Motivating the Machine: Which Brokers Do Parties Pay?

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Parties rely on brokers to win elections in much of the developing world. How do parties use compensation to motivate these grassroots agents? Parties often decentralize broker payment decisions to local party elites. In addition to helping their party win elections, local elites seek personal career advancement. Because local elites typically rely on brokers' support to advance, they have an incentive to use payments to strengthen their ties to brokers. Using a multiwave survey, we track the full range of payments to over 1,000 brokers from Ghana's ruling party—the party most capable of distributing patronage benefits—across an electoral cycle. We show that the party operates a hybrid payment system missed by previous studies. The party rewards the brokers who deliver the most votes immediately after elections. But long after campaigns, when most payments are made, local party elites prioritize payments to brokers with upward connections to elites.

Grassroots intermediaries, or brokers, link parties and voters in many developing democracies (Mares and Young 2016). While brokers sometimes serve parties because of their ideological attachments or career incentives (Calvo and Murillo 2019; Larreguy, Olea, and Querubin 2017; Szwarcberg 2015), many theories of clientelism claim that brokers work in pursuit of the compensation available to them as intermediaries (Bob-Milliar 2012; Camp 2017; Gingerich 2020; Novaes 2018; Stokes et al. 2013). As a result, understanding which brokers parties pay—with what, when, and why—is essential for our understanding of clientelist parties. Because broker compensation can divert public resources away from citizens and reduce the separation between party and state, it also has important development implications. Moreover, payments to brokers have ramifications for how parties build durable grassroots organizations.

Yet despite a large literature that explores what brokers do for parties, existing studies offer an incomplete view of how parties compensate brokers. Scholars have long recognized in general terms that clientelist parties provide patronage to their agents (Scott 1969; Wilson 1961). However, both older and recent research rarely systemically quantifies or tracks payments to large samples of brokers.[1] More importantly, existing theories are often limited in scope in one or more ways: they focus on payments to brokers at a single point in time—the campaign season (Gingerich 2020; Larreguy, Marshall, and Querubin 2016; Novaes 2018); they investigate only one possible form of payment—for example, public sector jobs (Driscoll 2018; Oliveros 2016); or they consider only a single motivation for payments—rewarding brokers' electoral performance (Camp 2017; Stokes et al. 2013).

In this article, we propose a more comprehensive theory of broker compensation. We expand the scope of existing studies by considering that payments can occur across the full electoral cycle, which creates opportunities to reward brokers for different reasons at different points in time. We also examine the full range of payments that parties can offer brokers. Central to our theory is the recognition that parties often decentralize payment decisions to local party elites because national party leaders lack local knowledge of grassroots agents. These local party elites hold additional goals beyond their party's electoral performance: they also seek to advance their own political careers, which often requires amassing a personal following among grassroots brokers.

1. An important exception is Gingerich (2020), albeit in a very different historical context than examined here.

We argue that the decentralized decisions made by local elites result in a hybrid compensation structure. In the immediate postelection period, the party rewards the brokers who have delivered the most votes. But long after campaigns are over, when most payments actually occur, local party elites instead direct benefits to brokers with whom they have personal connections or to brokers who are actively developing social ties to elites. While incentivizing performance helps achieve short-term electoral goals, rewarding brokers with upward connections within the party helps local party elites advance their career ambitions by building personal support among grassroots agents. This deviation from purely rewarding performance is not prohibitively costly for a party overall because brokers with upward ties are well positioned to solve their clients' problems and, thereby, serve as effective brokers. In addition, incentivizing brokers to become better connected to local party elites helps bind brokers to the party, which aids long-run organizational stability.

We illustrate this argument with new micro-level data from a panel survey tracking payments to over 1,000 randomly sampled brokers in Ghana's ruling party across a full electoral cycle. To our knowledge, this is the first panel of brokers in any developing democracy. We measure a wide range of payments to brokers across Ghana's 2016 campaign season, the immediate postelection period, and the longer-run nonelectoral period. In addition, we develop novel measures of brokers' upward connections to political, party, and bureaucratic elites. The panel structure of the data allows us to assess how brokers' actions—such as campaigning, assisting voters in nonelectoral periods, or increasing embeddedness in party networks—influence payment while holding fixed brokers' personal attributes and community or constituency characteristics.

We find evidence of a hybrid payment system across the election cycle. Consistent with the existing literature (e.g., Larreguy et al. 2016), brokers mostly worked for free in expectation of future rewards during the campaign. Immediately after the election, a small subset received valuable benefits as a reward for strong performance. However, the majority of compensation instead occurs between campaigns. In this period, local elites reward brokers who already have, or are developing, upward ties within the party. These payments help local elites foster a following among grassroots activists. Importantly, our survey data also show that brokers themselves are well aware of this hybrid payment system, which provides further confidence in our empirical results.

By contrast, our data do not support that payments outside campaigns are made as a retrospective reward for past performance and provide only limited evidence that elites also use off-cycle payments to reward postelection activism. We also rule out a series of alternative explanations for the patterns we observe. This includes showing that direct payments from local party leaders comprise the main benefits brokers receive, with little evidence that brokers also extract substantial benefits from voters or that brokers skim excessively from benefits meant for voters (e.g., Auerbach 2016; Zarazaga 2014).

While we draw on a single case, we expect our theoretical framework to apply broadly to instances where brokers are employed through machine organizations that persist across elections.[2] Even where parties differ in their specific organizational structure, we expect broker compensation decisions to be decentralized and for local party elites to confront the dual imperatives of both building personal support among brokers and ensuring that brokers perform well. Moreover, while we focus on the ruling party because it alone has access to valuable benefits that can be paid to brokers across our two surveys, observing this party's transition into power after the 2016 election allows us to make predictions about opposition parties. We expect that they primarily motivate brokers to work for free upfront with promises of future rewards and then implement the system we describe once in office. Our theory applies less well in very unstable party systems because when brokers expect to switch parties regularly there is less possibility for compensation outside immediate election periods. Moreover, our focus on party brokers may not speak to compensation among nonparty brokers (e.g., Baldwin 2015; Holland and Palmer-Rubin 2015).

This article makes several contributions. Most directly, we provide a more systematic theory and documentation of broker compensation than existing literature. Better understanding payments to brokers is important theoretically: we cannot explain how brokered clientelism works without understanding the financial incentives structuring brokers' behavior (Camp 2017; Stokes et al. 2013). It is also important descriptively for estimating the financial burden that clientelism can impose on countries. Brokers are often compensated with public resources, especially employment (Levitsky 2003; Oliveros 2016), which can impede the development of state institutions.

In addition, we contribute to broader theories on the principal-agent relationship between party leaders and brokers. We show that many prominent models of this relationship (e.g., Larreguy et al. 2016; Stokes et al. 2013) have two shortcomings. First, they treat a party's leaders as a unitary actor with uniform preferences as regards agents' behavior. We

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2. This includes canonical clientelist parties, such as the Argentinean Peronists (Levitsky 2003), the historical urban United States (Wilson 1961), the Christian Democrats of Naples (Chubb 1982), and Mexico's PRI (Magaloni 2006).

instead recognize that parties often have multiple decentralized principals who act on their own private preferences. Second, existing models often focus on campaign seasons and electoral outcomes at the expense of incorporating the equally, if not more, important work that parties do after elections (Diaz-Cayeros, Estévez, and Magaloni 2016; Nichter 2018). Indeed, we show that most compensation for brokers unfolds in the context of "relational clientelism" in noncampaign periods (Nichter 2018).

