When Do Partisans Cross the Party Line?

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Abstract

When will partisans cross party lines to elect a potentially better-performing opposition politician? Individuals in developing countries vote for politicians in expectation of public goods. Partisan geography influences voters' beliefs about politicians' ability to exclude them from such goods. Since voters believe they are better able to replace poorly performing incumbents in competitive districts, partisans in non-segregated, competitive constituencies are more likely to vote for opposition candidates than those in other settings. Using a conjoint experiment administered to voters that randomized the characteristics of parliamentary candidates in Ghana, I find that voters in competitive, non-segregated districts are the most willing to cross party lines. Additional data on actual public goods distribution supports the mechanism. Data from Ghana's 2020 parliamentary elections confirm the external validity of the findings: party switching is highest in this type of district. My results demonstrate the influence of constituency characteristics on electoral accountability.

1 Introduction

Partisanship is a critical determinant of vote choice in many electoral settings, including in newer democracies in sub-Saharan Africa (Young, 2009; Hoffman and Long, 2013; Carlson, 2016). Scholars argue that partisans – voters who feel closer to one party over another (Brader and Tucker, 2001; Eggers et al., 2014) – believe officeholders favor communities that support them when distributing public goods. In turn, voters' expectations of such favoritism serve as a major driver of partisan (ethnic) voting (Bates, 1983; Posner, 2005).

However, as local public goods are non-excludable, politicians can only target their supporters when they live in distinct communities (i.e., when they are segregated) (Ejdemyr, Kramon and Robinson, 2017; Harris and Posner, 2019). Further, Harris and Posner (2019) show that partisan favoritism is often confined to segregated electoral districts that are also competitive. In other words, politicians consider both partisan geography and electoral competition (hereafter local conditions) when distributing public goods. We have limited knowledge of whether such local conditions also shape voters' *beliefs* about partisan favoritism and, in turn, vote choice. Specifically, prior studies focus on how local conditions shape politicians' behavior, but we know little about whether voters expect this behavior and respond to it. This study focuses on the latter, providing a new theory and evidence to fill this gap.

I argue that partisan geography and electoral competition influence partisans' propensity to vote for opposition politicians. Regarding *partisan geography*, partisans are more likely to cross party lines when they live side by side with opposition supporters. In *partisan non-segregated* electoral districts, officeholders cannot exclude opponents from local public infrastructure (Ichino and Nathan, 2013; Nathan, 2016). However, partisans only have an incentive to look beyond their party's candidate in *competitive* constituencies, where voters can "try out" potentially better opposition candidates knowing they can sanction them if they renege on their campaign promises (Fearon, 1999; Keefer and Vlaicu, 2005). In electoral settings in which these two conditions do not hold, partisans are unlikely to cross party lines – either because they do not expect to benefit from the goods the opposition candidate will provide, or because they believe their vote is not pivotal (or both).

Using data from a random set of respondents (N = 2,040) located in a stratified, nationally representative sample of electoral districts in Ghana, I show that local partisan geography shapes party

supporters' expectations of favoritism in politicians' distribution of public goods — in this case, discretionary Constituency Development Funds (CDFs). Specifically, partisans in non-segregated constituencies are more likely to expect opposition and copartisan officeholders to evenly distribute local public goods in their communities because it is difficult to target the provision of such goods only to supporters in a diverse community. By contrast, voters in segregated constituencies expect copartisan politicians to provide more infrastructure to their communities than to opposition areas. These expectations are exaggerated in competitive constituencies. Similar patterns hold when analyzing respondents' reports on the *actual* receipt of local infrastructure. These results are consistent with the empirical studies cited above that suggest local demography and electoral competition shape the distribution of public goods.

I use a conjoint survey experiment to ascertain whether these expectations go on to influence vote choice. Like real campaigns, the conjoint survey allows respondents to compare candidates across a range of characteristics. The component of interest is public goods offered by opposition versus copartisan candidates. I classify respondents as willing to cross the party line if they are equally (or more) likely to select an opposition candidate at the same level of promised expenditure on public goods. I similarly investigate whether partisans are more (or less) likely to select an opposition candidate who promises *more* of a public good over a copartisan candidate who pledges a *less* of the good.

As the conjoint experiment randomly varies these attributes of hypothetical candidates (public goods pledge and party ID), these quantities — average combination effects (ACEs) — can be interpreted as the causal effect of infrastructure-provision promises by opposition versus copartisan aspirants (Egami and Imai, 2019). To assess the theory's validity, I compare these ACEs in competitive/non-segregated constituencies — where I expect partisans to be ambivalent between opposition and party candidates who make the same promises, or to pick an opposition candidate who pledges better (or more) public goods — to partisans who reside in other types of constituencies.[1]

The results from the conjoint confirm three assumptions of the theory. First, in the full sample, respondents prefer candidates who promise to spend a larger share of their CDFs on public infrastructure. These results are consistent with scholarly work that shows that citizens judge their parliamentarians by their ability (or promise) to deliver local public infrastructure (Lindberg, 2010; Barkan et al., 2010).

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[1]Appendix D.3 disaggregate the results by all constituency types.

Second, the results confirm that citizens prefer copartisans over non-copartisan aspirants. Third, when given the choice between two candidates who make comparable campaign promises, voters prefer a copartisan over an opposition politician, suggesting a partisan bonus for copartisan candidates.

Disaggregating the latter results by constituency type, partisans become ambivalent toward (or prefer) opposition candidates relative to copartisan candidates in competitive/non-segregated constituencies. This is true when copartisan and non-copartisan candidates promise the same amount of public goods *and* when opponents promise greater investments in public infrastructure. These results are robust to controlling for theoretically relevant observable individual- and constituency-level factors that may confound the relationship between constituency type and voters' propensity to cross party lines. I pre-registered my hypotheses to increase assurances that the results are not the product of "fishing."

An important implication of my theory is that because voters are more likely to substitute opposition for copartisan politicians in competitive/non-segregated relative to other constituencies, we should observe a higher party-candidate turnover in the former. And indeed, this is what occurred in Ghana's 2020 legislative elections, which were held after the study: local opposition party candidates won in 52% of competitive/non-segregated constituencies but only 18% of other constituencies. Further, only one of the country's eight (13%) competitive/segregated constituencies experienced such a switch, which provides external validation of the results.

This research builds on important work by Ichino and Nathan (2013) and (Nathan, 2016), providing valuable theoretical and empirical extensions. They argue that citizens' expectations of ethnic bias in the allocation of public goods ensure that they consider their neighborhood's ethnic-partisan composition in their vote choice. Specifically, they find that voters who belong to a minority ethnic group may cross the ethnic-party line to vote for a majority group's presidential candidate in their neighborhood. Such tactical voting behavior ensures that they benefit from the public infrastructure provided by the ethnic-majority incumbent. In contrast, my study suggests that Ichino and Nathan (2013)'s findings may be confined to competitive electoral districts. This extension is important because most electoral districts in Ghana are uncompetitive (about 80% of the country's 275 constituencies). Similarly, the median margin of victory was 25% in legislative elections across six African countries (Choi, 2018).[2]

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[2]In presidential elections organized in sub-Saharan Africa between 1990 and 2011, the mean margin of victory was 45% (data source: Lindberg (2006) as updated by Michael Bratton).

Also, Ichino and Nathan (2013) do not make predictions about party switching when partisans of opposing parties live side-by-side in equal numbers. My findings suggest that it is in these settings that partisans have the greatest incentive to choose opposition candidates. Methodologically, my conjoint survey experiment directly tests how expectations about the distribution of public goods encourage cross-party voting while Ichino and Nathan (2013) assume such beliefs. However, alternative explanations such as changes in the level of trust of out-groups or cognitive bias may explain when voters cross ethnic-party lines (Scacco and Warren, 2018; Carlson, 2015; Adida et al., 2017). Moreover, my use of a conjoint survey helps mitigate the potential inferential challenge of using actual votes that may be explained by parties' strategic mobilization efforts (Larcinese, Snyder Jr and Testa, 2013).

The paper makes further contributions to the literature on distributive politics and voting behavior. Building on the idea that local demographics and electoral competition shape where politicians choose to distribute public goods (Ejdemyr, Kramon and Robinson, 2017; Harris and Posner, 2019), it demonstrates that these factors shape individuals' perceptions of partisan favoritism as well as their strategic voting behavior. Thus, the study adds to a growing body of research that considers how voters' expectations about partisan or ethnic favoritism encourage them to cross party-ethnic lines (or not), and demonstrates that partisan geography and electoral competition shape these beliefs (e.g., Arriola, Choi and Gichohi, 2016; Ichino and Nathan, 2013; Ferree and Horowitz, 2010; Ferree, 2006; i Miquel et al., 2007; Carlson, 2015).

Finally, the research contributes to the literature on parliamentary candidate selection. Others have shown that the provision of (or promise to supply) public goods influences the behavior of swing voters (Weghorst and Lindberg, 2013; Lindberg and Morrison, 2008; Lindberg, 2010). My findings suggest that even partisans can moderate their opinions and vote for opponents who promise more public goods under certain conditions. The results add to other empirical work that displays evidence of partisan moderation such as studies by Conroy-Krutz and Moehler (2015), Platas and Raffler (2019), and Brierley, Kramon and Ofosu (2020).

2 Crossing party lines: the dual importance of partisan geography and electoral competition

A vast literature on African politics indicates that citizens' *beliefs* about politicians' biased distribution of local non-excludable goods such as clinics, schools, bridges, and markets drives partisan (or ethnic) voting (Bates, 1983; Chandra, 2007; Ferree, 2006; Posner, 2005; Conroy-Krutz, Moehler and Aguilar, 2016). However, recent scholarship shows that politicians can only target their supporters with such benefits when they reside in distinct communities. For instance, Ejdemyr, Kramon and Robinson (2017) show that politicians exert more effort to provide public goods in ethnically segregated constituencies and target these benefits to coethnics in Malawi. In Kenya, Harris and Posner (2019) likewise find that partisan bias in legislators' distribution of their discretionary CDFs is limited to segregated constituencies.

Moreover, high electoral competition increases politicians' incentives to favor their supporters in segregated constituencies (Dixit and Londregan, 1995, 1996; Cox, 2010). Harris and Posner (2019) show that the partisan bias in the distribution of Kenyan MPs' CDFs is greatest in segregated constituencies that were also competitive. Alternatively, studies on clientelistic politics suggest that high levels of electoral competition can motivate politicians to avoid discriminating between supporters and detractors in the distribution of public goods because they need to attract opposition voters even if they are segregated (Diaz-Cayeros, Estévez and Magaloni, 2016; Asunka, 2017).

However, these studies focus on how local conditions — partisan geography and electoral competition in particular — shape politicians' tactical distribution of public goods. We still know little about whether these local conditions shape voters' expectations about politicians' behavior — how these expectations influence their voting decisions. Notable exceptions include Ichino and Nathan (2013) and Nathan (2016), who examine how local demographics shape citizens' instrumental ethnic voting behavior. While novel, their work does not help us determine whether the influence of local ethnic (partisan) composition on vote choice varies according to the level of electoral competition. They assume that ethnic-minority voters believe their vote will tilt the national vote in favor of the majority-group candidate in their neighborhood. However, Casey (2015) shows in Sierra Leone that voters are more likely to

cross ethnic-party lines in *competitive* electoral settings. Therefore, our theory of voters' instrumental voting must consider both partisan geography *and* electoral competition.

I argue that partisan geography and electoral competition influence individuals' propensity to vote for an opposition candidate. The geographic distribution of party supporters within a voter's constituency shapes her expectations about whether she will personally benefit from an opposition candidate's promised public goods. The degree of electoral competition determines whether her vote will be pivotal in selecting a public-good-promising opposition candidate — or voting out one who reneges on their pledge. These beliefs will vary by constituency type and affect the probability of crossing party lines.

I assume that voters and politicians belong to either Party A or B and compete in a single-member electoral district. I also assume that voters prefer candidates who deliver local public goods (i.e. schools, roads, streetlights, health clinics, etc.) (Harding, 2015; Barkan et al., 2010; Lindberg, 2010; Weghorst and Lindberg, 2013). Electoral constituencies (districts) are comprised of multiple polling station catchment areas (which I refer to hereafter as communities) that have different concentrations of supporters of each party and varying levels of electoral competition. Figure 1 displays four constituency types. Within each type, each circle represents a single community. Column (1) of Figure 1 displays partisan/segregated constituencies, in which each polling station is dominated by supporters of either Party A (P_A) or Party B (P_B). Column (2) depicts partisan/non-segregated constituencies, in which each polling station contains a mix of supporters from both parties. I assume that voters know which party (A or B) supporters dominate their polling station/community and the electoral competitiveness of their constituency.

A constituency is considered competitive if voters are more or less equally divided between P_A and P_B, and non-competitive if voters predominantly support one party. The level of electoral competition affects the partisan geographic configuration of a constituency's polling stations. In competitive, partisan-segregated constituencies, one party's supporters, say P_A, will dominate about half of the polling stations, and those of P_B will control the other half. In non-competitive, partisan-segregated constituencies that are dominated by P_A (P_B), its partisans will dominate, say, three-quarters of the polling stations; Party B's (A's) supporters will cluster in the remaining stations. Accordingly, in segregated constituen-

	Segregated	Non-segregated
Competitive		
Non-competitive		
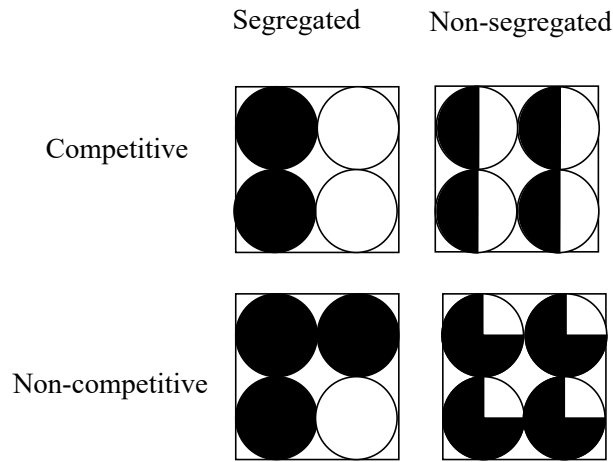
Figure 1: Four types of constituencies

Notes: Each circle represent a polling station/community and black and white shows the proportion of party A and B supporters, respectively.

cies, whether competitive or uncompetitive, partisans are more likely to live in their party-dominant community.

In non-segregated constituencies, each party's supporters will be equally distributed across the polling stations. Accordingly, in competitive constituencies, each community will contain, on average, half each of P_A and P_B ($P_{A \approx B}$) supporters. In non-competitive/non-segregated constituencies dominated by Party A (B), its supporters will comprise the majority voters in each polling station, on average, and those of Party B (A) will constitute a minority ($P_{A > B}$).

