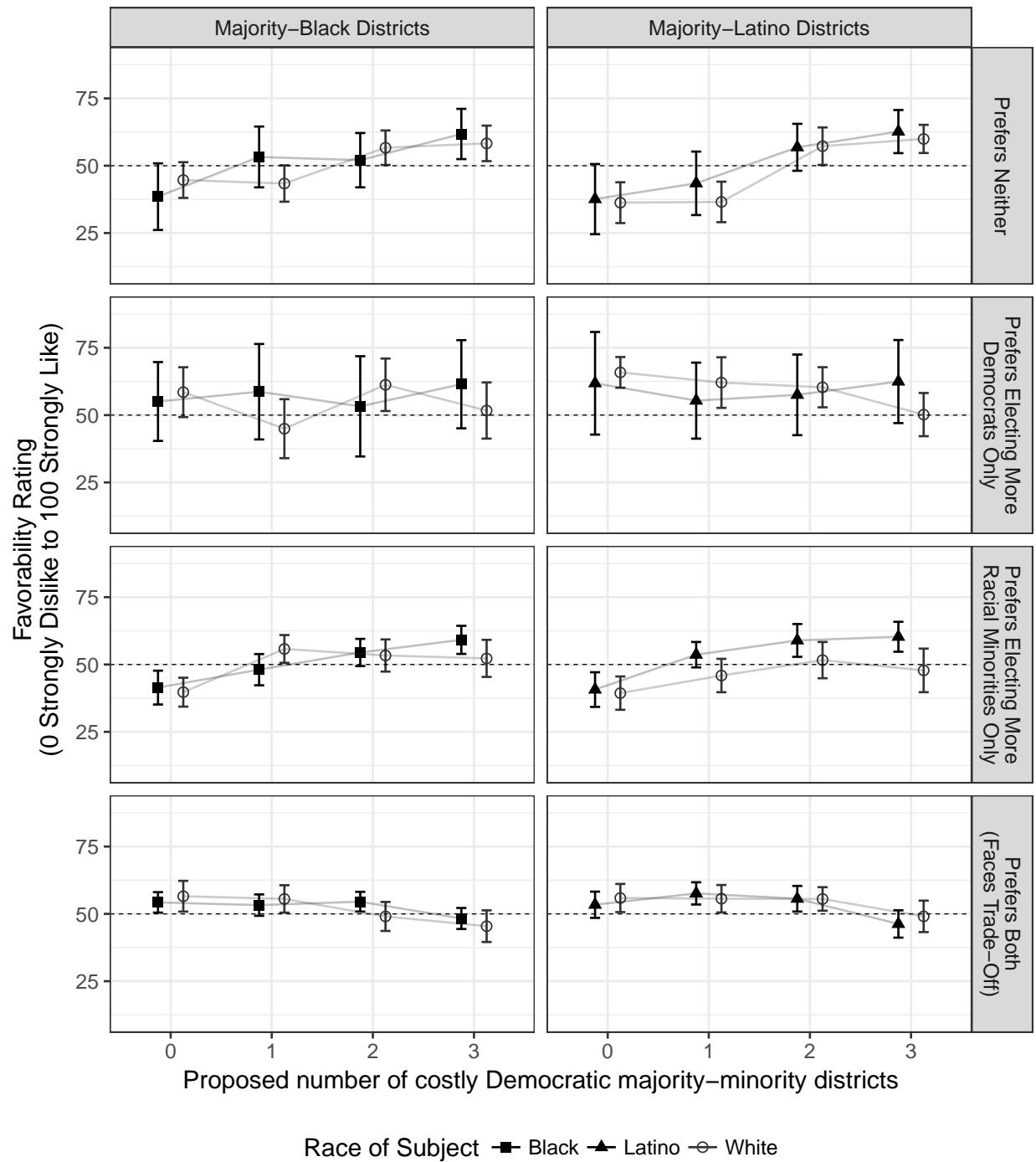
**Table A4: Mean favorability ratings toward redistricting plans with varying numbers of costly Democratic majority-Black and majority-Latino districts, by baseline representational preferences for electing more racial minorities and for electing more Democrats.** The outcome variable is the subject’s favorability rating of a redistricting plan on a 0 (strongly dislike) to 100 (strongly like) scale. Cells report cluster means (clustering at the subject level), cluster standard errors, 95% confidence intervals, and sample sizes. These values correspond to the results graphed in Figure 2 in the main text.