Finally, we suggest that relationships with brokers can be a critical, but often overlooked, determinant of party institutionalization (Muñoz and Dargent 2016; Novaes 2018; Scott 1969). The organizational stability that allows parties to become embedded in society is only possible where grassroots activists have incentives to commit to a party over time (Mainwaring 2018). By recognizing that efforts to embed brokers in party networks are a central element of party-broker relationships, we suggest that the study of brokers also has broader relevance to party building and democratic consolidation.

THE RECENT LITERATURE

Unless brokers volunteer their time, parties operate (implicit or explicit) labor contracts with them. The existing literature suggests several forms these contracts might take.[3] First, many accounts focus on the campaign period and argue that brokers are paid directly for electoral performance. Because party leaders are unable to systematically monitor brokers' labor inputs, they are often claimed to focus only on outputs and peg compensation to brokers' revealed effectiveness in a pay-for-performance contract (e.g., Camp 2017; Larreguy et al. 2016; Novaes 2018; Stokes et al. 2013). Party leaders may not be able to identify perfectly the performance of every broker but can still observe the output of small groups of brokers fairly accurately through disaggregated election results (Larreguy et al. 2016; Rueda 2016) or via monitoring attendance at local rallies (Szwarcberg 2015).

Parties are thought to use these metrics to enact one of two performance contracts. Some brokers are paid via tournaments in which the most valuable compensation is a bonus made contingent on being among the party's very best performers (Larreguy et al. 2016).[4] The most valuable payments to brokers are delivered immediately after elections, once performance is observed, to only a subset of brokers. Alternatively, parties and brokers may exchange a set number of voters in return for a set payment, which may be paid either up front or shortly after the election. This is akin to piece rate compensation (Prendergast 1999). Unlike in a tournament, every broker is compensated per vote delivered. For example, in Brazil, individual candidates assemble networks of brokers in each election by offering deals to multiple "local notables," who act as brokers. The sizes of brokers' payments are based on the number of votes they commit to delivering (Novaes 2018).

Second, other scholars argue that payments extend beyond campaigns, observing that brokers from ruling parties often benefit from public sector jobs after elections. Patronage hiring is documented across the United States (Wilson 1961), Latin America (Levitsky 2003; Muñoz and Dargent 2016; Oliveros 2016; Zarazaga 2014), Africa (Brierley 2021; Driscoll 2018), and Eastern Europe (Mares and Young 2020). However, compared to the first set of theories above, studies that document patronage hiring rarely offer as explicit an account of why brokers are paid. Without an individual-level theory of which ruling party brokers are hired, it remains unclear whether jobs are also distributed as rewards for vote mobilization or are instead allocated following some other logic.[5]

Ultimately, existing studies offer an incomplete account of brokers' labor contracts: they are typically focused narrowly on only one point in time, one type of payment, or one reason for payment. Each is an important limitation. Theories focused on the campaign season alone are at odds with the broader literature demonstrating that many of brokers' most important activities continue long after campaigns (Zarazaga 2014), such as engaging in "relational clientelism" in between elections (Nichter 2018). A singular focus on performance overlooks that clientelist parties are often multilayered institutions, with multiple independent actors able to make separate payments to brokers that may satisfy other—more private—imperatives beyond simply maximizing vote share. Moreover, a specific focus on one particular benefit—such as patronage hiring alone—overlooks that parties typically have many possible forms of compensation to distribute and that separate payment streams may be used to target different brokers for different reasons.

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3. Separately, others focus on compensation outside of the party-broker contract, such as the rents brokers might extract from voters on their own, independent of whatever they are paid by party leaders (e.g., Auerbach 2016).

4. In a tournament, bonuses are not necessarily reserved for brokers delivering the most votes; party leaders can condition payments on expected performance relative to precedents (Gingerich 2020; Szwarcberg 2015).

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5. For example, Oliveros (2016) argues that patronage jobs are delivered in return for brokers agreeing to grant routine favors to party supporters once they take their positions in the bureaucracy. While an important contribution to the study of patronage, the article does not explore which ruling party brokers are given the opportunity to take these jobs over others and why.

THEORY: HYBRID PAYMENTS
ACROSS THE ELECTORAL CYCLE
Departures from existing literature

We expand the scope of existing theory to address these limitations in two main ways. First, we recognize that parties make payments to brokers not only during or immediately after campaigns but also during the electoral off cycle. In all but the most inchoate party systems, party-broker relationships continue after elections (Auyero 2000; Nichter 2018; Zarazaga 2014). Second, we acknowledge that parties typically decentralize broker compensation decisions to local party elites (Levitsky 2003), as upper-level party leaders rarely have sufficient information to target compensation to individual brokers.[6] Given this decentralization, the personal incentives of local elites will influence which brokers the party pays (Wilson 1961). In addition to seeking to reward brokers for their electoral performance, individual local party elites have career goals. These goals include retaining their current positions, advancing in the party, or running for office.

Local party elites often depend on the formal or informal support of lower-level brokers to fulfill their career goals. Formally, they may need direct electoral support from grassroots brokers in internal party primaries or leadership elections (Ichino and Nathan 2012). More informally, local elites often need to sustain a private following among the party's grassroots activists to enhance their own bargaining power within the party (Levitsky 2003; Tavits 2013). For individual elites competing for promotions, solely maximizing the party's vote share in their jurisdiction may not send a clear enough signal to higher-level party leaders about which particular local elite to promote; that signal is shared across all of the jurisdiction's elites. Instead, local elites can use the size of their broker following to informally indicate their personal value relative to their peers. This claim mirrors related arguments that Stokes et al. (2013) and Camp (2017) develop for actors one step further down in the party hierarchy; they suggest that brokers, in turn, similarly focus on maximizing their personal followings among voters, rather than solely seeking to maximize party vote share, in order to pursue their own career advancement.

Anecdotal evidence provides clear examples of local party elites using patronage for career goals. For example, in the United States it was observed that "the leader of Tammany Hall allocates such [patronage] resources as he does possess so as to improve his own immediate position in the organization rather than maximize the party's vote" (Wilson 1961, 372). Similarly, Levitsky (2003, 67–79) details how local Peronist leaders in Argentina use their control over patronage jobs to compete for the personal support of branch activists as they seek power over each other.

Implications for broker compensation

Compensation schemes that prioritize both the party's collective goal of vote maximization and the individual career goals of local party elites are possible because these elites make multiple separate payment decisions across an electoral cycle. In campaign periods, we expect local party elites to prioritize their party's immediate electoral success, as ensuring their party wins is paramount in the short run. Similar to existing literature, we expect that brokers will either be paid piece rate or through a tournament for revealed output as of election day, at rallies, or both—whichever metric is available.[7] These payments encourage brokers' electoral performance.

But once a party takes office, a different payment logic can become salient. Freed from the immediate focus of the campaign, local elites can pivot to considering their longer-term career goals. In postelection periods, we expect the winning party to compensate the brokers with the most ties to local party elites. In return for compensation, local party elites expect these brokers to back their ambitions to rise in the party in the future.[8] Payments that reward brokers for their social embeddedness with party elites, in turn, encourage brokers to further invest in developing these upward relationships.

