

# Patronage, Meritocracy and Political Party Machines\*

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## Abstract

When do politicians in developing democracies prioritize meritocratic recruitment over patronage hiring for public sector jobs? I distinguish between menial and professional positions and argue that the former are valuable for sustaining party machines while manipulating the latter can undermine the functioning of the state. Accordingly, politicians will interfere in hiring partisans to menial positions but select professional bureaucrats on meritocratic criteria. I test my argument using novel bureaucrat-level data from Ghana ( $n = 17,942$ ) and leverage an exogenous change in the governing party to investigate hiring patterns. The results suggest that partisan bias is confined to menial jobs. The findings shed light on the mixed effects of electoral competition on patronage identified in prior literature: competition may dissuade politicians from interfering in recruitment to top-ranked positions while encouraging them to hire partisans for lower-ranked positions.

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Whether civil servants are hired based on merit or on political criteria has broad implications for state capacity and the overall health of democracy (O'Dwyer, 2006; Grzymala-Busse, 2007; Geddes, 1994). Patronage recruits may be both less competent and also not essential to the running of the state. The latter can place an unnecessary strain on the public purse, undermining investment in other vital areas, such as capital infrastructure.<sup>1</sup> Patronage hiring is also likely to perpetuate a broader clientelistic political economy. Once hired, co-partisan bureaucrats can help politicians allocate scarce public resources in sub-optimal ways, for example, favoring districts in party strongholds.<sup>2</sup> Partisan recruits may also worsen the provision of public services (Colonnelli, Prem and Teso, 2017) and increase levels of corruption (Oliveros and Schuster, 2018).

Given these high stakes, it is important to understand when politicians in developing democracies are more likely to rely on meritocratic versus partisan recruitment. Prior research has not been able to address this question because, by using changes in legislation to signal the onset of meritocracy (Geddes, 1994), it treats the concept of meritocracy as dichotomous. Other research similarly assumes the question away by portraying post-colonial states as neopatrimonial; a situation where all public sector jobs are often assumed to be distributed politically (Bayart, 1993; Chabal and Daloz, 1999; Van de Walle, 2001).

Despite this dominant narrative, in practice most countries lie on a continuum between complete meritocracy and wholesale partisan interference (Grindle, 2012). I build on this insight and argue that politicians in many new democracies must balance the dual aims of enhancing state efficiency and sustaining party machines. When do the benefits of competitive hiring outweigh the costs? I theorize that the costs of non-competitive recruitment vary across public sector positions,

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<sup>1</sup>On average, about 30 percent of government revenues is spent on the salaries of civil servants in African countries (Clements, 2010). In Ghana, 45 percent of revenues are currently spent on public sector salaries (Africa Confidential, 2018).

<sup>2</sup>See Golden and Min (2013) for a review of the literature on distributive politics and partisan bias in the allocation of public resources.

and therefore that politicians may support meritocratic recruitment for some posts and actively interfere in hiring for others. Meddling in hiring for *professional* positions, such as budget analysts, engineers and planning officers, is costly to politicians, as this undermines the functioning of the state, which can hurt a party's future electoral performance. By contrast, politicians can reward local party intermediaries with low-ranking public sector jobs (*menial* positions) in order to sustain party machines. Such positions include sanitation officers, laborers, and security guards. Furthermore, interference in such jobs may go unnoticed by monitoring from the media or civil society organizations, and poses a lower risk to fundamental state processes.

In order to test this argument on differential amounts of interference, I have assembled unique data on the universe of over 40,000 bureaucrats working in 200 local governments in Ghana. Such fine-grained data from a developing country are often not available or are very hard to obtain, which is why only a handful of studies have been able to use similar micro-data.<sup>3</sup> Ghana is a stable democracy in West Africa. Since the restoration of democracy in 1992, the country's national elections have been marked by high levels of competition between the National Democratic Congress (NDC) and the New Patriotic Party (NPP). The NDC won the 2008 presidential election by less than half a percent.<sup>4</sup> In the analysis, I exploit this exogenous change in the ruling party to investigate hiring patterns under two opposing political parties. Since local government hiring in Ghana is centralized at the national level (i.e. individual local governments do not hire their own personnel) analyzing recruitment to these positions also provides insights into what may happen in ministerial departments.

The data on bureaucrats include information on the hiring date of each employee. I use the first term (2005–2008) as a baseline for comparison with hiring patterns in the second term

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<sup>3</sup>The empirical study of bureaucratic recruitment in developing countries is a burgeoning field in political science and economics. Relevant papers include: Hassan (2016); Sigman (2015); Colonnelli, Prem and Teso (2017); Iyer and Mani (2012); Pierskalla and Sacks (2016); Xu (Forthcoming).

<sup>4</sup>The NDC won with 50.2 percent of votes, compared to 49.8 percent for NPP.

(2009–2012). My study sample consists of all the bureaucrats that were recruited during the two electoral terms that I analyze ( $n = 17,942$ ). If the conventional wisdom of blanket patronage hiring is correct, we would expect the new ruling party to favor its co-partisans for all positions, at the expense of opponents.

I disaggregate the data between professional and menial positions and find no evidence of partisan hiring for professional positions. Professional recruits also become better qualified over time, which suggests a preference for competence. Conversely, a change in ruling party is associated with a 10-percentage-point increase in the probability that a co-partisan will be hired to a menial post. This increase is equivalent to about 635 extra public sector jobs being awarded to government co-partisans, at the cost of over 3 million USD over a four-year term.<sup>5</sup> Because the data only contain information on bureaucrats working in local governments, this bias likely represents only a fraction of the aggregate number of partisan hires during the study period. While the analysis does not confirm that such bias led to the appointment of bureaucrats who were not qualified to take menial posts, it does suggest that bureaucrats' identity influences who is hired for such positions.

My theory suggests that politicians reward party intermediaries (or “brokers”) for their support by securing menial jobs for them; many brokers lack the necessary educational background for professional positions. I combine a range of quantitative and qualitative data to substantiate this claim. I first present evidence that brokers in Ghana are motivated to work for political parties in return for material benefits, including jobs. Second, I show that the new ruling party recruited more menial personnel in districts where they gained more votes. This suggests that politicians act strategically, and use low-ranked positions to reward successful intermediaries. Finally, I present evidence that menial hires are embedded in the districts in which they work, which is often a

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<sup>5</sup>The total number of menial hires between 2009 and 2012 was 6,359. See Table A.5. To calculate the cost of 635 bureaucrats, I assume a (conservatively low) monthly salary of 100 USD.

key trait of brokers (Stokes et al., 2013). Taken together, this evidence supports my claim that politicians in Ghana award party intermediaries with low-level positions in local governments.

This article makes three contributions. First, the results contribute to the literature on the state and public sector development. It is one of the first empirical studies in political science to use administrative data to document trends in public sector hiring practices in developing countries (see also Hassan, 2016; Pierskalla and Sacks, 2016). My theoretical approach also sheds light on what appear to be inconsistent findings regarding the effect of electoral competition on patronage hiring. While many scholars assert that competition can promote meritocracy (Geddes, 1994; Ting et al., 2013), others find that competition can encourage clientelism, and swell the ranks of the public sector (Pierskalla and Sacks, 2016; Driscoll, 2017; Lindberg, 2003; Van de Walle, 2007). My theory suggests that electoral competition may have both of these effects: it may dissuade politicians from interfering in hiring for top-ranked positions, while encouraging them to recruit partisans to lower-ranked positions.

Second, I advance the literature on how to measure meritocracy. Past studies have primarily used either legislation or surveys with experts or bureaucrats to measure this concept. My approach – which combines bureaucrat-level data with a change in the ruling party – is more objective than survey-based methods. Further, the data allow us to analyze *de facto* practices rather than *de jure* protocols. Third, I contribute to the burgeoning literature on party brokers (Calvo and Murillo, 2013; Larreguy, Marshall and Querubin, 2016; Gottlieb, 2017). My work complements prior studies on brokers that show that they often hold public sector positions (Stokes et al., 2013; Oliveros, 2016), and advances this literature by considering the types of jobs that brokers are likely to hold.

## 1 Theory: Meritocracy and the state

The mode of governance in post-independence Africa has generally been described as *neopatrimonial* (Bayart, 1993). Such a state combines elements of legal-rational authority, such as a civil service and a formal judiciary, with elements of patrimonial authority marked by high levels of presidential power. A central element of neopatrimonialism is the distribution of public sector jobs on the basis of political criteria rather than merit. During periods of authoritarian rule, chief executives used state positions to build and sustain ruling coalitions (Van de Walle, 2001, 2007; Tangri, 1999).

As the third wave of democracy swept through the African continent in the early 1990s, it became increasingly necessary for governing parties to build wider and deeper political networks. Mid- and low-level public sector jobs offered leaders a way to bring in clients, build party structures, and mobilize voters. In the early 1990s, the number of civil servants began to increase. While only 1 percent of the population was engaged in public employment in the mid-1990s, the share of the population employed by the *central* government rose to 2 percent, and across the whole public sector the figure was just under 4 percent by the early 2000s (Clements, 2010).<sup>6</sup> Governments in Africa currently spend a larger share of public revenue on bureaucrats' salaries (30 percent, see Table 1) than in any other region of the world. Yet few studies have investigated how these governments select state employees, and the extent to which these procedures are meritocratic.

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<sup>6</sup>These over-time comparisons come from two separate data sources. The first is based on estimates from the International Monetary Fund; the second source is International Labor Organization data from a sample of 12 African countries from 2000 to 2008.

Table 1: Government compensation of central government employees

Regions	N of Countries	% of GDP	% of Govt. Expenditures	% of Govt. Revenues
Africa	41	6.5	30.4	29.5
Asia and Pacific	18	5.1	26.2	23.1
Europe	41	5.7	17.4	17.5
Middle East and Central Asia	19	7.1	28.9	24.8
Low-Income Countries	39	5.2	28.6	27.9
Middle-Income Countries	68	7.3	27.6	26
High-Income Countries	36	6.1	20.4	18.6

*Notes:* Source: Clements (2010). These figures represent averages from 2000–2008.

I propose that the cost to politicians of supporting meritocratic recruitment is not constant across public sector jobs. Instead, certain types of jobs are especially valuable to politicians. In particular, politicians who operate in clientelistic polities will value public sector jobs that they can give to party brokers. Awarding jobs to party mobilizers has a multiplier effect on votes: the politician gains the support of the broker as well as clients in the broker’s network. US party leaders used jobs in the postal service and customs houses during the 19th century to build and sustain party machines (Carpenter, 2001). For example, in Chicago, political parties distributed jobs to precinct captains who worked to get out the vote and dispense private goods to citizens and community leaders (Wilson, 1961).

Historical accounts of the US transition towards meritocracy suggest that it took decades for low-ranking jobs in offices outside the capital to be taken out of the hands of politicians. Patronage was sustained for most field positions as well as top administrative jobs in the capital (Skowronek, 1982, 69). Post offices employing over 50 persons were subject to the Pendleton Act of 1883. However, in 1896 there were still 76,000 fourth-class postmaster positions that were not covered by the act, and were therefore available for parties to distribute to loyalists (Skowronek, 1982, 72). In contrast, clerical jobs based in the capital were easy for politicians to give up.