2.1 Theoretical expectations: crossing the party line for public goods

I argue that partisans are more likely to cross party lines in competitive/non-segregated constituencies than in other types of districts. Opposition officeholders will find it hard to exclude supporters of the other party from local public goods. Partisans will also believe that their votes are needed to elect better politicians. These double assurance conditions do not hold in other electoral settings, which implies that partisans are unlikely to trade even a poor copartisan aspirant for a better opposition politician.

To illustrate my argument, first imagine that V_A lives in a competitive/segregated constituency (Figure 1 Column (1)). In such a setting, V_A should expect to receive fewer or no public infrastructure

projects from a non-copartisan officeholder C_B, because C_B can target such projects to the communities that support them.[3] Thus, if opposition candidate C_B pledges to distribute public goods to V_A's community, V_A will not be persuaded to vote for C_B. This is because voters will be less likely to vote for an opposition candidate in a segregated constituency because they do not expect to benefit from such promises.

Second, imagine that V_A lives in a non-segregated electoral district (Figure 1 Column (2)) where supporters of both parties live side by side within the local communities. In such settings, candidate C_B will find it hard to exclude her non-copartisan V_A from using the public infrastructure she provides to all communities. Thus, citizens who reside in partisan/non-segregated constituencies can expect to benefit equally from public goods provided by opposition officeholders. Accordingly, in *non-segregated electoral districts*, voters will equally prefer copartisan and non-copartisan candidates who promise to invest in local infrastructure because politicians cannot discriminate among voters. Yet this expectation may only hold in competitive districts, where voters expect that their vote can help elect a higher-quality opposition candidate.

In non-competitive settings, supporters of the majority party are unlikely to switch to an opposition public-goods-promising candidate because she is not viable. Voters who belong to the minority party in uncompetitive/non-segregated settings are unlikely to be swayed because they cannot be excluded from local public infrastructure and their vote is not pivotal to electing the better majority-party candidate. Indeed, minority partisans in uncompetitive/non-segregated settings can simply engage in costless expressive voting.[4]

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[3]Of course, some local public goods, such as roads and bridges, may help multiple communities that may not be the primary targets of the officeholders. Nonetheless, according to this model the primary beneficiaries are those in the catchment area of the polling station.

[4]A potential implication of this argument is that in non-competitive/non-segregated settings, voters who belong to the minority group will be less likely to show up at the polls than those who align with the majority party. I am unable to test such a prediction using my research design. Moreover, examining the turnout rate for minority-party voters in these settings may be misleading because presidential and parliamentary elections are held concurrently in Ghana. Accordingly, minority-party supporters may be motivated to turn out to vote for the presidential candidate. I find similar reported turnout rates for minority and majority groups in non-competitive/non-segregated constituencies in my data. However, my argument is that, conditional on voting, public goods promised by a majority party's candidate will not sway a minority-party voter in such an electoral setting.

3   Partisan voting and allocation of discretionary resources by MPs in Ghana

Ghana's 27 years of stable democratic rule provides an ideal setting for this study. Ghanaians elect their Members of Parliament (MPs) for four-year terms using plurality rule in single-member districts, which incentivizes legislators to provide constituency services to cultivate personal support (Cain, Ferejohn and Fiorina, 1987; Carey and Shugart, 1995). There are no term limits for MPs. Since the country's democratic transition in 1992, Ghana has held eight elections, which have been dominated by two parties — the National Democratic Congress (NDC) and the New Patriotic Party (NPP) (Fridy, 2007; Gyimah-Boadi, 2009). While both parties have strongholds among the country's 275 constituencies that they have consistently won over time, the turnover rate among reelection-seeking incumbents is about 25% (Ofosu, 2019). About 63% of Ghanaians say they feel close to a political party according to Afrobarometer data collected between 1999 and 2018 (R1 to R7).

The country's stable, competitive two-party system leads citizens to expect partisan favoritism in their constituencies for at least two reasons. First, citizens vote at polling stations located in their communities. Election results are first announced at the polling station and then transferred to the Electoral Commission's district collation centers for aggregation. Thus, voters are reasonably aware of the level of support for each party in their community and across communities within the constituency. Indeed, informal conversations with community residents during my fieldwork to pilot the survey revealed that communities are labeled pro-NPP, pro-NDC, or mixed based on information disseminated via local radio reports or word of mouth.

The second reason that voters expect partisan favoritism is that Ghana provides all MPs with equal amounts of individual CDFs, which are referred to as their "Common Funds." Similar to legislators in other developing countries, MPs established these funds to deliver both private benefits and public goods (infrastructure) to address the gaps in public service delivery in their constituencies (Baskin, 2014). Ghanaian legislators choose which individuals and communities benefit from their CDFs. Politicians often organize public events to announce beneficiaries, and public goods projects feature signs indicating that the MP donated it from their CDF. Accordingly, citizens are aware of whether their communities have benefited from such funds in the past, which allows them to assess whether they are likely to benefit in the future. Legislators, especially those from the incumbent party, can also influence where

the president-appointed head of their local government places projects in the constituency funded by the district assemblies' common fund.

Past research on legislator–voter relationships in Ghana provides significant insights into how MPs perceive their roles, how they respond to voters' expectations, and whether or not voters reward incumbents who offer private and public goods (Harding, 2015; Weghorst and Lindberg, 2013; Lindberg, 2010). For instance, Lindberg (2010) found that Ghanaian MPs believe voters are most likely to hold them accountable for personal assistance (e.g., school fees, medical bills, start-up financing for small businesses or farms, building materials for personal homes) and community development projects (e.g., roads, schools, health clinics, toilets, and safe sewage). Ofosu (2019) discovered that MPs pay for a significant share of these costs using their CDFs.

However, we have limited knowledge about which communities MPs target with their CDFs. An exception is Asunka (2017), who shows that in constituencies where voters are only weakly attached to parties, legislators were more likely to allow a non-partisan-based allocation of their CDFs. Asunka's work implies that in competitive electoral settings, incumbents may be less likely to target their supporters with public goods. However, Asunka's paper does not consider whether incumbents' incentive to distribute benefits equally in competitive settings is further shaped by partisan geography. Nor is it clear whether such non-discretionary allocation shapes voters' perceptions of officeholders' favoritism and, in turn, their vote choice. Nonetheless, Brierley, Kramon and Ofosu (2020) show that voters were persuaded by the policy positions (promises) of opposition candidates in Ghana's 2016 parliamentary debates in competitive electoral districts. While these studies focus solely on electoral competition, I contend that partisan geography and electoral competition *jointly* shape the political allocation of resources and voters' instrumental party-switching behavior.

4 Research design

4.1 Sampling of constituencies, polling stations (communities), and respondents

I sampled 2,040 participants from a random set of polling stations nested within a stratified, nationally representative sample of 12 constituencies. I stratified the country's 275 constituencies along

two dimensions: competition and partisan segregation. Constituencies were classified as competitive if the winners of the two prior legislative elections (2012 and 2016) won with a margin of 10% or less and non-competitive otherwise.

To measure partisan segregation — the extent to which supporters of the two major parties (NPP and NDC) were clustered in distinct polling stations in a constituency — I used an entropy index (Reardon and O'Sullivan, 2004) that ranges from 0 (maximally mixed) to 1 (maximally segregated). Appendix A describes the detail of the estimation. Using data from the country's 2016 legislative elections, the index ranged from 0.008 to 0.559 with a mean of 0.091, suggesting that many constituencies were non-segregated. I classified constituencies as (relatively) segregated if their entropy score was equal to or greater than the 90th percentile (≥ 0.172) of the country's distribution. There are no set thresholds for designating electoral districts as segregated, but choosing such a threshold ensures sufficient conditions stipulated by theory in each constituency type. After crossing these two variables, I randomly selected three constituencies from each cell.[5]

A simple random sampling method was used in non-segregated constituencies to select polling stations because each community's partisan composition is a microcosm of party constituency-level vote share, on average. In segregated constituencies, because my argument concerns partisans who live in their party strongholds, and these places were not entirely segregated, I sampled from a set of polling stations that were overwhelmingly supportive of one party or another (using a 75% vote share as the threshold). The few partisans living in opposition areas in the sampled places are excluded from the analysis as pre-specified.

4.2   Measuring partisanship

The survey asked respondents how close they felt to each of the two major parties on a 0–7 scale. Subtracting the score of one party from another results in a partisanship score ranging between -7 and 7. Respondents with higher negative values are closer to the NPP, and those with higher positive values are closer to the NDC. Participants in the lowest and highest terciles were classified as NPP and NDC partisans, respectively. Appendix Table B.2 shows a strong correlation between the coding and

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[5]Appendix Table A.1 shows the distribution of all 275 constituencies across the different electoral settings. Appendix Figure A.2 displays examples of NPP support distribution in segregated and non-segregated constituencies.

reported past vote choice and intended vote choice (in the 2020 elections), which provides confidence in the classification. In line with my hypothesis, I restrict my analyses to partisans only.

4.3 Conjoint survey experiment

To assess whether partisans are more or less likely to choose an opposition candidate who promises a similar amount of (or more) public goods as a copartisan politician in a given electoral setting, I use data from a forced-choice conjoint survey experiment. Survey respondents were asked to choose between two hypothetical MP candidates to represent their constituency. Each candidate had a set of attributes including their partisanship and how they plan to allocate their CDF to provide private and public goods. Because the values of each attribute were randomized, I can simultaneously estimate the average marginal component effect (AMCE) of each attribute's level on vote choice (Hainmueller, Hopkins and Yamamoto, 2013).

Importantly, the forced-choice conjoint survey design also helps me to estimate the *average combination effect (ACE)* of a combination of values from a subset of attributes relative to a pre-specified baseline (Egami and Imai, 2019). This approach allows me to assess, for example, whether partisans are more or less likely to choose an opposition candidate who promises a large amount of public goods compared to a copartisan aspirant who commits to the same amount or fewer public goods.

I used the conjoint survey to investigate how a candidate's promise to spend more of their CDF on public goods influences respondents' level of support. I generated four potential allocations of an incumbent's CDF between public and private goods ($P_{\text{public}(\% \text{ CDF}),\text{private}(\% \text{ CDF})}$).[6] At the extreme ends, politicians promised to use their funds to provide mainly public goods ($P_{\text{public}(90\% \text{ CDF}),\text{private}(10\% \text{ CDF})}$) or private goods ($P_{\text{public}(10\% \text{ CDF}),\text{private}(90\% \text{ CDF})}$). In another treatment arm, they promised to divide their fund equally between each ($P_{\text{public}(50\% \text{ CDF}),\text{private}(50\% \text{ CDF})}$). I use minimal spending on each type, $P_{\text{public}(10\% \text{ CDF}),\text{private}(10\% \text{ CDF})}$, as the baseline category because some MPs spend very little of their funds. Because understanding percentages can be challenging for some respondents, my research assistants and I formulated a standard intuitive narrative for the interviews. For example, respondents were told "if the government allocates, say, GHC 10,000 to the MP in CDF, she says she plans to use only GHC 1,000 to

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[6]Ofosu (2019) confirms that MPs use their CDFs to provide private benefits and local public goods, and shows significant variation in CDF utilization. Therefore, such divide provides external validity to the design.

support private benefits (, and use the remaining GHC 9,000 to build local infrastructure (citing examples in conjoint for each)."[7]

In addition to randomizing how candidates promise to spend their CDFs, the conjoint survey also included attributes related to their party affiliation, other constituency services (casework, visit the constituency, meeting and listening to constituents' concerns, and attending or supporting social events), and personal characteristics. The values for each of these attributes were randomized. In this paper, I assess the impact of promised CDF allocations and candidates' party affiliation; I systematically analyze the other dimensions in a complementary paper.[8]

Columns (1) and (2) of Table 1 show the abridged set of attributes (i.e., partisanship and CDF spending) and the levels I used in the experiment.[9] Column (3) displays the probabilities assigned to each attribute. All respondents ("voters") were presented with three "voting tasks" in which they were asked to choose between two hypothetical candidates competing in the next election in their constituency. Appendix Figure C.1 shows an example of a choice presented to a respondent. The profiles were presented side by side, each pair on a separate screen. Appendix C shows the interview procedure and the narrative presented to respondents. Appendix Table C.3 shows that the order in which the profile appeared did not affect the results. The attributes were presented in a randomized order that was fixed across the three pairings for each respondent to ease the cognitive burden for respondents and minimize primacy and recency effects. Appendix Table C.2 shows that the randomization was successful. Controlling for a few variables that were not balanced across treatments, as expected by chance, does not change the results.

5 Estimation strategy

To test my hypothesis, I focus on two sets of *average combination effects* (*ACE*s) – a non-interactive causal effect (Egami and Imai, 2019). The unit of analysis is a rated *profile*, and the dependent

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[7]Ideally, one would use no spending as the baseline. However, because voters may not consider CDF spending in their choice of MPs in the first place, choosing a 0% use of CDF could simply prime respondents rather than elicit a genuine response.

[8]Appendix Table D.1 shows the results of all the attributes in the full sample. Among the other factors considered in the conjoint survey, only the impact of the promise to organize regular community meetings (at least once every six months) is as important as the pledge of local infrastructure from the CDF in determining respondents' choice.

[9]Appendix Table C.1 shows the full set of characteristics and their levels. I piloted the survey in the following constituencies: Awutu Senya West (competitive/segregated), Sege (non-competitive/non-segregated), and Krowor (competitive/non-segregated) in August 2018.