Number of costly Democratic majority-minority districts	Majority-Black Districts				Majority-Latino Districts			
	Mean	SE	95% CI	N	Mean	SE	95% CI	N
<b>A. Prefers Both (Faces Trade-Off)</b>								
0	55.04	(1.62)	[51.87, 58.20]	207	54.67	(1.83)	[51.09, 58.25]	149
1	54.00	(1.61)	[50.84, 57.16]	197	56.71	(1.68)	[53.41, 60.01]	145
2	52.75	(1.56)	[49.70, 55.80]	195	55.66	(1.66)	[52.41, 58.91]	150
3	47.45	(1.66)	[44.19, 50.72]	194	47.51	(1.97)	[43.64, 51.38]	147
<b>B. Prefers Electing More Democrats Only</b>								
0	57.27	(3.97)	[49.49, 65.06]	28	64.64	(3.47)	[57.85, 71.44]	30
1	49.90	(4.91)	[40.28, 59.52]	25	60.29	(3.98)	[52.49, 68.09]	30
2	58.88	(4.44)	[50.18, 67.59]	27	59.43	(3.49)	[52.59, 66.26]	28
3	55.21	(4.54)	[46.32, 64.11]	25	53.96	(3.81)	[46.50, 61.42]	26
<b>C. Prefers Electing More Racial Minorities Only</b>								
0	40.64	(2.13)	[36.46, 44.83]	107	40.10	(2.29)	[35.61, 44.60]	93
1	51.41	(2.05)	[47.38, 55.43]	97	50.02	(1.99)	[46.12, 53.92]	92
2	54.00	(1.96)	[50.16, 57.83]	105	55.59	(2.32)	[51.04, 60.15]	94
3	56.18	(2.16)	[51.95, 60.40]	109	54.86	(2.48)	[50.01, 59.72]	92
<b>D. Prefers Neither</b>								
0	43.22	(2.98)	[37.38, 49.05]	55	36.77	(3.44)	[30.04, 43.51]	56
1	45.99	(2.99)	[40.13, 51.84]	57	39.25	(3.31)	[32.76, 45.73]	59
2	55.45	(2.75)	[50.06, 60.85]	60	57.08	(2.75)	[51.69, 62.48]	62
3	59.31	(2.74)	[53.93, 64.68]	55	60.99	(2.26)	[56.57, 65.42]	60

**Table A5: Spearman rank correlations between the number of costly Democratic majority-minority districts and subjects’ rating of the proposal, by baseline preference stratum and minority group of interest.**

	Majority-Black Districts	Majority-Latino Districts
Prefers Both	-0.111	-0.103
Prefers More Democrats Only	-0.066	-0.202
Prefers More Minorities Only	0.217	0.258
Prefers Neither	0.282	0.344

**Figure A4: Preferences for costly Democratic majority-minority districts by baseline representational preferences and by the race of the subject.** The sample includes Black, Latino, and White subjects, and does not exclude subjects who identify as Republicans (i.e., does not condition on partisanship).





