

Social Proximity and Bureaucrat Performance: Evidence from India*

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Abstract

How does social proximity affect bureaucrat performance? Using exogenous variation in social proximity generated by an allocation rule, we find that bureaucrats assigned to their home states are perceived to be more corrupt and less able to withstand illegitimate political pressure. These effects are driven by the more corrupt states and concentrated among officers with higher social proximity within their state. Home state officers are also more likely to remain in their state, are reshuffled more frequently and more likely to serve on the boards of private companies while holding public office. These patterns are consistent with social proximity adversely impacting bureaucrat performance through local capture.

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1 Introduction

Bureaucrats are a key determinant of state capacity (Besley and Persson 2009, Finan et al. 2015): they are responsible for raising revenue, providing public services and implementing reforms. Understanding how to improve the allocation of talent within the public sector can have potentially large impacts on development and growth.

This paper studies the allocation of talent in organizations by asking how social proximity between bureaucrats and their assigned workplace affects performance. In studying the role of social proximity in the allocation of talent, we provide empirical evidence on the central tension between delegation and control. On the one hand, the principal can assign bureaucrats to socially proximate environments to leverage private information. On the other hand, the principal must retain control so bureaucrats do not abuse their informational advantage for private gain (Aghion and Tirole 1997). This trade-off is particularly important in public organizations, as a defining feature of bureaucrats is their expertise (Niskanen 1971, Banks and Weingast 1992, Alesina and Tabellini 2007).

We study one of the most important bureaucracies: the Indian Administrative Service (IAS). This is the elite civil service of India, comprised of around 3,000 centrally recruited senior civil servants who head up the upper echelons of the bureaucracy. These bureaucrats head up all government departments at the state level in India. These officers are therefore important for the implementation of state-level policies and for providing a regulatory environment conducive to economic growth (Asher and Novosad 2015, Bertrand et al. 2017).

Empirically, we exploit variation in social proximity using plausibly exogenous variation in the assignment of officers to their home state. Social proximity, as captured by geographical distance and shared language, captures key aspects of local information (Fisman et al. 2017, Huang et al. 2017). Assigning workers to an area with shared language, culture or values may increase performance by allowing workers to harness private information and social incentives. Social proximity however may also decrease performance as workers abuse local networks to engage in corrupt behavior (Ashraf and Bandiera 2017).

Our empirical strategy leverages knowledge of the home state assignment rule to isolate a source of variation that (i) predicts the allocation to home state and (ii) is uncorrelated with observable individual background characteristics of the officers. In balancing the aim to equalize the quality of administrators across the states of India and to allow officers to serve in their home state at the same time, the IAS uses a rule-based mechanism to deploy newly recruited officers to states. While higher ranked officers are more likely to be assigned to their home state, we exploit the fact that officers are grouped according to their caste \times home state bracket when ranked in the allocation process. This implies that officers who are the only candidate in their bracket in a given year of intake are allocated to their home state with near certainty. Variation in the bracket size, however, depends on whether officers from the same caste and state passed the competitive entry exam in the same year. We argue and provide evidence that officers are, conditional on the selection bracket, as good as randomly assigned to their home state.

The main finding is that home state allocated officers perform worse than comparable officers who are allocated to non-home states. Instrumental variable estimates suggest that officers allocated to their home state are deemed to be more corrupt and less able to withstand illegitimate political pressure. This effect is primarily driven by the more corrupt and less developed home states. The negative home state effect is weaker for higher ability officers, as measured using the entry exam scores. Consistent with the evidence from subjective ratings, we find that home state officers are less likely to work outside their state and subject to more political interference, as measured by shorter job postings and greater transfers. Finally, by matching IAS officers to company registries, we find that home state officers are more likely to serve in both public and private boards. These firms are also more likely to be based in the same state, thus reflecting the officer’s greater access to local networks. Taken together, the results suggest that social proximity may decrease performance by increasing the likelihood of local capture.

These findings are important as the question of how to allocate talent is central in organizations. Focusing on the one-off and life-long deployment of officers to states allows us to isolate bureaucrat-workplace match effects, thus providing novel evidence in a setting that hitherto primarily focused on the incentivizing role of frequent transfers (Iyer and Mani 2012, Jia 2015, Xu 2017). Our findings resonate well with the historical literature which highlights the tension between the need for local knowledge and the challenge of capture and clientelism in settings ranging from the administration of Empire to the allocation of modern day civil servants and ambassadors (Kirk-Greene 2000, Newbury 2003, Greif 2007).¹

2 Background and Data

The Indian Administrative Service (IAS), the successor of the Indian Civil Service (ICS), is the elite administrative civil service of the Government of India.² In 2014 the IAS had an overall strength of around 3,600 centrally recruited officers. These officers are civil service leaders, occupying key positions critical for policy implementation. The most senior civil service positions - the Cabinet Secretary of India, the Chief Secretary of States, heads of all state and federal government departments - are occupied by IAS officers.

The recruitment of officers is based on the performance in the Civil Service Exam, which is annually organized by the Union Public Service Commission (UPSC). Entry into the IAS is extremely competitive, with several hundred thousand applicants competing for a small number of spots. In 2015, for example, 465,882 UPSC exam takers faced only 120 IAS slots. Those who do not qualify for the IAS may obtain positions in less competitive civil service streams such as the Indian Police Service (IPS), the Indian Forest Service (IFS), the Indian Revenue Service (IRS) or the state civil services. The highest performing exam takers are

¹In Imperial China, for example, the “rule of avoidance” prevented district magistrates to serve in their home districts during the Sui Dynasty. The issue of local capture in the US Foreign Service, for example, is referred to as “localitis” and frequent rotation has been mentioned as a means to prevent local entrenchment (Jonsson and Hall 2005). Steiner (2015) describes the historical challenge to “balance the need for linguistics and regional expertise against the dangers of ‘localitis’ and excessive isolation.”

²The description of the study setting and context borrows heavily from Bertrand et al. 2017.

typically offered slots in the IAS. There are quotas for the reserved castes, namely the Other Backward Castes (OBC), Scheduled Castes (SC) and Scheduled Tribes (ST). Once selected, IAS officers are allocated to a state cadre. The assignment to a state is typically fixed for life,³ and officers are attached to their state cadre even when serving in Delhi or abroad. After selection and allocation to a state cadre, IAS officers undergo training at the Lal Bahadur Shastri National Academy of Administration (LBSNAA) and in the states. The two-year training consists of one year academic training at the LBSNAA (“course work”) and one year practical training (“district training”). After training, recruits are initially placed in the district administration (e.g. as district collectors), and are subsequently promoted to higher level positions. Finally, retirement occurs at 60 years of age for both male and female officers (58 years before 1998).

2.1 Data and empirical setting

We leverage several datasets for our study. The main dataset on performance indicators and background characteristics comes from Bertrand et al. (2017).

Subjective performance ratings. Bertrand et al. (2017) introduce a new framework to measure the performance of civil servants based on subjective performance ratings. Performance scores were collected for a cross-section of centrally recruited IAS officers working in the 14 major states of India⁴ with at least 8 years of tenure. These scores were provided by a wide range of stakeholders in each state, ranging from IAS officers, state civil servants, politicians (MLA) to representatives of media, business and NGOs. Each officer was scored on a scale of 1 (low) to 5 (high), covering five dimensions of performance: effectiveness, probity, the ability to withstand illegitimate political pressure, pro-poor orientedness and overall performance. Overall, the survey covered 1,450 bureaucrats who were serving in 2012-13 and with at least 8 years of tenure. This corresponds to a coverage rate of 71%.

Administrative data. We link the survey data on performance with administrative data from the descriptive rolls, the inter-se-seniority lists and the executive sheets. The descriptive rolls contain a rich set of individual background characteristics for 5,635 officers who entered between 1975-2005. Characteristics range from year of birth, their home state, caste, family background, educational degrees and work experience. The inter-se-seniority lists cover 4,107 officers from 1972-2009. This dataset provides information about the allocation of officers to states as well as their scores on the entry exam, training course and overall rank. Finally, the executive record sheets cover the postings of 10,817 IAS officers who entered between 1949-2014. These records contain detailed information about postings and payscales, allowing us to track the progression of IAS officers over time. After linking all sources, the final dataset covers up to 1,888 IAS officers who entered between 1976-2005.

Table 1 reports the mean and standard deviation of the performance scores. The sample sizes range from $N = 15,153$ for the probity measure to $N = 17,753$ for the effectiveness

³The only exception for transfers across states is in the case of marriage to another IAS officer. These cases, however, have to be approved on case-by-case basis and are rare.

⁴These are: Andhra Pradesh, Bihar, Gujarat, Haryana, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal.

measure. The number of complete assessments across all dimensions is $N = 14,037$. We were able to elicit scores for about 70% of all IAS officers in our sample. All dimensions are correlated, with the highest correlation being between pro-poor orientation and the ability to withstand illegitimate political pressure.

Table 2 compares the average individual characteristics of officers who are allocated to their home state vs. those who are not. The sample comprises all IAS officers who entered between 1975-2005. The table compares both the raw average (Column 3) and the average difference within each year of intake (Column 4). In accordance with the merit-based home state allocation, home state allocated officers tend to rank, on average, higher. Within a given intake, officers who receive their home state rank on average 17 positions higher than those who do not. The non-random allocation for home state officers also translates into significant differences on other margins: home state allocated officers are, on average, less likely to be from the Other Backward Castes and more likely from Scheduled Castes. More generally, a joint hypothesis test rejects the null that home state allocated officers are, on average, comparable to non-home state officers.

2.2 Allocation Rule

We describe the rule governing the allocation of IAS officers to state cadres in detail as this will generate the critical source of variation.⁵ We focus on the allocation rule that has been in place between throughout most of the cohorts 1984-2005. The allocation follows a strict rule-based procedure. After entering the IAS following the UPSC exams, centrally recruited IAS officers are allocated to 24 cadres. These cadres typically map directly into the Indian states.⁶ The allocation process can be broadly divided into three steps: In the first step, IAS applicants are asked to declare their preference to remain in their home state (referred to as insider preference). In the second step, the overall number of vacancies and the corresponding quotas for castes and insiders are determined. In the final step, vacancies and officers are matched in the actual allocation process.

Step 1. IAS officers declare their cadre preferences by first stating their preference to remain in their state of residence. For the year where we observe the home state declaration (2006), nearly all IAS officers exercise this option. The declared preferences however do not guarantee the actual allocation as the assignment depends on the availability of vacancies.

Step 2. The total number of vacancies is determined by the state government with the Department of Personnel and Training. Typically, the overall number of vacancies in a given year depend on the shortfall from the total number of IAS officers designated to a state (the cadre strength). This cadre strength is defined by the "cadre strength fixation rules", whereby larger states are assigned more IAS officers. These rules are seldom revised

⁵The exact documentation can be found in the IAS guidelines. Refer to the original official notifications: 13013/2/2010-AIS-I, 29062/1/2011-AIS-I and 13011/22/2005-AIS-I published in the Department of Personnel and Training, Ministry of Personnel, Public Grievances and Pensions, Government of India. Note that we describe the dominant allocation rule in our study period 1976-2005. The rule was reformed in 2008.

⁶Smaller states, however, are grouped into three joint cadres, which are Assam-Meghalaya, Manipur-Tripura and AGMUT (Arunachal Pradesh, Goa, Mizoram and Union Territories (Delhi)). We did not survey states with pooled cadres due to logistical constraints.

so the designated state cadre strength is fixed over longer periods. The vacancies are then broken down by quotas on two dimensions: caste and home preference. There are three categories for castes: General (unreserved) caste, Scheduled Caste/Tribes (SC/ST) and Other Backward Castes (OBC). The designation of vacancies to these caste categories are made based on predefined national quotas. The actual assignment of each vacancy to a caste is randomized using a rotating roster. In terms of preferences, vacancies are broken down into "insider" and "outsider" vacancies. Insider vacancies are to be filled by IAS officers from the same state who declared their home state preference at time of application. The ratio of insider to outsider vacancies is 1:2, with the assignment of vacancies to "insider" or "outsider" category following the repeating sequence O-I-O. The determination of vacancies is illustrated in Appendix Figure A1. The result of this procedure is a list denoting the number of vacancies for each state and the corresponding quotas by caste status (SC/ST/OBC) and home state (insider/outsider) as shown in Appendix Figure A2.

Step 3. The final allocation process is based on merit as determined by the ranking in the UPSC entry exam, the vacancies available and the preference stated. Before the officers are allocated, the candidates are ranked and assigned a serial number in the order of merit, as determined by the UPSC exam. Appendix Figure A3 shows this ranking along with the officers' caste and home preference. The highest scoring candidate for the 2006 intake, for example, was Mutyalaraju Revu who belongs to the OBC category and indicated his preference to be assigned to his home state Andhra Pradesh.

Home state assignment. The insider vacancies are allocated as far as exact matches along caste and home state preference (the allocation "bracket") permit. If the number of matches exceed the vacancies, the higher ranking IAS officer is given preference. Given the exact match along caste and home state required for slotting, however, many insider vacancies typically remain unfilled. In this case, the caste requirement is successively relaxed, eventually opening to outsiders.⁷

Non-home state assignment. The allocation of the "outsiders" and those who failed to be allocated to their preferred home state (and are consequently converted to outsiders) is done according to a rotating roster system. In a nutshell, the rotating roster is designed to ensure that each state receives, on average, candidates of similar quality across years.⁸

The critical feature for our empirical strategy is that home state officers are grouped and ranked within caste \times home state brackets in each year of intake. The size of the bracket will vary across years depending on how many candidates from the same home state and caste pass the entry exam. This is the identifying source of variation we exploit. While the allocation rule for outsiders saw minor adjustments over time, this feature of the home state allocation has remained constant throughout the cohorts we study.⁹

⁷The exact details are not directly relevant for our identification strategy and are therefore omitted for brevity. For completeness, refer to Appendix C.1.