Table 1: Values of candidates' CDF promise and partisanship in the conjoint survey

Candidate attribute	Attribute levels	Probabilities
Political Party	Independent (IND)[1]	1/3
	New Patriotic Party (NPP)[2]	1/3
	National Democratic Congress (NDC)[3]	1/3
Use of MP's Common Fund (CDF)	Candidate promises to use [**Levels: (1) 10%; (2) 50%; (3) 90%**] of CDF to support the construction or renovation of community schools and clinics, repairs of roads and bridges, and other community self-help projects; and [**Levels: (1) 10%; (2) 50%; (3) 90%**] to pay school fees, medical bills, and apprenticeship fees for some individual constituents. [**Used levels:**	
	$P_{10,10}$ [1]	1/4
	$P_{50,50}$ [2]	1/4
	$P_{10,90}$ [3]	1/4
	$P_{90,10}$ [4]	1/4

variable is coded 1 for the preferred candidate profile within a pair, and 0 otherwise. The independent variables are dummy variables for both attribute levels of interest (i.e., CDF allocation and party ID). I recoded the party ID of candidates in the profile to indicate whether they were the respondent's copartisan, opposition, or an independent aspirant. First, I estimated the difference in means of selecting an opposition versus a copartisan candidate profile for the same amount of promised public goods using the following equation:

$$\tau_{PC}\{(p_0, c_j; p_1, c_j)\} = E\{Y_i(p_0, c_j)\} - E\{Y_i(p_1, c_j)\}$$

where $E\{Y_i(p_0, c_j)\}$ is the mean of selecting a profile i with an opposition candidate, p_0, and a promised amount of public good, $c = j$, and $E\{Y_i(p_1, c_j)$ represents that of a profile containing a copartisan politician, p_1. I estimate these causal effects in competitive/non-segregated constituencies, $\tau_{PC}\{(p_0, c_j; p_1, c_j)\}_{CNS}$, and jointly for the "other types" of electoral districts, $\tau_{PC}\{(p_0, c_j; p_1, c_j)\}_{OT}$ (i.e., non-competitive/non-segregated, competitive/segregated, and non-competitive/segregated). Thus, this approach incorporates the comparison of marginal means within subgroups (constituency type) in my analysis and accounts for potential varying baseline support levels across groups (Leeper, Hobolt and Tilley, 2019).[10] If the probability of selecting opposition over copartisan candidates is higher in competitive/non-segregated constituencies for the same amount of promised public goods compared to that in other electoral districts, that will provide support for my hypothesis (i.e., $\tau_{PC}\{(p_0, c_j; p_1, c_j)\}_{CNS} > \tau_{PC}\{(p_0, c_j; p_1, c_j)\}_{OT}$).

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[10]Appendix Figures D.2 and D.3 show the results in the full sample and in each constituency type.

Second, I estimate the *ACE*s of selecting a profile i with an opposition candidate, p_0, and a promised high amount of public good, $c_j = $ high (i.e., $P_{\text{pub}(90\%),\text{priv}(10\%)}$) over a copartisan profile, p_1, with a minimal pledge of public goods, $c_j = $ low (i.e., $P_{\text{pub}(10\%),\text{priv}(10\%)}$). Specifically, I calculate:

$$\tau_{PC}(p_0, c_{j=\text{high}}, p_1, c_{j=\text{low}}) = E\{Y_i(p_0, c_{j=\text{high}})\} - E\{Y_i(p_1, c_{j=\text{low}})\}$$

Again, I calculate the ACE in competitive/non-segregated constituencies, $\tau_{PC}(p_0, c_{j=\text{high}}, p_1, c_{j=\text{low}})_{CNS}$, and compare it to that of other constituencies, $\tau_{PC}(p_0, c_{j=\text{high}}, p_1, c_{j=\text{low}})_{OT}$. I perform a similar calculation using $P_{\text{pub}(10\%),\text{priv}(90\%)}$) as the reference category to assess whether partisan switches are driven primarily by the desire for public goods.

6 Results

6.1 Effects of candidates' promised public goods and party identity on vote choice

Before turning to the main findings, I estimate the AMCEs of promised CDF allocation and party ID on respondents' vote choice to show that voters prioritize public goods and candidates' party identity when casting their ballots. Figure 2 shows how promised CDF allocations and party ID values affect preferences for candidates in the full sample. The figure displays the AMCEs (points) and 95% confidence intervals (bars).[11] Regarding public goods, citizens are 12.5 percentage points (pp) and 13.5 pp more likely to prefer a candidate who promised to spend half ($P_{\text{pub}(50\%),\text{priv}(50\%)}$) or almost all ($P_{\text{pub}(90\%),\text{priv}(10\%)}$) of their CDF on public infrastructure, respectively, compared to those who pledged to use only a small amount on private and public goods ($P_{\text{pub}(10\%),\text{priv}(10\%)}$).[12] These estimates are statistically significant at $p < 0.01$. The promise to use the lion's share of the CDF ($P_{\text{pub}(10\%),\text{priv}(90\%)}$) to provide private financial benefits to constituents increases the probability of choosing a candidate by only

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[11]Appendix D Table D.1, Columns (1) and (2), shows the full regression results.

[12]Abramson, Koçak and Magazinnik (2019) warns against interpreting the AMCE as the "true preference of the majority." I use "prefer" to indicate that respondents put more weight on a particular attribute value relative to the baseline (conditional on other randomized attributes) in their voting decision.

Figure 2: Average marginal component effect of a candidate's promised CDF allocation on being preferred as an MP
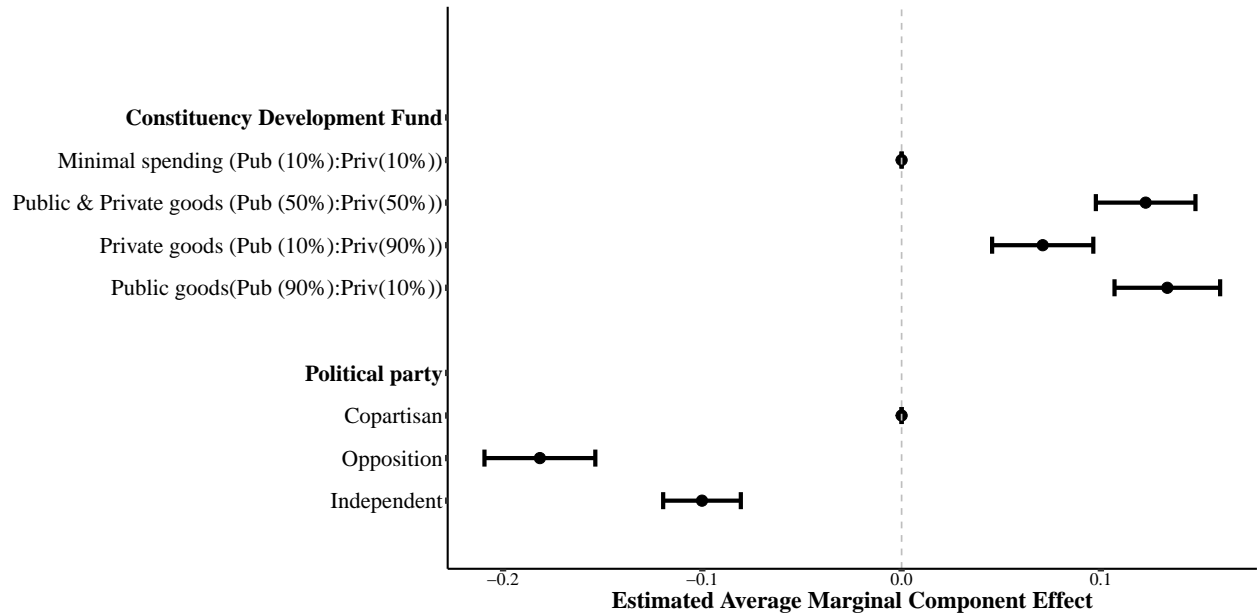
Notes: Figure 2 shows estimates of the effects of randomly assigned candidates' promised allocations of CDFs to private vs. public goods and party ID on respondents' vote choices. These estimates are based on an ordinary least squares (OLS) model with standard errors clustered at the respondent level as shown in Appendix Table D.1. The points without horizontal bars (95% confidence intervals) represent the reference category of the attribute.

7 pp ($p < 0.01$) relative to the baseline.[13] Respondents were 18 pp ($p < 0.01$) and 10 pp ($p < 0.01$) less likely to pick an opposition or independent candidate than a copartisan politician, respectively.

Thus, consistent with assumptions of the theory, these results suggest that citizens prioritize the promise of public goods over personal financial benefits in their vote choice and strongly favor copartisan candidates.

6.2 When do partisans cross party lines?

In Figure 3 I examine whether, for the same amount of promised public goods, participants were more or less likely to select an opposition versus a copartisan candidate profile in each electoral setting. Panel (A) displays the marginal means (i.e., probability) of selecting a candidate at the different values of promised CDF allocation by shared partisanship in competitive/non-segregated (first row) and other constituencies (bottom row). The corresponding ACEs (differences) are presented in Panel (B) with

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[13]In Appendix Figure D.1, I show that these results are similar for the different partisan groups.

95% confidence intervals. Consistent with my argument, the results in Figure 3 Panel (B) show that in competitive/non-segregated electoral districts, partisans were equally likely to select an opposition or copartisan politician if they promised the same amount of public goods. In the other constituencies, partisans were significantly less likely to select an opposition aspirant who pledged the same amount of public goods as a copartisan candidate.

To test my hypothesis, the quantity of interest is whether these ACEs are higher in competitive/non-segregated districts relative to other constituencies. The results in Figure 4 demonstrate that they are, which supports my argument. Specifically, partisans were 12–23 pp more likely to choose opposition rather than copartisan candidates promising the same amount of public goods in competitive/non-segregated compared to other constituencies. These estimates are statistically significant (at least) at the 90% confidence level.

Figure 3: Marginal means and ACEs of choosing an opposition over a copartisan politician pledging the same amount of public goods by constituency type
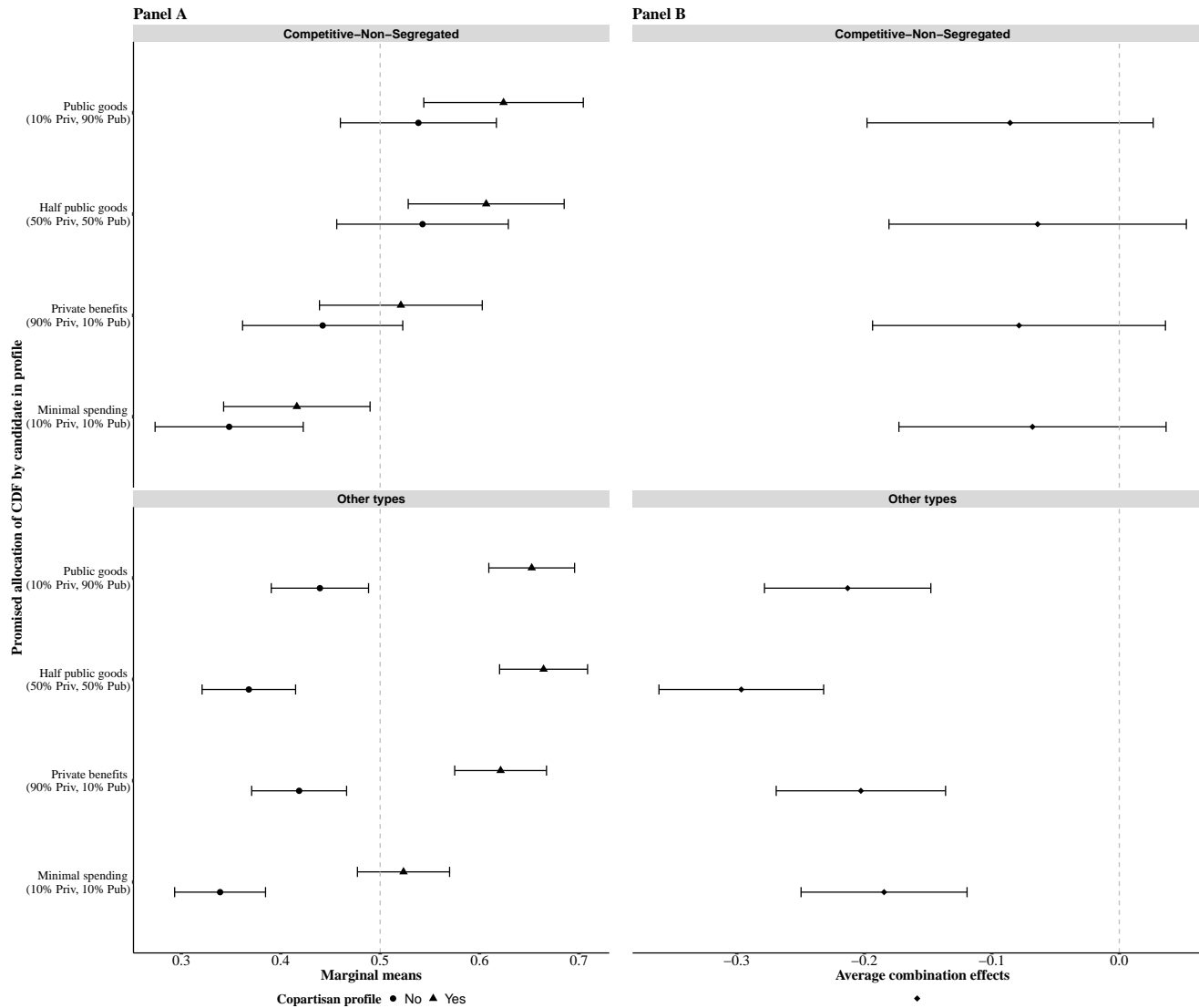
Notes: Figure 3 Panel (A) shows the means of selecting a profile with randomly assigned promised CDF allocations and party IDs for hypothetical candidates. The means for copartisan (non-copartisan) aspirants are represented by triangles (solid circles). The horizontal bars represent 95% confidence intervals. Panel (B) shows the corresponding ACE with 95% confidence intervals.

Figure 4: Difference in ACEs of choosing opposition over copartisan politicians promising the same amount of public goods in competitive/non-segregated relative to other constituency types
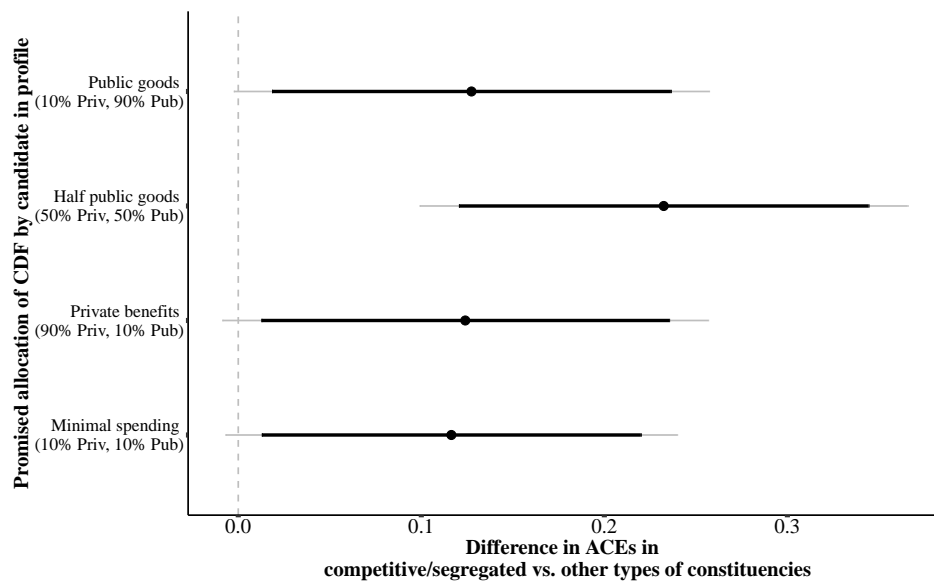
Notes: Figure 4 shows the difference in the probability of choosing an opposition over a copartisan candidate who promises the same amount of benefits in competitive/non-segregated compared to other types of constituencies. The horizontal black and grey bars represent 90% and 95% confidence intervals for the estimated differences, respectively.