The aggregate effect will be a system that directs the largest share of postelection payments to brokers who have connections to higher ranks of the machine. For national party elites, who prioritize the party's overall success, such a payment system may appear inefficient relative to solely paying brokers for performance. But we expect that national party leaders will let the hybrid system persist in equilibrium for two reasons. First, allowing local party leaders to use patronage to satisfy their private goals helps foster party stability (Muñoz and Dargent 2016). Curtailing local elites' ability to advance their careers is likely to demotivate them and encourage them

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6. These local elites serve parties at, for example, the constituency (district) or municipality levels.

7. Which occurs depends on brokers' relative bargaining power vis-à-vis local party elites. Where brokers can more credibly threaten to defect to other parties during the campaign, piece rate compensation is more likely (Novaes 2018).

8. Opposition parties should mirror this system, for the same reasons, to whatever extent possible with their private resources. But because opposition parties typically have fewer resources and their brokers often become dormant in noncampaign periods (unable to link clients to the state), we expect that opposition parties primarily motivate brokers via promises of rewards upon winning. Opposition parties have to forgo hiring clientelist brokers altogether if they have neither significant private funding—needed to pay brokers when out of office—nor any credible expectation of soon winning—needed to motivate brokers to work for free in anticipation of future rewards (Shefter 1977).

to leave the party. Both impose electoral costs.[9] Moreover, incentivizing grassroots brokers to become more closely tied to local party elites also makes it harder for them to defect in the future, which helps sustain the party's local organization.[10]

Second, rewarding brokers for developing upward ties to local elites can have the carryover effect of helping to improve their competence at forms of relational clientelism that are important for maintaining voter support in the postelection period. Being an effective "problem solver" depends on brokers' having close social connections to higher-ups in the party and local bureaucracy who control access to the benefits that voters seek (Auerbach and Thachil 2018; Brierley and Nathan 2021). As Auyero (2000) and Zarazaga (2014) richly document in the Argentinian case, brokers need these connections to know how to best extract patronage for voters and/ or gain privileged information about enrolling voters in government social programs.

PARTY BROKERS IN GHANA

We focus on Ghana, where local party brokers (branch executives) are the main agents who link party leaders and voters (Bob-Milliar 2012; Fobih 2010).[11] Ghana holds concurrent, highly competitive presidential and parliamentary elections every four years, which are dominated by the New Patriotic Party (NPP) and the National Democratic Congress (NDC). The parties regularly alternate in office, and the NPP became the ruling party after the 2016 election. Voters register at polling stations that contain roughly 500–1,000 individuals, which represents either an entire village or portion of a town or urban neighborhood.

Branch executives as brokers

Ghana's two major parties are organized nearly identically. Branch executives (brokers) cover individual polling stations. Above them sit constituency executives who coordinate party activities within districts.[12] Within the NPP, our focus below, there are five branch executives at every polling station.[13] The majority of branch executives are male (72%) and work in the informal sector (77%), often as farmers or small-business owners. Because their party was in opposition for eight years before 2016, only a small minority of NPP branch executives (2.7%) had jobs at their local governments prior to the party taking power.[14]

During election campaigns, branch executives serve as each party's main grassroots labor force, engaging in a mix of clientelist and nonclientelist activities, including canvassing door to door, organizing rallies, spreading party messages, and distributing handouts (Brierley and Kramon 2020). After the campaign, branch executives in the ruling party become "problem solvers," channeling targeted patronage to supporters and engaging in what Nichter (2018) terms "relational clientelism."[15] This includes both linking ordinary voters up to local government officials and linking officials down to voters by identifying recipients for government programs.

Branch executives' motivations

Although many branch executives report partisan or ethnic attachments to their party, branch executives are mostly motivated to work for parties in exchange for private benefits. Based on 200 interviews with these "foot soldiers," Bob-Milliar (2012, 680) argues that "selective incentives are at the heart of party activism in Ghana." In our survey data (see below), NPP branch executives report expecting a wide range of benefits from party leaders once the party takes office. Table 1 ranks the most common forms of compensation our respondents hope to receive.

Public employment—whether permanent or temporary— is the most valuable incentive that the party offers branch executives. Recent examples of state agencies offering temporary public employment include the country's Youth Employment Agency (YEA) and Forestry Commission.[16] Branch women's organizers—a position for female brokers—are also the main beneficiaries of catering contracts under the national School Feeding Programme.[17] Where public jobs are unavailable, party leaders can also help secure employment at private businesses of party sympathizers—a common tactic of many machines

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9. Ichino and Nathan (2013) find a significant electoral penalty for the ruling party in Ghana when national party leaders block local elites from competing for party nominations.

10. Brokers who are more socially embedded in the machine can face higher costs to abruptly defecting and switching parties. For example, they are less likely to be trusted by elites of a new party if their deep ties to elites in their current party are already publicly observed.

11. Parties also sometimes rely on other intermediaries, especially traditional chiefs.

12. Parliamentary constituencies are nested within districts, typically one or two constitiuencies per district.

13. These are the branch chair, secretary, organizer, women's organizer, and youth organizer. The NDC has similar positions at each branch.

14. Like many African countries, Ghana's political system is highly centralized, and the president's party controls all local governments.

15. By contrast, the opposition's branch executives are mostly inactive until the next campaign.

16. While successive governments may have wanted to reward brokers with permanent civil service positions, they have been constrained by International Monetary Fund (IMF) loans that mandated public sector hiring freezes. Ghana has been under IMF programming 21 out of the 38 years since multiparty rule (1993–2020). Temporary job programs like the YEA and Youth in Afforestation Initiative (Forestry Commission) allow the government to sidestep these limits.

17. We classify the receipt of such a contract as a job in the analysis.

Table 1. What Compensation Do Brokers Hope to Receive?

	Percent (n)
A job	47.46 (541)
A loan	38.42 (438)
A job for a family member	17.89 (204)
Cash	16.75 (191)
Administrative fees (e.g., child's school fees)	10 (114)
Business inputs (e.g., farm equipment)	7.81 (89)
Motorbike	4.47 (51)
Other	1.67 (19)
Bureaucratic favors (e.g., child's school admission)	1.49 (17)
Housing	1.32 (15)

Note. Respondents' hopes for payment now that the NPP is in power. $N = 1,140$. Respondents could give multiple answers.

(Wolfinger 1972). In addition to employment, branch executives can receive differential access to loans, either through government micro-finance initiatives or from private lenders controlled by party sympathizers.

Payments to brokers occur at multiple points. In both the ruling and opposition party, aspiring parliamentary nominees direct personal funds to branch executives who serve as the electorate in intraparty primaries at the outset of each campaign (Ichino and Nathan 2012). During campaigns, constituency executives and parliamentary candidates target some campaign funds to branch executives. Many of these campaign payments come from private funds (Asante and Kunnath 2018). But the resources—public and private—available to compensate brokers increase dramatically with incumbency. After elections, the winning party gains wide latitude to direct resources from public programs to branch executives and the voters beneath them.

Constituency executives' motivations

Constituency-level executives oversee the branch executives. The NPP selects six main constituency executives in each of the country's 275 parliamentary constituencies.[18] Constituency executives often have ambitions to rise in the party to either become regional (provincial) party executives or elected politicians. The most highly desired political positions are the district mayor (district chief executive) and becoming a parliamentary candidate. Mayors—who are presidential appointees—are often former constituency executives. Similarly, prior holding of a constituency party position is common among

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18. These are the constituency chair, secretary, organizer, youth organizer, women's organizer, and treasurer. The NDC has identical positions.

aspirants in parliamentary primaries (Ichino and Nathan 2021). When their party wins power, the constituency executives who are not appointed as the mayor typically take on other positions, formally or informally, in the district government from which they gain direct influence over most of the local government programs that the party uses to target benefits to branch executives. For example, in our fieldwork, we observed constituency executives exerting control behind the scenes over who receives the YEA jobs in their district.