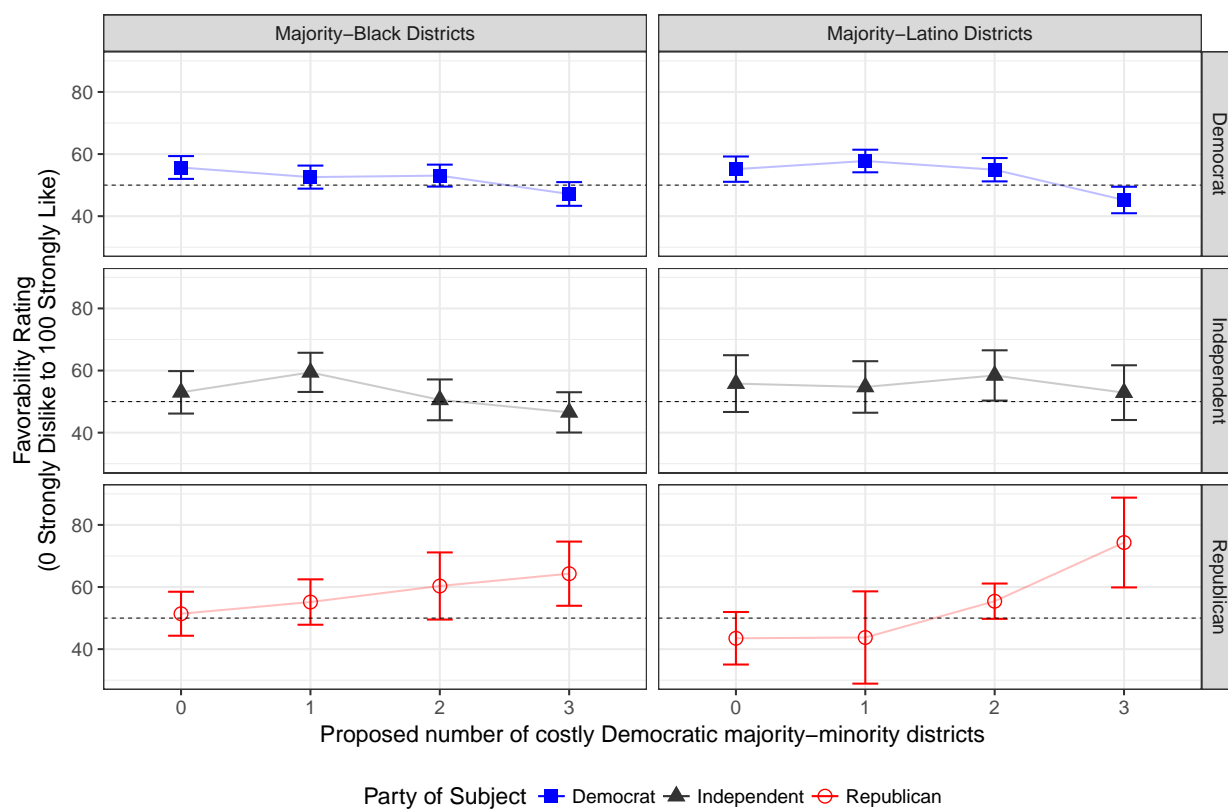
**Table A6: Mean favorability ratings toward redistricting plans with varying numbers of costly Democratic majority-Black and majority-Latino districts, by the subject’s race and by base-line representational preferences for electing more racial minorities and for electing more Democrats.** The outcome variable is the subject’s favorability rating of a redistricting plan on a 0 (strongly dislike) to 100 (strongly like) scale. Cells report cluster means (clustering at the subject level), cluster standard errors, 95% confidence intervals, and sample sizes. These values correspond to the results graphed in Figure A4.