⁸Again, the exact details are not directly relevant for our identification strategy and we therefore refer to Appendix C.2.

⁹Between 1978-1984, officers were allowed to also declare preferred "zones" (i.e. groups of states) for the outsider allocation (the "Limited Zonal Preference System"). After 2008 (and thus beyond our study

3 Determinants of home state allocation

3.1 Empirical strategy

The key empirical challenge to estimating the causal effect of home state allocations is that the assignment of IAS candidates to home cadres is, unlike the overall assignment rule, non-random. Indeed, under the allocation rule outlined above, higher ranked IAS officers are given priority in their declared preference to be allocated to their home state. As higher ranked officers are prioritized for their home state allocation (Bhavnani and Lee 2017), a simple comparison between home state vs. non home state officers is likely to yield upwardly biased estimates of the effect of home allocation on bureaucratic performance. We therefore require an instrument that predicts the likelihood of an officer receiving a home state allocation, but that is otherwise not correlated with the outcomes of interest.

Our empirical strategy exploits knowledge of the rule-based home state allocation: we argue that home state allocation is, *conditional on the allocation rule*, as good as randomly assigned. Specifically, we predict home state allocation using the fact that the ranking of IAS officers for home state allocation occurs within pre-defined brackets. Instead of giving officers priority in their home state preference in descending order of their *overall* rank, officers are ranked *within "brackets"* based on their year of intake, home state and caste (e.g. 2015-Gujarat-OBC). Depending on corresponding vacancies, officers are then slotted within descending order of rank within their bracket.

One important implication of this rule is that there will be variation in the number of officers who are competing for home state allocations in the same bracket over time. To illustrate this, Figure 1 plots the share of home state allocations and the number of candidates for the Uttar Pradesh-Scheduled Caste bracket for different years of intake. As the figure shows, of course, home state allocations never occur in years when there is no scheduled caste candidate from Uttar Pradesh. More importantly, it is apparent from the figure that whether or not an IAS officer gets assigned to his or her home state is (mechanically) negatively correlated to the total number of officers in the same bracket.¹⁰

More generally, Figure 2 plots the probability of a home state allocation for a given officer as a function of the number of candidates in the same bracket relative to being a single candidate. Compared to a single candidate, having another candidate in the same bracket decreases the probability of a home state allocation by 15% points. The probability is 54% points lower when facing more than 8 other candidates. Most of the variation in the number of candidates, however, occurs between a single and two candidates. 42% of the allocation brackets comprise only a single candidate, and 21% contain two candidates. Only 9.6% of the brackets contain more than 8 candidates.¹¹

In light of this, we propose to predict home state allocation using a dummy that equals 1 if the officer is the only candidate in his or her year of intake-home state and caste bracket,

period), officers were allowed to declare their preferences beyond a home state allocation by ranking the states in their preferred order (the "Merit-cum-preference system").

¹⁰ Appendix Figures A5 to A8 summarize the variation across time for all states and caste bins.

¹¹ These brackets are located in large states such as Uttar Pradesh. See Appendix Table B1 for a summary of the bracket sizes by states.

0 otherwise. This captures not only the most relevant margin of variation but is also the cleanest case: provided a vacancy is available, a single candidate IAS officer who indicated a home preference will surely be allocated to the home state. The main results, however, also hold up using the total number of candidates as an instrument.

It is important to stress that whether or not a given officer is the single candidate in their bracket is exogenous: it depends solely on whether someone else from the same caste and the same home state in the very same year qualified for the IAS, which itself depends solely on the results of the Civil Service Exam. To formally test this, Table 3 compares individual characteristics of IAS officers who are single candidates vs. those who face multiple candidates for the intake years 1975-2005. While there remain average differences in the raw comparison, these differences vanish once we compare within the year of intake and within the same home state-caste bracket (Column 4). Once we control for the exact allocation rule, officers who are single candidate vs. multiple candidates are by and large on average comparable on observables. The only statistically significant difference is on gender, which is likely to be based on spousal transfers. Our results, however, also hold when confining the sample to only male IAS officers (which comprise 86% of the officers in our sample). We cannot reject the joint equality of means along the rich set of individual characteristics.

More formally, we predict the home allocation for individual i as follows:

$$home_i = \beta \times only_{K(i)T(i)} + \delta'x_i + \nu_{K(i)} + \delta_{T(i)} + \varepsilon_i \quad (1)$$

where $home_i = 1$ if the officer i is allocated to the home state. The dummy $only_{K(i)T(i)} = 1$ if the officer was the only candidate in the caste-home state cell $k = K(i)$ in the intake year $t = T(i)$. $\nu_{K(i)}$ are fixed effects for the allocation "bracket" (caste (GEN, OBC, SC, ST) \times home state) and $\delta_{T(i)}$ are intake year fixed effects. x_i are additional controls for individual characteristics: they include UPSC rank FEs, gender, as well as educational and career backgrounds. ε_i , the error term, is clustered at the home state-caste-intake level. This is the level at which the instrument varies.

Table 4 reports the estimates for equation (1). Controlling for intake year fixed effects and caste-home state fixed effects, officers who are the single candidate in their home state-caste bracket are 22.8% points more likely to be allocated to the home state (Column 1). The coefficient remains stable when holding constant the overall rank of the candidate (Column 2) and controlling for a rich set of individual characteristics (Column 3). The first stage is strong: compared to the mean of the dependent variable (27.6%), being an only candidate increases the probability of a home state allocation by 90%. Finally, Column 4 conducts a placebo exercise by using variation in the officer's corresponding home state-caste bracket size in the two previous and future intake years. This exercise is also summarized in Figure 3, which plots the estimated coefficients for the impact of being an only candidate for two periods around an officer's year of intake. As the figure shows, it is only the contemporaneous bracket size that determines the propensity of a home state allocation. The estimates for the leads and lags are close to zero and statistically insignificant. Given

the exogenous nature of the variation in being a single candidate, the inclusion of a rich set of individual-level controls leaves the point estimates nearly unchanged. Overall, the results in Tables 3, 4, and Figure 3 lend support to the validity of the instrument, providing evidence for both a first-stage and balance across a rich set of observable individual characteristics.

Having established the first-stage, Table 5 shows that home state assignments indeed go with higher social proximity. As expected, home state allocated officers are more likely to serve closer to their home districts, as measured by the distance (in miles) between the allocated state’s administrative capital and the officer’s home district. The instrumental variable estimate, for example, suggests that the home districts of officers allocated to their home state lie, on average, 495 miles closer to the state’s administrative capital (Column 1, Panel B). This is an important metric as officers serve a majority of their assignments in the state capital, and as physical proximity is also highly correlated with social proximity (Huang et al. 2017). Indeed, as shown in Column 2, officers allocated to their home states are also more likely to speak the allocated state’s first language as their native language. Boasting 23 official languages, there exists substantial variation in the first languages spoken across India and linguistic proximity is therefore an important measure of social proximity. The large magnitude of the increase once again confirms the role of home allocations in increasing social proximity.

4 Home state allocation and performance

We estimate the effect of home state allocation by comparing officers who enter the IAS as the single candidate in their home state \times caste bracket to officers who enter with multiple peers from the same state and caste. Specifically, we estimate for officer i rated by respondent j ,

$$y_{ij} = \beta \times \widehat{home}_i(only_{K(i)T(i)}) + \delta'x_i + \theta_j + \nu_{K(i)} + \delta_{T(i)} + \varepsilon_{ij} \quad (2)$$

where y_{ij} is the performance score of the officer by survey respondent j in 2012-13. We instrument home state allocation using a dummy that is 1 if the IAS officer is the only candidate in the home state-caste bracket in that intake year, 0 otherwise. As before, x_i is a rich set of individual-level controls. θ_j is a respondent fixed effect, $\nu_{K(i)}$ is the fixed effect for the allocation "bracket" (caste \times home state), $\delta_{T(i)}$ are intake year fixed effects and ε_{ij} is the error term which we cluster at the intake year-home state-caste level (the level at which the instrument varies) and the individual-level i (as a single officer is rated by several respondents).

The key parameter of interest is β , which captures the performance difference between a home state vs. non-home state officer. Equation (2) makes precise where the identifying variation is coming from. Intuitively, we compare the perceived performance of officers who are single candidates in their allocation bracket to those who are not, conditional on the selection rule, as implemented using the $\nu_{K(i)}$ fixed effects. Holding the caste \times home state bracket constant, the identifying assumption is that variation in being a single candidate

(or not) in the allocation bracket at entry into IAS across different years of intake does not directly affect performance other than through the home state allocation rule.

Table 6 presents the performance results. Panel A reports the OLS estimates while Panel B reports the IV estimates. All columns use the same specification, except that we vary the dependent variable to span the five dimensions of bureaucrat performance collected in our 360 survey. While OLS estimates suggest that home state allocated officers perform, if anything, better than non-home state officers, the IV estimates yield consistently negative effects. This pattern can be rationalized in light of our discussion of the home state allocation rule and the evidence in Table 2, which led us to expect that the OLS estimates would be upward-biased. In terms of point estimates, home state allocated officers are perceived to perform worse on all margins. Most importantly, home state allocated officers are perceived to be statistically significantly more corrupt and less likely to withstand illegitimate political pressure. The magnitudes are large. For the inability to withstand illegitimate political pressure, the effect represents a 11% decline when evaluated against the mean of the dependent variable. Finally, Figure 4 provides visual evidence for this effect. Mirroring the visual evidence in Figure 3, we find that leads and lags in being the only candidate does not affect the perceived ability to withstand illegitimate political pressure. The contemporaneous impact of being an only candidate, coinciding with the higher propensity of home state allocation in Figure 3, however, is negative. As before, given the plausibly exogenous variation in entering as the only candidate in a selection bracket, the inclusion of a rich set of individual-level controls does not substantially affect the point estimates. The combined results thus provide suggestive evidence that social proximity, as measured by home allocation, negatively impact bureaucratic performance.

These results are robust to changes in specification and subsamples. The main results, for example, are robust when using the total number of candidates in a selection bracket to instrument for the likelihood of a home state allocation (Appendix Table B2). The results are also robust when dropping the pre-1984 intakes, where the allocation rule for “outsiders” differed slightly from the 1984-2008 rule. In addition, a potential concern with subjective measures is that these may not reflect objective performance. To the extent that respondents perceive home state officers to be more corrupt (even absent objective evidence), the results may merely reflect bias and not actual performance differences. We assessed the possibility of bias by conducting the following robustness check: if the results reflect biased perceptions, we may expect the negative effects to be primarily driven by those who did not directly interact with the officer. The results in Appendix Table B3, however, suggest that the negative gap is driven by those who have directly interacted with the given IAS officer. When breaking down the result by stakeholder, we find that the negative gap is driven by reports from colleagues of home state officers. That said, we find notable differences across stakeholder groups: while IAS officers and their colleagues in the state civil service perceive home state officers to be unable to withstand illegitimate political pressure, politicians (MLA) themselves disagree, reporting a higher score on the ability to withstand pressure (Appendix Table B4). We find no evidence that the perceptions of home

state officers are less noisy, as measured by the standard deviation of the 360 scores provided for a given officer across different respondents.¹² (Appendix Table B5).

4.1 State-level and individual-level heterogeneity

Our results so far suggest that officers allocated to their home state are deemed to be more corrupt and less able to withstand illegitimate political pressure than officers who are allocated to other states. As we discussed earlier, there are competing views about the possible effects of social proximity on bureaucratic performance. Greater social proximity means that bureaucrats have more information about the local context, and find it easier to communicate with the citizens they are serving. Better information and lower communication costs may improve bureaucratic performance. Moreover, local bureaucrats may simply care more about helping the communities they are representing due to the personal ties they have to these communities. On the other hand, local officers may be more susceptible to capture by the political elite; also, their deeper personal networks in the community they serve may provide more opportunities for bribe taking as well as a more efficient technology for bribe extraction. We therefore explore several sources of heterogeneity to shed light on the mechanisms underlying the effects.

If a home state allocation increases bureaucratic corruption and reduces the ability of bureaucrats to withstand illegitimate political pressure, we may expect these effect to be larger in states with weaker institutions, e.g. states where bureaucrats and politicians may have more discretion to bend the rules for their private benefits. To test this, Figure 5 breaks down the effect for the ability to withstand illegitimate political pressure by state to study the heterogeneity across India. We focus on reduced forms as the corresponding first-stages are weaker due to the finer bins arising from having to estimate state-specific home state effects. We observe substantial heterogeneity across states: the negative home state effect is largest in Karnataka, Bihar, and Gujarat. Karnataka and Bihar are consistently ranked among the most corrupt regions of India. In contrast, this negative effect is close to zero or even reverted in Punjab, West Bengal and Andhra Pradesh. To understand whether the observed state-level heterogeneity is systematically related to measures of corruption and development, Table 7 allows the impact to vary by the average state-level corruption, as measured by the Transparency International Index used in Fisman et al. (2014), and the Human Development Index in 2007. Table 7 confirms the visual evidence. The negative effect on the ability to withstand illegitimate political pressure is driven by the corrupt (Column 1) and less developed states (Column 2). Interestingly, the role of corruption in magnifying the negative impact of home state allocations also persists once holding constant differences in development (Column 3).