The practice of awarding public sector jobs to those who can effectively mobilize voters on behalf of the incumbent party has been documented in other contexts. O'Dwyer (2006) argues that in new Eastern European democracies, citizens are demobilized after years of communist rule such that mass parties with fee-paying memberships are not possible. Instead, he proposes that incumbent politicians give public sector jobs to party activists (529). In Pakistan, Callen, Gulzar and Rezaee (2018) argue that politicians provide patronage to doctors because they act as important political mediators in rural areas at election time. An original survey of brokers in Argentina shows that 30 percent of brokers hold positions in the public sector (Stokes et al., 2013, 99).

While brokers have significant leadership skills, and valuable ties to local social and political elites, in developing countries they are often not particularly well educated. Indeed, many intermediaries work for parties for the material benefits they can extract to supplement their income (Bob-Milliar, 2012). A survey of party intermediaries in Ghana shows that they are "characteristically very youthful but poorly educated or without formal education" (Bob-Milliar, 2012, 670). Thus politicians can usually only reward them with low-ranked positions.<sup>7</sup> Because middle-class citizens with university degrees have less financial incentive to work for parties, they are less likely to become brokers. Indeed, research in Ghana suggests that middle-class, educated citizens often opt out of politics completely, and fail to turn out on election day (Nathan, 2016).

In summary, I propose that politicians in developing democracies who want to sustain party machines will seek to exercise control over hiring for low-ranking (*menial*) jobs in the public sector. High-ranked jobs in the bureaucracy will be less valuable to politicians and party leaders because they cannot be used to reward loyal brokers.

Politicians might favor competence over loyalty for professional positions to ensure that the state functions effectively, and to limit opponents' ability to use patronage against them in the

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<sup>7</sup>The jobs that party brokers can reasonably perform will vary according to the country's level of development. In richer countries, where the average level of education will be higher than in poorer countries, brokers may be educated enough to perform mid-ranked positions in the bureaucracy.



future. In a democratic system with at least some degree of political competition, politicians will want the state to function at least reasonably well. To the extent that the electorate rewards economic stability, access to health and education services, and improvements to public infrastructure, politicians have an incentive to allow professional public sector jobs to go to those who are qualified and competent. Competent bureaucrats can effectively implement policies, as well as write annual reports, analyze data, and oversee government programs.

Furthermore, when electoral competition means that the ruling party could be ousted, incumbent politicians have an incentive to tie their hands (whether through legislation, recruitment standards or informal norms) in the current period so that their competitors cannot use patronage against them in the future. The positive relationship between electoral competition and meritocracy has been discussed in a variety of contexts, including in Eastern Europe (Grzymala-Busse, 2007; O'Dwyer, 2006), Latin America (Geddes, 1994; Grindle, 2012) and the United States (Skowronek, 1982; Ting et al., 2013).

It can be argued, however, that politicians prefer to hire professional bureaucrats who are both qualified and loyal; indeed, if politicians can identify well-qualified co-partisan recruits, there might not be a trade-off between competence and loyalty. However, prioritizing loyalty after the introduction of meritocratic procedures can prove difficult in practical terms. After politicians have adopted rules for hiring on the basis of merit – instituting competitive examinations and interviews, and establishing minimum qualification standards – it becomes more difficult to intervene. It is also more visible when they do so, which can generate criticism from other civil servants or from civil society organizations. Instituting competitive procedures or codified qualification standards to some extent ties the hands of politicians; they delegate authority to bureaucrats, who manage hiring and ensure that candidates meet the agreed-upon standards.

There is a second, often overlooked, reason why politicians may not worry too much about preferring competence over loyalty: often politicians continue to be able to influence the work of professional bureaucrats even when they do not hire their co-partisans. Empirical research from

India, as well as from Ghana, suggests that politicians may be willing to allow competitive recruitment for professional positions because they know they can still use oversight tools to influence bureaucrats' behavior (Iyer and Mani, 2012; Brierley, 2017). Despite the existence of highly competitive examinations to enter the top ranks of the civil service in India, for example, politicians continue to influence the actions of civil servants through their control over geographic transfers (Iyer and Mani, 2012). Politicians can use transfers, or the threat of transfers, to influence outcomes such as where local public goods are placed and which firms win public contracts (Wade, 1982).

In summary, this paper tests the hypothesis that politicians in clientelistic democracies are more likely to hire public employees on the basis of partisan loyalty for menial positions rather than professional positions.

## **2 Data, measurement and empirical strategy**

I evaluate my argument using a novel dataset of the near universe of bureaucrats who work in local governments in Ghana. Two political parties dominate the electoral landscape, the NPP and NDC. National elections are extremely competitive. I focus on the 2008 election, which the NDC won by a margin of less than 0.5 percent of the votes.

Ghana is emblematic of a lower-middle income, third-wave democracy. Like many newer democracies, the country's formally democratic institutions sit on top of entrenched networks of patron–client relations (Abdulai and Hickey, 2016; Nathan, 2016; Lindberg, 2003). Insights from Ghana are likely to apply to other countries with competitive elections and a clientelistic political economy.

Along with a growing number of African democracies, the country has witnessed several democratic alternations of power. I argue that this potential for a change in government may be a key scope condition of the theory because it can encourage incumbent politicians to develop

norms of competitive recruitment, at least for professional positions, to prevent their opponents from using patronage against them in the future. Before discussing my data, I explore the benefits and drawbacks of four ways to measure the degree of meritocracy.

## 2.1 Measuring meritocracy using legislation

The passage of the Pendleton Act in 1883 is often used to mark the introduction of meritocracy in the United States. Among other things, the act introduced entrance exams for public sector positions. Accordingly, “exams replaced loyalty with merit as the medium of exchange in securing political appointments” (Theriault, 2003, 52). The introduction of legislation requiring competitive exams has been used in other contexts to signal the onset of meritocracy (Geddes, 1994; Ting et al., 2013).<sup>8</sup>

Yet defining the introduction of meritocracy as the passage of legislation may be problematic for at least three reasons. First, it can lead one to treat meritocracy as a dichotomous variable (i.e., it is either present or absent). However, in the United States it took over 50 years from the signing of the act for most jobs to be protected from political interference.<sup>9</sup> Second, and relatedly, political interference in hiring often continues in spite of new legislation. Grindle (2012) analyzes 18 Latin American countries, all of which have laws that support competitive examina-

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<sup>8</sup>Geddes (1994, 104) recognizes that meritocratic recruitment may not be the most important aspect of administrative reform, but argues that it is at least always moderately important, and that it is easy to measure.

<sup>9</sup>The original act included 10.5 percent of all federal jobs in the merit system. It took 50 years until roughly 80 percent of federal workers held merit positions (Lewis, 2010). Additionally, while the act introduced competitive exams, it did not require the state to hire those who scored the highest (Carpenter, 2001, 46). Perhaps most important, many of the jobs that required candidates to take exams were those that were the least valuable politically — clerical jobs based in Washington, DC (Skowronek, 1982, 64).

tions. However, in practice only three countries – Brazil, Chile and Costa Rica – recruit a large share of bureaucrats through a competitive process (Grindle, 2012). Cross-national analysis shows that the extent of meritocracy is similar across countries with and without legal merit requirements (Schuster, 2017). As Grindle (2012) explains, “*de facto* practices, trump *de jure* theory” (148). Third, recent research shows that merit laws are also not necessary for the adoption of competitive recruitment practices (Schuster, 2017). For these reasons, an analysis of legislation may either overestimate or underestimate the competitiveness of a country’s recruitment practices.

## **2.2 Measuring meritocracy using surveys with experts**

An alternative method is to measure meritocracy using surveys with experts. This approach involves asking respondents the extent to which they think jobs are distributed to the applicants who are best qualified for the job. Researchers at the Quality of Governance Institute, which collects data for 107 countries, use expert surveys to assess meritocracy. Studies by Evans and Rauch (1999) and Kopecký (2011) also use surveys to measure meritocracy. While this approach allows for the collection of data from a large number of countries, it is difficult to create time-series data when the experts change between survey rounds (Fukuyama, 2013). Further, experts may use different baselines (i.e. comparison points) when evaluating levels of meritocracy. Finally, experts may be uninformed about recruitment processes, and base their assessments on hearsay or news reports rather than lived experiences.<sup>10</sup>

## **2.3 Measuring meritocracy using surveys with bureaucrats**

An alternative to asking experts about meritocracy is to ask bureaucrats themselves. Gingerich (2013) uses this approach in his analysis of Brazil, Bolivia and Chile, as does Sigman (2015) in

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<sup>10</sup>Treisman (2007) discusses this as a criticism of using expert surveys to measure corruption. All of his criticisms of using expert surveys in this way can be applied to using them to measure meritocracy.

her study of patronage in Benin and Ghana. Surveys of bureaucrats can lead to a more nuanced picture of meritocracy because researchers can investigate hiring norms across a number of different departments. In Latin America, surveys with bureaucrats demonstrate significant variation across departments in their hiring practices (Gingerich, 2013). Surveying bureaucrats can also produce comparisons between countries that are based on objective criteria, in contrast to the subjective comparisons made possible by expert surveys. For example, in Ghana and Benin, Sigman (2015) asked civil servants how they were hired, including whether they took exams or were interviewed. In Ghana, she finds that about 90 percent of civil servants said they were recruited after either an interview or exams, compared to just over 50 percent in Benin. Using these data, it seems uncontroversial to argue that levels of meritocracy are higher in the former than in latter. A major limitation of using bureaucrat surveys is the cost of fielding a survey across a large sample of public sector workers. Another challenge is constructing a valid data frame from which to sample respondents.

#### **2.4 Measuring meritocracy using bureaucrat-level hiring data**

A fourth way to evaluate levels of meritocracy, which I use in this paper, is to use administrative data. I propose that in contexts where governing parties alternate across elections, researchers can use personnel data to analyze hiring patterns under different governments. If hiring were purely meritocratic, changes in the governing party should not influence the types of bureaucrats who are hired. Conversely, large swings in who gets hired as power changes hands would indicate non-merit-based hiring. Using administrative data also permits the disaggregation of civil servants across different departments and different types of positions to investigate which types of jobs or departments are isolated from interference.

## 2.5 Dataset

My dataset includes employee-level information of civil servants working in 199 of Ghana's 216 local governments<sup>11</sup> who were in active employment in 2015.<sup>12</sup> Over 40,000 bureaucrats are included in the data. I restrict the analysis to bureaucrats hired between 2005 and 2012, which leaves a total of 17,942 recruits. In theory, all local government employees should be included. The mean number of workers per district is 191. While the data are as comprehensive as possible, some gaps remain.<sup>13</sup>

All candidates for local government jobs are recruited through a centralized hiring process<sup>14</sup> that requires candidates to submit a generic application form to the Local Government Secretariat offices in the capital city, Accra. Candidates can submit these applications at any time, but many applicants apply following mass-hiring advertisements that the government places in national newspapers. Interviews with staff at the Local Government Secretariat suggest that mass hiring is the modal type of hiring, as opposed to hiring for individual positions as they become available.

Candidates applying for positions that I code as *professional* (planning officers, budget officers, engineers, accountants, and economists) are typically recruited using interviews and exams. In a survey that I conducted with roughly 860 local bureaucrats in professional positions, just over 40 percent said they sat exams, and 80 percent said they had an interview. About 36 percent of the sample had both an interview and an exam. Candidates recruited to *menial* positions (sanita-

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<sup>11</sup>There is one local government in each district. There are currently 216 districts.

<sup>12</sup>These data were compiled by Ghana's Ministry of Local Government and Rural and the Local Government Service Secretariat in partnership with consultants hired by the European Union.

<sup>13</sup>One systemic omission is that the very top bureaucrats in a district (the district co-ordinating directors) are often excluded.