Minority group of interest	Number of costly majority-minority districts	Black/Latino Subjects				White Subjects			
		Mean	SE	95% CI	N	Mean	SE	95% CI	N
A. Prefers Both (Faces Trade-Off)									
Majority-Black districts	0	54.30	(1.94)	[50.49, 58.11]	140	56.56	(2.91)	[50.86, 62.26]	67
	1	53.28	(2.03)	[49.3, 57.26]	135	55.55	(2.6)	[50.46, 60.65]	62
	2	54.57	(1.88)	[50.89, 58.24]	131	49.05	(2.75)	[43.67, 54.44]	64
	3	48.28	(2.00)	[44.36, 52.2]	138	45.44	(3.00)	[39.56, 51.32]	56
Majority-Latino districts	0	53.44	(2.5)	[48.53, 58.35]	75	55.90	(2.67)	[50.67, 61.12]	74
	1	57.82	(2.13)	[53.65, 62]	72	55.64	(2.60)	[50.54, 60.74]	73
	2	55.77	(2.46)	[50.95, 60.59]	78	55.54	(2.23)	[51.17, 59.91]	72
	3	46.02	(2.62)	[40.89, 51.15]	76	49.08	(2.98)	[43.25, 54.92]	71
B. Prefers Electing More Democrats Only									
Majority-Black districts	0	55.05	(7.47)	[40.41, 69.69]	10	58.51	(4.72)	[49.25, 67.77]	18
	1	58.69	(9.04)	[40.96, 76.41]	9	44.96	(5.59)	[34.01, 55.91]	16
	2	53.25	(9.49)	[34.64, 71.86]	8	61.25	(4.97)	[51.52, 70.99]	19
	3	61.46	(8.35)	[45.1, 77.82]	9	51.70	(5.32)	[41.28, 62.12]	16
Majority-Latino districts	0	61.81	(9.72)	[42.76, 80.87]	9	65.86	(2.91)	[60.16, 71.56]	21
	1	55.38	(7.2)	[41.26, 69.49]	8	62.08	(4.79)	[52.68, 71.47]	22
	2	57.52	(7.64)	[42.55, 72.49]	9	60.33	(3.8)	[52.88, 67.78]	19
	3	62.46	(7.87)	[47.04, 77.88]	8	50.19	(4.09)	[42.17, 58.2]	18
C. Prefers Electing More Racial Minorities Only									
Majority-Black districts	0	41.43	(3.21)	[35.14, 47.71]	58	39.72	(2.74)	[34.35, 45.09]	49
	1	48.08	(2.96)	[42.28, 53.87]	55	55.77	(2.63)	[50.61, 60.93]	42
	2	54.47	(2.57)	[49.42, 59.51]	61	53.34	(3.05)	[47.37, 59.31]	44
	3	59.14	(2.66)	[53.93, 64.36]	62	52.26	(3.51)	[45.38, 59.15]	47
Majority-Latino districts	0	40.69	(3.28)	[34.25, 47.12]	52	39.37	(3.15)	[33.18, 45.55]	41
	1	53.64	(2.41)	[48.91, 58.36]	49	45.90	(3.16)	[39.70, 52.10]	43
	2	58.94	(3.11)	[52.84, 65.03]	51	51.63	(3.44)	[44.89, 58.36]	43
	3	60.29	(2.83)	[54.74, 65.85]	52	47.80	(4.13)	[39.72, 55.89]	40
D. Prefers Neither									
Majority-Black districts	0	38.50	(6.31)	[26.12, 50.88]	13	44.67	(3.39)	[38.04, 51.31]	42
	1	53.26	(5.76)	[41.97, 64.55]	15	43.39	(3.45)	[36.63, 50.15]	42
	2	52.05	(5.15)	[41.97, 62.14]	16	56.69	(3.27)	[50.29, 63.09]	44
	3	61.78	(4.76)	[52.45, 71.11]	16	58.29	(3.36)	[51.70, 64.89]	39
Majority-Latino districts	0	37.60	(6.65)	[24.57, 50.62]	21	36.28	(3.87)	[28.70, 43.86]	35
	1	43.46	(6.02)	[31.67, 55.25]	23	36.55	(3.83)	[29.04, 44.07]	36
	2	56.83	(4.45)	[48.12, 65.55]	25	57.25	(3.55)	[50.30, 64.20]	37
	3	62.67	(4.08)	[54.67, 70.68]	23	59.95	(2.67)	[54.72, 65.18]	37

**Table A7: Mean favorability ratings toward redistricting plans with varying numbers of costly Democratic majority-Black and majority-Latino districts, by the subject's race and by the condition under which the additional majority-minority district flips control of the legislature to Republicans.**