To try to further unpack these different forces, we harness the rich individual characteristics to also explore heterogeneity on the individual-level. The results are reported in Table 8. We find no evidence that the home state effect significantly varies by the IAS

¹²The sample size declines as we require the same respondent to be rated by two different respondents in order to compute the standard deviation.

officer’s family background, as measured by the father’s occupation. If anything, the point estimates suggest that the negative effects are somewhat larger for those with fathers in low skilled occupations or working in the private sector, while the negative effect is attenuated for those with fathers working in the public sector. The impact also does not significantly vary by urban/rural background. The only dimension along which we observe significant heterogeneity is the entry exam score. We find that the negative effect is weaker or fully mitigated for individuals with higher exam scores.

5 Mechanisms and direct measures

5.1 Home state allocation and postings

We now turn our attention to direct evidence for the observed mechanism. To do so, we leverage the executive sheets to extend the cross-section into an individual-year panel. This allows us to trace out the difference between home vs. non-home officers over the course of their careers. For a given IAS officer i in year t , we estimate:

$$y_{it} = \sum_{j=2}^7 \beta_j 1[\text{expit} = j] \times \text{only}_{K(i)T(i)} + \tau_t + \theta_i + \varepsilon_{in} \quad (3)$$

where y_{it} is the outcome for individual i in year t . Importantly, the panel setting allows us to include individual (θ_i) and year (τ_t) fixed effects. Since the individual FEs absorb the home state dummy, we focus on tracing out the relative difference over time. This is done by estimating the gap for different tenure bins j . We divide the overall tenure period into seven bins that mirror the time-based payscale progression: 1-3 years (Payscale 1), 4-8 years (Payscale 2), 9-12 years (Payscale 3), 13-15 years (Payscale 4), 16-24 years (Payscale 5), 25-29 years (Payscale 6), and more than 30 years (Payscale 7). As before, we focus on reduced forms as the corresponding first-stages are weaker due to the finer bins arising from having to estimate tenure-specific home state effects.

Consistent with the view that home state allocations are more desirable, we find that home state officers are more likely to remain in their allocated states (Table 9, Column 1-2). Home state officers are less likely to be on deputation in other states (Column 1) and less likely to go to Delhi (Column 2). Home state officers are less likely to be delayed for promotions (Column 3), but do not occupy more important portfolios (Column 4).

As Table 6 reported, the negative performance effects for home state officers are primarily driven by higher perceived corruption and lower ability to withstand illegitimate political pressure. While it is difficult to directly measure either dimension, we probe deeper to study the career dynamics of home state officers. We focus on transfers as a key measure of political interference. In the absence of discretion in wage setting and firing, frequent rotation is a common tool for politicians to control bureaucrats (Iyer and Mani 2012). Indeed, as Table 9, Column 5 shows, home state officers are more likely to be transferred. The gap increases over time, as seen also in Figure 6. Finally, we find no marked difference on suspensions - if anything, home state officers are less likely to be suspended in the early part of their career, and more likely to be suspended later on (Column 6).

5.2 Home state allocation and board memberships

If bureaucrats allocated to their home state are more corrupt and likely to be subject to local capture, we expect home state officers to be more embedded in the state. While measuring illicit transactions is difficult in this setting, we focus on (private) board membership as a measure of non-work related activities. While many senior IAS officers occupy key positions in state owned enterprises and public undertakings, serving in boards of private businesses is more likely to reflect private returns to holding office. Board membership is also a suitable measure of networks (Kramarz and Thesmar 2013).

Using public data on board memberships obtained data from the Ministry of Corporate Affairs’s Registrar of Companies, we match IAS officers to boards of all registered companies based on their full name and birth date. Our sample covers all IAS officers who entered between 1975-2005. As of February 2018, 17% of the IAS officers in our sample are serving as directors on the board of companies. Nearly all of these companies are unlisted (99%) and companies limited by shares (98%). 65% of the companies are public or state-owned firms, with the remainder covering private sector firms.

The availability of addresses for all registered firms allows us to examine the location of the firms. We collapse the board memberships for each individual on the state-level. This allows us to compare whether the observed increase in board membership for home state officers is driven by board memberships in firms operating in the same state. We estimate the number of board memberships individual i holds for firms located in state s as:

$$y_{is} = \beta \times is_home_{is} + \gamma \times is_home_{is} \times alloc_home_{is} + \delta_i + \theta_s + \varepsilon_{is} \quad (4)$$

where $is_home_i = 1$ if state s is the home state of the IAS officer i and where $alloc_home_i = 1$ if the officer was actually allocated to serve as an IAS officer in his or her home state. As before, home allocation is instrumented using *only_candidate_i*, a dummy that is 1 if the IAS officer entered as a single candidate in his or her allocation bracket and 0 if the officer entered with multiple candidates in the same bracket. The coefficients δ_i and θ_s are IAS officer and state FEs. The standard errors are clustered at the individual level i and the allocated state \times home state level.

Specification (4) allows us to assess whether the same IAS officer is more likely to serve as a director in boards of firms from their home state, and how that propensity varies by whether the officer is actually allocated to serve in the home state. The results are presented in Table 10. IAS officers are 15.2% points more likely to sit in boards of firms from their home state (Column 1). Compared to the mean of the dependent variable, the magnitude is economically large. In Column 2, we ask whether the higher propensity to serve in boards of companies registered in an officer’s home state depends on whether the officer is actually allocated to serve in the state. Interestingly, the positive effect is driven by being actually allocated to (and hence physically present in) their home state (Column 2). The extent to which the effect is driven by the actual home state allocation varies by whether the firm is public or private: while membership in boards of home state firms is solely driven by the actual allocation to the home state for public firms (Column 3), IAS officers are also more

likely to sit in boards of private firms from their home state, even if they are not allocated to work in their home state. This difference is likely to reflect the fact that overseeing public companies is indeed a duty of many senior IAS officers, while private board memberships may also reflect private activities outside of their duties. Finally, Column 5 also compares the size of the firms by counting the number of firms that are above the median in terms of authorized capital. Consistent with previous results, home state officers not only serve in more boards, but also in larger firms (Column 5).

6 Conclusion

It is an open question whether allocating bureaucrats to serve in the places they originate from would enhance or depress their performance. Ties to home may enhance their commitment to and knowledge of home populations. *Ceteris paribus*, home allocations might therefore lead officers to put in greater effort and to be more effective in the execution of their duties. And importantly this gain in performance could be achieved without paying the officer more. This is in line with a recent literature in service delivery that argues that public servants recruited in their place of origin are likely to be more committed and have greater knowledge of the local area than outsiders.

Cutting against this is the argument that ties to home might be exploited for private gain. This might either be because the opportunities for corruption are greater for home officers which are more trusted and better connected or because (for similar reasons) they are more likely to be captured by politicians and other members of the local elite. Here the *ceteris paribus* argument cuts the other way – home to home allocations might lead officers to put more effort into enriching themselves or others rather than in serving the local citizenry. In this case gains in performance can be obtained by allocating public servants away from the areas they originated from without changing the pay of officers.

References

Aghion, P. and J. Tirole (1997): “Formal and Real Authority in Organizations,” *Journal of Political Economy*, 105, 1-29

Alesina, A. and G. Tabellini (2007): “Bureaucrats or Politicians? Part I: A Single Policy Task,” *American Economic Review*, 97, 169-179.

Asher, S. and P. Novosad (2017): “Politics and Local Economic Growth: Evidence from India,” *American Economic Journal: Applied Economics*, 9, 229-273.

Ashraf, N. and O. Bandiera (2017): “Social Incentives in Organizations,” In preparation for the *Annual Review of Economics*

Banks, J. S. and B. R. Weingast (1992): “The Political Control of Bureaucracies under

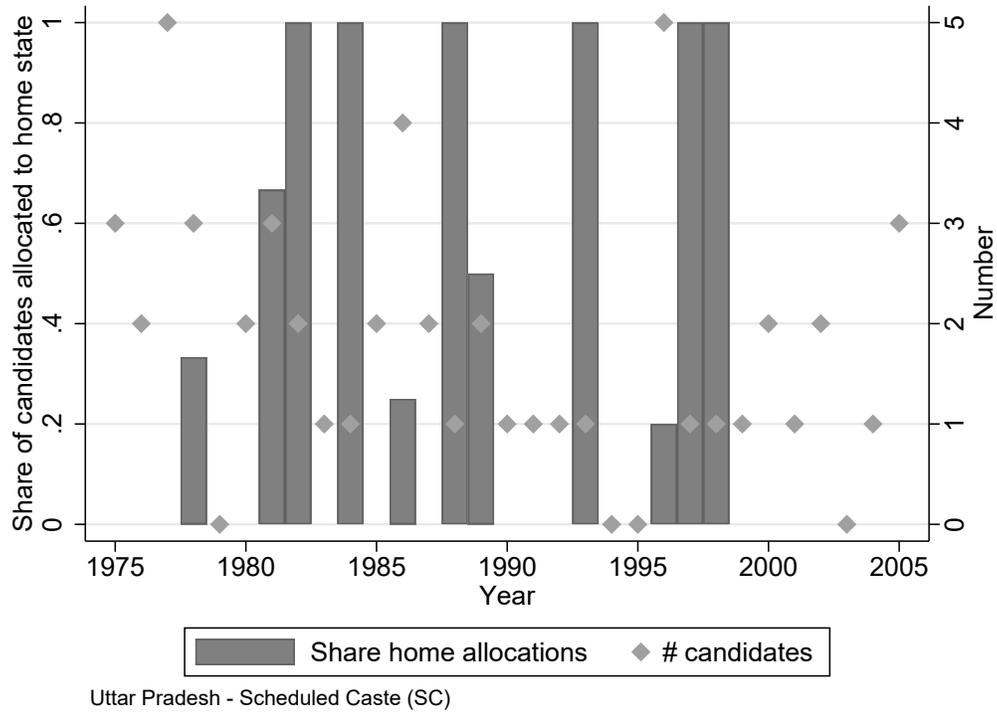
- Asymmetric Information,” *American Journal of Political Science*, 36, 509-524.
- Bertrand, M., R. Burgess, A. Chawla, and G. Xu (2017): “The Glittering Prizes: Career Incentives and Bureaucrat Performance,” mimeo.
- Bhavnani, R. and Lee, A. (2017): “Local Embeddedness and Bureaucratic Performance: Evidence from India”, *Journal of Politics*
- Besley, T. and T. Persson (2009): “On Origins of State Capacity: Property Rights, Taxation, and Politics”, *American Economic Review*, 99, 1218-44.
- Finan, F., and B. A. Olken, and R. Pande (2015): “The Personnel Economics of the State,” NBER Working Paper 21825.
- Fisman, R. and Schulz, F. and Vig, V. (2014): “The Private Returns to Public Office”, *Journal of Political Economy*, 122 (4), 806-862.
- Fisman, R. and D. Paravisini, and V. Vig (2017): “Cultural Proximity and Loan Outcomes,” *American Economic Review*, 107, 457-92.
- Greif, A. (2007): “The Impact of Administrative Power on Political and Economic Development: Toward Political Economy of Implementation”, mimeo
- Huang, Z. L. Li, G. Ma, and L. C. Xu (2017): “Hayek, Local Information, and Commanding Heights: Decentralizing State-Owned Enterprises in China,” *American Economic Review*, 107, 2455-78.
- Iyer, L. and A. Mani (2012): “Travelling Agents: Political Change and Bureaucratic Turnover in India,” *The Review of Economics and Statistics*, 94, 723-739.
- Jia, R. M. Kudamatsu, and D. Seim (2015): “Political Selection in China: The Complementary Roles of Connections and Performance,” *Journal of the European Economic Association*, 13, 631-668.
- Kirk-Greene, A. (2000): “Britain’s Imperial Administrators, 1858-1966”, Palgrave Macmillan.
- Newbury, C. (2003): “Patrons, Clients, and Empire: Chieftaincy and Over-rule in Asia, Africa, and the Pacific”, Oxford University Press.
- Niskanen, W. (1971): “Bureaucracy and Representative Government”, Aldine Publishing

Company.