<sup>14</sup>While local governments can recruit temporary workers and pay them using their own internally generated revenues, they are not able to recruit permanent employees.

tion officers, laborers, security guards and drivers) do not sit formal exams. Anecdotal evidence suggests that these candidates are employed through interviews, as well as upon recommendation from local governments to the national secretariat. Recommendations from local governments are prone to partisan influence because the head of each of these institutions (i.e. the District Chief Executive (DCE) is a political appointee and is always a co-partisan of the ruling party.<sup>15</sup>

## **2.6 Coding civil servants' partisanship**

The ideal dataset with which to assess my theory would include the partisanship of each bureaucrat at the time of hiring. However, the act of collecting such data would implicate the government in discriminatory practices, and is therefore unavailable. Instead of relying on a partisanship variable, I use the available data to create two proxies of partisanship. First, I code partisanship using the ethnic group of each bureaucrat. Second, I use their home region. The former approach complements recent empirical work on bureaucrats in Africa that also uses individuals' ethnic group to determine partisanship (Hassan, 2016). The results that follow are robust to using either measure; I present the results using both.<sup>16</sup>

As ethnicity was not a variable in the bureaucrat-level data, I coded ethnicity based on the first and last names of each worker. Names were first split into name fragments, which were then coded into one of seven ethnic groupings by multiple research assistants in Ghana.<sup>17</sup> After

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<sup>15</sup>DCEs, who head local governments in Ghana, are appointed by the President.

<sup>16</sup>Some of the replicated results are presented in the Appendix.

<sup>17</sup>The ethnic groupings are as follows: Akan (Non-Fante), Akan, Fante, Ewe, Ga-Dangme, Guan and Northern. The ethnic name dictionary that I create builds on one made by Noah Nathan, who I thank for sharing his dictionary.

matching names to ethnic groupings, I use Afrobarometer survey data to link ethnic groups to political parties.<sup>18</sup>

The Afrobarometer asks respondents their home language and which party they would vote for if an election were held tomorrow. I aggregate responses over the last four rounds of the survey, compiling information from over 4,500 Ghanaians (see Appendix Table A.6). Over three-quarters of respondents from the Akan ethno-linguistic group who indicated which party they support said the NPP. They were the only group to vote predominantly for the NPP. I therefore code bureaucrats who are Akans as pro-NPP. The NDC captures the lion's share of support from a number of ethnic groups. I code both Ewe and Northern ethnic groups as being aligned with the NDC. Since Ga support for the NDC is not stable across elections, I do not include them as NDC co-partisans in the main analysis. However, the results (available in Appendix Table A.11) are robust to such an inclusion.

As regards the second proxy, I identify party strongholds as home regions where the majority of citizens voted for the same party across both elections I analyze. Appendix Table A.7 displays the election results disaggregated by region. The NDC captured the majority of votes in the Volta, Northern, Upper West and Upper East regions, while the NPP received the majority of the votes in the Ashanti and Eastern regions. I therefore code pro-NDC bureaucrats as those whose home region is Northern, Volta, Upper West or Upper East, and pro-NPP bureaucrats as those from either the Ashanti or Eastern regions.

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<sup>18</sup>Specifically, I use data from rounds 3–6. I do not use data from rounds 1 and 2 because they did not ask which party the respondent would vote for if the election were held tomorrow. I drop respondents who did not answer this question, including those who refused to answer or answered “Don't know”.



### 3 Empirical strategy

To assess evidence of partisan bias in public sector hiring, I use the change in Ghana’s ruling party following the December 2008 elections. President John Kufuor of the NPP was elected in 2000 and re-elected in 2004. The NPP had an absolute majority of seats in the national parliament in both terms. After serving for two consecutive terms, Kufuor was ineligible to run in the 2008 election due to term limits. The NDC’s John Evans Atta-Mills won this election, and the NDC won a majority of seats in the parliament.

Ghana’s alternation in 2008 can be used as a cut point around which to investigate potential changes in bureaucratic hiring. If bureaucrats are recruited on the basis of their partisan ties, we would expect to see significant changes in the partisanship of bureaucrats who were hired after the new party came to power. Specifically, if this is the case, we should expect to find a drop in the share of pro-NPP bureaucrats hired after 2008, and a corresponding increase in the share of pro-NDC bureaucrats hired. My main hypothesis predicts that any increase in pro-NDC hires would be confined to menial positions.

To investigate the relationship between bureaucrats’ partisanship and the ruling party, I run the following logistic regression model:

$$\text{logit}(p_i) = \beta_0 + \beta_1 \text{Period } 2_i + \beta_2 \text{Menial}_i + \beta_3 \text{Period } 2 * \text{Menial}_i + \beta_4 \mathbf{X}_i + \epsilon_i.$$

$P_i$  is a dummy variable that takes the value of 1 when the bureaucrat is aligned with the NDC (NPP). Period 2 identifies the second hiring period after the change in the ruling party following the 2008 election. *Menial* is a dummy variable that takes a value of 1 when the position is low ranking and 0 otherwise. I code positions using information on the job title of each bureaucrat. A summary list of positions and how they are coded is presented in Appendix Table A.1. The process of classifying the positions is subjective. My aim was to code menial positions as those that it would be uncontroversial to describe as such. Tables A.2, A.3 and A.4 show the job titles,

frequencies, and coding for all positions.<sup>19</sup> The data also contain information on the gender, age, and highest educational level of each bureaucrat. Thus,  $X_i$  is a matrix that contains these control variables.

### **3.1 Additional information on civil servant database**

While the bureaucrat-level data that I analyze are unusually rich, one drawback is that they were collected at a single point in time (in June 2015). Therefore, I do not have information about bureaucrats who were hired and vacated their positions before the data were collected.<sup>20</sup> One concern is that pro-NPP bureaucrats hired by the NPP government resigned when the NDC came to power in 2008. The effect of this attrition would be to diminish the likelihood that I would find evidence of partisan hiring under NDC rule. This is because pro-NPP bureaucrats, some of whom drop out of the data, would appear to compose a smaller share of those hired by the NPP. Correspondingly, pro-NDC bureaucrats would appear to compose a larger share of those hired in the first period.

There are three reasons why this type of attrition might be unlikely. First, civil service jobs are valuable to workers because they offer financial stability in the form of a monthly paycheck, benefits, and an assured pension. Civil servants can also ask politicians for help when they face emergencies. Therefore it is unlikely that an employee would give up their job just because they did not support the new ruling party. Second, while bureaucrats may be unhappy with the change in government, they are likely to anticipate that their preferred party will not be out of office for too long. Indeed, Ghana has seen alternations of power between the two major parties every eight years since its return to democracy in 1992. Third, if it were the case that bureaucrats resigned en

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<sup>19</sup>A common position that may or may not be considered menial is revenue inspector (n = 482). The results are robust to coding this position as either menial or professional (see Table A.12).

<sup>20</sup>This is the first database of employees working in local governments in Ghana, which makes it impossible to consult older databases.

masse following the 2008 elections, the data should show a spike in hiring in 2009 (or 2010) to make up for the deficit of workers. Appendix Figure A.1 plots the total number of hires per year between 2005 and 2012 and shows that there were fewer hires in 2009 and 2010 than in 2008. These figures indicate that there was not a mass departure from the bureaucracy after the 2008 election.

## 4 Results

To assess my argument, I first present descriptive data that display the characteristics of bureaucrats hired across the two electoral periods. Second, I conduct a series of logistical regressions that control for a number of important potential confounding variables that may influence hiring.

Table 2 shows the share of NDC and NPP bureaucrats hired in both periods, and presents the results of a difference-in-means test. Bureaucrats' partisanship is coded based on their ethnicity.<sup>21</sup> The results show a positive and statistically significant increase in the share of NDC bureaucrats hired to menial positions in the second period (4.57 percentage points,  $p = 0.000$ ). The results also display a statistically significant reduction in the share of NPP bureaucrats hired for menial positions (-4.80 percentage points). The change in the governing party is not associated with any changes in the share of NDC or NPP bureaucrats hired to professional positions (shown by the insignificant  $p$ -values). Overall, the aggregate data lend initial support to the main hypothesis – that the NDC government favored its co-partisans when selecting candidates for menial positions. In addition, the new government appears to disfavor NPP bureaucrats for menial positions.

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<sup>21</sup>I present the same results in Appendix Table A.8 with bureaucrats coded by home region. The main result of partisan bias for menial positions is consistent in both tables.

Table 2: Difference-in-means test (ethnic group coding)

		Period 1 (% of hires)	Period 2 (% of hires)	Difference	P-value
NDC bureaucrat	Menial	35.25	39.81	4.57	0.000
	Professional	33.69	33.77	0.08	0.165
NPP bureaucrat	Menial	44.55	39.72	-4.83	0.000
	Professional	48.68	48.25	-0.43	0.687

In Figure 1, I categorize bureaucrats into three types: pro-NDC, pro-NPP, and swing. The swing category indicates bureaucrats who do not belong to a politically aligned ethnic group.<sup>22</sup> Each plot displays the share of hires in each category per year. The left plot displays trends for professional positions, while the right plot displays trends for menial positions. The dotted lines indicate the change in the ruling party in December 2008.

The plot on the left provides evidence that the partisanship of bureaucrats recruited to professional positions is fairly static across the two electoral periods. Under both governments, the largest share of new hires was from the main ethnic group aligned with the NPP – the Akans. This makes sense because the Akans are the largest single ethnic group in the country. Consistent with Table 2, the change in governing party does not appear to alter hiring patterns for professional jobs.

Further analysis of the data also shows that professional recruits are increasingly well qualified; the share of new hires who hold Bachelors degrees has increased nearly every year from about 8 percent in 1975 to 60 percent in 2012 (see Appendix Figure A.2). To put these figures in perspective, according to Ghana’s most recent census (in 2010), only 1.7 percent of Ghanaians have completed university.<sup>23</sup>

<sup>22</sup>The unaligned ethnic groups are Fanti, Ga-Dangme and Guan.

<sup>23</sup>See Ghana Statistical Service (2012, 49). Appendix Table A.6 also displays the distribution of citizens with Bachelor’s degrees according to their ethnic background. These results reveal that a much smaller share of people from Northern ethnic groups hold university degrees (0.4 percent)

The right-hand plot in Figure 1 presents the trend for menial positions. In contrast to professional jobs, there was a steady increase in the share of NDC bureaucrats hired for menial positions after the NDC government was elected at the end of 2008. The size of the increase was 10 percentage points over the period, from 36.5 percent at the start of their term to 46.5 percent by the end of the term. The data also suggest that much of this increase took place at the direct expense of NPP candidates, who experienced a corresponding decline in hires.<sup>24</sup> In short, the yearly trends complement the aggregate results in Table 2 and suggest partisan hiring for menial positions.

