

# Managing Meritocracy in Clientelistic Democracies\*

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## Abstract

Competitive recruitment for certain public-sector positions can co-exist with partisan hiring for others. *Menial* positions are valuable for sustaining party machines. Manipulating *professional* positions, on the other hand, can undermine the functioning of the state. Accordingly, politicians will interfere in hiring partisans to menial position but select professional bureaucrats on meritocratic criteria. I test my argument using novel bureaucrat-level data from Ghana (N=18,778) 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 findings regarding the effect of electoral competition on patronage; competition may dissuade politicians from interfering in hiring to top-rank positions while encouraging them to recruit partisans to lower-ranked positions [123 words].

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Whether civil servants are hired by merit or on partisan criteria has broad implications for state capacity and the overall health of democracy (O'Dwyer, 2006; Grzymala-Busse, 2007; Geddes, 1994). When politicians exchange jobs with partisans, then these jobs may not be essential to the running of the state. Partisan hires can strain the public purse, restricting the government's ability to invest in much-needed capital infrastructure, for example. Such exchanges are also likely to perpetuate a broader clientelistic political economy. Once hired, co-partisan bureaucrats can help politicians to allocate scarce public resources in sub-optimal ways (Oliveros, 2016; Golden and Min, 2013). Partisan recruits may also undermine governance practices, increasing levels of corruption (Oliveros and Schuster, 2018).

The dual aims of enhancing state efficiency and sustaining party machines weigh on the minds of politicians in clientelistic democracies. In this article, I ask when the benefits of competitive hiring outweigh the costs? I theorize that the costs of non-competitive recruitment are not constant across public sector positions. Building on this insight, I argue that politicians may support meritocratic recruitment for some posts and actively interfere in hiring for others. Meddling in hiring to *professional* positions is costly to politicians as this undermines the efficiency of the state, and can potentially hurt a party's future electoral performance. In contrast, low-ranking public sector jobs (*menial* positions) are particularly valuable to politicians because they can use them to sustain clientelistic party structures. Furthermore, interference in such jobs may go unnoticed by monitoring from citizens, the media or civil society organizations.

Conventional wisdom portrays postcolonial states as neopatrimonial institutions marked by high levels of clientelism and low levels of meritocracy (Bayart, 1993; Van de Walle, 2001; Chabal and Daloz, 1999). Obtaining data on bureaucrats to assess the validity of this narrative has been difficult – often these data simply do not exist or governments are unwilling to release them.<sup>1</sup> Accordingly, we know little about the composition of public workforces, and whether

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<sup>1</sup>For example, in the case of Ghana it was not until 2015 that a dataset on the composition of local governments came into existence. Further, without the passing of Freedom of Information legislation scholars or journalists are often denied access to relevant data on the composition of the state.

the introduction of democracy has quelled or invigorated partisan recruitment. Deepening our knowledge of meritocracy in developing democracies is especially important given the large share of government revenues dedicated to salaries – about 30 percent of revenues (Clements, 2010). Given data scarcity, prior research has relied on changes in legislation (Geddes, 1994; Ting et al., 2013). However, this implicitly treats meritocracy as a dichotomous variable – it is either present or absent. In contrast, my theory supports qualitative assessments that in practice most developing countries lie somewhere on a continuum between complete meritocracy and wholesale interference in recruitment (Grindle, 2012).

To test my argument of differential levels of interference, I use unique data of the universe of over 40,000 bureaucrats working across 200 local governments in Ghana. To my knowledge, this paper is the first to use fine-grained, bureaucrat-level data to assess levels of meritocracy in a developing country. Recruitment to local governments in Ghana is centralized at the national level, and thus an analysis of recruitment to these positions also provides an opportunity to theorize about hiring into ministerial departments. Democracy was restored in 1992, and since then the country's national elections have been marked by high levels of competition. The National Democratic Party (NDC) won the 2008 presidential election by less than half a percent.<sup>2</sup> In the analysis, I exploit this exogenous change in the ruling party to investigate hiring patterns under two opposing political parties.

The data on bureaucrats include information on the hiring date of each employee. I use the first term (2005-2008) as a baseline by which to compare patterns of hiring in the second term (2009-2012).<sup>3</sup> A total of 18,778 bureaucrats were recruited during the two electoral terms that I analyze; these public servants serve as the population for this study. If the patronage bureaucracy hypothesis is correct, we would expect to find that a change in the ruling party leads to significant

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<sup>2</sup>The NDC won with 50.2 percent of votes compared to 49.8 percent for the New Patriotic Party (NPP).

<sup>3</sup>Two political parties (NDC and NPP) dominate electoral politics. These two parties have remained the same since 1992.

changes in hiring patterns. Specifically, the new ruling party would be expected to favor its co-partisans, at the expense of opponents.

Disaggregating the data between professional and menial positions, I find no evidence of partisan hiring for professional positions. Conversely, the change in ruling party is associated with a ten percentage point increase in the probability of a co-partisan being hired to a menial post. This increase is equivalent to about 635 extra public sector jobs being awarded government co-partisans, at the cost of over 3 million USD across a four-year term.<sup>4</sup> Because the data only contain information on bureaucrats working in local governments, this bias likely represents a fraction of the aggregate number of partisan hires made in the period.

The contributions of this article are threefold. First, the results contribute to the literature on the state and public sector development. It is one of the few empirical studies that use administrative data to document trends in public sector practices in developing countries (Hassan, 2016; Pierskalla and Sacks, 2016; Iyer and Mani, 2012). My theoretical approach also sheds light on what appears 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, swelling 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 to top-rank positions while encouraging them to recruit partisans to lower-ranked positions. Second, I contribute to the literature on how to measure meritocracy. Broadly, scholars have used either legislation or surveys with experts or with bureaucrats to measure this concept. My approach – which combines bureaucrat-level data with a change in government – has the advantage of being objective in a way that survey-based methods are not. Further, the data allow for an analysis of *de facto* practices as opposed to *de jure* protocols. Third,

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<sup>4</sup>The total number of menial hires between 2009 and 2012 was 6,359. See Table A.2. To calculate the cost of 635 bureaucrats, I assume a (conservatively low) monthly salary of 100 USD.