Xu, G. (2017): “The Costs of Patronage: Evidence from the British Empire”, mimeo

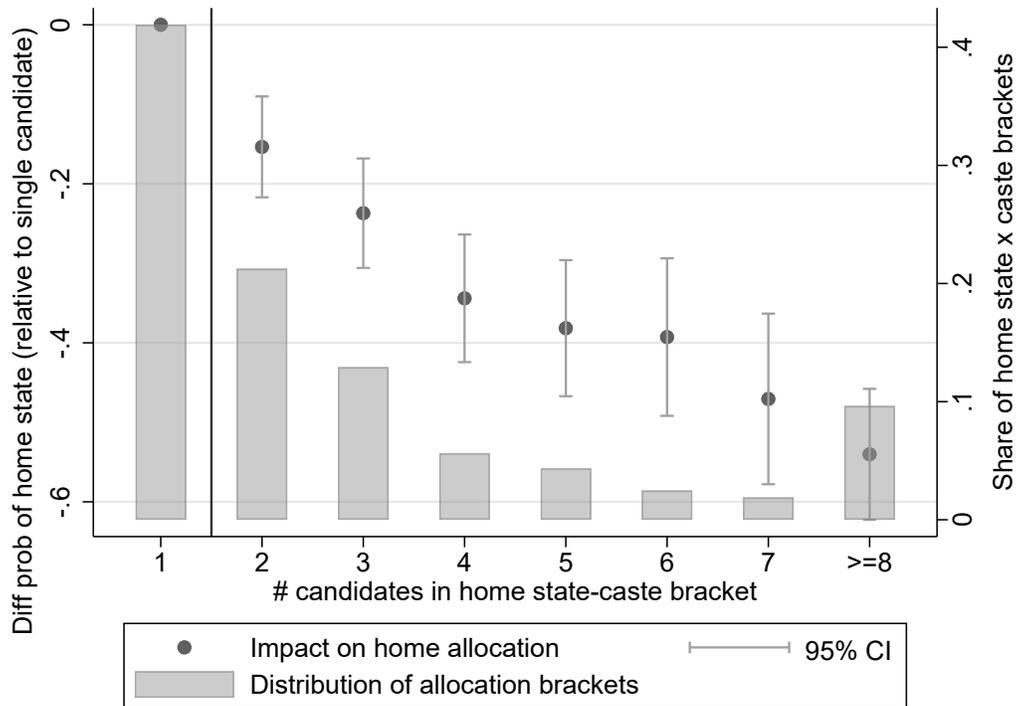
Figures

Figure 1: Home state allocation and allocation bracket size



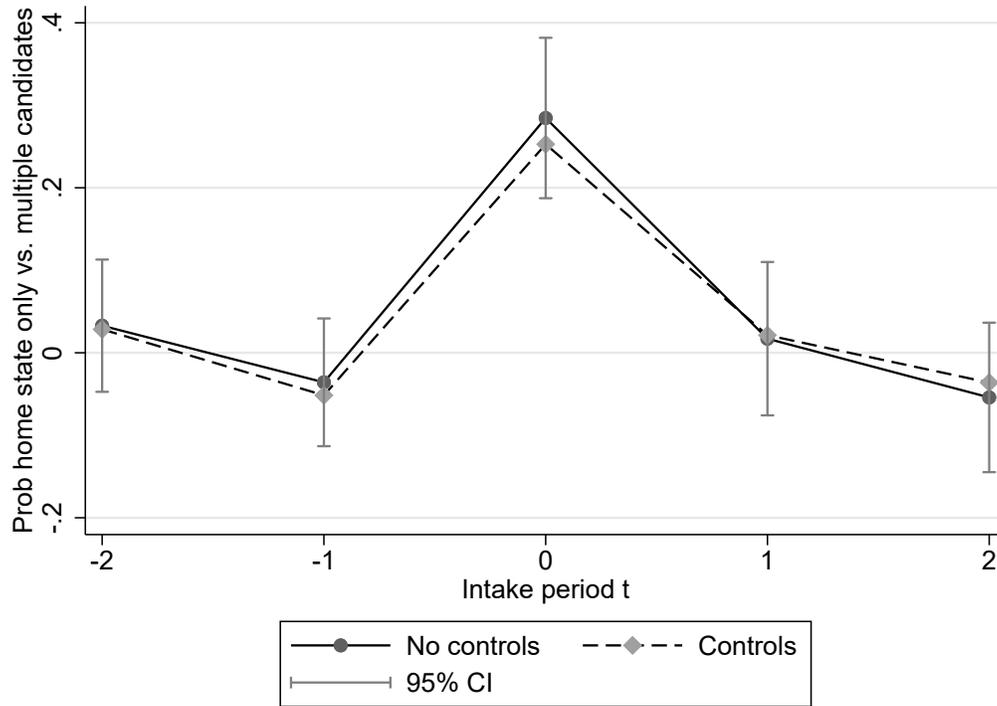
Notes: Bar chart shows the share of home state allocations among Scheduled Castes in Uttar Pradesh 1975-2015. Scatter plot denotes the number of potential candidates in the home state allocation bracket Uttar Pradesh-Scheduled Castes (SC) in a given year.

Figure 2: Predicting home state allocation using allocation bracket size



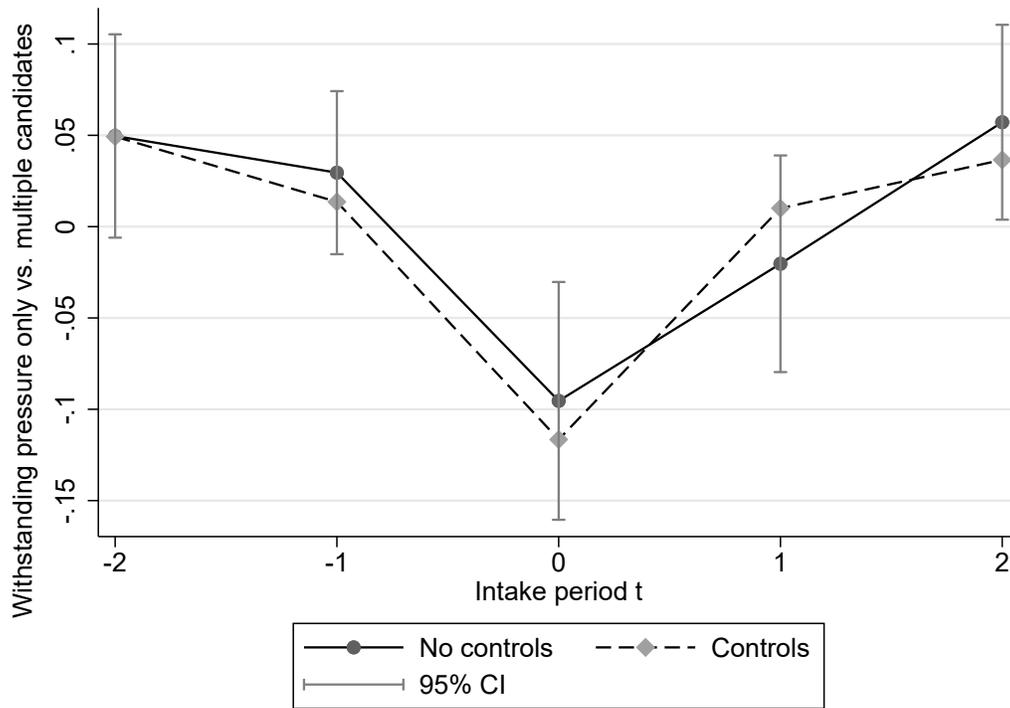
Notes: Relating the probability of home state allocation to the number of candidates in the same intake-year-home state-caste bracket. Estimates based on regressing the home state allocation dummy on dummies for the number of potential candidates in the intake year-home state-caste bracket, cadre FEs and home state-caste FEs. All estimates show differences relative to being the single candidate (the omitted category). Showing 90% confidence intervals based on standard errors clustered at the caste-home state-intake year level.

Figure 3: Home state allocation and only candidate around intake year



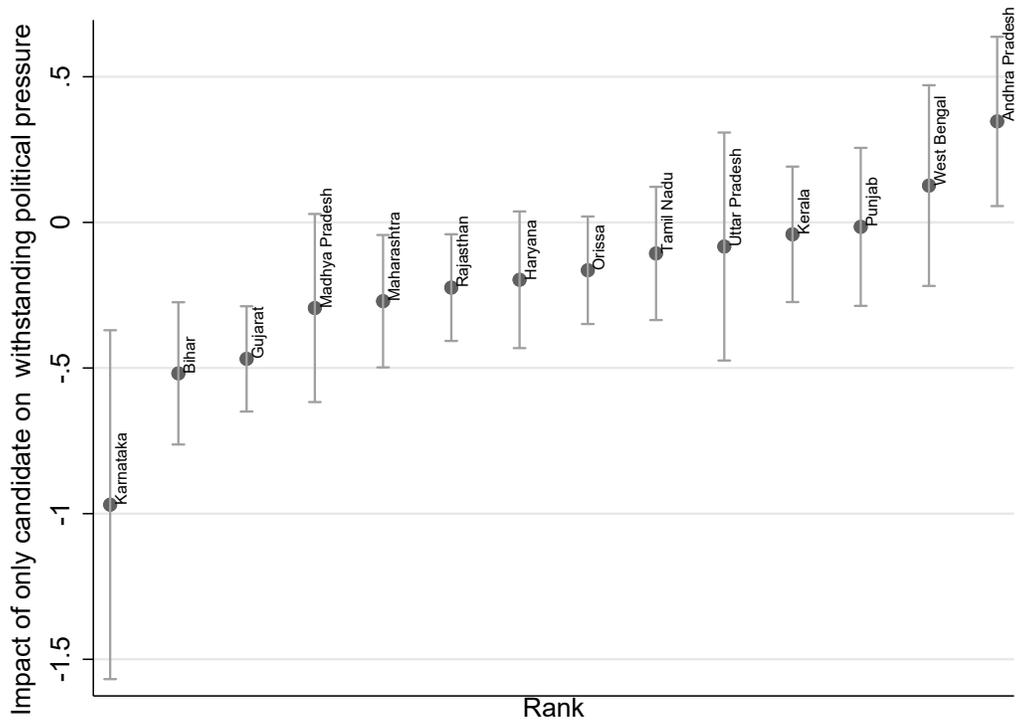
Notes: Relating the probability of home state allocation to being the only candidate in the same intake-year-home state-caste bracket and the two period leads and lags. The estimates are based on the specification of Table 4, Column 4. The results with no individual-level controls are reported in the dashed line. Showing 90% confidence intervals based on standard errors clustered at the caste-home state-intake year level.

Figure 4: Home state allocation and ability to withstand illegitimate political pressure



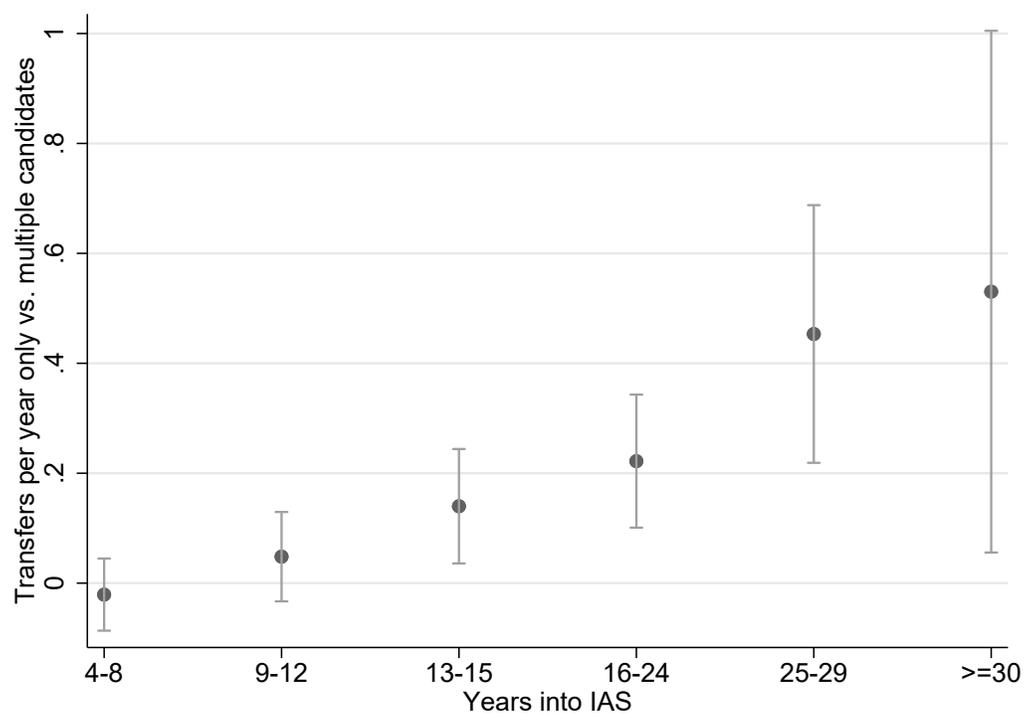
Notes: Relating the ability to withstand illegitimate political pressure to being the only candidate in the same intake-year-home state-caste bracket and the two period leads and lags. The estimates are based on the specification of Table 6. The results with no individual-level controls are reported in the dashed line. Showing 90% confidence intervals based on standard errors clustered at the caste-home state-intake year level.

Figure 5: Ability to withstand illegitimate political pressure and only candidate



Notes: Reduced form effect of only candidate on the ability to withstand illegitimate political pressure, separately estimated for each major state of India. Showing 90% confidence intervals based on standard errors clustered at the caste-home state-intake year level.

Figure 6: Transfers per year and only candidate



Notes: Reduced form effect of only candidate on the number of transfers per year, separately estimated for tenure bins corresponding to the time-based promotion paycales. Showing 90% confidence intervals based on standard errors clustered at the caste-home state-intake year level.

Tables

Table 1: 360 performance scores by home state allocation

| | (1) | (2) | (3) | (4) | (5) |
|------------------------------------|-------|-------|---------|----------|----------|
| | Mean | SD | Ratings | Officers | Coverage |
| Effectiveness on the job | 3.730 | 1.077 | 17,753 | 1,472 | 72.01% |
| Probity of IAS officer | 3.670 | 1.105 | 15,153 | 1,451 | 70.98% |
| Withstanding illegitimate pressure | 3.523 | 1.094 | 16,728 | 1,471 | 71.96% |
| Sensitive towards poorer | 3.527 | 1.141 | 17,047 | 1,471 | 71.96% |
| Overall rating | 3.646 | 1.057 | 17,698 | 1,472 | 72.01% |

Notes: Performance scores for the cross-section of rated IAS officers in 2012-13. Reporting the descriptive statistics (mean and standard deviation) for the subjective measures, where the scores range from 1 (lowest) to 5 (highest). Column 3 and 4 report the total number of ratings and the total number of rated officers. Column 5 reports the coverage rate for the sample population of all active, centrally recruited IAS officers with at least 8 years of tenure in 2012/13.