#### **4.1 Regression analyses**

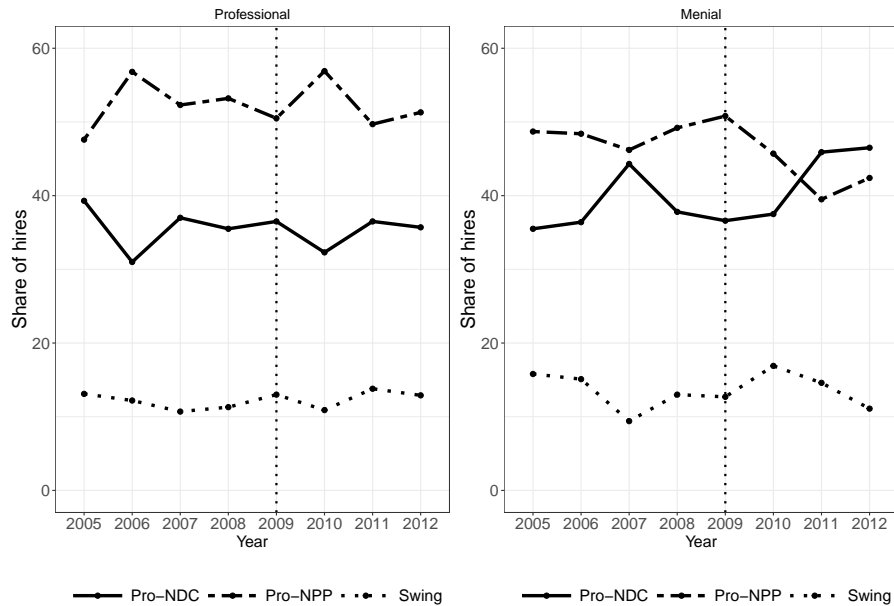
A series of regression analyses adds further credibility to the results presented above (Table 3). In these models, the dependent variables are dummy variables that indicate bureaucrats' partisan type. Columns 1 and 3 predict pro-NDC bureaucrats, while Columns 2 and 4 predict pro-NPP bureaucrats. The two main explanatory variables are a dummy variable that distinguishes between the two hiring periods – the change in ruling party – and an indicator of whether the job is menial. A positive coefficient on the interaction term would indicate that the new ruling party distributed 

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compared to people from other regions and ethnic groups. This could help explain why it is difficult for the NDC to favor their aligned groups with professional jobs: there is simply a smaller pool of qualified applicants. However, this fact supports my theory that qualifications are prioritized when hiring for professional positions.

<sup>24</sup>Figure A.3 displays the same plot with bureaucrats coded according to their home region. The results remain the same, with a sharp increase in bureaucrats with traits that aligned them with the NDC supporters hired after the change in governing party.

Figure 1: Share of bureaucrat types across two electoral periods (2005–2008, 2009–2012)



*Notes:* In Figure 1 employees are categorized as pro-NDC, pro-NPP or from swing regions. Each plot displays the share of new hires from each group. Bureaucrats are coded according to their ethnic group. The left plot displays trends for professional positions, and the right plot displays trends for menial positions. The dotted line corresponds to the election of the NDC in December 2008.

more menial than professional posts to their co-partisans. In these models, I hold constant gender, age, and highest level of education.<sup>25</sup>

In Column 1, the coefficient on the variable that indicates a change in the ruling party is negative. This suggests that a change in the ruling party is associated with an overall decrease in the likelihood of a pro-NDC bureaucrat being hired. The next coefficient indicates the relationship between menial jobs and being a pro-NDC bureaucrat; it is also negative. The coefficient on the

<sup>25</sup>Many bureaucrats did not indicate their highest level of education. In the Appendix, I present the same results controlling only for gender and age, and the results remain the same. In Table A.10 the number of observations increases by roughly 8,000 bureaucrats.

interaction term is the key quantity of interest. The positive sign on this term shows that the change in government is associated with an increase in the likelihood of a pro-NDC bureaucrat being hired for a menial position. This coefficient is statistically significant below the 1 percent level. Figure 2 illustrates the substantive significance of this result.

Column 2 displays the results of the same model specification with *Pro-NPP* bureaucrats as the dependent variable. The first coefficient is positive, although not statistically significant. This suggests that the NDC government did not demonstrate partisan bias when recruiting professionals; they continued to hire pro-NPP bureaucrats into these positions. However, there is a negative and statistically significant coefficient on the interaction term, which suggests that NPP bureaucrats were less likely to be hired for menial positions.

Columns 3 and 4 replicate the results with bureaucrats' partisanship coded according to their home region. The results are robust to this alternative coding. I continue to find a positive coefficient on the interaction term for NDC bureaucrats, and a negative coefficient on the interaction term for NPP bureaucrats.

Figure 2 displays the substantive significance of the results. I calculate the predicted probabilities of a pro-NDC bureaucrat being hired to (a) a professional position and (b) a menial position in the two time periods. Figure 2 shows the difference in these predicted probabilities and the associated 95 percent confidence intervals.

The top plot in Figure 2 demonstrates that the change in government is not associated with a change in the likelihood of pro-NDC workers being hired for professional positions. In other words, there is no evidence of discriminatory partisan hiring for professional jobs. In contrast, pro-NDC bureaucrats were 10 percentage points more likely to be hired for menial positions after the NDC came to power at the end of 2008. These results support the first hypothesis and demonstrate that the regression results are substantively important.

The bottom plot in Figure 2 suggests that when the NDC was in power, it was less likely to hire pro-NPP bureaucrats to menial positions. The change in predicted probabilities is about

Table 3: Logistic regression predicting hiring of partisan bureaucrats across each time period

	<i>Dependent variable</i>			
	NDC bureaucrat (ethnicity) (1)	NPP bureaucrat (ethnicity) (2)	NDC bureaucrat (home region) (3)	NPP bureaucrat (home region) (4)
Change in ruling party	-0.154*** (0.059)	0.083 (0.056)	-0.168*** (0.057)	0.287*** (0.065)
Menial	-0.129 (0.094)	0.010 (0.084)	-0.192** (0.088)	-0.093 (0.102)
Change in ruling party * menial	0.614*** (0.103)	-0.434*** (0.094)	0.631*** (0.098)	-0.427*** (0.114)
Bureaucrat-level controls	Yes	Yes	Yes	Yes
Observations	9,780	9,780	9,780	9,780
Log Likelihood	-6,111.116	-6,725.204	-6,537.615	-5,285.863

*Notes:* The regressions control for gender, age at time of hiring, and highest level of education. The change in the ruling party follows Ghana's December 2008 election, which resulted in the NDC coming to office. \* $p < 0.1$ ; \*\* $p < 0.05$ ; \*\*\* $p < 0.01$ .

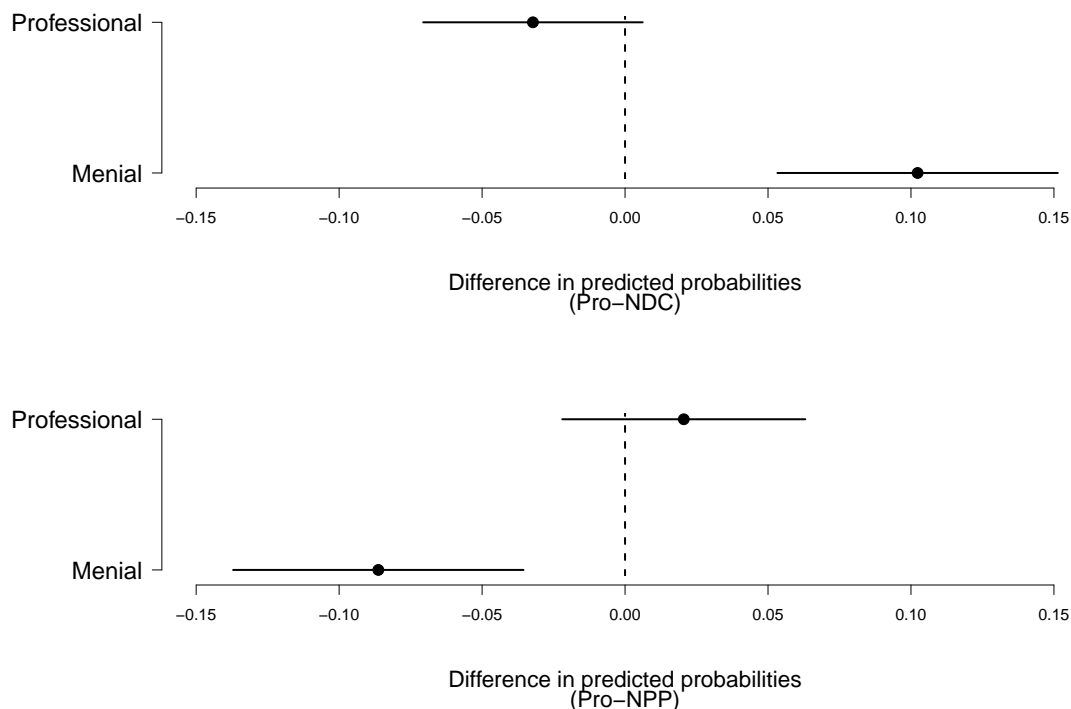
8 percentage points. The NDC government was neither more nor less likely to hire pro-NPP bureaucrats for professional positions. In summary, the results suggest that the partisanship of bureaucrats did not influence who got hired for professional positions, but did influence selection into menial positions.

An alternative argument to the one that I present is that, besides the change in ruling party, something else occurred that affected hiring patterns. Experts on Ghanaian politics, for example, might point to the creation of 32 new districts, and corresponding local governments, in February 2008 (10 months before the election).<sup>26</sup> If these new districts were concentrated in areas where the NDC were electorally dominant, one could argue that the new ruling party were disproportionately hiring Pro-NDC bureaucrats into menial positions to staff these new local offices. However, this argument is an unlikely explanation of the results because the new districts were not concentrated in

<sup>26</sup>The total number of districts went from 138 to 170 (see Ayee, 2013).



Figure 2: Difference in the predicted probability of a pro-NDC and pro-NPP bureaucrat being hired in each term, disaggregated by job type.



*Notes:* Figure 2 displays the difference in the predicted probabilities of a pro-NDC/pro-NPP bureaucrat being hired over the two time periods (2005–2008 and 2009–2012). I disaggregate job types into professional and menial positions. I calculate these predicted probabilities using the coefficients in Columns (1) and (2) of Table 3.

regions that I code as being Pro-NDC. Indeed, only ten of the new local governments (28 percent) were in the three northern regions or in Volta region.

A similar change occurred in 2012, when the NDC government created another 46 districts. In this case, a larger share of the new local governments were in the regions that I code as being Pro-NDC (44 percent). As a robustness check, I re-run the analysis dropping all hires made after 28th June 2012 (the date the new districts were created). The results are robust to this specification (see Appendix Table A.13).

Another rival argument is that the patterns that I find are the result of changes in the supply of recruits, rather than a change in demand for certain types of workers. It is difficult to prove conclusively that this was not the case. However, given the immense value of having a public sector job, and the fact that individuals do not have to pay to apply, I do not expect that pro-NPP recruits would stop applying after the change in government.<sup>27</sup>

## **4.2 Evidence that menial positions are given to party intermediaries**

The above results suggest that the new NDC government recruited co-partisans into menial positions after they came to office in 2008. In this section, I present quantitative and qualitative evidence that politicians in Ghana reward party intermediaries with menial positions in the public sector, including in local governments.

### **4.2.1 What motivates party intermediaries to work for the party machine?**

Citizens in Ghana believe that intermediaries work for parties in return for material benefits. A country-specific question in the 2012 Afrobarometer asked citizens why they thought party intermediaries (known locally as “foot soldiers”) work for parties. Roughly 60 percent of Ghanaians responded that they do so because “they expect material rewards after winning political power”

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<sup>27</sup>A final alternative argument is that the new NDC government had different policy priorities than the previous government. There are two reasons why this is an unlikely explanation of the results. First, while changes in priorities may affect the *number* of recruits, it should not affect the partisanship of bureaucrats hired. Furthermore, while the two major parties in Ghana sometimes campaign using a rhetoric of ideological difference (the NDC as a “social democratic” party, and the NPP as a “liberal democratic” party), most of their policy proposals are similar (see Nathan, Forthcoming). These contextual facts suggest that it is unlikely that the change in hiring patterns that I present above result from changes in the new government’s policy priorities.