In Figure 5, I focus on the ACEs concerning when the opposition commits to provide more public goods and when a copartisan pledges a minimal amount. By design, the conjoint allows me to test when a copartisan's pledge of a minimal amount of public goods comes with a promise to supply an equally low or larger amount of private benefits. Panels (A) and (B) display the results for these possibilities, respectively. Panel (A) of Figure 5 shows that in competitive/non-segregated constituencies, partisans were 12 pp (se 5.49) more likely to vote for an opposition aspirant compared to a copartisan. In other electoral settings, partisans were 8 pp (se 3.44) less likely to pick the opposition candidate promising more public goods than a copartisan candidate. The difference between these two estimated ACEs, the quantity of interest, shows that partisans were about 21 pp (se 6.48) more likely to select an opposition over copartisan candidate promising to supply more public goods in competitive/non-segregated compared to other types of constituencies.

Similarly, the results in Figure 5 Panel B show that partisans are more willing to substitute a public-goods-promising opposition candidate for a private-benefits-promising copartisan in competitive/non-segregated than in other types of constituencies. Specifically, in competitive/non-segregated constituencies, partisans are indifferent between opposition and copartisan politicians. However, in other types of constituencies, they were 18 pp (se 3.43) less likely to pick the opposition candidate who promised better public infrastructure than the copartisan candidate committed to spending almost all her funds on personal benefits for constituents. Nonetheless, partisans are still about 20 pp (se 6.73) more likely to substitute a public-goods-promising opposition candidate for a private-benefits-promising copartisan candidate in competitive/non-segregated compared to other constituencies.
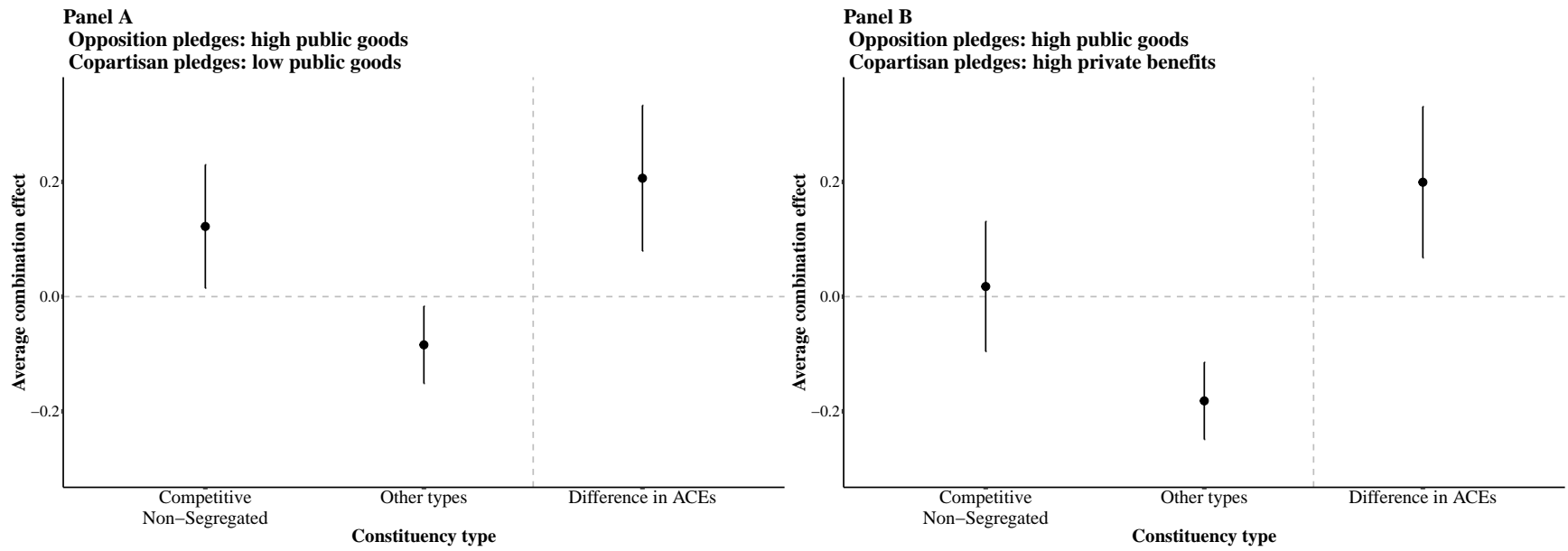
Figure 5: ACEs of choosing an opposition candidate promising more public goods versus a copartisan pledging a minimal amount, by constituency type

7 Examining the non-exclusion and electoral pivotability mechanism

I argue that partisans are more likely to cross party lines when they believe that (1) they will benefit from the public goods provided by an opposition politician and that (2) their vote will be pivotal. I suggested that residing in a competitive/non-segregated electoral district can provide such double assurance. An implication of the theory is that partisans living in non-segregated constituencies are likely to believe that a copartisan and opposition politician will deliver the same amount of public goods to their community. In contrast, party supporters living in segregated districts are more likely to expect public goods from a copartisan for their community than from a non-copartisan politician. I draw on survey data that I collected immediately after respondents participated in the conjoint experiment to assess these implications.

In the survey, I asked respondents if they expect their incumbent MP to invest in public infrastructure in their community before the end of their current term.[14] Figure 6 displays the proportion of copartisans and non-copartisans of the MP who expect to receive public goods, for the full sample and broken down by constituency type. Appendix Table E.3 shows the OLS regression estimating the differences in these proportions.

In the full sample, copartisans of a sitting legislator were 32 pp more likely to say that they expect him to provide public infrastructure to their community than they were to say his non-copartisans would do so. This finding is in line with Nathan (2016), who uses a survey experiment to show that (urban) voters expect more favoritism from a coethnic party than a non-coethnic party.

Consistent with my expectation, when I disaggregate these results by constituency type, officeholders' expected partisan bias among party supporters is much lower in non-segregated than in segregated constituencies. Specifically, in competitive/non-segregated areas, copartisans of the MP are 17 pp more likely to expect infrastructure than his non-copartisans. The corresponding figure is similar for non-competitive/non-segregated constituencies (15 pp) but much higher for non-competitive/segregated (31 pp, $p < 0.01$) and competitive/segregated (70 pp, $p < 0.05$) districts. Appendix Table E.4 shows the corresponding results for the reported — as opposed to expected — receipt of public goods from the MP

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[14]The survey was conducted roughly two years before the next parliamentary election.

Figure 6: Voters' perceptions of MP's partisan favoritism in the allocation of public goods, by constituency type
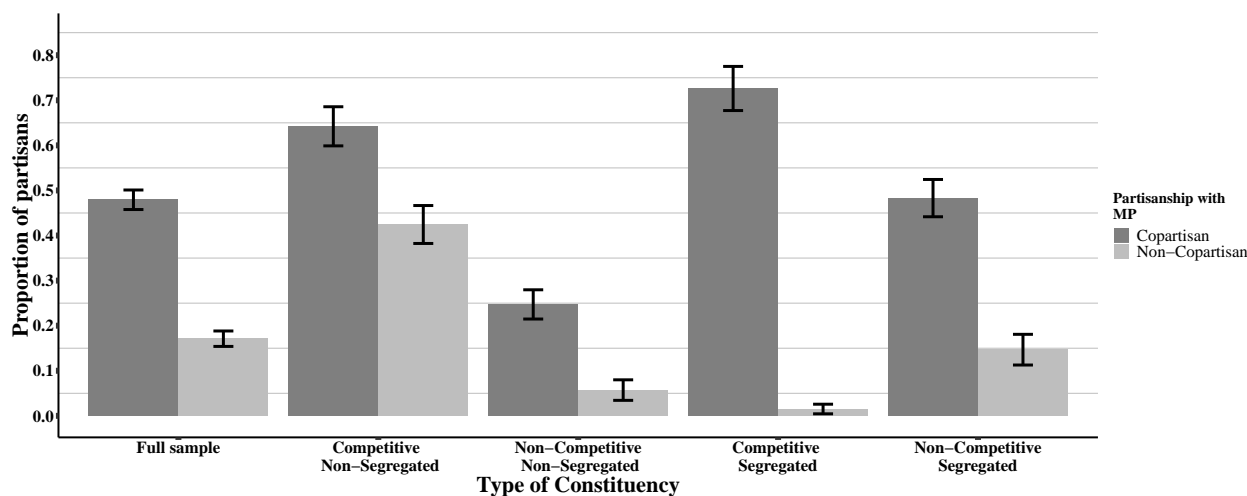
during the current term. The results are similar to those for public goods expectations, and also display much larger differences in segregated constituencies.

There are still statistically significant differences in expectations to receive public goods from a copartisan versus non-copartisan MP in non-segregated constituencies. These differences may represent partisan bias in the responses (Carlson, 2016). However, what is essential for my argument is that the differences are significantly lower than in segregated districts, not that there is no difference at all.

I provide two pieces of evidence to support the claim that party switching occurs in competitive/non-segregated settings because partisans also believe their vote may be crucial in electing and sanctioning the opposition (i.e., beliefs about *pivotality*). First, the results in Figure 6 show that the differences in the expected provision of public goods between copartisans and opponents of the MP are similar in non-segregated/competitive and non-segregated/non-competitive districts. If partisans only cared about non-exclusion, then we should expect them to behave similarly in their propensity to support opposition candidates irrespective of the level of electoral competition in non-segregated districts. Yet, Appendix Figure D.3 shows that they do not: they continue to support copartisan candidates. Accordingly, the survey results, combined with the findings of the conjoint experiment, highlight the key role that competition plays in influencing vote choice. Together, they suggest that even though perceptions of partisan favoritism are relatively muted in all non-segregated districts, politicians can only win over supporters of the opposition in districts that are also competitive.

Second, using data from Afrobarometer round 7, I show that partisans have a greater sense of political efficacy in competitive compared to non-competitive constituencies. Specifically, I find that partisans in competitive electoral districts (48.3%) were about 9 pp ($p < 0.05$) more likely to say that *voters* are responsible for making sure MPs do their job relative to those in uncompetitive constituencies (39.9%) (see Appendix Table E.5). This result suggests that partisans in competitive districts believe they have a greater responsibility to hold elected representatives to account relative to those in non-competitive settings. While these analyses are not direct tests of perceptions of pivotality, they are consistent with expectations related to pivotality beliefs.

7.1 External validity of the results

An empirical implication of my argument is that party turnovers will be higher in competitive/non-segregated compared to other types of constituencies. Because I measured districts' level of segregation using data from the 2016 elections, I investigate the extent of opposition victories in the different types of constituencies in the country's 2020 elections (which were held after the end of the study). Consistent with my argument, Table 2 shows that opposition-party candidates won about 52% of the MP positions in competitive/non-segregated constituencies compared to 18% in the other types (43 of 233). Of the country's eight competitive/segregated electoral districts, only one flipped to the opposition. Thus, while competitive places in 2016 remained contested in 2020, party turnovers were higher in competitive/non-segregated compared competitive/segregated constituencies. These results provide external validity to my argument and findings.

Table 2: 2020 Parliamentary elections outcome: percent of seats changing party

	Competitive		Non-competitive	
Party changed in 2020	Non-segregated	Segregated	Non-segregated	Segregated
Yes	52.38 (22)	12.5 (1)	19.0 (39)	15.0(3)
No	47.6 (20)	87.5 (7)	81.0 (166)	85.0 (17)
N	100 (42)	100 (8)	100 (205)	100 (20)

8 Alternative arguments

The results reported above support my argument that partisans are more likely to cross party lines in competitive/non-segregated constituencies than in other types of electoral districts. However, constituency types are not randomly assigned and may vary in three important ways that differ from the feelings of non-exclusion and pivotality that influence voters' party-switching behavior.

First, partisan switching may occur in competitive/non-segregated electoral districts because party supporters are more concerned about infrastructure development in these areas — perhaps because of a deficit — than partisan loyalty relative to those in other constituencies. However, Appendix Table E.1 demonstrates that the communities in the sample have similar levels of infrastructure provision. Communities in competitive/non-segregated constituencies are equally or better endowed with piped water, cell phone services, post offices, schools, police stations, and clinics than those in other types of districts. However, they tend to have fewer paved roads. I asked respondents why they voted for their chosen candidate in the previous (2016) elections; partisans in non-segregated/competitive constituencies were significantly less likely than those in other settings to report that their voting decision was based on a candidate's promise to invest in infrastructure (Appendix Figure E.1). Instead, they were more likely to say that their favored candidate was a "good person" or promised individual benefits. These results suggest that partisans in non-segregated/competitive constituencies were not likely to switch because they were *overly* concerned about the need for infrastructure compared to party supporters elsewhere. Nonetheless, accounting for differences in community-level infrastructure and individual rationales for prior vote choice in OLS regressions in Appendix Table E.2 does not alter the main results.

Second, partisanship attachment in non-segregated/competitive districts may not be as strong compared to other constituencies, encouraging partisans to try out opposition politicians. I do not find support for this argument. Partisans in non-segregated/competitive areas were just as likely as those in other types of constituencies to mention partisanship as one of the top three reasons they voted for a particular candidate, suggesting they were no less partisan. Further, Appendix Figure E.2 shows that respondents in non-segregated/competitive districts were *more* likely than those in other types of constituencies to say they felt closer to a political party. Nonetheless, Appendix Table E.2 shows that controlling for these differences does not change the primary results.

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Finally, while the causal estimates in each electoral setting are independent of individual characteristics, on average, participants in the sample may differ in theoretically important ways across these constituency types. Appendix Figure E.2 shows that an equal proportion of males and females were interviewed across settings, suggesting that gender cannot explain the results. Participants were equally knowledgeable across locations: they were similarly likely to obtain their information from radio, to know the MP's name, and to report having voted in the 2016 elections.

9 Conclusion

In this article, I combine data from a conjoint experiment and survey responses from citizens sampled from a stratified, nationally representative sample of constituencies in Ghana to examine the conditions under which partisans are likely to cross party lines to elect opposition politicians. Drawing on theories of instrumental partisan-ethnic voting and electoral accountability, I argue that two constituency-level factors jointly shape a voter's incentive to cross party lines — their district's partisan geography and level of electoral competition. Using observational and experimental data, I first show that citizens prefer politicians who will provide local public goods (i.e., invest in their community's development). However, scholarly work suggests that because individuals often assume that politicians will only target their supporters when distributing the resources under their control, voters are unlikely to cross party lines even if there is a similar or better opposition candidate who will provide more such benefits.