Table 2: IAS officer characteristics by home state allocation

| Means | Allocation | | Diff Home-Non-home | |
|-------------------------------|------------|----------|--------------------|---------------|
| | Home | Non-Home | Raw | Within intake |
| UPSC Rank | 44.483 | 56.091 | -11.607*** | -14.959*** |
| | | | (1.732) | (1.791) |
| Female | 0.107 | 0.134 | -0.027 | -0.020 |
| | | | (0.017) | (0.017) |
| Urban | 0.728 | 0.722 | 0.006 | -0.002 |
| | | | (0.022) | (0.023) |
| Entry age | 25.443 | 25.704 | 0.261** | -0.022 |
| | | | (0.112) | (0.108) |
| Distinction | 0.326 | 0.322 | 0.004 | 0.006 |
| | | | (0.024) | (0.024) |
| STEM | 0.590 | 0.616 | -0.025 | -0.004 |
| | | | (0.025) | (0.025) |
| OBC | 0.059 | 0.119 | -0.059*** | -0.024* |
| | | | (0.015) | (0.012) |
| SC | 0.168 | 0.116 | 0.052*** | 0.061*** |
| | | | (0.017) | (0.019) |
| ST | 0.078 | 0.059 | 0.019 | 0.022 |
| | | | (0.012) | (0.014) |
| Previous: Education/Research | 0.173 | 0.147 | 0.026 | -0.007 |
| | | | (0.018) | (0.019) |
| Previous: Finance/Banking | 0.055 | 0.049 | 0.006 | -0.002 |
| | | | (0.011) | (0.012) |
| Previous: None | 0.294 | 0.299 | 0.005 | 0.010 |
| | | | (0.023) | (0.023) |
| Previous: Private/SOE | 0.114 | 0.118 | -0.003 | 0.008 |
| | | | (0.016) | (0.017) |
| Previous: Public | 0.326 | 0.345 | -0.018 | 0.003 |
| | | | (0.024) | (0.025) |
| Previous: Public - AIS | 0.034 | 0.039 | -0.005 | -0.012 |
| | | | (0.009) | (0.009) |
| Cohort size | 7.685 | 6.306 | 1.379*** | 1.003*** |
| | | | (0.200) | (0.388) |
| Caste fractionalization | 0.326 | 0.344 | -0.017 | 0.025** |
| | | | (0.011) | (0.011) |
| Intake year FEs | - | - | - | Y |
| Diff jointly zero: p -value | | | 0.000*** | 0.000*** |
| Observations | 542 | 1326 | 1888 | 1888 |

Notes: Unit of observation is the IAS officer. Columns 1-2 show the mean characteristics for those who received the home allocation and those who did not. Column 3 is the raw difference in means between home and non-home allocated officers. Column 4 shows the mean difference among officers of the same intake year. UPSC Rank is the entry exam (UPSC) rank in the intake year. Female is a dummy that is 1 if the IAS officer is female. Urban is a dummy that is 1 if the IAS officer is from an urban background. Entry age is the age at which the IAS officer entered the IAS. Distinction is a dummy that is 1 if the IAS officer received an academic distinction. STEM is a dummy that is 1 if the IAS officer studied a STEM or Economics degree. Previous job: are categories for the previous positions the IAS officer held before entering IAS. OBC/SC/ST are dummies if the IAS officer is from Other Backward Castes, Scheduled Castes, Scheduled Tribes. Cohort size is the total number of officers allocated to same state in same year. Caste fractionalization is the fractionalization index for the cohort based on the caste categories. Robust standard errors. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table 3: IAS officer characteristics by allocation bracket size (one vs. many candidates)

| Means | Candidates in bracket | | Diff Only-Many | |
|-------------------------------|-----------------------|------------------|----------------------|-----------------------|
| | (1) Only (1) | (2) Many (>1) | (3) Raw | (4) Within bracket |
| UPSC Rank | 65.56 | 51.01 | 14.555*** (2.401) | -1.266 (1.900) |
| Female | 0.185 | 0.119 | 0.066*** (0.022) | 0.074** (0.034) |
| Urban | 0.694 | 0.728 | -0.034 (0.030) | 0.039 (0.038) |
| Age at entry | 26.446 | 25.512 | 0.933*** (0.149) | -0.087 (0.199) |
| Distinction | 0.334 | 0.321 | 0.012 (0.032) | 0.041 (0.042) |
| STEM | 0.586 | 0.612 | 0.025 (0.033) | 0.015 (0.043) |
| Previous: Education/Research | 0.099 | 0.163 | -0.064*** (0.024) | -0.012 (0.028) |
| Previous: Finance/Banking | 0.041 | 0.052 | -0.010 (0.015) | -0.017 (0.020) |
| Previous: None | 0.305 | 0.297 | 0.008 (0.031) | 0.002 (0.041) |
| Previous: Private/SOE | 0.107 | 0.119 | -0.011 (0.022) | -0.002 (0.031) |
| Previous: Public | 0.417 | 0.328 | 0.088*** (0.032) | 0.002 (0.045) |
| Previous: Public - AIS | 0.028 | 0.039 | -0.010 (0.013) | 0.026 (0.017) |
| Cohort size | 5.355 | 7.100 | -1.744*** (0.274) | 0.076 (0.254) |
| Caste fractionalization | 0.425 | 0.329 | 0.096*** (0.014) | 0.003 (0.017) |
| Intake year FEs | - | - | - | Y |
| Home state-Caste FEs | - | - | - | Y |
| Diff jointly zero: p -value | | | 0.000*** | 0.556 |
| Observations | 242 | 1646 | 1888 | 1880 |

Notes: Unit of observation is the IAS officer. Columns 1-2 show the mean characteristics for those who are the only candidate in the intake year-home state-caste bracket. Column 3 is the raw difference in means between those who are only candidates and those with many candidates in the intake year-home state-caste bracket. Column 4 shows the mean difference among officers of the same intake year and within the same home state-caste bracket. Rank is the overall rank in the intake year. Female is a dummy that is 1 if the IAS officer is female. Urban is a dummy that is 1 if the IAS officer is from an urban background. Entry age is the age at which the IAS officer entered the IAS. Distinction is a dummy that is 1 if the IAS officer received an academic distinction. STEM is a dummy that is 1 if the IAS officer studied a STEM or Economics degree. Previous job: are categories for the previous positions the IAS officer held before entering IAS. Cohort size is the total number of officers allocated to same state in same year. Caste fractionalization is the fractionalization index for the cohort based on the caste categories. Robust standard errors. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table 4: Predicting home state assignment with allocation rule

| | (1) | (2) | (3) | (4) |
|-------------------------------|---------------------|-------------------------|---------------------|---------------------|
| | | Allocated to home state | | |
| Mean of dep. var | 0.276 | 0.276 | 0.276 | 0.285 |
| Only candidate | 0.228*** (0.042) | 0.241*** (0.046) | 0.250*** (0.046) | 0.285*** (0.050) |
| Intake year FEs | Y | Y | Y | Y |
| Home state \times Caste FEs | Y | Y | Y | Y |
| Rank FEs | - | Y | Y | Y |
| Individual controls | - | - | Y | Y |
| Leads and lags (2) | - | - | - | Y |
| Observations | 1,880 | 1,868 | 1,868 | 1,700 |

Notes: Unit of observation is the IAS officer. Relating home state allocation to the instrument. The instrument *only candidate* is a dummy that is 1 if the IAS officer was the only candidate in the intake year-home state-caste bracket. Rank FEs are fixed effects for each rank in the entry exam. Individual controls are: age at entry, female dummy, a dummy for coming from an urban background, having received an academic distinction, a STEM or Economics degree, dummies for previous job type. Robust standard errors clustered at the caste-home state-intake year level. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table 5: Social proximity and home state allocation

| | (1) | (2) |
|--------------------------------|-------------------------|---------------------|
| | Distance home district | Same language |
| Mean of dep. var | 455.5 | 0.388 |
| Panel A: OLS | | |
| Home state | -482.150*** (16.116) | 0.692*** (0.022) |
| Panel B: IV | | |
| Home state | -495.720*** (87.548) | 0.829*** (0.130) |
| Kleibergen-Paap F -statistic | 34.000 | 29.836 |
| Intake year FEs | Y | Y |
| Home state \times Caste FEs | Y | Y |
| Rank FEs | Y | Y |
| Individual controls | Y | Y |
| Observations | 1,625 | 1,868 |

Notes: Unit of observation is the IAS officer. Relating measures of social proximity to home state allocation. Home state is a dummy that is 1 if the officer was allocated to his or her state of permanent domicile. The instrument *only candidate* is a dummy that is 1 if the IAS officer was the only candidate in the intake year-home state-caste bracket. Distance to home town is the distance (in miles) between the allocated state's state capital and the officer's home district. Same language is a dummy that is 1 if the IAS officer's mother tongue is the first official language in the state. Rank FEs are fixed effects for each rank in the entry exam. Individual controls are: age at entry, female dummy, a dummy for coming from an urban background, having received an academic distinction, a STEM or Economics degree, dummies for previous job type. Robust standard errors clustered at the caste-home state-intake year level. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table 6: 360 performance ratings and home state allocation

| | (1) | (2) | (3) | (4) | (5) |
|--------------------------------|-------------------|--------------------|----------------------|-------------------|-------------------|
| | Effective | Probity | Pressure | Pro-poor | Overall |
| Mean of dep. var | 3.730 | 3.671 | 3.524 | 3.528 | 3.647 |
| Panel A: OLS | | | | | |
| Home state | 0.007 (0.026) | 0.005 (0.030) | -0.001 (0.026) | 0.020 (0.027) | 0.050* (0.029) |
| Panel B: IV | | | | | |
| Home state | -0.034 (0.107) | -0.202* (0.119) | -0.381*** (0.121) | -0.112 (0.113) | -0.103 (0.127) |
| Kleibergen-Paap F -statistic | 46.470 | 56.885 | 46.495 | 45.626 | 46.168 |
| Home state \times Caste FEs | Y | Y | Y | Y | Y |
| Intake year FEs | Y | Y | Y | Y | Y |
| Respondent FEs | Y | Y | Y | Y | Y |
| State \times Tenure FEs | Y | Y | Y | Y | Y |
| Rank FEs | Y | Y | Y | Y | Y |
| Individual controls | Y | Y | Y | Y | Y |
| Observations | 17,744 | 15,128 | 16,712 | 17,037 | 17,689 |

Notes: Unit of observation is the score for a given IAS officer in 2012-13 with at least 8 years of tenure. Relating five measures of performance (effectiveness, probity, ability to withstand illegitimate political pressure, pro-poor orientedness and overall rating) to home state allocation. Home state is a dummy that is 1 if the IAS officer is allocated to his or her state of origin. Only candidate is a dummy that is 1 if the IAS officer was the only candidate in the intake year-home state-caste bracket. **Panel A** presents the OLS estimates. **Panel B** presents the IV results. Caste FEs are dummies for OBC, SC, ST. Individual controls are: rank FEs for each rank in the entry exam, age at entry, female dummy, a dummy for coming from an urban background, having received an academic distinction, a STEM or Economics degree, dummies for previous job type. Standard errors clustered at the caste-home state-intake year and individual IAS officer level. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table 7: Withstanding pressure, home state allocation and state-level heterogeneity

| | (1) | (2) | (3) |
|---------------------------|-----------------------|----------------------|----------------------|
| | Withstanding pressure | | |
| Mean of dep. var | 3.497 | 3.524 | 3.497 |
| Only candidate | -0.142*** (0.041) | -0.138*** (0.038) | -0.142*** (0.041) |
| × TI corruption index | -0.110*** (0.036) | | -0.117** (0.054) |
| × Human Development Index | | 0.724** (0.306) | -0.087 (0.451) |
| Home state × Caste FEs | Y | Y | Y |
| Intake year FEs | Y | Y | Y |
| Respondent FEs | Y | Y | Y |
| State × Tenure FEs | Y | Y | Y |
| Rank FEs | Y | Y | Y |
| Individual controls | Y | Y | Y |
| Observations | 15,644 | 16,712 | 15,644 |

Notes: Unit of observation is the IAS officer-year. Relating the ability to withstand illegitimate political pressure to home state allocation. Home state is a dummy that is 1 if the IAS officer is allocated to his or her state of origin. The instrument *only candidate* is a dummy that is 1 if the IAS officer was the only candidate in the intake year-home state-caste bracket. TI corruption index is the state-level Transparency International corruption index from 2005 as used by Fisman et al. (2014). The HDI is the state-level Human Development Index in 2007. Caste FEs are dummies for OBC, SC, ST. Rank FEs are fixed effects for each rank in the entry exam. Individual controls are: age at entry, female dummy, a dummy for coming from an urban background, having received an academic distinction, a STEM or Economics degree, having worked in education/research, private sector/SOE, public sector, public AIS. Standard errors clustered at the caste-home state-intake year and individual IAS officer. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table 8: Withstanding pressure, home state allocation and individual heterogeneity

| | (1) | (2) | (3) | (4) | (5) | (6) |
|--------------------------|----------------------|----------------------|-----------------------|----------------------|----------------------|---------------------|
| | | | Withstanding pressure | | | |
| Mean of dep. var | 3.524 | 3.524 | 3.524 | 3.524 | 3.524 | 3.524 |
| Only candidate | -0.136*** (0.038) | -0.117*** (0.043) | -0.126*** (0.040) | -0.196*** (0.055) | -0.183*** (0.062) | -0.065 (0.042) |
| × Father ag/wage laborer | | -0.098 (0.074) | | | | |
| × Father private sector | | | -0.054 (0.080) | | | |
| × Father public sector | | | | 0.096 (0.066) | | |
| × Urban background | | | | | 0.062 (0.072) | |
| × UPSC test score | | | | | | 0.145*** (0.035) |
| Home state × Caste FEs | Y | Y | Y | Y | Y | Y |
| Intake year FEs | Y | Y | Y | Y | Y | Y |
| Respondent FEs | Y | Y | Y | Y | Y | Y |
| State × Tenure FEs | Y | Y | Y | Y | Y | Y |
| Rank FEs | Y | Y | Y | Y | Y | Y |
| Individual controls | Y | Y | Y | Y | Y | Y |
| Observations | 16,712 | 16,712 | 16,712 | 16,712 | 16,712 | 16,712 |