(Ghana Center for Democratic Development, 2017).<sup>28</sup> The foot soldiers themselves admit that they work for parties because of the selective incentives they offer, including jobs (Bob-Milliar, 2012). Bob-Milliar (2012) explains, “Throughout the Fourth Republic, party foot-soldiers have demanded openly to be rewarded by their respective parties for their activism” (677). Pertinent to this article is whether menial jobs in local governments are rewarded to party intermediaries.

I subset the data to analyze the share of pro-NDC hires to various menial positions between 2008 and 2012. Positions that had large shares of co-partisans include environmental assistants (65 percent of all hires), watch guards (55 percent) and disaster management officers (39 percent. See Table A.14 in the Appendix). These findings complement accounts from Ghanaian scholars and journalists who have also noted, for example, that local disaster management jobs are often distributed to party intermediaries. One reporter explains that disaster management “has been known to be a den for political appointees with governments recruiting its supporters to the organization even though they have little or no experience in disaster management” (My Joy Online, 2017). In summary, the results are consistent with scholarly and journalistic accounts, as well as with public opinion, that parties in Ghana reward intermediaries with public sector jobs.

#### **4.2.2 What types of districts get menial hires?**

The literature on patronage suggests that parties distribute public sector jobs to loyal supporters as rewards for their work in getting out the votes (Robinson and Verdier, 2013). If politicians do distribute jobs as rewards we might expect to see more menial hires in districts where the party experienced significant increases in their vote share compared to the prior election. Such a result would indicate that the incumbent party is strategic in their distribution of appointments; rewarding brokers who brought them votes.

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<sup>28</sup>In comparison, about one-third (31 percent), believe foot soldiers toil for their party because “they believe in their programs.”

The results support this interpretation of menial jobs being distributed as rewards. Table 4 displays a positive correlation between the number of menial hires and district-level changes in the vote share of the NDC. The data are aggregated at the district level, such that the dependent variable is the number of menial hires per district. The data are restricted to the four-year electoral term after the NDC came to power following the December 2008 election in order to analyze hires made by the NDC government.<sup>29</sup> The main independent variable is the change in the vote share of the incumbent party between the 2004 and 2008 elections.

The first three columns in Table 4 consider all menial hires. The last three columns consider menial hires who belong to ethnic groups aligned with the ruling party. All regressions include region fixed effects. In Columns (1) and (4) there is a positive association between a change in the ruling party and the number of menial hires. This relationship remains positive and significant after controlling for a number of competing explanations. For example, the size of the district is also likely to be predictive of the number of hires. In Ghana, local governments are categorized as District, Municipal or Metropolitan Assemblies based on the population of the district. Columns (2) and (4) control for both the type of local government and the population of the district. Including these variables significantly improves the fit of the model, and these variables are highly predictive: Municipal and Metropolitan districts have more hires.<sup>30</sup> Columns (3) and (6) also include the share of houses with electricity, which serves as a proxy for urbanization. Again, the coefficient of interest remains significant and positive. Substantively, the results suggest that a district where the party saw a 10 percentage point increase in vote share would get 5 more menial hires than a district that saw a 10 percentage point decrease in ruling party vote share (see Appendix Figure A.7 for a

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<sup>29</sup>There is significant variation in the number of menial hires per district, ranging from 1 to 613 recruits, with a mean of 29 and a median of 22 per district.

<sup>30</sup>The negative coefficient on the population coefficient is most likely because the type of local government already accounts for the variation in population across districts.

plot of the marginal effect of vote share). Overall, this analysis points to the strategic allocation of menial hires to reward party intermediaries who rallied support for the new incumbent party.

Table 4: Predictors of the number of menial hires (2009–2012)

	<i>Dependent variable</i>					
	Number of menial hires					
	Total hires		Pro-NDC hires			
	(1)	(2)	(3)	(4)	(5)	(6)
$\Delta$ in NDC vote share	36.146** (16.660)	24.995** (10.595)	22.492** (10.807)	18.471 (13.391)	10.453* (6.080)	12.215* (6.180)
Metropolitan		168.005*** (12.578)	165.177*** (12.805)		161.024*** (7.136)	163.029*** (7.246)
Municipal		16.318*** (2.359)	15.576*** (2.444)		8.473*** (1.345)	8.978*** (1.386)
log(Population)		-3.328 (2.038)	-4.164* (2.163)		-1.526 (1.169)	-0.901 (1.244)
Electricity share			8.799 (7.688)			-6.326 (4.417)
Region fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	157	157	157	152	152	152
R <sup>2</sup>	0.151	0.667	0.670	0.254	0.851	0.853
Adjusted R <sup>2</sup>	0.093	0.637	0.638	0.201	0.837	0.838

*Note:* The unit of analysis is the district. Local governments are classified into three types according to the population of the district – District, Municipal, or Metropolitan Assemblies. Change in NDC vote share is measured between the 2004 and 2008 elections using constituency-level data from the parliamentary elections. The control variables (population and electricity share) are from Ghana’s 2010 Housing and Population Census. \* $p < 0.1$ ; \*\* $p < 0.05$ ; \*\*\* $p < 0.01$

### 4.2.3 Is there evidence that menial recruits are embedded in the communities they are hired to work in?

Finally, I focus on one characteristic of brokers that is essential for them to perform their roles – their embeddedness in the community. I use the distance each officer works from his or her

hometown as a proxy for entrenchment. Both menial and professional bureaucrats work in the same government offices, which keeps workplace locations constant across both groups. Working close to one's hometown is not sufficient evidence that a bureaucrat is a broker. However, it is likely to be a necessary condition, and thus evidence of a difference in the distances to hometowns for professional and menial bureaucrats lends further credibility to my argument.

To calculate the distance between hometowns and current work locations, I geo-code both of these locations using search requests to the *Google Maps* API.<sup>31</sup> First, I collect the locations of each of the district capitals because this is where local government offices are located. Second, I collect the locations of each hometown. Because Google Maps does not include every town in Ghana, I obtain complete geographic matches (i.e., both hometown and district capital) for about 74 percent of the bureaucrats hired in the study period.<sup>32</sup>

Appendix Figure A.5 presents a density plot of the distance between bureaucrats' workplaces and hometowns (in kilometers), disaggregated between menial and professional positions. The median distance from their hometown is 36 km for menial and 92 km for professional jobs.<sup>33</sup> Appendix Figure A.6 focuses on a few select positions to further demonstrate these differences. The results show that budget officers, planning officers and assistant directors work, on average, much farther from their home communities than drivers, laborers and disaster management assistants. The median distance from hometown is 19 km for laborers, 21 km for drivers, and 28 km for disaster assistants, compared to 151 km for budget officers, 161 km for planning officers and 174 km for assistant directors.

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<sup>31</sup>I use the *ggmap* package in *R* to perform this process. Ordinary users can submit 2,500 location requests per day.

<sup>32</sup>I have data on the distance between hometowns and current work location for 13,283 bureaucrats.

<sup>33</sup>Given the skewed distribution, the median is the most appropriate measure of average trends.

These results lend further credence to my theory in two ways. First, they show that bureaucrats working in professional positions are unlikely to be party brokers, suggesting instead that they are hired based on meritocratic criteria. Second, and conversely, the results provide evidence that bureaucrats in menial positions could work as party intermediaries. Working close to one's hometown allows partisan recruits to mobilize support for the incumbent by utilizing their social ties with local communities. Brokers employed in the district government may be particularly effective intermediaries, as they can help citizens access the state, and can distribute state resources to local voting blocs. Indeed, recent empirical work on brokers suggests that voters have a preference for intermediaries who have upward ties to bureaucratic elites (Auerbach and Thachil, Forthcoming).

## 5 Conclusion

The African state has been characterized as neopatrimonial – a state in which politics is personalized and ridden with clientelistic exchanges in spite of the creation of a formal public sector. Despite this dominant narrative, little empirical work has assessed the degree of meritocracy on the continent due to data constraints. In this article, I explore when the benefits of competitive hiring can outweigh the costs. Indeed, once meritocracy is conceptualized as a continuous variable, the appropriate question is not *whether* jobs are distributed on the basis of merit, but *which jobs* are awarded competitively. I theorize that politicians in clientelistic democracies will be more willing to relinquish discretionary control over hiring for professional jobs than they will be for low-ranked positions in the public sector. Politicians reward party brokers who mobilize on their behalf with these menial jobs.

I analyze an original individual-level dataset on the universe of bureaucrats working across about 200 local governments in Ghana. As party affiliation is not a variable in the dataset, I code bureaucrats' partisanship based on their ethnicity and home region. I use an exogenous change in

the ruling party following Ghana's 2008 elections to compare patterns of hiring under two opposing parties. The results suggest that politicians are more likely to interfere in hiring for menial jobs than professional jobs: there is a 10-percentage-point increase in the probability of a co-partisan being hired to a menial position after the change in government.

My theory highlights the problems of using legislation to measure meritocracy (Geddes, 1994; Ting et al., 2013). Merit legislation has been shown to be neither necessary nor sufficient to ensure non-partisan hiring recruitment (Schuster, 2017). Indeed, weak rule-of-law and legal loopholes mean that politicians regularly make partisan appointments in spite of merit legislation (Meyer-Sahling, 2006). The results suggest the need for continuous measures of meritocracy. As an alternative to a legislative analysis, I propose measuring meritocracy using administrative data on the composition of public workforces.

The findings also shed light on the mixed results in the literature on the effect of competition on patronage hiring. Driscoll (2017) finds that electorally competitive districts have more local government employees in Ghana. He similarly argues that politicians exchange these – mainly low-ranked – positions with party activists. Pierskalla and Sacks (2016) shows that the introduction of elections increased the number of teachers employed in Indonesia. In contrast, much of the seminal literature on the state suggests that electoral competition can constrain runaway state building and incentivize politicians to support meritocracy (O'Dwyer, 2006; Geddes, 1994). My argument suggests that electoral competition can have both of these effects. My focus on local government positions can be extended to other decentralized departments – such as police, post office and revenue collection offices. In each of these cases, lower-ranked jobs are likely to be distributed as patronage.

This study has significant implications for future research on the public sector in developing democracies. As new data become available, it would be fruitful to replicate the analysis in other contexts. Similar bureaucrat-level data can be used to assess meritocracy in other countries, and across different public sector departments. Importantly, my results suggest the need to distin-



guish between different types of jobs in such analyses in order to assess more nuanced hypotheses regarding the effects of democracy and elections on patronage hiring.

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## A Appendix

### A.1 Classification into menial and professional for all local government job positions

Table A.1: Summary list of menial and professional positions

Menial jobs
Gardener, Labourer, Scavenger, Security guard, Watchman, Metro guard, Foreman, Driver/Tractor driver, Tradesman, Catering officer/cook, Child care officer, Daycare attendant, Environmental assistant, Messenger, Disaster control officer, Caretaker, Plumber, Salesperson, Scaffolder, Seamstress, Tailor, Steward, Washerman, Telephonist, Receptionist
Professional jobs
Accountant, Agriculture officer, Assistant director, District co-ordinating director, Human resource manager, Internal auditor, Budget analyst, Economist, Engineer, Environmental health officer, Executive officer, Planning officer, Programming officer, Procurement officer, Librarian, Mass education officer, Quantity surveyor, Works superintendent, Radio operator, Records supervisor, Revenue inspector/superintendent, Social development officer, Storekeeper, Stenographer, Typist, Technical officer.