I contribute to the burgeoning literature on party brokers (Calvo and Murillo, 2013; Larreguy, Marshall and Querubin, 2016; Gottlieb, 2017). My work complements prior empirical work on party brokers that shows that they often hold public sector positions, in federal departments (Stokes et al., 2013; Oliveros, 2016) or as teachers (Larreguy, Montiel Olea and Querubin, 2017; Pierskalla and Sacks, 2016) or health workers (Gulzar, 2015).<sup>5</sup>

## **1 Theory and Hypotheses: Meritocracy and the State in Africa**

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 discretion in the hands of a presidential figurehead. A central element of neopatrimonialism is the distribution of public sector jobs on the basis of political criteria as opposed to on the basis of merit. During 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 was just under 4 percent by the early 2000s (Clements, 2010).<sup>6</sup>

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<sup>5</sup>Stokes et al. (2013) conduct a survey of 800 party brokers in Argentina. Excluding those brokers who held offices as elected councilors, 30 percent of the brokers surveyed worked in the public sector (Stokes et al., 2013, 99).

<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 latter data are provided by the International Labor Organization. The latter includes a sample of 12 African countries, between 2000-2008.

Table 1: Government compensation of central government employees (2000-2008 averages)

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
Western Hemisphere	24	8.2	31	29.6
Middle East and Central Asia	19	7.1	28.9	24.8
European Union	27	5.2	15.9	16.3
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

*Source: Clements (2010).*

Governments in Africa currently spend a larger share of public revenue on government personnel than governments in any other region of the world. Approximately 30 percent of revenues are dedicated to salaries (see Table 1). Despite high levels of spending on public sector employment, there has been little research that investigates how governments select state employees and the extent to which these procedures are meritocratic.

## 1.1 Theory

Politicians in transitioning countries face a tension regarding the adoption of meritocratic recruitment. On the one hand, governing parties can benefit from competitive hiring as it can lead to greater levels of bureaucratic efficiency and reduce corruption (Oliveros and Schuster, 2018). Governing parties may also receive an electoral benefit from implementing civil service reforms, attracting votes from idealists and the middle-class (Geddes, 1991). On the other hand, strict hiring protocols restrict the ability of politicians to sustain clientelistic party structures, and, consequently, to win elections. This dilemma is explored in previous literature (Geddes, 1994; Skowronek, 1982). The dilemma in the case of the US is summarized nicely by Skowronek (1982, 49) who writes that

“When tampering with civil service appointment procedures, the values of economy and efficiency clashed directly with the value of administrative patronage in the operations of the American party state.”

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. In terms of votes, jobs that are awarded to party mobilizers have a multiplier effect; not only does the politician gain the support of the broker, but the investment results in votes from the clients in the broker’s network. In the context of the US, party leaders used jobs in the postal service and customs houses 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 suggests that it took decades for low-ranking jobs in offices outside of the capital to be taken out of the hands of politicians. Instead, patronage was sustained for most field positions as well as top jobs of administration in the capital (Skowronek, 1982, 69). Considering positions in the post office, those offices employing over 50 persons were subject to the Pendleton Act. However, in 1896 there were still 76,000 fourth-class postmaster positions that were not covered by the Act, and still available for parties to distribute to loyalists (Skowronek, 1982, 72). In contrast, clerical jobs based in the capital city were easy for politicians to give up.

Awarding public sector jobs to those who can effectively mobilize voters on behalf of the incumbent party have been documented in other contexts. O’Dwyer (2004) argues that in new Eastern European democracies, citizens are demobilized after years of communist rule such that mass parties based on fee-paying members are not possible. Instead, he proposes that incumbent politicians give public sector jobs to party activists (529). In Pakistan, Gulzar (2015) argues 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).

While brokers have significant leadership skills, and valuable ties to local social groups, in developing countries they are often not particularly well-educated. Indeed, many brokers put time and energy into working for parties for the material benefits they can extract, using these benefits to supplement their incomes (Bob-Milliar, 2012). In contrast, middle-class voters or those with professional jobs do not have either the time or financial need to work for parties.<sup>7</sup> Because brokers are often not well-educated, suitable jobs are also usually low-ranked positions.<sup>8</sup>

In short, I propose that in developing democracies politicians who want to sustain party machines will want to hold discretion over low-ranking jobs in the public sector. These positions I call *menial jobs*. In comparison high-ranked jobs in the bureaucracy will not be as valuable to politicians and party leaders because they can not be exchanged with brokers. Additionally, in the context of a democratic system where there is some level of political competition politicians will care, to at least some degree, that the state functions effectively. To the extent that the electorate reward economic stability, access to health and education services, and improvements in 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; they can write annual reports, analyze data, and oversee government programs.

Furthermore, when electoral competition ensures that the ruling-party may be ousted by their opponents, incumbent politicians have an incentive to tie their hands (whether through legislation or informal norms) in the current period so that their competitors can not use patronage against them in the future. The positive relationship between levels of electoral competition and meritocracy has been discussed in a variety of contexts, including in Eastern Europe (Grzymala-Busse,

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<sup>7</sup>In Ghana, a survey of party brokers showed that they are “characteristically very youthful but poorly educated or without formal education” (Bob-Milliar, 2012, 670).

<sup>8</sup>The jobs that party brokers can reasonably do will vary according to the level of development of a country. In richer countries, where the average level of education will be higher than in poorer countries, brokers may be educated such that they are computer literate and could take mid-ranked positions in the bureaucracy.



2007; O'Dwyer, 2006), Latin America (Geddes, 1994; Grindle, 2012) and the US (Skowronek, 1982; Ting et al., 2013).

My theory suggests 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. This is the main hypothesis that I test in this paper. I also use the data to investigate whether bureaucrats who hold menial positions hold traits that would suggest that they are indeed party brokers. Seminal work on brokers suggests that they are valuable to parties because of the intimate knowledge that they have of local communities (Stokes et al., 2013). Using this knowledge, brokers are able to enforce clientelistic exchanges, as well as provide social services to citizens in periods in-between elections (Zarazaga, 2014). An observable implication of my argument is that bureaucrats holding menial positions are more likely to work close to their hometowns than bureaucrats who hold professional positions. I use the data to assess this observable implication of the argument.