These instrumental theories of voting, which are often premised on presidential elections, assume that supporters of competing parties are clustered in distinct communities or regions. Prior empirical tests of these theories have also held the level of electoral competition fixed. This paper provides a unified theory of instrumental voting by relaxing these assumptions and considering how different configurations of partisan geography and electoral competition within constituencies shape the voting calculus of individuals who desire public goods. I show that voters are only likely to cross party lines when the risk of being excluded from public goods provided by an opposition incumbent is minimal in their district – i.e., in partisan non-segregated constituencies, where supporters of multiple parties live side by side. However, I demonstrate that this result only holds in partisan non-segregated constituencies that are also competitive, which suggests that voters only cross party lines when their votes can be pivotal in selecting

a competent opposition politician or sanctioning her should she renege on a promise to provide public goods. Together, these results show that voters only have an incentive to cross party lines in electoral settings in which an opposition incumbent cannot exclude them from provided public goods, and their votes can be essential in electing and holding a politician from the other party accountable. In other contexts, voters either fear that their non-copartisan officeholder will target only their supporting communities with public infrastructure, or that they cannot help elect (or sanction) a higher-quality opposition candidate.

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Online Appendix

Table of Contents

A   Spatial segregation of partisans within constituencies

To measure the level of partisan segregation of each constituency, I adopt White (1986)'s entropy in-dex (*Segregation$_J$*) for an entire electoral district. For Constituency J, consisting of N_j polling stations indexed by i, White (1986)'s entropy index for spatial segregation of partisans is given by

$$Segregation_J = \frac{\hat{H}_J - \sum_{i=1}^{N_j} \frac{n_i}{n_j} * h_i}{\hat{H}_J}$$

where *Segregation$_J$* is the level of segregation for Constituency J, n_i and n_J are the populations of polling station i and Constituency J, and $\hat{H}_J$ and h_i are the enthropy of Constituency J and polling station i, respectively. $\hat{H}_J$ at the constituency-level is calculated as follows:

$$H_J = -\sum_k p_{j,k} ln(p_{j,k})$$

where $p_{j,k}$ is the proportion of each partisan group k in Constituency J. Likewise, entropy at the polling station-level (h_i) is given by:

$$h_i = -\sum_k p_{i,k} ln(p_{i,k})$$

where $p_{i,k}$ is the proportion of each partisan group k in polling station i.

The maximum value of *Segregation$_J$* is 1, when each polling station contains only one partisan group ($\sum_{i=1}^{N_j} \frac{n_i}{n_j} * h_i = 0$). The minimum value of *Segregation$_J$* is 0, when every polling station has the same composition as the constituency ($\sum_{i=1}^{N_j} \frac{n_i}{n_j} * h_i = \hat{H}$). Simply, constituencies with higher values of *Segregation$_J$* have *less* uniform partisan distributions while those with lower values of *Segregation$_J$* have *more* uniform partisan distributions.

I use the 2016 parliamentary election results at the polling station level for candidates of the two major parties (NPP and NDC) to compute the level of segregation for each constituency. The minimum and maximum values of *Segregation$_J$* for the 275 constituencies in Ghana are 0.008 and 0.559, respec-tively with a mean of 0.091. Figure A.1 shows the distribution. To simplify my sampling, I classify constituency above the 90th percentile (≥ 0.172)the *Segregation$_J$* distribution as segregated and non-segregated otherwise.
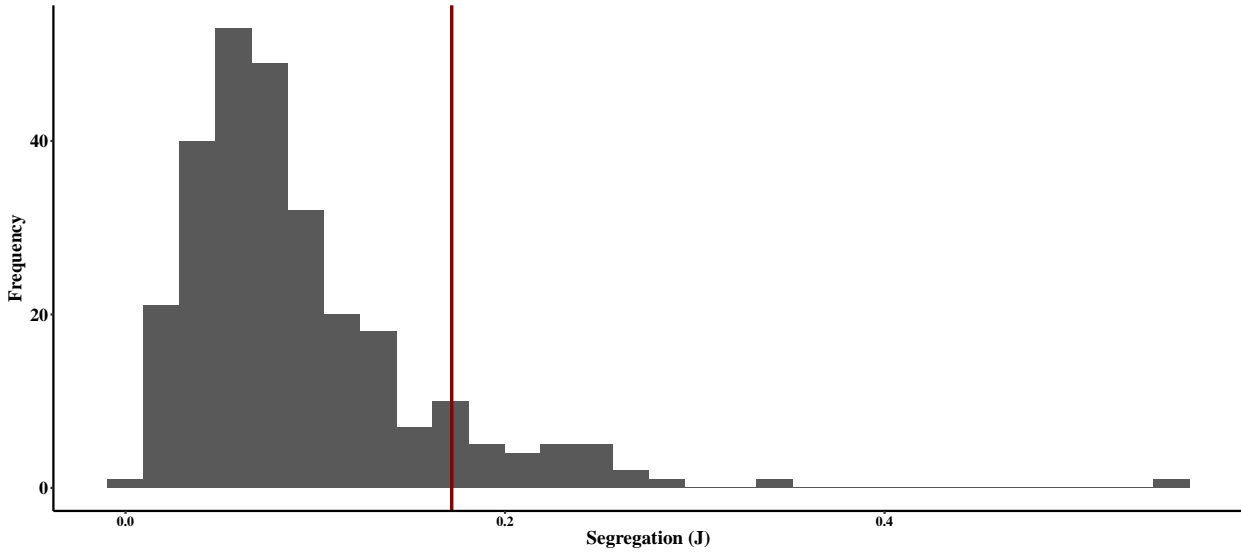
Figure A.1: Distribution of Constituency-level Segregation

Table A.1: Classification of constituencies

Competition	Geographical distribution of NDC and NPP supporters	
	Segregated	Non-segregated
Competitive	8	42
Non-competitive	20	205

Figure A.2: Spatial distribution of incumbent party (NPP) candidates' polling station vote shares in illustrative sampled constituencies
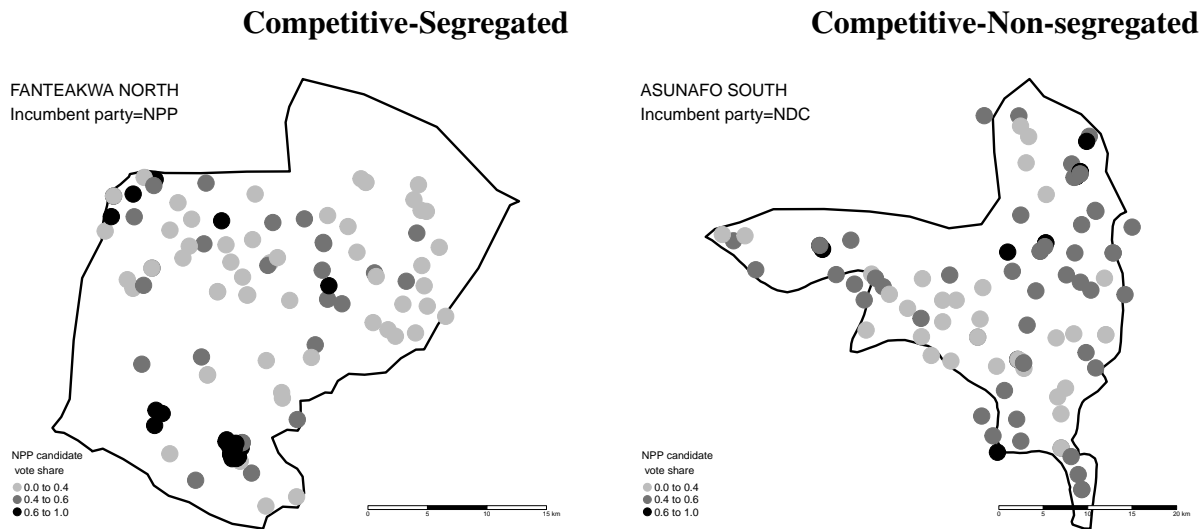
Notes: Figure A.2 shows the location of polling stations in a selection of sampled constituencies. The intensity of the color indicates the incumbent-party candidate's vote share in the 2016 election. Some points are slightly outside the constituency boundaries because of measurement error of the geocoordinates.

Table A.2: Characteristics of sampled constituencies

Constituency	Competition	Segregation	MP name	Party
Asunafo South	Competitive	Non-Segregated	Eric Opoku	NDC
Bunkpurugu	Competitive	Non-Segregated	Solomon Namliit Boar	NPP
Suhum	Competitive	Non-Segregated	Drederick Opare-Ansah	NPP
Bawku Central	Competitive	Segregated	Mahama Ayariga	NDC
Fanteakwa North	Competitive	Segregated	Kwabena Amankwa Asiamah	NPP
Zabzugu	Competitive	Segregated	Alhassan Umar	NDC
Manso Nkwanta	Non-Competitive	Non-Segregated	Joseph Albert Quarm	NPP
Nabdam	Non-Competitive	Non-Segregated	Mark Kurt Nawaane	NDC
Saboba	Non-Competitive	Non-Segregated	Charles Binipom Bintin	NPP
Kwabre East	Non-Competitive	Segregated	Francisca Mensah Oteng	NPP
Mpraeso	Non-Competitive	Segregated	Seth Kwame Acheampong	NPP
Nkwanta South	Non-Competitive	Segregated	Geoffrey Kini	NDC

B Summary statistics of sample constituencies and respondents

Table B.1: Summary statistics of respondents' characteristics

Statistic	N	Mean	St. Dev.	Min	Max
Age	2,016	38.937	14.730	18	95
Job with cash income	2,022	0.572	0.495	0	1
Gender(Female=1)	2,022	0.496	0.500	0	1
Employed (full time)	1,157	0.917	0.276	0	1
Own a mobile phone	2,022	0.752	0.432	0	1
Own a radio	2,022	0.469	0.499	0	1
Own a TV	2,022	0.456	0.498	0	1
Own a blender	2,022	0.065	0.246	0	1
Own a car	2,022	0.015	0.121	0	1
Total assets (out of 5)	2,022	1.758	1.131	0	5
Turnout (2016 election)	2,022	0.863	0.344	0	1
Feel close to a political party	2,022	0.740	0.439	0	1
Close to the incumbent party (NPP)	1,497	0.555	0.497	0	1
Closeness to the opposition party (NDC)[0-7]	1,969	3.415	2.838	0	7
Closeness to opposition party (NPP)[0-7]	1,973	3.878	2.840	0	7
Voted for the incumbent party's MP candidate in 2016	1,744	0.541	0.498	0	1
Will vote for incumbent party's MP candidate tomorrow	2,022	0.407	0.491	0	1
Report to know MP's name	2,022	0.750	0.433	0	1
Correctly names MP	1,517	0.957	0.203	0	1
Gone without food in past year	2,022	0.192	0.394	0	1
Gone without clean water in past year	2,022	0.258	0.438	0	1
Gone without medicine	2,022	0.245	0.430	0	1
Gone without cooking fuel	2,022	0.166	0.372	0	1
Gone without cash income	2,022	0.613	0.487	0	1
Lives in a hut/shack	2,015	0.454	0.498	0	1
Poverty index	2,015	1.928	1.538	0	6
Often get news from radio	2,022	0.577	0.494	0	1
Often get news from TV	2,022	0.458	0.498	0	1
Often get news from newspaper	2,022	0.011	0.106	0	1
Often gets news from internet	2,022	0.094	0.293	0	1
Often get news from social media	2,022	0.105	0.307	0	1

Table B.2: Relationship between respondents' partisanship as classified and reported vote choice in prior (and future) parliamentary elections

	Classification of respondents into partisan groups											
	NPP	Moderate	NDC	NPP	Moderate	NDC	NPP	Moderate	NDC	NPP	Moderate	NDC
Election year	2018 (intention)			2016			2012			2008		
Vote choice	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
NDC	0.07	0.42	**0.93**	0.05	0.36	**0.87**	0.07	0.39	**0.90**	0.09	0.41	**0.89**
NPP	**0.88**	0.45	0.04	**0.95**	0.61	0.12	**0.93**	0.58	0.09	**0.90**	0.55	0.10
CPP	0.01	0.03	0.01	0.00	0.02	0.00	0.00	0.02	0.00	0.01	0.02	0.00
PPP	0.00	0.03	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.03	0.07	0.01	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.01	0.00
Respondents	637	508	629	600	487	584	590	471	568	538	402	510

Note: Regarding vote choice in prior elections, respondents were ask which party's candidate they voted for in the said elections whereas for vote choice for 2018 (intention) refers to respondents' answers to the question: "which party's parliamentary candidate would you vote for if the election were held [today]." Column (1) shows the options.

C   Conjoint design: narratives

I trained twelve experienced research assistants to conduct the in-person interviews across the selected constituencies.[15]   After introducing the conjoint and instruction, enumerators read (narrated) the attributes and values of the conjoint survey as "campaign promises" of hypothetical candidates (i.e., what a particular candidate will do when elected to office). Enumerators started the conjoint surveys as follows:

1. As you may know, during elections, candidates with different qualifications and characteristics compete to represent your constituency as a Member of Parliament (MP). These candidates also make promises as to what they would do to serve you and your constituency when you elect them as your MP. There could be only one MP. Let us say two people are standing for elections in your constituency for the 2020 parliamentary elections. I am going to tell you a little bit about these two people and then ask your opinion about them.

2. After describing these candidates, I will also like you to take this GHC 2. You cannot keep all the amount for yourself. However, you can give any amount between GHC .50 and GHC 2 to

---

[15]While each constituency was assigned to an enumerator, in some cases pairs of RAs helped each other to survey their constituency. As a robustness check, I will include enumerator fixed effects.

your preferred candidate. We will donate the total amount collected to the aspirant similar to the candidate most preferred by respondents in this constituency during the 2020 parliamentary elections.