Table A.2, A.3, A.4 below display the frequencies of all recruits hired in the period under investigation in this study; from January 2005 to January 2013. A total of 17942 hires were made in this period. The Tables only display information for job positions that had 20 or more people.

Table A.2: Frequency of positions by job title (professional positions)

	Job Title	Menial (1)	Frequency
1	Accountant	0	134
2	Accounts Officer	0	27
3	Agric Extension Officer	0	62
4	Agric Officer	0	125
5	Animal Prod. Officer	0	25
6	Asst Agric Officer	0	170
7	Asst Director I	0	25
8	Asst Director IIA	0	133
9	Asst Director IIB	0	207
10	Asst Human Resource Mgr	0	95
11	Asst Internal Auditor	0	154
12	Asst. Budget Analyst	0	154
13	Asst. Chf Disaster Cntrl Off	0	24
14	Asst. Community Dev. Asst.	0	165
15	Asst. Engr	0	47
16	Asst. Info. Officer	0	40
17	Asst. Quantity Surveyor	0	29
18	Asst. Radio Operator	0	36
19	Asst. Security Guard	0	25
20	Asst. Social Dev. Officer	0	49
21	Asst. Town Planning Officer	0	44
22	Asst.Planning Office	0	117
23	Budget Analyst	0	54
24	Clerical Officer	0	55
25	Community Dev. Asst.	0	96
26	Community Dev. Officer	0	321
27	Conservancy Labourer	0	47
28	Dep. Chf Dist Control Off	0	83
29	Engineer	0	30
30	Environ Health Off Gd I	0	106
31	Environ Health Off Gd Ii	0	145
32	Executive Officer	0	253
33	Higher Executive Officer	0	86
34	Higher Revenue Inspector	0	75
35	Info. Asst.	0	25
36	Internal Auditor	0	66
37	Internal Auditor Trainee	0	42
38	Library Asst. I	0	30
39	Mass Education Officer	0	169
40	No Selection	0	82
41	Plann Off/Rural Plan Off	0	63
42	Prin. Environ Health Off <sub>2</sub>	0	56
43	Prin. Store Keeper	0	42
44	Prin.Accounts Officer	0	29
45	Prin.Disaster Control Off	0	31
46	Prin.Environ Asst	0	86

Table A.3: Frequency of positions by job title (professional positions – continued.)

	Job Title	Menial (1)	Frequency
47	Prin.Executive Officer	0	36
48	Prin.Internal Auditor	0	51
49	Prin.Technician Engr	0	28
50	Programming Asst	0	25
51	Radio Oper/Radio Sup	0	63
52	Records Asst	0	35
53	Revenue Inspector	0	480
54	Revenue Superint( Insp)	0	51
55	Senior Environ Asst	0	220
56	Senior Environ Health Off	0	26
57	Snr Accountant	0	22
58	Snr Agric Officer	0	25
59	Snr Executive Officer	0	194
60	Snr Internal Auditor	0	87
61	Snr. Disaster Cntrl Off	0	188
62	Snr. Engring Technician	0	33
63	Snr. Environ Health Tech.	0	31
64	Snr. Info. Asst.	0	24
65	Snr. Procure/Supply Asst	0	32
66	Snr. Radio Oper/Radio Sup	0	46
67	Snr. Technical Asst.	0	46
68	Snr. Technical Instructor	0	39
69	Snr. Technical Officer	0	123
70	Snr. Technician Engr	0	113
71	Snr. Typist	0	74
72	Social Dev. Asst.	0	88
73	Social Dev. Officer	0	149
74	Stenographer Gd I	0	107
75	Stenographer Gd II	0	274
76	Stenographer Secretary	0	62
77	Steward	0	21
78	Storekeeper	0	39
79	Technical Asst.	0	166
80	Technical Officer Gd I	0	125
81	Technical Officer Gd II	0	390
82	Technician Engr/Engr Tech.	0	253
83	Typist	0	303
84	Works Superintendent	0	37
<b>TOTAL</b>			<b>9389</b>



Table A.4: Frequency of positions by job title (menial positions)

	Job Title	Menial (1)	Frequency
1	Artisan/Superv/Tradesman	1	48
2	Asst. Dist. Cntrl Off II	1	432
3	Asst. Dist. Cntrl Off III	1	172
4	Asst. Dist. Cntrl Off IV	1	210
5	Asst. Dist. Cntrl Officer I	1	176
6	Asst. Snr. Dist Cntrl Off	1	109
7	Caretaker	1	60
8	Chf Headman	1	30
9	Cook (Uncertified)	1	32
10	Daycare Attendt	1	62
11	Disaster Control Officer	1	419
12	Driver Gd Iii(OLD)	1	53
13	Driver Grade 1/Driv Mech	1	156
14	Driver Grade Gd II	1	223
15	Driver Grade Gd III	1	182
16	Driver Grade I	1	44
17	Environ Asst	1	831
18	Foreman	1	59
19	Gardener	1	46
20	Head Conserv/San/Refuse	1	52
21	Headman	1	61
22	Headman Watchmen	1	77
23	Heavy Duty Driver	1	128
24	Jnr. Foreman	1	54
25	Labourer	1	1158
26	Messenger	1	81
27	Metro Guard	1	246
28	Refuse Labourer	1	77
29	Revenue Collector	1	967
30	Sanitary Labourer	1	865
31	Scavenger	1	182
32	Security Guard	1	246
33	Supervising Head Gardener	1	31
34	Trademan Ungraded	1	25
35	Tradesman Gd I	1	99
36	Tradesman Gd II	1	100
37	Watchmen-Day	1	274
38	Watchmen-Night	1	493
39	Yard Foreman	1	74
	<b>TOTAL</b>		<b>8553</b>

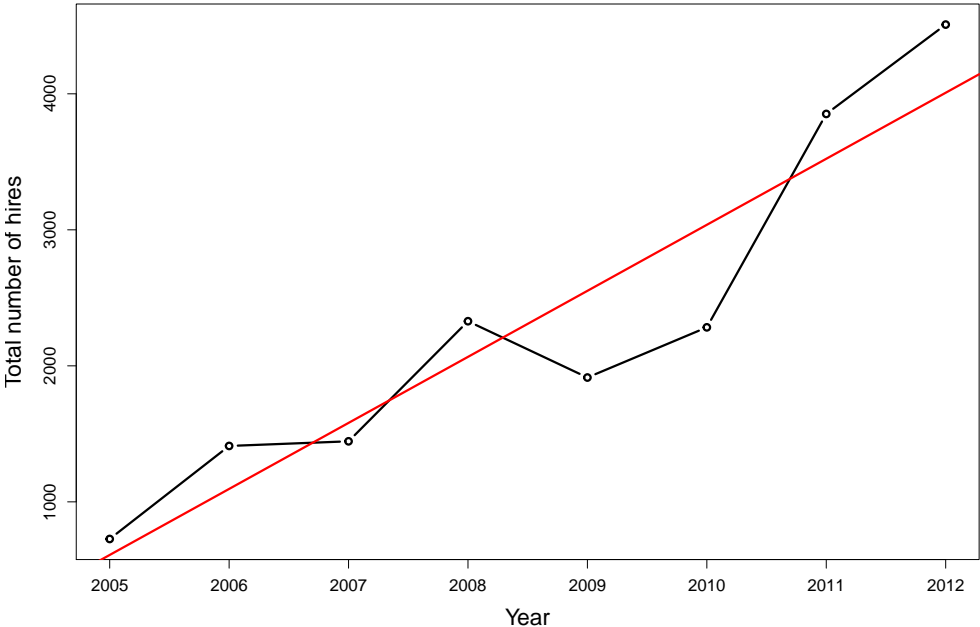
## A.2 Descriptive characteristics of local government bureaucrats hired in the two periods

Table A.5: Characteristics of hires in each period

Hiring Period	1	2	3	4
	First	First	Second	Second
	(2005-2008)	(2005-2008)	(2009-2012)	(2009-2012)
	Professional	Menial	Professional	Menial
Total hires	3449.00	2505.00	5940.00	6048.00
Menial (total)	0.00	2505.00	0.00	6048.00
Menial (percent)	0.00	100.00	0.00	100.00
Bachelors (percent)	33.55	3.35	51.06	8.73
Bachelors (total)	1157.00	84.00	3033.00	528.00
Males (percent)	63.87	66.07	62.07	67.34
Age when hired	30.12	35.57	30.18	34.55
Christian (percent)	80.86	76.01	83.00	74.72
Muslim (percent)	14.64	18.64	13.59	20.57

**A.3 Total number of local government bureaucrats hired in each year**

Figure A.1: Total number of public sector employees hired per year



*Notes:* Figure A.1 displays the total numbers of hires per year as recorded in the bureaucrats dataset. The red line is a linear regression of total number of hires on year. The regression line demonstrates the gradual increase in the number of employees hired over the two terms.

#### A.4 Coding partisanship using ethnicity and home region variables

Table A.6: Ethnicity and declared voting intension

	Akan %	Ewe %	Ga %	Northern %
NDC	18 (471)	<b>71</b> (495)	54 (179)	<b>52</b> (473)
NPP	<b>76</b> (2029)	25 (171)	41 (135)	38 (345)
Other	6 (162)	4 (27)	5 (18)	10 (95)

*Notes:* Table A.6 displays the declared voting intention of citizens surveyed by the Afrobarometer (Rounds 3-6). The exact wording of the questions were: *If a presidential election were held tomorrow, which party's candidate would you vote for?* and *Which Ghanaian language is your home language?* The Northern category is composed of individuals from the following groups: Dagaari, Dagbani, Frafra, Gonja, Hausa, Kokomba, Kusal and Mamprusi. Each column displays the share of respondents who would vote for each party, along with the number of respondents in each cell in parentheses. N= 4,596 citizens. Figures in bold display the language groups I code as Pro-NPP or Pro-NDC. N= 4,596 citizens.

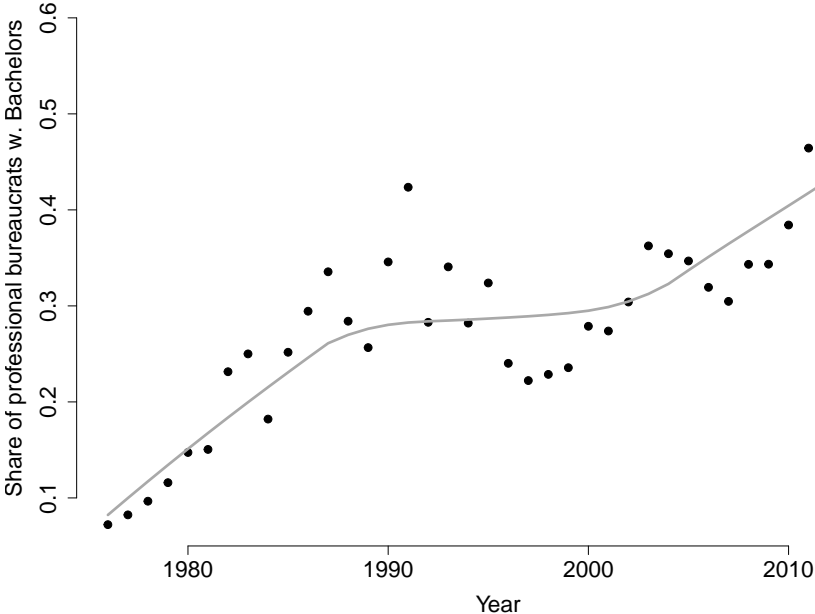
Table A.7: Presidential vote share of Ghana's two major political parties by region

	2004		2008	
	NDC	NPP	NDC	NPP
<i>Stronghold regions</i>				
Ashanti	21.8	<b>77.0</b>	25.6	<b>74.4</b>
Eastern	38.4	<b>60.3</b>	42.5	<b>57.5</b>
Northern	<b>57.8</b>	34.7	<b>61.6</b>	38.4
Upper East	<b>53.3</b>	31.7	<b>65.6</b>	34.5
Upper West	<b>56.7</b>	32.2	<b>62.3</b>	37.7
Volta	<b>84.1</b>	13.7	<b>86.1</b>	13.9
<i>Swing regions</i>				
Brong Ahafo	46.1	52.0	51.3	48.7
Central	38.9	58.8	53.8	46.2
Greater Accra	46.6	51.7	54.5	45.5
Western	40.0	57.7	51.9	48.1

*Notes:* Table A.7 displays the share of the presidential votes received by each party in each of the country's ten regions. I code a region as a stronghold when the majority of citizens voted for the same party in both the 2004 and 2008 elections. The numbers in bold display these majorities.