Constituency executives' career advancement depends on the formal support of branch executives. In both parties, constituency and regional executives are elected by branch executives. Parliamentary nominees also require branch executives' support because branch executives form the electorate in parliamentary primaries (Ichino and Nathan 2012). These electoral ties between each layer of the party give constituency executives significant private incentives to use their influence over public resources to build and consolidate personal support among branch executives. Branch executives know this and leverage their positions to pressure local party elites for patronage. Detailing the quid pro quo that occurs between branch- and constituency-level party executives in Ghana, Luna (2020, 63) notes that "there is immense pressure" on constituency executives "to keep your foot soldiers [branch executives] satisfied."

DATA
Survey design and timing

We construct a panel survey of NPP branch executives. We focus on the ruling party because the most valuable payments Ghana's parties give to brokers—such as public jobs—are only available to the national incumbent. Because the two parties are almost identically structured and rely on the same state resources to sustain clientelism when in power, we expect that our results will apply to the NDC when they are in office instead.[19]

We interview branch executives at a random sample of 200 polling stations within 10 parliamentary constituencies in southern Ghana.[20] Our two survey waves, 18 months apart, capture distinct points in the election cycle. The NPP won the December 2016 election and took power in 2017.[21] The first wave interviewed 1,140 respondents in January 2018, which coincided with the NPP's quadrennial branch-level

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19. Moreover, our analysis of the 2016 campaign—when the NPP was still in opposition—suggests how opposition parties incentivize brokers through promises of future rewards.

20. More details on sampling are in app. A (apps. A–P are available online).

21. The NDC was in office since 2009.

elections to select new branch executives.[22] These executives held their positions until after the next general election in December 2020. The first wave interviewed all aspirants (winners and losers) in these internal elections for the five positions at each branch. We also interviewed all incumbent chairs, organizers, and women's organizers—the three most important positions—regardless of whether they recontested in 2018.[23] The second wave occurred in July 2019 just before the first parliamentary primaries to select candidates for the 2020 election.[24] We aimed to reinterview every respondent who had not already retired and consented to being recontacted, reaching 1,001 (88%) respondents.[25]

Measuring major and minor patronage

The survey included a battery of questions on benefits received from the party. The first wave distinguished between compensation in two periods: the 2016 campaign itself ("Period 1" below); and 2017, which represents the initial transitional period during which the NPP took office ("Period 2"). These map to immediate pre- and postelection payments. The second wave instead identifies brokers' compensation over 2018 and 2019, the nonelectoral period spanning from when the NPP was settled in office through the onset of the 2020 campaign ("Period 3"). Each set of questions measures brokers' actual receipt of payments, not perceptions about possible payments. The questions include payments regardless of whether they are sourced from public resources or party leaders' private funds.[26]

Given that our outcome data are self-reported, there may be concerns of potential upward and downward bias in reporting.[27] Considering downward bias, discussions during our pilot suggested that branch executives feel very comfortable discussing payments. Indeed, table 1 confirms that brokers openly expect, discuss, and demand potential payments. To protect against potential boasting and upward bias, we asked detailed follow-up questions that required respondents to provide specific information about the major benefits they had received. Reassuringly, brokers' self-reports are not implausibly high: for example, our survey estimates that 21,625 public sector jobs were distributed to branch executives nationwide from 2017 to 2019, which is far below the total distributed through public employment schemes during the NPP's term.[28] This is consistent with the party distributing jobs both to brokers themselves and to ordinary supporters through those brokers.

Most payments are in kind, not cash, and range in value. We distinguish between Major and Minor patronage. "Major patronage" includes temporary and permanent jobs, loans, skills training, and new vehicles (e.g., motorbike).[29] These are high-value benefits that have the potential to transform a recipient's livelihood. "Minor patronage" includes petty cash, clothing or cloth, fuel, minor farming or business inputs (e.g., cutlasses), or electronics (e.g., a new cellphone).[30] Table 2 presents summary statistics on the share of brokers receiving each type of patronage in each period.

Measuring broker embeddedness: Connections up to local elites

To measure upward ties to local elites and embeddedness within party networks, we test each branch leader's knowledge of the 13 most important political and bureaucratic elites in their district with power over state resources: the six constituency party executives, the local party elites directly above branch leaders in the machine;[31] and eight local officials who can best help brokers deliver benefits to, and solve problems of, their clients.[32]

Respondents were asked to name the current occupant of each position and provide the last four digits of his or her

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22. Broker selection is examined in a companion paper.

23. Our sample thus includes current branch executives at each polling station—those (re)selected in 2018—and all leaders as of the 2016 election (selected in 2014).

24. This timing was important because branch executives often receive payments from candidates during primary campaigns. We timed our survey to be before this period.

25. We examine attrition in app. B.

26. Indeed, virtually all Period 1 payments are from private sources.

27. Self-reported data are the only viable means to collect comprehensive information across all categories of possible payments. For example, collecting administrative data at the bureaucrat level across the myriad public agencies that might employ brokers is virtually impossible. Beyond employment, most payments to brokers would never even be recorded.

28. The party claims to have distributed more than 250,000 jobs under three programs: the YEA and Forestry Commission (described above), and Nation Builders Corps (Modern Ghana 2020). Thousands more patronage jobs are available in the district governments (Driscoll 2018).

29. Brokers could also receive government contracts, such as under the School Feeding Programme (see above).

30. We code cash as "minor" because our respondents described that they are rarely paid salaries or large quantities of cash. Instead, most cash reported represents token low-value handouts "dashed" by party leaders after meetings and other brief interactions. Appendix C validates that our "major" items are more economically consequential than those coded as "minor," linking payments to changes in respondents' economic conditions.

31. These are the constituency party chair, secretary, treasurer, organizer, youth organizer, and women's organizer.

32. These are the member of Parliament, mayor (DCE), city/town council chair (presiding member of the District Assembly), city/town councilor (District Assembly member), district head bureaucrat (district coordinating director), district engineer (who supervises public works spending), the district coordinator for the National Disaster Management Organization, and the district's Youth Employment Agency coordinator (key sources of patronage employment).