## **2 Data and method**

I evaluate my argument using a novel dataset of the near universe of bureaucrats who work in local governments in Ghana, a stable democracy in West Africa. Two political parties dominate the electoral landscape, the New Patriotic Party (NPP) and the National Democratic Congress (NDC). National elections are extremely competitive. The 2008 election – the election I focus on in this article – was won by the NDC with a margin of less than 0.5 percent of votes. Before discussing the data that I use, I discuss potential ways to measure levels of meritocracy.

### **2.1 Measuring meritocracy using legislation**

The passage of the Pendleton Act of 1883 is often used to mark the introduction of meritocracy in the US. Among other things, the act saw the introduction of 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 that provides for competitive exams has similarly been used in other contexts to signal the onset of meritocracy (Geddes, 1994; Ting et al., 2013).<sup>9</sup>

Tying the introduction of meritocracy to the passing of legislation may be problematic for at least three reasons. First, it can lead one to treat meritocracy as a dichotomous variable, such that it is either present or absent. However, in the US case it took over 50 years from the signing of the act for most jobs to be protected from political interference.<sup>10</sup> Second, and relatedly, political interference in hiring often continues in spite of new legislation. Grindle (2012) conducts an analysis of eighteen Latin American countries, all of which on paper have laws that support competitive examinations. However, in practice only three countries – Brazil, Chile and Costa Rica – recruit a large share of bureaucrats through competitive procedures (Grindle, 2012). Cross-national analysis shows that the extent of meritocracy in practice is similar across countries with or without legal merit requirements (Schuster, 2017). In the words of Grindle (2012), “*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 recruitment in practice.

### **2.1.1 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 (QoG), which col-

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<sup>9</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>10</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 preformed the best (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 D.C. (Skowronek, 1982, 64).

lects data for 107 countries across the world, use expert surveys to assess meritocracy.<sup>11</sup> Studies by Evans and Rauch (1999) and Kopecký (2011) also use surveys to measure meritocracy. While expert surveys allow for the collection of data from a large number of countries, this approach is not without concerns. Criticisms of using expert surveys to measure concepts such as meritocracy include the difficulty of creating time-series data when experts change over 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>12</sup>

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

An alternative to asking experts about meritocracy is to ask bureaucrats themselves. This approach is used by Gingerich (2013) in his analysis of Brazil, Bolivia and Chile, and by Sigman (2015) in her study of patronage in Benin and Ghana.<sup>13</sup> Surveys with 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). Surveys with bureaucrats can also produce comparisons between countries that are based on objective criteria.<sup>14</sup> For example, in Ghana and Benin, Sigman (2015) asked civil servants the method through which they were hired, including whether they took exams or had interviews. In Ghana, she finds that about 90 percent of civil servants say they were recruited after either an interview or exams compared to just over

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<sup>11</sup>The exact wording of the questions most related to the issue of competitive hiring are as follows: *When recruiting public sector employees, the skills and merits of the applicants decide who gets the job*, *When recruiting public sector employees, the political connections of the applicants decide who gets the job*, and *Public sector employees are hired via a formal examination system*. Experts answer on a 1-7 scale.

<sup>12</sup>Treisman (2007) discusses this as a criticism of using expert surveys to measure corruption. All of his criticisms of using expert surveys to measure corruption can be applied to using them to measure meritocracy.

<sup>13</sup>Oliveros and Schuster (2018) also conduct a survey with bureaucrats in the Dominican Republic. Rather than use these surveys to investigate levels of meritocracy. They use a survey experiment to investigate the effect of competitive recruitment on corruption. Their results suggest that bureaucrats hired on the basis of competitive examinations are less corrupt than political appointees.

<sup>14</sup>In contrast, comparisons based on expert surveys remain subjective.

50 percent in Benin. Using these data, it seems uncontroversial to argue that levels of meritocracy are higher in the former compared to latter. A major limitation to 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.

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

A third way to evaluate levels of meritocracy, and the one I adopt 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 patterns of hiring under different governments. In the context of purely meritocratic hiring, changes in the governing party should not influence the types of bureaucrats who get recruited. Conversely, large swings in who gets hired as power changes hands is an indicator of non-merit hiring. Using administrative data also allows researchers to disaggregate public workers across different departments and different types of positions to investigate which types of jobs or departments are isolated from interference.

## **2.2 Dataset**

The dataset I use includes employee-level information of civil servants working in local governments in Ghana who were in active employment in 2015.<sup>15</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 18,778 recruits. In theory, all local government employees should be included. The data include information from staff working in 199 of the country's 216 local governments.<sup>16</sup> The mean number of workers per district is 191. While the data is as comprehensive as presently available, it is not without some gaps.<sup>17</sup>

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<sup>15</sup>These data were compiled by Ghana's Ministry of Local Government and Rural (MLGRD) and the Local Government Service Secretariat (LGSS) in partnership with consultants hired by the European Union.

<sup>16</sup>There is one local government in each district. There are currently 216 districts.

<sup>17</sup>One systemic omission is that the very top bureaucrats in a district (the District Co-ordinating Directors) are often not included.

All candidates for local government jobs are recruited through a centralized hiring process.<sup>18</sup> The hiring process involves the candidate submitting 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 a mass-hiring advertisement that the government places in national newspapers. Interviews with staff at the Local Government Secretariat suggests that mass hiring is the modal type of hiring, as opposed to hiring for individual positions as they become available.

Those candidates applying for positions that I code as *professional*, for example, 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. Those candidates recruited to *menial* positions, for example, gardeners, 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.

### **2.3 Coding the partisanship of civil servants**

To assess the theory, an ideal dataset would include the partisanship of each bureaucrat at the time of hiring. However, the very act of collecting such data would implicate the government in discriminatory practices and, therefore, is 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 which also uses individuals' ethnic

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<sup>18</sup>While local governments can recruit temporary workers, paying these employees using their own internally generated revenues, they are not able to recruit permanent employees.

group to determine partisanship (Hassan, 2016). The results that follow are robust to either measure and, in the interests of transparency, I present the results using both.<sup>19</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. These fragments were then coded into one of seven ethnic groupings by multiple research assistants in Ghana.<sup>20</sup> After matching names to ethnic groupings, I use Afrobarometer survey data to link ethnic groups to political parties.<sup>21</sup>

The Afrobarometer asks respondents their home language and also asks 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 Table A.3 in the Appendix.) Over three-quarters of Akans who indicated which party they support said the NPP. Other than Akans, no other ethno-linguistic group votes predominantly for the NPP. In line with these data, I code bureaucrats who are Akans as being Pro-NPP. In contrast, the NDC captures the lion share of support from a number of ethnic groups. I code both Ewe and Northern ethnic groups as being aligned with the NDC. It can be argued that Ga's should also be coded as Pro-NDC. Because 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 are robust to such an inclusion.<sup>22</sup>

Regarding home region, I identify party strongholds as regions where the majority of citizens voted for the same party across the two elections that I analyze. Table A.4 in the Appendix displays the election results disaggregated by region. The NDC captured the majority of votes (over 50 percent) in the Volta, Northern, Upper West and Upper East regions. In comparison,

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<sup>19</sup>Some of the replicated results are presented in the Appendix.