**A.5 Share of bureaucrats with a Bachelors degree, disaggregated by year of hiring**

Figure A.2: Share of professional bureaucrats with a Bachelors degree



#### A.6 Share of citizens with a Bachelors degree, disaggregated by ethnic group

	Share of Population	Did Not Complete University	Completed University
Akan	33.69	98.84	1.16
Ewe	13.74	98.82	1.18
Fante	12.78	98.81	1.19
Ga	7.15	98.49	1.51
Northern	22.05	99.60	0.40
Other	10.59	99.14	0.86

## A.7 Replication of Difference-in-means Test with different coding classifications

Table A.8: Difference-in-means Test (Home region coding)

		Period 1	Period 2	Difference	P-value
NDC bureaucrat	Menial	40.83	48.28	7.45	0.000
	Professional	42.41	40.37	-2.04	0.052
NPP bureaucrat	Menial	17.76	15.77	-1.99	0.026
	Professional	22.29	26.95	4.66	0.000

Table A.8 displays a difference-in-means test where the partisanship of bureaucrats is coded according to their home region. The table displays a 7.45 percentage point increase in the share of NDC bureaucrats hired into menial positions in the second period compared to the first. This difference is statistically significant below the 0.001 level. There is no statistically significant difference in the share of NDC bureaucrats hired to professional positions over the two periods. Considering NPP bureaucrats, there is a reduction (-1.99 percentage points) in the share of menial hires. The results display an increase in the share of NPP bureaucrats hired to professional positions. The difference is statistical significance.

Table A.9: Difference-in-means Test (Ethnic group coding (with Ga coded as NDC))

		Period 1	Period 2	Difference	P-value
NDC bureaucrat	Menial	44.35	49.74	5.38	0.000
	Professional	41.37	40.82	-0.55	0.602
NPP bureaucrat	Menial	44.55	39.72	-4.83	0.000
	Professional	48.68	48.25	-0.43	0.687

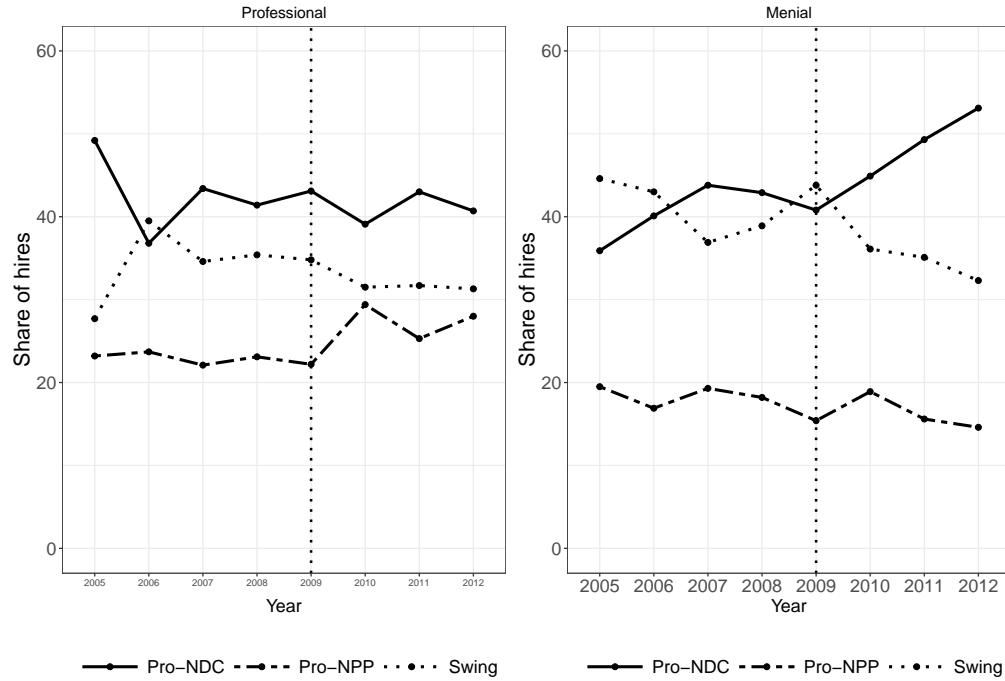
Table A.9 displays a difference-in-means test where the partisanship of bureaucrats is coded according to their ethnicity, and Ga's are included as being Pro-NDC. The table displays a 5.38 percentage point increase in the share of NDC bureaucrats hired into menial positions in the second period compared to the first. This difference is statistically significant below the 0.001 level. There is no statistically significant difference in the share of NDC bureaucrats hired to professional positions over the two periods. Considering NPP bureaucrats, there is a reduction (-4.83 percentage



points) in the share of menial hires. The results display a slight decrease (-0.43 percentage points) in the share of NPP bureaucrats hired to professional positions.

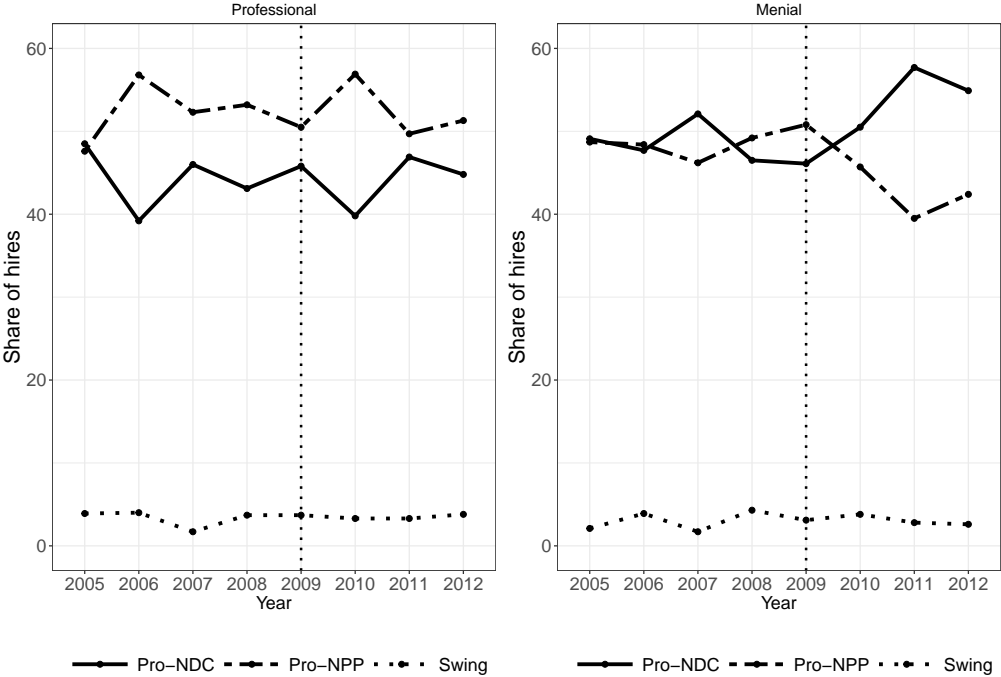
## A.8 Replication of Figure 1 with different coding classifications

Figure A.3: Replication of Figure 1 with bureaucrats coded according to home region



*Notes:* In Figure A.3 employees are categorized as Pro-NDC, Pro-NPP or from Swing regions. Each plot displays the share of new hires from each group. Bureaucrats are coded according to their home region. The left plot displays trends for professional positions, and the right plot displays trends for menial positions. The dotted line highlights the election of the NDC in December 2008.

Figure A.4: Replication of Figure 1 with bureaucrats coded according to ethnic groups (Ga coded as Pro-NDC)



Notes: In Figure A.4 employees are categorized as Pro-NDC, Pro-NPP or from Swing regions. Each plot displays the share of new hires from each group. Bureaucrats are coded according to their home region. The left plot displays trends for professional positions, and the right plot displays trends for menial positions. The dotted line highlights the election of the NDC in December 2008.

**A.9 Replications of Table 3 with different bureaucrat codings**

Table A.10: Replication of Table 3 without including education as a control variable

	<i>Dependent variable:</i>			
	NDC bureaucrat (ethnicity)	NPP bureaucrat (ethnicity)	NDC bureaucrat (home region)	NPP bureaucrat (home region)
Change in ruling party	-0.060 (0.046)	-0.021 (0.043)	-0.083* (0.044)	0.257*** (0.050)
Menial	0.069 (0.057)	-0.133** (0.054)	-0.091* (0.055)	-0.236*** (0.068)
Change in ruling party * menial	0.254*** (0.068)	-0.180*** (0.065)	0.382*** (0.065)	-0.402*** (0.081)
Bureaucrat-level controls	Yes	Yes	Yes	Yes
Observations	17,761	17,761	17,761	17,761
Log Likelihood	-11,478.640	-12,162.970	-12,087.700	-9,021.585

*Note:*

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

Table A.11: Replication of Table 3 with Ga ethnic group coded as NDC

	<i>Dependent variable:</i>	
	NDC bureaucrat	
	(ethnicity – Ga as NDC)	(ethnicity – Ga as NDC)
	(1)	(2)
Change in ruling party	–0.015 (0.044)	–0.129** (0.057)
Menial	0.089 (0.055)	–0.059 (0.088)
Change in ruling party*menial	0.239*** (0.065)	0.538*** (0.097)
Bureaucrat-level controls	Yes	Yes
Observations	17,761	9,780
Log Likelihood	–12,111.000	–6,527.858

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

Table A.12: Replication of Table 3 with Revenue Inspectors coded as Menial

	<i>Dependent variable:</i>			
	NDC bureaucrat	NPP bureaucrat	NDC bureaucrat	NPP bureaucrat
	(ethnicity)	(ethnicity)	(home region)	(home region)
	(1)	(2)	(3)	(4)
Change in ruling party	–0.194*** (0.060)	0.137** (0.057)	–0.241*** (0.058)	0.246*** (0.066)
Menial	–0.378*** (0.091)	0.220*** (0.081)	–0.513*** (0.086)	–0.223** (0.098)
Change in ruling party * menial	0.762*** (0.099)	–0.582*** (0.089)	0.856*** (0.093)	–0.333*** (0.108)
Constant	–0.956*** (0.123)	0.339*** (0.115)	–0.665*** (0.117)	–0.767*** (0.136)
Bureaucrat-level controls	Yes	Yes	Yes	Yes
Observations	10,140	10,140	10,140	10,140
Log Likelihood	–6,309.508	–6,973.165	–6,748.437	–5,480.550
Akaike Inf. Crit.	12,637.010	13,964.330	13,514.870	10,979.100

**A.10 Replication of Table 3 excluding those hired after June 28, 2012 (creation of new districts)**

Table A.13 excludes the 3,761 bureaucrats who were hired after June 28, 2012, which marks the day in which the NDC government created 46 new districts and corresponding local governments.