Table 2. Broker Payments across the Electoral Cycle

	Period 1 (Campaign)		Period 2 (Election Aftermath)		Period 3 (Off Cycle)	
Variable	%	N	%	N	%	N
Paid major patronage (0, 1):	0.9	791	9.9	791	25.2	667
A job	0	791	3.7	791	12.7	667
A loan	0.3	791	0.6	791	9.7	667
Enrolled in training program	0	791	5.7	791	7.6	667
A state contract	0	791	0.6	791	1.2	667
A motorbike or bicycle	0.8	791	0	791	0.1	667
Paid minor patronage (0, 1):	21.4	791	13.7	791	25.3	667
Petty cash	10.9	791	7.3	791	16.3	667
Food	11.8	791	7.7	791	12.9	667
Cloth	5.3	791	2.7	791	12	667
Electronics (phone, etc.)	0.4	791	0.3	791	1.6	667
Farm/business inputs (fertilizer, etc.)	. . .	. . .	0.1	791	1.9	667
Paid major patronage cumulatively to date (0, 1)	0.9	791	10.7	791	33.1	667
Paid minor patronage cumulatively to date (0, 1)	21.4	791	29.3	791	48.4	667
Not paid in this period (0, 1)	77.4	791	78.4	791	55.6	667
Not paid cumulatively to date (0, 1)	77.4	791	63	791	33.9	667

Note. Restricted to those serving as of 2016 to allow consistent comparisons across time. Indented items are subcomponents of the categories listed just above.

personal phone number without asking anyone for help. Respondents knew these numbers either by heart or through looking on their phones.[33] This measures contacts that respondents already had (and presumably already use), not which names or numbers they hypothetically could get. Already knowing these names and numbers proves a broker's ability to directly contact an elite to request assistance for themselves or for a voter; while names and numbers are not the only conceivable means of contact, they serve as strong proxies for the presence of an existing connection. We assume that brokers are much more likely to have close social ties to elites that they know and already have established a direct line of communication with.[34]

We create a 25-item test of Connections Up, recording the percentage of items correctly identified, with names and numbers counting separately.[35] We measure this variable in both waves and also compute the change between waves to identify brokers actively developing elite ties over time. We operationalize this measure as the proportion of correct responses. Mean Connections Up in wave 1 is 0.22 (SD = 0.15) and increased to 0.28 (SD = 0.16) in wave 2 (see app. D).

Measuring performance

We measure electoral performance using 2012 and 2016 presidential results disaggregated by polling station. This is the same metric that scholars argue party leaders use to observe broker performance (e.g., Larreguy et al. 2016; Rueda 2016); during our fieldwork, constituency-level party leaders regularly demonstrated detailed knowledge of changes in polling station results as a means of evaluating the performance of local branches. Below, we identify stations with better-than-expected performance by examining the swing in presidential vote share between 2012 and 2016, controlling for either constituency fixed effects or the party's constituency-level vote swing. This allows us to focus on branches that performed especially well relative to their immediate area, partialing out overall trends and constituency-wide changes in party support unrelated to polling station–level broker efforts (e.g., changes in the parliamentary candidate between 2012 and 2016).[36] Consistent with their electoral victory, the average polling

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33. Nearly all respondents (96%) report owning a phone.

34. Mobile phones are ubiquitous for government business in Ghana. Contact with local officials is highly personalized—these elites (even MPs and DCEs) answer their personal phones, rather than working through staff.

35. We only tested for the MP's phone number, as MP names are widely known. We confirmed phone numbers in advance. Our coding rules account for additional phone numbers or possible nicknames (app. E).

36. The same NDC and NPP presidential and vice presidential candidates contested in 2012 and 2016, and there was otherwise no major partisan realignment. The NDC was the incumbent in both.

station-level NPP vote swing was +5.9 percentage points, with minimum of −8.0 percentage points and maximum of +21 percentage points.

ANALYSIS
What do brokers receive?

Table 2 summarizes the type and timing of compensation. Consistent with existing literature on both ruling and opposition parties, brokers are rarely paid for labor inputs: the vast majority (77%) worked for free during the 2016 campaign (Period 1), with no upfront or contemporaneous payment. While 21% received minor benefits, less than 1% received any major benefit. This is despite being very active in the campaign: 92% engaged in house-to-house canvassing, 77% organized attendance at rallies, and 57% provided handouts (app. E). Yet campaign activity is uncorrelated with Period 1 payments (app. F), suggesting that brokers worked in anticipation of future rewards.

Payments increased immediately after the election, once the NPP took power. In Period 2, 10% of respondents received major patronage. Yet at odds with theories that focus on the immediate pre- and postelection periods, postelection benefits still represent a minority of the total benefits. In Period 2, the vast majority (78%) of brokers again received no payment, and the high-value benefits distributed shortly after the election comprise only 29% of the total major patronage distributed by the end of Period 3.

It is in the longer nonelectoral period—2018–19—that the majority of major patronage reached brokers. In Period 3, a sizable minority (25%) now received major benefits, while 25% also received more minor compensation. Jobs were the most common major patronage—more than one in 10 brokers (13%) received a job. The large majority of jobs (87%) were temporary positions through the public employment schemes described above (e.g., YEA). In addition, roughly 10% received a loan, and 8% were enrolled in a skills training program meant to improve employment prospects. Scaling these figures up to 29,000 polling stations nationwide, this amounts to the party distributing 18,400 jobs, 14,000 loans, and 11,000 skills trainings in 2018–19—a substantial overall outlay. The party rewarded major patronage largely to distinct groups of brokers in Period 2 and Period 3; only 22 respondents (2%) received major payments in both periods. By the end of Period 3, most brokers (66%) had received some type of benefit from the party.

Why do they think they receive it?

Which brokers does the party reward and why? A first cut at these questions is to ask brokers about the labor contract that they perceive themselves to be working under. In wave 2, we asked respondents what actions (if any) they could take to increase their chances of receiving compensation.[37] We code open-ended responses into a categorical variable in table 3.

While nearly half of the brokers (51%) are resigned to think that no actions would improve their compensation, the remaining responses suggest a hybrid compensation system. A significant minority gave two common responses: (a) perform better—that is, by putting in more effort and/or attracting more voters to the party (21%); or (b) become more embedded in the party by developing closer personal connections up to local party leaders (20%). In terms of performance, brokers talked of the need to campaign more and bring in more votes. Typical answers about embeddedness mirror our Connections Up variable: for example, "get closer to the top party officials."

Most importantly, the responses in table 3 also correlate with when respondents report receiving payments. This strongly suggests that many branch executives believe the party operates a hybrid payment system similar to what we describe above. Table 4 regresses the responses in table 3 on indicators for having received major patronage payments in either Period 2 (immediate postelection) or Period 3 (electoral off cycle).[38] We find that respondents who received major patronage in Period 2 but not 3 are precisely those most likely to believe that payments follow from effort or performance. Branch executives who received major patronage in Period 3 but not 2 are instead disproportionately those who say developing better ties to constituency elites will best increase one's compensation. These patterns also make clear that respondents see improving electoral performance and increasing connections to elites as distinct actions and reasons for payment.[39]

The hybrid system: The immediate postelection period

We now explore whether brokers' beliefs about why they are paid match the observed pattern of payments. We first investigate which broker attributes predict receiving major patronage immediately after the 2016 election (Period 2).[40] We expect payments in the immediate postelection period to be

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37. The question was: "Are there any actions you could take that you think would increase the amount of benefits you receive from the NPP? What are they?"

38. The models include constituency fixed effects to restrict comparisons to respondents serving under the same constituency executives and also include a series of individual- and branch-level controls described below. Standard errors are clustered by polling station branch.

39. For example, while many respondents who were paid in Period 2 readily volunteered that being better at campaign mobilization would lead to payment, none of the respondents paid in Period 3 said postelection activism (relational clientelism) would lead to more payments, even though this is the brokers' primary task during this period.

40. Separate analyses for the minor benefits in table 2 are in app. G. Minor payments do not follow any discernible pattern in any time period.