# Dem. maj.-min. districts	Majority-Black Districts								Majority-Latino Districts							
	Mean	SE	95% CI	N	Mean	SE	95% CI	N	Mean	SE	95% CI	N	Mean	SE	95% CI	N
<b>A. Always Republican control</b>																
0	43.79	(3.43)	[37.08, 50.51]	48	47.02	(3.97)	[39.24, 54.8]	27	44.94	(4.66)	[35.81, 54.08]	27	45.85	(5.34)	[35.38, 56.31]	26
1	44.25	(3.76)	[36.88, 51.62]	48	51.38	(5.65)	[40.3, 62.46]	17	49.54	(5.22)	[39.31, 59.78]	24	47.02	(6.44)	[34.4, 59.65]	20
2	48.22	(3.7)	[40.98, 55.47]	41	46.03	(6.48)	[33.33, 58.74]	15	50.61	(3.65)	[43.45, 57.76]	33	49.73	(7.12)	[35.77, 63.68]	20
3	42.46	(3.73)	[35.15, 49.77]	48	51.31	(5.06)	[41.39, 61.24]	16	38.62	(4.33)	[30.13, 47.12]	24	55.82	(5.97)	[44.13, 67.52]	17
<b>B. Flips to Republican control: 0 to 1 majority-minority districts</b>																
0	62.97	(3.66)	[55.8, 70.15]	36	50.53	(5.18)	[40.39, 60.68]	15	57.94	(5.28)	[47.6, 68.28]	17	60.82	(5.07)	[50.87, 70.76]	22
1	51.35	(3.83)	[43.84, 58.86]	42	50.33	(5.28)	[39.98, 60.68]	24	47.34	(4.83)	[37.87, 56.81]	22	43.62	(5.17)	[33.48, 53.77]	24
2	47.12	(3.91)	[39.46, 54.78]	37	33.88	(6.39)	[21.34, 46.41]	16	47.41	(4.53)	[38.53, 56.29]	22	55.75	(5.65)	[44.67, 66.83]	16
3	41.94	(3.46)	[35.16, 48.71]	47	44.45	(5.36)	[33.94, 54.96]	20	43.14	(4.11)	[35.08, 51.19]	29	46.98	(5.86)	[35.5, 58.46]	26
<b>C. Flips to Republican control: 1 to 2 majority-minority districts</b>																
0	57.87	(3.59)	[50.84, 64.9]	48	59.84	(6.2)	[47.69, 71.99]	19	60.41	(5.02)	[50.57, 70.26]	23	67.52	(3.64)	[60.39, 74.65]	25
1	53.60	(4.46)	[44.86, 62.34]	35	54.54	(5.44)	[43.88, 65.2]	25	53.73	(7.85)	[38.35, 69.12]	15	67.33	(4.33)	[58.85, 75.82]	21
2	45.16	(3.84)	[37.62, 52.69]	46	41.05	(4.84)	[31.55, 50.54]	22	37.23	(7.8)	[21.94, 52.52]	13	51.30	(3.49)	[44.45, 58.15]	25
3	43.51	(4.1)	[35.48, 51.54]	40	41.59	(5.55)	[30.71, 52.47]	17	39.84	(5.48)	[29.1, 50.59]	16	39.75	(4)	[31.91, 47.59]	20
<b>D. Flips to Republican control: 2 to 3 majority-minority districts</b>																
0	60.40	(4.4)	[51.76, 69.03]	29	67.12	(5.68)	[55.98, 78.26]	17	57.00	(5.78)	[45.68, 68.32]	21	59.16	(4.73)	[49.89, 68.43]	22
1	67.84	(3.16)	[61.65, 74.03]	34	63.21	(7.03)	[49.44, 76.98]	12	68.00	(3.66)	[60.83, 75.17]	24	60.00	(5.2)	[49.8, 70.2]	20
2	65.77	(4.42)	[57.11, 74.44]	31	58.20	(4.56)	[49.26, 67.14]	20	67.85	(4.68)	[58.69, 77.02]	17	64.82	(4.24)	[56.5, 73.13]	19
3	46.93	(3.44)	[40.18, 53.67]	41	32.73	(6.42)	[20.15, 45.32]	15	43.27	(4.14)	[35.16, 51.37]	25	41.65	(6.06)	[29.77, 53.53]	20
<b>E. Always Democratic control</b>																
0	51.75	(4.01)	[43.9, 59.6]	40	65.67	(8.69)	[48.64, 82.69]	12	53.11	(5.06)	[43.2, 63.03]	25	47.33	(5.22)	[37.08, 57.57]	20
1	57.33	(3.63)	[50.21, 64.45]	38	53.53	(5.12)	[43.49, 63.56]	18	64.72	(2.76)	[59.31, 70.13]	27	63.16	(4.47)	[54.4, 71.92]	19
2	65.74	(2.65)	[60.55, 70.93]	44	57.88	(5.73)	[46.65, 69.11]	17	65.87	(4.01)	[58.02, 73.72]	31	65.81	(3.12)	[59.7, 71.92]	21
3	66.22	(3.23)	[59.9, 72.54]	43	62.50	(4.79)	[53.11, 71.89]	16	66.60	(5.57)	[55.69, 77.51]	15	59.67	(5.3)	[49.28, 70.07]	20

**Figure A5: Preferences for costly Democratic majority-minority districts by the minority group of interest and by the partisanship of the subject.** Sample restricted to subjects who state that they prefer to elect more minorities and who prefer to elect more Democrats at baseline.