Table A.13: Logistic regression predicting hiring of partisan bureaucrats across each time period

	<i>Dependent variable</i>			
	NDC bureaucrat (ethnicity) (1)	NPP bureaucrat (ethnicity) (2)	NDC bureaucrat (home region) (3)	NPP bureaucrat (home region) (4)
Change in ruling party	-0.182*** (0.066)	0.125** (0.062)	-0.181*** (0.063)	0.282*** (0.071)
Menial	-0.066 (0.095)	-0.026 (0.086)	-0.142 (0.089)	-0.110 (0.103)
Change in ruling party * Menial	0.585*** (0.110)	-0.411*** (0.100)	0.534*** (0.104)	-0.365*** (0.120)
Bureaucrat-level controls	Yes	Yes	Yes	Yes
Observations	7,512	7,512	7,512	7,512
Log Likelihood	-4,645.609	-5,153.113	-4,986.810	-4,023.624

*Note:*

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

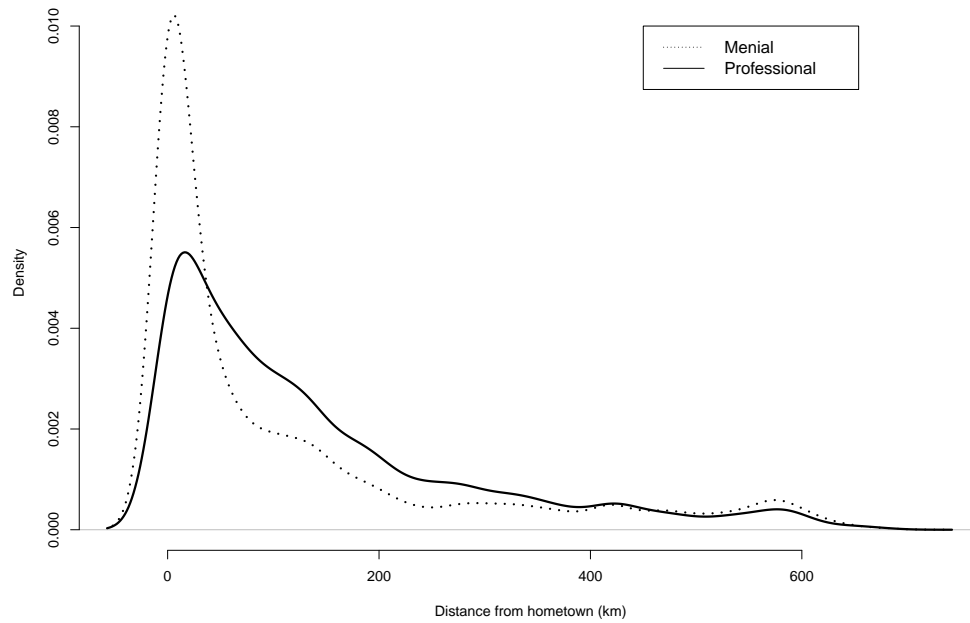
## A.11 Distribution of Pro-NDC recruits across menial job positions

Table A.14: Total number of menial hires (2009-2012) disaggregated by job titles

Position	Total hires (n)	Pro-NDC hires (n)	Pro-NDC hires (percent)
Environmental Assistant	808	529	65.47
Watchman	517	285	55.13
Disaster Assistant	1462	565	38.65
Driver	439	165	37.59
Laborer	1117	400	35.81
Tradesman	180	57	31.67
Revenue Collector	647	144	22.26
Other	779	226	29.01
Total	5,959	2,372	39.81

## A.12 Distances between local government office and bureaucrats' home towns, disaggregated between professional and menial positions

Figure A.5: Distribution of distances to hometown

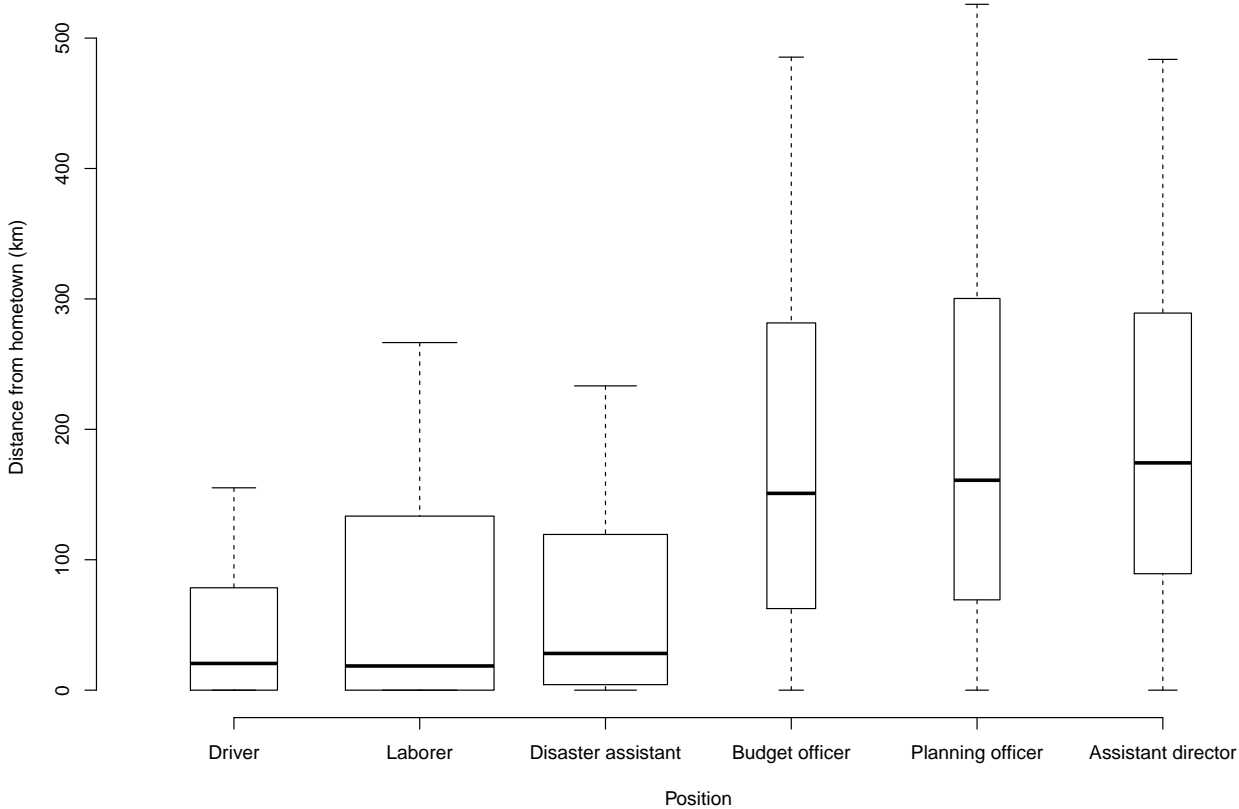


*Notes:* Figure A.5 displays the distribution of the distances that each bureaucrat in the data works for his or her hometown.



**A.13 Distances between local government office and bureaucrats' home towns, disaggregated across job positions**

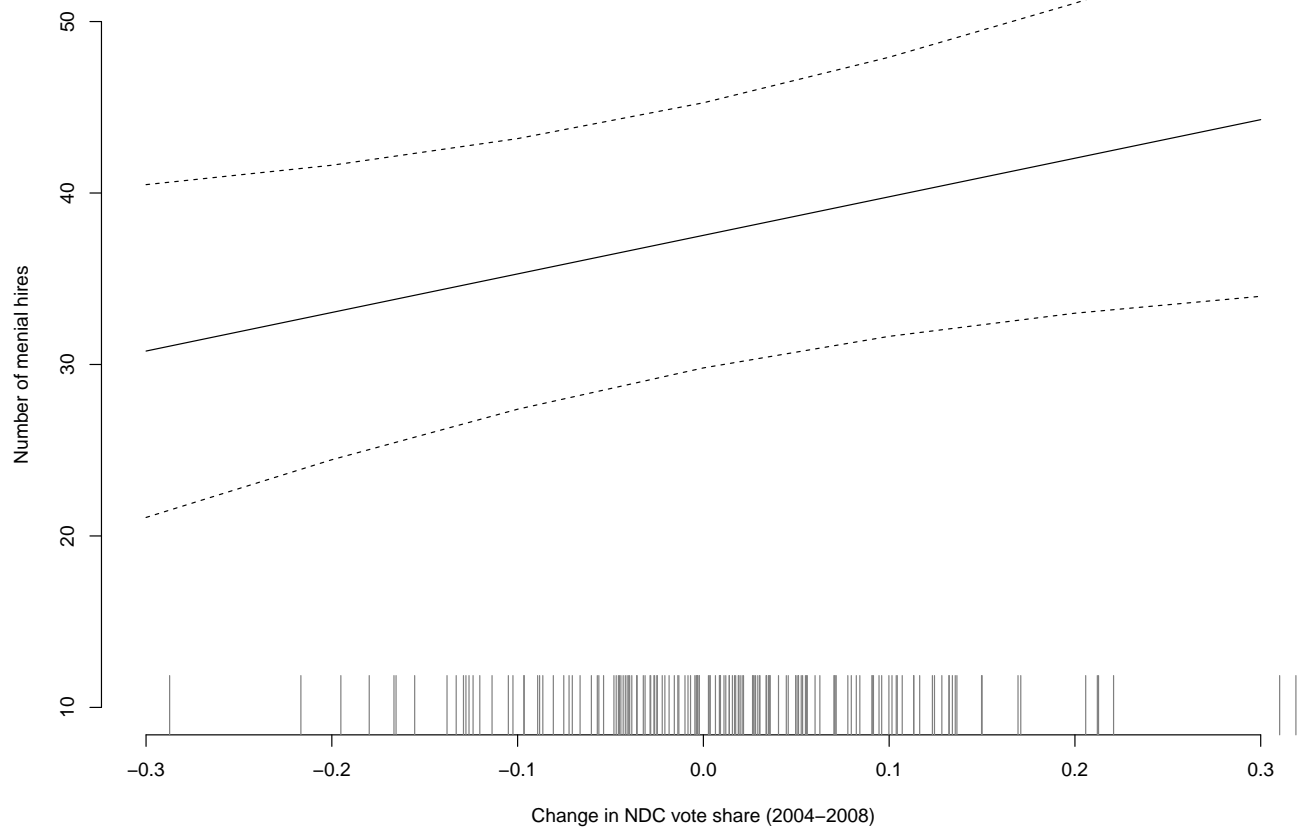
Figure A.6: Boxplots of distances from hometowns across positions



*Notes:* The width of each box is representative of the number of observations in each category.

## A.14 Marginal effect of change in NDC vote share on the number of menial hires

Figure A.7: Marginal effect of district-level change in NDC vote share on menial hires



*Notes:* The plot displays the marginal effect of change in vote share using the coefficients from Table 4 (Column 3).