<sup>20</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.

<sup>21</sup>Specifically, I use data from rounds three, four, five and six. I do not use data from rounds one and two because before round three there was not a question on which party the respondent would vote for if there was an election held tomorrow. I drop respondents who do not provide an answer to the question on who they will vote for, including people who refuse to answer or answer with "Don't know".

<sup>22</sup>I present these results in the Appendix.

the NPP received the majority of the votes in the Ashanti and Eastern regions. I code *Pro-NDC* bureaucrats as those whose home region is Northern, Volta, Upper West or Upper East. I code *Pro-NPP* bureaucrats as those who hail from either the Ashanti or Eastern regions.

### 3 Empirical strategy

To assess evidence of partisan bias in public sector hiring, I use a change in Ghana's ruling party following the December 2008 elections. President John Kufuor of the NPP was elected in 2000 and was re-elected in the 2004 elections. The NPP had an absolute majority of the seats in the nation's parliament in both terms. After serving for two consecutive terms Kufuor was unable to run in the country's December 2008 election. The NDC's John Evans Atta-Mills won this election. The NDC also 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 types of bureaucrats hired when the new party came to power. Specifically, if true, we should expect to find a drop in the share of Pro-NPP bureaucrats hired after 2008, and an increase in the share of Pro-NDC bureaucrats hired. My main hypothesis would predict that the increase in Pro-NDC hires is confined to menial positions.

To investigate the relationship between the partisanship of bureaucrats 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 the probability of a bureaucrat being aligned to the NDC (NPP). Period 2 identifies the second hiring period after the change in the ruling party following the 2008 election. The variable *menial* is a dummy variable that takes the value of 1 when the position is low-ranking and zero

otherwise. I code positions using information on the job title of each bureaucrat. The complete list of positions and how they are coded is presented in Table A.1 of the Appendix. The data also contain information on the gender, age, and highest educational level of each bureaucrat. Thus,  $X_i$  is a vector 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 of these data is that they were taken 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>23</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 in the second period. This is because Pro-NPP bureaucrats, some of whom drop out 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 pay check, benefits, and an assured pension. Civil servants also have access to politicians whom they may ask for help from when they face emergencies. These reasons make it unlikely that an employee would give up their job just because they did not support the new ruling party. Second, while bureaucrats may be disgruntled 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 the return to democracy in 1992. Third, if it was the case that bureaucrats resigned on mass following the 2008 elections, the data should show a spike

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<sup>23</sup>This is the first database of employees working in local governments in Ghana, which makes it impossible to consult older databases.



in hiring in 2009 (or 2010) to make up for the deficit of workers. Figure A.1 (in the Appendix) is a plot of the total number of hires per year between 2005 and 2012. The plot shows that the number of hires in 2009 and 2010 were lower than the total number of hires the government made in 2008. These figures suggest that there was not a mass departure from the bureaucracy following the election of the NDC government in 2008.

## 4 Results

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

Table 2 shows the share of NDC and NPP bureaucrats hired across the two periods, and presents the results of a difference-in-means test. In the table, I code the partisanship of bureaucrats according to their ethnicity.<sup>24</sup> The results show a positive and statistically significant increase in the share of NDC bureaucrats hired to menial positions in the second period (4.69 percentage points,  $p=0.000$ ). The results also display a statistically significant reduction in the share of NPP bureaucrats hired to 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 first hypothesis that the NDC government favored their 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>24</sup>I present the same results in the Appendix (Table A.5) with bureaucrats coded according to their 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	35.27	39.96	4.69	0.000
	Professional	33.44	32.62	-0.82	0.406
NPP bureaucrat	Menial	44.49	39.69	-4.8	0.000
	Professional	48.77	48.00	-0.77	0.462

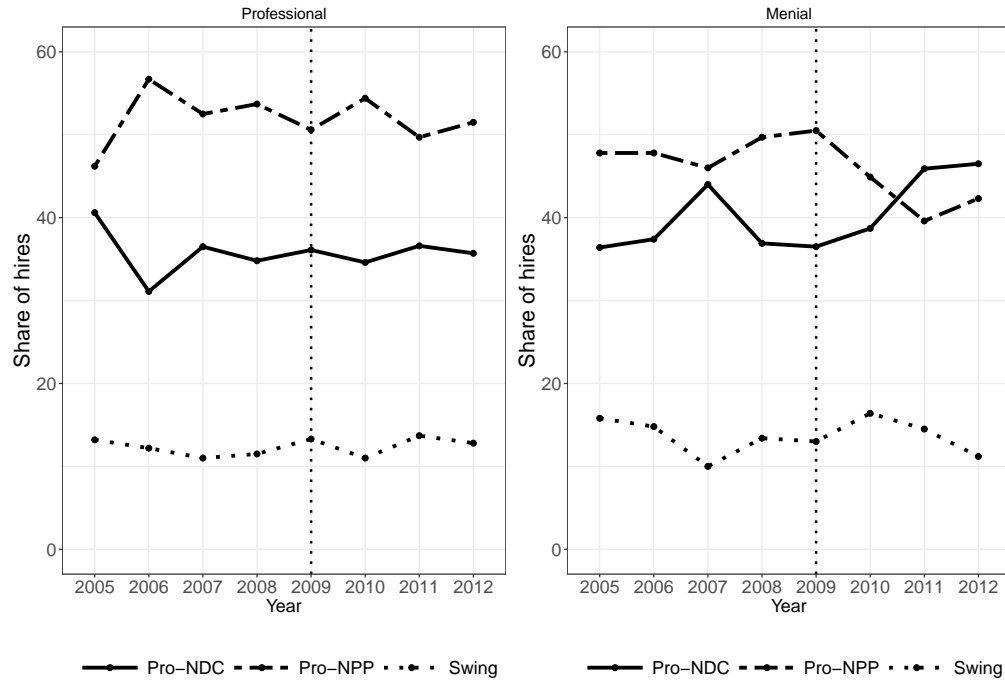
In Figure 3, I categorize bureaucrats into three types: Pro-NDC, Pro-NPP, and Swing. The swing category indicates bureaucrats who do not belong to a politically-aligned ethnic group.<sup>25</sup> Each plot displays the share of hires in each category per year. The left plot displays trends for professional positions, while the right plot displays trends for menial positions. The dotted lines indicates the change of the ruling party in December 2008.