**Table A8: Price effects by number of costly Democratic majority-minority districts.** Cells report coefficients from an OLS regression of favorability ratings (0-100 scale, strongly dislike to strongly like) on the marginal cost, the proposed number of costly Democratic majority-minority districts, and their interaction. The sample is restricted to subjects who prefer to elect more minorities and more Democrats and who do not identify as Republicans.

	DV = Favorability Rating (0-100 scale)				
	All Subjects	Majority-Black Districts		Majority-Latino Districts	
		Whites	Blacks	Whites	Latinos
	(1)	(2)	(3)	(4)	(5)
Cost=2	-2.443 (2.521)	-3.435 (6.155)	-7.875* (4.157)	11.012** (5.181)	-6.310 (5.191)
Cost=3	-1.625 (2.507)	-2.320 (6.067)	-7.101* (4.071)	14.885*** (5.255)	-8.069 (5.256)
Maj-Min Dist=1	-6.447** (2.539)	-11.937** (6.067)	-10.320** (4.127)	7.271 (5.217)	-9.560* (5.488)
Maj-Min Dist=2	-5.753** (2.532)	-15.854** (6.203)	-10.080** (4.142)	4.187 (5.523)	-1.811 (5.051)
Maj-Min Dist=3	-5.296** (2.475)	-5.838 (6.026)	-10.388*** (4.007)	12.880** (5.379)	-12.406** (5.051)
Cost=2 * Maj-Min Dist=1	8.393** (3.599)	15.798* (8.426)	11.996** (5.936)	-14.199* (7.686)	17.542** (7.442)
Cost=2 * Maj-Min Dist=2	7.646** (3.598)	9.911 (8.476)	12.547** (5.834)	-12.443 (7.568)	17.484** (7.691)
Cost=2 * Maj-Min Dist=3	5.030 (3.591)	8.435 (8.702)	12.062** (5.886)	-7.058 (7.645)	3.168 (7.314)
Cost=3 * Maj-Min Dist=1	4.597 (3.570)	10.707 (8.487)	12.443** (5.826)	-8.746 (7.885)	1.495 (7.190)
Cost=3 * Maj-Min Dist=2	-3.444 (3.544)	-3.293 (8.614)	5.138 (5.709)	-26.316*** (7.736)	1.975 (7.266)
Cost=3 * Maj-Min Dist=3	-7.259** (3.546)	-11.605 (8.677)	3.050 (5.731)	-37.553*** (7.680)	4.790 (7.227)
Constant	57.291*** (1.750)	58.467*** (4.422)	60.608*** (2.860)	49.063*** (3.493)	59.619*** (3.671)
Observations	2,280	390	918	462	510
Adjusted R <sup>2</sup>	0.024	0.032	0.011	0.053	0.039

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01

The outcome variable is the subject's favorability rating of the redistricting plan (0-100 scale, strongly dislike to strongly like).

The omitted reference categories are Cost=1 and Number of Majority-Minority Districts=0.

**Table A9: Between-stratum differences in mean task difficulty ratings.**

Between-stratum observational comparison of interest	Difference in means	SE	t-statistic	p-value
<b>A. All Subjects</b>				
Prefers Both - Prefers More Democrats Only	0.106	0.152	0.698	0.486
Prefers Both - Prefers More Minorities Only	-0.086	0.094	-0.922	0.357
Prefers Both - Prefers Neither	0.037	0.112	0.327	0.744
<b>B. Blacks</b>				
Prefers Both - Prefers More Democrats Only	-0.023	0.352	-0.064	0.949
Prefers Both - Prefers More Minorities Only	-0.123	0.157	-0.782	0.435
Prefers Both - Prefers Neither	0.054	0.275	0.196	0.845
<b>C. Latinos</b>				
Prefers Both - Prefers More Democrats Only	-0.031	0.357	-0.087	0.931
Prefers Both - Prefers More Minorities Only	0.154	0.180	0.854	0.394
Prefers Both - Prefers Neither	0.415	0.239	1.739	0.084
<b>D. Whites</b>				
Prefers Both - Prefers More Democrats Only	0.164	0.203	0.807	0.420
Prefers Both - Prefers More Minorities Only	-0.184	0.152	-1.209	0.228
Prefers Both - Prefers Neither	-0.070	0.156	-0.447	0.655
<b>E. Democrats</b>				
Prefers Both - Prefers More Democrats Only	0.041	0.184	0.224	0.823
Prefers Both - Prefers More Minorities Only	-0.196	0.191	-1.026	0.306
Prefers Both - Prefers Neither	0.554	0.366	1.513	0.131
<b>F. Independents</b>				
Prefers Both - Prefers More Democrats Only	0.115	0.340	0.339	0.735
Prefers Both - Prefers More Minorities Only	-0.066	0.173	-0.379	0.705
Prefers Both - Prefers Neither	0.094	0.229	0.411	0.682
<b>G. Republicans</b>				
Prefers Both - Prefers More Democrats Only	0.649	0.474	1.371	0.172
Prefers Both - Prefers More Minorities Only	0.382	0.337	1.135	0.258
Prefers Both - Prefers Neither	0.354	0.338	1.046	0.297