Notes: Unit of observation is the IAS officer-year. Relating the ability to withstand illegitimate political pressure to home state allocation. Home state is a dummy that is 1 if the IAS officer is allocated to his or her state of origin. The instrument *only candidate* is a dummy that is 1 if the IAS officer was the only candidate in the intake year-home state-caste bracket. Caste FEs are dummies for OBC, SC, ST. Rank FEs are fixed effects for each rank in the entry exam. Individual controls are: age at entry, female dummy, a dummy for coming from an urban background, having received an academic distinction, a STEM or Economics degree, having worked in education/research, private sector/SOE, public sector, public AIS. Standard errors clustered at the caste-home state-intake year and individual IAS officer. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table 9: Posting type and home state allocation - Reduced form

| | (1) | (2) | (3) | (4) | (5) | (6) |
|-----------------------|-------------|-----------|----------|-----------|-----------|-----------|
| Mean of dep. var | Other state | In Delhi | Payscale | Important | Transfers | Suspended |
| Only candidate | -0.007 | -0.004 | -0.005 | -0.037** | -0.021 | -0.243*** |
| × 4-8 years | (0.007) | (0.008) | (0.019) | (0.015) | (0.040) | (0.074) |
| Only candidate | -0.027*** | -0.053*** | 0.010 | -0.007 | 0.048 | -0.480** |
| × 9-12 years | (0.009) | (0.020) | (0.025) | (0.019) | (0.049) | (0.227) |
| Only candidate | -0.022* | -0.101*** | 0.140*** | -0.006 | 0.140** | 0.017 |
| × 13-15 years | (0.013) | (0.031) | (0.040) | (0.029) | (0.063) | (0.867) |
| Only candidate | -0.005 | -0.036 | 0.063* | -0.011 | 0.222*** | -0.549 |
| × 16-24 years | (0.011) | (0.033) | (0.035) | (0.026) | (0.074) | (0.465) |
| Only candidate | -0.002 | -0.152*** | 0.067 | -0.007 | 0.453*** | -0.266 |
| × 25-29 years | (0.011) | (0.048) | (0.071) | (0.048) | (0.142) | (1.297) |
| Only candidate | -0.004 | -0.287*** | 0.239*** | 0.034 | 0.530* | 6.108 |
| × ≥ 30 years | (0.009) | (0.070) | (0.091) | (0.101) | (0.288) | (7.438) |
| Individual FEs | Y | Y | Y | Y | Y | Y |
| Year FEs | Y | Y | Y | Y | Y | Y |
| Tenure FEs | Y | Y | Y | Y | Y | Y |
| Test (p-value): all=0 | 0.011** | 0.000*** | 0.000*** | 0.703 | 0.000*** | 0.580 |
| Observations | 41,677 | 41,677 | 41,676 | 41,677 | 41,677 | 41,677 |

Notes: Unit of observation is the IAS posting. Relating career outcomes to home state allocation. Other state is a dummy that is 1 if the officer is currently serving in another state. In Delhi is a dummy that is 1 if the officer is serving in the Central Government. Payscale denotes the payscale of the IAS officer (1-7) in a given year. Important is the share of important positions held in a given year. Transfers is the number of transfers in a given year. Suspended is a dummy that is 1 if the IAS officer is suspended (scaled × 100). Home state is a dummy that is 1 if the IAS officer is allocated to his or her state of origin. The instrument *only candidate* is a dummy that is 1 if the IAS officer was the only candidate in the intake year-home state-caste bracket. Tenure FEs are fixed effects for each year of experience in the IAS. Standard errors clustered at the caste-home state-intake year and individual IAS officer level. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

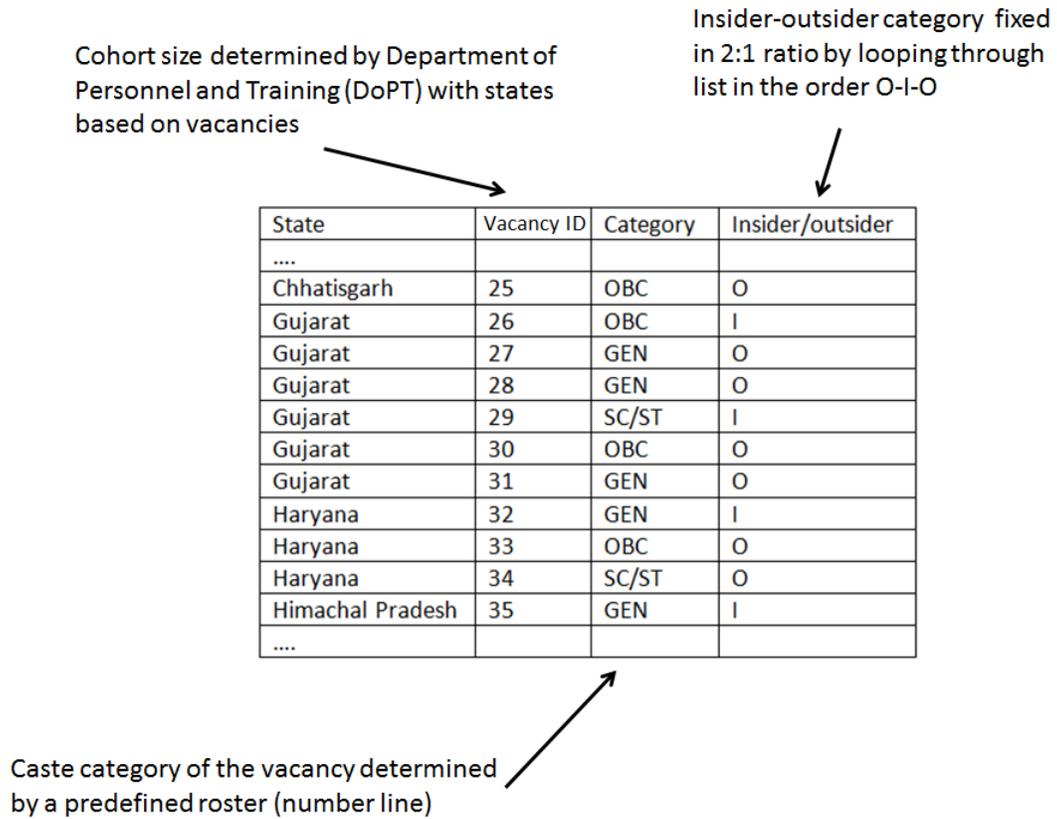
Table 10: Board membership and home state allocation, by state

| | (1) | (2) | (3) | (4) | (5) |
|--------------------------------|-----------------------------------|---------------------|---------------------|--------------------|---------------------|
| | Sits in # company boards in state | | | | Top 50% |
| | Total | Public | Private | firm | |
| Mean of dep. var | 0.0281 | 0.0281 | 0.0194 | 0.00765 | 0.0160 |
| Home state | 0.152*** (0.035) | -0.221* (0.121) | -0.142* (0.077) | -0.078 (0.053) | -0.103* (0.062) |
| × Allocated home state | | 1.358*** (0.446) | 0.921*** (0.288) | 0.421** (0.200) | 0.693*** (0.231) |
| Kleibergen-Paap F -statistic | - | 47.494 | 47.494 | 47.494 | 47.494 |
| Individual FEs | Y | Y | Y | Y | Y |
| State FEs | Y | Y | Y | Y | Y |
| Observations | 48,369 | 48,369 | 48,369 | 48,369 | 48,369 |

Notes: Unit of observation is the IAS officer-state pair. Sample of all IAS officers who entered between 1975-2005. Relating membership in boards of companies in different states of India in 2018 to home state allocation. Home state is a dummy that is 1 if the state is the IAS officer's home state. Allocated home state is a dummy that is 1 if the IAS officer was actually allocated to his/her home state. Columns 2-5 report the instrumental variable estimates, where Home state × Allocated home state is instrumented using Home state × Only candidate. Member of company boards (#) is the number of boards in a state an IAS officer is member of, as registered by the Ministry of Corporate Affairs. Public/private break down the total number by whether firms are state-owned or private. Top 50% firm is the number of firms that are above median in terms of authorized capital. Standard errors clustered at the individual IAS officer level and the bilateral state × home state level. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

A Appendix Figures

Figure A1: Determination of vacancies: Example 2006



Illustrating the assignment of categories (caste and home preference) to vacancies through the roster randomization for the year 2006. Vacancies are earmarked by caste status (O.B.C. denotes other backward castes, S.C./S.T. scheduled castes/tribes and unreserved the general castes) and home state (“I” denotes insider vacancies reserved for applicants from the same state; “O” denotes outsider vacancies reserved for applicants from other states). The assignment occurs through a number line.

Figure A2: Assignment of categories (caste and home preference) to vacancies through roster randomization

Cadre Allocation - 2006

Distribution of vacancies to be filled in various cadres/joint cadres of Indian Administrative Service (IAS) on the basis of Civil Services Examination 2006, among Insider and Outsider Vacancies and between categories.

| Sl. No. | Name of the State Cadre / Joint Cadre | Unreserved Insider | Unreserved Outsider | OBC Insider | OBC Outsider | SC/ST Insider | SC/ST Outsider | Total |
|---------|---------------------------------------|--------------------|---------------------|-------------|--------------|---------------|----------------|-------|
| 1 | A G M U T | 1 | 2 | 1 | 0 | 0 | 1 | 5 |
| 2 | Andhra Pradesh | 1 | 1 | 0 | 0 | 0 | 0 | 2 |
| 3 | Assam Meghalaya | 1 | 2 | 0 | 1 | 1 | 0 | 5 |
| 4 | Bihar | 2 | 1 | 0 | 2 | 1 | 1 | 7 |
| 5 | Chhatisgarh | 0 | 3 | 1 | 1 | 1 | 0 | 6 |
| 6 | Gujarat | 0 | 3 | 1 | 1 | 1 | 0 | 6 |
| 7 | Haryana | 1 | 0 | 0 | 1 | 0 | 1 | 3 |
| 8 | Himachal Pradesh | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 9 | Jammu & Kashmir | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| 10 | Jharkhand | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| 11 | Karnataka | 0 | 1 | 1 | 0 | 0 | 1 | 3 |
| 12 | Kerala | 1 | 0 | 0 | 1 | 0 | 0 | 2 |
| 13 | Madhya Pradesh | 2 | 1 | 0 | 1 | 0 | 1 | 5 |
| 14 | Maharashtra | 1 | 2 | 0 | 1 | 1 | 0 | 5 |
| 15 | Manipur Tripura | 0 | 3 | 0 | 1 | 1 | 0 | 5 |
| 16 | Nagaland | 0 | 1 | 0 | 1 | 1 | 0 | 3 |
| 17 | Orissa | 1 | 1 | 0 | 1 | 0 | 1 | 4 |
| 18 | Punjab | 0 | 1 | 1 | 0 | 0 | 1 | 3 |
| 19 | Rajasthan | 0 | 1 | 1 | 0 | 0 | 1 | 3 |
| 20 | Sikkim | 0 | 0 | 1 | 0 | 0 | 1 | 2 |
| 21 | Tamil Nadu | 0 | 1 | 1 | 0 | 0 | 0 | 2 |
| 22 | Uttar Pradesh | 1 | 2 | 0 | 2 | 1 | 1 | 7 |
| 23 | Uttaranchal | 1 | 0 | 0 | 1 | 0 | 1 | 3 |
| 24 | West Bengal | 0 | 3 | 1 | 0 | 0 | 1 | 5 |
| | | 14 | 31 | 9 | 15 | 8 | 12 | 89 |

The final distribution of vacancies by state and caste/home quota for the year 2006. Vacancies are earmarked by caste status (O.B.C. denotes other backward castes, S.C./S.T. scheduled castes/tribes and unreserved the general castes) and home state (insider vacancies are reserved for applicants from the same state; outsider vacancies are reserved for applicants from other states).