The plot on the left provides evidence that the characteristics of bureaucrats recruited to professional positions is fairly static across the two electoral periods. Under both governments, the largest share of new hires were from ethnic groups aligned with the NPP – the Akan ethnic group. 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.

The right plot in Figure 3 presents the trend for menial positions. In contrast to professional jobs, there is 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 is 10 percentage points over the period; at the start of their term roughly 36.5 percent of menial jobs were given to NDC bureaucrats and this increased to 46.5 percent by the end of the term. The data also suggest that much of this increase is at the direct expense of NPP candidates, who experience a decline in

<sup>25</sup>The unaligned ethnic groups are Fanti, Ga-Dangme and Guan.

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



*Notes:* In Figure 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 ethnic group. 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.

hires.<sup>26</sup> In short, the yearly trends complement the aggregate results in Table 2 and suggest partisan hiring for menial positions.

#### 4.0.1 Regression analyses

A series of regression analyses add further credibility to the results that I present above. Table 3 displays the results. 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

<sup>26</sup>Figure A.2 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 to the NDC hired after the change in governing party.

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 more menial posts to their co-partisans relative to professional posts. In these models, I hold constant gender, age, and highest level of education.<sup>27</sup>

In column 1, the coefficient on the variable that indicates the change in the ruling party is negative. This suggests that the change in 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. The coefficient is also negative. The coefficient on the 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 at below the 1 percent level. I demonstrate the substantive significance of this result in Figure 2 below.

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<sup>27</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. The results remain the same. In Table A.7 the number of observations increases by roughly 8,000 bureaucrats.

Table 3: Logistic regression predicting hiring of partisan bureaucrat 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	-0.131** (0.059)	0.071 (0.055)	-0.152*** (0.056)	0.271*** (0.064)
Menial	-0.128 (0.093)	0.009 (0.083)	-0.187** (0.087)	-0.148 (0.100)
Change in ruling party * menial	0.592*** (0.102)	-0.414*** (0.092)	0.628*** (0.096)	-0.392*** (0.112)
Constant	-1.067*** (0.122)	0.429*** (0.113)	-0.812*** (0.116)	-0.804*** (0.135)
Observations	10,140	10,140	10,140	10,140
Log Likelihood	-6,312.440	-6,975.614	-6,758.734	-5,481.909
Akaike Inf. Crit.	12,642.880	13,969.230	13,535.470	10,981.820

*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 National Democratic Congress (NDC) coming to office. \*p<0.1; \*\*p<0.05; \*\*\*p<0.01.

Column 2 displays the results of the same model specification with Pro-NPP bureaucrats as the dependent variable. The positive coefficient on the variable that indicates that the change in ruling party suggests that the NDC government hired a larger share of Pro-NPP professionals than the NPP did. However, there is a negative and statistically significant coefficient on the interaction term which suggests that NPP bureaucrats were less likely to be hired to menial positions.

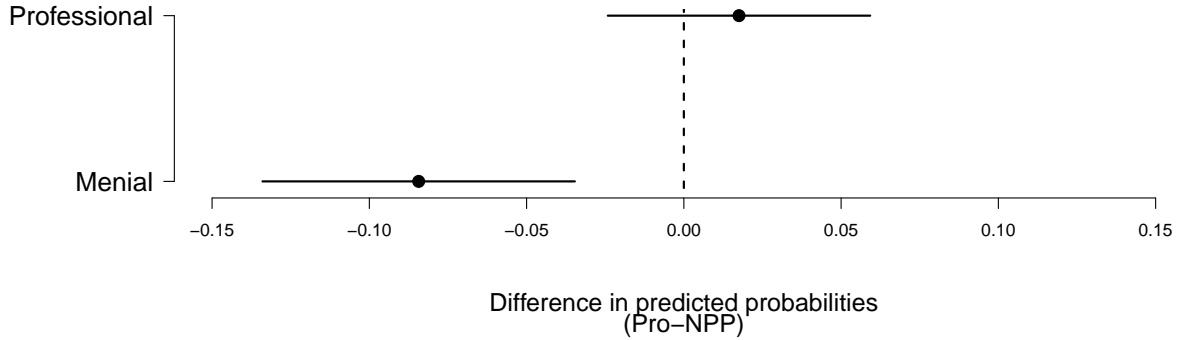
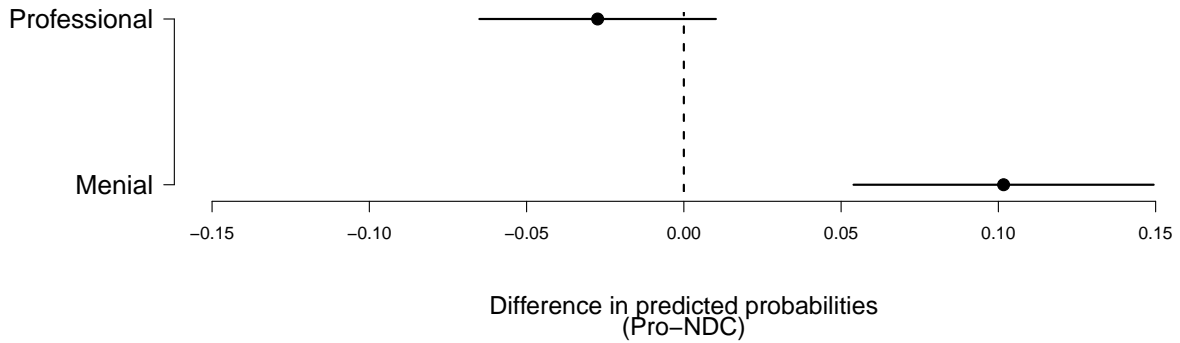
Columns 3 and 4 replicate the results with the partisanship of bureaucrats coded according to their home region. The results are robust to this alternative coding. I continue to find a positive coefficient on the interaction term for NDC bureaucrats, and a negative coefficient on the interaction term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

Figure 2 displays the substantive significant 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 to occupy 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 into 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 party were in power, they were less likely to hire Pro-NPP bureaucrats to menial positions. The change in predicted probabilities is about 8 percentage points. The NDC government appear neither more or less likely to hire Pro-NPP bureaucrats to professional positions.