## Is the Task of Forming Preferences over Costly Majority-Minority Districts Difficult for Subjects Facing a Trade-off?

I also assess whether subjects who face a trade-off find the task of forming preferences over costly majority-minority districts more difficult than subjects who do not face this trade-off. This analysis is not central to the paper and therefore is reported here in the online appendix.

For this analysis, there are two substantive quantities of interest: the mean level of difficulty among subjects facing a trade-off and whether there are mean differences in task difficulty between preference groups defined by stratum membership, race, and party. Table A10 present mean levels of difficulty (-2 to 2 scale, very easy to very difficult) by stratum for all subjects (Column 1), by race (Columns 2-4), and by party (Columns 5-7), estimated using a no-intercept OLS model regressing the difficulty rating on stratum membership indicators. For this analysis, I restrict the sample to include only data from the first comparison task that the subject answered in order to exclude later evaluations of task difficulty (from the second and third comparisons) that may incorporate information about the subjects' ability to familiarize themselves with the task.

**Table A10: Mean levels of perceived difficulty of comparing alternative redistricting plans by baseline preference stratum.** Cells report group means with standard errors in parentheses. Sample restricted to data from the first comparison question the subject answered.

	DV = Difficulty of comparison task (-2 Very easy, 2 Very difficult)						
	All Subjects	Blacks	Latinos	Whites	Democrats	Independents	Republicans
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Prefers Neither	-0.105 (0.097)	-0.176 (0.262)	-0.346 (0.209)	-0.022 (0.124)	-0.667* (0.361)	-0.056 (0.189)	-0.068 (0.125)
Prefers Electing More Democrats Only	-0.175 (0.141)	-0.100 (0.341)	0.100 (0.338)	-0.256 (0.179)	-0.154 (0.173)	-0.077 (0.315)	-0.364 (0.354)
Prefers Electing More Minorities Only	0.018 (0.075)	0.000 (0.131)	-0.085 (0.139)	0.092 (0.119)	0.083 (0.180)	0.104 (0.116)	-0.097 (0.122)
Prefers Both	-0.069 (0.056)	-0.123 (0.087)	0.069 (0.114)	-0.092 (0.095)	-0.113* (0.062)	0.038 (0.129)	0.286 (0.314)
Observations	815	250	182	383	386	223	206
Adjusted R <sup>2</sup>	0.0003	-0.006	-0.002	-0.001	0.009	-0.013	-0.006

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01

The outcome variable is the subject's perception that the evaluation task was difficult (-2=Very easy, 2=Very difficult).

As Table A10 shows, none of the estimated mean levels are statistically distinguishable from zero (neither easy nor difficult) at a 0.05 level and most mean levels are negative (in the "easy" direction instead of the "difficult" direction). On average, subjects who face a trade-off between partisan and racial representation do not find the task of forming preferences over alternative redistricting plans with varying numbers of costly majority-minority districts difficult. Differences in group means between strata are presented in Appendix Table A9, which shows that on the whole subjects who prefer to elect more minorities and more Democrats

did not find the task of preference formation more difficult on average than subjects from other strata. Among Latinos and among Democrats, subjects who preferred increasing both racial and Democratic representation found the evaluation task to be more difficult than subjects who preferred neither (differences of 0.42 and 0.55 among Latinos and Democrats, respectively), but both fall short of statistical significance at the 0.05 level ( $p = 0.08$  and  $p = 0.13$ , respectively).