3. Should I repeat these instructions?

Table C.1: Values of candidates' promises and characteristics in the conjoint survey

Candidate Attribute	Attribute levels	Probabilities
Political Party	Independent (IND)[1]	1/3
	New Patriotic Party (NPP)[2]	1/3
	National Democratic Congress (NDC)[3]	1/3
Hometown	Hails from and resident in constituency [1]	1/3
	Does not hail but resident in constituency [2]	1/3
	Hails from but not resident [3]	1/3
Profession	Farmer/Agriculturalist (1)	1/6
	Lawyer (2)	1/6
	Educationist/teacher (3)	1/6
	Business person (4)	1/6
	Accountant (5)	1/6
	Architect (6)	1/6
Gender	Female [0]	1/5
	Male [1]	4/5
Use of MP's Common Fund (CDF)	[**Levels: 1) Ten (10) percent; 2) 50 percent; 3) 90 perecent**] of MPCF to support the construction or renovation of community school and clinics, repairs of roads and bridges, and other community self-help projects. [**Levels: 1) Ten (10) percent; 2) 50 percent; 3) 90 perecent**] of MPCF to pay school fees, medical bills, and apprenticeship fee for some individual members of this constituency. [**Use levels:**	
	$P_{10,10}$ [1]	1/4
	$P_{50,50}$ [2]	1/4
	$P_{10,90}$ [3]	1/4
	$P_{90,10}$ [4]	1/4
Time in constituency versus capital	Constituency (C): [$25, 50, 75$] percent; Accra (A):[$25, 50, 75$] percent [**Use levels** ($T_{C,A}$):	
	$T_{25,75}$[1]	1/3
	$T_{50,50}$[2]	1/3
	$T_{75,25}$ [3]	1/3
Personal assistance	[**Levels:** Hardly (1/10)[1], Sometimes (5/10)[2], Always (10/10)[3]] support constituents who need help to obtain government services such as business license, passport, birth certificate, facilitate loans or get government jobs	
	Hardly (1/10)[1]	1/3
	Sometimes (5/10)[2]	1/3
	Always (10/10)[3]	1/3
Community meetings	Never [1]	1/5
	Monthly [2]	1/5
	Every three months [3]	1/5
	Every six months [4]	1/5
	Yearly [5]	1/5
Social events	[**Levels:** Hardly (1/10)[1], Sometimes (5/10)[2], Always (10/10)[3]]: attend or contribute to social events such as funerals, church/mosque activities, and traditional festivals.	
	Hardly (1/10)[1]	1/3
	Sometimes (5/10)[2]	1/3
	Always (10/10)[3]	1/3

My RAs then narrated the attributes and their corresponding values of two hypothetical candidates in pairwise comparison. They then asked respondents whether they should repeat the attributes and its values. Respondents were then asked the following questions:

Questions:

1. Which of these two candidates would you vote for?

   [ ] Candidate A

   [ ] Candidate B

2. Please choose the amount of you would like to donate to your preferred candidate.

   [ ] GHC 0.50

   [ ] GHC 1.00

   [ ] GHC 1.50

   [ ] GHC 2.00

Figure C.1: An example of candidates' profiles respondents saw

Voting Game > Rounds 1 to 3 (3)	➔ Go to
A	B

Gender

Male	Female

Profession

Lawyer	Accountant

Social Events

Sometimes (5/10) attend or contribute to social events such as funerals, church/mosque activities, and traditional festivals	Hardly (1/10) attend or contribute to social events such as funerals, church/mosque activities, and traditional festivals

Time in Constituency vs. Capital

Constituency: 50 percent; Capital: 50 percent	Constituency: 25 percent; Capital: 75 percent

Hometown

Hails from but not resident	Does not hail but resident in constituency

Community meetings

Yearly	Monthly

Use of MP Common Fund

50 percent of MPCF to support the construction or renovation of community school and clinics, repairs of roads and bridges, and other community self-help projects. 50 percent of MPCF to pay school fees, medical bills, and apprenticeship fee for some individual members of this constituency.	50 percent of MPCF to support the construction or renovation of community school and clinics, repairs of roads and bridges, and other community self-help projects. 50 percent of MPCF to pay school fees, medical bills, and apprenticeship fee for some individual members of this constituency.

Political party

New Patriotic Party (NPP)	National Democratic Congress (NDC)

Personal assistance (case work)

Always (10/10): support constituents who need help to obtain government services such as business license, passport, birth certificate, facilitate loans or get government jobs	Sometimes (5/10): support constituents who need help to obtain government services such as business license, passport, birth certificate, facilitate loans or get government jobs

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Table C.2: Randomization Check

|	Age	Closeness incumbent party	Turnout (2016)	Education	Employed	Akan	Ewe	Kokomba	Correctly names MP	Total assets
					Dependent variable:					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Constituency Development Fund:										
Public,50:Private,50	0.311	0.003	0.004	−0.026	−0.002	−0.007	0.005	−0.0004	−0.003	−0.0004
	(0.366)	(0.015)	(0.009)	(0.053)	(0.012)	(0.011)	(0.007)	(0.008)	(0.006)	(0.028)
Public,10:Private,90	0.309	−0.003	−0.001	−0.016	0.0003	−0.017	0.005	0.002	0.009*	−0.043
	(0.393)	(0.015)	(0.009)	(0.055)	(0.013)	(0.012)	(0.007)	(0.008)	(0.005)	(0.030)
Public,90:Private,10	0.167	0.020	0.006	−0.019	0.023*	0.003	−0.0002	0.013	−0.001	−0.050*
	(0.372)	(0.015)	(0.009)	(0.056)	(0.013)	(0.012)	(0.007)	(0.009)	(0.005)	(0.029)
Time in Constituency vs. Capital										
Const.:50-capital:50	0.091	−0.012	0.010	0.052	0.015	0.017*	0.006	−0.001	−0.005	0.021
	(0.338)	(0.013)	(0.007)	(0.045)	(0.011)	(0.010)	(0.006)	(0.007)	(0.006)	(0.024)
Const.:75-capital:25	0.365	−0.025*	0.003	0.052	−0.006	0.0003	0.004	−0.007	0.001	0.042
	(0.365)	(0.014)	(0.009)	(0.052)	(0.012)	(0.011)	(0.007)	(0.008)	(0.005)	(0.028)
Community meeting										
Monthly	0.303	−0.002	−0.007	−0.048	−0.021	0.011	−0.003	−0.010	−0.007	0.004
	(0.435)	(0.017)	(0.010)	(0.059)	(0.015)	(0.013)	(0.008)	(0.010)	(0.006)	(0.033)
Every three months	0.204	−0.007	0.007	−0.079	−0.025*	−0.004	−0.006	−0.005	−0.0002	0.013
	(0.432)	(0.016)	(0.010)	(0.057)	(0.014)	(0.013)	(0.008)	(0.010)	(0.007)	(0.032)
Every six months	−0.471	0.008	−0.007	−0.057	−0.012	0.010	0.0003	−0.008	−0.008	−0.043
	(0.430)	(0.016)	(0.010)	(0.061)	(0.014)	(0.013)	(0.008)	(0.010)	(0.007)	(0.032)
Yearly	0.009	0.002	−0.005	−0.117*	−0.015	0.024*	−0.003	−0.0004	−0.006	−0.021
	(0.437)	(0.017)	(0.010)	(0.060)	(0.014)	(0.013)	(0.008)	(0.010)	(0.006)	(0.033)
Social event										
Sometimes	−0.373	0.018	−0.008	−0.005	0.006	0.032***	−0.006	−0.009	0.007	0.043*
	(0.333)	(0.013)	(0.008)	(0.046)	(0.011)	(0.010)	(0.006)	(0.008)	(0.006)	(0.025)
Always	0.027	0.006	−0.003	−0.075	0.011	0.009	0.0004	−0.011	0.009**	0.002
	(0.326)	(0.013)	(0.008)	(0.047)	(0.011)	(0.010)	(0.006)	(0.007)	(0.005)	(0.026)
Personal assistance (casework)										
Sometimes	−0.262	−0.005	0.008	0.012	−0.008	−0.012	−0.001	−0.003	0.002	0.014
	(0.327)	(0.013)	(0.007)	(0.045)	(0.011)	(0.010)	(0.006)	(0.008)	(0.004)	(0.025)
Always	−0.151	−0.010	−0.004	0.027	−0.005	−0.021**	−0.001	0.015**	−0.001	−0.010
	(0.325)	(0.013)	(0.008)	(0.047)	(0.011)	(0.010)	(0.006)	(0.007)	(0.005)	(0.025)
Profession										
Lawyer	−0.426	0.034*	−0.011	0.026	−0.002	−0.011	−0.008	−0.0002	−0.011	−0.006
	(0.434)	(0.018)	(0.010)	(0.063)	(0.015)	(0.014)	(0.008)	(0.010)	(0.007)	(0.035)
Educationist/teacher	0.021	0.002	−0.025**	−0.004	−0.010	0.007	0.0001	0.008	−0.014**	−0.015
	(0.447)	(0.018)	(0.011)	(0.065)	(0.015)	(0.014)	(0.009)	(0.010)	(0.007)	(0.035)
Business person	−0.197	0.005	−0.005	−0.008	0.012	0.003	−0.001	−0.007	−0.003	0.022
	(0.457)	(0.018)	(0.010)	(0.066)	(0.016)	(0.014)	(0.008)	(0.010)	(0.006)	(0.035)
Accountant	0.076	0.012	−0.009	−0.065	−0.006	0.006	−0.001	−0.003	−0.006	0.042
	(0.465)	(0.018)	(0.010)	(0.063)	(0.015)	(0.014)	(0.009)	(0.010)	(0.006)	(0.035)
Architect	−0.295	0.022	−0.001	0.057	0.0003	0.011	−0.002	0.010	−0.005	0.018
	(0.485)	(0.019)	(0.011)	(0.067)	(0.016)	(0.015)	(0.009)	(0.011)	(0.007)	(0.036)
Gender										
Male	0.721**	0.005	−0.003	−0.147***	−0.013	−0.005	0.006	0.011	−0.005	−0.036
	(0.339)	(0.013)	(0.008)	(0.049)	(0.011)	(0.010)	(0.006)	(0.007)	(0.006)	(0.025)
Political party										
New Patriotic Party	−0.310	0.004	−0.018**	−0.027	0.014	0.002	0.007	−0.012*	−0.002	−0.034
	(0.328)	(0.013)	(0.008)	(0.045)	(0.011)	(0.010)	(0.006)	(0.007)	(0.005)	(0.026)
National Democratic Congress	−0.242	−0.037***	0.0002	−0.049	0.006	0.007	0.004	−0.003	0.005	−0.028
	(0.319)	(0.013)	(0.007)	(0.046)	(0.011)	(0.010)	(0.006)	(0.007)	(0.005)	(0.025)
Hometown										
Does not hail but resident in constituency	−0.104	0.012	−0.009	−0.013	−0.015	−0.017*	−0.006	0.009	0.003	0.023
	(0.326)	(0.013)	(0.007)	(0.047)	(0.011)	(0.010)	(0.006)	(0.007)	(0.005)	(0.025)
Hails from but not resident	−0.134	0.026**	0.008	−0.061	−0.011	−0.013	0.003	0.017**	0.003	0.029
	(0.328)	(0.013)	(0.007)	(0.047)	(0.011)	(0.010)	(0.006)	(0.007)	(0.005)	(0.024)
Constant	38.671***	0.541***	0.878***	3.629***	0.589***	0.283***	0.076***	0.117***	0.964***	1.776***
	(0.765)	(0.029)	(0.017)	(0.109)	(0.025)	(0.022)	(0.014)	(0.017)	(0.010)	(0.057)
Observations (rated profiles)	12,096	8,982	12,132	12,030	12,132	12,132	12,132	12,132	9,102	12,132
R^2	0.001	0.003	0.002	0.002	0.002	0.003	0.001	0.002	0.002	0.002
Adjusted R^2	−0.001	0.001	0.0005	0.0003	−0.0003	0.001	−0.001	0.0005	−0.0002	0.0001
Prob >F (23 attributes)	**0.841**	**0.121**	**0.199**	**0.275**	**0.672**	**0.049**	**0.991**	**0.193**	**0.561**	**0.381**

Notes: Standard errors are clustered at the individual level. *p<0.1; **p<0.05; ***p<0.01

Table C.3: The profile order of the three "voting task" has no effect of the effect of attributes

| | *Dependent variable* | | |
| | | *Preferred candidate profile* | |
	Variable coefficient	Interaction effect (*Second profile)	Interaction effect (*Third profile)
Second profile	−0.036		
	(0.056)		
Third profile	−0.056		
	(0.056)		
Constituency Development Fund			
Public (90%):Private (10%)	0.126***	0.027	−0.001
	(0.023)	(0.032)	(0.032)
Public (50%):Private (50%)	0.096***	0.054*	0.025
	(0.022)	(0.030)	(0.031)
Public (10%):Private (90%)	0.049**	0.031	0.031
	(0.022)	(0.031)	(0.030)
Time in Constituency vs. Capital			
Const.:50-capital:50	−0.002	0.038	−0.003
	(0.018)	(0.026)	(0.028)
Const.:75-capital:25	0.009	0.057**	0.021
	(0.020)	(0.026)	(0.028)
Community meeting			
Monthly	0.139***	−0.018	−0.001
	(0.024)	(0.033)	(0.034)
Every three months	0.149***	−0.051	0.007
	(0.025)	(0.035)	(0.035)
Every six months	0.095***	−0.0005	0.064*
	(0.024)	(0.035)	(0.035)
Yearly	0.035	0.027	0.046
	(0.024)	(0.035)	(0.033)
Social event			
Sometimes	0.033*	0.018	0.011
	(0.019)	(0.027)	(0.027)
Always	0.089***	−0.019	−0.013
	(0.019)	(0.027)	(0.026)
Personal assistance (casework)			
Sometimes	0.079***	0.011	−0.032
	(0.019)	(0.027)	(0.027)
Always	0.109***	0.001	−0.020
	(0.019)	(0.026)	(0.026)
Profession			
Lawyer	−0.031	0.031	0.035
	(0.026)	(0.038)	(0.038)
Educationist/teacher	0.032	−0.005	0.013
	(0.026)	(0.037)	(0.038)
Business person	−0.012	0.041	−0.013
	(0.027)	(0.038)	(0.038)
Accountant	0.019	−0.001	−0.033
	(0.027)	(0.038)	(0.038)
Architect	0.003	0.038	−0.007
	(0.028)	(0.040)	(0.039)
Gender			
Male	0.014	−0.040	0.004
	(0.019)	(0.027)	(0.027)
Political party			
New Patriotic Party	0.049***	−0.020	−0.030
	(0.019)	(0.026)	(0.026)
National Democratic Congress	0.029	−0.024	−0.024
	(0.019)	(0.026)	(0.027)
Hometown			
Does not hail but resident in constituency	−0.063***	0.060**	0.066**
	(0.019)	(0.027)	(0.027)
Hails from but not resident	−0.051***	0.025	0.016
	(0.019)	(0.027)	(0.027)
Constant	0.241***		
	(0.040)		
Observations (Rated Profiles)	12,132		

Notes: Standard errors are clustered at the individual level. *p<0.1; **p<0.05; ***p<0.01