Table 3. What Could You Do to Improve Your Compensation

Response	Percent	No.	Example Quotes
No action	50.94	486	"Nothing you do will help"
			"I don't know what else to do"
			"I think I am already doing the best I could"
Improve Connections Up	20.02	191	"By getting closer to top party executives"
			"By contacting the party leaders at the constituency level"
			"I have to be calling the MP, the constituency chairman more"
More effort	12.16	116	"To work hard for the party to maintain power"
			"If I work hard to win votes"
			"Campaigning for the party and assisting needy people"
Improve performance	9.22	88	"Gather more votes for the party"
			"By getting more supporters for the party"
			"By doing my job very well so that more people will join the party"
Work stoppage	2.94	28	"Sit down strike"
			"During campaign season will not go on campaign"
			"We have to refuse to vote if they don't heed to our plight"
Protest party leadership	2.94	28	"I will vote for new constituency executives"
			"Campaign against the party executives and change them for new ones"
			"Voting against incompetent MP in the . . . primaries"
Defect to another party	.84	8	"Vote the [NPP] out"
			"We will have to rally behind a competitor for them to see we mean business"
			"Tell them to come fulfill the promises made . . . or risk losing votes"
Other	.94	9	
Total	100	954	

based on revealed performance, consistent with anecdotal evidence in existing literature and the perceptions of many of our respondents. We also assess two alternatives: that major patronage payments are a function of activism during the campaign (brokers' labor inputs) or Connections Up to local elites (brokers' embeddedness).

Table 5 displays ordinary least squares (OLS) regressions in which an indicator for receiving major patronage is the dependent variable.[41] The unit of the analysis is each branch executive during the 2016 campaign. We include constituency fixed effects to account for heterogeneity across constituencies in overall benefits available (app. I). We also include polling station– and individual-level controls, such as respondents' tenure in the party, education, family ties to elites, and demographics.[42] We cluster standard errors by polling station (branch), as this was our sampling unit.

Column 1 of table 5 shows a positive association between NPP vote swing—a branch's relative performance compared to the rest of the constituency—and the likelihood of receiving major patronage. Column 2 shows similar results after replacing the constituency fixed effects with constituency swings in NPP vote share.[43] Column 3 replaces vote share with number of raw votes for the NPP, which is an alternative metric that parties may reward.[44] By contrast, across columns 1–3 we find no evidence that payments reflect brokers' inputs (campaign activity in 2016) or embeddedness (Connections Up).[45] Columns 4–6 show that these relationships also hold when responses are collapsed to the polling station (branch) level.[46]

41. We replicate tables 5 and 6 using logistic regression in apps. H and K.

42. At the polling station, we control for distance to the district capital (remoteness) and wealth. At the individual level, we control for age, gender, wealth, years in the NPP, years in the community, whether the broker is a local ethnic minority, whether they live outside the community, whether they are related to the traditional chief, related to a local politician (DCE

or MP), related to a constituency party executive, related to their District Assembly member, work in the formal sector, and work as a petty trader.

43. The results are robust to region fixed effects or controlling for vote share at the constituency level.

44. We do not have 2012 parliamentary results at the polling station level. In practice, parliamentary and presidential vote shares are usually highly correlated.

45. Campaign activity is an index of nine major actions (app. E).

46. We also rerun the analyses in table 5 dropping outliers on NPP vote swing. The results are robust (and in fact strengthen) with this restriction (app. J). These patterns also do not vary across different party positions within each branch (e.g., chairman vs. secretary).

Table 4. Understanding of Reasoning for Payments on Payments Received

	Dependent Variable	
	Expect More Pay If You Improve Connections Up (0, 1)	Expect More Pay If More Effort or Performance (0, 1)
Received major patronage in Period 2 but not Period 3 (0, 1)	.022 (.050)	.117* (.060)
Received major patronage in Period 3 but not Period 2 (0, 1)	.079** (.037)	−.014 (.032)
Constituency FEs	Y	Y
Individual controls	Y	Y
Polling station–level controls	Y	Y
Observations	831	831
Adjusted R^2	.088	.107

Note. OLS; the dependent variables are indicators of common responses in table 3, regressed on payments received. Standard errors clustered by polling station. Restricted to branch executives in their positions in Period 3. FE = fixed effects.

[†] $p < .10$.
[*] $p < .05$.
[**] $p < .01$.
[***] $p < .001$.

The positive relationship between NPP vote swing and receiving major patronage is substantively large. Figure 1 plots the predicted probability of receiving major patronage in Period 2 against the vote swing at each branch. The dashed horizontal line indicates the average predicted probability of receiving major patronage (just less than 0.1). Moving from a polling station where the NPP vote swing was one standard deviation below the mean to one standard deviation above results in more than doubling the probability of receiving major patronage (from 5 percentage points to 12 percentage points). Overall, the party rewarded a small subset of brokers in the immediate postelection period for the best electoral performance.

The hybrid system: The electoral off cycle

We next investigate which brokers receive major patronage in the years between elections when the NPP distributes the
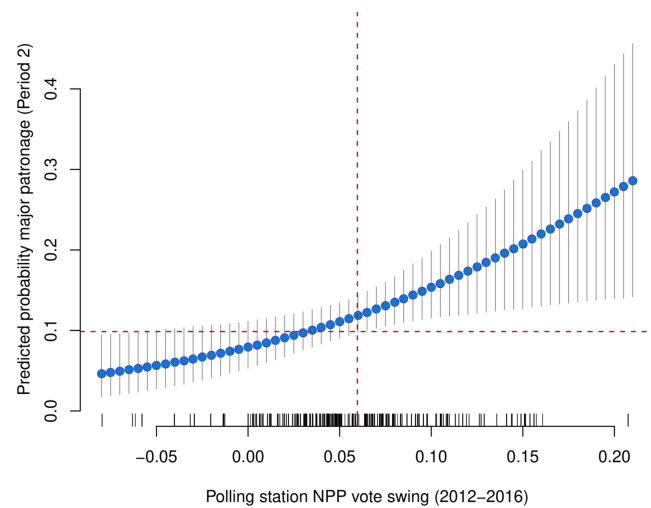

Figure 1. Predicted probability of receiving major patronage in 2017 by polling station swing in NPP presidential vote share (2012–16), with all covariates held at observed values. The horizontal line is the mean proportion receiving these benefits. The vertical line is the mean NPP vote swing.

bulk of major payments (table 2). Table 6 presents OLS regressions with an indicator for receiving major patronage in Period 3 as the dependent variable.[47] We include constituency fixed effects and the same individual- and polling station–level controls as above, continuing to control for respondents' tenure in the party, education, family ties to elites, and other demographics. Standard errors remain clustered by polling station.

To test whether Period 3 payments reward brokers for their ties to local elites, column 1 of table 6 includes Connections Up measured in the wave 1 survey. This captures connections to local elites that brokers already had prior to receiving any payments in Period 3.[48] To test if major payments are instead rewards for the effort brokers exert for the party (brokers' inputs), we also include our index of brokers' campaign activity in 2016 (conducted during Period 1) as well as indicators for engaging in two forms of postelection "relational clientelism" in the year after the election (during Period 2): whether branch executives were active connecting voters to district and party elites for benefits (Broker Up) or helped the party distribute benefits to voters (Broker Down).[49] In addition, we

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47. Similar analyses for minor patronage benefits are in app. G.

48. There is an endogeneity concern with instead using Connections Up from wave 2 to predict payments in Period 3: it is unclear whether connections in the second wave are a cause or outcome of payments received by the end of the second wave survey. Table 6 sidesteps this concern by focusing on Connections Up that are temporally prior to Period 3. However, a placebo test (app. M) demonstrates that it is unlikely that Connections Up in wave 2 are an outcome of past payments, as would occur if brokers only developed upward ties because receiving benefits brought them into contact with new elites.