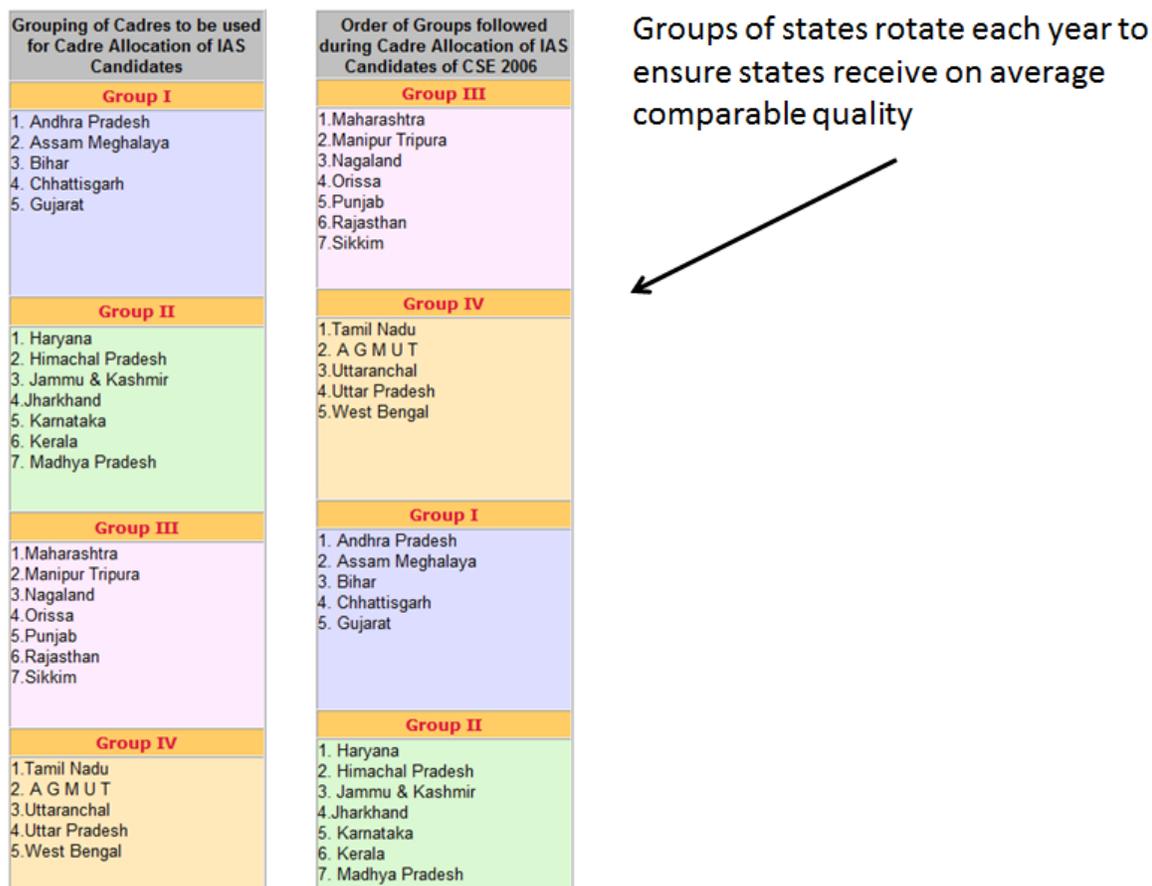
Figure A3: Merit-based (UPSC rank) allocation based on caste and home preference match

**Master Statement in respect of candidates allotted to
Indian Administrative Service on the basis of
Civil Services (Main) Examination, 2006 for purpose of their Cadre Allocation**

| Sl. No. | Rank | Name of the Candidate | Home State | Category | Whether Home State Opted? |
|---------|------|------------------------|----------------|----------|---------------------------|
| 1 | 1 | MUTYALARAJU REVU | Andhra Pradesh | O.B.C* | Yes |
| 2 | 2 | AMIT SAINI | Punjab | General | Yes |
| 3 | 3 | ALOK TIWARI | Uttar Pradesh | General | Yes |
| 4 | 4 | PRASANTH N | Kerala | General | Yes |
| 5 | 5 | SHASHANK MISRA | Uttar Pradesh | General | Yes |
| 6 | 6 | VYASAN R | Kerala | General | No |
| 7 | 8 | ANINDITA MITRA | Chhatisgarh | General | No |
| 8 | 9 | ARAVIND AGRAWAL | Orissa | General | Yes |
| 9 | 10 | JUHI MUKHERJEE | Chandigarh | General | Yes |
| 10 | 11 | BISHNU CHARAN MALLICK | Orissa | S.C. | Yes |
| 11 | 12 | DEEPAK RAWAT | Uttaranchal | General | Yes |
| 12 | 13 | NILA MOHANAN | Kerala | General | Yes |
| 13 | 14 | JAI SINGH | Uttar Pradesh | General | Yes |
| 14 | 15 | MOUMITA BASU | West Bengal | General | Yes |
| 15 | 16 | SHAMMI ABIDI | Uttar Pradesh | General | Yes |
| 16 | 17 | REMYA MOHAN MOOTHADATH | Kerala | General | Yes |
| 17 | 18 | SHRIMAN SHUKLA | Madhya Pradesh | General | Yes |
| 18 | 19 | SHEETAL VERMA | Uttar Pradesh | S.C.* | Yes |
| 19 | 20 | SHAINAMOL A | Kerala | O.B.C* | Yes |
| 20 | 21 | YASHA MUDGAL | Rajasthan | General | Yes |
| 21 | 22 | ATUL KUMAR | Haryana | General | Yes |
| 22 | 23 | SHUCHI TYAGI | Uttar Pradesh | General | Yes |
| 23 | 24 | ANURAG TEWARI | Uttar Pradesh | General | Yes |
| 24 | 25 | UDIT PRAKASH | Uttar Pradesh | General | Yes |
| 25 | 26 | SACHINDRA PRATAP SINGH | Uttar Pradesh | O.B.C | Yes |

Illustrating the ranking of candidates using the intake year of 2006. Candidates in a given year of intake are ranked in descending order based on the UPSC entry exam score. Home state denotes the state from which the candidate applied from. Category denotes the caste of the candidate, where O.B.C. denotes other backward castes, S.C. scheduled castes, S.T. scheduled tribes and General the unreserved castes. Whether home state opted denotes if the applicant indicated a preference to be allocated to the home state.

Figure A4: Rotation of state groups over years



Division of state cadres into four groups and the rotation of groups in the order of IAS officer allocation over time, as illustrated by the group order in 2006. The groups of states rotate each year. In 2007, for example, the order changes to Group II, Group III, Group IV, Group I.

Figure A5: Home state allocation and allocation bracket size: GEN

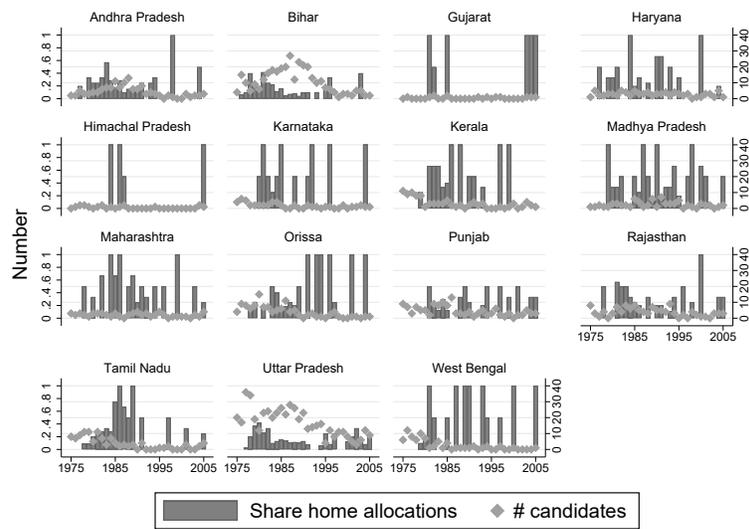


Figure A6: Home state allocation and allocation bracket size: OBC

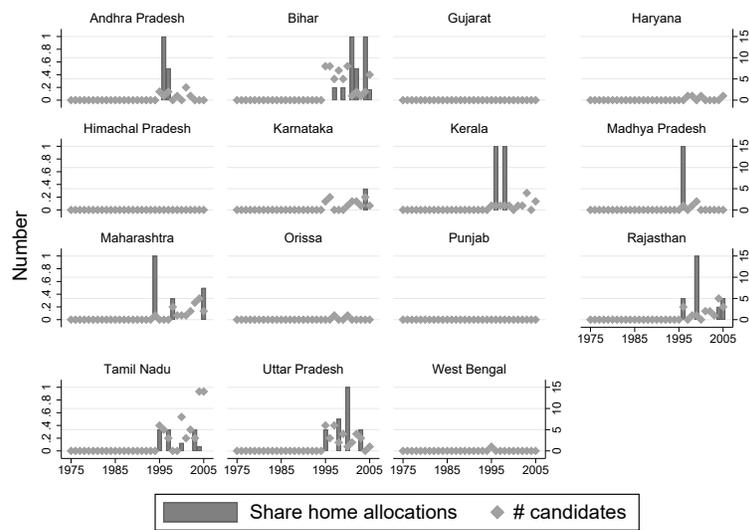


Figure A7: Home state allocation and allocation bracket size: SC

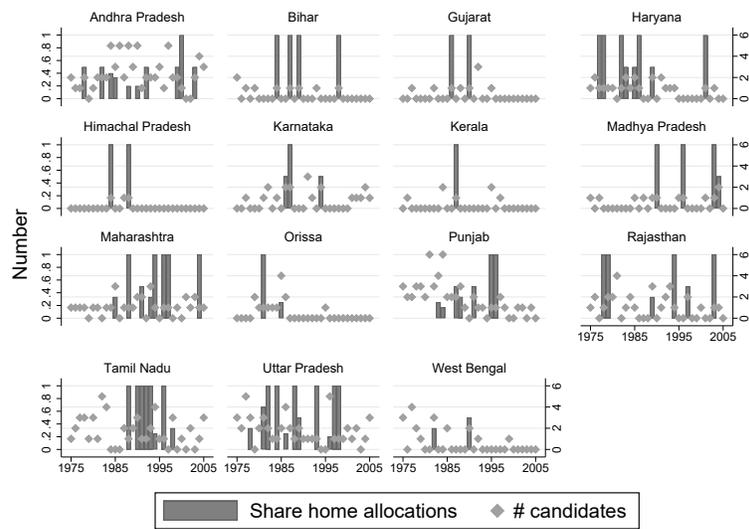
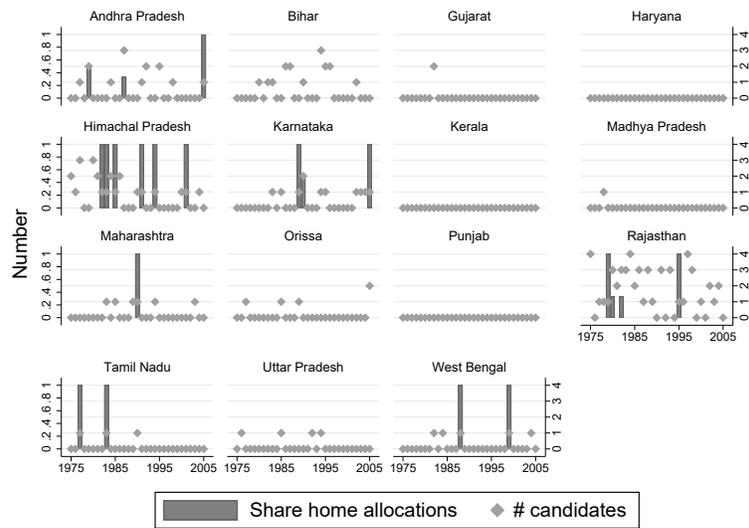


Figure A8: Home state allocation and allocation bracket size: ST



B Appendix Tables

Table B1: Share of home allocated and only candidates by home state \times caste brackets

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) |
|------------------|---------------|------|------|-----------------------|------|------|------------------|------|------|------------------|------|------|
| | General caste | | | Other Backward Castes | | | Scheduled Castes | | | Scheduled Tribes | | |
| Home state | N | Home | Only | N | Home | Only | N | Home | Only | N | Home | Only |
| Andhra Pradesh | 105 | 0.30 | 0.03 | 6 | 0.17 | 0.17 | 49 | 0.20 | 0.08 | 9 | 0.33 | 0.33 |
| Bihar | 272 | 0.21 | 0.01 | 44 | 0.18 | 0.05 | 5 | 0.80 | 1.00 | 14 | 0.21 | 0.21 |
| Gujarat | 11 | 0.64 | 0.73 | 0 | 0.00 | 0.00 | 5 | 0.40 | 0.60 | 0 | 0.00 | 0.00 |
| Haryana | 67 | 0.27 | 0.04 | 4 | 0.00 | 1.00 | 17 | 0.47 | 0.53 | 0 | 0.00 | 0.00 |
| Himachal Pradesh | 10 | 0.40 | 0.50 | 0 | 0.00 | 0.00 | 3 | 0.67 | 1.00 | 13 | 0.54 | 0.69 |
| Karnataka | 36 | 0.50 | 0.36 | 11 | 0.09 | 0.27 | 11 | 0.18 | 0.27 | 9 | 0.33 | 0.78 |
| Kerala | 48 | 0.46 | 0.10 | 11 | 0.18 | 0.45 | 2 | 0.50 | 0.50 | 0 | 0.00 | 0.00 |
| Madhya Pradesh | 60 | 0.50 | 0.08 | 3 | 0.33 | 0.67 | 9 | 0.56 | 0.78 | 0 | 0.00 | 0.00 |
| Maharashtra | 44 | 0.50 | 0.20 | 16 | 0.19 | 0.19 | 18 | 0.44 | 0.44 | 5 | 0.20 | 1.00 |
| Orissa | 79 | 0.29 | 0.09 | 2 | 0.00 | 1.00 | 7 | 0.29 | 0.14 | 4 | 0.00 | 0.50 |
| Punjab | 127 | 0.16 | 0.02 | 0 | 0.00 | 0.00 | 30 | 0.20 | 0.20 | 0 | 0.00 | 0.00 |
| Rajasthan | 87 | 0.32 | 0.02 | 16 | 0.25 | 0.19 | 19 | 0.37 | 0.37 | 33 | 0.12 | 0.15 |
| Tamil Nadu | 57 | 0.49 | 0.05 | 50 | 0.12 | 0.00 | 27 | 0.41 | 0.22 | 2 | 1.00 | 1.00 |
| Uttar Pradesh | 397 | 0.20 | 0.00 | 25 | 0.20 | 0.08 | 32 | 0.47 | 0.31 | 3 | 0.00 | 1.00 |
| West Bengal | 30 | 0.47 | 0.23 | 1 | 0.00 | 1.00 | 7 | 0.29 | 0.14 | 3 | 0.67 | 1.00 |

Notes: Reporting the total number of officers (N), the share of officers allocated to their home state (Home) and the share of only officers (Only) by the home state \times caste allocation brackets. Sample covers intake of all IAS officers between 1976-2005 from the 14 main states of India for which 360 performance scores were collected.