Figure C.2: Distribution of the amount donated by respondents to their preferred candidate profile
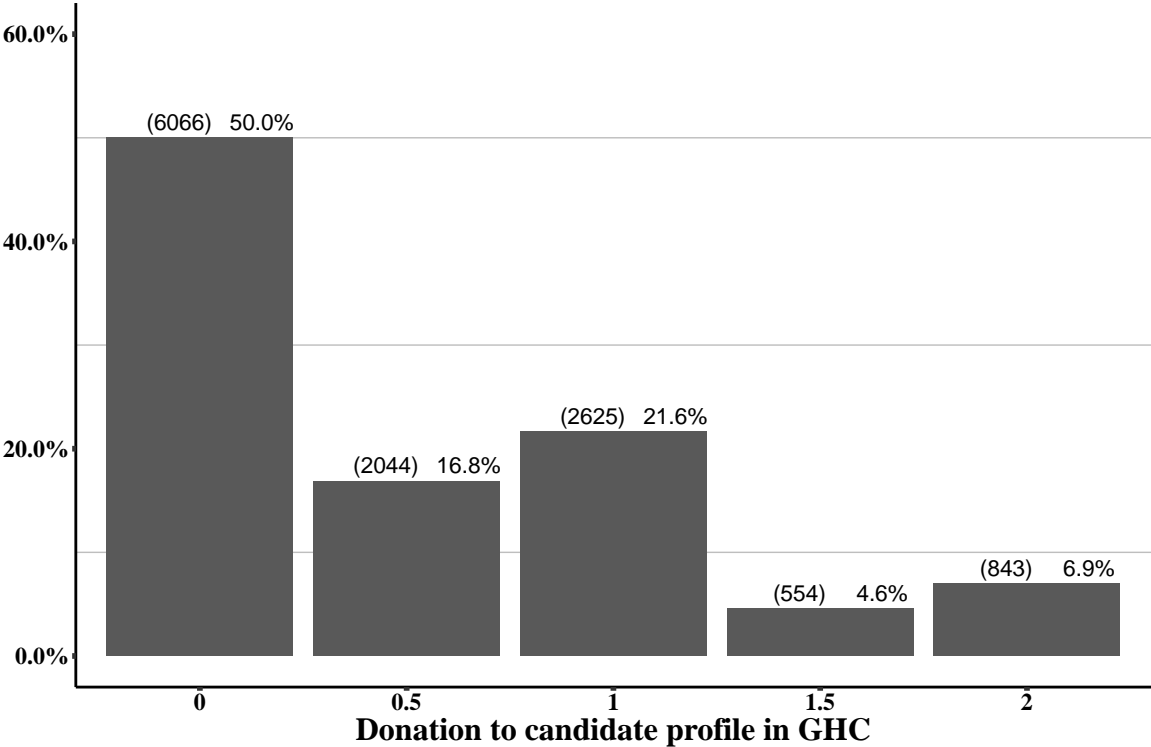
D   Full AMCE table and additional ACE results

Table D.1: Effects of candidate attributes on the probability of being selected as Member of Parliament

	Dependent variable:			
	Preferred candidate profile		Donation to preferred candidate profile	
	(1)	(2)	(3)	(4)
Constituency Development Fund				
Public (50%):Private (50%)	0.123***	0.123***	0.131***	0.132***
	(0.013)	(0.013)	(0.015)	(0.015)
Public (10%):Private (90%)	0.070***	0.070***	0.080***	0.081***
	(0.013)	(0.013)	(0.016)	(0.016)
Public (90%):Private(10%)	0.135***	0.136***	0.144***	0.145***
	(0.014)	(0.014)	(0.017)	(0.017)
Time in Constituency vs. Capital				
Constituency (50%) : Capital (50%)	0.030***	0.031***	0.041***	0.042***
	(0.011)	(0.011)	(0.013)	(0.013)
Constituency (75%) : Capital (25%)	0.015	0.016	0.040***	0.042***
	(0.012)	(0.012)	(0.015)	(0.015)
Community meeting				
Monthly	0.135***	0.134***	0.155***	0.156***
	(0.014)	(0.014)	(0.017)	(0.018)
Every three months	0.134***	0.133***	0.162***	0.162***
	(0.014)	(0.014)	(0.017)	(0.017)
Every six months	0.117***	0.117***	0.130***	0.131***
	(0.014)	(0.014)	(0.017)	(0.017)
Yearly	0.062***	0.060***	0.065***	0.065***
	(0.014)	(0.014)	(0.016)	(0.016)
Social event				
Sometimes	0.042***	0.043***	0.041***	0.043***
	(0.011)	(0.011)	(0.014)	(0.014)
Always	0.078***	0.079***	0.083***	0.084***
	(0.011)	(0.011)	(0.014)	(0.014)
Personal assistance (casework)				
Sometimes	0.072***	0.073***	0.076***	0.075***
	(0.011)	(0.011)	(0.014)	(0.014)
Always	0.102***	0.104***	0.107***	0.109***
	(0.011)	(0.011)	(0.014)	(0.014)
Profession				
Lawyer	−0.009	−0.008	−0.006	−0.005
	(0.016)	(0.016)	(0.019)	(0.019)
Educationist/teacher	0.035**	0.033**	0.037**	0.036*
	(0.015)	(0.015)	(0.019)	(0.019)
Business person	−0.003	−0.003	−0.009	−0.008
	(0.016)	(0.016)	(0.020)	(0.020)
Accountant	0.007	0.004	−0.005	−0.009
	(0.015)	(0.015)	(0.019)	(0.019)
Architect	0.014	0.013	0.018	0.017
	(0.017)	(0.017)	(0.020)	(0.020)
Gender				
Male	0.001	0.0003	−0.013	−0.012
	(0.011)	(0.011)	(0.014)	(0.014)
Political party				
New Patriotic Party (incumbent)	0.032***	0.031***	0.031**	0.030**
	(0.011)	(0.011)	(0.014)	(0.014)
National Democratic Congress (opposition)	0.011	0.010	0.003	0.001
	(0.011)	(0.011)	(0.014)	(0.014)
Hometown				
Does not hail but resident in constituency	−0.021*	−0.023**	−0.017	−0.019
	(0.011)	(0.011)	(0.014)	(0.014)
Hails from but not resident	−0.038***	−0.036***	−0.038***	−0.036***
	(0.011)	(0.011)	(0.013)	(0.013)
Controls	No	Yes	No	Yes
Constant	0.210***	0.210***	0.282***	0.296***
	(0.023)	(0.024)	(0.034)	(0.042)
Observations	12,132	11,994	12,132	11,994
R^2	0.037	0.037	0.044	0.046
Adjusted R^2	0.034	0.034	0.041	0.042

Notes: Table D.1 shows estimates of the effects of randomly assigned parliamentary candidate attribute values on the probability of being preferred as Member of Parliament in the next election. Estimates are based on an OLS model with standard errors clustered by repondent. The model also includes constituency fixed effects to ensure within constituency comparison.
*p<0.1; **p<0.05; ***p<0.01.

Figure D.1: Marginal means of selecting a candidate with a profile that includes a randomize CDF allocation value, by voter partisanship

Figure D.2: Marginal means and ACE of choosing an opposition over a copartisan politician with the same amount of promised public goods in the full sample

Notes: Figure D.2 Panel A shows the means of selecting a profile with randomly assigned promised CDF allocations and party ID of hypothetical candidates. The means for copartisan aspirants are represented by triangle and that of non-copartisan candidates by the solid circles. The vertical bars represents 95% confidence intervals. Panel B shows the corresponding average combination effect with 95% confidence intervals.
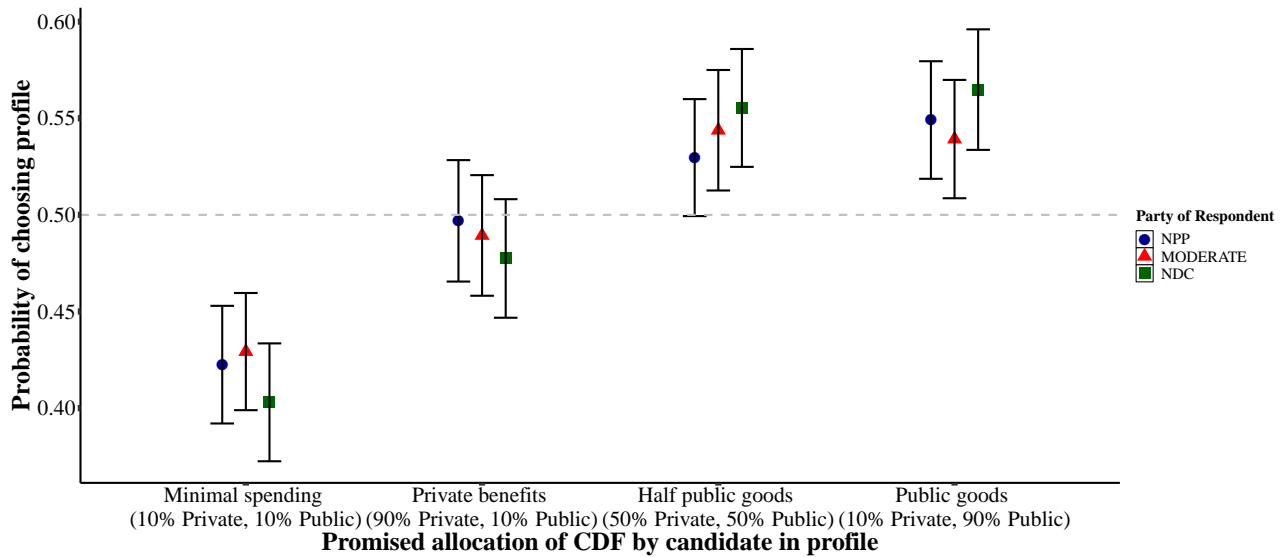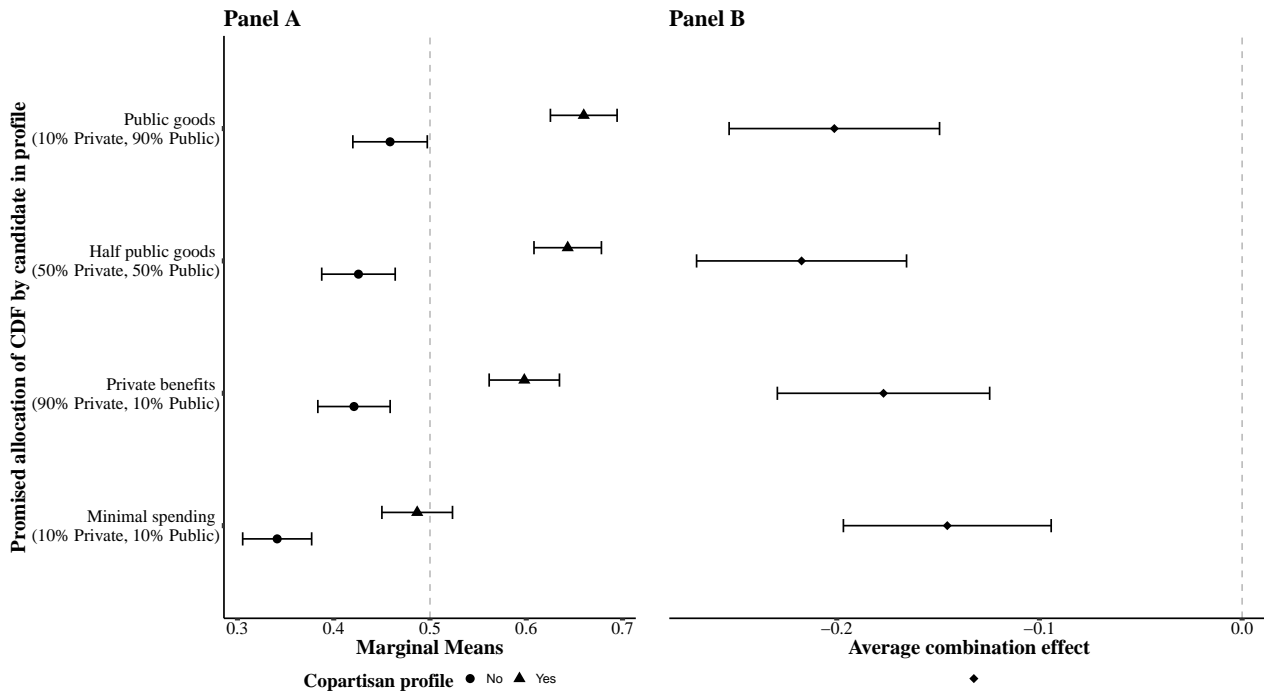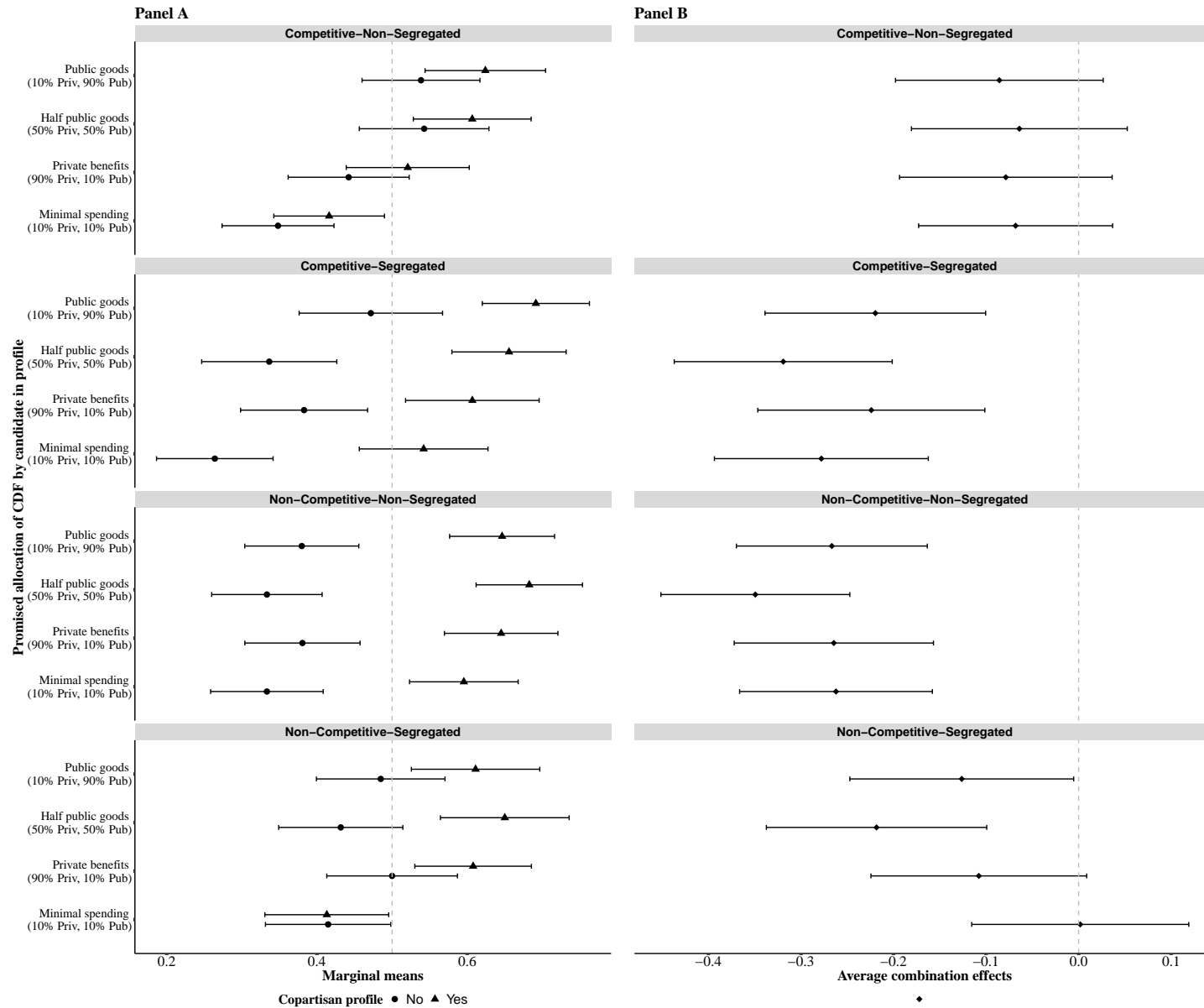
Figure D.3: Marginal means and ACE of choosing an opposition over a copartisan politician with the same amount of promised public goods by constituency type

Notes: Figure D.3 Panel A shows the means of selecting a profile with randomly assigned promised CDF allocations and party ID of hypothetical candidates. The means for copartisan aspirants are represented by triangle and that of non-copartisan candidates by the solid circles. The vertical bars represents 95% confidence intervals. Panel B shows the corresponding average combination effect with 95% confidence intervals.