49. Summary statistics and correlations between these variables are in app. E. Overall, the respondents who engage in the most campaign activism

Table 5. Major Patronage Payments Immediately after the Election

	Dependent Variable: Major Patronage (2017)					
	(1)	(2)	(3)	(4)	(5)	(6)
NPP pres. vote swing at polling station 2012–16	.702**	.556*		.710**	.687*	
	(.321)	(.310)		(.358)	(.353)	
NPP pres. vote swing at polling station 2012–16 (raw votes)			.001***			.001**
			(.0003)			(.0005)
Campaign activity in 2016 (,9)	.007	.004	.010*	.002	−.009	.007
	(.005)	(.005)	(.006)	(.013)	(.013)	(.014)
Connections Up (%)	.104	.066	.083	.235	.138	.141
	(.095)	(.096)	(.092)	(.173)	(.170)	(.181)
NPP pres. vote swing at constituency 2012–16		−1.468***			−1.302*	
		(.528)			(.709)	
Constituency FEs	Y	N	Y	Y	N	Y
Individual-level controls	Y	Y	Y	Y	Y	Y
Polling station–level controls	Y	Y	Y	Y	Y	Y
Observations	722	722	700	184	184	179
Adjusted R^2	.075	.045	.079	.172	.087	.185

Note. OLS regressions subset to brokers serving as of 2016. In cols. 1–3, standard errors are clustered by polling station. In cols. 4–6, data are collapsed by polling station among sitting branch executives during 2016. Vote swings are calculated as 2016 vote share − 2012 vote share. Fe = fixed effects; pres. = presidential.
† $p < .10$.
* $p < .05$.
** $p < .01$.
*** $p < .001$.

include the same measure of performance from table 5—polling station–level vote swing—to assess whether payments in Period 3 are awarded based on observed ability to deliver votes (brokers' outputs).

We find that payments in the electoral off cycle are significantly predicted by brokers' embeddedness with local elites—which corresponds with what many brokers paid in this period believed (table 4). In column 1 of table 6, moving from the 10th (0.04) to 90th (0.44) percentile of Connections Up predicts being 11.8 percentage points more likely to receive major benefits. Column 2 of table 6 disaggregates Connections Up into connections to local politicians, bureaucrats, or constituency party executives. Only ties to local party elites are reliably associated with payments. Further analysis demonstrates that this relationship is primarily explained by the distribution of jobs to brokers (app. L).

By contrast, we find only limited evidence in columns 1 and 2 that major payments in Period 3 are retrospective rewards for campaign work or postelection activism. While Broker Down—whether brokers help the party find voters

to target with benefits—is also correlated with receiving payment, Broker Up—our measure of whether brokers help solve clients' problems by linking them to the party or government—is instead negatively correlated with payment. This latter result is at odds with brokers being systematically rewarded for their work. Campaign activism in 2016 is also not consistently correlated with payment, and there is no evidence that payments in this period reward observed electoral performance, in direct contrast to Period 2. Column 4 shows that similar relationships persist when Connections Up is not included in the model.

One potential concern is that Connections Up instead proxies for future electoral performance or current (as opposed to past) engagement in relational clientelism. It is not possible to perfectly anticipate future electoral performance. But the most reliable indicator of future performance available to local party leaders is past election performance. Past performance is uncorrelated with payment, including when Connections Up is not included (col. 4). To consider whether payments reward current activism, in columns 5 and 6 we include measures of Broker Up and Broker Down collected in wave 2. The evidence that brokers are rewarded for activism is again ambiguous. While the Broker Up variable is

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are often different from those engaged in the most postelection brokerage activity.

Table 6. Predictors of Major Patronage in the Nonelectoral Period (2018–19)

	Dependent Variable: Major Patronage (2018–19)					
	(1)	(2)	(3)	(4)	(5)	(6)
Connections Up (wave 1)	.294**		.322**			.270*
	(.114)		(.115)			(.115)
Connections Up, politicians (wave 1)		.047				
		(.098)				
Connections Up, bureaucrats (wave 1)		−.028				
		(.138)				
Connections Up, constituency executives (wave 1)		.195†				
		(.101)				
Broker Up (wave 1)	−.072	−.073†		−.060		−.081†
	(.044)	(.044)		(.043)		(.043)
Broker Down (wave 1)	.088†	.088†		.085†		.089†
	(.045)	(.046)		(.046)		(.046)
Broker Up (wave 2)					.035	.031
					(.030)	(.030)
Broker Down (wave 2)					.103**	.101**
					(.039)	(.038)
Campaign activity in 2016 (,9)	.011	.011		.015†	.010	.009
	(.008)	(.008)		(.008)	(.008)	(.008)
NPP pres. vote swing at polling station 2012–16	−.048	−.058	−.117	.123	.092	−.062
	(.324)	(.323)	(.329)	(.313)	(.311)	(.324)
Constituency FEs	Y	Y	Y	Y	Y	Y
Individual-level controls	Y	Y	Y	Y	Y	Y
Polling station–level controls	Y	Y	Y	Y	Y	Y
Observations	844	844	863	844	844	844
Adjusted R^2	.162	.161	.161	.156	.163	.170

Note. Standard errors clustered by polling station. All models are OLS. The dependent variable is an indicator for receiving major patronage in Period 3. Restricted to branch executives in their positions during Period 3. FE = fixed effects; pres. = presidential.

† $p < .10$.
* $p < .05$.
** $p < .01$.
*** $p < .001$.

uncorrelated with payments, Broker Down activism again predicts payment.

The positive association between Broker Down and major payments in both survey waves suggests that some payments that local party elites distribute in Period 3 reward activism, especially work that local party leaders have directly asked brokers to conduct on their behalf (e.g., identifying beneficiaries for a state welfare program). Consistent with the existing literature on relational clientelism (e.g., Auyero 2000; Zarazaga 2014) and our argument above, in additional tests we show that Connections Up predicts both Broker Up and Broker Down (app. N). Yet crucially, regardless of whether we control for Broker Up and Broker Down, Connections Up still positively and significantly predicts payments (cols. 1, 3, and 6).

Moreover, in models similar to column 6 of table 6, there are also no statistically significant interactions between Connections Up and whether brokers are currently engaged in activity (Broker Up or Broker Down; app. O). Together, these patterns suggest that the party deviates from purely rewarding brokers for their work in Period 3 and pays them based on upward ties to local elites.

There may also be a broader concern that the relationship between Connections Up and major payments in Period 3 is not due to brokers' network ties but to some other characteristics correlated with Connections Up. All models in table 6 already include individual-level demographic controls, such as the years each branch executive has been active in the party and whether they are a relative of constituency party

Table 7. Predictors of Change in Receiving Major Patronage in Nonelectoral Period (2018–19)

	Dependent Variable: Δ in Total Major Patronage (2018–19)		
	First Difference Model		
	(1)	(2)	(3)
Δ in Connections Up	1.225***		1.318***
	(.275)		(.278)
Δ in Connections Up, politicians		.063	
		(.171)	
Δ in Connections Up, bureaucrats		.913**	
		(.282)	
Δ in Connections Up, constituency executives		.487**	
		(.160)	
Δ in Broker Up	.057	.061	
	(.055)	(.055)	
Δ in Broker Down	.158*	.155*	
	(.062)	(.062)	
Δ in assets	.0001	−.002	.002
	(.021)	(.021)	(.021)
Constant	.470***	.461***	.451***
	(.033)	(.033)	(.031)
Observations	929	927	929
Adjusted R^2	.035	.039	.024

Note. Standard errors clustered by respondent. First difference models across waves; the dependent variable is the change in the sum of major patronage benefits received. All time invariant covariates drop out.
[†] $p < .10$.
[*] $p < .05$.
[**] $p < .01$.
[***] $p < .001$.

executives.[50] But there still could be unobserved characteristics that explain both Connections Up and Period 3 payments.