Table B2: 360 scores and home state allocation - linear IV

| | (1) | (2) | (3) | (4) | (5) |
|--------------------------------|----------------------|-------------------------|----------------------|----------------------|----------------------|
| | | Home state allocation=1 | | | |
| Mean of dep. var | 0.363 | 0.365 | 0.359 | 0.359 | 0.362 |
| Panel A: First-stage | | | | | |
| Only candidate | -0.021*** (0.004) | -0.020*** (0.004) | -0.021*** (0.004) | -0.021*** (0.004) | -0.021*** (0.004) |
| Panel B: 2SLS-IV | | | | | |
| | Effective | Probity | Pressure | Pro-poor | Overall |
| Mean of dep. var | 3.730 | 3.671 | 3.524 | 3.528 | 3.647 |
| Home state | 0.026 (0.117) | -0.366** (0.155) | -0.285** (0.134) | -0.157 (0.132) | -0.058 (0.132) |
| Kleibergen-Paap F -statistic | 32.896 | 29.771 | 33.430 | 33.076 | 32.709 |
| Home state \times Caste FEs | Y | Y | Y | Y | Y |
| Intake year FEs | Y | Y | Y | Y | Y |
| Respondent FEs | Y | Y | Y | Y | Y |
| State \times Tenure FEs | Y | Y | Y | Y | Y |
| Rank FEs | Y | Y | Y | Y | Y |
| Individual controls | Y | Y | Y | Y | Y |
| Observations | 17,744 | 15,128 | 16,712 | 17,037 | 17,689 |

Notes: Unit of observation is the score for a given IAS officer in 2012-13 with at least 8 years of tenure. Relating five measures of performance (effectiveness, probity, ability to withstand illegitimate political pressure, pro-poor orientedness and overall rating) to home state allocation. Home state is a dummy that is 1 if the IAS officer is allocated to his or her state of origin. The instrument is the total number of candidates in a given bracketintake year-home state-caste bracket. Caste FEs are dummies for OBC, SC, ST. Rank FEs are fixed effects for each rank in the entry exam. Individual controls are: age at entry, female dummy, a dummy for coming from an urban background, having received an academic distinction, a STEM or Economics degree, a dummy for entering directly after completing education. Standard errors clustered at the caste-home state-intake year level and individual-level. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table B3: 360 performance ratings and home state allocation by stakeholder

| | (1) | (2) | (3) | (4) | (5) |
|------------------------|-----------|---------|-----------|----------|-----------|
| | Effective | Probity | Pressure | Pro-poor | Overall |
| Mean of dep. var | 3.730 | 3.671 | 3.524 | 3.528 | 3.647 |
| Only candidate | -0.118* | -0.098 | -0.207*** | -0.056 | -0.172*** |
| | (0.066) | (0.069) | (0.056) | (0.064) | (0.066) |
| × State civil service | 0.098 | 0.034 | 0.069 | -0.099 | 0.135 |
| | (0.080) | (0.088) | (0.094) | (0.080) | (0.102) |
| × Politicians (MLA) | 0.163* | -0.033 | 0.245*** | 0.059 | 0.172* |
| | (0.093) | (0.116) | (0.075) | (0.116) | (0.097) |
| × Large firms | 0.168** | 0.056 | 0.064 | 0.062 | 0.220*** |
| | (0.078) | (0.078) | (0.070) | (0.074) | (0.070) |
| × Media | 0.162* | -0.034 | 0.244*** | 0.057 | 0.169* |
| | (0.092) | (0.116) | (0.075) | (0.116) | (0.096) |
| × NGO | 0.108 | 0.044 | 0.090 | 0.025 | 0.220** |
| | (0.085) | (0.111) | (0.095) | (0.113) | (0.098) |
| Home state × Caste FEs | Y | Y | Y | Y | Y |
| Intake year FEs | Y | Y | Y | Y | Y |
| Respondent FEs | Y | Y | Y | Y | Y |
| State × Tenure FEs | Y | Y | Y | Y | Y |
| Rank FEs | Y | Y | Y | Y | Y |
| Individual controls | Y | Y | Y | Y | Y |
| Stakeholder FEs | Y | Y | Y | Y | Y |
| Observations | 17,744 | 15,128 | 16,712 | 17,037 | 17,689 |

Notes: Unit of observation is the score for a given IAS officer in 2012-13 with at least 8 years of tenure. Relating five measures of performance (effectiveness, probity, ability to withstand illegitimate political pressure, pro-poor orientedness and overall rating) to home state allocation. Home state is a dummy that is 1 if the IAS officer is allocated to his or her state of origin. The instrument *only candidate* is a dummy that is 1 if the IAS officer was the only candidate in the intake year-home state-caste bracket. Estimates are relative to assessments provided by IAS officers. Caste FEs are dummies for OBC, SC, ST. Rank FEs are fixed effects for each rank in the entry exam. Individual controls are: age at entry, female dummy, a dummy for coming from an urban background, having received an academic distinction, a STEM or Economics degree, a dummy for entering directly after completing education. Standard errors clustered at the caste-home state-intake year level and individual-level. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table B4: 360 performance ratings and home state allocation by info source

| | (1) | (2) | (3) | (4) | (5) |
|------------------------|-----------|---------|----------|----------|---------|
| | Effective | Probity | Pressure | Pro-poor | Overall |
| Mean of dep. var | 3.730 | 3.671 | 3.524 | 3.528 | 3.647 |
| Only candidate | 0.015 | -0.068 | -0.171** | -0.043 | -0.027 |
| | (0.053) | (0.076) | (0.072) | (0.073) | (0.066) |
| × Network | -0.055 | -0.047 | 0.042 | -0.013 | -0.046 |
| | (0.065) | (0.087) | (0.082) | (0.090) | (0.072) |
| × Media | -0.025 | 0.002 | 0.039 | 0.009 | -0.002 |
| | (0.054) | (0.082) | (0.073) | (0.074) | (0.066) |
| Home state × Caste FEs | Y | Y | Y | Y | Y |
| Intake year FEs | Y | Y | Y | Y | Y |
| Respondent FEs | Y | Y | Y | Y | Y |
| State × Tenure FEs | Y | Y | Y | Y | Y |
| Rank FEs | Y | Y | Y | Y | Y |
| Individual controls | Y | Y | Y | Y | Y |
| Stakeholder FEs | Y | Y | Y | Y | Y |
| Observations | 17,744 | 15,128 | 16,712 | 17,037 | 17,689 |

Notes: Unit of observation is the score for a given IAS officer in 2012-13 with at least 8 years of tenure. Relating five measures of performance (effectiveness, probity, ability to withstand illegitimate political pressure, pro-poor orientedness and overall rating) to home state allocation. Home state is a dummy that is 1 if the IAS officer is allocated to his or her state of origin. The instrument *only candidate* is a dummy that is 1 if the IAS officer was the only candidate in the intake year-home state-caste bracket. Estimates are relative to assessments based on personally knowing the IAS officer. Network (Media) is a dummy that is 1 if the respondent knows the given officer through his/her social network (media). Caste FEs are dummies for OBC, SC, ST. Rank FEs are fixed effects for each rank in the entry exam. Individual controls are: age at entry, female dummy, a dummy for coming from an urban background, having received an academic distinction, a STEM or Economics degree, a dummy for entering directly after completing education. Standard errors clustered at the caste-home state-intake year level and individual-level. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table B5: Standard deviation of 360 performance ratings and home state allocation

| | (1) | (2) | (3) | (4) | (5) |
|-------------------------------|---|---------|----------|----------|---------|
| | Standard deviation in residual 360 scores | | | | |
| | Effective | Probity | Pressure | Pro-poor | Overall |
| Mean of dep. var | 0.685 | 0.833 | 0.764 | 0.782 | 0.806 |
| Home state | -0.194 | -0.057 | -0.147 | -0.198 | 0.042 |
| | (0.190) | (0.240) | (0.209) | (0.227) | (0.217) |
| Home state \times Caste FEs | Y | Y | Y | Y | Y |
| Intake year FEs | Y | Y | Y | Y | Y |
| State \times Tenure FEs | Y | Y | Y | Y | Y |
| Rank FEs | Y | Y | Y | Y | Y |
| Individual controls | Y | Y | Y | Y | Y |
| Stakeholder FEs | Y | Y | Y | Y | Y |
| Observations | 1,165 | 1,116 | 1,161 | 1,164 | 1,169 |

Notes: Unit of observation is the SD for scores given to an IAS officer in 2012-13 with at least 8 years of tenure. Relating the SD of all five measures of performance (effectiveness, probity, ability to withstand illegitimate political pressure, pro-poor orientedness and overall rating) to home state allocation. The standard deviation is calculated based on the 360 scores after partialling out respondent fixed effects. Home state is a dummy that is 1 if the IAS officer is allocated to his or her state of origin. The instrument *only candidate* is a dummy that is 1 if the IAS officer was the only candidate in the intake year-home state-caste bracket. Estimates are relative to assessments based on personally knowing the IAS officer. Network (Media) is a dummy that is 1 if the respondent knows the given officer through his/her social network (media). Caste FEs are dummies for OBC, SC, ST. Rank FEs are fixed effects for each rank in the entry exam. Individual controls are: age at entry, female dummy, a dummy for coming from an urban background, having received an academic distinction, a STEM or Economics degree, a dummy for entering directly after completing education. Standard errors clustered at the caste-home state-intake year level and individual-level. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table B6: Visibility of IAS officer and home state allocation, by stakeholder

| | (1) | (2) | (3) | (4) | (5) | (6) |
|--------------------------------|------------------|---------------------------------|------------------|-------------------|------------------|-------------------|
| | Pooled | Dummy=1 if IAS officer is known | | | | |
| | | Civil service | MLA | Firms | Media | NGO |
| Mean of dep. var | 0.206 | 0.265 | 0.175 | 0.185 | 0.208 | 0.139 |
| IV | | | | | | |
| Home state | 0.004 (0.044) | -0.060 (0.046) | 0.006 (0.075) | -0.028 (0.057) | 0.047 (0.072) | 0.125* (0.064) |
| Kleibergen-Paap F -statistic | 34.865 | 38.683 | 34.865 | 35.698 | 33.821 | 34.865 |
| Home state \times State FEs | Y | Y | Y | Y | Y | Y |
| Home state \times Caste FEs | Y | Y | Y | Y | Y | Y |
| Intake year FEs | Y | Y | Y | Y | Y | Y |
| State FEs \times Tenure FEs | Y | Y | Y | Y | Y | Y |
| Rank FEs | Y | Y | Y | Y | Y | Y |
| Individual controls | Y | Y | Y | Y | Y | Y |
| Observations | 89,723 | 29,617 | 15,060 | 14,839 | 15,147 | 15,060 |

Notes: Unit of observation is the score for a given IAS officer in 2012-13 with at least 8 years of tenure. Relating five measures of performance (effectiveness, probity, ability to withstand illegitimate political pressure, pro-poor orientedness and overall rating) to home state allocation. Home state is a dummy that is 1 if the IAS officer is allocated to his or her state of origin. Only candidate is a dummy that is 1 if the IAS officer was the only candidate in the intake year-home state-caste bracket. Caste FEs are dummies for OBC, SC, ST. Rank FEs are fixed effects for each rank in the entry exam. Individual controls are: age at entry, female dummy, a dummy for coming from an urban background, having received an academic distinction, a STEM or Economics degree, a dummy for entering directly after completing education. Standard errors clustered at the caste-home state-intake year level and individual-level. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

C Appendix Documentation

C.1 Converting unmatched insider allocations

In presence of open unreserved insider vacancies, the unreserved insider vacancy can be allocated to insider IAS officers from SC/ST and OBC (following the exact order) if there is an SC/ST (or OBC) outsider vacancy to allow for the exchange: For example, if Gujarat has received two unreserved insider vacancies but only one Gujarati general caste to fill the first slot, the second slot is opened to Gujarati SC/ST insiders, and if those are not available, to OBC insiders. The reallocation, however, is only permitted when there is a corresponding outsider vacancy that can be converted to an unreserved outsider vacancy to maintain the quota among the caste vacancies. A Gujarati insider SC/ST then can only fill the unreserved insider vacancy if a SC/ST outsider vacancy is available for exchange. Similar rules apply for unfilled SC/ST or OBC insider vacancies. Open SC/ST insider vacancies that could not be filled are first relaxed to allow for OBC insider candidates and then to general candidates. Open OBC vacancies, similarly, can first be filled by SC/ST insider candidates and then by general candidates (in both cases provided there is a corresponding outsider slot for exchange). Any remaining open insider vacancies that could not be filled despite the relaxation of the quotas are converted to outsider vacancies to ensure all vacancies are filled.

C.2 Outsider allocation

The allocation of the outsiders and those who failed to be allocated to their preferred home state (and are consequently converted to outsiders) is done according to a rotating roster system. The roster is created by arranging all 24 cadres in alphabetical order and dividing them into four groups. These groups are devised on the basis of an average intake by each group, which over a period of time is roughly equal:

1. Group I: Andhra Pradesh, Assam-Meghalaya, Bihar, Chhattisgarh and Gujarat
2. Group II: Haryana, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Karnataka, Kerala and Madhya Pradesh
3. Group III: Maharashtra, Manipur-Tripura, Nagaland, Orissa, Punjab, Rajasthan and Sikkim
4. Group IV: Tamil Nadu, AGMUT (UT Cadre), Uttaranchal, Uttar Pradesh and West Bengal

The outsider candidates are allocated in the order of merit across the four groups for the outsider available vacancies (including those that have been converted from insider vacancies). In the first cycle, all candidates are allocated to their matching caste vacancy in the four states of Group I, starting with Andhra Pradesh. In the second cycle, the remaining candidates are allocated to their matching caste vacancies in Group II and so on.

Since states who receive officers earlier in the allocation process will receive higher ranked recruits, the order of the groups shuffles each year to ensure that all states receive officers of comparable quality. In Appendix Figure A4, for example, Group III is the first group in 2006, followed by Group IV, Group I and Group II. In the subsequent year, the groups will rotate and the allocation of outsiders will commence with Group II first, followed by Group III, Group IV and Group I.