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E   Mechanisms

Table E.1: Summary statistics of polling station characteristics by constituency types

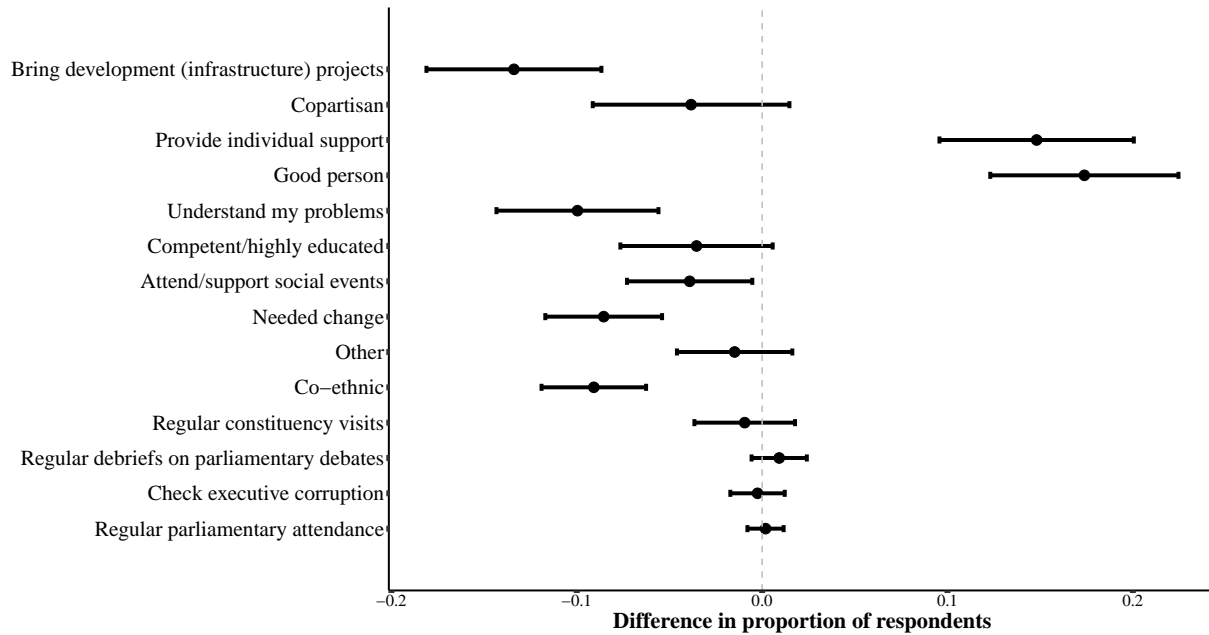| | Competitive | | Non-competitive | | |
	Non-segregated	Segregated	Non-segregated	Segregated	P-value (F-statistics)
Electricity	0.867	0.833	0.893	0.933	0.683
	(0.346)	(0.379)	(0.315)	(0.254)	
Pipe water	0.667	0.433	0.308	0.414	0.047
	(0.479)	(0.504)	(0.471)	(0.501)	
Mobile service	1	0.867	0.857	0.900	0.218
	(0)	(0.346)	(0.356)	(0.305)	
Post office	0.133	0.143	0	0.069	0.199
	(0.346)	(0.356)	(0)	(0.258)	
School	0.967	0.833	0.964	0.967	0.102
	(0.183)	(0.379)	(0.189)	(0.183)	
Police station	0.233	0.133	0.214	0.267	0.639
	(0.430)	(0.346)	(0.418)	(0.450)	
Clinic	0.500	0.517	0.607	0.667	0.535
	(0.509)	(0.509)	(0.497)	(0.479)	
Bank	0.233	0.167	0.037	0.333	0.039
	(0.430)	(0.379)	(0.192)	(0.479)	
Paved road in village	0	0.067	0.071	0.367	0.00004
	(0)	(0.254)	(0.262)	(0.490)	
Paved roads 5km to village	0	0.200	0.143	0.367	0.002
	(0)	(0.407)	(0.356)	(0.490)	
Road condition in village (very)good	0.267	0.433	0.393	0.300	0.504
	(0.450)	(0.504)	(0.497)	(0.466)	

Figure E.1: Differences in the top three reasons why partisans chose their preferred candidate in the 2016 parliamentary race in nonsegregated/competitive versus other constituency types
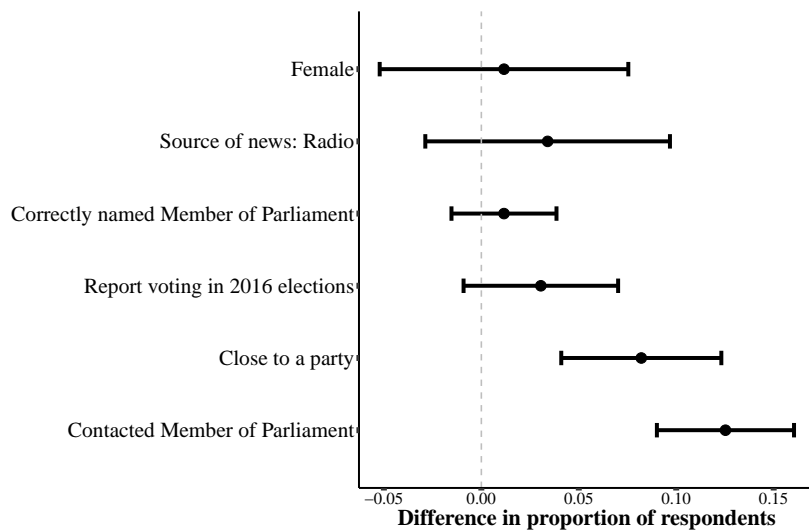

Figure E.2: Differences in reported characteristics and political behavior of partisans in nonsegregated/competitive versus other constituency types

Table E.2: Difference in ACEs of choosing an opposition over a copartisan politician with the same amount of promised public goods with controls

	Public goods (10% Priv, 90% Pub)	Public/private (50% Priv, 50% Pub)	Private benefit (90% Priv, 10% Pub)	Minimal spending (10% Priv, 10% Pub)
	Dependent variable			
	Select profile containing promised (1/0)			
	(1)	(2)	(3)	(4)
Opposition profile	−0.211***	−0.307***	−0.228***	−0.209***
	(0.037)	(0.038)	(0.038)	(0.037)
Competitive Nonsegregated (CNS)	−0.031	0.003	−0.107*	−0.137***
	(0.057)	(0.053)	(0.058)	(0.052)
Opposition profile : CNS	0.119*	0.177**	0.167**	0.143**
	(0.070)	(0.071)	(0.072)	(0.067)
Individual Characteristics				
Contacted MP	−0.116**	−0.030	0.092*	0.016
	(0.058)	(0.056)	(0.055)	(0.053)
Close to a party	0.039	0.058	0.008	−0.073
	(0.053)	(0.052)	(0.053)	(0.053)
Education	0.005	0.004	−0.008	−0.012
	(0.009)	(0.009)	(0.009)	(0.008)
Rationale for MP choice in previous election				
Good person	0.054	0.018	0.045	−0.052
	(0.038)	(0.038)	(0.038)	(0.037)
Copartisan	0.024	0.023	−0.016	−0.074**
	(0.037)	(0.036)	(0.038)	(0.036)
Competent/highly educated	0.073	0.035	0.006	−0.036
	(0.047)	(0.047)	(0.048)	(0.047)
Understand my problems	−0.021	0.055	0.018	−0.049
	(0.047)	(0.046)	(0.047)	(0.044)
Regular constituency visits	−0.005	−0.020	0.030	−0.108*
	(0.068)	(0.070)	(0.065)	(0.062)
Regular parliamentary attendance	0.137	−0.139	−0.246	0.006
	(0.249)	(0.226)	(0.207)	(0.140)
Regular debriefs on parliamentary debates	−0.094	−0.057	−0.024	0.043
	(0.123)	(0.108)	(0.143)	(0.103)
Check executive corruption	0.016	0.128	0.041	−0.058
	(0.146)	(0.159)	(0.122)	(0.106)
Attend/support social events	−0.0002	−0.003	−0.041	−0.017
	(0.058)	(0.054)	(0.058)	(0.052)
Coethnic	−0.007	0.019	−0.010	0.030
	(0.068)	(0.075)	(0.068)	(0.070)
Needed a change	−0.011	0.027	0.098	−0.093
	(0.058)	(0.061)	(0.065)	(0.064)
Bring development projects	−0.031	0.102**	−0.032	−0.024
	(0.043)	(0.041)	(0.043)	(0.040)
Provide individual support	0.005	0.047	0.019	−0.022
	(0.038)	(0.038)	(0.038)	(0.037)
Other factor	−0.021	0.031	−0.086	−0.055
	(0.064)	(0.073)	(0.074)	(0.065)
Community characteristics				
Bank	0.058	−0.037	−0.016	−0.036
	(0.051)	(0.051)	(0.051)	(0.051)
School	−0.001	−0.089	0.028	0.070
	(0.060)	(0.069)	(0.065)	(0.064)
Pipe water	−0.020	−0.047	−0.007	−0.020
	(0.041)	(0.041)	(0.040)	(0.039)
Paved road/tarred to village	−0.030	0.095	0.109	0.052
	(0.089)	(0.087)	(0.086)	(0.082)
Road to village (yes)	−0.014	−0.048	−0.042	−0.041
	(0.084)	(0.084)	(0.084)	(0.079)
Condition of road in village (very) good	−0.020	−0.001	−0.003	0.077*
	(0.039)	(0.042)	(0.042)	(0.041)
Constant	0.622***	0.561***	0.614***	0.678***
	(0.104)	(0.107)	(0.110)	(0.100)
Observations	985	953	965	1,024
R^2	0.050	0.088	0.052	0.057
Adjusted R^2	0.024	0.063	0.026	0.032

Note: *p<0.1; **p<0.05; ***p<0.01

Table E.3: Association between copartisanship with incumbent MP and expectation that your community will receive local public infrastructure

	Dependent variable:				
	Expect community to receive public infrastructure				
		Segregated		Non-Segregated	
	Full sample	Competitive	Non-Competitive	Competitive	Non-Competitive
	(1)	(2)	(3)	(4)	(5)
Binary					
Copartisan with incumbent MP	0.317***	0.699***	0.314***	0.169***	0.153*
	(0.081)	(0.114)	(0.073)	(0.012)	(0.087)
Constant	0.110***	−0.102**	0.079	0.179***	0.085
	(0.037)	(0.044)	(0.049)	(0.006)	(0.070)
Observations	1,017	216	256	262	283
R^2	0.382	0.614	0.186	0.540	0.149
Adjusted R^2	0.375	0.608	0.176	0.535	0.140
Likert scale (0-10)					
Copartisan with incumbent MP	3.093***	6.393***	3.094***	1.754***	1.715***
	(0.674)	(0.888)	(0.844)	(0.189)	(0.295)
Constant	1.649***	−0.470	1.615***	2.267***	1.048***
	(0.311)	(0.346)	(0.563)	(0.087)	(0.239)
Observations	1,017	216	256	262	283
R^2	0.429	0.716	0.273	0.536	0.253
Adjusted R^2	0.422	0.712	0.265	0.530	0.245
Note:				$^*p<0.1$; $^{**}p<0.05$; $^{***}p<0.01$	

Table E.4: Association between copartisanship with incumbent MP and report that your community has received local public infrastructure

	Dependent variable:				
	Community has received public infrastructure				
		Segregated		Non-Segregated	
	Full sample	Competitive	Non-Competitive	Competitive	Non-Competitive
	(1)	(2)	(3)	(4)	(5)
Copartisan with incumbent MP	0.186***	0.399**	0.208*	0.150***	0.037
	(0.063)	(0.194)	(0.117)	(0.035)	(0.052)
Constant	0.141***	−0.101	−0.005	0.159***	0.021
	(0.030)	(0.084)	(0.078)	(0.017)	(0.042)
Observations	1,096	228	254	302	312
R^2	0.349	0.380	0.094	0.370	0.331
Adjusted R^2	0.342	0.372	0.083	0.363	0.324

Note: $^*p<0.1$; $^{**}p<0.05$; $^{***}p<0.01$

Table E.5: Who Should Make[ing] sure that, once elected, Members of Parliament do their jobs?

	Competitive		Non-competitive	
Who?	Non-segregated	Segregated	Non-segregated	Segregated
The president	0.35	0.24	0.36	0.38
Parliament	0.09	0.06	0.14	0.17
Political party	0.05	0.15	0.06	0.07
Voters	0.49	0.47	0.40	0.36
No one	0.00	0.03	0.00	0.00
Don't know	0.02	0.06	0.03	0.02
N	214	34	843	100

Notes: Source: Afrobaromter R7. Sample is restricted to respondents who say they are close to a political party.