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 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.

#### 4.1 Characteristics of bureaucrats in menial and professional positions

In this section, I provide evidence that bureaucrats with menial jobs may work as party brokers. I focus on one characteristic of brokers that is essential for them to perform their roles – their embeddedness in the community. Just as there is no partisanship variable in the data, there is also not a variable that indicates the locally embeddedness of each bureaucrat. I use the distance each officer works from their hometown as a proxy for entrenchment. Both menial and professional bureaucrats work inside the same government offices, thus the locations of work places is kept constant across both groups. Working close to ones 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 the 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>28</sup> First, I collect the locations of each of the district capitals because local government offices are located in the capital city of the district. Second, I collect the locations of each hometown. Google Maps does not include every town in Ghana. I obtain complete geographic matches (i.e. both home town and district capital) for about 71 percent of the bureaucrats hired in the period under analysis.<sup>29</sup>

Figure 3 presents the a density plot of distance from hometown (in kilometers) of bureaucrats, disaggregated between menial and professional positions. Both of the distributions are right-skewed, which shows that few bureaucrats work extremely far from their home locations. However, there are also clear differences in these distributions across groups. Bureaucrats holding menial positions work much closer to their home towns their bureaucrats holding professional

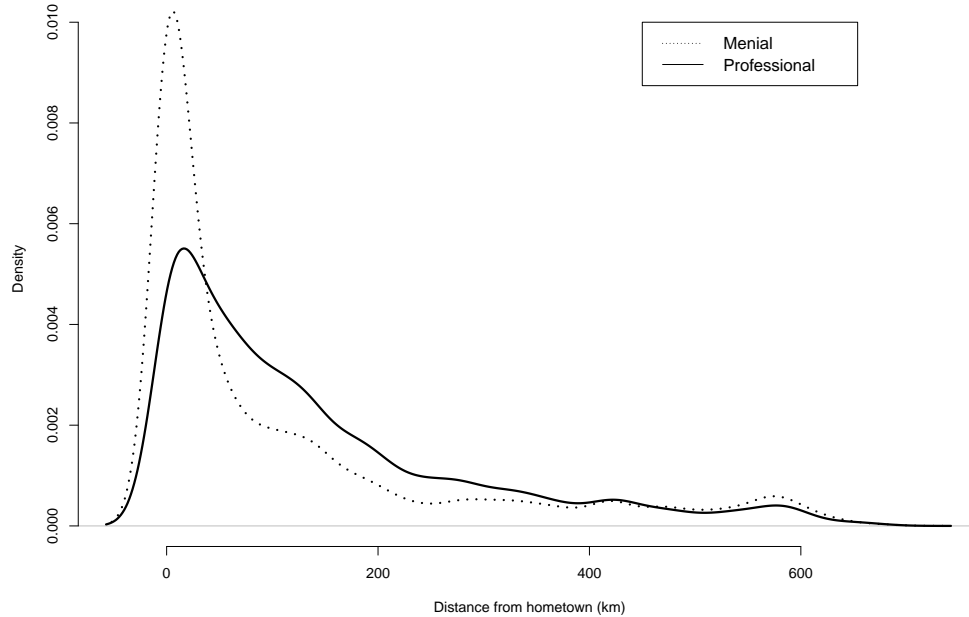
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<sup>28</sup>I use the *ggmap* package in *R* to perform this process. Ordinary users are able to submit 2,500 locations requests per day.

<sup>29</sup>Of the 18,778 bureaucrats in the dataset, I know the distance between hometowns and current work location for 13,283.



Figure 3: Distribution of distances to hometown



*Notes:* Figure 3 displays the distribution of the distances that each bureaucrat in the data works for his or her hometown.

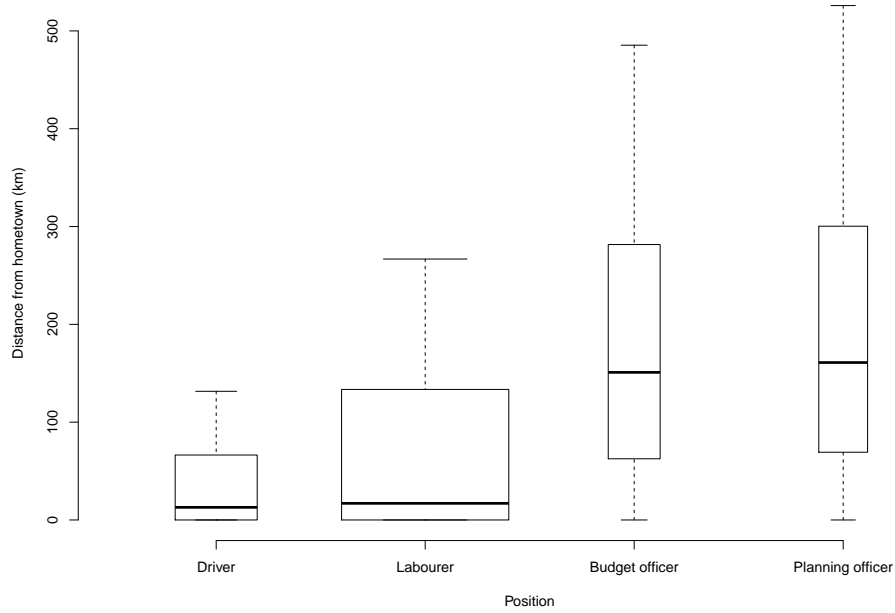
positions. The median distance from hometown is 36 kilometers for menial and 92 kilometers for professional.<sup>30</sup>

Figure 4 focuses on a few select positions to further demonstrate these differences. The results show that Budget Officers and Planning Officers work, on average, much further from their home communities than Laborers and Drivers. The median distance from hometown is 13 kilometers for drivers, and 17 kilometers for Laborers, compared to 151 kilometers for Budget Officers and 161 kilometers for Planning Officers. These figures suggest that bureaucrats working in professional positions are very unlikely to be party brokers. Conversely, the figures provide some evidence that bureaucrats in menial positions have the potential to be party brokers.