Table 7 addresses this possibility with first difference regressions. These models leverage the panel data to examine the impact of changes in branch executives' connections up between survey waves. The dependent variable now measures changes in receipt of major patronage benefits. The advantage of a first-difference model is that all demographic attributes, as well as any other time invariant confounders, such as polling

station or constituency characteristics, are controlled for because they remain constant over the two surveys. This allows us to isolate whether a branch executive developing more Connections Up between 2017 and 2019 increases her probability of being paid by the end of Period 3, irrespective of her other characteristics. Standard errors are now clustered at the individual level.

Table 7 finds that changes in Connections Up strongly predict receiving more major patronage. Positive changes in upward connections to both constituency party executives and local bureaucrats now predict positive changes in major benefits received.[51] Moreover, columns 1 and 3 show that developing more upward connections predicts receiving more high value payments regardless of whether we control for changes in brokers' actual activity across the survey waves. In addition to being rewarded for existing levels of embeddedness in party networks (table 6), the patterns in table 7 suggest that brokers are also rewarded for actively developing new ties to local elites over time. There is again also evidence that the party separately distributes benefits to brokers whom the party increasingly tasks with work—change in Broker Down activism is positive. But some benefits being distributed to reward increased activism is not inconsistent with a hybrid distribution system; importantly, column 1 shows that even when controlling for any changes in activism, changes in Connections Up continue to predict payment.

ALTERNATIVE ARGUMENTS

We also consider four additional sets of alternative explanations. First, there is little evidence that brokers also receive alternative payments beyond those we capture on our survey, such as if brokers separately skimmed from benefits meant for voters or extracted rents from voters. Unlike in other contexts (e.g., Auerbach 2016), we encountered no discussion during fieldwork that brokers routinely charge fees to clients. Our panel also allows us to indirectly test for this possibility through changes in brokers' personal economic conditions. Once controlling for payments in table 2, there are no additional economic returns to being a broker that might indicate unobserved streams of compensation (app. C).

Second, what we interpret as a strategic decision by local party elites to reward embeddedness could instead be nonstrategic behavior. It may simply be easier for local party elites to distribute the goods they control to brokers to whom they are related or happen to be more socially proximate. This is

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50. Table 6 is also robust to controlling for branch positions (e.g., chairman vs. secretary).

51. Sample sizes differ between tables 6 and 7 because of missingness on some controls. The results in table 7 are robust to subsetting only to observations in table 6.

unlikely to account for our results, however. We already control for whether each branch executive is related to a constituency party executive, their member of Parliament, local mayor, or district assembly member. We find no evidence that these variables predict receiving major patronage during Period 3, when most high value benefits were distributed. This nonstrategic view is also at odds with the clear evidence of strategic payments for performance in Period 2. Moreover, an alternative measure of proximity to party elites—the distance from each brokers' home to the constituency party office, which may proxy for how often a broker is simply in the presence of constituency party executives—is uncorrelated with access to patronage (app. P).

Third, there may be an additional logic at play alongside the dynamics we uncover. For example, variation in payments could be due to a broker's ability to credibly threaten to defect to a rival party (Novaes 2018). If threats of defection explain payments, brokers with the lowest ability to defect should be paid least. Threats of defection are least credible in strongholds of the NPP, where the NDC only has a limited presence, compared to more ethnically diverse, politically competitive polling stations where both parties have robust organizations. Yet we find the same patterns in both types of areas and an overall higher amount of patronage distributed to brokers in NPP stronghold regions where defection is least likely (app. I). Moreover, very few respondents ($n = 8$) believe that threats of defection would be a successful way to induce more payment (table 3). Instead, receiving major patronage in Period 3 is systematically correlated with doing the opposite of trying to defect: drawing yourself closer to the party by developing more ties to party leaders (table 7).

Last, and most broadly, it is possible to cast doubt on any other alternative accounts for the patterns above by returning to branch executives' own explanations for their compensation, as examined in tables 3 and 4. Because the brokers themselves report the hybrid payment system we describe, it is only possible to believe that other payment logics are operating instead if we believe our respondents systematically misunderstood why they were being paid.

CONCLUSION

Using a panel survey of brokers in Ghana's ruling party, we show that the party compensates its grassroots agents with a range of payments across the electoral cycle. Consistent with existing literature, the party rewards a small subset of branch executives who performed well immediately after the election. But the large bulk of payments to branch executives is given years later, during the electoral off cycle. In this nonelectoral period grassroots agents who already have or who develop upward ties to local elites get rewarded. We argue that this is because of the decentralized way in which parties distribute payments. In practice, local party elites control payments to grassroots agents. These elites have an incentive to use patronage to consolidate their ties to brokers, expecting that brokers will then help the elites fulfill their private career goals. It is only through recognizing the private incentives of these mid-level party actors that we can fully understand broker payment systems within clientelist democracies.

While we expect our argument to extend to other machine parties, there are several scope conditions. First, our findings may not apply where brokers are pure free agents and party organizations simply do not exist outside of campaign periods (Novaes 2018). In these extreme situations, there is likely no means for party leaders to commit to compensating brokers other than through immediate, up-front payments during campaigns. Second, we recognize that payments to nonparty brokers who never officially work for a party—such as chiefs or union leaders—may follow different logics (Holland and Palmer-Rubin 2015). Third, the NPP was an opposition party during the 2016 election campaign. It is possible that the level of compensation in direct electoral periods is higher in ruling parties that already have access to state resources. But, theoretically, we expect ruling parties to behave similarly. Given the difficulty of observing labor inputs, the ruling party should still defer most payments until after the election. In addition, because many of the patronage benefits available to the ruling party are both scarce relative to broker demand and have revocable or short-term benefits, having already distributed some benefits in a prior term does not prevent the ruling party from holding out new payments as inducements.

Ultimately, our results have important normative implications for democracy in low- and middle- income countries. Scholars typically view patronage by party machines as bad for governance because it diverts and misallocates often scarce public resources. Indeed, we estimate that in 2018–19 alone, the NPP diverted more than 18,000 public sector jobs and 14,000 loans to its brokers. This may be just the tip of the iceberg: these brokers were active, in turn, securing benefits for voters. These practices can jeopardize the public social programs from which such benefits are often diverted, with significant implications for the study of state welfare provision in these contexts.

Yet, paradoxically, the machine's compensation of brokers may also have positive implications for democracy. If payments in the off cycle have the (perhaps unintended) effect of discouraging brokers' and local elites' defection, they facilitate party stability (Muñoz and Dargent 2016). Party institutionalization is important for lowering electoral stakes, improving accountability, and allowing for peaceful alternations in power (Mainwaring 2018; Riedl 2014). By lengthening

brokers' time horizons, the hybrid payment system might even allow a party to mobilize its workforce at lower aggregate cost to the public than in an alternative system in which brokers who can more credibly threaten to defect have more leverage to secure payments (Novaes 2018).

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