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<sup>30</sup>Given the skewed distribution, the median is the most appropriate measure of average trends.

Figure 4: Boxplots of distances from hometown across positions



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

## 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 adoption of a formal public sector. Despite this dominant perception, there is little empirical work that assess levels of meritocracy on the continent. In this article, I first conceptualize meritocracy. With meritocracy seen as a continuous variable appropriate questions are not *whether* jobs are distributed on the basis of merit, but *which jobs* are awarded competitively and which are not. I theorize that politicians in clientelistic democracies will be more willing to give up discretionary control over hiring for professional jobs than they will be for low-ranked positions in the public sector. These menial jobs politicians exchange with party brokers who mobilize on their behalf.

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 the partisanship of bureaucrats based on their ethnicity and their 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 who gets hired to menial jobs than professional jobs. Specifically, there is a 10 percentage point increase in a co-partisan being hired to a menial position after the change in government.

I also test an observable implication of the theory and show that civil servants in menial positions work in local government offices close to their home towns. While these analyses do not demonstrate conclusively that civil servants working in menial positions are brokers, they provide suggestive evidence in support of this claim. Furthermore, they suggest bureaucrats working in professional positions are not brokers, which supports the idea that professional bureaucrats are hired on the basis of non-partisan criteria.

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 for scholars to disaggregate between different types of jobs. By conducting analyses that disaggregate between jobs scholars can 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: 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.



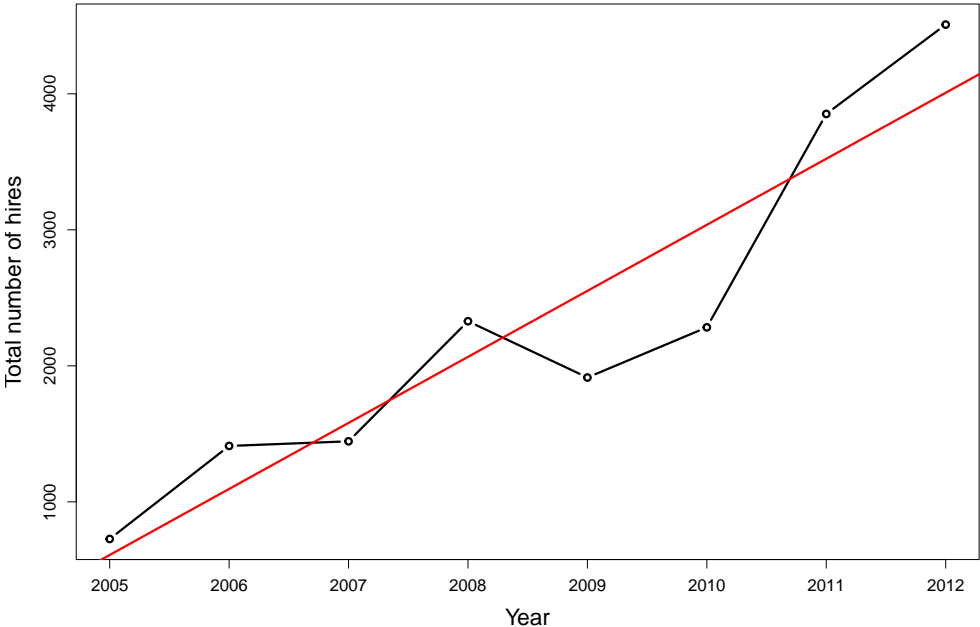
## A.2 Descriptive characteristics of local government bureaucrats hired in the two periods

Table A.2: Characteristics of hires in each period

Hiring Period	First	First	Second	Second
	(2005-2008) Professional	(2005-2008) Menial	(2009-2012) Professional	(2009-2012) Menial
Total hires	3549.00	2614.00	6256.00	6359.00
Bachelors (percent)	32.80	3.21	49.07	8.43
Bachelors total	1164.00	84.00	3070.00	536.00
Masters (percent)	14.88	2.10	13.44	5.11
Male (percent)	64.10	66.34	62.15	67.48
Age when hired	30.23	35.69	30.38	34.73
Christian (percent)	80.78	75.94	82.70	74.45
Muslim (percent)	14.71	18.78	13.83	20.77

**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.3: 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.3 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.4: 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.4 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 Replication of Difference-in-means Test with different coding classifications

Table A.5: Difference-in-means Test (Home region coding)

		Period 1	Period 2	Difference	P-value
NDC bureaucrat	Menial	40.78	48.42	7.64	0.000
	Professional	42.15	40.25	-1.9	0.066
NPP bureaucrat	Menial	17.40	15.69	-1.71	0.049
	Professional	22.54	27.00	4.46	0.000

Table A.5 displays a difference-in-means test where bureaucrats are coded according to their home region. The table displays a 6.66 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 (-1.97 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 also statistical significance.

Table A.6: Difference-in-means Test (Ethnic group coding (with Ga coded as NDC))

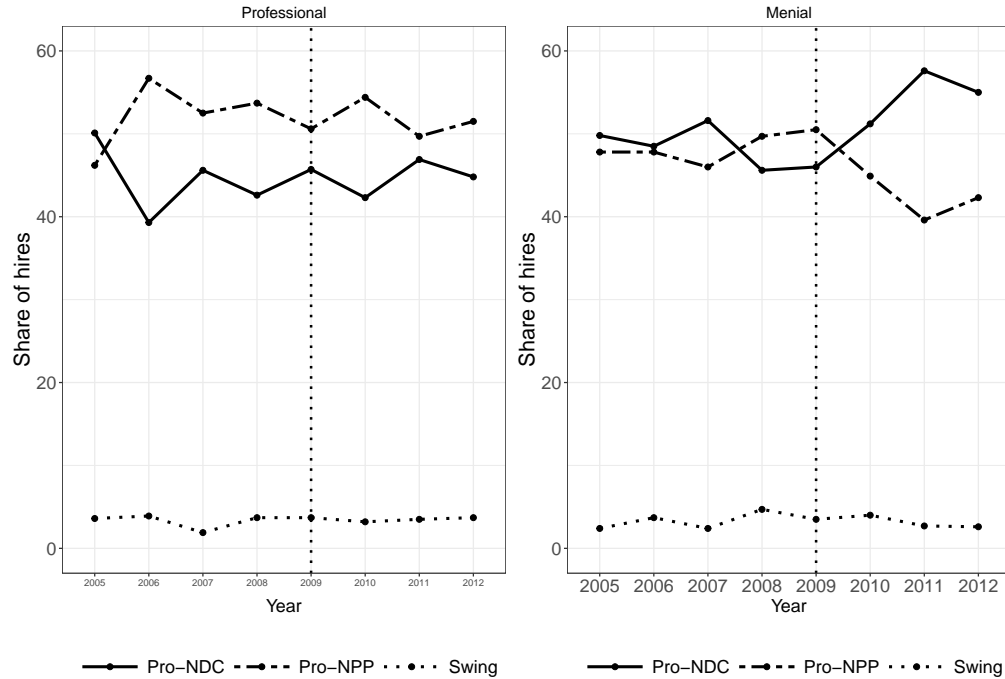
		Period 1	Period 2	Difference	P-value
NDC bureaucrat	Menial	44.30	49.79	5.49	0.000
	Professional	41.28	41.19	-0.09	0.933
NPP bureaucrat	Menial	44.49	39.69	-4.8	0.000
	Professional	48.77	48.00	-0.77	0.462

Table A.6 displays a difference-in-means test where bureaucrats are coded according to their home region. The table displays a 6.66 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 (-1.97 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 also statistical significance.

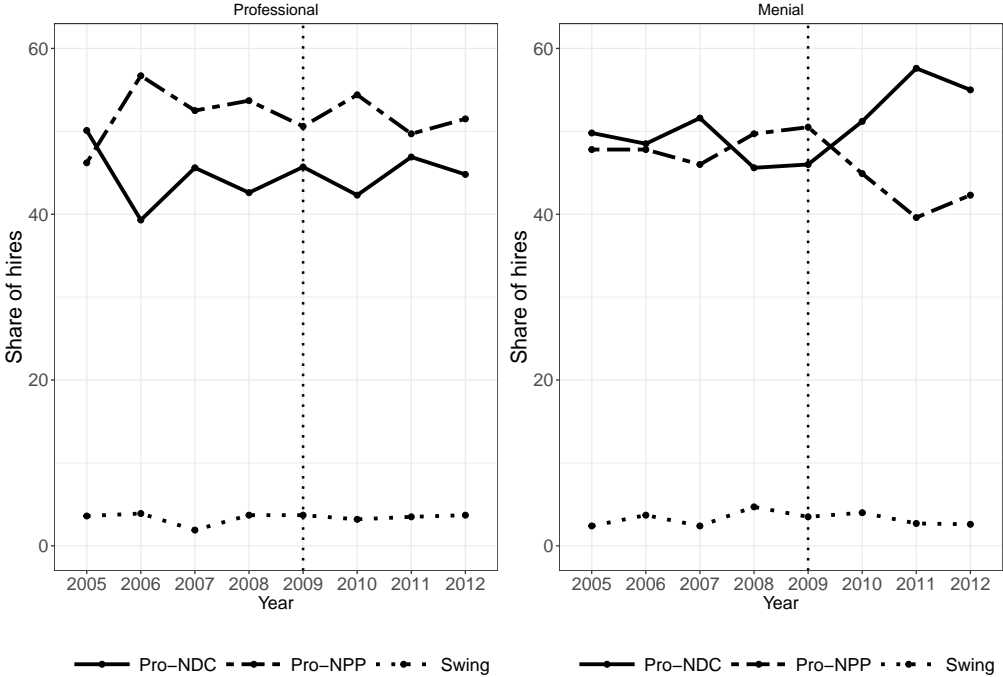
## A.6 Replication of Figure 3 with different coding classifications

Figure A.2: Replication of Figure 3 with bureaucrats coded according to home region



*Notes:* In Figure A.2 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.3: Replication of Figure 3 with bureaucrats coded according to ethnic groups (Ga coded as Pro-NDC)



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.



**A.7 Replications of Table 3 with different bureaucrat codings**

Table A.7: 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	-0.029 (0.045)	-0.036 (0.042)	-0.074* (0.043)	0.245*** (0.049)
Menial	0.077 (0.056)	-0.139*** (0.053)	-0.078 (0.054)	-0.281*** (0.067)
Change in ruling party * menial	0.228*** (0.066)	-0.163** (0.064)	0.376*** (0.064)	-0.365*** (0.080)
Male	0.247*** (0.033)	-0.130*** (0.031)	0.243*** (0.032)	-0.003 (0.038)
Age hired	-0.002 (0.002)	-0.004** (0.002)	0.003 (0.002)	-0.008*** (0.002)
Constant	-0.801*** (0.070)	0.154** (0.068)	-0.568*** (0.068)	-0.983*** (0.084)
Observations	18,551	18,551	18,551	18,551
Log Likelihood	-11,997.480	-12,701.410	-12,613.940	-9,418.002
Akaike Inf. Crit.	24,006.950	25,414.820	25,239.880	18,848.000

*Note:*

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

Table A.8: 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	0.006 (0.043)	–0.113** (0.056)
Menial	0.087 (0.054)	–0.067 (0.087)
Change in ruling party * menial	0.225*** (0.064)	0.536*** (0.096)
Male	0.245*** (0.032)	0.197*** (0.045)
Age hired	0.004** (0.002)	0.004 (0.003)
Education (2)		0.166*** (0.064)
Education (3)		0.478*** (0.064)
Education (4)		0.560*** (0.068)
Constant	–0.637*** (0.068)	–0.994*** (0.117)
Observations	18,551	10,140
Log Likelihood	–12,651.580	–6,755.964
Akaike Inf. Crit.	25,315.160	13,529.930

*Note:*

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